Rodriguez, Susan (CONTR)

From: Hall, Martin L <mlhall@firstenergycorp.com>
Sent: Thursday, January 04, 2018 7:27 AM
To: McCormack, Brian
Subject: A few facts - PJM

Hey - I know you have been following the situation going on with the current cold snap. Thought I would share some snapshot analysis put together by some of our folks this morning. It provides a little perspective of the situation. Just facts that are readily available on the PJM website. The chart below is interesting as it looks at megawatts that cleared the capacity auction for this year and the amount that is actually performing at this point in time- for example, only 26k megawatts of nuclear cleared the auction, but over 35K is showing up (similar for coal). While 64K of gas cleared the auction, but only 26K is showing up. In other words, the capacity auction relied on gas, but the system today is relying on coal and nuclear.

The brief synopsis below was put together by our internal experts.

State of Play

Load is currently (8:30am) 125.4k MW's, but is expected to rise to 130.5k around 6:30pm. Tomorrow's peak load is forecast at 134.3 MW and is expected at 7:30am, with an evening peak of 131k. Note that the 2014 Polar Vortex load peaked at 141.8k MW's.

Real-time LMPs were below $100/MWh overnight, rising throughout the morning, with a current (8:30am) system-wide real-time LMP of $167/MWh. Day Ahead prices at the AD Hub for today are $128.86 on-peak, $81.23 off-peak.

Operational flow orders (restrictions/limitations placed on gas consumption by pipeline operators) currently exist on major natural gas pipelines throughout PJM, including Transco, Texas Eastern, Dominion and Columbia. This is likely to impact the availability of natural gas for generators with interruptible fuel contracts.

Below is the supply Mix (as of 7am) compared to MW cleared in RPM (Capacity Auction) for 2017/2018. Note that current performance could be impacted by a variety of factors, including fuel prices, operational issues, maintenance issues, fuel availability, etc.

Current Performance			
Fuel Type	Actual MW	RPM Cleared MW	Performance
Coal	49,403	45,354	4,049
Gas	26,410	64,089	-37,679
Hydro	1,890	7,580	-5,690
Nuclear	35,524	26,401	9,123
Oil	6,018	8,875	-2,857
Solar	0	116	-116
Wind	4,796	804	3,992

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There have been no performance assessment hours since the start of the cold snap, however PJM has issued cold weather alerts for generators through Saturday evening.

We will continue to monitor closely and provide another update this afternoon.

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Rodriguez, Susan (CONTR)

From: Winberg, Steven
Sent: Friday, January 05, 2018 8:11 AM
To: Eckard, J. M
Subject: RE: Follow-up from WCC lunch

Mike

I want to talk to FE management about the next generation of coal-fueled generators. It seems pretty clear to me that the power industry is not going to be building the typical coal-fired boilers (supercritical, ultra-supercritical or advanced ultra-supercritical) plants over the next 10-15 years. If they do, it will likely be Japanese or Chinese technology as they have moved ahead of the US in this boiler space. In addition, we have the backbone (1970 thru early 1980s vintage) of the coal fleet aging and by 2030, the average age of this backbone will be over 50 years. So in the 2030 timeframe, it would be good if power producers had a choice other than natural gas. DOE has been developing transformational technologies such as supercritical CO2, chemical looping, pressurized oxygen. I would like to accelerate the development effort so that these technologies would be ready by 2030.

Objectives of meeting:
1. Status review on these technologies
2. Discuss FE's future generation plans including planned retirements (coal, nuclear and nat gas)
3. Guidance from FE on what you need and how we can best help
4. Discuss what FE would/could do to assist DOE in this effort.

Much thanks,
Steve

-----Original Message-----
From: Eckard, J. M [mailto:jeckard@firstenergycorp.com]
Sent: Thursday, January 04, 2018 3:38 PM
To: Winberg, Steven <Steven.Winberg@hq.doe.gov>
Subject: RE: Follow-up from WCC lunch

Steve,

Thank you for the follow-up e-mail. And please forgive my tardy response. You're correct; it is a hair-on-fire time right now. We're expecting a decision from FERC on the all-important "Grid Reliability and Resiliency Pricing" rulemaking any time now. And it couldn't come at a more critical time for the bulk power system.

Absolutely, I will be glad to organize a meeting with our appropriate executives and generation experts. Could you give me a little more information (i.e. DOE participants, desired take-aways and dates/timeframes)? I'll come back to you with some options. Thanks and Happy New Year.

And thanks again for delivering the keynote address to our annual Washington Coal Club Awards Luncheon. Your talk was timely and meaningful. And great job on the delivery.

Mike

J. Michael Eckard
Director, Federal Affairs

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FirstEnergy
801 Pennsylvania Ave., Suite 310
Washington, D.C. 20004
202.434-8153
202.434-8156 (fax)
(b) (6) (cell)
jeckard@firstenergycorp.com

-----Original Message-----
From: Winberg, Steven [mailto:Steven.Winberg@hq.doe.gov]
Sent: Tuesday, January 2, 2018 5:31 PM
To: Eckard, J. M <jeckard@firstenergycorp.com>
Subject: [EXTERNAL] Follow-up from WCC lunch

Mike
First, I hope that you had a (b) (6)
Second, while FirstEnergy might be hair-on-fire with the cold weather, it does reinforce the need to assess baseload power!

At the WCC lunch you and I briefly discussed scheduling a meeting with the appropriate FirstEnergy people to talk about the next generation of coal-fueled power.
DOE is advancing these transformational coal technologies and we need power producer support and guidance.
Would you be willing to help facilitate a meeting with the appropriate people at FirstEnergy?
We would be happy to go to Akron or wherever most convenient for your folks.
FYI, I am also reaching out to AEP, Duke, TVA, Southern, NRG and am open to suggestion on others.
Thanks you,
Steve Winberg

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Rodriguez, Susan (CONTR)

From: Lauren.Maddox@hklaw.com
Sent: Wednesday, January 17, 2018 1:28 PM
To: McCormack, Brian
Subject: FW: DOT
Attachments: res.doc

Brian, hope you're well! (b) (6)

Given the close ties among agency chiefs of staff, I'm wondering if you might know Geoff Burr, chief for Secy. Chao? I ask because a former colleague – and someone I recruited off the Hill many moons ago – (b) (6) -- is looking to join the administration at DOT (b) (6) s terrific – hard working, dependable and committed. In working with (b) (6) over the years to advance numerous policy and funding goals (b) (6) always knows the right person to call and case to make to bring about positive outcomes.

I understand from a friend and former colleague at WH personnel that (b) (6) s in the mix. If you happen to talk with Geoff, I would greatly appreciate you mentioning (b) (6) ould be a great addition to Geoff's team, especially at this critical time when attention is on advancing the president's infrastructure agenda.

Thanks much!

Warm regards, Lauren

Lauren Maddox | Holland & Knight
Sr Policy Advisor
Holland & Knight LLP
800 17th Street N.W., Suite 1100 | Washington, DC 20006
Phone 202.469.5444 | Cell (b) (6)
lauren.maddox@hklaw.com | www.hklaw.com

From: (b) (6) [mailto:(b) (6)]
Sent: Tuesday, January 16, 2018 12:48 PM
To: Maddox, Lauren M (WAS - X75444) <Lauren.Maddox@hklaw.com>
Cc: Elizabeth Morra <(b) (6) >
Subject: DOT

Lauren,

Hope all is well with you. I'm reaching out as I recently sent my resume to Sean McMaster and Anthony Bedell at DOT. They've been terrific to work with in the past and am grateful they are in the administration at such an important time and critical agency. Anthony let me know he forwarded my information to White House personnel. Perhaps you also know someone there in order to follow up?

(b) (6)

(b) (6) With President Trump and his team looking to advance an infrastructure plan in the coming months, it would be a privilege to work with Secretary Chao and her team and put my experience to work. I first met Secretary Chao many years ago when I was working in the Senate for Republican members, helping them

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push content out the door on their priority issues. I admire her greatly and believe she's going to do great things this year.

Finally, I'm not picky! Infrastructure is such an important policy item…I'm happy to help in any way that would help the President and Secretary achieve their joint goals.

Please find attached a copy of my resume. Any help would be greatly appreciated!

All the best,(b) (6)

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(b) (6)

(b) (6)

Cell: (b) (6)
(b) (6)

Work Experience:

(b) (6)
2001-November 2017
Served as a lobbyist for a variety of clients in a number of issue areas including appropriations, defense, transportation, telecommunications, water infrastructure, homeland security, housing, education and healthcare. Responsibilities included crafting legislative strategies for clients, drafting bill and report language, working to insert language into bills, reviewing and analyzing legislation for clients, mentoring team members on the appropriations process and helping them with appropriations strategies; navigating and tracking the appropriations process for the firm and clients; setting up meetings with Members of Congress and key staffers in both the House and Senate; navigating and tracking various transportation and water authorization bills, developing materials for Hill visits; prepping clients for key meetings; generating Hill letters of support, writing press releases, talking points, op-eds and RFPs, and pursuing business development opportunities.

(b) (6)
1995-2001
Served as official spokesperson for the committee, fielding daily press calls from national print, radio, and television reporters. Responsibilities included developing weekly communications plans for Committee Chairmen Bill Young (R-FL) and Bob Livingston (R-LA) and all thirteen subcommittees at the time; coordinating communications strategy and "message" with Republican Leadership; preparing talking points and "Dear Colleague" letters for the Chairman and assisting him on the House floor; originating and writing press releases, "Letters to the Editor," and op-eds; organizing weekly news conferences and press briefings; assisting media at hearings and mark-ups; helping Congressional staff with appropriations materials/information; and writing bill summaries for press and Congressional staff.

(b) (6)
1994-1995
Responsibilities included writing daily press releases; serving as Senator's official spokesperson; setting up weekly television and radio news conferences; covering Senate hearings; coordinating Mississippi and national media requests; arranging interviews and statements for daily satellite feeds; and coordinating news conferences with other Senate offices.

(b) (6)
1993-1995
Responsibilities included writing, anchoring and interviewing senators and key staffers for a live, half-hour news program advancing the week's legislative agenda.

(b) (6)
1993-1994
Responsibilities included writing press releases on daily message for Leadership; serving as conference spokesperson; interviewing Senators and writing and editing news packages for daily satellite feeds to stations around the country.

(b) (6)
1990-1992
Responsibilities included anchoring, reporting and packaging daily news stories for the 7pm newscast, "Eye on the Piedmont."

(More)

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(b) (6)
1988-1990

Responsibilities included anchoring, writing and producing weekend newscasts; reporting and packaging stories for the evening newscasts during the week.

(b) (6)
1987-1988
Responsibilities included anchoring, writing and producing morning cut-ins; reporting and packaging stories for the evening newscasts.

Education: (b) (6)
B.A. Journalism, 1987
Minor: Political Science

Personal: (b) (6)

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Rodriguez, Susan (CONTR)

From: McCormack, Brian
Sent: Thursday, January 18, 2018 5:17 AM
To: Lauren.Maddox@hklaw.com
Subject: RE: DOT

(b) (6)

-----Original Message-----
From: Lauren.Maddox@hklaw.com [mailto:Lauren.Maddox@hklaw.com]
Sent: Thursday, January 18, 2018 8:16 AM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>
Subject: RE: DOT

Ha! (b) (6)
(b) (6)

Lauren Maddox | Holland & Knight
Sr Policy Advisor
Holland & Knight LLP
800 17th Street N.W., Suite 1100 | Washington, DC 20006
Phone 202.469.5444 | Cell (b) (6)
lauren.maddox@hklaw.com | www.hklaw.com

-----Original Message-----
From: McCormack, Brian [mailto:Brian.Mccormack@hq.doe.gov]
Sent: Thursday, January 18, 2018 8:05 AM
To: Maddox, Lauren M (WAS - X75444) <Lauren.Maddox@hklaw.com>
Subject: RE: DOT

(b) (6)

-----Original Message-----
From: Lauren.Maddox@hklaw.com [mailto:Lauren.Maddox@hklaw.com]
Sent: Wednesday, January 17, 2018 7:28 PM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>
Subject: Re: DOT

Lol. Thanks!

Lauren Maddox | Holland & Knight
800 17th Street N.W., Suite 1100 | Washington, DC 20006<x-apple-data-detectors://1/1>
Phone 202.469.5444<tel:202.469.5444> |
lauren.maddox@hklaw.com<mailto:lauren.maddox@hklaw.com> | www.hklaw.com<http://www.hklaw.com/>

On Jan 17, 2018, at 7:05 PM, McCormack, Brian
<Brian.Mccormack@hq.doe.gov<mailto:Brian.Mccormack@hq.doe.gov>> wrote:

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Hi Lauren (b) (6)

I'll connect with Jeff on this.

From: Lauren.Maddox@hklaw.com<mailto:Lauren.Maddox@hklaw.com> [mailto:Lauren.Maddox@hklaw.com]
Sent: Wednesday, January 17, 2018 4:28 PM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov<mailto:Brian.Mccormack@hq.doe.gov>>
Subject: FW: DOT

Brian, hope you're well! (b) (6)

Given the close ties among agency chiefs of staff, I'm wondering if you might know Geoff Burr, chief for Secy. Chao? I ask because a former colleague - and someone I recruited off the Hill many moons ago - (b) (6) -- is looking to join the administration at DOT (b) (6) is terrific - hard working, dependable and committed. In working with (b) (6) over the years to advance numerous policy and funding goals, (b) (6) always knows the right person to call and case to make to bring about positive outcomes.

I understand from a friend and former colleague at WH personnel that (b) (6) s in the mix. If you happen to talk with Geoff, I would greatly appreciate you mentioning (b) (6) would be a great addition to Geoff's team, especially at this critical time when attention is on advancing the president's infrastructure agenda.

Thanks much!

Warm regards, Lauren

Lauren Maddox | Holland & Knight
Sr Policy Advisor
Holland & Knight LLP
800 17th Street N.W., Suite 1100 | Washington, DC 20006 Phone 202.469.5444 | Cell (b) (6)
lauren.maddox@hklaw.com<mailto:lauren.maddox@hklaw.com> | www.hklaw.com<http://www.hklaw.com/>

From: (b) (6) [mailto (b) (6)]
Sent: Tuesday, January 16, 2018 12:48 PM
To: Maddox, Lauren M (WAS - X75444) <Lauren.Maddox@hklaw.com<mailto:Lauren.Maddox@hklaw.com>>
Cc: Elizabeth Morra <(b) (6) <mailto:(b) (6) >>
Subject: DOT

Lauren,

Hope all is well with you. I'm reaching out as I recently sent my resume to Sean McMaster and Anthony Bedell at DOT. They've been terrific to work with in the past and am grateful they are in the administration at such an important time and critical agency. Anthony let me know he forwarded my information to White House personnel. Perhaps you also know someone there in order to follow up?

(b) (6)
(b) (6) With President Trump and his team looking to advance an infrastructure plan in the coming months, it would be a privilege to work with Secretary Chao and her team and put my experience to work. I first met Secretary Chao many years ago when I was working in the Senate for Republican members, helping them push content out the door on their priority issues. I admire her greatly and believe she's going to do great things this year.

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Finally, I'm not picky! Infrastructure is such an important policy item...I'm happy to help in any way that would help the President and Secretary achieve their joint goals.

Please find attached a copy of my resume. Any help would be greatly appreciated!

All the best, (b) (6)

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Rodriguez, Susan (CONTR)

From: McCormack, Brian
Sent: Friday, February 16, 2018 8:12 AM
To: jeckard@firstenergycorp.com
Subject: Test

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Rodriguez, Susan (CONTR)

From: McCormack, Brian
Sent: Friday, February 16, 2018 8:23 AM
To: Eckard, J. M
Cc: Menezes, Mark;Winberg, Steven;Hynes, Shaylyn
Subject: RE: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia
Attachments: 2018_02_16 Pleasants Power Station Deactivation News Release.pdf

Thanks for sending Mike.

From: Eckard, J. M [mailto:jeckard@firstenergycorp.com]
Sent: Friday, February 16, 2018 11:20 AM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>
Subject: FW: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

Please share. The release was issued as we spoke. Answers to your questions: 1. 100% supplied by Alliance Resources from a West Virginia mine and 2. Pleasants is a non-union plant. (I stand corrected.) Thanks. I'll likely give you another call early next week.

Mike

J. Michael Eckard
Director, Federal Affairs
FirstEnergy
801 Pennsylvania Ave., Suite 310
Washington, D.C. 20004
202.434-8153
202.434-8156 (fax)
(b) (6) (cell)
jeckard@firstenergycorp.com

FirstEnergy

From: FE News
Sent: Friday, February 16, 2018 11:02 AM
Subject: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

The attached news release was distributed to the media at 11:00 a.m.

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FirstEnergy Corp.
76 South Main Street
Akron, Ohio 44308
www.firstenergycorp.com

For Release: February 16, 2018

News Media Contact:
Stephanie Walton
(330) 384-2528

Investor Contact:
Irene Prezelj
(330) 384-3859

FirstEnergy to Deactivate Pleasants Power Station in West Virginia

1,300 Megawatts of Generating Capacity Set to Retire in 2019

Akron, Ohio – FirstEnergy Corp. (NYSE: FE) announced that its Allegheny Energy Supply subsidiary today notified PJM Interconnection (PJM), the regional transmission organization, of its plan to deactivate the coal-fired Pleasants Power Station in Willow Island, West Virginia. The 1,300-megawatt (MW) plant will be sold or closed on January 1, 2019. The plant deactivation is subject to PJM's review for reliability impacts, if any.

FirstEnergy subsidiary Mon Power filed a plan in March 2017 seeking regulatory approval to acquire the Pleasants Power Station, which would have resolved a projected 10-year energy capacity shortfall and decreased electric bills for customers. The Federal Energy Regulatory Commission (FERC) rejected the proposal on January 12, 2018. The Public Service Commission of West Virginia approved the sale subject to a number of significant conditions. Those conditions, combined with the FERC rejection, make the proposed transfer unworkable.

"Closing Pleasants is a very difficult choice because of the talented employees dedicated to reliable operation of the station and the communities who have supported the facility for many years. But the recent federal and West Virginia decisions leave FirstEnergy no reasonable option but to expeditiously move forward with deactivation of the plant," said Charles E. Jones, FirstEnergy president and chief executive officer. "We will continue to pursue opportunities to sell the plant while planning for deactivation."

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The decision to deactivate the plant impacts approximately 190 employees. Affected employees may be eligible to receive severance benefits through the FirstEnergy severance plan if the plant is closed.

Located along the Ohio River in Willow Island, West Virginia, Pleasants Power Station began operation in 1979. Its two 650-megawatt generating units together produce enough electricity to power approximately 1.3 million homes.

Since 2016, FirstEnergy has announced the sale or closure of 2,471 MW of competitive generation operated in Ohio, Pennsylvania and Virginia. Following the deactivation of the 1,300-megawatt Pleasants plant, the company will own or control generating capacity totaling approximately 14,795 MW from scrubbed coal, nuclear, natural gas and renewable energy facilities across Ohio, Pennsylvania, West Virginia, New Jersey, Virginia and Illinois. FirstEnergy continues to complete the strategic review of its remaining competitive generating fleet.

FirstEnergy is dedicated to safety, reliability and operational excellence. Its 10 electric distribution companies form one of the nation's largest investor-owned electric systems, serving customers in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and New York. The company's transmission subsidiaries operate more than 24,000 miles of transmission lines that connect the Midwest and Mid-Atlantic regions, while its generation subsidiaries control nearly 16,000 megawatts of capacity from a diversified mix of scrubbed coal, non-emitting nuclear, natural gas, hydro and other renewables. Follow FirstEnergy on Twitter @FirstEnergyCorp or online at www.firstenergycorp.com.

Forward-Looking Statements: This news release includes forward-looking statements based on information currently available to management. Such statements are subject to certain risks and uncertainties. These statements include declarations regarding management's intents, beliefs and current expectations. These statements typically contain, but are not limited to, the terms "anticipate," "potential," "expect," "forecast," "target," "will," "intend," "believe," "project," "estimate," "plan" and similar words. Forward-looking statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements, which may include the following: the ability to experience growth in the Regulated Distribution and Regulated Transmission segments and the effectiveness of our strategy to transition to a fully regulated business profile; the accomplishment of our regulatory and operational goals in connection with our transmission and

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distribution investment plans, including, but not limited to, our planned transition to forward-looking formula rates; changes in assumptions regarding economic conditions within our territories, assessment of the reliability of our transmission system, or the availability of capital or other resources supporting identified transmission investment opportunities; the ability to accomplish or realize anticipated benefits from strategic and financial goals, including, but not limited to, the ability to continue to reduce costs and to successfully execute our financial plans designed to improve our credit metrics and strengthen our balance sheet; success of legislative and regulatory solutions for generation assets that recognize their environmental or energy security benefits, including the Notice of Proposed Rulemaking released by the Secretary of Energy and action by the Federal Energy Regulatory Commission (FERC); the risks and uncertainties associated with the lack of viable alternative strategies regarding the Competitive Energy Services (CES) segment, thereby causing FirstEnergy Solutions Corp. (FES), and likely FirstEnergy Nuclear Operating Company (FENOC), to restructure its substantial debt and other financial obligations with its creditors or seek protection under United States bankruptcy laws and the losses, liabilities and claims arising from such bankruptcy proceeding, including any obligations at FirstEnergy Corp.; the risks and uncertainties at the CES segment, including FES, and its subsidiaries, and FENOC, related to wholesale energy and capacity markets and the viability and/or success of strategic business alternatives, such as pending and potential CES generating unit asset sales, the potential conversion of the remaining generation fleet from competitive operations to a regulated or regulated-like construct or the potential need to deactivate additional generating units, which could result in further substantial write-downs and impairments of assets; the substantial uncertainty as to FES' ability to continue as a going concern and substantial risk that it may be necessary for FES, and likely FENOC, to seek protection under United States bankruptcy laws; the risks and uncertainties associated with litigation, arbitration, mediation and like proceedings, including, but not limited to, any such proceedings related to vendor commitments, such as long-term fuel and transportation agreements; the uncertainties associated with the deactivation of older regulated and competitive units, including the impact on vendor commitments, such as long-term fuel and transportation agreements, and as it relates to the reliability of the transmission grid, the timing thereof; the impact of other future changes to the operational status or availability of our generating units and any capacity performance charges associated with unit unavailability; changing energy, capacity and commodity market prices including, but not limited to, coal, natural gas and oil prices, and their availability and impact on margins; costs being higher than anticipated and the success of our policies to control costs and to mitigate low energy, capacity and market prices; replacement power costs being higher than anticipated or not fully hedged; our ability to improve electric commodity margins and the impact of, among other factors, the increased cost of fuel and fuel transportation on such margins; the uncertainty of the timing and amounts of the capital expenditures that may arise in connection with any litigation, including New Source Review litigation, or potential regulatory initiatives or rulemakings (including that such initiatives or rulemakings could result in our decision to deactivate or idle certain generating units); changes in customers' demand for power, including, but not limited to, changes resulting from the implementation of state and federal energy efficiency and peak demand reduction mandates; economic or weather conditions affecting future sales, margins and operations such as a polar vortex or other significant weather events, and all associated regulatory events or actions; changes in national and regional economic conditions affecting us, our subsidiaries and/or our major industrial and commercial customers, and other counterparties with which we do business, including fuel suppliers; the impact of labor disruptions by our unionized workforce; the risks associated with cyber-attacks and other disruptions to our information technology system that may compromise our generation, transmission and/or distribution services and data security breaches of sensitive data, intellectual property and proprietary or personally identifiable information regarding our business, employees, shareholders, customers, suppliers, business partners and other individuals in our data centers and on our networks; the impact of the regulatory process and resulting outcomes on the matters at the federal level and in the various states in which we do business including, but not limited to, matters related to rates; the impact of the federal regulatory process on FERC-regulated entities and transactions, in particular FERC regulation of wholesale energy and capacity markets, including PJM Interconnection, L.L.C. (PJM) markets and FERC-jurisdictional wholesale transactions; FERC regulation of cost-of-service rates; and FERC's compliance and enforcement activity, including compliance and enforcement activity related to North American Electric Reliability Corporation's mandatory reliability standards; the uncertainties of various cost recovery and cost allocation issues resulting from American Transmission Systems, Incorporated's realignment into PJM; the ability to comply with applicable state and federal reliability standards and energy efficiency and peak demand reduction mandates; other legislative and regulatory changes, including the new federal administration's required review and potential revision of environmental requirements, including, but not limited to, the effects of the

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United States Environmental Protection Agency's Clean Power Plan, Coal Combustion Residuals regulations, Cross-State Air Pollution Rule and Mercury and Air Toxics Standards programs, including our estimated costs of compliance, Clean Water Act (CWA) waste water effluent limitations for power plants, and CWA 316(b) water intake regulation; adverse regulatory or legal decisions and outcomes with respect to our nuclear operations (including, but not limited to, the revocation or non-renewal of necessary licenses, approvals or operating permits by the Nuclear Regulatory Commission or as a result of the incident at Japan's Fukushima Daiichi Nuclear Plant); issues arising from the indications of cracking in the shield building at Davis-Besse; changing market conditions that could affect the measurement of certain liabilities and the value of assets held in our Nuclear Decommissioning Trusts, pension trusts and other trust funds, and cause us and/or our subsidiaries to make additional contributions sooner, or in amounts that are larger than currently anticipated; the impact of changes to significant accounting policies; the impact of any changes in tax laws or regulations or adverse tax audit results or rulings; the ability to access the public securities and other capital and credit markets in accordance with our financial plans, the cost of such capital and overall condition of the capital and credit markets affecting us and our subsidiaries; further actions that may be taken by credit rating agencies that could negatively affect us and/or our subsidiaries' access to financing, increase the costs thereof, increase requirements to post additional collateral to support, or accelerate payments under outstanding commodity positions, letters of credit and other financial guarantees, and the impact of these events on the financial condition and liquidity of FirstEnergy Corp. and/or its subsidiaries, specifically FES and its subsidiaries; issues concerning the stability of domestic and foreign financial institutions and counterparties with which we do business; and the risks and other factors discussed from time to time in our United States Securities and Exchange Commission (SEC) filings, and other similar factors. Dividends declared from time to time on FirstEnergy Corp.'s common stock during any period may in the aggregate vary from prior periods due to circumstances considered by FirstEnergy Corp.'s Board of Directors at the time of the actual declarations. A security rating is not a recommendation to buy or hold securities and is subject to revision or withdrawal at any time by the assigning rating agency. Each rating should be evaluated independently of any other rating. These forward-looking statements are also qualified by, and should be read in conjunction with the other cautionary statements and risks that are included in our filings with the SEC, including but not limited to the most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q. The foregoing review of factors also should not be construed as exhaustive. New factors emerge from time to time, and it is not possible for management to predict all such factors, nor assess the impact of any such factor on our business or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statements. We expressly disclaim any current intention to update, except as required by law, any forward-looking statements contained herein as a result of new information, future events or otherwise.

(021618)

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Rodriguez, Susan (CONTR)

From: Eckard, J. M <jeckard@firstenergycorp.com>
Sent: Friday, February 16, 2018 2:32 PM
To: McCormack, Brian
Cc: Menezes, Mark;Winberg, Steven;Hynes, Shaylyn
Subject: RE: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

Here's another answer to one of Mr. Menezes' difficult questions: the capacity factor for the Pleasants Power Station in 2017 was 68.56%. That means it ran over two-thirds of the hours throughout the year. My guess was reasonably close. As we speculated though, much of the time the plant was barely covering its marginal cost of production with no contribution to fixed costs. Have a great weekend.

Mike

J. Michael Eckard
Director, Federal Affairs
FirstEnergy
801 Pennsylvania Ave., Suite 310
Washington, D.C. 20004
202.434-8153
202.434-8156 (fax)
(b) (6) (cell)
jeckard@firstenergycorp.com

FirstEnergy

From: Eckard, J. M
Sent: Friday, February 16, 2018 11:26 AM
To: 'McCormack, Brian' <Brian.Mccormack@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Winberg, Steven <Steven.Winberg@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Subject: RE: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

Thanks to each of you. Call me on my cell (b) (6)) if you want to discuss further.

Mike

J. Michael Eckard
Director, Federal Affairs
FirstEnergy
801 Pennsylvania Ave., Suite 310
Washington, D.C. 20004
202.434-8153
202.434-8156 (fax)
(b) (6) (cell)
jeckard@firstenergycorp.com

FirstEnergy

AMERICAN OVERSIGHT

From: McCormack, Brian [mailto:Brian.Mccormack@hq.doe.gov]
Sent: Friday, February 16, 2018 11:23 AM
To: Eckard, J. M <jeckard@firstenergycorp.com>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Winberg, Steven <Steven.Winberg@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Subject: [EXTERNAL] RE: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

Thanks for sending Mike.

From: Eckard, J. M [mailto:jeckard@firstenergycorp.com]
Sent: Friday, February 16, 2018 11:20 AM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>
Subject: FW: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

Please share. The release was issued as we spoke. Answers to your questions: 1. 100% supplied by Alliance Resources from a West Virginia mine and 2. Pleasants is a non-union plant. (I stand corrected.) Thanks. I'll likely give you another call early next week.

Mike

J. Michael Eckard
Director, Federal Affairs
FirstEnergy
801 Pennsylvania Ave., Suite 310
Washington, D.C. 20004
202.434-8153
202.434-8156 (fax)
(b) (6) (cell)
jeckard@firstenergycorp.com

FirstEnergy

From: FE News
Sent: Friday, February 16, 2018 11:02 AM
Subject: News Release - FirstEnergy to Deactivate Pleasants Power Station in West Virginia

The attached news release was distributed to the media at 11:00 a.m.

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Rodriguez, Susan (CONTR)

From: Fisher, Travis
Sent: Thursday, March 01, 2018 12:49 PM
To: Eames, Frederick R.
Subject: RE: Colstrip--Potential for Carbon Sequestration Project

Thanks Fred. I owe you a call. Sorry for not getting back to you--things have been incredibly hectic in my last couple weeks here.

-----Original Message-----
From: Eames, Frederick R. [mailto:feames@hunton.com]
Sent: Wednesday, February 28, 2018 12:29 PM
To: Raggio, Debra <Debra.Raggio@talenenergy.com>
Cc: Charles D McConnell <charles.d.mcconnell@rice.edu>; Fisher, Travis <Travis.Fisher@hq.doe.gov>
Subject: Re: Colstrip--Potential for Carbon Sequestration Project

Happy to help in any way. Debra, we have met before. I worked on the Potomac River 202(c) application back in 2005, and worked on the so-called Olson language effort you led. Have spent a lot of time on CCS and 45Q in the past 10 years, and led the 2015 National Coal Council Report.

Travis, best wishes on whatever comes next for you.

And Chuck, thanks for looping me in. See you next week.

Sent from my iPhone

On Feb 28, 2018, at 11:48 AM, Raggio, Debra
<Debra.Raggio@talenenergy.com<mailto:Debra.Raggio@talenenergy.com>> wrote:

That works for me.

Debra L. Raggio
Senior Vice President | Regulatory & External Affairs Counsel
Talen Energy

From: Charles D McConnell [mailto:charles.d.mcconnell@rice.edu]
Sent: Wednesday, February 28, 2018 11:09 AM
To: Raggio, Debra <Debra.Raggio@talenenergy.com<mailto:Debra.Raggio@talenenergy.com>>; Fisher, Travis
<Travis.Fisher@hq.doe.gov<mailto:Travis.Fisher@hq.doe.gov>>
Cc: 'Eames, Frederick R.' <feames@hunton.com<mailto:feames@hunton.com>>
Subject: RE: Colstrip--Potential for Carbon Sequestration Project

Will be in town to DC on April 11-13 for the National Coal Council BOD meeting. Might be a good time to connect and I copy my colleague Fred Eames from Hunton and Williams who may also be interested to meet you.
THX Travis- will you be in town at that time?

Charles D. McConnell
Executive Director, Energy and Environment Initiative

AMERICAN OVERSIGHT

Rice University, MS 603 | Allen Center, Suite 315A | 6100 Main St., Houston, TX 77005 |
office 713.348.3871 | cell (b) (6) |
fax 713.348.4105 | eei.rice.edu<https://urldefense.proofpoint.com/v2/url?u=http-3A__eei.rice.edu&d=DwMFAg&c=jxhwBfk-KSV6FFIot0PGng&r=iVm7FWnJ9-HT3nuKthItpmg-Ux1tlgPR7ds5B78ASeM&m=j1UrI_TVbmdqWzszk_VAYHkqTW-frOPETOOY9_4pVMY&s=U2_e0lH859ekwcLLhONwbCahBcErGkVHLz33d3i6Nrk&e=> |
Facebook<https://urldefense.proofpoint.com/v2/url?u=https-3A__www.facebook.com_RiceEEi_&d=DwMFAg&c=jxhwBfk-KSV6FFIot0PGng&r=iVm7FWnJ9-HT3nuKthItpmg-Ux1tlgPR7ds5B78ASeM&m=j1UrI_TVbmdqWzszk_VAYHkqTW-frOPETOOY9_4pVMY&s=GCEghtlnaq4Cuty-lgBsBX2Zsz1GhA-m7tg53dCxYH0&e=> |

<image001.jpg>

From: Raggio, Debra [mailto:Debra.Raggio@talenenergy.com]
Sent: Monday, February 26, 2018 3:47 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov<mailto:Travis.Fisher@hq.doe.gov>>
Cc: Charles D McConnell <charles.d.mcconnell@rice.edu<mailto:charles.d.mcconnell@rice.edu>>
Subject: RE: Colstrip--Potential for Carbon Sequestration Project

Thank you Travis! Chuck I would be interested in picking your brain at some point.

Debra

Debra L. Raggio
Senior Vice President | Regulatory & External Affairs Counsel
Talen Energy

From: Fisher, Travis [mailto:Travis.Fisher@hq.doe.gov]
Sent: Monday, February 26, 2018 4:44 PM
To: Raggio, Debra <Debra.Raggio@talenenergy.com<mailto:Debra.Raggio@talenenergy.com>>
Cc: Charles D McConnell <charles.d.mcconnell@rice.edu<mailto:charles.d.mcconnell@rice.edu>>
Subject: RE: Colstrip--Potential for Carbon Sequestration Project

Hi Debra,

In an effort to shed light on how the Office of Fossil Energy works (I don't understand it fully myself), I'm connecting you with Chuck McConnell, former FE-1 and all around good guy who is in the academic world now. I imagine he has thoughts on CCS and possible applications to Colstrip. Worth a shot anyway.

Best,
Travis

From: Raggio, Debra [mailto:Debra.Raggio@talenenergy.com]
Sent: Monday, February 26, 2018 4:08 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov<mailto:Travis.Fisher@hq.doe.gov>>
Subject: Colstrip--Potential for Carbon Sequestration Project

Travis,

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It was good talking with you this afternoon. As we discussed, back in 2016, DOE Office of Fossil Energy gave a presentation regarding the Colstrip Power Plant and CO2 capture and sequestration. This issue continues to be raised and I wanted to talk about it further with folks at DOE. If you could direct me to the right people that would be greatly appreciated.

I have enjoyed working with you and wish you all the best. Please do keep in touch.

My best,

Debra

Debra L. Raggio
Senior Vice President | Regulatory & External Affairs Counsel

Talen Energy
117 Oronoco Street
Alexandria, Virginia | 22314
Direct: 703.778.0841 | Mobile: (b) (6) | debra.raggio@talenenergy.com<mailto:debra.raggio@talenenergy.com>

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Rodriguez, Susan (CONTR)

From: Winberg, Steven
Sent: Thursday, March 22, 2018 11:57 AM
To: dmoul@firstenergycorp.com; mendenhallk@firstenergycorp.com; dowlingm@firstenergycorp.com
Subject: JET presentation
Attachments: 170316 JET - DOE presentation - Final.pptx

Don, Mike and Kelly

First, thank you for meeting with DOE a few weeks ago. I was disappointed to hear the news about Pleasants since I started both of those units early in my career.

I sat in on a presentation by a Chinese firm called JET that has an ammonia-based process for SOx control that produces a fertilizer product with no liquid waste stream.
They claim that they will build and operate and will consider build, own and operate.
(b) (5) but I did recall the challenges at Bruce Mansfield (from my days at CONSOL) and thought that I would pass this along to you.
JET's contact info is in the attached presentation.

All the best,

Steven Winberg
Assistant Secretary
Office of Fossil Energy
Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
202 586 6660

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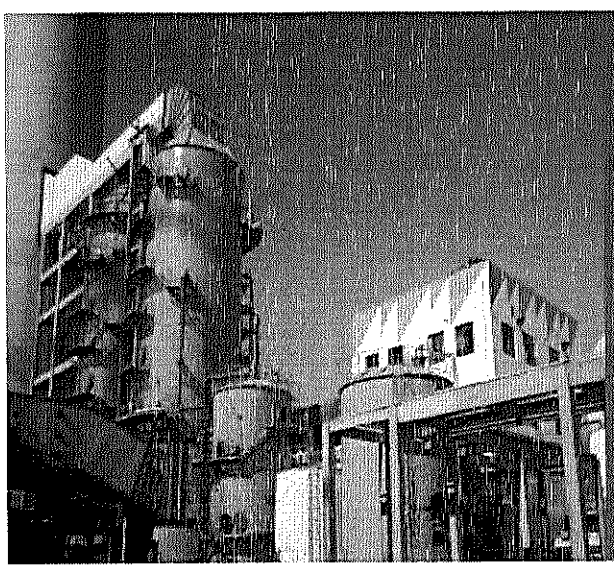
JET
Jiangnan Environmental Technology



The Role of JET's Air Quality Control Technology in Revitalizing US Coal and Coal Power Industries

March 16th, 2018

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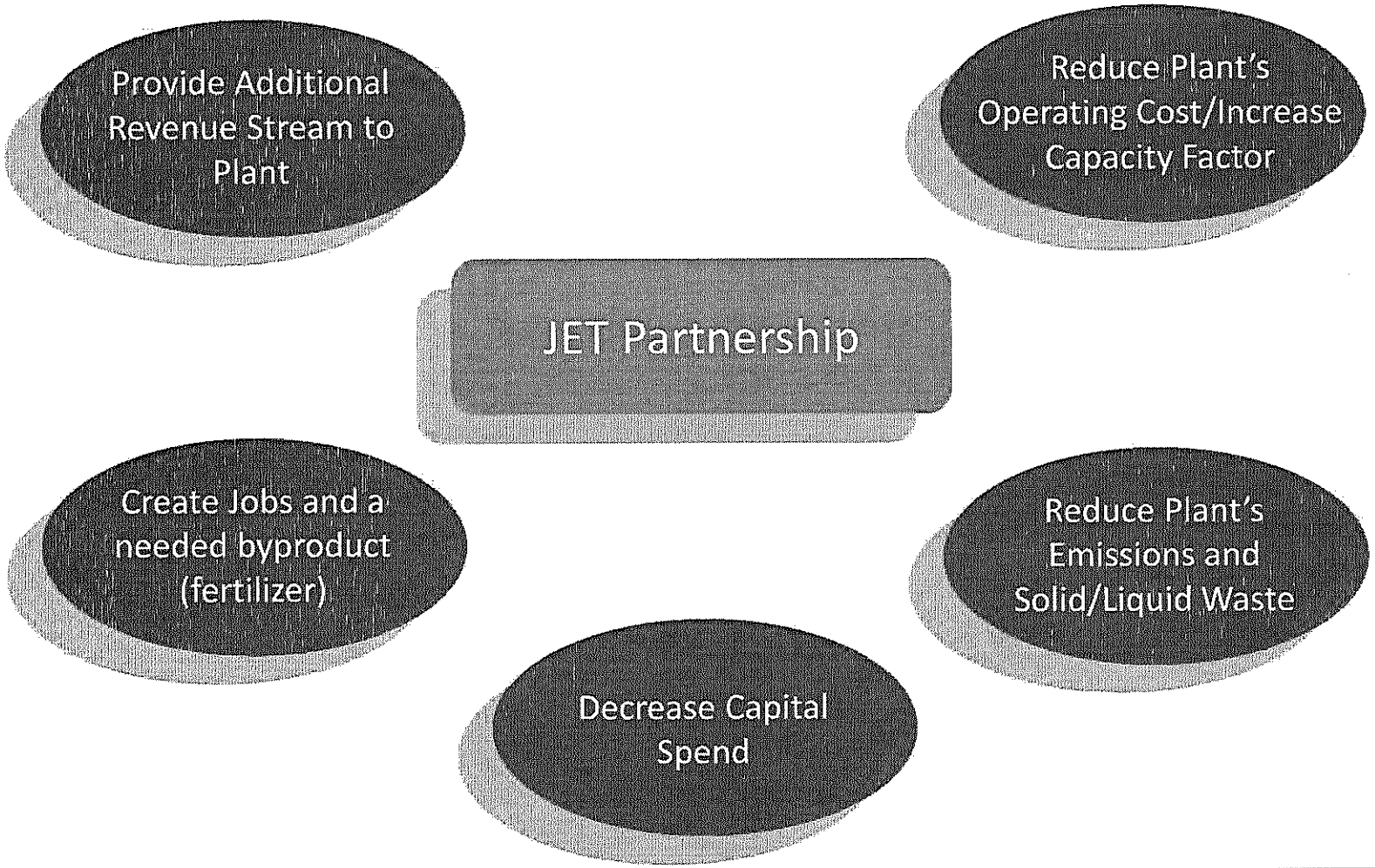
Alternative to closing/shuttering coal plants



JET's mission is to partner with coal plants to help achieve long term viability

DOE-19-1027-A-000027

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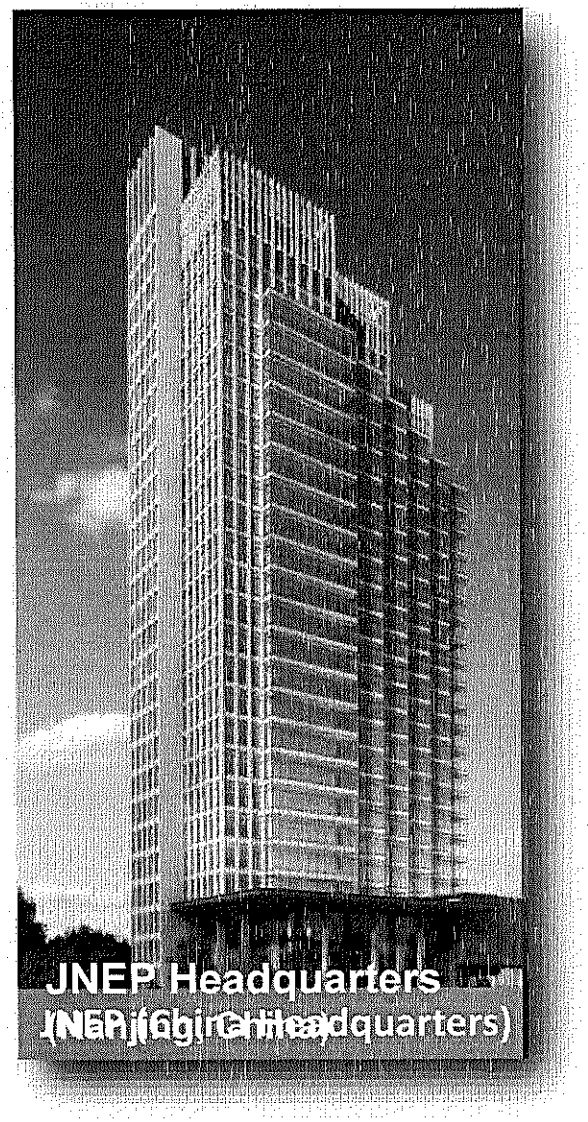
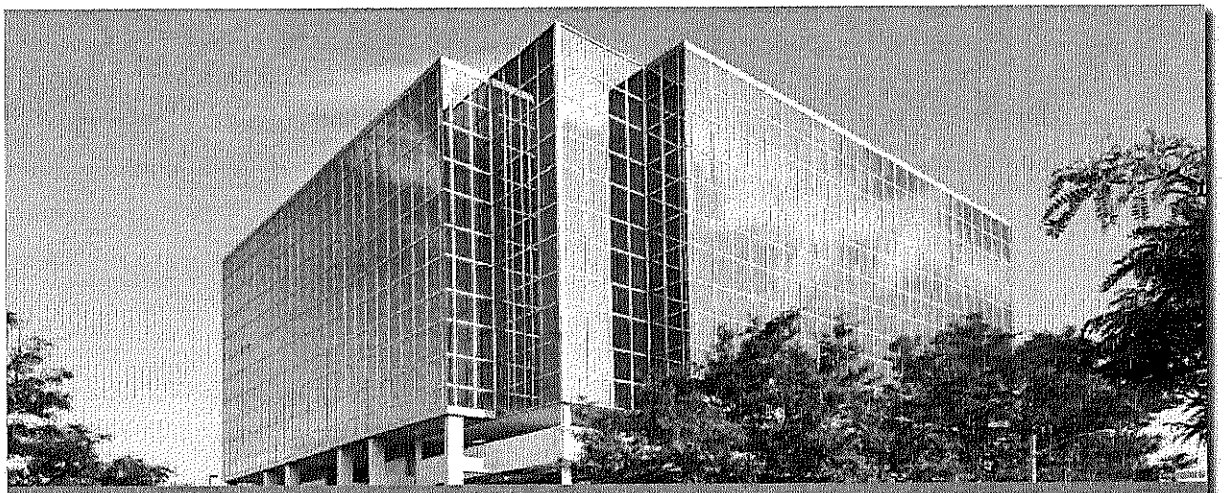
Introduction to JET



JNEP Headquarters (Nanjing, China)



JET Global Headquarters (Ridgefield Park, NJ)

- Global leader with 80% market share in Ammonia-Based Desulfurization
- 65 patents and patent applications
- 150+ projects with more than 300 installed units

DOE-19-1027-A-000028

Qualifications and Awards

- ☑ Grade A Design Qualification in Environmental Protection Projects
- ☑ Grade A Design Qualification in Chemical Engineering Projects
- ☑ Grade A Operation Qualification for Environmental faculties
- ☑ Contract Qualification for Environmental Projects
- ☑ Certificate of High and New Tech Enterprises
- ☑ ISO 9001 Quality Management System
- ☑ ISO 14001 Environmental Management System
- ☑ OHSAS 18001 Occupational Health and Safety Management System

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DOE-19-1027-A-000029

20 Year History Ammonia Based FGD

1st Gen	1998	Basic NH_3 based deSOx	not controlled	~ 70		Meets SO_2 emission limit
2nd Gen	2010	NH_3 based deSOx with NH_3 recovery control	≥ 97%	< 35		Meets HG2001-2010 standard
3rd Gen	2013	Fine PM control	≥ 98%	< 17.5	≤ 4.72	Meets GB13223-2011 special emission limit
4th Gen	**2015**	**Ultrasound-enhanced deSOx and PM-removal integration**	**≥ 99%**	**< 12**	**≤ 1.18**	**Meets ultra-low emission limit**

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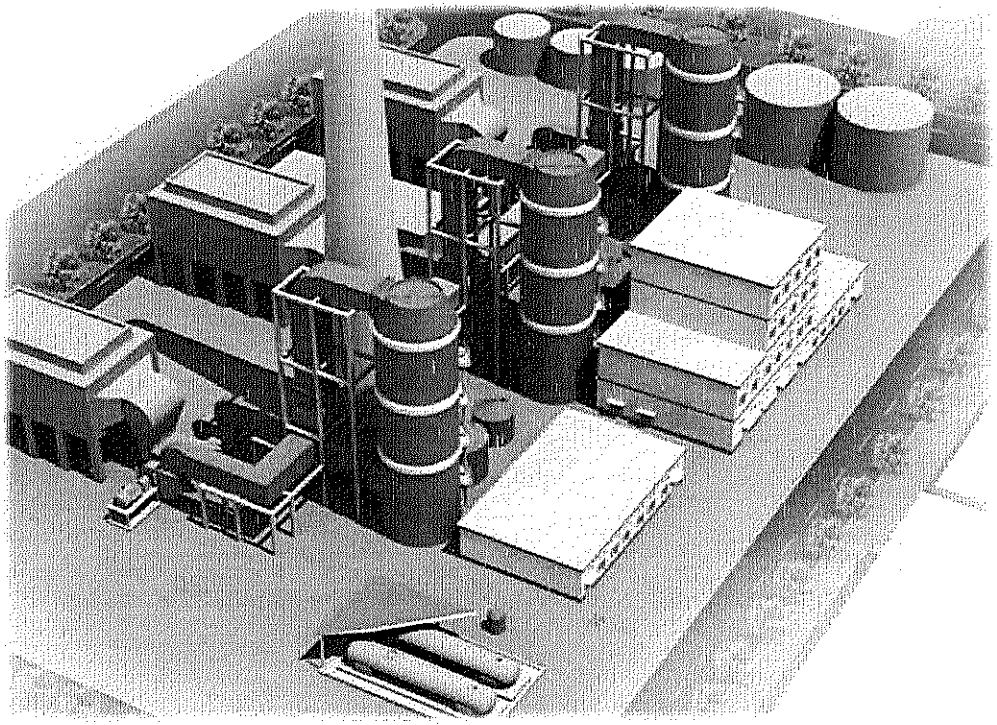
Advantages of Ammonia Based FGD Technology

- High SO_2 removal efficiency: 99% or higher
- Environmentally friendly: no waste water, solid waste or additional CO_2 emissions
- Extra profit: produce 3.8 ton fertilizer per 1 ton ammonia
- High turndown ratio: 30 – 110%
- Favorable economics: less power consumption & operating cost



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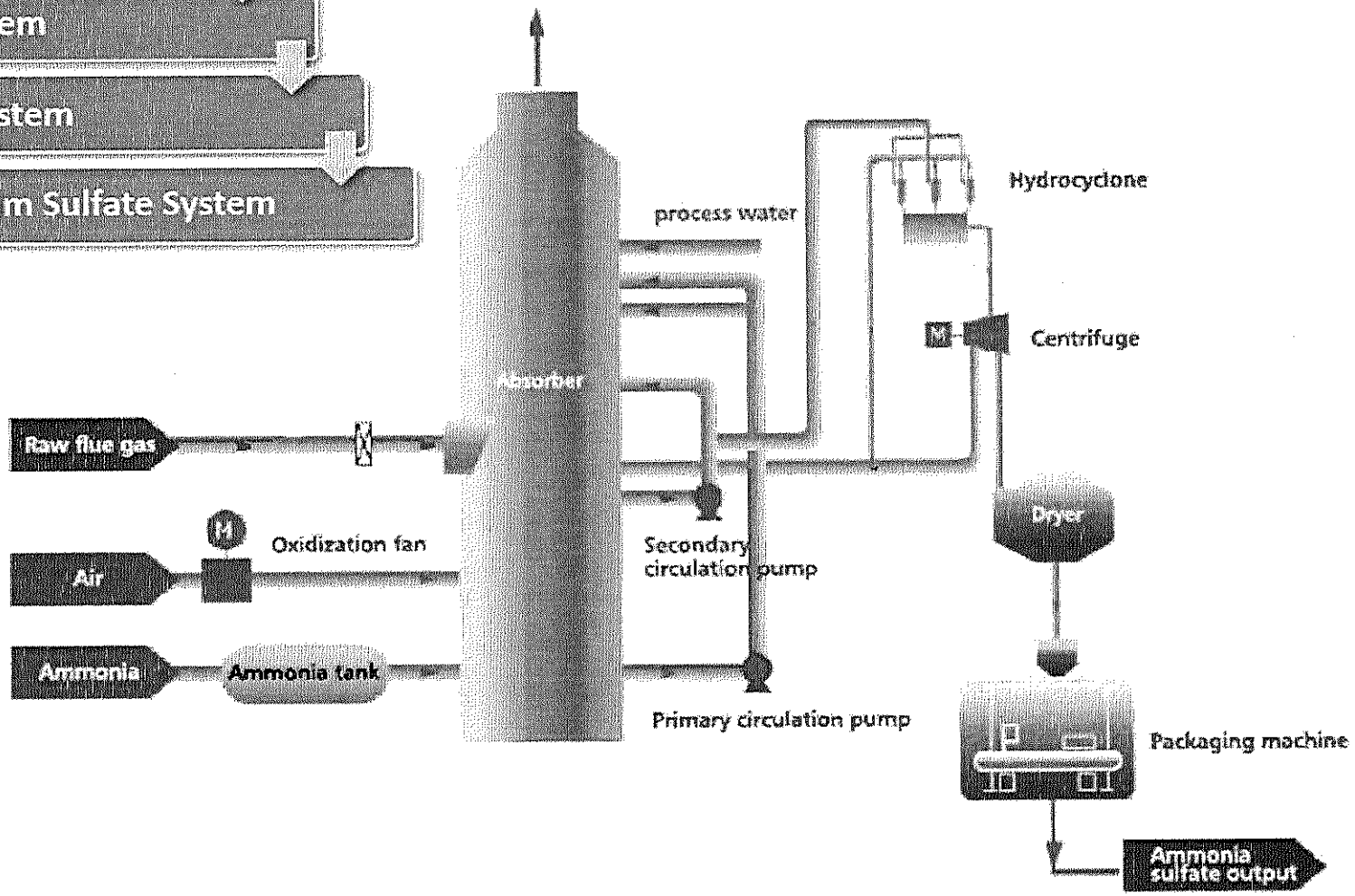
Technology: Process Description

- Flue Gas System
- Absorption System
- Oxidation System
- Ammonium Sulfate System



DOE-19-1027-A-000032

Why Ammonia FGD is a Better Choice than Limestone Process?

Absorbent	Limestone	Ammonia
By-Product	Gypsum	Ammonium Sulfate Fertilizer
SO_2 Removal Efficiency	≥ 95%	≥ 99%
Waster Water	55 lb/hr / MW	None
CO_2 Emissions	0.7 t/ t SO_2 Removed	None
Power Consumption	Base	35-50% Less than Base
Operating Cost	Base	Negative (Makes Profit)

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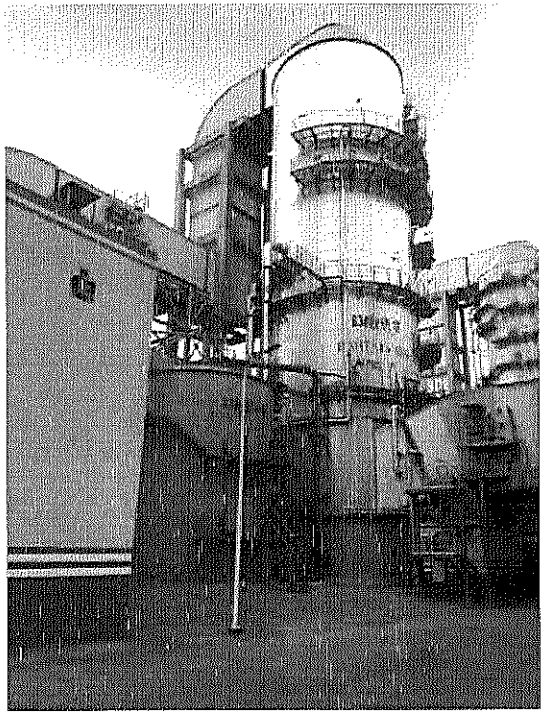
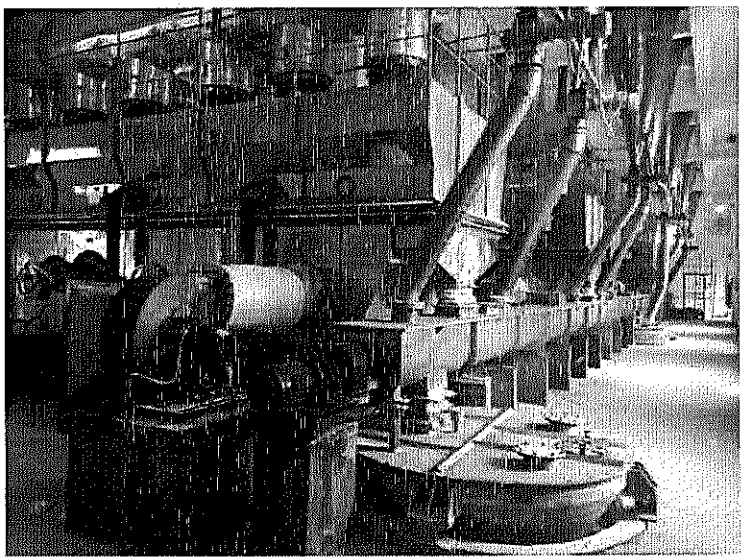
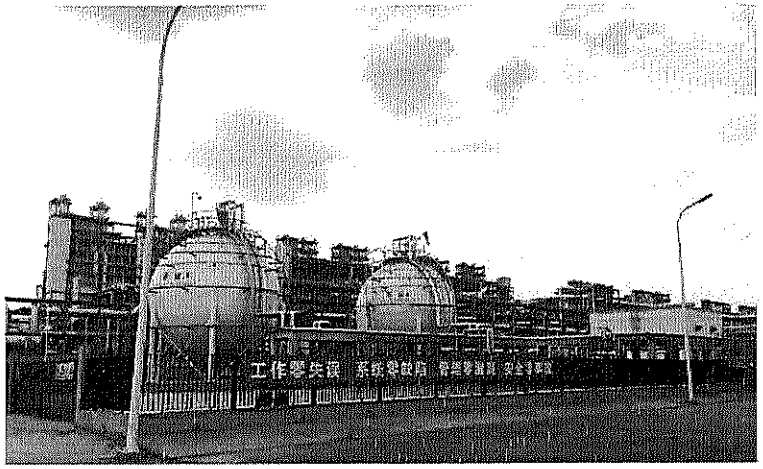
Project Pictures – Shenhua Coal Plant







DOE-19-1027-A-000034

"Application of Ammonium Sulfate on diverse crops and growing demand for sulfur as a secondary nutrient are large drivers of the growth in North America. Growing use on specialty crops is a key driver of growth, and blending ammonium sulfate with other nutrients such as urea for additional nitrogen content has also increased."

-Green Markets Research Report

"As sulfur becomes more and more a factor in cropping systems, there continues to be a need to satisfy the demand with dry fertilizer formulations. The number one choice for sulfur in combination with nitrogen is ammonium sulfate and all interviewees believe this desirability based on economic utility will continue in the foreseeable future."

-Green Markets Research Report

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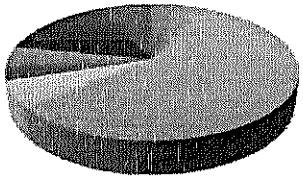
Fertilizer Outlook

Global Demand of Nitrogen Base Fertilizer: 121,254 M Short Tons

Ammonium Sulfate 3% Market Share
- Chemical Composition: 21% Nitrogen, 24% Sulfur
- Price Point: $165/ston (Gulf NOLA)

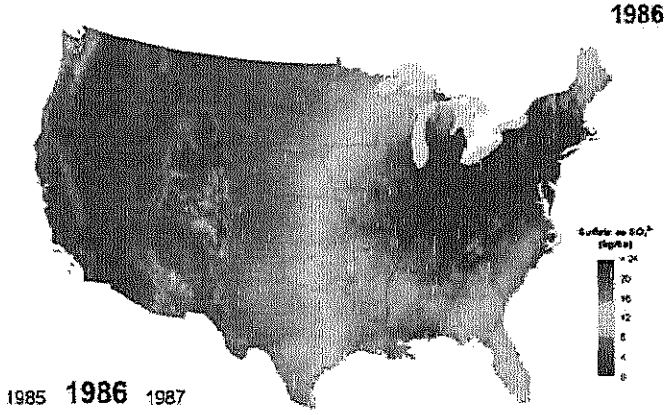
Urea 56% Market Share
- Chemical Composition: 46% Nitrogen
- Price Point: $225/ston (Gulf NOLA)

Global Capacity of Nitrogen Fertilizer (%)



- Ammonia Direct Application
- Urea
- Calc. Amm. Nitrate
- Other Nitrogen
- Other Nitrogen Phosphate
- Ammonium Sulfate
- Ammonium Nitrate
- Nitrogen Solutions
- Ammonium Phosphate
- N. P. K. Compound

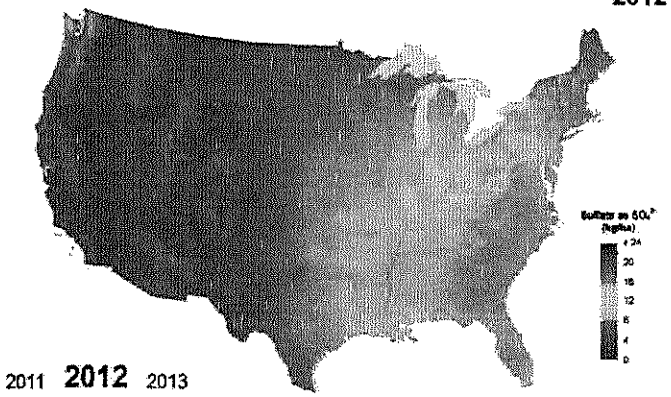
Sulfate ion wet deposition 1986



1985 **1986** 1987

National Atmospheric Deposition Program/National Trends Network
http://nadp.sws.uiuc.edu

Sulfate ion wet deposition 2012



2011 **2012** 2013

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(b) (4)

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Case Study 1

(b) (4)

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Other Case Studies

(b) (4)

DOE-19-1027-A-000039

Environment Impact from EADS

- The ultra low emission standard in China was developed with the objective to make coal fired plants emissions as clean as natural gas fired plants
  - JET technology allows plants to meet ultra low emission limits
- JET's technology can be used as the first stage in a carbon capture process
- JET is dedicated to eliminating air pollution and improving the living environment through our advanced technology

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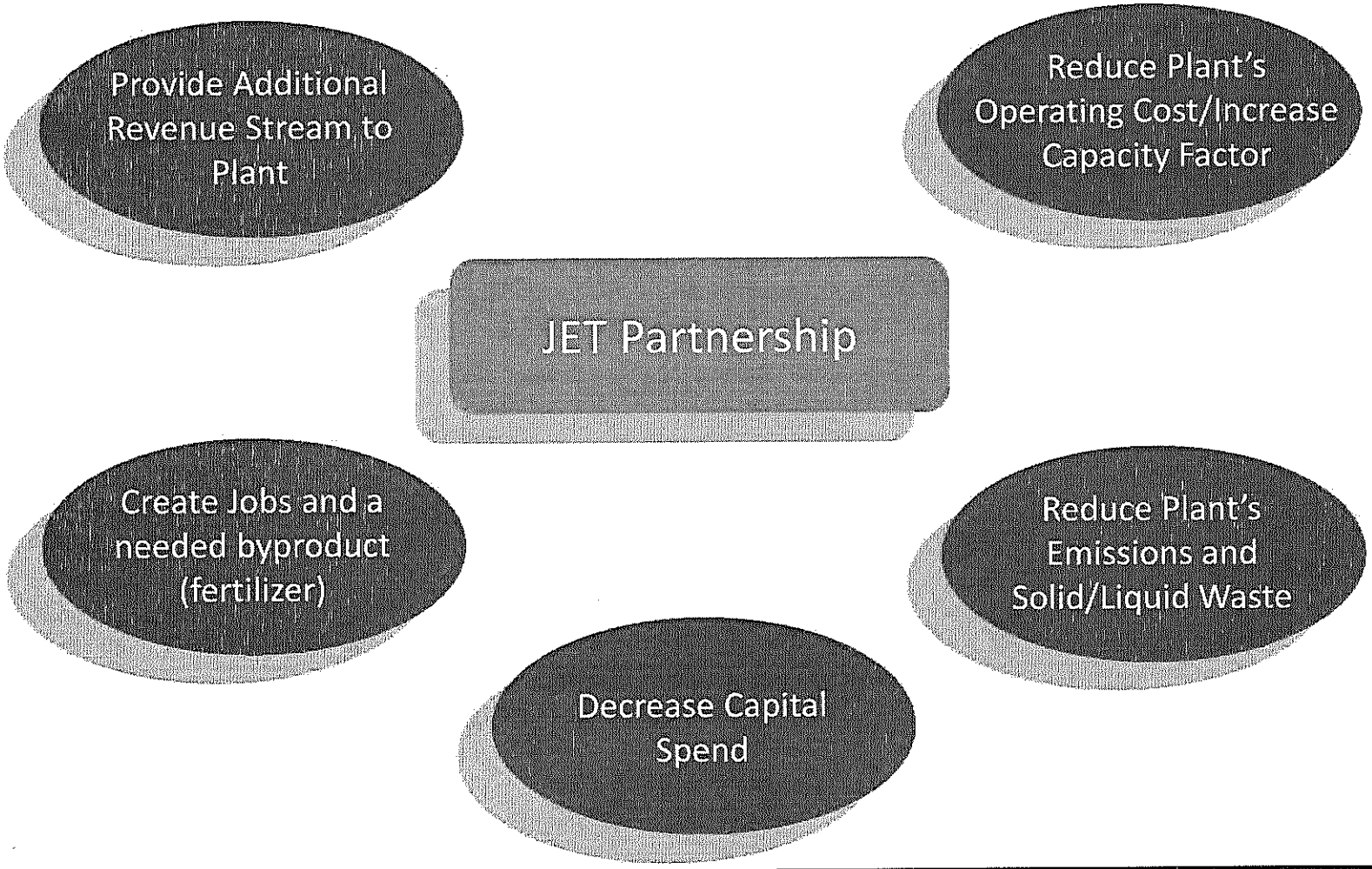
Alternative to closing/shuttering coal plants



JET's mission is to partner with coal plants to help achieve long term viability

DOE-19-1027-A-000041

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Thank You!

Questions?

Jiangnan Environmental Technology Inc.

65 Challenger Road, Suite 420
Ridgefield Park, NJ 07660, USA
Tel: +1 201 628-6471
David.Repp@jet-inc.com
Website: www.jet-inc.com

DOE-19-1027-A-000042

Rodriguez, Susan (CONTR)

From: Moul, Donald A <dmoul@firstenergycorp.com>
Sent: Monday, March 26, 2018 1:12 AM
To: Dowling, Michael J.
Cc: Winberg, Steven; Mendenhall, Kelley E
Subject: Re: [EXTERNAL] JET presentation

Thanks Steve!

I've forwarded this j formation to our advisors that are dealing with potential asset sales or investments. We will see if it progresses. I really appreciate the lead.

Regards,
Don

Don Moul
President & CNO
FirstEnergy Solutions Generation Companies
Work: 330-315-6800
Cell: (b) (6)

> On Mar 25, 2018, at 11:39 PM, Dowling, Michael J. <dowlingm@firstenergycorp.com> wrote:
>
> Thanks, Steve. Much appreciated.
>
> Michael J. Dowling
> Senior VP, External Affairs
> FirstEnergy
> 330-384-5761 office
> (b) (6) mobile
>
>> On Mar 22, 2018, at 2:57 PM, Winberg, Steven <Steven.Winberg@hq.doe.gov> wrote:
>>
>> Don, Mike and Kelly
>>
>> First, thank you for meeting with DOE a few weeks ago. I was disappointed to hear the news about Pleasants since I started both of those units early in my career.
>>
>> I sat in on a presentation by a Chinese firm called JET that has an ammonia-based process for SOx control that produces a fertilizer product with no liquid waste stream.
>> They claim that they will build and operate and will consider build, own and operate.
>> (b) (5) but I did recall the challenges at Bruce Mansfield (from my days at CONSOL) and thought that I would pass this along to you.
>> JET's contact info is in the attached presentation.
>>
>> All the best,
>>

AMERICAN OVERSIGHT

>> Steven Winberg
>> Assistant Secretary
>> Office of Fossil Energy
>> Department of Energy
>> 1000 Independence Avenue, SW
>> Washington, DC 20585
>> 202 586 6660
>>
>>
>> <170316 JET - DOE presentation - Final.pptx>

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Rodriguez, Susan (CONTR)

From:	Scherman, William S. <WScherman@gibsondunn.com>
Sent:	Thursday, March 29, 2018 7:23 AM
To:	McCormack, Brian
Subject:	Fw: FE - Stamped Copy of 202(c) Application
Attachments:	2018.03.29 - FES 202(c) Application (Stamped).pdf

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US Department of Energy

3/29/2018

APR 13 2018

Electricity Delivery and
Energy Reliability

March 29, 2018

VIA COURIER

The Honorable James Richard Perry
Secretary of Energy
United States Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

Re: Request for Emergency Order Pursuant to Federal Power Act Section 202(c)

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),[1] Section 301(b) of the Department of Energy ("DOE") Organization Act,[2] and certain of the DOE's Rules of Practice and Procedure,[3] FirstEnergy Solutions Corp. ("FirstEnergy Solutions"), on behalf of its named subsidiaries ("Applicants"),[4] respectfully requests that the Secretary of Energy ("Secretary") find that an emergency condition exists in the footprint of the PJM Interconnection, L.L.C. ("PJM") that requires immediate intervention by the Secretary, in the form of a Section 202(c) emergency order directing: (a) certain existing nuclear and coal-fired generators in PJM,[5] as detailed herein, to enter into contracts and all necessary arrangements with PJM, on a plant-by-plant basis, to generate, deliver, interchange, and transmit electric energy, capacity, and ancillary services as needed to maintain the stability of the electric grid and (b) PJM to promptly compensate at-risk merchant nuclear and coal-fired power plants for the full benefits they provide to energy markets and the public at large, including fuel security and diversity, as detailed herein.

PJM has done little to prevent this emergency despite the numerous signs for many years that the emergency was coming. Nuclear and coal-fired generators in PJM have been closing at a rapid rate[6]—putting PJM's system resiliency at risk—and many more closures have been

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[1] 16 U.S.C. § 824a(c).

[2] 42 U.S.C. § 7151(b).

[3] 10 C.F.R. §§ 205.370-205.373.

[4] The named subsidiaries are: FirstEnergy Generation, LLC, FirstEnergy Nuclear Generation, LLC, FirstEnergy Nuclear Operating Company, and FirstEnergy Generation Mansfield Unit 1 Corp. The foregoing entities are all wholly owned subsidiaries of FirstEnergy Solutions Corp. which, in turn, is a wholly owned subsidiary of FirstEnergy Corp., a publicly-traded, utility holding company headquartered in Akron, Ohio.

[5] A list of the nuclear and coal-fired generating plants in PJM believed to be currently operating is provided as Attachment A hereto. As explained in Section II.F, only a subset of these plants would be subject to the requested Order.

[6] In the past four years, over 11,000 MW of coal-fired generation within the PJM footprint has closed, the equivalent of a dozen large power plants. MONITORING ANALYTICS, LLC, 2017 STATE OF THE MKT. REPORT FOR

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announced.[7] PJM continues to claim that all is well with its system,[8] but at the same time shows it does not have a clear view of what resilience is, how to measure it, or how to ensure it.[9] PJM has demonstrated little urgency to remedy this problem any time soon[10]—so immediate action by the Secretary is needed to alleviate the present emergency.

I. BACKGROUND AND SUMMARY

It is in the national interest to ensure a dependable, affordable, safe, fuel-secure, and clean supply of electricity produced by a diverse array of energy resources, including coal, natural gas, nuclear material, flowing water, and renewable resources. Such diversity of generation enhances dependable and resilient electric supply, reduces electricity price volatility, ensures the Nation's economic and physical security, and promotes economic development. As you stated recently, "America's greatness depends on a reliable, resilient electric grid powered by an 'all of the above' mix of generation resources" that "must include traditional baseload generation with on-site fuel storage that can withstand major fuel supply disruptions caused by natural and man-made disasters."[11] Indeed, "[o]ur economy, government and national defense all depend on electricity. Therefore, ensuring a reliable and resilient electric supply and corresponding supply chain are vital to national security."[12]

PJM, VOL. 2: DETAILED ANALYSIS 544 tbl.12-5 (Mar. 8, 2018), (listing coal unit retirements of 2,239 MW, 7,064.8 MW, 243 MW, and 2,038 MW in 2014, 2015, 2016, and 2017, respectively) http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml ("2017 PJM Report").

[7] *See* Section II.B, *infra*.

[8] *See, e.g.*, Comments and Responses of PJM Interconnection, L.L.C. at 4, *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, FERC Docket No. AD18-7-000 (Mar. 9, 2018) ("To be clear, the PJM [Bulk Electric System ("BES")] is safe and reliable today – it has been designed and is operated to meet all applicable reliability standards. However, improvements can and should be made to make the BES more resilient against known and potential vulnerabilities and threats. In many cases, resilience actions are anchored in, but go beyond what is strictly required for compliance with, the existing reliability standards.") ("PJM Comments"); Initial Comments of PJM Interconnection, L.L.C. on the United States Department of Energy Proposed Rule at 25, *Grid Reliability and Resilience Pricing*, FERC Docket No. RM18-1 (Oct. 23, 2017) ("[T]he performance of the PJM system in response to incredibly taxing events like the 2014 Polar Vortex demonstrate the reliability and resilience of the system created by effective transmission planning and development and the energy and capacity markets.").

[9] *See, e.g.*, PJM Comments at 3-4. *Contrast* Response of the New York System Operator, Inc. at 1, *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, FERC Docket No. AD18-7-000 (Mar. 9, 2018) (referring to "efforts already underway (or being considered) to ensure continued reliable operation and bolster resiliency in response to the evolving nature of the bulk power system in New York").

[10] PJM indicates that it will follow any FERC mandate to study the resiliency issue and, *if* changes are needed, pursue solutions. PJM Comments at 5-6. But the emergency exists presently, not in the future, and immediate action is needed *now*, not more time to study.

[11] Letter from Rick Perry, U.S. Sec'y of Energy, to Chairman & Comm'rs of FERC at 1 (Sept. 28, 2017) ("Secretary NOPR Letter").

[12] *Id.* at 2.

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The Nation depends heavily on a steady and dependable supply of electricity at all times. Electricity both figuratively and literally powers the Nation—its homes, its businesses, its industries, government buildings, and defense installations. Electricity is thus vital not only to the health, safety, and welfare of the Nation, but also to its economic and physical well-being. Our adversaries understand this too. As explained by Dr. Paul Stockton, former Assistant Secretary of Defense, the Nation's adversaries "may seek to disrupt U.S. defense capabilities by attacking the critical infrastructure on which our military bases rely. . . . The power grid and fuel supplies for power generation are potential targets for these adversaries."[13] The importance of the electric grid and its fuel supply network to our Nation's well-being cannot be overstated.

Yet, as DOE is undoubtedly aware, threats to the Nation's power supply and grid are real and can no longer be ignored. The Nation's security is jeopardized if DOE does not act now to preserve fuel-secure generation and the diversity of supply.[14] The very diversity of supply that baseload nuclear and coal-fired units provide is being lost more and more each day as more and more of these plants retire because their fuel security and resiliency are not properly recognized and valued by the current administrative market rules. Rather, we, as a Nation, "need to properly recognize the value of each resource, being mindful of its role in our national defense [and] economic security" and, in this regard, "account for the value of on-site fuel storage capability" of nuclear and coal-fired generating resources.[15] To this effect, immediate action is needed to ensure that such traditional baseload generation receives compensation commensurate with the value it provides to the Nation and thus remains in service and available to power the Nation in times of need. As you have noted, "urgent action must be taken to ensure the resilience and security of the electric grid, which is so vitally important to the economic and national security of the United States."[16]

The recent cold weather in the East has provided a real-time, real-life demonstration as to why immediate action is so critical to ensure the health and safety of the Nation. From December 27, 2017, through January 8, 2018, the eastern U.S. saw extremely cold temperatures and spiking electric demand, which would likely have been far worse had it occurred only two weeks later after the holiday season ended. If not for the over-performing nuclear and coal-fired generating plants in PJM,[17] the eastern portion of the country would likely have seen grid reliability impacts,

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[13] Comments of Exelon Corp., Testimony of Paul Stockton at 5-6, *Grid Reliability and Resilience Pricing*, FERC Docket No. RM18-1-000 (Oct. 23, 2017).

[14] Secretary NOPR Letter at 8 ("If, for example, we lose our educated workforce or no longer have the ability to build and operate our baseload plants because of short-sighted policies, it will not only weaken our workforce, but will threaten our energy dominance and national security.").

[15] *Id.*

[16] Letter from Rick Perry, U.S. Sec'y of Energy, to Kevin McIntyre, Chairman, FERC at 2 (Dec. 8, 2017) ("Secretary Extension Letter").

[17] *See, e.g.*, Tim Loh, Chris Martin & Naureen S. Malik, *America's Deep Freeze is Aiding Coal and Sending Power Up*, BLOOMBERG (Dec. 28, 2017), https://www.bloomberg.com/news/articles/2017-12-28/america-s-deep-freeze-is-aiding-coal-and-sending-power-surging ("In the PJM market . . . coal has once again surged past natural gas to become the biggest fuel for power generation."); Tiffany Hsu, *Deep Freeze in U.S. Creates Heating Squeeze for Homeowners and Utilities*, N.Y. TIMES (Jan. 3, 2018),

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as natural gas plants significantly underperformed in large part due to natural gas price spikes and supply interruptions.[18] As a recent DOE study of this cold weather event found (the "NETL Report"), nuclear and coal-fired generation provided 70 percent of output during the event and "coal units in PJM were uniquely positioned to provide the resilience needed at this critical point in time," providing "74 percent of incremental energy."[19] The study went on to conclude that:

> *In the case of PJM, it can also be shown that the demand could not have been met without coal.* At peak demand, January 5, 2018, natural gas prices exceeded $95/MMBtu in eastern PJM. Had coal been removed, a 9-18 GW capacity shortfall would have developed, depending on assumed imports and generation outages, leading to system collapse.[20]

As the report stated, "[e]xperience with such blackouts indicates the potentially enormous toll in both economic losses and human suffering associated with widespread lack of electricity."[21]

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https://www.nytimes.com/2018/01/03/business/heating-homeowners-winter.html (noting that due to high heating demand, "[m]any utilities turned to coal and oil to generate electricity as the price of natural gas, their usual fuel of choice, surged"); Jeremiah Shelor, *Extreme Cold Drives Record-Setting Week in NatGas Cash; Futures See Warm-Up Ahead*, NATURAL GAS INTELLIGENCE (Jan. 5, 2018), http://www.naturalgasintel.com/articles/112977-extreme-cold-drives-record-setting-week-in-natgas-cash-futures-see-warm-up-ahead ("With blizzard conditions arriving late in the week along the East Coast just in time to pile on after recent bitterly cold temperatures, natural gas spot price blowouts ran rampant . . . . The conditions driving the exorbitant cash prices appeared to be a perfect storm of widespread weather-driven demand and pipeline constraints."); PJM INTERCONNECTION, PJM COLD SNAP PERFORMANCE DEC. 28, 2017 TO JAN. 7, 2018 13 & fig.10 (Feb. 26, 2018), *available at* http://www.pjm.com/-/media/library/reports-notices/weather-related/20180226-january-2018-cold-weather-event-report.ashx (reporting that nuclear and coal generation combined constituted 63% of the online fuel mix during the 2018 cold snap) ("PJM COLD SNAP PERFORMANCE 2018").

[18] *See, e.g.*, Naureen S. Malik, *Blizzard Triggers 60-Fold Surge in Prices for U.S. Natural Gas*, BLOOMBERG (Jan. 4, 2018), https://www.bloomberg.com/news/articles/2018-01-04/natural-gas-in-u-s-soars-to-world-s-priciest-as-snow-slams-east; *Cold Weather, Higher Exports Result in Record Natural Gas Demand*, ENERGY INFO. ADMIN. ("EIA") (Jan. 5, 2018), https://www.eia.gov/todayinenergy/detail.php?id=34412 (noting record natural gas demand due in part to recent cold weather); PJM COLD SNAP PERFORMANCE 2018 at 16 (concluding that "[g]as supply issues were the largest" cause of forced outages due to fuel supply issues during the 2018 cold snap, "particularly the weekend of Jan. 6 and Jan. 7, as temperatures reached their lowest points," and that supply issues "include transportation restrictions and interruptions as well as spot gas commodity availability").

[19] NAT'L ENERGY TECH. LAB., RELIABILITY, RESILIENCE AND THE ONCOMING WAVE OF RETIRING BASELOAD UNITS VOLUME I: THE CRITICAL ROLE OF THERMAL UNITS DURING EXTREME WEATHER EVENTS 12 (Mar. 13, 2018) ("NETL Report"), *available at* https://www.netl.doe.gov/research/energy-analysis/search-publications/vuedetails?id=2594. To the extent necessary, Applicants incorporate the NETL Report by reference as if it were filed in full as an attachment to this Application. The findings in the NETL Report fully support the Secretary determining that an emergency exists within the meaning of FPA Section 202(c) that warrants immediate action.

[20] *Id.* at 17 (emphasis added).

[21] *Id.* at 3.

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Overall, DOE estimated that "the value of [coal- and oil-]based power generation resilience" in PJM during this cold weather event was $3.5 billion.[22]

But this is not the first time nuclear and coal-fired generation has saved PJM. In January 2014, a "Polar Vortex" spiked customer demand, dropping system reserves in PJM to just 500 MW (on a demand of over 140,000 MW).[23] PJM calculated that 9,300 MW of generation was unavailable during this event due to interruptions in the natural gas supply to generators.[24] While this loss of generating capacity could have been catastrophic, multiple coal-fired generating units slated for retirement were dispatched to meet electric demand[25] and nuclear generators also "performed extremely well."[26] "Sixty-five million people within the PJM footprint could have been affected if these traditional baseload units were not available."[27]

Combined, the Polar Vortex and this past winter's extreme cold have shown the value that nuclear and coal-fired generators bring to the electric grid. Just as temperatures plummeted during these periods, the output of nuclear and coal-fired generators spiked. Specifically, during the period December 26, 2017, through January 6, 2018, coal-fired and nuclear generation in PJM averaged output levels of 46,038 MW and 35,485 MW, respectively.[28] These levels are over 50 percent greater than the average output of coal-fired generation during the 24 months ending September 2017 (of 29,849 MW) and over 10% greater than the average output of nuclear generation during those 24 months (of 32,167 MW).[29] Further, the output levels of coal-fired generators over this 12-day period are well above historical January levels, which tend to see the highest average outputs of such units of any months of the year.[30] By any measure, the output of coal-fired and nuclear generating facilities in PJM was exceptional over these recent 12 days.

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[22] *Id.* at 1, 16.

[23] PJM INTERCONNECTION, ANALYSIS OF OPERATIONAL EVENTS AND MARKET IMPACTS DURING THE JANUARY 2014 COLD WEATHER EVENTS 4 (May 8, 2014), *available at* http://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

[24] *Id.* at 26.

[25] Secretary NOPR Letter at 3.

[26] *See id.* (citing U.S. DEP'T OF ENERGY, STAFF REPORT TO THE SECRETARY ON ELECTRICITY MARKETS AND RELIABILITY 95 (Aug. 2017) ("Staff Report")).

[27] Secretary NOPR Letter at 3.

[28] *See Generation by Fuel Type*, PJM INTERCONNECTION, http://dataminer2.pjm.com/feed/gen_by_fuel.

[29] *See* PJM INTERCONNECTION, STATE OF THE MARKET REPORTS FOR 2012 THROUGH Q3 2017, http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2018.shtml (as converted from GWh to MW).

[30] Specifically, during the three Januarys from 2015 to 2017, coal-fired generation in PJM averaged output of 37,234 MW (and nuclear generation averaged 34,845 MW). *See id.*

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The chart below illustrates the spike in nuclear and coal-fired output over this period.[31] Notably, coal- and oil-fired generation spiked, and nuclear generation rose materially, but gas-fired generation dropped, not only from its average output levels but even from levels seen only a few days prior. As Andrew Ott, PJM's President and CEO, recently testified:

> [D]uring this recent cold weather event, obviously more than half of the total supply was coal and nuclear. Certainly, [PJM] couldn't survive without gas; [PJM] couldn't survive without coal; [PJM] couldn't survive without nuclear. [PJM needs] them all in the moment. And I think the key, and what [PJM is] focused on, is each of these bring to the table reliability characteristics. Each of these was online when [PJM] needed them.[32]

The strong performance of the nuclear and coal-fired units in PJM was a needed counterbalance to the situation for gas-fired units. Specifically, during the cold snap, dramatic price increases were seen in natural gas prices; including for example a spike in PJM at the Texas Eastern M3 interface, in Southeastern Pennsylvania, from a normal level near $3/MMBtu to $96/MMBtu.[33] Further, "in eastern PJM . . . gas and electric transmission were severely constrained, leading to . . . elevated natural gas and electricity prices across [the] region."[34] The price increases would have been even more dramatic but for the over performance of nuclear and coal-fired units.

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[31] *See Generation by Fuel Type*, PJM INTERCONNECTION, http://dataminer2.pjm.com/feed/gen_by_fuel. This chart excludes March 29, March 30, and April 2, 2017 because no data was reported for those dates.

[32] Press Release, Sen. Lisa Murkowski, Hearing Spotlights Importance of Energy Infrastructure, Diverse Fuel Mix (Jan. 23, 2018) (quoting Andrew Ott), https://www.murkowski.senate.gov/press/release/hearing-spotlights-importance-of-energy-infrastructure-diverse-fuel-mix.

[33] NETL Report at 14.

[34] *Id.* at 6. *See also id.* at 7 (showing a four-fold increase in daily load weighted average marginal electricity price in PJM between December 30, 2017 and January 6, 2018).

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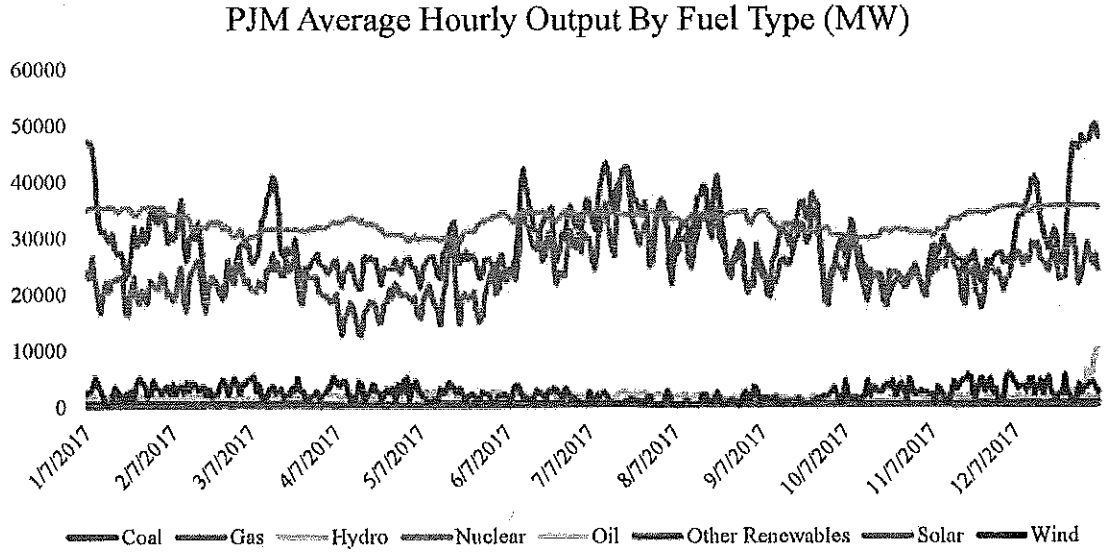

But the very same nuclear and coal-fired power plants that allowed PJM to maintain reliability during these extreme weather events are at imminent risk of permanent closure if something is not done ***now***. The Energy Information Administration "projects 41 GW of coal and 10 GW of nuclear retirements by 2025," but, as the NETL Report notes, this projection does not "adequately capture[] the risk" of retirements.[35] The report further projects that "as much as 75 GW of coal-fired generation could be retired" by 2025, and notes that another source estimates between "30 and 50 GW of nuclear could face retirement."[36] Without these plants, thousands if not millions of customers could have been without power during sub-zero degree temperatures. And absent immediate and decisive action by DOE, the 11,000 MW of nuclear and coal-fired generation that have kept PJM operating during this period will begin to retire ***in the very near future***. As Andrew Ott, PJM's President and CEO, recently testified, 1,410 MW of nuclear capacity and 3,688 MW of coal-fired capacity that operated during the recent cold snap in the eastern U.S. are scheduled to deactivate within the next five years.[37] This testimony is consistent with the NETL Report's finding that:

> The 30 GW of coal that ramped up to meet the surge in PJM load [during the recent cold weather event] clearly includes the units most likely to retire due to insufficient market support, given those units were not running at baseload levels before the event. As more of

[35] NETL Report at 25.

[36] *Id.* at 30.

[37] U.S. Sen. Comm. on Energy and Nat. Res., *The Performance of the Electric Power System in the Northeast and Mid-Atlantic During the Recent Winter Weather Events, Including the Bomb Cyclone*, Questions for the Record Submitted to Mr. Andrew Ott, Response to Question 2 from Sen. Mike Lee (Jan. 23, 2018).

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> these units retire, the ability of the system to respond to extreme events with reliance, let alone economically, deteriorates.[38]

Further, it is a matter of public record that FirstEnergy Solutions, which through Applicants indirectly owns 12,300 MW of generation, likely will file for bankruptcy by the end of March 2018.[39] Indeed, Charles Jones, CEO of FirstEnergy Corp., recently stated that he would be "shocked" if FirstEnergy Solutions did not file soon.[40] FirstEnergy Solutions already submitted notice to PJM that it would deactivate its nuclear assets—Davis-Besse and Perry in Ohio and Beaver Valley in Pennsylvania—in 2020 and 2021.

"Distorted price signals" in the organized markets overseen by the Federal Energy Regulatory Commission ("FERC"), such as PJM, "have resulted in under-valuation of grid reliability and resiliency benefits provided by traditional baseload resources, such as [those powered by] coal and nuclear" fuel.[41] As you have recognized, "[b]ecause wholesale pricing in those markets does not adequately consider or accurately value those benefits, generation units that provide the benefits are often not fully compensated for them."[42] The NETL Report similarly summarized the problem: "Markets do not currently compensate resilience, and thus that capability is steadily diminishing due to competitive pressures of ongoing, baseload power plant early retirements."[43]

This lack of appropriate compensation, among other things, has resulted in the Nation's nuclear and coal-fired generation closing at an alarming and unprecedented rate. For example "between 2002 and 2016, 531 coal[-fired] generating units representing approximately 59,000 MW of generation capacity retired from the U.S. generation fleet."[44] In addition, "[i]t is anticipated that approximately 12,700 MW of coal[-fired generation] will retire through 2020."[45] Further, "between 2002 and 2016, 4,666 MW of nuclear generating capacity was announced for

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[38] NETL Report at 18.

[39] Gavin Bade, *FirstEnergy CEO Says Generation Subsidiary Headed for Bankruptcy Protection*, UTILITY DIVE (Feb. 23, 2018), https://www.utilitydive.com/news/firstenergy-ceo-says-generation-subsidiary-headed-for-bankruptcy-protection/517743/; Jeffrey Ryser, *FirstEnergy Continues Push Away from Competitive Generation Subsidiary*, PLATTS MEGAWATT DAILY (Feb. 22, 2018).

[40] Recording of Fourth Quarter 2017 Earnings Webcast, FIRSTENERGY (Feb. 21, 2018), https://services.choruscall.com/links/fe180221.html (Mr. Jones stating, at 25:18, "Well, I said in my prepared remarks that I expect that [FES] will be removed from the unregulated money pool between now and the end of March, and that will be the last tie that we have with that business. While I can't speak for FES, I will be shocked if they go beyond the end of March without some type of a filing.").

[41] Secretary NOPR Letter at 1.

[42] *Id.* at 3.

[43] NETL Report at 3.

[44] Secretary NOPR Letter at 2 (citing Staff Report at 22).

[45] *Id.* (citing EIA, *Monthly Update to the Annual Electric Generator Report*, Form EIA-860m (June 2017), https://www.eia.gov/electricity/data/eia860m/).

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retirement" and "[e]ight reactors representing 7,167 MW of nuclear capacity . . . have announced retirement plans since 2016."[46]

These retirements must stop immediately in PJM lest the grid be placed at risk of failure through a lack of generation diversity and over-reliance on generating units that lack secure fuel supply and often compete with other industries and customers for limited firm fuel delivery capabilities. As your staff found, "fuel supply chain disruptions can impact many generators during a single widespread fuel shortage event," but "[n]uclear and coal[-fired power] plants typically have advantages associated with onsite fuel storage. . . ."[47] Such generating units with on-site storage capacity kept PJM from shedding load during the 2014 Polar Vortex when available generating capacity was only a hair's width more than demand. And such units have been critical to keeping the grid supplied during the severe cold weather in the East this past winter. But the continued existence of such fuel-secure, baseload units cannot be taken for granted. Unless immediate action is taken, they will continue to retire and PJM and the Nation are likely not to be so lucky as to avoid load-shedding (or worse) the next time generation supply is stretched to its limit.

FERC has for several years failed to heed this warning and to act to prevent this impending crisis. Indeed, FERC has had the opportunity to prevent this crisis on numerous occasions, including the opportunity you provided it through your Notice of Proposed Rulemaking ("NOPR") issued pursuant to FPA Section 403.[48] Although you granted FERC's request to extend the NOPR proceeding, you stated that you would continue to examine "all options within [your] authority under the *Department of Energy Organization Act*, the *Federal Power Act*, and any other authorities to take remedial action as necessary to ensure the security of the nation's electric grid."[49]

Despite the fact that the time for such remedial action has come, FERC terminated your rulemaking proceeding and chose instead merely to study the issue further.[50] And although FERC acknowledged that "resilience remains an important issue that warrants the Commission's continued attention,"[51] it dismissed evidence establishing the threat to resilience posed by the

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[46] *Id.* at 3 (citing Staff Report at 29-30).

[47] Staff Report at 91. *See also* NETL Report at 14 ("As for natural gas-fired electricity generation, two significant constraints inhibit its fuel resilience contribution during extreme weather events . . . . Most importantly, demand from competing sectors, especially from residential and commercial space heating, takes priority over electricity for natural gas use, limiting and even diminishing the capacity potential for natural gas-based electricity. Compounding this constraint is that of pipeline capacity. Even though abundant natural gas may be available, it must flow through the same limited pipeline capacity already delivering to increased heating demand.").

[48] *See generally* Secretary NOPR Letter. *See also* NETL Report at 3 ("The need for reasonable compensation to maintain resilient capacity to endure such periodically-certain threats to the nation formed the basis of [DOE's] resilience compensation proposal to [FERC].").

[49] Secretary Extension Letter at 2 (italics in original).

[50] *Grid Reliability and Resilience Pricing et al.*, 162 FERC ¶ 61,012 (2018).

[51] *Id.* at P 13.

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imminent loss of additional nuclear and coal-fired generation and found instead that "the extensive comments submitted by the [regional transmission organizations and independent system operators ("RTOs/ISOs")] do not point to any past or planned generator retirements that may be a threat to grid resilience."[52] Further, FERC concluded that it lacked the legal authority to act on your proposed rule for lack of a showing that current rules were unjust or unreasonable.[53]

FERC's response was disappointing. FERC's reliance on comments by RTOs/ISOs—the very entities that preside over the flawed markets—is misplaced.[54] More fundamentally, FERC's decision to study the issue further is too little, too late. As Commissioner Chatterjee noted, "[m]ajor regulatory reform efforts often can take several years to complete."[55] The record before FERC, however, demonstrated that the time to act is now. Multiple commenters expect that the trend of premature, economic retirement of nuclear and coal-fired generators will continue if left unaddressed.[56] Indeed, seven nuclear units (representing 10,500 MW of nameplate capacity) are planning to retire by 2025.[57] And owners of other nuclear units have stated publicly that they do not intend to invest further in their nuclear units unless and until their host states pass legislation that subsidizes the units.[58]

Even more troubling is that PJM has followed FERC's lead and decided to kick the can down the road on this critical issue. In its Comments and Responses to FERC's initiation of a new proceeding on grid resilience, PJM concludes that its bulk electric system "is safe and reliable today—it has been designed and is operated to meet all applicable reliability standards."[59] While PJM acknowledged that "generation and other resources" supply essential attributes that support reliability and that "the maintenance or assurance of these attributes into the future are important to resilience mitigation," PJM has committed to nothing more than further study of the issue.[60] And PJM's position is all the more questionable in light of its admission that it does not conduct

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[52] *Id.* at P 15.

[53] *Id.* at P 14 ("For the reasons discussed below, the Proposed Rule did not satisfy those clear and fundamental legal requirements under section 206 of the FPA. Given those legal requirements, we have no choice but to terminate Docket No. RM18-1-000.").

[54] Among other justifications for taking no action, FERC noted that the RTOs, and the industry more generally, do not have a clear definition or understanding of the resilience issue. *Id.* at P 22. As such, FERC's decision to take no action was based on incomplete information.

[55] *Id.* at Chatterjee Concurrence.

[56] *Id.*

[57] *Id.*

[58] Public Service Enterprise Group Inc., SEC Form 8-K, at 2 (Feb. 28, 2018).

[59] PJM Comments at 4.

[60] *Id.* at 46 ("PJM will need to continue to conduct analysis of the anticipated future availability of these attributes so that it can proactively address the maintenance of these attributes through the markets. PJM will also consider the operational lessons learned from other RTOs in regard to resource mix and essential resource attributes to continue to analyze future trends in resource mix and their impacts on both reliability and resilience.").

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system planning or operations subject to formal resilience criteria, and that it would need additional FERC authorization in order to do so.[61]

PJM's conclusion misses the point. As you noted, "urgent action must be taken to ensure the resilience and security of the electric grid."[62] It is insufficient and wholly illogical to say that action is not needed going forward because PJM meets today's reliability criteria. PJM's comments demonstrate that it has yet to identify and measure resilience, much less taken steps to preserve the resilience of its electric grid.[63] Indeed, many of PJM's requests to the Commission do nothing more than pass the buck back to FERC on this critical issue.[64]

Further, PJM's requests for action "to enhance resilience of the grid and interrelated systems"[65] will not address your concerns regarding the resilience and security of the Nation's electric grid. These requests, which call for additional FERC proceedings and RTO/ISO filings, in some cases require no action by any party for nine to twelve months *after the conclusion of the current FERC proceeding* and will do nothing to stem the tide of premature nuclear and coal-fired plant closures in the interim.[66] This is particularly alarming because PJM acknowledges that its Capacity Performance changes have failed to produce a long-term solution "to meet the ever-growing demand for gas transportation by the generation sector."[67] Indeed, natural gas availability

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[61] *Id.* at 33-34.

[62] Secretary Extension Letter at 2.

[63] *See, e.g.*, PJM Comments at 37 ("Because PJM does not have formal resilience criteria, PJM adapts existing analyses . . . to derive conclusions about the ability of the PJM BES to withstand a high-impact, low-frequency event, and is working with stakeholders to determine how best to incorporate resilience into PJM's planning process and what criteria should be used."); *id.* at 66 ("RTO wholesale electricity, Ancillary Service markets, capacity markets, and shortage pricing mechanisms were not originally designed specifically with resilience in mind.").

[64] *See, e.g., id.* at 5 (requesting that FERC "[a]rticulate in this docket that the regional planning responsibilities of RTOs . . . includes an obligation to assess resilience"); *id.* (requesting that FERC "[e]stablish a Commission process . . . that would allow an RTO to receive verification as to the reasonableness of its assessments of vulnerabilities and threats").

[65] *See* PJM Comments at 5-8.

[66] *See, e.g., id.* at 6 ("Request that all RTOs . . . submit a subsequent filing . . . to implement resilience planning criteria, and develop processes for the identification of vulnerabilities, threat assessment and mitigation, restoration planning, and related process or procedures needed to advance resilience planning."); *id.* ("Request that all RTOs . . . submit a subsequent filing, including any necessary proposed tariff amendments, for any proposed market reforms and related compensation mechanisms to address resilience concerns within nine to twelve months from the issuance of a Final Order in this docket.").

[67] *Id.* at 57-58 ("Although PJM was hoping that the Capacity Performance changes would spur a corresponding array of new service offerings by pipelines (and generators seeking such options), at least on the public record such new pipeline services have not been offered as new open season requests . . . . [N]ew flexible services, to the extent they have been offered, appear to have been confined to the secondary market in which available gas from LDCs or industrial customers is made available, for a price, on the non-transparent bilateral secondary market. Although this is an effective short term strategy to 'move around' available capacity and take advantage of diversity in demand, it cannot, in the long run, serve as the sole means to meet the ever-growing demand for gas transportation by the generation sector."). PJM's admission that the Capacity Performance program fell short

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during the recent cold weather in the eastern U.S. has prompted PJM to consider enacting emergency operational cost procedures for use when emergency conditions affect the grid or gas pipeline system.[68] PJM's efforts to "to engage interstate pipelines and LDCs to review gas pipeline contingencies"[69] similarly have failed to produce a long-term solution.

The lack of protection for at-risk nuclear and coal-fired plants during this time actually undermines the effectiveness of other PJM requests. For example, PJM requests that FERC require it to file proposed tariff amendments "to permit non-market operations during emergencies," which "could includ[e] provisions for cost-based compensation when the markets are not operational or when a wholesale supplier is directed to take certain emergency actions by PJM for which there is not an existing compensation mechanism."[70] FERC's and PJM's inaction, however, has significantly increased the risk that the very plants needed to take these emergency actions will have shuttered by the time PJM files and FERC approves these tariff provisions.

These events demonstrate that, absent immediate intervention by the Secretary, nuclear and coal-fired plants will continue to retire prematurely. In view of this regulatory failure, and as further detailed herein, Applicants seek action from the Secretary to ensure the continued operation of baseload nuclear and coal-fired power plants in PJM. Such immediate action is necessary to address an emergency in the bulk power system overseen by PJM and to serve the public interest by preventing power disruptions and system blackouts. Absent such an order, health care facilities, emergency services, and other critical infrastructure could be without power affecting portions of the 65 million people that reside within the PJM footprint.

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contrasts sharply with its prior assurances to FERC that the Capacity Performance program would result in firm fuel supply. PJM Interconnection, L.L.C., Reforms to the Reliability Pricing Market ("RPM") and Related Rules in the PJM Open Access Transmission Tariff ("Tariff") and Reliability Assurance Agreement Among Load Serving Entities ("RAA") at 53, FERC Docket No. ER15-623-000 (Dec. 12, 2014) ("Capacity Market Sellers that now will face more harsh financial consequences for a failure to perform during emergencies (with no limit on when such emergencies arise) will likely need to invest in plant design changes or new equipment, or increase operating budgets to accommodate more staff, firm fuel delivery arrangements, greater inventories, or changed operating practices.").

[68] Jared Anderson, *PJM Mulls Emergency Operational Cost Issues*, PLATTS MEGAWATT DAILY (Jan. 10, 2018).

[69] PJM COLD SNAP PERFORMANCE 2018 at 21-22.

[70] PJM Comments at 6.

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II. APPLICATION FOR EMERGENCY ORDER

In the United States, RTOs work to ensure the operation and security of the bulk electric power system. PJM operates the electric grid and centralized electricity markets in all or part of 13 different states and the District of Columbia,[71] overseeing over 178,000 MW of installed capacity and serving approximately 65 million people.[72] Over half of PJM's generating capacity is nuclear and coal-fired generation,[73] and nearly one-quarter of the Nation's nuclear and coal-fired generating capacity is located within PJM.[74]

PJM's power markets, however, consistently fail to compensate nuclear and coal-fired generators for the full value of the benefits that they provide, such as fuel security and diversity. As stated by a former Commissioner of FERC, "I believe that fuel diversity is really key in ensuring reliability going forward, even in these dynamic times . . . . [I]t is imperative that we protect fuel diversity."[75] Such continued fuel diversity in PJM, however, is at risk.

PJM's independent market monitor recently found that between six and nine nuclear plants, with a total capacity of 7,058 MW to 14,027 MW, did not recover their avoidable costs—the costs to keep the generators operating—in two of the last three years.[76] Additionally, four nuclear plants, with capacity of 3,554 MW, are not expected to recover their annual avoidable costs on average from 2018 through 2020.[77] The market monitor similarly found that a "significant number of coal units are at risk of retirement" because 17,302 MW of coal-fired capacity is expected to receive less than 90 percent of its avoidable costs.[78] Overall, the market monitor found that, in addition to units currently planning to retire, between 22,929 MW and 30,785 MW of capacity in PJM,

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[71] PJM's territory includes all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. *Who We Are*, PJM, http://www.pjm.com/about-pjm/who-we-are.aspx (last visited Mar. 22, 2018); *PJM's Mission & Vision*, PJM, http://www.pjm.com/about-pjm/who-we-are/mission-vision.aspx (last visited Mar. 22, 2018).

[72] *Capacity by Fuel Type*, PJM (June 1, 2017), http://www.pjm.com/-/media/markets-ops/ops-analysis/capacity-by-fuel-type-2017.ashx?la=en; *Who We Are*, PJM, http://www.pjm.com/about-pjm/who-we-are.aspx (last visited Mar. 22, 2018).

[73] *Capacity by Fuel Type*, PJM (June 1, 2017) (showing nuclear and coal-fired generation represent 19% and 33% of PJM's installed generation capacity, respectively).

[74] *Compare id.* (showing that nuclear and coal-fired generation represent 33,992 MW and 59,835 MW of PJM's installed generation capacity, respectively), *with Preliminary Monthly Generator Inventory*, EIA (June 2017), https://www.eia.gov/electricity/data/eia860m/ (showing, when filtered by "Technology," 284,439 MW of conventional steam coal generator nameplate capacity and 104,628 MW of nuclear generator nameplate capacity as of June 2017 nationwide).

[75] *Oversight of the Federal Energy Regulatory Commission: Hearing Before the Subcomm. on Energy and Power*, 114th Cong., Prelim. H'rg Tr. at 54 (2015) (testimony of Colette D. Honorable, Commissioner, FERC).

[76] 2017 PJM Report at 2.

[77] *Id.*

[78] *Id.*

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primarily from nuclear and coal-fired generation, is at risk of retirement.[79] In fact, the market monitor found that over 90 percent of the "at-risk" generation in PJM was either nuclear or coal-fired.[80] But new nuclear and coal-fired generation will not replace this lost capacity because, as the market monitor found, "[i]n 2017 . . . a new coal plant and a new nuclear plant would have been significantly unprofitable."[81]

By contrast, nearly all oil, natural gas, hydroelectric, and pumped storage generators recovered fully their avoidable costs in 2017.[82] This marked difference is a result of the fact that nuclear and coal-fired units are baseload plants. As such, they are designed to run "24/7" on a consistent basis with 25 days of on-site fuel availability (when running "full bore"), making them the backbone of the electric system.[83] PJM's energy market, though, is designed not to consider or incentivize operational diversity, fuel security, or system resiliency. Rather, it dispatches generation units based only on short-term marginal price without regard for the fixed costs of the facility, or the firmness of its fuel supply or transportation. Specifically, PJM uses a reliability-constrained least-cost model to dispatch the lowest-cost units required to satisfy electricity demand.[84] But because nuclear and coal-fired units are designed to run continuously, they often continue to operate through lower-priced periods—such as the middle of the night—sometimes requiring them to sell their electricity output at a loss. This is particularly true in states with large amounts of wind-powered generation, as wind tends to generate at its peak overnight when electricity demand is low.[85] The unavoidable requirement to operate during lower-priced periods places significant financial strain on baseload units such as nuclear and coal-fired generators that are not properly compensated in the existing markets.[86] All indications are that these trends will continue.

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[79] *Id.*

[80] *Id.* at tbl.7-36.

[81] *Id.* at 6.

[82] *Id.* at tbl.7-30.

[83] *See* N. AM. ELEC. RELIABILITY CORP., POLAR VORTEX REVIEW 36-37 (Sept. 2014), http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf ("[A] growing dependence on gas-fired generation can increase the [bulk power system's] exposure to disruptions from insufficient fuel supply, transportation, and delivery. . . . Unlike coal and fuel oil, natural gas is not easily stored on site."). *Cf.* PJM INTERCONNECTION, PJM'S EVOLVING RESOURCE MIX AND SYSTEM RELIABILITY 35 (Mar. 30, 2017) ("[R]ecent studies, including the Black Sky/Black Start Protection Initiative, suggest that 30 days of fuel inventory would be required to adequately respond to Black Sky type events.").

[84] *See Market for Electricity*, PJM, http://learn.pjm.com/electricity-basics/market-for-electricity.aspx (last visited Mar. 22, 2018).

[85] *See, e.g.*, Scott DiSavino, *Texas Power Demand to Hit 2016 Peak Amid Heat Wave: ERCOT*, REUTERS (Aug. 4, 2016), http://www.reuters.com/article/us-usa-texas-power-heatwave-idUSKCN10F202 (noting that wind generation in ERCOT "typically produce[s] most energy overnight").

[86] Markets only provide signals that lead to efficient decisions on the part of market participants if the markets "efficiently price all valuable services provided to the system." FirstEnergy Reply Comments, Ex. 1 ("Hunger Reply Aff.") at 9, *Grid Resiliency Pricing Rule*, FERC Docket No. RM18-1-000 (Nov. 7, 2017).

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PJM's market monitor cursorily dismissed this undeniable trend of nuclear and coal-fired generation retirements because of under-recovery, stating that "[m]any generating plants have retired in PJM since the introduction of markets and many generating plants have been built since the introduction of markets" and that "[t]he fact that some plants are uneconomic does not call into question the fundamentals of PJM markets."[87] This response is alarming to say the least. Nuclear and coal-fired generation provides substantial resilience and security benefits to the electric grid and to the Nation. Indeed, as the market monitor itself recognized, "[s]ignificant reliance on specific fuels, including nuclear, coal and gas means that markets are at risk from a significant disruption in any one fuel."[88] By treating the lost nuclear and coal-fired capacity the same as the non-nuclear and non-coal-fired capacity that has replaced it, the market monitor ignores the significant threat to the electric grid and the Nation's security posed by the loss of resilient, fuel-secure baseload generation.

As explained below, Applicants request that DOE determine that an emergency exists in PJM within the meaning of FPA Section 202(c) with respect to a threat to energy security and reliability, and thus direct the subject baseload nuclear and coal-fired generators to enter into contracts and all necessary arrangements with PJM, on a plant-by-plant basis, to generate, deliver, interchange, and transmit electric energy, capacity, and ancillary services to maintain fuel diversity and grid dependability and resiliency within the PJM region.

A. The Secretary's Authority Under Section 202(c) of the Federal Power Act

Section 202(c) of the Federal Power Act grants the Secretary the authority to determine "that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy,"[89] and, once such a determination is made, "to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [his] judgment will best meet the emergency and serve the public interest."[90]

The Secretary's authority and discretion under Section 202(c) is quite broad and is not limited to emergencies caused by war or limited in duration. Section 202(c) states that it may be invoked during times of war or during emergencies, and empowers the Secretary "whenever [he] determines that an emergency exists by reason of" certain specified market conditions "or other causes" to order actions "as in [his] judgment will best meet the emergency and serve the public interest."[91]

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[87] 2017 PJM Report at 2.

[88] *Id.* at 5.

[89] 16 U.S.C. § 824a(c)(1).

[90] *Id.*

[91] *Id.* The legislative history of Section 202(c) confirms this interpretation, explaining that in crisis conditions DOE should be "ready to do all that can be done in order to prevent a break-down in electric supply." S. Rep. No. 74-621, at 49.

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DOE's regulations define emergency broadly, stating that an emergency "can result from a sudden increase in customer demand, an inability to obtain adequate amounts of the necessary fuels to generate electricity, or a regulatory action which prohibits the use of certain electric power supply facilities."[92] In addition, the regulation also states that "[e]xtended periods of insufficient power supply as a result of inadequate planning or the failure to construct necessary facilities can result in an emergency . . . ."[93]

The current situation in PJM constitutes such an emergency.

B. An Emergency Exists Due to the Recent and Imminent Critical Reduction in Nuclear and Coal-Fired Generation Capacity

The Nation's bulk electric system is undergoing rapid change. As the DOE recently recognized, the provision of electricity provides various benefits that are not recognized or compensated by the markets created by these politically driven actions:

> Society places value on attributes of electricity provision beyond those compensated by the current design of the wholesale market.
>
> - Americans and their elected representatives value the various benefits specific power plants offer, such as jobs, community economic development, low emissions, local tax payments, resilience, energy security, or the national security benefits associated with a nuclear industrial base. Most of these benefits are not recognized or compensated by wholesale electricity markets.[94]

Indeed, the DOE's January 2017 Quadrennial Energy Review states that "[s]hort-run markets may not provide adequate price signals to ensure long-term investments in appropriately configured capacity" and "resource valuations tend not to incorporate superordinate network and/or social values such as enhancing resilience into resource or wires into investment decision making."[95] IHS Energy has found that, as a result of this "missing money" problem, "the loss of

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[92] 10 C.F.R. § 205.371.

[93] *Id.*

[94] Staff Report at 11.

[95] U.S. DEP'T OF ENERGY, TRANSFORMING THE NATION'S ELECTRICITY SYSTEM: THE SECOND INSTALLMENT OF THE QUADRENNIAL ENERGY REVIEW 4-41 (January 6, 2017), *available at* https://www.energy.gov/sites/prod/files/2017/02/f34/Quadrennial%20Energy%20Review--Second%20Installment%20%28Full%20Report%29.pdf.

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power supply diversity is accelerating because too many power plants are retiring before it is economic to do so."[96]

This market failure is reaching a crisis point. Dr. David Hunger, a former FERC Staff member and Vice President within the Energy Practice of Charles River Associates, found that "there were more [generator] retirements in the seven-year period from 2010 to 2016 (457 units) than in the 20-year period from 1990 to 2009 (358 units). Likewise, the quantity of nuclear and coal-fired generation capacity retired in 2010-2016 (68,540 MW nameplate) was more than double that in the prior 20 years, 1990-2009 (26,721 MW nameplate)."[97] As the DOE concluded, "[g]enerator profitability could become a public policy concern if so much generation is financially challenged that the reliability or resilience of the [bulk power system] become threatened."[98] The rash of nuclear and coal-fired generator closings and other recent events in PJM are evidence that it already is a public policy concern. But these are not the only warning signs.

January 2014 Polar Vortex in PJM: A severe cold snap spiked customer demand, dropping system reserves in PJM to just 500 MW (on a demand of over 140,000 MW).[99] PJM calculated that 9,300 MW of generation was unavailable during this event due to interruptions in the natural gas supply to generators.[100] While this loss of generating capacity could have been catastrophic, multiple coal-fired generating units slated for retirement were dispatched to meet electric demand[101] and nuclear generators also "performed extremely well."[102] "Sixty-five million people within the PJM footprint could have been affected if these traditional baseload units were not available."[103]

Extreme Cold in December 2017 and January 2018: From December 27, 2017, to January 8, 2018, the eastern U.S. saw extremely cold temperatures and spiking electric demand, which again illustrate how such weather impacts natural gas supply to electric generating units. Nuclear

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[96] IHS ENERGY, THE VALUE OF US POWER SUPPLY DIVERSITY 7 (July 2014), *available at* https://www.nei.org/CorporateSite/media/filefolder/Backgrounders/Reports-Studies/IHS-Fuel-Diversity-Study-18-July-2014.pdf?ext=.pdf.

[97] FirstEnergy Comments, Ex. 4 ("Hunger Aff.") at 22, *Grid Resiliency Pricing Rule*, FERC Docket No. RM18-1-000 (Oct. 23, 2017).

[98] Staff Report at 118. NERC has also classified the changing resource mix as a "high risk" issue for the electric grid. *See* N. AM. ELEC. RELIABILITY CORP., STATE OF RELIABILITY 2017 7 (June 2017), *available at* https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/SOR_2017_MASTER_20170613.pdf.

[99] PJM INTERCONNECTION, ANALYSIS OF OPERATIONAL EVENTS AND MKT. IMPACTS DURING THE JAN. 2014 COLD WEATHER EVENTS 4 (May 8, 2014), http://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

[100] *Id.* at 26.

[101] Secretary NOPR Letter at 3.

[102] Staff Report at 95.

[103] Secretary NOPR Letter at 3.

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and coal-fired plants out-performed natural gas plants during this period by a significant margin.[104] For example, on the morning of Friday, January 5, 2018, nuclear and coal-fired generators were running at 135% and 111% of their committed capacity in PJM's 2017-2018 capacity auction, whereas natural gas plants were running at merely 45% of their committed capacity.[105] In fact, while over 64,000 MW of gas-fired generation cleared in the 2017-2018 capacity auction, only approximately 29,000 MW were running that morning.[106] As the recent NETL Report on the cold weather event concluded, demand in PJM "could not have been met without coal."[107] These facts are quite telling, as much of this difference can be attributed to natural gas price spikes and supply interruptions.[108] While the PJM grid has not experienced load-shedding, thanks to lower electric demand over the holiday season and the performance of nuclear and coal-fired generators, this may not be the case during future extreme weather events if the trend of nuclear and coal-fired plant closures continues.[109]

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[104] *See* PJM COLD SNAP PERFORMANCE 2018 at 13 & fig.10 (showing that nuclear and coal-fired generation combined constituted 63% of the online fuel mix during the 2018 cold snap, while natural gas-fired generation constituted 22%).

[105] *See Data Miner 2*, PJM, http://www.pjm.com/markets-and-operations/etools/data-miner-2.aspx (when filtered to Generation by Fuel Type for 8 a.m. on January 5, 2018, showing nuclear and coal-fired output of 35,543 MW and 50,254.8 MW, respectively); *Commitments by Fuel Type & Delivery Year 2007/08 - 2019/20*, PJM, http://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/rpm-commitment-by-fuel-type-by-dy.ashx?la=en (last visited Mar. 22, 2018) (showing cleared UCAP for 2017-2018 planning year of 26,401 MW for nuclear generation and 45,354 MW for coal-fired generation).

[106] *See Data Miner 2*, PJM, http://www.pjm.com/markets-and-operations/etools/data-miner-2.aspx, (when filtered to Generation by Fuel Type for 8 a.m. on January 5, 2018, showing gas output of 28,624.3 MW); *Commitments by Fuel Type & Delivery Year 2007/08 - 2019/20*, PJM, http://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/rpm-commitment-by-fuel-type-by-dy.ashx?la=en (last visited Mar. 22, 2018) (showing cleared UCAP for 2017-2018 planning year of 64,089 MW for gas-fired generation); *see also* PJM COLD SNAP PERFORMANCE 2018 at fig.11.

[107] NETL Report at 17.

[108] Operational flow orders (restrictions/limitations placed on gas consumption by pipeline operators) have been in place on numerous natural gas pipelines throughout PJM since late December 2017, including Transco, Texas Eastern, Dominion, and Columbia. *See* Transco Pipeline, *Critical Notices*, http://www.1line.williams.com/Transco/index.html (last visited Mar. 22, 2018); Texas Eastern, *Critical Notices*, https://infopost.spectraenergy.com/infopost/ (last visited Mar. 22, 2018); Dominion, *Critical Notices*, http://dekaflow.dominionenergy.com/jsp/info_post.jsp?&company=dti (last visited Mar. 22, 2018); Columbia Gas Transmission, *Critical Notices*, http://www.columbiapipeinfo.com/cpginfopost/ (last visited Mar. 22, 2018). *See also* NETL Report at 14 ("[N]atural gas in PJM spiked from a normal level near $3/MMBtu to $96/MMBtu at the Texas Eastern M3 interface, in Southeastern PA, at the [bomb cyclone] peak on January 5.").

[109] NETL Report at 18 ("To maintain the resilience seen in this event, any retiring units that were dispatched during the event would have to be replaced with other resilient generation sources and their associated infrastructure (e.g. pipelines, transmission). Due to the timeframe required for permitting, development, and construction, these projects must be well underway prior to potential unit retirements to ensure their availability.").

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June 2017 Yorktown Un-Retirement: The Department of Energy issued a Section 202(c) order to force Dominion Energy to keep its Yorktown coal-fired units in PJM online to address future reliability needs.[110]

System Design Changes: The bulk power system is undergoing a rapid transformation and the impacts of this change are not being fully studied or understood. The system is moving from one that was driven by sound engineering practices and multiple redundancies to a system using an economic model with no consideration for system needs. The North American Electric Reliability Corporation ("NERC") has noted that the "changing resource mix is altering the operating characteristics of the bulk power system."[111] NERC warned that these changes must be "properly managed in order to assure continued reliability and ensure resiliency."[112]

Pipeline Vulnerabilities: A report published by Quanta Technology noted high levels of vulnerability in PJM from a shortfall of pipeline capacity supplying the Atlantic coast, a shortfall of pipeline capacity to access storage and production, disruptions in supply or storage during winter peak season, and a lack of firm gas supply contracts.[113]

Future Price Volatility: A recent report by IHS Energy states that the current diversified portfolio of the U.S. power supply lowers the cost of generating electricity by more than $93 billion per year compared to a less diverse case with no meaningful contributions from nuclear and coal-fired generation.[114] As such key baseload plants continue to retire, price volatility is expected to rise as the system becomes more reliant on a single fuel source.[115] Dr. Hunger similarly concluded that, "[w]hen resources retire, [market] prices can fluctuate in an unpredictable manner."[116]

Baseload Plant Closures: In the past four years, over 11,000 MW of coal-fired generation has closed in PJM, the equivalent of a dozen large power plants.[117] Many of these plants were

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[110] Order No. 202-17-2 (Dep't of Energy June 16, 2017), *reh'g dismissed sub nom.* Order No. 202-17-5 (Sep. 15, 2017). *See also* Order No. 202-17-4 (Dep't of Energy Sep. 14, 2017) (renewing initial order), *reh'g dismissed sub nom.* Order No. 202-18-1 (Nov. 6, 2017); Order No. 202-18-2 (Dep't of Energy Dec. 13, 2017) (further renewing order).

[111] Letter from Gerry Cauley, President and CEO, NERC, to Rick Perry, U.S. Sec'y of Energy, Attachment ("Synopsis of NERC Reliability Assessments") at 1 (May 9, 2017) , *available at* https://www.nerc.com/news/Headlines%20DL/DOE%20Grid%20Study%20Comments %2012OCT17.pdf.

[112] *Id.*

[113] HENRY CHAO, COMMENTS OF QUANTA TECHNOLOGY ON PJM'S EVOLVING RESOURCE MIX AND SYSTEM RELIABILITY 11 (May 17, 2017), *available at* http://quanta-technology.com/sites/default/files/QuantaTechnology_Comments_on_PJM %20Whitepaper.pdf.

[114] IHS ENERGY, THE VALUE OF US POWER SUPPLY DIVERSITY at 5.

[115] *See id.* at 9-10.

[116] Hunger Aff. at 33.

[117] 2017 PJM Report at 544 tbl.12-5 (listing coal unit retirements of 2,239 MW, 7,064.8 MW, 243 MW, and 2,038 MW in 2014, 2015, 2016, and 2017, respectively).

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operating during the 2014 Polar Vortex and are no longer available to run in the event of system stress.

Problems Associated with Location of Replacement Resources: Generation resources used to replace retiring plants are frequently located far away from the location of the retiring generation, which poses multiple problems. First, as Dr. Hunger states, this "may cause temporary or persistent congestion, increasing uncertainty related to locational pricing, a primary signal against which generation investment or retirement decisions need to be made."[118] Second, significant new transmission infrastructure may need to be constructed. For example, approximately $1 billion of new transmission infrastructure was needed to maintain reliability after closure of certain generating units in northern Ohio in 2014 and 2015.[119]

Additional Plant Closures: Numerous baseload plants in PJM have announced that they are financially challenged and are closing or contemplating closure. If action is not taken, thousands of additional megawatts of reliable baseload power will retire in the next several years, leaving PJM without fuel-secure baseload resources.[120]

- It is a matter of public record that FirstEnergy Solutions, which through Applicants indirectly owns 12,300 MW of generation, likely will file for bankruptcy by the end of March 2018.[121] Multiple plants are at risk for permanent closure as a result of this expected action.
    - FirstEnergy Solutions submitted notices to PJM on March 28, 2018, that it would deactivate its three nuclear plants, Davis-Besse (908 MW), Perry (1,268 MW), and Beaver Valley (1,872 MW), by 2021.

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[118] Hunger Aff. at 33.

[119] Direct Testimony of Gavin Cunningham at 3, Application of Ohio Edison et al., Pub. Util. Comm'n of Ohio No. 14-1297-EL-SSO (Aug. 4, 2014).

[120] In addition to the closures listed, Dominion submitted deactivation requests in January 2018 for four coal-fired units with capacity totaling approximately 400 MW. PJM FUTURE DEACTIVATIONS (Dec. 29, 2017), http://www.pjm.com/-/media/planning/gen-retire/pending-deactivation-requests.ashx?la=en ("PJM FUTURE DEACTIVATIONS"). These units were placed in "cold reserve"—meaning they could be restarted if necessary—based on a number of factors including the cost of solar and wind generation and the abundance of natural gas. Sarah Rankin, *Dominion to Eliminate Nearly 400 Positions After Review of Power Generation Group*, RICHMOND TIMES-DISPATCH (Jan. 17, 2018), http://www.richmond.com/news/virginia/dominion-to-eliminate-nearly-positions-after-review-of-power-generation/article_60633a02-01d5-50a8-bcfc-f2ccf04b8fb5.html.

[121] Gavin Bade, *FirstEnergy CEO Says Generation Subsidiary Headed for Bankruptcy Protection*, UTILITY DIVE (Feb. 23, 2018), https://www.utilitydive.com/news/firstenergy-ceo-says-generation-subsidiary-headed-for-bankruptcy-protection/517743/; Jeffrey Ryser, *FirstEnergy continues Push Away from Competitive Generation Subsidiary*, PLATTS MEGAWATT DAILY (Feb. 22, 2018).

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- FirstEnergy Corp. announced that Units 5–7 at the W.H. Sammis coal-fired plant (1,490 MW) are in danger of being closed. The company previously announced that Units 1–4 (720 MW) will close by May 2020.[122]

- FirstEnergy Corp. has announced that the 2,510 MW Bruce Mansfield coal-fired plant is at risk of closure due to the exposure to changing market conditions.[123]

- Allegheny Energy Supply Company, LLC, a FirstEnergy Corp. subsidiary, recently submitted a deactivation notice for Pleasants Power Station, a 1,300 MW coal-fired plant in West Virginia.[124]

- Dayton Power & Light has announced the closure by June 2018 of the J.M. Stuart coal-fired plant (2,318 MW) and the Killen Station Unit 2 coal-fired plant (600 MW), citing market conditions making the plants not economically viable.[125] Stuart Unit 1 was closed even earlier, on September 30, 2017.[126]

- Owners of the 1,884 MW Homer City coal-fired power plant attempted to sell the plant in 2016, but were unable to find a buyer; Standard & Poor's analysts cite lower power prices and increasing expenses as driving forces behind the facility's ills.[127]

- Westmoreland Partners recently announced the sale or closure of the 209 MW Roanoke Valley coal-fired power plant.[128] As anticipated, on March 1, 2017, these units retired.[129]

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[122] *FirstEnergy to Deactivate Units at Two Ohio Power Plants*, FIRSTENERGY (July 22, 2016), https://www.firstenergycorp.com/content/fecorp/newsroom/news_articles/firstenergy-to-deactivate-units-at-two-ohio-power-plants-.html; PJM FUTURE DEACTIVATIONS.

[123] Tom Henry, *FirstEnergy Exec Calls for 'Urgent' Aid*, TOLEDO BLADE (Mar. 25, 2017), http://www.toledoblade.com/Energy/2017/03/25/FirstEnergy-exec-calls-for-urgent-aid.html.

[124] *Id.* In addition, during the first quarter of 2018, FirstEnergy Corp. took a $120 million pre-tax impairment charge on the value of the Pleasants Power Station. FirstEnergy Corp., Annual Report (Form 10-K) at 4 (Feb. 20, 2018).

[125] *See* Wendy Mitchell, *DP&L Determined to Close J.M. Stuart and Killen Power Plants*, THE LEDGER INDEP. (Mar. 20, 2017), http://www.maysville-online.com/news/local/dp-l-determined-to-close-j-m-stuart-and-killen/article_99f244ef-b832-5477-aa8b-831b8fe796be.html; PJM, FUTURE DEACTIVATIONS.

[126] *PJM Generator Deactivations*, PJM (Dec. 18, 2017), http://www.pjm.com/-/media/planning/gen-retire/generator-deactivations.ashx?la=en ("PJM DEACTIVATIONS").

[127] Anya Litvak, *Homer City Gets Bids But No Deals*, PITTSBURGH POST-GAZETTE (Sept. 14, 2016), http://powersource.post-gazette.com/powersource/companies/2016/09/14/Homer-City-gets-some-bids-but-no-deals/stories/201609110096.

[128] John Dixon, *Weldon Power Plant Closing*, THE DAILY HERALD (Roanoke) (Mar. 10, 2017), http://www.rrdailyherald.com/news/local/weldon-power-plant-closing/article_6a9f1208-0511-11e7-a204-b762cd148f4a.html.

[129] PJM DEACTIVATIONS.

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- Exelon has announced that it will close the Oyster Creek nuclear plant (608 MW) in October 2018—a decade before the end of its operating license—citing negative economic factors.[130]

- Exelon has announced the premature closure of the 837 MW Three Mile Island nuclear power plant in September 2019, citing deteriorating economic value.[131]

C. The Emergency in Nuclear and Coal-Fired Generation Threatens Generation Diversity, Resiliency, Dependability, and Electric Security in PJM

A recent PJM report noted that the system was able to maintain operational reliability with a system comprised of 86 percent natural gas-fired generation, however the report did not fully capture risks associated with gas deliverability.[132] PJM itself admits to this issue, stating, "We found that the risk to the system wasn't that resources couldn't necessarily provide reliability attributes but that *the potential concentration of a single fuel source or low-probability, high-impact events could cause significant impacts to the system*."[133]

Without baseload nuclear and coal-fired generation, the United States is taking the most sophisticated and redundant bulk electric system in the world and putting it on top of an unsophisticated bulk gas system that lacks the same level of redundancy, creating additional security risks. An electric system that is not resilient to high-impact events is not a reliable system, and is one that threatens the national security of the United States. In short, the continued retirement of nuclear and coal-fired generating facilities in PJM has resulted in an emergency situation that has placed the continuing security of PJM at risk. As you noted in your September 28, 2017 letter to FERC, "the resiliency of the electric grid is threatened by the premature retirement of these fuel-secure traditional baseload resources."[134]

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[130] *See* Press Release, Exelon, Exelon to Retire Oyster Creek Generating Station in 2019 (Dec. 8, 2010), http://www.exeloncorp.com/newsroom/Pages/pr_20101208_Nuclear_OysterCreekRetirement.aspx; Robert Walton, *Exelon to Close Oyster Creek Nuke in October, a Year Early*, UTILITY DIVE (Feb. 2, 2018), https://www.utilitydive.com/news/exelon-to-close-oyster-creek-nuke-in-october-a-year-early/516236/; PJM FUTURE DEACTIVATIONS.

[131] *See* Press Release, Exelon, Exelon to Retire Three Mile Island Generating Station in 2019 (May 30, 2017), http://www.exeloncorp.com/newsroom/exelon-to-retire-three-mile-island-generating-station-in-2019; PJM FUTURE DEACTIVATIONS.

[132] PJM INTERCONNECTION, PJM'S EVOLVING RESOURCE MIX AND SYSTEM RELIABILITY 5 (Mar. 30, 2017) ("[A]dditional risks, such as gas deliverability during polar vortex-type conditions and uncertainties associated with economics and public policy, were not fully captured in this analysis."), http://www.pjm.com/~/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx.

[133] Press Release, PJM, PJM Study: System Reliable Even with Much More Gas, Renewables; Resilience Key to Operational Reliability (Mar. 30, 2017) (emphasis added) (quoting Michael Bryson, PJM Vice President of Operations), http://www.pjm.com/~/media/about-pjm/newsroom/2017-releases/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx.

[134] Secretary NOPR Letter at 1.

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PJM itself has recognized the need for resiliency, finding that, "[i]n addition to delivering energy services reliably during strained system conditions, to which probabilities can be attached (e.g., plant outages, weather variability), a resilient energy system also must be resistant to larger scale shocks to which it is difficult to attach probabilities . . . ."[135] PJM recently concluded that "reliability attributes supplied through generation and other resources . . . support reliability" and "the maintenance or assurance of these attributes into the future are important to resilience mitigation."[136] Fuel diversity and security are key components of a resilient grid. PJM acknowledged the connection between diversity and resiliency when it committed to "analyz[ing] future trends in resource mix and their impacts on both reliability and resilience."[137] As PJM's market monitor stated, "[s]ignificant reliance on specific fuels, including nuclear, coal and gas means that markets are at risk from a significant disruption in any one fuel."[138]

NERC goes further, recognizing not only the importance of fuel diversity in maintaining a resilient energy system,[139] but also the critical contributions of nuclear and coal-fired resources to mitigating risks to the electric grid.[140] Overreliance on natural gas, by contrast, *increases* risk to the electric grid because, as NERC states, "within a relatively short time, a major failure" in the natural gas transmission system "could result in a loss of electric generating capacity that could exceed the electric reserves available to compensate for these losses."[141] As explained by Dr. Henry Chao, Executive Advisor and Vice President at Quanta Technology and former Vice President at New York Independent System Operator ("NYISO"): "Abundant supplies of natural gas provide many advantages to electric consumers, but . . . natural gas delivery systems lack the reliability and redundancy of the bulk electric system. Specifically, there are no systematic reliability criteria for natural gas delivery system planning and operations; whereas the electric power industry has mandatory reliability standards that are developed and enforced by NERC."[142]

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[135] PJM INTERCONNECTION, PJM'S EVOLVING RESOURCE MIX AND SYSTEM RELIABILITY 33 (Mar. 30, 2017).

[136] PJM Comments at 46.

[137] *Id.*

[138] 2017 PJM Report at 5.

[139] N. AM. ELEC. RELIABILITY CORP., SYNOPSIS OF NERC RELIABILITY ASSESSMENTS: THE CHANGING RES. MIX AND THE IMPACTS OF CONVENTIONAL GENERATION RETIREMENTS 4 (May 9, 2017) ("Fuel diversity provides a fundamental benefit of increased resilience. . . . Areas with limited fuel and/or limited resource diversity may be challenged and should increase their attention to resiliency planning . . . .").

[140] *Id.* ("Coal and nuclear resources, by design, are designed for low cost O&M and continuous operation. However, it is not the economics nor the fuel type that make these resources attractive from a reliability perspective. Rather, these conventional steam-driven generation resources have low forced and maintenance outage hours traditionally and have low exposure to fuel supply chain issues."); *id.* at 2 ("Coal-fired and nuclear generation have the added benefits of high availability rates, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operate in a manner independent of supply chain disruptions.").

[141] N. AM. ELEC. RELIABILITY CORP., 2013 SPECIAL RELIABILITY ASSESSMENT: ACCOMMODATING AN INCREASED DEPENDENCE ON NATURAL GAS FOR ELECTRIC POWER; PHASE II: A VULNERABILITY AND SCENARIO ASSESSMENT FOR THE NORTH AMERICAN BULK POWER SYSTEM 3-4 (MAY 2013).

[142] FirstEnergy Comments, Ex. 6 ("Chao Aff.") at 11, *Grid Resiliency Pricing Rule*, FERC Docket No. RM18-1-000 (Oct. 23, 2017).

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Unless immediate action is taken, the continued retirement of nuclear and coal-fired generating units—by breeding greater dependence on generation fueled by natural gas, which is subject to supply disruptions, constrained pipeline capacity, a general inability to store fuel on-site, and competing demand from consumer heating in winter months—will increasingly result in significant, negative outcomes for the approximately 65 million people living and working within the PJM footprint. These harmful consequences include increased electric price volatility, lessened grid resilience and dependability, uncertain electric security in the future, decreased economic stability, and severe job losses—especially in the coal sector—as both power plants and fuel suppliers declare bankruptcy and cease operations. Combined, these conditions are potentially disastrous for the electric grid and the economy. PJM itself recently found that as the "resource mix moves in the direction of less coal and nuclear generation, generator reliability attributes of frequency response, reactive capability and fuel assurance decrease. . . ."[143]

This is not idle speculation. As illustrated over the period of extreme cold in the eastern U.S. from December 27, 2017, through January 8, 2018, PJM was able to maintain reliability on its system in large part due to the strong performance from nuclear and coal-fired generators—performance that well exceeded those plants' commitments in PJM's capacity auction. In contrast, natural gas-fired plants were operating well below expected levels. Without these fuel-secure baseload generating resources, many of which are facing imminent retirement, the outcome may have been much different. And with temperatures well below freezing throughout virtually all of PJM during this time, a different outcome could have been catastrophic to public health and safety.

The challenges are not limited to just PJM, but are rampant in competitive electric markets throughout the Nation. While traditional vertically integrated utilities continue to provide safe, reliable, and affordable electric generation service every day, areas with RTO markets face problems resulting from the failure to recognize the importance of fuel security and fuel diversity. These incidents provide insight into vulnerabilities potentially facing PJM:

February 26, 2008 Wind Decrease in ERCOT: An unexpected drop in wind generation coupled with a demand increase from cold weather caused ERCOT to have to cut service to large industrial customers.[144] ERCOT had 10 minutes to curtail nearly three percent of the system load to avoid blackouts.[145]

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[143] PJM INTERCONNECTION, PJM'S EVOLVING RES. MIX AND SYSTEM RELIABILITY 5 (Mar. 30, 2017).

[144] Eileen O'Grady, *Loss of Wind Causes Texas Power Grid Emergency*, REUTERS (Feb. 27, 2008), http://www.reuters.com/article/us-utilities-ercot-wind-idUSN27495229200802287feedType=RSS&feedName=domesticNews&rpc=22&sp=true; E. ELA & B. KIRBY, NAT'L RENEWABLE ENERGY LAB., ERCOT EVENT ON FEBRUARY 26, 2008: LESSONS LEARNED (July 2008), http://www.nrel.gov/docs/fy08osti/43373.pdf.

[145] *See* Eileen O'Grady, *Loss of Wind Causes Texas Power Grid Emergency*, REUTERS (Feb. 27, 2008), http://www.reuters.com/article/us-utilities-ercot-wind-idUSN27495229200802287feedType=RSS&feedName=domesticNews&rpc=22&sp=true.

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February 2011 Cold Weather in ERCOT: Rolling blackouts affected 3.2 million customers and, had ERCOT not shed load, a widespread, uncontrolled blackout would have occurred.[146]

New England ISO Winter Reliability Program: Since 2014, the New England Independent System Operator Inc. ("ISO New England") has had to establish winter reliability programs in an attempt to ensure continued operation of natural gas-fired generators during periods of cold weather.[147] Pipeline capacity issues, first identified in 2004, remain issues today and have yet to be solved by the competitive marketplace.[148] As ISO New England recently noted, "[i]n New England, the most significant resilience challenge is fuel security—or the assurance that power plants will have or be able to obtain the fuel they need to run, particularly in winter—especially against the backdrop of coal, oil, and nuclear unit retirements, constrained fuel infrastructure, and the difficulty in permitting and operating dual-fuel generating capability."[149] ISO New England thus concluded that "while New England is meeting its resource adequacy requirements for capacity—which are based on expected summer peak demands—with the market mechanisms that are in place today, from an energy availability standpoint, the shift from generators with on-site fuel to generators relying on 'just-in-time' fuel delivery is challenging the system's adequacy and, therefore, its resilience, particularly during winter peak demands."[150] Indeed, in nearly all of the fuel mix scenarios studied by ISO New England, there would be "[e]nergy shortfalls due to inadequate fuel . . . requiring frequent use of emergency actions to keep power flowing and protect the grid."[151] These emergency actions could include rolling blackouts.[152]

2016-2017 Aliso Canyon in CAISO: A leak at the Aliso Canyon natural gas storage facility was discovered in October 2015, causing the facility to close to subsequent injections until July 2017.[153] Although Aliso Canyon continues to operate, the California Public Utilities Commission

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146 FEDERAL ENERGY REGULATORY COMM'N & N. AM. ELEC. RELIABILITY CORP., REPORT ON OUTAGES AND CURTAILMENTS DURING THE SOUTHWEST COLD WEATHER EVENT OF FEBRUARY 1-5, 2011 1 (2011).

147 Press Release, ISO New England, Winter 2015/2016: Sufficient Power Supplies Expected to Be Available (Dec. 1, 2015), *available at* https://www.iso-ne.com/static-assets/documents/2015/12/20151201_winter_outlook_release_final.pdf.

148 Peter Brandien, Vice President, Operations, ISO New England, Panel Discussion Remarks at 1, *Winter 2016-2017 Operations and Market Performance in Regional Transmission Orgs. and Indep. Sys. Ops.*, FERC Docket No. AD16-24-000 (Oct. 20, 2016).

149 ISO New England, Response of ISO New England at 1, *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, FERC Docket No. AD18-7-000 (Mar. 9, 2018).

150 *Id.* at 8.

151 *Id.*, Attachment A at 4-5.

152 *Id.* In contrast to PJM, which is looking to FERC for guidance and direction, ISO New England is taking initiative and studying fuel security issues. *Id.* at 26.

153 Rob Nikolewski, *Utility Resumes Injections at Aliso Canyon, Site of Massive Gas Leak*, SAN DIEGO UNION-TRIBUNE (Aug. 1, 2017), http://www.sandiegouniontribune.com/business/sd-fi-aliso-reinjections-20170801-story.html.

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has opened a proceeding "to determine the feasibility of minimizing or eliminating the use of [the facility]"[154] and legislation was introduced to shut down the facility.[155]

May 3, 2017 CAISO Emergency: Normal system operations quickly turned into an emergency when energy imports failed to materialize.[156] The impacts were heightened as the daily rapid decline of solar power occurred as evening approached.[157] The California Independent System Operator Inc. ("CAISO") had minutes to deploy emergency reserves and quickly went from normal system operations to a Stage 1 Emergency.[158]

Natural Gas Plant Bankruptcies: In 2016, two large natural gas-fired plants in California, totaling 1,778 MW, declared bankruptcy because they could not make sufficient revenues in the CAISO wholesale markets.[159] In 2017, Panda Temple Power's 758 MW natural gas plant in Texas filed for bankruptcy.[160] GenOn Energy, with over 9,000 MW of gas-fired generation, filed for bankruptcy in 2017 as well,[161] and recently announced the retirement of three gas-fired power plants located in Southern California due to "economic reasons."[162]

D. Emergency Action by the Secretary Is Required

Although FERC complied with the directive of the Secretary pursuant to Section 403 of the DOE Organization Act in issuing a Notice of Proposed Rulemaking addressing these issues,[163] it has failed to undertake any action that will stem the tide of plant closures and thus prevent the impending crisis. You yourself said that "it is [FERC's] immediate responsibility to take action

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[154] CAL. PUB. UTILS. COMM'N, *Aliso Canyon Well Failure Order Instituting Investigation*, http://www.cpuc.ca.gov/AlisoOII/ (last visited Mar. 22, 2018).

[155] Chris Megerian, *Proposal Would Close Aliso Canyon—But Not for A Decade*, L.A. TIMES (Sept. 14, 2017), http://www.latimes.com/politics/essential/la-pol-ca-essential-politics-updates-aliso-canyon-leak-1505427333-htmlstory.html.

[156] Jason Fordney, *California Grid Emergency Comes Days After Reliability Warning*, RTO INSIDER (May 8, 2017).

[157] *Id.*

[158] *Id.*

[159] Herman K. Trabish, *As Gas Plants Struggle, California Seeks New Flexible Capacity Strategies*, UTILITY DIVE (June 27, 2017), http://www.utilitydive.com/news/as-gas-plants-struggle-california-seeks-new-flexible-capacity-strategies/445760/.

[160] *Id.*; Cody Weems, *Panda Temple I Plant Files for Chapter 11 Bankruptcy*, TEMPLE DAILY TELEGRAM (May 11, 2017), http://www.tdtnews.com/news/article_efa76536-36a3-11e7-8b73-034537689093.html.

[161] Herman K. Trabish, *As Gas Plants Struggle, California Seeks New Flexible Capacity Strategies*, UTILITY DIVE (June 27, 2017), http://www.utilitydive.com/news/as-gas-plants-struggle-california-seeks-new-flexible-capacity-strategies/445760/; *see also* Andrew Scurria & Patrick Fitzgerald, *GenOn Energy Files for Chapter 11 Bankruptcy Protection*, WALL ST. J. (June 14, 2017), https://www.wsj.com/articles/genon-energy-files-for-chapter-11-bankruptcy-protection-1497445051.

[162] Samantha Masunaga, *NRG Subsidiary to Close Three Power Plants in Southern California*, L.A. TIMES (Mar. 9, 2018), http://www.latimes.com/business/la-fi-nrg-plants-20180309-story.html.

[163] Grid Resiliency Pricing Rule, 82 Fed. Reg. 46,940 (Oct. 10, 2017).

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to ensure that generation resources with on-site fuel supplies and the ability to provide essential energy and ancillary reliability services including voltage support, frequency services, operating reserves, and reactive power are fully valued. . . ."[164] But FERC failed to do so and there is no indication that meaningful and substantive action by FERC will come in time to stem the tide of plant closures.

The DOE correctly recognized that the "recent Polar Vortex, as well as the devastation from Superstorm Sandy and Hurricanes Harvey, Irma, and Maria, reinforces the urgency that [FERC] must act now."[165] Further, as you observed, "over the past several years, [FERC] has developed an extensive record on price formation [issues] in [FERC] approved ISOs and RTOs."[166] And, as you recently noted, "[t]he voluminous comments filed in the [FERC NOPR] proceeding provide substantial evidence of, and otherwise confirm, the threat to the nation's electricity grid and the urgent need for [FERC] action to reform market rules to preserve fuel-secure generation resources."[167] Despite the urgency and its extensive record, FERC has failed to take the action necessary to address the emergency in PJM.

As you correctly noted, "it is especially urgent to prevent premature retirements of the resources that have these critical [fuel-secure] attributes."[168] As a result of FERC's and the RTOs' failure to address this crisis, swift and decisive action is needed ***now*** to address this imminent loss of nuclear and coal-fired baseload generation and the threat to the electric grid that this loss poses. The Secretary needs to immediately issue an emergency order, pursuant to his authority under section 202(c) of the Federal Power Act, 16 U.S.C. § 824a(c), to ensure that baseload nuclear and coal-fired generators in PJM do not retire prematurely and are fully compensated for the benefits and services that they provide, as more fully described in Section II.B above. The order should find that an emergency exists because of the recent and imminent critical reduction in nuclear and coal-fired generation capacity, which threatens generation diversity, resiliency, dependability, and electric security in PJM. As this winter's events revealed, without the availability of these critical, fuel-secure plants during extreme weather events (which can happen at any time during the year—not just in the winter), the PJM grid will likely experience reliability issues.

E. Information Required by Section 205.373

Applicants provide below the information called for by Section 205.373 of DOE's regulations.[169] To be clear, Applicants' request in this application applies to *all* eligible plants in

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[164] Secretary Extension Letter at 1.

[165] Dep't of Energy, Notice of Proposed Rulemaking to FERC at 11 (Sept. 28, 2017).

[166] Secretary NOPR Letter at 6.

[167] Secretary Extension Letter at 1.

[168] Secretary NOPR Letter at 1.

[169] 10 C.F.R. § 205.373. Certain elements of Section 205.373 address the circumstances of an applicant facing a shortage of real power and the prospect of firm customer curtailment, but do not address the emergency circumstances described herein, which involve a threat to the system more broadly. Applicants have indicated where these requirements are not applicable to the circumstances at hand.

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PJM, not just those that they themselves own and operate. However, at this time Applicants only possess the required information for their own plants. To address this fact, Applicants request that the Secretary require PJM to obtain such information immediately from all eligible generators and begin negotiating agreements for the continued operation and appropriate compensation of such units.

a) Legal name of applicants. The applicants are FirstEnergy Generation, LLC, FirstEnergy Nuclear Generation, LLC, FirstEnergy Nuclear Operating Company, and FirstEnergy Generation Mansfield Unit 1 Corp. This application refers to these entities, collectively, as "Applicants."

b) Person to whom correspondence should be addressed. Correspondence with respect to this application should be directed to the following persons:

William S. Scherman	Rick C. Giannantonio
Partner	General Counsel
Gibson, Dunn & Crutcher LLP	FirstEnergy Solutions Corp.
1050 Connecticut Avenue, N.W.	76 South Main Street
Washington, DC 20036	Akron, OH 44308
Tel: (202) 887-3510	Tel: (330) 384-5893
Fax: (202) 530-9557	Fax: (330) 384-3875
wscherman@gibsondunn.com	giannanr@firstenergycorp.com

c) Political subdivisions in which applicants operate and conduct business. Applicants own and operate certain nuclear and coal-fired generation assets, and provide energy-related products and services to retail and wholesale customers, in the states of Ohio and Pennsylvania.

d) Baseline data.

1) Daily peak load and energy requirements for each of the past 30 days, and projections for each day of the Emergency Period. These requirements are not applicable to Applicants' request, which contemplates relief on a broad scale. Nonetheless, Applicants provide as Attachment B a chart showing the monthly output of nuclear and coal-fired generation in PJM for the period 2012 through 2017.

2) All capacity and energy receipts or deliveries to other electric utilities for each of the past 30 days. Applicants respectfully submit that such information is not applicable to the present application.

3) The status of all interruptible customers for each of the past 30 days, and anticipated status during the Emergency Period. Applicants respectfully submit that such information is not applicable to the present application. Applicants are requesting emergency relief to *avoid* the interruption of power supply to the 65 million customers in the PJM footprint.

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4) All scheduled capacity and energy receipts or deliveries to other electric utilities during the Emergency Period. Applicants respectfully submit that such information is not applicable to the present application.

e) A description of the emergency situation, any contingency plan, and the current level of implementation. The emergency situation faced by PJM and consumers of electric energy within its footprint is described above in Section I and Section II.B. Applicants do not have any contingency plan to provide power to the PJM market and its 65 million customers absent an order of the Secretary in accordance with the emergency relief requested herein. As explained above, nuclear and coal-fired generating units in PJM are closing at an alarming rate, with efforts to "save" generation for energy security having failed. Implementation prior to the Secretary granting emergency relief is unworkable.

f) A showing that adequate electric service to firm customers cannot be maintained without additional power transfers. As explained above, the recent and imminent shut-down of nuclear and coal-fired generating units in PJM puts at risk the ability to provide firm, reliable electric service within the PJM footprint without emergency action to maintain the operation of these generating facilities.

g) A description of any conservation or load reduction actions that have been implemented. PJM has implemented limited demand response efforts in recent years,[170] but these efforts, and future similar ones, cannot come close to replacing the nuclear and coal-fired generation at risk of loss.

h) A description of efforts made to obtain additional power through voluntary means and the results of such efforts. Applicants respectfully submit that such information is not applicable to the present application because it is the responsibility of PJM, not Applicants, to balance load and resources within the PJM footprint. PJM's efforts to obtain additional power through voluntary means has been limited to market redesign efforts, such as Capacity Performance, which have failed to add sufficient fuel-secure generating capacity to the PJM market. Additionally, PJM is "fuel neutral" and has undertaken no effort to maintain nuclear and coal-fired generation, which provides fuel diversity and helps ensure sufficiency of supply during times of spiking demand such as that experienced this past winter.

i) A listing of proposed sources and any amounts of power necessary from each source to alleviate the emergency and a listing of any other "entities" that may be directly affected by the requested order. *See* Attachment A for listing of nuclear and coal-fired generation facilities in PJM. Applicants submit that firm power supply agreements between PJM and the owners of each nuclear and coal-fired generating facility in PJM satisfying the criteria set forth in Section II.F are necessary to alleviate the emergency. Such generating facilities provide significant

[170] *See PJM Markets FAQ*, PJM, https://learn.pjm.com/three-priorities/buying-and-selling-energy/markets-faqs.aspx (last visited Mar. 22, 2018).

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benefits to energy markets and the public at large, including fuel security and diversity, but receive no reliable cost support and, instead, must rely on PJM's power markets which fail to compensate these generators for the full value of the benefits that they provide.[171]

j) Specific proposals to compensate the supplying "entities" for the emergency services requested and to compensate any transmitting "entities" for services necessary to deliver such power. Applicants propose that, as long as an emergency continues to exist, subject generators and PJM shall operate pursuant to contracts developed and agreed upon by the parties themselves. As explained below, in the event that PJM and the generators are unable to agree to the contractual terms within fifteen (15) days of the issuance of the order, then Applicants request that the Secretary step in and determine the just and reasonable compensation and conditions.

k) A showing that, to the best of the applicant's knowledge, the requested relief will not unreasonably impair the reliability of any "entity" directly affected by the requested order to render adequate service to its customers. The relief requested by Applicants is to *secure* the reliability of every entity and customer located within PJM's boundaries; no entities are expected to be reasonably or unreasonably impaired by the requested relief. Indeed, the requested relief is designed to enhance the ability of the subject generators and PJM to serve customers.

l) Description of the facilities to be used to transfer the requested emergency service to the applicant's system. In order to retain the electric generation necessary to prevent and alleviate the emergency, the Secretary's order pursuant to Section 202(c) should apply to nuclear and coal-fired generators located within the PJM footprint that have a supply of fuel on-site sufficient to allow twenty-five (25) days of operation at full output, that are substantially compliant with all applicable federal, state, and local environmental laws and regulations, and that do not recover any of their capital or operating costs through rates regulated by a duly authorized state regulatory authority, municipal government, or energy cooperative. Such generating facilities provide significant benefits to energy markets and the public at large, including fuel security and diversity, but receive no reliable cost support and, instead, must rely on PJM's power markets which fail to compensate these generators for the full value of the benefits that they provide. Attachment A provides a listing of all nuclear and coal-fired generation facilities in PJM but only some of these facilities will likely satisfy the above criteria.

m) A general or key map on a scale not greater than 100 kilometers to the centimeter showing, in separate colors, the territory serviced by each "entity" named in the application; the location of the facilities to be used for the generation and

[171] Although PJM's markets fail to adequately compensate nuclear and coal-fired generators for the benefits that they provide, a subset of these generators may nevertheless recover their costs plus an acceptable rate of return through other regulatory mechanisms.

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transmission of the requested emergency service; and all connection points between systems. Insofar as this application seeks action by the Secretary regarding all eligible plants in PJM, the type of map specifically requested is not relevant to this application. Nonetheless, Applicants attach as Attachment C a map of the PJM territory, and as Attachment D a map of Applicants' nuclear and coal-fired generating facilities. In addition, attached as Attachment E is a map issued by the PJM Market Monitor showing actual and planned retirements generating units from 2011 through 2020.

n) An estimate of the construction costs of any proposed temporary facilities and a statement estimating the expected operation and maintenance costs on an annualized basis. Applicants respectfully submit that such information is not applicable to the present application. Due to the nature of Applicants' requested relief, there are no anticipated construction costs, and annualized operation and maintenance costs will remain roughly the same for subject facilities.

F. Requested Order

Applicants respectfully request that DOE issue an emergency order directing (i) the subject baseload nuclear and coal-fired generators to enter into contracts and all necessary arrangements with PJM, on a plant-by-plant basis, to generate, deliver, interchange, and transmit electric energy, capacity, and ancillary services to maintain fuel diversity and grid dependability and resiliency within the PJM region and (ii) PJM to pay such qualifying generating facilities just and reasonable cost-based rates that provide for full cost recovery consistent with ratemaking standards and principles or as otherwise necessary to ensure continued operations. In addition, the order should direct PJM to begin negotiating immediately with such generators on the terms of such supply.

Applicants respectfully request that each baseload generator eligible to participate—nuclear and coal-fired generators located within the PJM footprint that have a supply of fuel on-site sufficient to allow twenty-five (25) days of operation at full output, that are substantially compliant with all applicable federal, state, and local environmental laws and regulations, and that do not recover any of their capital or operating costs through rates regulated by a duly authorized state regulatory authority, municipal government, or energy cooperative—be compensated with just and reasonable rates that provide for full recovery of its fully allocated costs and a fair return on equity. The compensable costs used to establish this amount shall include, but are not necessarily limited to, operating expenses, costs of capital and debt, and a fair return on equity and investment. Just and reasonable rates shall provide for (a) full cost recovery consistent with ratemaking standards and principles or (b) full recovery of all costs necessary to ensure continued operations.[172] If PJM and the owners are unable to agree to the contractual terms within fifteen

[172] Certain nuclear and coal-fired units have, for financial reporting purposes, impaired the generating asset values based on the expectation that market revenues would not be sufficient to provide a return of and on invested capital. The fact that these assets were impaired for financial reporting purposes does not change the amount that was invested in the plant nor does it relieve their owners from their obligations to bondholders. As a result, the traditional cost-of-service model needs to be modified to allow cost recovery based on pre-impairment asset

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(15) days of the issuance of the order, then Applicants request that the Secretary step in and determine the just and reasonable compensation and conditions.

Applicants request that payments begin on the effective date of each contract, and service under the contracts begin no later than sixteen (16) days after the issuance of the Order. If no agreement as to terms has been reached by this time, then the payment that the eligible generators receive for such service will be subject to true-up based on the just and reasonable rate that is ultimately prescribed.

Applicants request that the order become effective immediately and that, at a minimum, the order should remain in effect for four (4) years from the date of issuance or until the Secretary determines that the emergency has ceased to exist because the PJM markets have been fixed to properly compensate these units for the resiliency and reliability benefits that they provide, whichever is later.[173] Further, because the eligible nuclear and coal-fired generators must continue to substantially comply with all applicable federal, state, and local environmental laws and regulations, the provision in Section 202(c) limiting the duration to a 90-day period is not applicable.[174]

---

values or it needs to modified to allow a return on equity on the post-impairment asset value with an additional allowance for recovery of maturing debt in addition to interest expense.

[173] The Secretary has very broad authority to order "temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [his] judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c)(1). As prior 202(c) orders reflect, "temporary" emergencies may vary greatly in length and may even be open ended. Indeed, in *Cross-Sound Cable*, the Secretary initially issued an order with a duration from August 14, 2003 until September 1, 2003, but later extended the order "until such time as the emergency identified in this order cease[d] to exist . . . ." Order No. 202-03-2 (Dep't of Energy Aug. 28, 2003). In addition, the Secretary's initial order to Mirant Corporation in 2005 lasted nearly 10 months. Order No. 202-05-3, *D.C. Pub. Serv. Comm'n*, Docket No. EO-05-01, at 10 (Dep't of Energy Dec. 20, 2005).

[174] *See* 16 U.S.C. § 824a(c)(4)(A) (limiting the duration of a Section 202(c) order to 90 days if such order "may result in a conflict with a requirement of any Federal, State, or local environmental law or regulation").

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III. CONCLUSION

The time for talk is over. We find ourselves at a crisis point where significant baseload generation will cease to exist in RTO markets without quick and decisive intervention. Baseload generation does not have the luxury of time; the personal health and safety, economic development, jobs and livelihood of the communities where they are located, as well as our national security, hang in the balance.

It would also be a grave mistake to assume that there is no immediate emergency requiring immediate action now that winter is over. Premature nuclear and coal-fired plant closures know no season—as the announcement yesterday that FirstEnergy Solutions will deactivate over 4,000 MW of nuclear generation shows. The resilience and security of the electric grid can be jeopardized at any moment by any high-impact event—not just those that are weather driven. The health, safety, and welfare of the Nation, as well as our economic and physical well-being must be protected at all times from all potential threats to our electric grid.

As explained herein, Applicants respectfully request that the Secretary utilize the authority granted to DOE under Section 202(c) of the Federal Power Act and immediately issue the emergency order described above. Such quick and decisive intervention is necessary to avoid a crisis point where such baseload generation will cease to exist in RTO markets, and to ensure that nuclear and coal-fired generators operating within PJM are compensated fairly for their costs and the benefits that they provide such that they can continue to operate and ensure a dependable, affordable, safe, secure, and clean supply of electricity.

Respectfully submitted,

/s/ Rick C. Giannantonio

Rick C. Giannantonio
General Counsel
FirstEnergy Solutions Corp.
76 South Main Street
Akron, OH 44308
Tel: (330) 384-5893
giannanr@firstenergycorp.com

William S. Scherman
Jeffrey M. Jakubiak
Jennifer C. Mansh
Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W.
Washington, DC 20036
Tel: (202) 887-3510
wscherman@gibsondunn.com
jjakubiak@gibsondunn.com
jmansh@gibsondunn.com

Counsel for Applicants

cc: Bruce J. Walker, Assistant Secretary, DOE Office of Elec. Delivery & Energy Reliability

Patricia A. Hoffman, Principal Deputy Assistant Secretary, DOE Office of Elec. Delivery & Energy Reliability

Attachments

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CERTIFICATE OF SERVICE

I hereby certify that, in accordance with 10 C.F.R. § 205.372, I have or will shortly cause copies of the foregoing documents to be served on the parties listed below by causing copies of the same to be sent via overnight delivery.

Federal Energy Regulatory Commission
Delaware Public Service Commission
Illinois Commerce Commission
Indiana Utility Regulatory Commission
Kentucky Public Service Commission
Maryland Public Service Commission
Michigan Public Service Commission
State of New Jersey Board of Public Utilities
North Carolina Utilities Commission
Public Utilities Commission of Ohio
Pennsylvania Public Utilities Commission
Tennessee Public Utility Commissions
Commonwealth of Virginia State Corporation Commission
Public Service Commission of West Virginia
New York Public Service Commission
Public Service Commission of the District of Columbia
PJM Interconnection
ReliabilityFirst Corp.
SERC Reliability Corporation
AES Warrior Run
Avon Lake
B L England
Beaver Valley
Birchwood Power
Braidwood Generation Station
Brandon Shores
Brunner Island
Byron Generating Station
Calvert Cliffs Nuclear Power Plant
Cardinal
Chalk Point
Chambers Cogeneration LP
Chesterfield
Cheswick Power Plant
Clover
Conemaugh
Conesville
Cooper
Covington Facility
CP Crane

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Davis Besse
Dickerson
Donald C Cook
Dover
Dresden Generating Station
East Bend
Edgecombe Genco
FirstEnergy Bruce Mansfield
FirstEnergy Fort Martin Power Station
FirstEnergy Harrison Power Station
FirstEnergy Pleasants Power Station
FirstEnergy W H Sammis
General James M Gavin
H L Spurlock
Herbert A Wagner
Homer City Generating Station
Indian River Generating Station
Ingredion Incorporated
J M Stuart
James River Genco
John E Amos
Joliet 9
Joliet 29
Keystone
Killen Station
Kincaid
LaSalle Generating Station
Limerick
Logan Generating Company
Longview Power Plant
Luke Mill
Mecklenburg Power Station
Miami Fort
Mitchell (WV)
Morgantown Generating Plant
Mountaineer
Mt Storm
North Anna
Orrville
Oyster Creek
P H Glatfelter
P H Glatfelter Chillicothe Facility
Painesville
Peach Bottom
Perry
Powerton

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PSEG Hope Creek Generating Station
PSEG Salem Generating Station
Quad Cities Generating Station
Radford Army Ammunition Plant
Rockport
Spruance Genco
Surry
TalenEnergy Montour
TalenEnergy Susquehanna
Tennessee Eastman Operations
Three Mile Island
University of Notre Dame
Virginia City Hybrid Energy Center
W H Zimmer
Waukegan
Wausau Paper Middletown
Whitewater Valley
Will County
Yorktown

/s/ *Christopher Smith*

Christopher Smith
Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W.
Washington, DC 20036
Tel: (202) 887-3764
csmith@gibsondunn.com

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ATTACHMENT A
NUCLEAR AND COAL-FIRED GENERATING UNITS IN PJM
(NAMEPLATE CAPACITY)

Facility	Primary Owner (per EIA)	Coal (MW)	Nuclear (MW)
AES Warrior Run	AES WR Ltd Partnership	229	
Avon Lake	NRG Power Midwest LP	680	
Beaver Valley	FirstEnergy Nuclear Operating Co.		1846.8
Birchwood Power	Birchwood Power Partners LP	258.3	
Braidwood Generation Station	Exelon Nuclear		2449.8
Brandon Shores	Raven Power Holdings LLC	1370	
Brunner Island	Brunner Island LLC	1616.1	
Byron Generating Station	Exelon Nuclear		2449.8
Calvert Cliffs Nuclear Power Plant	Exelon Nuclear		1828.7
Cardinal	AEP Generation Resources Inc.	1880.4	
Chalk Point	NRG Chalk Point LLC	728	
Chambers Cogeneration LP	US Operating Services Company	285	
Chesterfield	Virginia Electric & Power Company	1352.9	
Cheswick Power Plant	NRG Power Midwest LP	637	
Clover	Virginia Electric & Power Company	848	
Conemaugh	GenOn Northeast Management Co.	1872	
Conesville	AEP Generation Resources Inc.	1729.3	
Cooper	East Kentucky Power Coop, Inc.	344	
Covington Facility	MeadWestvaco Corp.	44.5	
CP Crane	Raven Power Holdings LLC	399.8	
Davis Besse	FirstEnergy Nuclear Operating Co.		925.2
Dickerson	GenOn Mid-Atlantic LLC	588	
Donald C Cook	Indiana Michigan Power Company		2285.3
Dover	City of Dover, Ohio	27.5	
Dresden Generating Station	Exelon Nuclear		2018.6
East Bend	Duke Energy Kentucky Inc.	772	
Edgecombe Genco	Edgecombe Operating Services LLC	114.8	
FirstEnergy Bruce Mansfield	FirstEnergy Generation Corp.	2741.1	
FirstEnergy Fort Martin Power Station	Monongahela Power Company	1152	
FirstEnergy Harrison Power Station	Allegheny Energy Supply Co LLC	2052	
FirstEnergy Pleasants Power Station	Allegheny Energy Supply Co LLC	1368	
FirstEnergy W H Sammis	FirstEnergy Generation Corp.	2455.6	
General James M Gavin	AEP Generation Resources Inc.	2600	
H L Spurlock	East Kentucky Power Coop, Inc.	1608.5	
Herbert A Wagner	Raven Power Holdings LLC	495	

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Facility	Primary Owner (per EIA)	Coal (MW)	Nuclear (MW)
Homer City Generating Station	NRG Homer City Services LLC	2012	
Indian River Generating Station	Indian River Operations Inc.	445.5	
Ingredion Incorporated	Ingredion Inc. - Illinois	45	
J M Stuart	Dayton Power & Light Company	1841.4	
James River Genco	Hopewell Operating Services LLC	114.8	
John E Amos	Appalachian Power Company	2932.6	
Joliet 9	Midwest Generations EME LLC	360.4	
Joliet 29	Midwest Generations EME LLC	1320	
Keystone	GenOn Northeast Management Co.	1872	
Killen Station	Dayton Power & Light Company	660.6	
Kincaid	Dynegy Kincaid Generation	1319	
LaSalle Generating Station	Exelon Nuclear		2340
Limerick	Exelon Nuclear		2277
Logan Generating Company	US Operating Services Company	242.3	
Longview Power Plant	Longview Power, LLC	807.5	
Luke Mill	NewPage Corp-Luke	65	
Mecklenburg Power Station	Virginia Electric & Power Company	139.8	
Miami Fort	Dynegy Miami Fort	1114.8	
Mitchell (WV)	Kentucky Power Company	1632.6	
Morgantown Generating Plant	GenOn Mid-Atlantic LLC	1252	
Mountaineer	Appalachian Power Company	1300	
Mt Storm	Virginia Electric & Power Company	1662.4	
North Anna	Virginia Electric & Power Company		1959.4
Orrville	City of Orrville, Ohio	84.5	
Oyster Creek	Exelon Nuclear		550
P H Glatfelter	P H Glatfelter Company	70.4	
P H Glatfelter Chillicothe Facility	P H Glatfelter Company	27.2	
Painesville	City of Painesville	53.5	
Peach Bottom	Exelon Nuclear		2621.8
Perry	FirstEnergy Nuclear Operating Co.		1311.6
Powerton	Midwest Generations EME LLC	1785.6	
PSEG Hope Creek Generating Station	PSEG Nuclear LLC		1290.7
PSEG Salem Generating Station	PSEG Nuclear LLC		2340
Quad Cities Generating Station	Exelon Nuclear		2018.6
Radford Army Ammunition Plant	U S Army-Radford	24	
Rockport	Indiana Michigan Power Company	2600	
Spruance Genco	Spruance Genco LLC	229.6	
Surry	Virginia Electric & Power Company		1695
TalenEnergy Montour	TalenEnergy Montour LLC	1775.1	
TalenEnergy Susquehanna	TalenEnergy Susquehanna LLC		2596

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Facility	Primary Owner (per EIA)	Coal (MW)	Nuclear (MW)
Tennessee Eastman Operations	Eastman Chemical Company	194.3	
Three Mile Island	Exelon Nuclear		980.8
University of Notre Dame	University of Notre Dame	16.4	
Virginia City Hybrid Energy Center	Virginia Electric & Power Company	668	
W H Zimmer	Dynegy W H Zimmer	1425.6	
Waukegan	Midwest Generations EME LLC	681.7	
Wausau Paper Middletown	Wausau Paper Middletown	7.5	
Whitewater Valley	City of Richmond, Indiana	93.9	
Will County	Midwest Generations EME LLC	598.4	
Yorktown	Virginia Electric & Power Company	375	
Sources: 2016 Form EIA-860 Data (units with primary fuel of nuclear, or bituminous, refined, or subbituminous coal); PJM, FUTURE DEACTIVATIONS (Feb. 26, 2018), http://www.pjm.com/-/media/planning/gen-retire/pending-deactivation-requests.ashx?la=en.			

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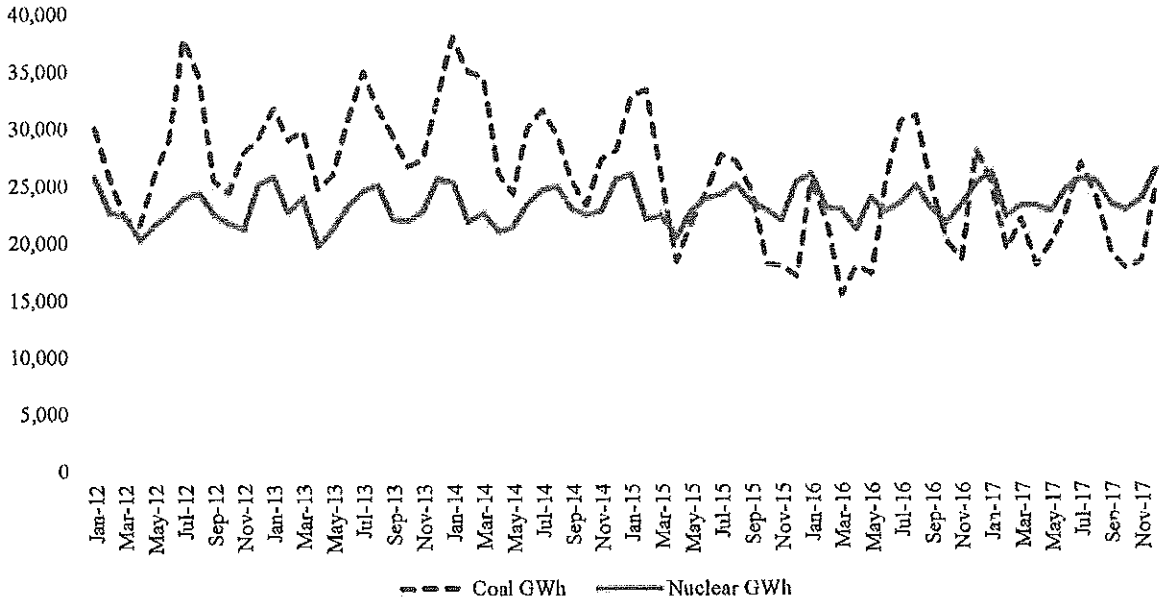
ATTACHMENT B
OUTPUT OF NUCLEAR AND COAL-FIRED GENERATORS IN PJM INTERCONNECTION (GWH) (2012–2017)



Source: Monitoring Analytics LLC, STATE OF THE MARKET REPORTS FOR PJM (2012–2017), http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml.

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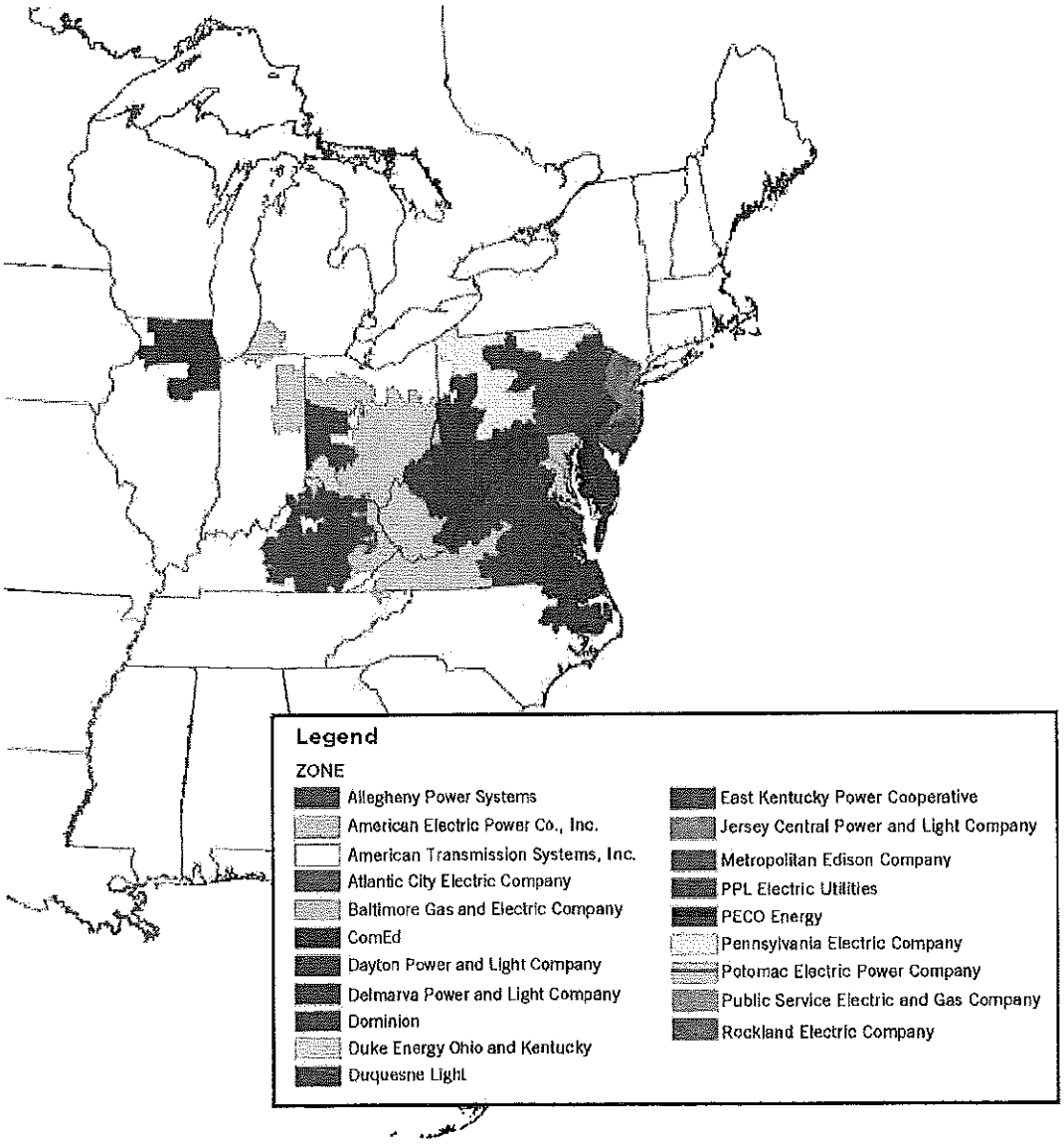
ATTACHMENT C
MAP OF PJM INTERCONNECTION TRANSMISSION ZONES



Source: PJM, http://www.pjm.com/library/~/media/about-pjm/pjm-zones.ashx.

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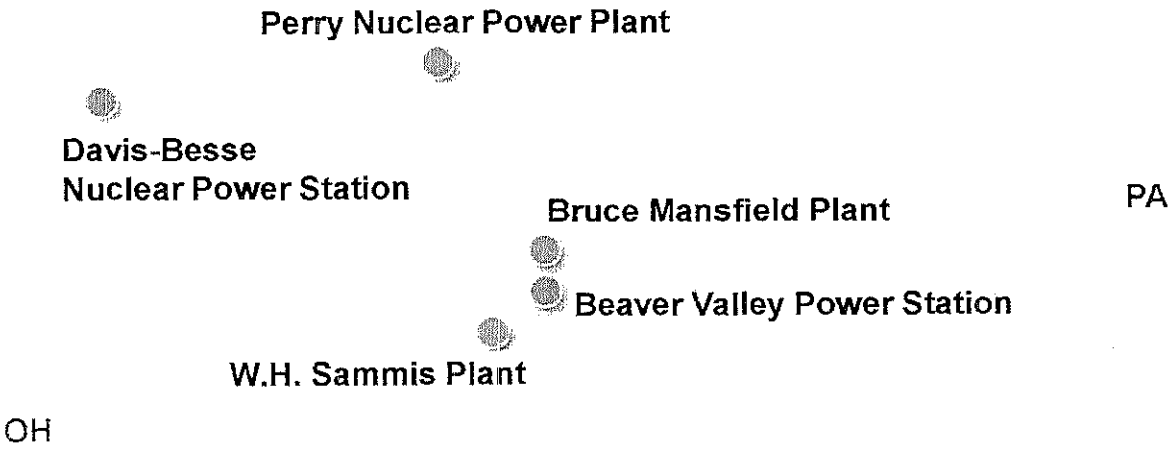
ATTACHMENT D
APPLICANTS' NUCLEAR AND COAL-FIRED GENERATING FACILITIES



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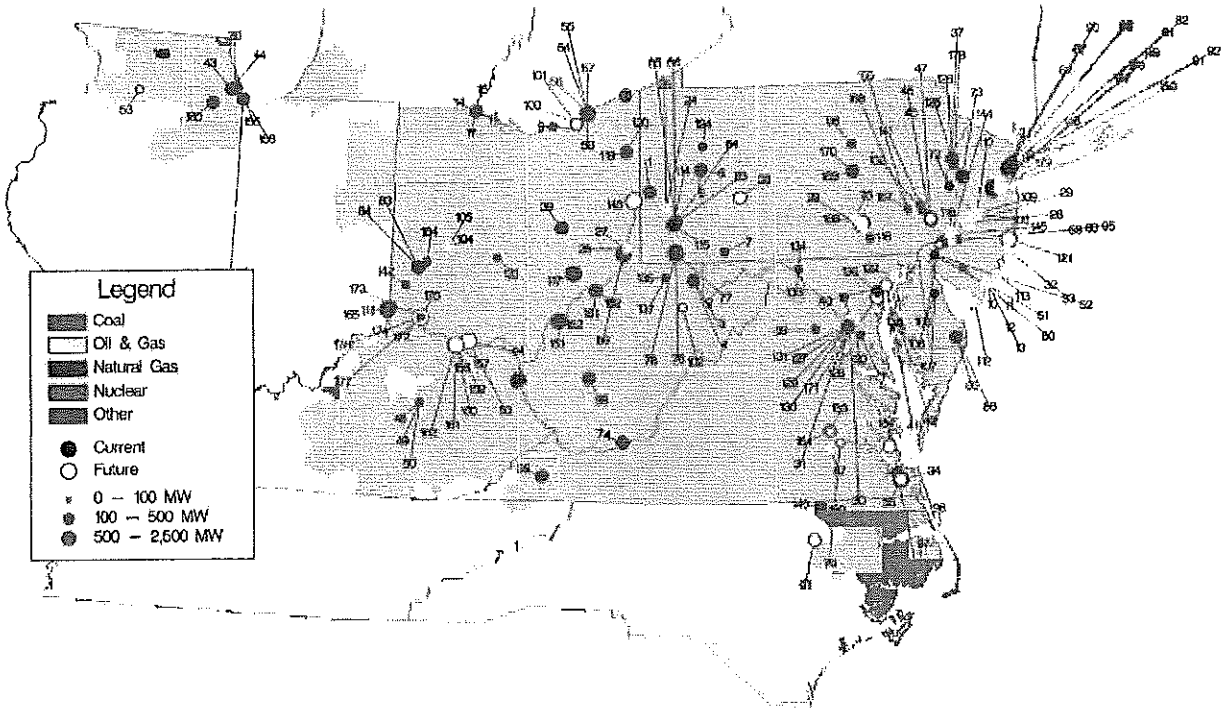
ATTACHMENT E

ACTUAL AND PLANNED GENERATION RETIREMENTS IN PJM, 2011-2020



Key on following page.

Source: Monitoring Analytics LLC, STATE OF THE MARKET REPORT FOR PJM, 2017, http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml, Figure 12-1.

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Unit identification for map of PJM unit retirements, 2011 through 2020

ID	Unit	ID	Unit	ID	Unit	ID	Unit	ID	Unit	ID	Unit
1	AES Beaver Valley	36	Clinch River 3	71	GUDE Landfill	106	McKee 1	141	Rolling Hills Landfill Generator	176	Walter C Beckjord 5-6
2	Albright 1	37	Columbia Dam Hydro	72	Gilbert 1-4	107	McKee 2	142	SMART Paper	177	Walter C Beckjord GT 1-4
3	Albright 2	38	Colver Power Project	73	Glen Gardner 1-6	108	Mercer 1	143	Summit 1-4	178	Warren County Landfill
4	Albright 3	39	Connellsville 3	74	Glen Lyn 5-6	109	Mercer 2	144	Schuylkill 1	178	Werner 1-4
5	Armstrong 1	40	Crane 1	75	Harrisburg 4 CT	110	Mercer 3	145	Schuylkill Diesel	180	Will County 3
6	Armstrong 2	41	Crane 2	76	Hatfield's Ferry 1	111	Miami Fort 6	146	Sewaren 1	181	Willow Island 1
7	Arnold (Green Mtn. Wind Farm	42	Crane GT1	77	Hatfield's Ferry 2	112	Middle 1-3	147	Sewaren 2	182	Willow Island 2
8	Ashtabula 5	43	Crawford 7	78	Hatfield's Ferry 3	113	Missouri Ave B,CD	148	Sewaren 3	183	Winnebago Landfill
9	Avon Lake 7	44	Crawford 8	79	Hopewell James River Cogeneration	114	Mitchell 2	149	Sewaren 4	184	Yorktown 1-2
10	BL England 1	45	Cromby 1	80	Howard Down 10	115	Mitchell 3	150	Sewaren 6		
11	BL England 2	46	Cromby 2	81	Hudson 1	116	Modern Power Landfill NUG	151	Sporn 1-4		
12	BL England 3	47	Cromby D	82	Hudson 2	117	Muskingum River 1-5	152	Sporn 5		
13	BL England Diesel Units 1-4	48	Dale 1-2	83	Hutchings 1-3, 5-8	118	National Park 1	153	Spruance NUG1 (Rich 1-2)		
14	Bay Shore 1	49	Dale 3	84	Hutchings 4	119	Niles 1	154	Spruance NUG2 (Rich 3-4)		
15	Bay Shore 2	50	Dale 4	85	Indian River 1	120	Niles 2	155	State Line 3		
16	Bay Shore 3	51	Deepwater 1	86	Indian River 3	121	Oyster Creek	156	State Line 4		
17	Bay Shore 4	52	Deepwater 6	87	Ingenco Petersburg	122	Perryman 2	157	Stuart 1		
18	Bayonne Cogen Plant (CC)	53	Dixon Lee Landfill Generator	88	Kanawha River 1-2	123	Piceway 5	158	Stuart 2		
19	Benning 15	54	Eastlake 1	89	Kanmer 1-3	124	Piney Creek NUG	159	Stuart 3		
20	Benning 16	55	Eastlake 2	90	Kearny 10	125	Portland 1	160	Stuart 4		
21	Bergen 3	56	Eastlake 3	91	Kearny 11	126	Portland 2	161	Stuart Diesels 1-4		
22	Big Sandy 2	57	Eastlake 4	92	Kearny 8	127	Potomac River 1	162	Stuart Diesels 1-4		
23	Brunner Island Diesels	58	Eastlake 5	93	Killen 2	128	Potomac River 2	163	Sunbury 1-4		
24	Brunot Island 1B	59	Eckhystone 1	94	Killen CT	129	Potomac River 3	164	Tait Battery		
25	Brunot Island 1C	60	Eckhystone 2	95	Kinsley Landfill	130	Potomac River 4	165	Tanners Creek 1-4		
26	Burger 3	61	Edgecomb NUG (Rocky 1-2)	96	Kitty Hawk GT 1	131	Potomac River 5	166	Three Mile Island Unit 1		
27	Burger EMD	62	Edison 1-3	97	Kitty Hawk GT 2	132	Pottstown LF (Moser)	167	Titus 1		
28	Burlington 8,11	63	Elrama 1	98	Koppers Co. IPP	133	R Paul Smith 3	168	Titus 2		
29	Burlington 9	64	Elrama 2	99	Lake Kingston	134	R Paul Smith 4	169	Titus 3		
30	Buzzard Point East Banks 1,2,4-8	65	Elrama 3	100	Lake Shore 18	135	Riverside 4	170	Viking Energy NUG		
31	Buzzard Point West Banks 1-9	66	Elrama 4	101	Lake Shore EMD	136	Riverside 6	171	Wagner 2		
32	Cedar 1	67	Essex 10-11	102	Laurel Mountain Battery	137	Riversville 5	172	Walter C Beckjord 1		
33	Cedar 2	68	Essex 12	103	MH50 Markus Hook Co-gen	138	Riversville 6	173	Walter C Beckjord 2		
34	Chesapeake 1-4	69	Fauquier County Landfill	104	Mad River CTs A	139	Roanoke Valley 1	174	Walter C Beckjord 3		
35	Chesapeake 7-10	70	Fisk Street 19	105	Mad River CTs B	140	Roanoke Valley 2	175	Walter C Beckjord 4		

Source: Monitoring Analytics LLC, STATE OF THE MARKET REPORT FOR PJM, 2017, http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml, Table 12-6.

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Rodriguez, Susan (CONTR)

From: Smith, Christopher <CSmith@gibsondunn.com>
Sent: Thursday, March 29, 2018 12:56 PM
To: Walker, Bruce;Hoffman, Patricia
Cc: Scherman, William S.;Jakubiak, Jeffrey M.
Subject: FirstEnergy Solutions - Copy of 202(c) Application
Attachments: 2018.03.29 - FES 202(c) Application.pdf

Good afternoon,

Please find attached an electronic copy of the application for an emergency order pursuant to Federal Power Act Section 202(c) that FirstEnergy Solutions filed this morning with the Department of Energy.

Sincerely,

Christopher Smith

Christopher Smith

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.887.3764 • Fax +1 202.530.9521
CSmith@gibsondunn.com • www.gibsondunn.com

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Rodriguez, Susan (CONTR)

From: Mersol-Barg, Amy E. <AMersolBarg@gibsondunn.com>
Sent: Friday, May 04, 2018 12:27 PM
To: AskOE
Cc: Walker, Bruce;Hoffman, Patricia;Scherman, William S.;Jakubiak, Jeffrey M.;Smith, Christopher
Subject: FirstEnergy Solutions Letter re 202(c) Application
Attachments: 2018.05.04 FES Response to PJM Letter.pdf

Secretary Perry:

Please find attached a letter from FirstEnergy Solutions Corp. ("FES") responding to a letter that PJM filed on April 30, 2018 concerning FES' Section 202(c) application.

Sincerely,
Amy Mersol-Barg

Amy E. Mersol-Barg

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.955.8529 • Fax +1 202.530.9568
AMersolBarg@gibsondunn.com • www.gibsondunn.com

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May 4, 2018

VIA EMAIL

The Honorable James Richard Perry
Secretary of Energy
United States Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

Re: Request for Emergency Order Pursuant to Federal Power Act Section 202(c)

Dear Secretary Perry:

FirstEnergy Solutions Corp. ("FES"), on behalf of its affiliates named in its March 29, 2018 Section 202(c) application (the "Application"), respectfully responds herein to the April 30, 2018 letter to you from PJM Interconnection, L.L.C. ("PJM") regarding PJM's Fuel Security Initiative.

PJM's views on resilience are best summed up by the classic image of Lucy holding a football for Charlie Brown to kick, only to pull it away at the last moment, resulting in Charlie Brown once again flying through the air and landing flat on his back. Indeed, PJM's latest procedural gambit confirms what FES has been warning DOE (and FERC) about all along: at a time when resilient generation is closing permanently, PJM continues to refuse to act, like Lucy continuing to pull away the football. PJM now suggests that it will take action sometime next year "*if*" PJM thinks it is necessary. Once again, PJM is asking DOE (and the Nation) to "rely on a narrow process run by an entity that has admitted that it does not have a clear view of what resilience is, how to measure it, or how to ensure it."[1] PJM's latest letter demonstrates that what was true then remains true now: PJM is either unwilling or unable to address effectively the emergency facing the Nation's electric grid. But unlike Charlie Brown, DOE does not need to keep blindly "trusting" Lucy since it *can kick the ball now* and address the resilience crisis by granting FES' Application.

Faced with a growing consensus that something must be done now to address the resilience crisis, and unlike its prior statements to FERC and others eschewing that any real problem exists, PJM now pivots and *belatedly* "recognizes that fuel security raises questions about electric system resilience which go beyond reliability" and that it must "[i]dentify system vulnerabilities and determine attributes . . . that ensure that peak demands can be met during extreme scenarios."[2] This sudden revelation rings hollow as it stands in stark contrast to PJM's

---

[1] Letter from FirstEnergy Solutions to Rick Perry, U.S. Sec'y of Energy at 1 (Mar. 30, 2018).

[2] Letter from Steven R. Pincus, Assoc. Gen. Counsel, PJM Interconnection, L.L.C., and Craig Glazer, Vice President, Fed. Gov't Policy, PJM Interconnection, L.L.C., to Rick Perry, U.S. Sec'y of Energy at 1-2 (Apr. 30, 2018) ("April 30 Letter").

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recent and consistent refusal to acknowledge the problem let alone to act to address resilience issues.[3]

For example, just two months ago PJM told FERC that: 1) it needed authority to plan for resilience;[4] 2) it lacked formal resilience criteria;[5] 3) its existing markets were not designed with resilience in mind;[6] 4) it required FERC to verify that it correctly identified system threats;[7] and 5) it lacked requisite information, including real-time conditions on pipelines that support natural-gas fired power plants.[8] But now PJM asserts all of a sudden that sometime next year it may be capable of identifying resilience attributes and designing a market mechanism to compensate generators for the resiliency benefits they provide "if" action is warranted.

PJM has made a similar about-face with respect to the need for nuclear and coal-fired generation in the electric grid. Following the cold weather in the Eastern United States last winter, Andy Ott, President and CEO of PJM, conceded that "[PJM] couldn't survive without gas; [PJM] couldn't survive without coal; [PJM] couldn't survive without nuclear. [PJM] need[s] them all in the moment."[9] Since then, PJM has concluded that its grid "will remain reliable" despite the retirement of three FirstEnergy nuclear plants,[10] representing a combined capacity of approximately 4,000 MW,[11] again ignoring concerns related to *resilience*. Further, Mr. Ott recently claimed that "[w]e do not feel we have a vulnerability today, *but will take a look at the system to see if we could have fuel security issues in the future.*"[12]

---

[3] *See, e.g.*, PJM INTERCONNECTION, PJM'S EVOLVING RESOURCE MIX AND SYSTEM RELIABILITY 5-6 (Mar. 30, 2017) ("'Heavy' reliance on one resource type, such as a resource portfolio composed of 86 percent natural gas-fired resources, however, raises questions about electric system resilience, which are beyond the reliability questions this paper sought to address."), http://www.pjm.com/~/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx; *Ott Addresses Resilience Importance at Grid 20/20*, PJM INSIDE LINES (Sept. 19, 2017) (quoting Andrew Ott, President and CEO, PJM Interconnection, L.L.C.) ("[Resilience] activities will happen as a part of the discussion. If we don't do something, it will be done for us."), http://insidelines.pjm.com/ott-addresses-resilience-importance-at-grid-2020/.

[4] Comments and Responses of PJM Interconnection, L.L.C. at 5-6, *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, FERC Docket No. AD18-7-000 (Mar. 9, 2018).

[5] *Id.* at 37.

[6] *Id.* at 66.

[7] *Id.* at 5.

[8] *Id.* at 6-8.

[9] Press Release, Sen. Lisa Murkowski, Hearing Spotlights Importance of Energy Infrastructure, Diverse Fuel Mix (Jan. 23, 2018) (quoting Andrew Ott), https://www.murkowski.senate.gov/press/release/hearing-spotlights-importance-of-energy-infrastructure-diverse-fuel-mix.

[10] April 30 Letter at 3-4.

[11] *Generation Deactivations*, PJM, http://www.pjm.com/planning/services-requests/gen-deactivations.aspx (last visited May 4, 2018).

[12] *PJM Will Test U.S. Mid Atlantic/Midwest Power Grid for Resiliency*, REUTERS (Apr. 30, 2018) (emphasis added), https://www reuters.com/article/pjm-power-resiliency/pjm-will-test-us-mid-atlantic-midwest-power-grid-for-resiliency-idUSL1N1S70XK.

AMERICAN OVERSIGHT

PJM's ever-shifting and inconsistent statements and positions underscore that action is needed, but PJM will not be the one to take it, at least in any meaningful time frame. PJM's latest announcement is nothing more than a delaying tactic. As PJM knows full well, the design and implementation of a "market-based approach" would take years even under the best circumstances. The grid and the Country do not have years. And as the failure of its capacity performance regime shows, PJM has a dismal track record of adopting effective "market based" approaches to these sorts of issues.

The Nation's wholesale electric markets have failed to recognize and properly value the benefits provided by nuclear and coal-fired generators for years, and, as a result, these generators face the imminent choice of whether to retire. PJM's consistent contradictions demonstrate that it lacks a firm grasp on the resilience problems facing the grid today, let alone how to address them, "if" it ever does.

The Department of Energy recently stated that FERC "has not taken sufficient action" despite "studying the underlying economic and regulatory causes of this problem for years" and so "urge[s] FERC to take *immediate* action to stop the loss of fuel-secure capacity."[13] But the Department of Energy need not and indeed should not wait on FERC. Rather, urgent action by the Department of Energy is the only way to preserve nuclear and coal-fired generation while a long-term solution is developed by DOE and FERC.

Respectfully submitted,

/s/ *Rick C. Giannantonio*
Rick C. Giannantonio
General Counsel
FirstEnergy Solutions Corp.

William S. Scherman
Jeffrey M. Jakubiak
Jennifer C. Mansh
Gibson, Dunn & Crutcher LLP

Counsel for Applicants

cc: Bruce J. Walker, Assistant Secretary, DOE OEDER
Patricia A. Hoffman, Principal Deputy Assistant Secretary, OEDER

[13] Gavin Bade, *PJM Launches Fuel Security Initiative to Counter Gas Reliance*, UTILITY DIVE (May 1, 2018) (quoting Shaylyn Hines, Spokesperson, Dep't of Energy) (emphasis added), https://www.utilitydive.com/news/pjm-launches-fuel-security-initiative-to-counter-gas-reliance/522531/.

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Stamas, George P. <GStamas@gibsondunn.com>
Sent: Monday, May 21, 2018 3:28 PM
To: Stamas, George P.
Subject: Gibson Dunn Strengthens Private Equity and M&A Practices With Four Corporate Partners

As I believe you are aware, I am pleased to advise you that I have joined the international law firm of Gibson, Dunn & Crutcher as a senior partner. Gstamas@gibsondunn.com (200 Park Avenue, New York, NY 10166 – 212.351.5300); (1050 Connecticut Avenue, N.W., Washington DC 20036 202.955.8280).

My best,
George

George P. Stamas

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.955.8280 • Fax +1 202.831.6030

200 Park Avenue, New York, NY 10166-0193
Tel +1 212.351.5300 • Cell (b) (6)
GStamas@gibsondunn.com • www.gibsondunn.com

New Partner Announcement
May 2018

Gibson Dunn Strengthens Private Equity and M&A Practices With Four Corporate Partners

Gibson, Dunn & Crutcher LLP is pleased to announce that George Stamas, Mark Director, Andrew Herman, and Alexander Fine have joined the firm as partners. Mr. Stamas will work in the firm's New York and Washington, D.C. offices, while Messrs. Director, Herman and Fine will be based in the Washington, D.C. office and also will work regularly in the New York office. They all join from Kirkland & Ellis, continuing their corporate, mergers and acquisitions and private equity practices.

"We are delighted to add this distinguished team to the firm," said Ken Doran, Chairman and Managing Partner of Gibson Dunn. "George, Mark, Andrew and Alex are talented, highly regarded lawyers and energetic business developers. They have strong contacts in the legal and business communities in D.C., New York and internationally. Their addition will significantly strengthen our M&A, private equity and corporate practices not just on the East Coast but across the firm worldwide."

"Many of us here at Gibson Dunn have worked opposite of this group in a number of transactions, and we have the utmost respect for them," said Stephen Glover, a partner in the Washington, D.C. office and Co-

AMERICAN OVERSIGHT

Chair of the M&A Practice Group. "Our combined practice will create a D.C. corporate powerhouse that will firmly establish our position as a leader in high-end corporate and M&A. In addition, their private equity and public company M&A experience will complement and expand our national and international practice."

"We are excited about the opportunity to join the firm," said Mr. Stamas. "We have long admired Gibson Dunn's culture and collaborative approach to servicing clients. We are committed to joining the team and further developing our practice together. We wish the very best to our former colleagues, who we hold in high regard."

About George Stamas

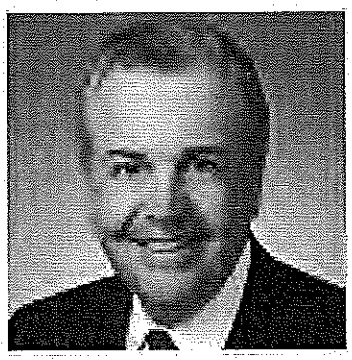
Mr. Stamas served as a senior partner in Kirkland & Ellis' corporate practice group since 2002 and will continue to serve as a senior partner in Gibson Dunn's New York and Washington, D.C. offices. He focuses on public company and private equity M&A and corporate securities transactions. He also counsels C-level executives and board of directors on corporate governance matters.

Mr. Stamas has previously served as Vice Chair of the Board of Deutsche Banc Alex Brown, Inc.; as a founding board member of FTI Consulting (NYSE); as a venture partner of international venture capital firm New Enterprise Associates; and as a member of numerous public and private corporate boards.

He is an executive board member of New York private equity firm MidOcean Partners. He also is a board member of the Shakespeare Theatre Company and on the National Advisory Council of Youth Inc. He is a co-founder of The Hellenic Initiative and a member of The Council on Foreign Relations.

Mr. Stamas is also is a partner of Monumental Partners, which controls the Washington Capitals and Washington Wizards, and is a partner of the Baltimore Orioles.

He graduated in 1976 from the University of Maryland Law School, where he was a member of the *International Law Review*, and from 1977 to 1979, he served as special counsel to Stanley Sporkin in the Enforcement Division of the Securities and Exchange Commission.



George P. Stamas
Partner
gstamas@gibsondunn.com

Tel: +1 202.955.8280
Fax: +1 202.831.6030
NY Tel: +1 212.351.5300

vCard

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About Gibson Dunn

Gibson, Dunn & Crutcher LLP is a leading international law firm. Consistently ranking among the world's top law firms in industry surveys and major publications, Gibson Dunn is distinctively positioned in today's global marketplace with more than 1,250 lawyers and 20 offices, including Beijing, Brussels, Century City, Dallas, Denver, Dubai, Frankfurt, Hong Kong, Houston, London, Los Angeles, Munich, New York, Orange County, Palo Alto, Paris, San Francisco, São Paulo, Singapore, and Washington, D.C. For more information on Gibson Dunn, please visit our website.

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Rodriguez, Susan (CONTR)

From: Scott.Mason@hklaw.com
Sent: Wednesday, June 13, 2018 3:13 PM
To: McCormack, Brian
Subject: hey

B - (b) (6) Congrats and keep up all the great work at DoE. Please keep in touch as you guys further investigate/develop the list of coal/nuclear plants that should be kept alive for security purposes. We'd love to see Navajo Generating Station in AZ added to that list, keeping with the POTUS commitment to coal jobs in the U.S., especially since Zinke/DoI own 24% of it. Thanks for considering, happy to come discuss.

Let's visit soon regardless, grab lunch etc. Have another issue to discuss that is going to require significant U.S. energy infrastructure – or we'll lose an emerging technology to the Chinese and Russians. Not good.

Thanks,
Scott

Scott Mason | **Holland & Knight**
Sr Policy Advisor
Holland & Knight LLP
800 17th Street N.W., Suite 1100 | Washington, DC 20006
Phone 202.469.5330 | Fax 202.955.5564
Cell (b) (6)
scott.mason@hklaw.com | www.hklaw.com

NOTE: This e-mail is from a law firm, Holland & Knight LLP ("H&K"), and is intended solely for the use of the individual(s) to whom it is addressed. If you believe you received this e-mail in error, please notify the sender immediately, delete the e-mail from your computer and do not copy or disclose it to anyone else. If you are not an existing client of H&K, do not construe anything in this e-mail to make you a client unless it contains a specific statement to that effect and do not disclose anything to H&K in reply that you expect it to hold in confidence. If you properly received this e-mail as a client, co-counsel or retained expert of H&K, you should maintain its contents in confidence in order to preserve the attorney-client or work product privilege that may be available to protect confidentiality.

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Eames, Frederick R. <feames@hunton.com>
Sent: Tuesday, June 26, 2018 4:50 PM
To: Winberg, Steven
Subject: RE: Meeting Request

Thanks Steve. Appreciate it.

From: Winberg, Steven [mailto:Steven.Winberg@hq.doe.gov]
Sent: Tuesday, June 26, 2018 7:49 PM
To: Eames, Frederick R.
Subject: RE: Meeting Request

Fred
Someone at FE will reach out tomorrow to schedule. If you do not hear from anyone, ping me.

From: Eames, Frederick R. <feames@hunton.com>
Date: Tuesday, Jun 26, 2018, 7:04 PM
To: Winberg, Steven <Steven.Winberg@hq.doe.gov>
Subject: Meeting Request

Steve – I hope you are doing well.

I am writing to request a meeting with you on behalf of the Energy Advance Center, a coalition we formed a few months ago to promote CCUS. Our members include several oil companies, a major utility, and manufacturers/vendors in the CCUS arena. We will have folks in town on July 12 for meetings to promote sound implementation of the Section 45Q tax credit. DOE has a role in that credit, along with EPA and DOI, in consulting with Treasury on the definition of "secure geological storage." There is an unnecessary lack of clarity currently regarding that definition, particularly as it applies to storage in an EOR context. That needs to be straightened out for the credit to be effective.

Would you and/or your team be able to meet with us on the 12th, preferably around 9 or 9:30 that day? I understand from your team that time may be difficult, so either afternoon of the 12th or late afternoon of the 11th as an alternative?

Thanks very much.

HUNTON ANDREWS KURTH

Frederick Eames
Partner
feames@HuntonAK.com
p 202.778.2245
bio | vCard

Hunton Andrews Kurth LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

HuntonAK.com

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Eames, Frederick R. <feames@hunton.com>
Sent: Thursday, July 12, 2018 4:54 PM
To: Winberg, Steven
Subject: RE: Meeting Request

Steve – Thanks very much for meeting with us yesterday, and for your support on this issue. We very much appreciate the department's consideration. If there is any additional information you need, please let me know. Thanks again.

From: Winberg, Steven [mailto:Steven.Winberg@hq.doe.gov]
Sent: Tuesday, June 26, 2018 7:49 PM
To: Eames, Frederick R.
Subject: RE: Meeting Request

Fred
Someone at FE will reach out tomorrow to schedule. If you do not hear from anyone, ping me.

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Date: Tuesday, Jun 26, 2018, 7:04 PM
To: Winberg, Steven <Steven.Winberg@hq.doe.gov>
Subject: Meeting Request

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Thanks very much.

HUNTON ANDREWS KURTH

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Partner
feames@HuntonAK.com
p 202.778.2245
bio | vCard

Hunton Andrews Kurth LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

HuntonAK.com

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Stamas, George P. <GStamas@gibsondunn.com>
Sent: Monday, July 30, 2018 5:31 AM
To: Dabbar, Paul
Subject: Re: Ubik 360

Paul, by the way, certain large power plant owners who spend incredible sums on poorly constructed security systems are showing real interest in Ubik360.

George P. Stamas

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.955.8280 • Fax +1 202.831.6030
200 Park Avenue, New York, NY 10166-0193
Tel +1 212.351.5300 • Cell (b) (6)
GStamas@gibsondunn.com • www.gibsondunn.com

On Jul 26, 2018, at 4:15 PM, Dabbar, Paul <Paul.Dabbar@hq.doe.gov> wrote:

That sounds great

Paul

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Scheduler contact: Sabrina Smith | T: +1 202 586 5784| Sabrina.Smith@em.doe.gov

From: Alexander, Talia [mailto:TAlexander2@gibsondunn.com]
Sent: Thursday, July 26, 2018 3:24 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Cc: Stamas, George P. <GStamas@gibsondunn.com>; Lee, Anna <ALee2@gibsondunn.com>
Subject: RE: Ubik 360

Good Afternoon Mr. Dabbar,

Thank you for providing your availability. George is available for dinner on Wednesday, August 15th in DC. Would you like to meet him at The Metropolitan Club at 6:30 PM? If you prefer another location please let me know and I will be happy to schedule it.

Warm regards,
Talia

AMERICAN OVERSIGHT

From: "Dabbar, Paul" <Paul.Dabbar@hq.doe.gov>
Date: July 26, 2018 at 12:39:01 PM EDT
To: "Stamas, George P." <GStamas@gibsondunn.com>
Subject: RE: Ubik 360

Im am pretty open for dinner a few weeks. This fall Im am on the road much of the time

Here are some open dates:

(b) (6)

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Scheduler contact: Sabrina Smith | T: +1 202 586 5784| Sabrina.Smith@em.doe.gov

From: Stamas, George P. [mailto:GStamas@gibsondunn.com]
Sent: Thursday, July 26, 2018 12:21 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Subject: Re: Ubik 360

Love to dinner! Can your office suggest datez that work for you?

On Jul 26, 2018, at 11:40 AM, Dabbar, Paul <Paul.Dabbar@hq.doe.gov> wrote:

George:

Great to hear from you. Hope the transition is going well

I had checked in with some of my lab team on it, and no specific application for it was seen by them. But thank you for bringing it to my attention

Lets plan to have dinner in the early fall sometime?

Paul

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |

AMERICAN OVERSIGHT

1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Scheduler contact: Sabrina Smith | T: +1 202 586 5784| Sabrina.Smith@em.doe.gov

From: Stamas, George P. [mailto:GStamas@gibsondunn.com]
Sent: Wednesday, July 25, 2018 3:12 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Subject: Ubik 360

Paul, trust summer well. Ubik getting some traction. If you want t o see any follow up from your end of course let me know. Hope to see you soon. Best George

George P. Stamas

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Tel +1 202.955.8280 • Fax +1 202.831.6030
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Rodriguez, Susan (CONTR)

From: Dabbar, Paul
Sent: Friday, August 03, 2018 10:19 AM
To: Alexander, Talia
Subject: RE: Ubik 360

Great

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Executive Assistant: Sabrina Smith | T: +1 202 586 5784 | Sabrina.Smith@em.doe.gov

---

From: Alexander, Talia <TAlexander2@gibsondunn.com>
Date: Friday, Aug 03, 2018, 12:52 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Subject: RE: Ubik 360

Hi Paul, let's go with the 27th. I'll send an invite.

Talia Alexander
Legal Secretary

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.887.3799 • Fax +1 202.467.0539
TAlexander2@gibsondunn.com • www.gibsondunn.com

From: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Sent: Friday, August 3, 2018 12:29 PM
To: Alexander, Talia <TAlexander2@gibsondunn.com>
Subject: RE: Ubik 360

(b) (6)

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Executive Assistant: Sabrina Smith | T: +1 202 586 5784 | Sabrina.Smith@em.doe.gov

AMERICAN OVERSIGHT

From: Alexander, Talia <TAlexander2@gibsondunn.com>
Date: Friday, Aug 03, 2018, 12:05 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Subject: RE: Ubik 360

Hi Paul,

Thank you for letting me know. Please send me your dates for September and we can go from there.

Kind regards,
Talia

Talia Alexander
Legal Secretary

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, N.W., Washington, DC 20036-5306
Tel +1 202.887.3799 • Fax +1 202.467.0539
TAlexander2@gibsondunn.com • www.gibsondunn.com

From: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Sent: Friday, August 3, 2018 12:01 PM
To: Alexander, Talia <TAlexander2@gibsondunn.com>
Cc: Stamas, George P. <GStamas@gibsondunn.com>; Lee, Anna <ALee2@gibsondunn.com>
Subject: RE: Ubik 360

Talia

I have to travel now the 15. I'm still free (b) (6) . If not those days, we can look at Sept.

Next weeks dates are now taken up

Pleas let me know.

Paul

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Executive Assistant: Sabrina Smith | T: +1 202 586 5784 | Sabrina.Smith@em.doe.gov

From: Alexander, Talia <TAlexander2@gibsondunn.com>
Date: Thursday, Jul 26, 2018, 3:24 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Cc: Stamas, George P. <GStamas@gibsondunn.com>, Lee, Anna <ALee2@gibsondunn.com>
Subject: RE: Ubik 360

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AMERICAN OVERSIGHT

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Subject: RE: Ubik 360

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(b) (6)

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James V. Forrestal Building | Department of Energy Headquarters |
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Scheduler contact: Sabrina Smith | T: +1 202 586 5784 | Sabrina.Smith@em.doe.gov

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Sent: Thursday, July 26, 2018 12:21 PM
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George:

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I had checked in with some of my lab team on it, and no specific application for it was seen by them. But thank you for bringing it to my attention

AMERICAN OVERSIGHT

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Paul

Paul M. Dabbar | Under Secretary for Science | U.S. Department of Energy |
James V. Forrestal Building | Department of Energy Headquarters |
1000 Independence Ave, S.W., Washington D.C. 20585 USA |

Scheduler contact: Sabrina Smith | T: +1 202 586 5784 | Sabrina.Smith@em.doe.gov

From: Stamas, George P. [mailto:GStamas@gibsondunn.com]
Sent: Wednesday, July 25, 2018 3:12 PM
To: Dabbar, Paul <Paul.Dabbar@hq.doe.gov>
Subject: Ubik 360

Paul, trust summer well. Ubik getting some traction. If you want t o see any follow up from your end of course let me know. Hope to see you soon. Best George

George P. Stamas

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200 Park Avenue, New York, NY 10166-0193
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GStamas@gibsondunn.com • www.gibsondunn.com

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AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Subject:	Dinner: Paul Dabbar & George Stamas
Location:	The Metropolitan Club | 1700 H St NW, Washington, DC 20006
Start:	Thu 9/27/2018 3:30 PM
End:	Thu 9/27/2018 5:30 PM
Show Time As:	Tentative
Recurrence:	(none)
Organizer:	Stamas, George P.

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AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Smith, Wayne D
Sent: Friday, January 05, 2018 2:48 PM
To: Jereza, Catherine;Bowie, America
Subject: RE: 202c

Many thanks Katie.

Hope you have a wonderful weekend also!

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:39 PM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Bowie, America <America.Bowie@hq.doe.gov>
Subject: 202c

Hi Wayne and America,

Attached is the DOE implementing regulations document, which provides the information required for requesting an order from the Secretary. Right after we talked I found the email with the application and relevant attachments from PJM for the ongoing 202c emergency order that began back in June. So we have the real thing for the most recent order!

In the mean time I will ask Rakesh Batrah and my staff to provide the applications for the previous orders.

Have a great weekend!
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c) (b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov
202.586.4666

** Please contact Shamika for all meeting and scheduling requests. **

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From:	Batra, Rakesh
Sent:	Monday, January 08, 2018 6:30 AM
To:	Smith, Wayne D;Jereza, Catherine;Bowie, America
Cc:	Mills, Brian;Rosenbaum, Matthew;Lawrence, Christopher
Subject:	RE: 202c
Attachments:	GRDA public 202(c) letter.pdf; PJM Dominion Original and 2 renewal Applications.pdf

We received 202 (c) applications from two applicants, PJM/Dominion and GRDA in 2017.
Attached are the PJM/Dominion Original and two renewal applications and GRDA application.

Please let me know if I could be of further assistance.

Thanks,
Rakesh

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:52 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: FW: 202c

Brian McCormack requested the applications for all 202c orders in the past year. I had trouble finding them on the O Drive, but I at least had the first one from PJM.

Is the regulations I found on the O drive the correct version?

Can we have all the applications ready to go Monday morning?

Thanks!
Katie

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:38 PM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Bowie, America <America.Bowie@hq.doe.gov>
Subject: 202c

Hi Wayne and America,

Attached is the DOE implementing regulations document, which provides the information required for requesting an order from the Secretary. Right after we talked I found the email with the application and relevant attachments from PJM for the ongoing 202c emergency order that began back in June. So we have the real thing for the most recent order!

In the mean time I will ask Rakesh Batrah and my staff to provide the applications for the previous orders.

Have a great weekend!
Katie

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Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c) (b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov
202.586.4666

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PUBLIC VERSION

GRDA
Grand River Dam Authority

April 11, 2017

The Honorable James Richard Perry
Secretary of Energy
United States Department of Energy
U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Request for Emergency Order Pursuant to Section 202(c) of the Federal Power Act

Dear Secretary Perry:

The Grand River Dam Authority ("GRDA"), an agency of the State of Oklahoma, hereby notifies the Department of Energy ("DOE" or "Department") of an imminent shortage of generation resources in its service area that constitutes an emergency within the meaning of Section 202(c) of the Federal Power Act ("FPA")[1] and requests that the Department invoke its emergency authority pursuant to Section 202(c) to alleviate such emergency.

This spring, because of a confluence of events that will result in the unavailability of all generation at GRDA's principal generating facility, the Grand River Energy Center ("GREC"), GRDA will face an unexpected shortage of electric generation resources to address the reactive power needs of its service area. Specifically, from April 16, 2017 to July 15, 2017 (referred to herein as the "Emergency Period"), none of the GREC's three generating units will be online due to: (i) the required closure of Unit No. 1 on April 15, 2017, pursuant to an Administrative Order issued by the Environmental Protection Agency ("EPA"); (ii) a lightning strike that seriously damaged Unit No. 2 on July 1, 2016, rendering it inoperable until August 2017; and (iii) unforeseen delays in the construction of a new generating unit (Unit No. 3) because of key supplier delays in the fabrication of essential project materials due to the August 2016 floods in Louisiana.

Without at least one of these three generating units available to generate electricity to provide reactive power needed for grid reliability during the Emergency Period, GRDA will be unable to meet the reactive power needs of its service area during any low-load, high voltage conditions that occur (hereinafter, GRDA refers to this shortage of available reactive power resources during the Emergency Period as the "Emergency"). This Emergency will require Southwest Power Pool, Inc. ("SPP"), the Reliability Coordinator for GRDA's service area, to reconfigure the transmission system to mitigate the high voltage conditions by opening high voltage transmission lines. This method to address high voltage conditions on the transmission system is not as robust an engineering solution as the ability to operate a generator to provide

[1] 16 U.S.C. § 824a(c).

ADMINISTRATION
PO Box 409, Vinita OK 74301-0409
918-256-5545, 918-256-5289 Fax

COAL-FIRED COMPLEX
PO Box 609, Chouteau OK 74337
918-824-1074, 918-825-7791 Fax

ECOSYSTEMS & EDUCATION CENTER
PO Box 70, Langley OK 74350-0070
918-782-4726, 918-782-4723 Fax

ENGINEERING & TECHNOLOGY CENTER
9933 E 16th Street, Tulsa OK 74128
918-622-2228

ENERGY CONTROL CENTER
ROBERT S. KERR DAM
PO Box 772, Locust Grove OK 74352
918-479-5249, 918-825-1935 Fax

GRDA POLICE, PO Box 70, Langley OK
74350, 918-782-4726, 918-782-4723 Fax

OKLAHOMA CITY
201 NW 63rd St. Suite 305
Oklahoma City OK 73116
405-297-9963, 405-236-7831 Fax

PENSACOLA DAM, PO Box 70, Langley
OK 74350, 918-782-3382 Also Fax

SALINA PUMPED STORAGE PROJECT
PO Box 609, Salina OK 74365
918-434-5606 Also Fax

TRANSMISSION HEADQUARTERS
PO Box 1128, Pryor OK 74362
918-825-0280, 918-825-9416 Fax

AMERICAN OVERSIGHT
DOE-19-1027-A-000112

dynamic reactive power control; opening a transmission line offers only a static solution that poses more reliability risk to the system and does not follow good utility practice to keep the system intact.

Accordingly, GRDA hereby submits this application pursuant to FPA § 202(c) and Subpart W of Part 205 of the Department's regulations[2] for an emergency order to provide reactive power from Unit No. 1 of the GREC from April 16, 2017 to July 15, 2017 consistent with the conditions herein, in the event that Southwest Power Pool, Inc. ("SPP") determines that such generation is needed to maintain grid reliability. As explained below, GRDA is requesting that SPP have the ability to call on Unit No. 1, which would otherwise be offline but available (using natural gas igniters if necessary), only if SPP sees a need for Unit No. 1 to run to address reliability concerns relating to overvoltage conditions.

I. BACKGROUND

GRDA is an agency of the State of Oklahoma, primarily serving public power communities in Oklahoma. Approximately 70 percent of GRDA's total electric energy is generated by the Grand River Energy Center, which is located near Chouteau, Oklahoma. GREC Units No. 1 and 2 are coal-fired generating units (with natural gas-fired igniters), with generating capacities of 490 and 520 megawatts (MW), respectively.

Due in part to EPA's Mercury and Air Toxics Standards (MATS) requirements, which would have required substantial upgrades for Unit No. 1, GRDA determined to retire Unit No. 1 and to construct a new, lower-emitting, natural gas-fired generation unit (Unit No. 3). GRDA is currently in the process of constructing Unit No. 3, which is a highly efficient 495 MW natural gas combined cycle unit. When GRDA commenced construction of Unit No. 3, it was projected to come online in May 2017. To maintain grid reliability during Unit No. 3's construction, EPA issued an Administrative Order ("AO") granting GRDA a one-year extension of the compliance deadline for Unit No. 1 to comply with EPA's MATS requirements. The AO, attached hereto as Attachment A, requires Unit No. 1 to cease operation as a coal-fired unit on April 15, 2017.[3] The AO, issued under Section 113(a)(4) of the Clean Air Act, is nonrenewable.

As GRDA's principal electric generating station, the GREC plays a critical role in meeting all aspects of GRDA's electric load and in providing ancillary services, including reactive power. In particular, Unit No. 1 has traditionally played a key role in generating reactive power to provide local voltage support in GRDA's service area, particularly when Unit No. 2 has been out of service.

In 2014, SPP on six occasions requested either additional capacitive or reactive voltage support from Unit No. 1 to address voltage problems on the transmission system. During a planned maintenance outage of GREC Unit No. 2 for the period October 15, 2014 through November 4, 2014, SPP created a Temporary Operating Guide for Unit No. 1 requiring it to be

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[2] 10 C.F.R. Part 205, Subpart W (2016).

[3] Attachment A also includes an Amendment to the AO to account for increased reliance on Unit No. 1 after the lightning strike at Unit No. 2.

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available for dispatch during instances of low load and high voltage. The Operating Guide, attached as Attachment B, stated that "[d]ue to the low load and high voltage in the GRDA area, GRDA Unit #1 generation will be needed. Generation needs to be online in order to ensure voltage stability until GRDA Unit #2 returns from outage."[4] Unit No. 1 was in fact called upon by SPP to provide reactive support during a substantial portion of the period Unit No. 2 was on outage. GRDA's transmission system, along with the conditions that give rise to the need to maintain the availability of Unit No. 1 to address low load, high voltage conditions, have not changed materially since SPP issued the Temporary Operating Guide.

II. APPLICATION FOR EMERGENCY ORDER

As explained below, GRDA requests that DOE determine that an emergency exists within the meaning of FPA § 202(c) with respect to the unavailability of Unit No. 1 during the Emergency Period, and order GRDA to run Unit No. 1 for the purpose of providing reactive power during the Emergency Period in the event that neither Unit No. 2 nor Unit No. 3 is online, and SPP determines that reactive power from Unit No. 1 is needed for purposes of grid reliability.

A. An Emergency Exists Because a Lightning Strike at Unit No. 2, and Unforeseeable Construction Delays at Unit No. 3, Will Leave GRDA Without the Ability to Generate Electricity for Reactive Power During the Emergency Period.

FPA § 202(c) provides that if "an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes" DOE may issue an order requiring the temporary connections of facilities, and such generation, delivery, interchange, or transmission of electric energy as it deems appropriate to best meet the emergency and serve the public interest. DOE's regulations provide additional detail about what constitutes an "emergency" for purposes of Section 202(c) at 10 C.F.R. § 205.371:

> "Emergency" . . . is defined as an unexpected inadequate supply of electric energy which may result from the unexpected outage or breakdown of facilities for the generation, transmission or distribution of electric power. Such events may be the result of weather conditions, acts of God, or unforeseen occurrences not reasonably within the power of the affected "entity" to prevent. An emergency also can result from . . . a regulatory action which prohibits the use of certain electric power supply facilities. Actions under this authority are envisioned as meeting a specific inadequate power supply situation. Extended periods of insufficient power supply as a result of inadequate planning or the failure to construct necessary facilities can result in an emergency as contemplated in these regulations. . . .

[4] *See* SPP Temporary Operating Guide, "GRDA Unit #1 Manual Commitment," Attachment B.

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The unavailability of Units No. 1, 2, and 3 at the GREC during the Emergency Period constitutes an emergency within the meaning of Section 202(c) and DOE's regulations. First, without the availability of at least one of these three generating units at the GREC, GRDA will be unable to provide reactive power for local voltage support to maintain grid stability in GRDA's service area in low load, high voltage conditions. In the past, Unit Nos. 1 and 2 have traditionally met GRDA's needs for reactive power. However, these generating units will be offline during the Emergency Period, and Unit No. 3 will still be under construction and therefore not yet online. GRDA has no other means to procure or provide adequate reactive power for local voltage support in its service area during the Emergency Period. GRDA does not own, or have control over, other resources that can provide sufficient reactive power in GRDA's service area to provide adequate voltage support under low load, high voltage conditions. GRDA cannot rely on temporary generation to produce the needed reactive power because of the quantity of potential reactive power that might be needed under low load, high voltage conditions. (For instance, SPP called upon Unit No. 1 to provide more than 100 MVars of reactive power in 2016 under low load, high voltage conditions.)

Further, SPP's ability to address the reactive power needs of GRDA's service area without Unit No. 1 is limited and inadequate. SPP has the ability to reduce reactive power needs during the Emergency Period through reconfiguring its transmission system by opening transmission lines. However, this is not an optimal solution, because it would not allow SPP to maintain its system in an intact state consistent with good utility practice. Opening transmission lines is a less reliable means of addressing reactive power needs than through dynamic reactive power generation resources because of the relative reliability risk it poses; reactive power cannot be controlled as easily through system configuration as it can through dynamic resources to respond to unexpected events, and the system is more vulnerable to outages because the system is not intact. Thus, SPP's ability to address reactive power needs in GRDA's service area without Unit No. 1 is a limited and less robust method to ensure reliability.

Second, this shortage of resources to generate reactive power during the Emergency Period was unexpected and unforeseeable by GRDA, which originally expected to have Unit No. 2 available, and Unit No. 3 coming online, during the Emergency Period. However, Unit No. 2 sustained extensive damage on July 1, 2016 from a fire caused by a lightning strike, which took Unit No. 2 offline. Repairs to Unit No. 2 are ongoing and will not be completed until August 2017. This lightning strike causing the fire at Unit No. 2 was an unforeseeable act of God, the effects of which were not within the power of GRDA to prevent.[5] Likewise, Unit No. 3's commercial operation date has been delayed because of another unforeseeable act of God – the Louisiana floods of August 2016 – which delayed the ability of a key supplier to meet contractual commitments for critical materials for Unit No. 3's construction. Although GRDA planned for the shutdown of Unit No. 1 due to EPA's AO, DOE's regulations note that an emergency can result from "a regulatory action which prohibits the use of certain electric power supply facilities."[6] Collectively, the unavailability of the GREC's three generating units, each for different reasons, over the Emergency Period gives rise to a "shortage of facilities for

[5] 10 C.F.R. § 205.371.
[6] 10 C.F.R. § 205.371.

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generating electric energy" within the meaning of Section 202(c) of the FPA for GRDA's service area.

B. GRDA's Shortage of Reactive Power Resources During the Emergency Period Will Imperil Grid Reliability

During low load, high voltage conditions, an inability to provide sufficient reactive power for voltage support can imperil grid reliability by allowing the grid to exceed the range of acceptable system voltage.[7] The inability to schedule sufficient reactive power can constitute a reliability standards violation, because under NERC Reliability Standard VAR-001-4.1 (Voltage and Reactive Control), transmission operators "shall schedule sufficient reactive resources to regulate voltage levels under normal and Contingency conditions."[8] A deficiency of reactive power can lead to disruption of service, because transmission facilities operating at voltages in excess of system voltage limits must be disconnected from other elements of the grid.[9] If transmission facilities operating at excessive voltages are not disconnected, the overvoltages can cause electric arcing due to insulation "flash overs," which can in turn result in physical damage to transmission facilities.[10]

GRDA's impending shortage of reactive power resources increases the risk of service disruption to GRDA's customers due to overvoltage, because the only means SPP will have to address reactive power needs is through reconfiguring the transmission system by opening a transmission line – a step that will mean the system is no longer intact. Good utility practice calls for the system to be maintained intact if possible. Without an intact system, GRDA's system will be more vulnerable to disruption of service or outages as a result of unexpected events. SPP recognized the risks presented by a lack of reactive power resources at the GREC in 2014 when Unit No. 2 was on outage by issuing its Temporary Operating Guide for Unit No. 1. SPP has reaffirmed the importance of maintaining Unit No. 1 beyond April 15, 2017 for mitigation of system voltage issues and local grid reliability in a letter of support for this request, attached hereto as Attachment C.

C. GRDA Provides Power to Significant Regions in Oklahoma, Including Customers of National Significance

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7 At low levels of electric system load, energized transmission lines may act as a capacitive load that increases system voltage.

8 NERC Reliability Standard VAR-001-4.1 (Voltage and Reactive Control), R1 ("Each Transmission Operator shall schedule sufficient reactive resources to regulate voltage levels under normal and Contingency conditions. Transmission Operators can provide sufficient reactive resources through various means including, but not limited to, reactive generation scheduling, transmission line and reactive resource switching, and using controllable load.").

9 *See* Reliability Standard TOP-008-1 (Response to Transmission Limit Violations), R3 ("The Transmission Operator shall disconnect [an] affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered.").

10 FERC Reliability Primer at 25 ("[H]igh voltages can exceed the insulation capabilities of equipment and cause dangerous electric arcs known as "flashovers." These conditions can occur when there is light loading on the system (e.g., less customer demand), causing an excess of reactive power that elevates the voltage beyond safe operating limits.").

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GRDA provides electric power on its transmission system to both retail and wholesale customers. GRDA provides retail electric service to 80 industrial and commercial customers, most of which are located in the MidAmerica Industrial Park (MAIP) near Pryor. [redacted] The 9,000 acre MAIP is home to over 80 companies employing over 4,500 people. There are also urgent care, emergency and life flight services within the MAIP boundaries. On the wholesale side, GRDA's largest customer is Western Farmers Electric Cooperative (WFEC) which is responsible for supplying power to [redacted] 18 member Oklahoma distribution cooperatives. GRDA provides power directly to over 16 municipalities, including [redacted] Coffeyville, Kansas, which has a strong industrial base, and the City of Stillwater, which is primarily residential and commercial service. There are 15 hospitals with a combined 1000+ bed-capacity in these cities. GRDA also provides electricity to the Oklahoma Municipal Power Authority (OMPA). Through support of OMPA, GRDA's generation provides a portion of the electric power to an additional 35 participating cities in Oklahoma. Directly and indirectly, GRDA provides electric power support to some portion of 75 of the Oklahoma's 77 counties.

D. Information Required By Section 205.373

Herein, GRDA sets forth the information required under Section 205.373 of DOE's regulations.[11] To ensure that DOE has the information it needs to evaluate GRDA's application, GRDA is providing certain additional information that GRDA deems salient to its application.

(a) Legal Name of Applicant. The applicant is Grand River Dam Authority.

(b) Person to Whom Correspondence Should Be Addressed. Correspondence with respect to this application should be directed to:

Daniel S. Sullivan
Chief Executive Officer
Grand River Dam Authority
P.O. Box 409
Vinita OK 74301-0409
(918)256-5545
dsullivan@grda.com

[11] Certain elements of Section 205.373 address the circumstances of an applicant facing a shortage of real power and the prospect of firm customer curtailment, but do not address GRDA's emergency circumstances, which involve a shortage of reactive power generation during light load conditions. GRDA has indicated where these requirements are Section 205.373 are not applicable to GRDA's circumstances.

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(c) Political Subdivision in Which GRDA Operates and Business Conducted. GRDA operates in 24 counties in Northeast Oklahoma. GRDA sells electricity to three customer classes in its service area: municipals, electric cooperatives and industries.

(d) Baseline Data.

(1) Daily peak load and energy requirements for each of the past 30 days, and projections for each day of the Emergency Period: These requirements are not applicable to GRDA's request, which contemplates relief in light load conditions. GRDA is providing information about the reactive power provided by Unit No. 1 in February 2017, the most recent month for which data is available, in Attachment D. GRDA provided reactive power pursuant to an SPP Temporary Operating Guide in the fall of 2014 period to maintain grid reliability. GRDA is providing data on the reactive power provided by Unit No. 1 during this time frame in Attachment E.

(2) All capacity and energy receipts or deliveries to other electric utilities for each of the past 30 days: Not applicable.

(3) The status of all interruptible customers for each of the past 30 days, and anticipated status during the Emergency Period: GRDA does not expect to interrupt any customers during the Emergency Period due to a lack of available energy. Interrupting load during the Emergency Period would exacerbate, rather than remedy, the low load, high voltage conditions that present an emergency for GRDA.

(4) All scheduled capacity and energy receipts or deliveries to other electric utilities during the Emergency Period. Not applicable.

(e) A description of the emergency situation, any contingency plan of GRDA, and the current level of implementation. The emergency situation GRDA faces is described above in Section II.A of this Application. Until GRDA can bring GREC Unit No. 2 or No. 3 online, GRDA does not have any contingency plan to provide reactive power for voltage support without Unit No. 1. As explained above in Section II.B, SPP's ability to address GRDA reactive power needs in low-load, high voltage conditions without Unit No. 1 is limited and poses increased reliability risks for GRDA's service area compared to operating Unit No. 1 for voltage support.

(f) A showing that adequate electric service to firm customers cannot be maintained without additional power transfers. Not applicable.

(g) A description of any conservation or load reduction actions that have been implemented. Not applicable. Reducing load via conservation or other load reduction actions under low load, high voltage circumstances would exacerbate, rather than mitigate, emergency overvoltage conditions.

(h) A description of efforts made to obtain additional power through voluntary means and the results of such efforts. GRDA does not have the ability to provide additional

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reactive power resources to alleviate the Emergency. GRDA is required to cease operation of Unit No. 1 as a coal-fired unit after April 15, 2017 pursuant to an Administrative Order under Section 113(a)(4) of the Clean Air Act. An order issued under Section 113(a)(4) is nonrenewable, and therefore, EPA does not have authority to extend the compliance deadline in the AO and further delay compliance with MATS for Unit No. 1. Unit No. 2 is undergoing repairs as quickly as possible, but the unit will not be available during the Emergency Period. Construction on Unit No. 3 is not expected to be completed until sometime in June 2017, at the earliest, and may not be available at all during the Emergency Period.

(i) A listing of proposed sources and amounts of power necessary from each source to alleviate the emergency and a listing of any other "entities" that may be directly affected by the requested order. The only generation source that GRDA proposes to alleviate the Emergency is Unit No. 1 of the GREC. Based on historical data, GRDA expects that it could be called upon to absorb up to 120 MVar or more from the grid if called on by SPP for local voltage support in low load, high voltage conditions.

Two entities would be directly affected by GRDA's requested order. First, SPP manages grid operations for GRDA's transmission assets, and thus would be directly responsible for addressing any grid instability resulting from the Emergency. If DOE grants GRDA's request for relief herein, SPP would be able to dispatch Unit No. 1 to absorb reactive power if it determines that such generation is necessary to maintain grid reliability. Second, EPA would be directly affected, because running Unit No. 1 after April 15, 2017, would contravene the terms of EPA's AO and the Clean Air Act, which require GRDA to cease coal-fired operations at Unit No. 1 after April 15, 2017.

(j) Specific proposals to compensate the supplying "entities" for the emergency services requested and to compensate any transmitting "entities" for services necessary to deliver such power. GRDA proposes that, during the Emergency Period, it be compensated for any generation from Unit No. 1 directed by SPP pursuant to a DOE Section 202(c) Order consistent with the terms of the SPP Tariff.

(k) A showing that, to the best of the applicant's knowledge, the requested relief will not unreasonably impair the reliability of any "entity" directly affected by the requested order to render adequate service to its customers. To GRDA's knowledge, ordering reactive power generation from Unit No. 1, which is currently an SPP generating resource, will not impair the reliability of any entity.

(l) Description of the facilities to be used to transfer the requested emergency service to the applicant's system. Not applicable.

(m) A general or key map on a scale not greater than 100 kilometers to the centimeter showing, in separate colors, the territory serviced by each "entity" named in the application; the location of the facilities to be used for the generation and transmission of the requested emergency service; and all connection points between systems. This information is at attached as Attachment F.

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(n) An estimate of the construction costs of any proposed temporary facilities and a statement estimating the expected operation and maintenance costs on an annualized basis. Not applicable

(o) Supplemental Information. A letter from SPP in support of GRDA's request for action under FPA Section 202(c) is attached as Attachment C.

E. Compliance with Applicable Environmental Laws Under Section 202(c)(2).

Section 202(c)(2) of the FPA provides that when DOE issues an order under Section 202(c) that results in a conflict with Federal, State, or local environmental law, DOE is required to ensure that the order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent with applicable Federal, State, or local environmental law and minimizes any adverse environmental impacts.[12] Herein, GRDA is requesting authorization to generate electricity to provide reactive power support from Unit No. 1 of the GREC after April 15, 2017, which would contravene EPA's Administrative Order on MATS Compliance for Unit No. 1.[13]

To ensure compliance with the AO to the maximum extent possible and minimize environmental impacts pursuant to Section 202(c)(2), GRDA commits that, in the event DOE issues a Section 202(c) order directing the generation of reactive power from Unit No. 1 of the GREC, GRDA will generate from Unit No. 1 only when called upon by SPP pursuant to DOE's order, and will otherwise keep Unit No. 1 offline. Although Unit No. 1 must burn coal to generate reactive power, GRDA Unit No. 1 has natural gas igniters available to keep Unit No. 1 in a ready state, if necessary. This will ensure compliance with EPA's AO to the maximum extent possible given that the AO does not prohibit the use of natural gas at Unit No. 1. Because GRDA can keep Unit No. 1 ready, Unit No. 1 does not need to maintain a minimum generation level or be synchronized to the grid to be ready to respond if called upon by SPP to provide reactive power. Unit No. 1 can be brought online to generate reactive power from an offline state within 24 hours, which is within the window of notice that SPP would give GRDA to generate reactive power.

Additionally, GRDA commits to cease all generation from Unit No. 1 as soon as GREC Unit No. 3 or Unit No. 2 is brought online, in which case either unit would be able to act as a reactive power resource for GRDA.

F. Request for Designation of Critical Electrical Infrastructure Information

Pursuant to Section 215A of the FPA, GRDA requests that the Department designate the bracketed information in Section II.C as critical electrical infrastructure information protected

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[12] 16 U.S.C. § 824a(c)(2).

[13] *See* Attachment A at P 31.

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from disclosure under the Freedom of Information Act and other public disclosure laws.[14] The bracketed information includes information relating to the production, generation, and transmission of energy that could be useful to a person in planning an attack on critical infrastructure.[15]

G. Requested Order

As explained herein, GRDA respectfully requests that DOE issue an emergency order directing the generation of electricity to provide reactive power from Unit No. 1 of the GREC from April 16, 2017 to (i) July 15, 2017, or (ii) the date on which GREC No. 3 or No. 2 is brought online, whichever is earlier, in the event that Southwest Power Pool, Inc. ("SPP") determines that generation from Unit No. 1 is needed to maintain grid reliability, subject to the requirements that Unit No. 1 remain offline unless requested to generate by SPP pursuant to a DOE Section 202(c) order.

III. CONCLUSION

GRDA respectfully requests that DOE take the emergency action requested herein as soon as possible to address the imminent shortage of reactive power that GRDA faces in its service area. GRDA stands ready to answer any questions that DOE may have, and to provide any additional information that DOE requires.

Respectfully submitted,

Daniel S. Sullivan
Chief Executive Officer
Grand River Dam Authority

Cc: Patricia A. Hoffman, Principal Deputy Assistant Secretary and Acting Assistant Secretary, DOE Office of Electricity Delivery & Energy Reliability

Attachments

[14] 16 U.S.C. § 824a(c)(2).

[15] *See* 18 C.F.R. § 388.113(d)(1)(i). GRDA requests the bracketed information be designated critical electric infrastructure information for as long as permissible. *See* 18 C.F.R. § 388.113(d)(1)(ii).

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PUBLIC VERSION

CERTIFICATE OF SERVICE

I hereby certify that I have this 11th day of April, 2017, caused copies of the foregoing documents to be served on the parties listed below by causing copies of the same to be sent via overnight delivery.

Michael Bardee
Director, Office of Electric Reliability
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Administrator Scott Pruitt
U.S. Environmental Protection Agency
Mail code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Southwest Power Pool, Inc.
c/o Lanny Nickell, Vice President, Engineering
415 North McKinley Street, Suite 140
Little Rock, AR 72205

Ronald W. Ciesiel
General Manager
Southwest Power Pool Regional Entity
201 Worthen Drive
Little Rock, AR 72223

/s/ Nathan Reese
Nathan Reese
Assistant General Counsel
Grand River Dam Authority

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Attachment A

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Grand River Dam Authority, Respondent.	Administrative Compliance Order on Consent AED-CAA-113(a)-2016-0002

ADMINISTRATIVE COMPLIANCE ORDER

A. PRELIMINARY STATEMENT

1. This Administrative Compliance Order ("Order") is issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency ("EPA") by Section 113(a) of the Clean Air Act (the "CAA" or "Act"), 42 U.S.C. § 7413(a)(3) and (4).
2. On the EPA's behalf, Phillip A. Brooks, Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, is delegated the authority to issue this Order under Section 113(a) of the Act.
3. Respondent is Grand River Dam Authority, an agency of the state of Oklahoma. Respondent is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e). Respondent owns and/or operates the Grand River Energy Center (hereafter, the "Facility"), located in the state of Oklahoma.
4. Respondent signs this Order on consent.

B. STATUTORY AND REGULATORY BACKGROUND

5. Section 112 of the CAA, 42 U.S.C. § 7412, authorizes the Administrator of EPA to regulate hazardous air pollutants ("HAPs") which may have an adverse effect on health or the environment.

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6. Pursuant to Section 112 of the CAA, the EPA finalized National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Subpart UUUUU on December 16, 2011, 77 FR 9304 (Feb. 16, 2012) (40 C.F.R. Part 63 Subpart UUUUU), commonly known as the "Mercury and Air Toxics Standards." *Id.* (hereafter, "MATS"). The MATS adopt emission limits on mercury, acid gases and other toxic pollutants for affected coal and oil-fired electric generating utility units ("EGUs").
7. Pursuant to 40 C.F.R. § 63.9981, the MATS applies to owners or operators of coal-fired EGUs or oil-fired EGUs as defined in 40 C.F.R. § 63.10042.
8. Pursuant to 40 C.F.R. § 63.2, "owner or operator" is defined as "any person who owns, leases, operates, controls, or supervises a stationary source."
9. Section 111(a)(3) of the Act, 42 U.S.C. § 7411(a)(3), and 40 C.F.R. § 63.2 defines a "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant."
10. Pursuant to 40 C.F.R. § 63.2, "affected source" is defined as "the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a Section 112(c) source category or subcategory for which a Section 112(d) standard or other relevant standard is established pursuant to Section 112 of the Act."
11. Pursuant to 40 C.F.R. § 63.9982, the affected source to which the provisions of the MATS, 40 C.F.R. Part 63, Subpart UUUUU, applies is the collection of all existing coal- or oil-fired EGUs, as defined in 40 C.F.R. § 63.10042, within a subcategory, [and] … each new or reconstructed coal- or oil-fired EGU, as defined in 40 C.F.R. § 63.10042.
12. On December 16, 2011, in parallel with finalizing the MATS, the Office of Enforcement and Compliance Assurance issued a policy memorandum describing its intended approach regarding issuance of Section 113(a) administrative orders ("Orders") to sources that are unable to comply

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with the MATS but that may need to operate for up to a year to address a specific and documented reliability concern. *See* The Environmental Protection Agency's Enforcement Response Policy For Use Of Clean Air Act Section 113(a) Administrative Orders In Relation To Electric Reliability And The Mercury and Air Toxics Standard (hereafter, "2011 MATS Enforcement Policy"). The 2011 MATS Enforcement Policy is limited in application to units that are critical for reliability purposes.

13. In issuing the 2011 MATS Enforcement Policy, the EPA believed that there would be few, if any, cases in which affected sources would not be able to comply with the MATS within the compliance period specified by Section 112(i)(3) of the CAA (including, as applicable, any extensions permitted under Section 112(i)(3)(B)), which has proven to be the case. Nonetheless, the EPA acknowledged that there may be isolated instances in which the deactivation or retirement of a unit or a delay in installation of controls due to factors beyond the owner's/operator's control could have an adverse, localized impact on electric reliability that could not be timely predicted or planned for with specificity. In such instances, sources could find themselves in the position of either operating in noncompliance with the MATS or halting operations and thereby potentially impacting electric reliability. Thus, although the EPA generally does not speak publicly to the intended scope of its enforcement efforts in advance of the date when a violation may occur, the Agency issued the 2011 MATS Enforcement Policy to describe the EPA's intended enforcement response in such instances and to provide confidence with respect to electric reliability. The policy is informed, as are EPA's enforcement actions in general, by the need to find an appropriate balance between critical public interests, bearing in mind the resources and process time required for any enforcement response.
14. The 2011 MATS Enforcement Policy specifies that to qualify for an Order in connection with it, an owner/operator must, in summary, provide early written notice of its compliance plans to

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the Planning Authority[1] for the area in which the source is located, timely request an Order and provide notice of such request to the EPA, FERC, its Planning Authority, any state public utility or service commission, and any state, tribal or local environmental agencies, with jurisdiction over the area in which the EGU is located, and submit a complete request for an Order.

15. A complete request pursuant to the 2011 MATS Enforcement Policy must include the following elements: copies of the early notice provided to the Planning Authority; written analysis of the reliability risk, which demonstrates that operation of the unit after the MATS Compliance Date is critical to maintaining electric reliability; written concurrence with the reliability analysis by the relevant Planning Authority (or a written explanation of why such concurrence cannot be provided); copies of any written comments received from third parties in favor of, or opposed to, operation of the unit after the MATS Compliance Date; a plan to achieve compliance with the MATS no later than one year after the MATS Compliance Date; and identification of the level of operation required to avoid the reliability risk and proposed operational limits and/or work practices to minimize or mitigate emissions to the extent practicable during non-compliant operation.

16. With respect to the demonstration of reliability risk, the 2011 MATS Enforcement Policy states that the analysis provided in an Order request should demonstrate that operation of the unit after the MATS Compliance Date is critical to maintaining electric reliability, and that failure to operate the unit would: (a) result in the violation of at least one of the reliability criteria required to be filed with the Commission, and, in the case of the Electric Reliability Council of

[1] Planning Authorities are the entities tasked, under NERC reliability standards, with addressing electric reliability through grid planning. In the 2011 MATS Enforcement Policy, Planning Authority was defined as "the entity defined as such in the "Glossary of Terms Used in NERC Reliability Standards," available at: http://www.nerc.com/docs/standards/rs/Reliability_Standards_Complete_Set.pdf, or any successor term thereto approved by FERC, and includes, in relevant jurisdictions, RTOs and ISOs."

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Texas, with the Texas Public Utility Commission; or (b) cause reserves to fall below the required system reserve margin.

17. Although the EPA's issuance of an Order is not conditioned upon the approval or concurrence of any entity, in light of the complexity of the electric system and the local nature of many reliability issues, for purposes of using its Section 113(a) Order authority in connection with the 2011 MATS Enforcement Policy, the EPA has sought advice in the identification and/or analysis of reliability risks, as necessary and on a case-by-case basis from reliability experts, including, but not limited to, the Federal Energy Regulatory Commission ("FERC"), Regional Transmission Operators ("RTOs"), Independent System Operators and other Planning Authorities, as EPA indicated it would do in the 2011 MATS Enforcement Policy.

18. The 2011 MATS Enforcement Policy specifically stated that an owner/operator interested in receiving a Section 113(a) administrative order pursuant to the policy should provide FERC with a copy of its complete and timely written request to the EPA.

19. On May 17, 2012, FERC issued a policy statement explaining how it intended to provide advice to the EPA on requests for an administrative order pursuant to the 2011 MATS Enforcement Policy. *See* Policy Statement of the Commission's Role Regarding the Environmental Protection Agency's Mercury and Air Toxics Standards, 139 FERC ¶ 61,131 (2012) ("FERC Policy Statement"). The FERC Policy Statement provided that the Commission will advise the EPA by submitting written Commission comments to the EPA based on the Commission's review of the information provided in an informational filing containing the copy of the request for the administrative order provided to the Commission in an AD docket. *Id.* at Paragraph 21. Further, the FERC Policy Statement indicated that the Commission's comments would provide advice to the EPA on whether, based on the Commission's review of the informational filing, there might be a violation of a Commission-approved Reliability Standard, and may also identify issues

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within its jurisdiction other than a potential violation of a Commission-approved Reliability Standard. *Id.*

C. FINDINGS

20. Respondent owns and/or operates an existing coal-fired electric utility steam generating unit, as defined in 40 C.F.R. § 63.10042.

21. Respondent's operation at the Facility is subject to the MATS.

22. On November 28, 2012, Respondent received a one year extension pursuant to 40 C.F.R. 63.6(i)(4)(i)(A) from its permitting authority, extending the date by which it must comply with the MATS to April 15, 2016. *See* November 28, 2012 Letter from Steven A. Thompson, Oklahoma Department of Environmental Quality to Grand River Dam Authority.

23. On February 19, 2015, Respondent submitted a timely and complete request for an Order pursuant to the 2011 MATS Enforcement Policy to the EPA, with a copy to FERC. That request can be found in the FERC AD docket, AD15-6-000 (hereafter "Order Request").

24. Pursuant to the Order Request, Respondent seeks an Order from April 16, 2016 through April 15, 2017, on the grounds that it will not be able to comply with the MATS at Unit No. 1 of the Grand River Energy Center located near Chouteau, Oklahoma, without violating its system reserve margin of 12%, until the construction of a new, highly efficient natural gas-fired combined cycle combustion turbine (Unit No. 3) is completed as a replacement for Unit No. 1. Unit No. 3 will not be operational until shortly after April 16, 2017. *See id.*

25. More specifically, the Order Request states that Respondent, "a load serving member of the Southwest Power Pool (SPP) [Respondent's Planning Authority], states that it will be unable to meet its required reserve margin of 12 percent capacity if Unit No. 1 is retired before new Unit No. 3 becomes operational. Order Request at 6; *see also*, Southwest Power Pool, Criteria 2.1.9 (Minimum Required Capacity Margin) (revised July 29, 2014), available at

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http://www.spp.org/publications/SPP%20Criteria%20&%20Appendices%20July%2029,%202014.pdf. Respondent indicates that the untimely loss of Unit No. 1 would prevent it from meeting its basic load obligations by 245 MW. *Id.* Additionally, Respondent states that Unit No. 1 has been used for local voltage support, noting that "there were six instances in 2014 where the GRDA System Operator requested either additional capacitive or reactive voltage support from Unit No. 1 to address voltage problems on the transmission system." Order Request at 7. Respondent further claims that it has "experienced problems under certain conditions obtaining firm or non-firm transmission service to deliver power purchases from outside of the GRDA balancing area" when one or both of its existing units are offline, and without an administrative order, it "is concerned that transmission constraints will make importing sufficient replacement capacity and energy very difficult." *Id.*

26. In a memorandum attached to Respondent's submission, SPP concurred with Respondent's reserve margin assessment. *See* Order Request, Attachment C (SPP January 27, 2014 Memorandum) at 2 ("[a] review of GRDA's supply adequacy without GRDA unit 15-1 indicates that the firm resources available to GRDA fall below their 12% minimum capacity margin requirement in 2016"). Additionally, SPP concurred that SPP "has observed, over the last year, the need to commit GRDA Unit 1 for relief from high voltages … [and that] SPP concurs with GRDA's assessment regarding GRDA Unit 1's criticality for reliability absent other system changes." Order Request, Attachment E (SPP February 6, 2015 Letter) at 1.

27. FERC reviewed the reliability risk presented in the request in accordance with the FERC Policy Statement and on April 16, 2015 found that "the loss of GRDA's Unit No. 1 would result in GRDA falling below the 12 percent capacity reserve requirement stipulated in SPP Criteria 2.1.9 unless GRDA is able to procure replacement capacity for the unit and associated firm transmission service," and "[a]bsent a significant change in future circumstances, [FERC's] view is that GRDA's

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Unit No. 1 is needed as requested by GRDA to maintain electric reliability." *See* Commission Comments On Grand River Dam Authority's Request For EPA Administrative Order (April 16, 2015), p. 4, Docket No. AD15-6-000. Additionally, FERC notes that "the reliability of the Bulk-Power System depends in part on whether utilities meet an appropriate planning reserve margin." *Id.*

28. Respondent proposes to minimize emissions by implementing a bidding approach with SPP, in a manner consistent with the SPP Tariff and market rules, to limit the total electricity generated by Unit No. 1 while maintaining its reserve margin. *See* Order Request at 12-13. Specifically, Respondent shall bid Unit No. 1 to achieve a total annual capacity factor of not more than 50% during the period from April 16, 2016 up to April 16, 2017, which is lower than its historical operation as a base load facility of approximately 70% annual capacity. *Id.* Although the monthly capacity factor of Unit No. 1 would vary to allow Respondent to meet its reserve margin requirements throughout the period covered by this Order, Respondent states that reducing the annual capacity factor to 50% will result in approximately 30% lower total emissions during the period from April 16, 2016 up to April 16, 2017. *Id.*

D. ORDER

29. Respondent is ordered to take the actions described in this section of this Order.
30. From April 16, 2016 through April 15, 2017, Respondent shall implement a bidding approach with SPP, while maintaining Respondent's reserve margin, in a manner consistent with the SPP Tariff and market rules, to limit the total electricity generated by Unit No. 1 to achieve a total annual capacity factor of not more than 50% during the period from April 16, 2016 through April 15, 2017.
31. By 11:59 pm April 15, 2017, Respondent shall achieve full compliance with the MATS at Unit No. 1 at the Facility by permanently ceasing operation as a coal-fired unit.

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32. Within 30 days of achieving full compliance with the MATS at the Facility, Respondent shall provide written notice to the EPA indicating that compliance has been achieved and the date by which is it was achieved, pursuant to the process specified in paragraph 39 of this Order.

E. OTHER TERMS AND CONDITIONS

33. Respondent admits the jurisdictional allegations contained in Sections A (Preliminary Statement) and B (Statutory and Regulatory Background) of this Order.

34. Respondent neither admits nor denies the findings in Section C (Findings) of this Order.

F. GENERAL PROVISIONS

35. Any violation of this Order may result in a civil administrative or judicial action for an injunction or civil penalties of up to $37,500 per day per violation, or both, as provided in Sections 113(b)(2) and 113(d)(1) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d)(1), as well as criminal sanctions as provided in Section 113(c) of the Act, 42 U.S.C. § 7413(c). The EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

36. Nothing in this Order shall relieve Respondent of the duty of achieving and maintaining compliance with all applicable provisions of the Act or other federal, state or local laws or statutes, nor shall it restrict the EPA's authority to seek compliance with any applicable laws or regulations, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

37. Nothing herein shall be construed to limit the power of the EPA to undertake any action against Respondent or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

38. The provisions of this Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, trustees, servants, authorized representatives, successors, and assigns. From the Effective Date of this Order until the Termination Date as set out in paragraph

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44 below, Respondent must give written notice and a copy of this Order to any successors in interest prior to any transfer of ownership or control of any portion of or interest in the Facility. Simultaneously with such notice, Respondent shall provide written notice of such transfer, assignment, or delegation to the EPA. In the event of any such transfer, assignment, or delegation, Respondent shall not be released from the obligations or liabilities of this Order unless the EPA has provided written approval of the release of said obligations or liabilities.

39. Unless this Order states otherwise, whenever, under the terms of this Order, written notice or other documentation is required to be given, it shall be directed to the individuals specified at the addresses below unless those individuals or their successors give notice of a change of address to the other party in writing:

Phillip A. Brooks
Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, US Environmental Protection Agency
Mail Code 2242A, Room 1119
1200 Pennsylvania Ave, NW
Washington, DC 20460 mail or 20004 courier (note Room 1119 on courier packages)

Anupa Ahuja
Air Enforcement Section
Mail Code 6EN-AA
US EPA Region 6
1445 Ross Ave
Dallas, TX 75202
Phone: (214)665-2701

Daniel S. Sullivan
Grand River Dam Authority
P.O. Box 409
226 West Dwain Willis Avenue
Vinita, OK 74301
Phone: (918)256-5545

Britt S. Fleming
Van Ness Feldman, LLP
1050 Thomas Jefferson Street, NW
Washington, DC 20007
Phone: (202)298-1863

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All notices and submissions shall be considered effective upon receipt.

40. To the extent this Order requires Respondent to submit any information to the EPA, Respondent may assert a business confidentiality claim covering part or all of that information, but only to the extent and only in the manner described in 40 C.F.R. Part 2, Subpart B. The EPA will disclose information submitted under a confidentiality claim only as provided in 40 C.F.R. Part 2, Subpart B. If Respondent does not assert a confidentiality claim, the EPA may make the submitted information available to the public without further notice to Respondent.

41. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Order to execute and bind legally the Parties to this document.

G. EFFECTIVE DATE AND OPPORTUNITY FOR A CONFERENCE

42. Pursuant to Section 113(a)(4) of the Act, an Order does not take effect until the person to whom it has been issued has had an opportunity to confer with the EPA concerning the alleged violations. By signing this Order, Respondent acknowledges and agrees that it has been provided an opportunity to confer with the EPA prior to issuance of this Order. Accordingly, this Order will take effect immediately upon signature by the latter of Respondent or the EPA.

H. JUDICIAL REVIEW

43. Respondent waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this Order, including any right of judicial review under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1).

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I. TERMINATION

44. This Order shall terminate on the earlier of the following (the "Termination Date") at which point Respondent shall operate in compliance with the Act:

    a. 11:59 pm April 15, 2017;

    b. The effective date of any determination by the EPA that Respondent has achieved compliance with all terms of this Order; or

    c. Immediately upon receipt by Respondent of notice from the EPA finding that an imminent and substantial endangerment to public health, welfare, or the environment has occurred.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Grand River Dam Authority, Respondent.	Administrative Compliance Order on Consent AED-CAA-113(a)-2016-0002

For United States Environmental Protection Agency, Air Enforcement Division, Office of Enforcement and Compliance Assurance:

4/16/2016
Date

[redacted]
Phillip A. Brooks
Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance,
US Environmental Protection Agency
Mail Code 2242A, Room 1119
1200 Pennsylvania Ave, NW
Washington, DC 20460 mail or 20004 courier (note Room 1119 on courier packages)

For Grand River Dam Authority:

[redacted]
Signature

April 7, 2016
Date

Printed Name: Daniel S. Sullivan
Title: General Manager/CEO
Address: P.O. Box 409, 226 West Dwain Willis Avenue, Vinita, OK 74301

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CERTIFICATE OF SERVICE

I certify that the foregoing "Administrative Compliance Order" in the Matter of Grand River Dam Authority, Order AED-CAA-113(a)-2016-0002, was filed and copies of the same were mailed to the parties as indicated below.

Certified Mail

Daniel S. Sullivan
Grand River Dam Authority
P.O. Box 409
226 West Dwain Willis Avenue
Vinita, OK 74301
Phone: (918)256-5545

Britt S. Fleming
Van Ness Feldman, LLP
1050 Thomas Jefferson Street, NW
Washington, DC 20007
Phone: (202)298-1863

Eddie Terrill
Director, Air Quality Division Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

4/18/16
Date

[redacted]
Tawanna Cathey

AMERICAN OVERSIGHT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Grand River Dam Authority, Respondent.	Amendment Administrative Compliance Order on Consent AED-CAA-113(a)-2016-0002

AMENDMENT – ADMINISTRATIVE COMPLIANCE ORDER

A. PRELIMINARY STATEMENT

1. This is an amendment (the "Amendment") to the Administrative Compliance Order on Consent, AED-CAA-113(a)-2016-0002, ("Order") issued on April 16, 2016 by the U.S. Environmental Protection Agency ("EPA") to the Grand River Dam Authority ("Respondent"). A copy of the Order is attached to this Amendment as Attachment A. Unless otherwise indicated, defined terms in this Amendment have the same meaning as in the Order.

B. FINDINGS

2. From July 1, 2016 to July 2, 2016, a series of events arose from causes beyond the control of Respondent that require amendment to the terms of the Order. Specifically, during a storm, there was a lightning strike at the Facility, which resulted in a significant fire that severely damaged Unit 2 and moderately damaged Unit 1. Unit 1 returned to service on July 20, 2016. Unit 2 is not expected to return to service until after Unit 1 permanently ceases operation as a coal-fired unit on April 15, 2017.
3. As a result of Unit 2, a 520 MW unit, being out of service during the period covered by the Order, Respondent will not be able to meet the terms of operation of Unit 1 detailed in the Order without violating the reliability risks described in paragraphs 24 – 28 of the Order. To address those reliability risks, it is necessary to amend the Order to allow for increased

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operation of Unit 1. During the period in July when both units were out of service, voltage support was not required and Respondent was able to make other short term power purchases to meet basic load requirements.

C. ORDER

4. Paragraph 30 of the Order is replaced with the following requirement: From April 16, 2016 through April 15, 2017, Respondent shall implement a bidding approach with SPP, while maintaining Respondent's reserve margin, in a manner consistent with the SPP Tariff and market rules, to limit the total electricity generated by Unit No. 1 to achieve a total annual capacity factor of not more than 80% during the period from April 16, 2016 through April 15, 2017.

D. GENERAL PROVISIONS

5. Unless explicitly modified in this Amendment, all provisions of the Order remain in effect.
6. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Amendment to execute and bind legally the Parties to this document.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Grand River Dam Authority, Respondent.

Amendment
Administrative Compliance Order on Consent
AED-CAA-113(a)-2016-0002

For United States Environmental Protection Agency, Air Enforcement Division, Office of Enforcement and Compliance Assurance:

9/14/2016
Date

[redacted]
Phillip A. Brooks
Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance,
US Environmental Protection Agency
Mail Code 2242A, Room 1119
1200 Pennsylvania Ave, NW
Washington, DC 20460 mail or 20004 courier (note Room 1119 on courier packages)

For Grand River Dam Authority:

[redacted]
Signature

Sept. 8, 2016
Date

Printed Name: Daniel S. Sullivan
Title: General Manager/CEO
Address: P.O. Box 409, 226 West Dwain Willis Avenue, Vinita, OK 74301

AMERICAN OVERSIGHT

CERTIFICATE OF SERVICE

I certify that the foregoing "Amendment" to the Administrative Compliance Order in the Matter of Grand River Dam Authority, Amendment AED-CAA-113(a)-2016-0002, was filed and copies of the same were mailed to the parties as indicated below.

Certified Mail

Daniel S. Sullivan
Grand River Dam Authority
P.O. Box 409
226 West Dwain Willis Avenue
Vinita, OK 74301
Phone: (918)256-5545

Britt S. Fleming
Van Ness Feldman, LLP
1050 Thomas Jefferson Street, NW
Washington, DC 20007
Phone: (202)298-1863

Eddie Terrill
Director, Air Quality Division Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

_____ _____

Date Tawanna Cathey

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Attachment B

AMERICAN OVERSIGHT

Temporary Operating Guide

Title: GRDA Unit #1 Manual Commitment
System Conditions: Intact
Written by: Patrick deLassus (SPP)
Reviewed by: Kevin Sanson (SPP), Jason Smith (SPP), Terry Oxandale (SPP), Will Tootle (SPP), Jeff Wells (GRDA), Mike Stafford (GRDA)

Op-Guide: Effective on: **10/15/2014** Expires on: **11/04/2014**

I. Purpose/Background

Due to the low load and high voltage in the GRDA area, GRDA Unit #1 generation will be needed. Generation needs to be online in order to ensure voltage stability until GRDA Unit #2 returns from outage.

II. Monitoring

IDC FG #	Monitored Element	Contingent Element	Owner	Rating (MVA)
xxxxx	GRDA area (Voltage)	System Intact	GRDA	xxx

III. Mitigation

SPP BA will manually commit the GRDA Unit #1 (GRDA_UNIT_1) in order to provide relief from high voltage. Low load and high voltage are also contributing factors to this commitment. This requirement will be terminated once load levels permit.

If the generation from GRDA Unit #1 is unavailable, or otherwise unable to supply voltage support, reconfiguration plans may be needed. If reconfiguration is deemed necessary, GRDA will determine where to reconfiguration will be effective.

IV. Unit Commitment Details

RESOURCE NAME: GRDA_UNIT_1
Unit Start Time: 10/16/2014 00:00
Unit Online Time (Dispatchable):): **** Extension – Unit is Already Online ****
Unit Release Time (Shutdown): 11/04/2014 00:00 (This will be re-evaluated once GRDA_UNIT_2 returns to service.)
Commit Reason: SPP: LOCAL

The SPP RCs are not obligated to use the directions given above in the recommended order. Depending on the circumstances, the SPP RCs will make the decision on the best and most efficient option that would provide relief adequately.

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Attachment C

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March 1, 2017

United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Contribution of GRDA Unit 1 to local grid reliability as demonstrated by recent operating experience in SPP

Dear Sir/Madam:

The Southwest Power Pool, Inc. (SPP) Reliability Coordinator (RC) has observed, historically, the need to commit GRDA Unit 1 for relief from high voltages. In fact, the RC created a Temporary Operating Guide for the period October 15 through November 4 of 2014 stating that during a planned maintenance outage of GRDA Unit 2, GRDA Unit 1 must be available for dispatch during instances of low load and high voltage. GRDA Unit 1 was called upon to provide reactive support during the entire period of the Operating Guide. Although SPP no longer requires the Temporary Operating Guide, it nevertheless continues to believe that during future light load conditions when GRDA Unit 2 is unavailable, the commitment and dispatch of GRDA Unit 1 will be a critical resource in maintaining proper system voltage. Moreover, in the absence of GRDA Unit 2 and until GRDA Unit 3 comes online, SPP believes GRDA Unit 1 provides a valuable contribution to the local area's overall grid reliability. Based on the above, SPP concurs with GRDA's assessment regarding GRDA Unit 1's importance for reliability absent other system changes or until GRDA's Unit 2 and Unit 3 are in service.

Please do not hesitate to contact me should you have questions or would like to request additional information.

Respectfully submitted,

Lanny Nickell
Vice President, Engineering
(501) 614-3232 • Fax: (501) 482-2022 • lnickell@spp.org

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Attachment D

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GRDA Unit No. 1 - Reactive Power Production in February 2017

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Attachment E

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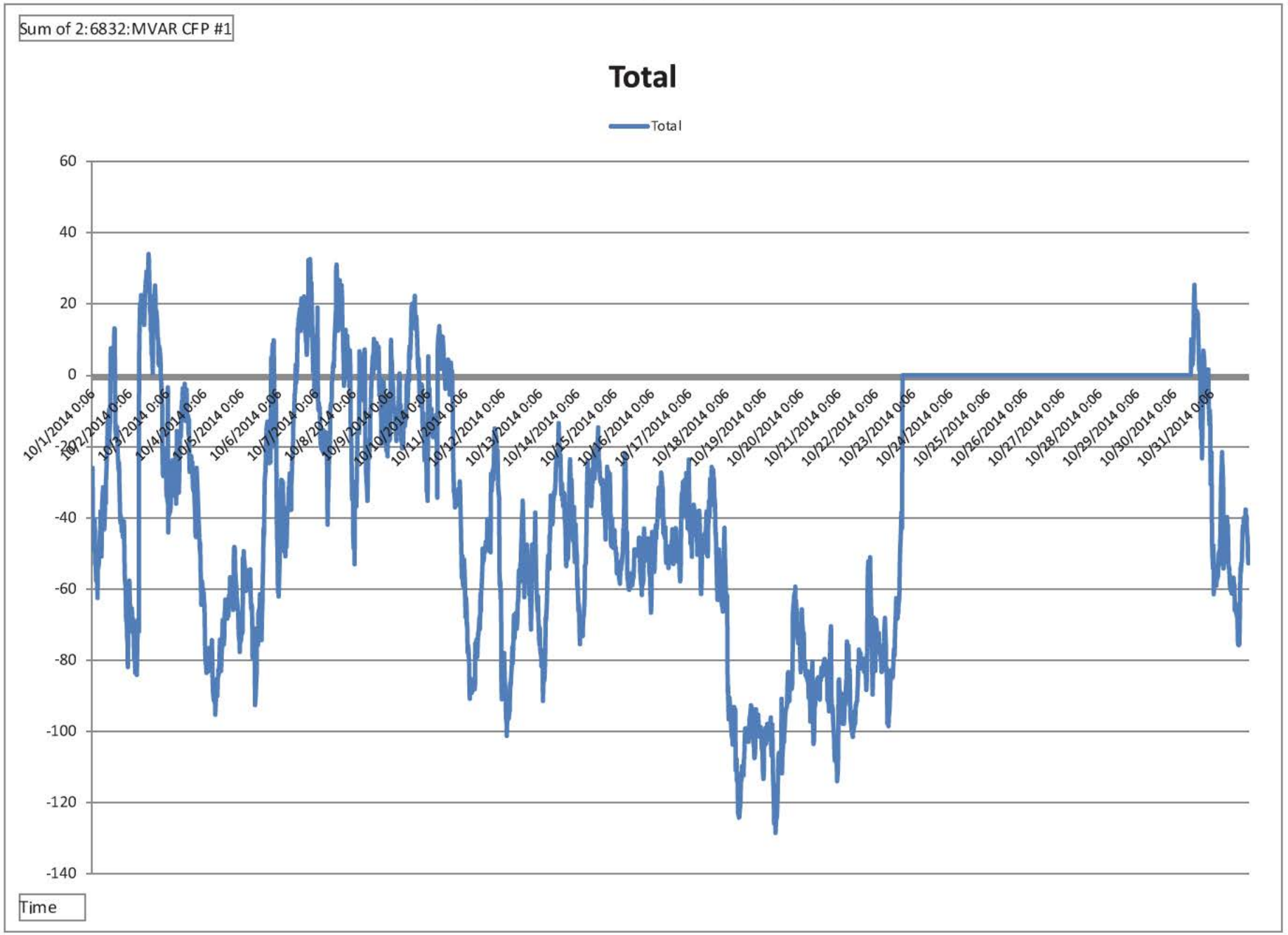
GRDA Unit No. 1 Reactive Power Production in October and November 2014



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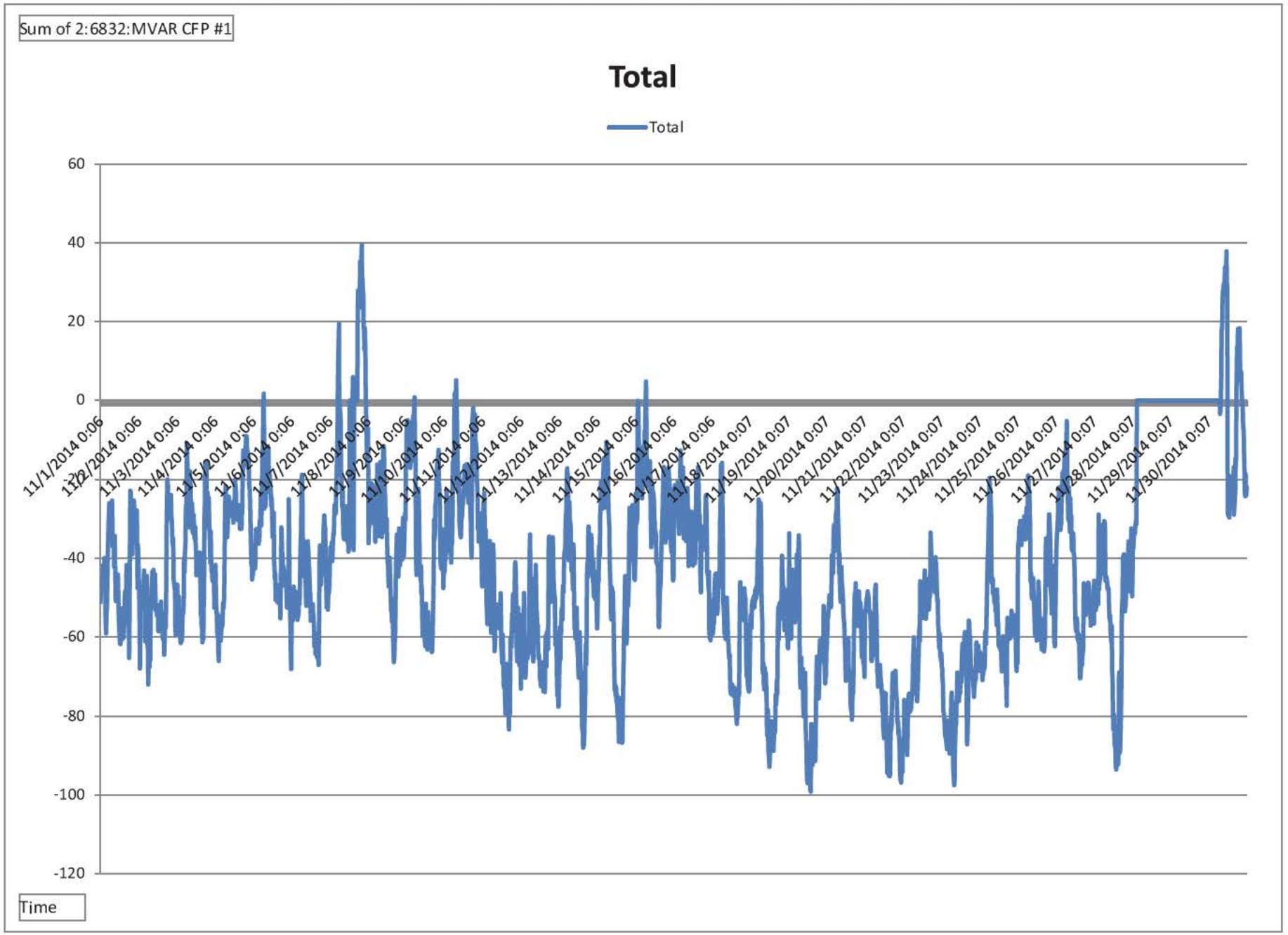
GRDA Unit No. 1 Reactive Power Production in October and November 2014



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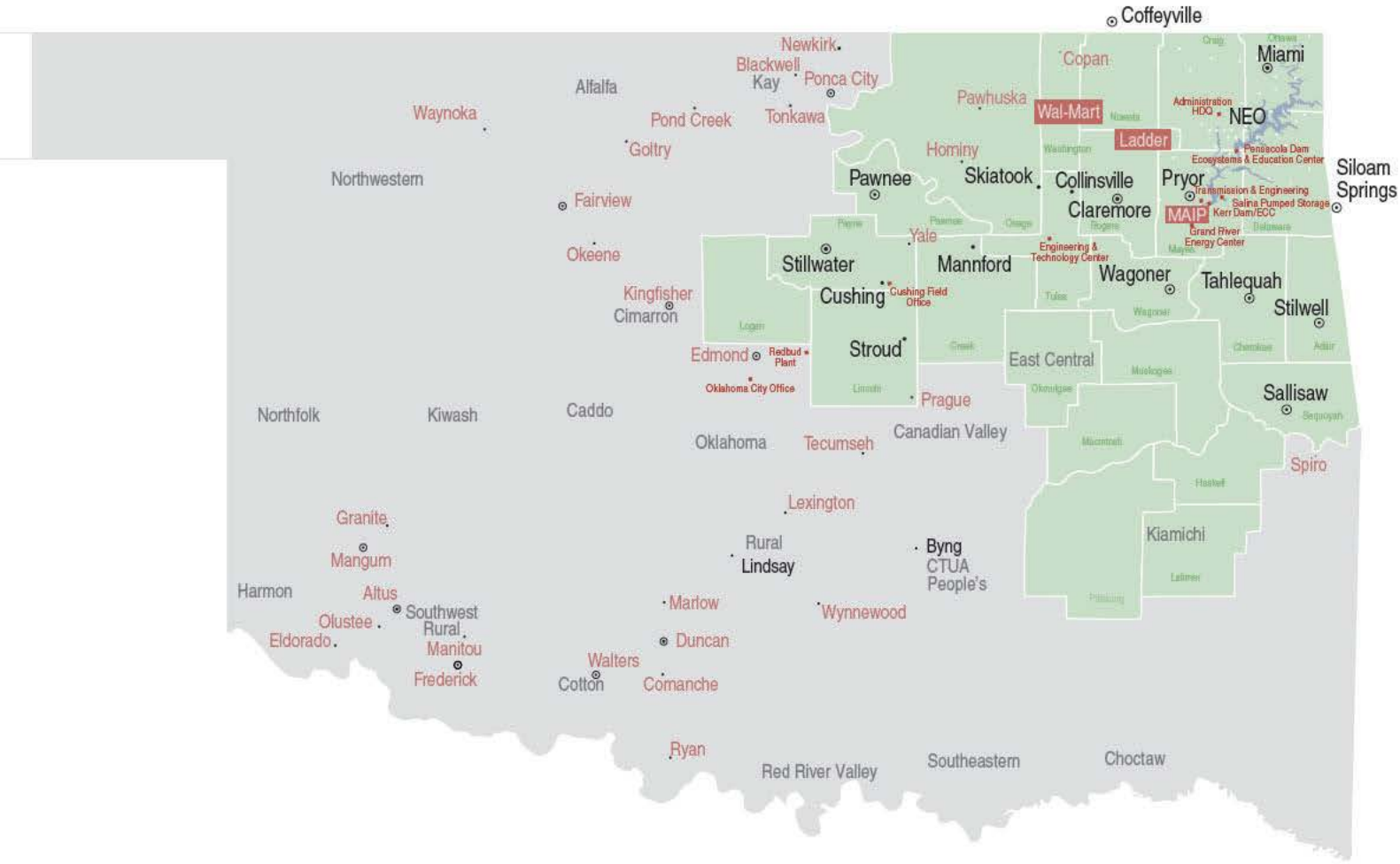
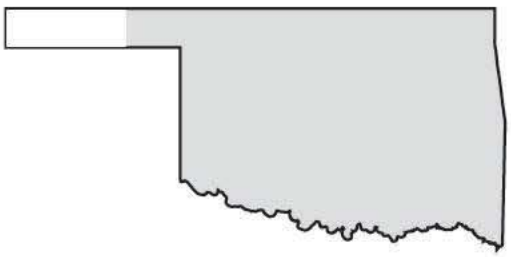
Attachment F

AMERICAN OVERSIGHT

MAP OF CUSTOMERS AND GRDA FACILITIES





GRDA directly or indirectly provides electricity to some portion of all counties in Oklahoma except for two counties in the panhandle.

Municipal Customers - Served by GRDA in BLACK lettering; many served since 1940s.

Northeast Electric Cooperative - Represented by WHITE DOTS, served since 1946.

Industrial Customers - Represented by ORANGE BOX, Majority located in MidAmerica Industrial Park (MAIP).

Oklahoma Municipal Power Authority - Served since 1985. OMPA's customers in LIGHT ORANGE lettering.

Western Farmers Electric Cooperative - Served since 1983. WFEC's customers in GRAY lettering.

GRDA Facilities - Shown in RED lettering.

See Notes to Financial Statements, Utility Plant for additional information on capital assets.

Source: Grand River Dam Authority

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DOE-19-1027-A-000152

PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Steven R. Pincus
Associate General Counsel
T: (610) 666-4438 I F: (610) 666-8211
steven.pincus@pjm.com

June 13, 2017

The Honorable James Richard Perry
Secretary of Energy
United States Department of Energy
1000 Independence Ave, SW
Washington DC 20585

RE: Request for Emergency Order Pursuant to Section 202 (c) of the Federal Power Act

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),[1] Section 301(b) of the Department of Energy Organization Act[2] and the Department of Energy's ("DOE") Rules of Practice and Procedure,[3] PJM Interconnection, L.L.C. ("PJM") respectfully requests the Secretary of Energy ("Secretary") find that an electric reliability emergency exists in the North Hampton Roads area of the Commonwealth of Virginia (the "North Hampton Roads area")[4] that requires targeted intervention by the Secretary, in the form of a Section 202(c) emergency order, to preserve the reliability of bulk power transmission system in the North Hampton Roads area. PJM communicated to Virginia Electric and Power Company ("Dominion Energy Virginia") PJM's intention to seek this request, and is authorized to state that while this is not a long term solution to the

[1] 16 U.S.C. § 824a(c).

[2] 42 U.S.C. § § 7101 and 7151(b).

[3] 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373.

[4] The North Hampton Roads load area includes the following: Charles City County, James City County, York County, Williamsburg, Yorktown, Newport News, Poquoson, Hampton, Essex County, King William County, King and Queen County, Middlesex County, Mathews County, Gloucester County, the City of West Point, King George County, Westmoreland County, Northumberland County, Richmond County, Lancaster County, and the City of Colonial Beach.

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reliability issues, Dominion Energy Virginia agrees with the request and will operate in accordance with an emergency order issued by the Secretary.[5]

Through this application, PJM, as the regional transmission organization ("RTO") responsible for the reliability of the bulk power grid for a large geographic region including the Commonwealth of Virginia, seeks authorization from the Secretary allowing PJM to direct Dominion Energy Virginia to operate, and for Dominion Energy Virginia to operate as directed by PJM, the two coal-fired units ("Yorktown Units" or Yorktown Units 1 & 2") at Dominion Energy Virginia's Yorktown Power Station on a contingent basis for such period of time until the PJM-ordered transmission upgrades can be constructed and placed into service.[6] Such authorization is needed to meet an emergency and serve the public interest to prevent uncontrolled power disruptions and potential shedding of critical load in the North Hampton Roads area until construction of the transmission upgrades is completed. Attachment A is a map of the North Hampton Roads area.

As detailed below, this request is limited to authorization for PJM to direct the operation of the Yorktown Units 1 & 2 when total demand for electricity for Dominion Energy Virginia exceeds certain levels to avoid impacting electric reliability and potential violations of Reliability Standards developed by the North American Electric Reliability Corporation ("NERC") in the North Hampton Roads area. Absent such an order, residences, hospitals, military facilities, water treatment plants, and other critical facilities

[5] The information supporting this request is provided in part by Dominion Energy Virginia.

[6] *See* Appendix I for details of the PJM-ordered transmission upgrade project.

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on the Virginia Peninsula may lose electric service to all or parts of their facilities due to the lack of adequate generation in the area.[7]

In accordance with FPA Section 202(c), PJM seeks this Order for a 90-day period beginning upon issuance of the Secretary's Order. Given the significant delays associated with Dominion obtaining permitting approval for the PJM-ordered transmission upgrades, PJM will request renewals of this Order on a rolling basis until the transmission project is placed into service (which is anticipated to be completed 18-20 months after all permits are issued). PJM along with Dominion Energy Virginia will provide reports to the DOE that will allow the Secretary to review past action under the order and the continued need for the emergency relief under the order at least 10 business days prior to each 90-day expiration period.[8]

I. COMMUNICATIONS

PJM designates the following persons to receive all notices and communications related to this proceeding:

[7] [redacted]

[8] Concurrent with this request, PJM has submitted a summary of this application for posting on the DOE's website as well as PJM's website. PJM requests that pursuant to FPA Section 215A(d)(10) and 18 C.F.R. Section 388.113 the information submitted in this particular application should be deemed Critical Electric Infrastructure Information ("CEII") and not publicly released.

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Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403
(610) 666-4370 (phone)
steven.pincus@pjm.com

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.
1200 G. Street, N.W. Suite 600
Washington, DC 20005
(202) 423-4743(phone)
craig.glazer@pjm.com

II. IDENTIFICATION OF APPLICANT AND DOMINION ENERGY VIRGINIA

PJM is the Regional Transmission Organization ("RTO") comprising interconnected electric transmission systems in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.[9] PJM is the transmission provider under, and the administrator of, the PJM Open Access Transmission Tariff ("PJM Tariff"), operates the PJM Interchange Energy Market and Capacity Credit Market, administers the Regional Transmission Expansion Planning Process ('RTEPP"),[10] and controls the day-to-day operations to ensure the reliability of the high-voltage electric bulk power system of the PJM Region.

Dominion Energy Virginia is a regulated public utility that generates, transmits, and distributes electricity to retail customers within its certified service territory in Virginia and North Carolina, and sells electricity at wholesale to rural electric

[9] *See PJM Interconnection, L.L.C.*, 81 FERC ¶ 61,257 (1997), and *PJM Interconnection L.L.C.,* 96 FERC ¶ 61,060 (2001), order on compliance filing, 98 FERC ¶ 61,072 (2002) (PJM West expansion).

[10] PJM's RTEPP identifies transmission system additions and improvements needed to keep electricity flowing to the millions in the PJM Region. RTEPP Studies are conducted that test the transmission system against mandatory national standards and PJM regional standards. These studies look 15 years into the future to identify transmission overloads, voltage limitations and other reliability standards violations. PJM then develops transmission plans in collaboration with PJM Transmission Owners to resolve violations that could otherwise lead to overloads and black-outs. This process culminates in one recommended plan – one RTEP - for the entire PJM footprint that is subsequently submitted to PJM's independent governing Board for consideration and approval.

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cooperatives, municipalities, and into the PJM wholesale markets. It is a wholly owned subsidiary of Dominion Energy, Inc., a Holding Company under the Public Utility Holding Company Act of 2005.[11] Dominion Energy Virginia is a transmission and generator-owning member of PJM and owns and operates approximately 21,000 MWs of generation facilities in PJM, including the coal-fired 159 MWs unit 1 and 164 MWs unit 2 at the Yorktown Power Station. Dominion Energy Virginia also owns approximately 6600 miles of transmission facilities in Virginia and integrated into PJM in 2005.

III. THE BASIS AND NEED FOR EMERGENCY RELIEF

A) Circumstances Leading to Yorktown Units Deactivation Notices

By letters dated November 11, 2011 and October 9, 2012, Dominion Energy Virginia notified PJM under Section 113.1 of the PJM Tariff of its intention to deactivate Yorktown Units effective as of December 31, 2014 ("Deactivation Notices"). The deactivation of Yorktown Units is prompted by the United States Environmental Protection Agency's ("EPA") Mercury and Air Toxics Standards ("MATS") requirements[12] by April 16, 2015. The two l-year extensions under the MATS requirements which were available under the terms of the Clean Air Act ("CAA")[13] have been requested, granted, and exhausted. The first extension was granted by the Virginia Department of Environmental Quality on June 24, 2014[14] (effective through April 15,

[11] Energy Policy Act of 2005 at § 1261, Public Law 109-58, 42 USC § 7020.

[12] 40 C.F.R. Part 63, Subpart UUUUU, National Emissions Standards for Hazardous Air Pollutants: Coal and Oil Fired Electric Utility Steam Generating Units.

[13] U.S.C. § 7413(a)(4).

[14] *Compliance Extension Approval for 40 CCFR 63 Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coal- and Oil-fired Electric Utility Steam Generating Units*, June 24, 2014, Attachment B.

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2016) and a second term was authorized by the EPA under an Administrative Compliance Order on Consent ("EPA ACO") on April 16, 2016[15] (effective through April 15, 2017) pursuant to their respective authority under the Clean Air Act.

B) The Availability of Transmission Facilities During the Period of Construction of the Transmission Project will Impact the Need for the Yorktown Units.

Once all necessary permits are obtained, building the RTEP transmission project ordered by PJM will require that certain Dominion Energy Virginia transmission facilities be taken out of service for a period of time as part of the overall construction and interconnection of the transmission project. These planned transmission outages will be coordinated between PJM and Dominion Energy Virginia to ensure the reliability of service in the area and to support the construction schedule. The planned transmission outage may also require that PJM direct the running of Yorktown Units to maintain transmission system reliability. Based on PJM load flow studies of the current transmission system configuration, without factoring the planned transmission outages supporting construction of the transmission project, the Yorktown Units must be available in various configurations depending on Dominion Energy Virginia total load conditions to provide the needed energy and reactive support to keep the power grid stable in the North Hampton Roads.

1. *Scenario One: The Need for the Yorktown Units when there are no transmission outages*

Under conditions with all transmission facilities in-service (i.e., no planned transmission outages) and Dominion Energy Virginia total load levels [redacted]

[15] *Administrative Compliance Order on Consent*, AED-CAA-113(a)-2016-0005, April 16, 2016, Attachment C.

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[redacted], absent the availability of the Yorktown Units, PJM operators would, under certain conditions, be forced to curtail service to end use customers on the peninsula in order to maintain overall grid reliability and avoid cascading outages. DOE authority to run the Yorktown Units is needed to avoid the risk of load curtailment in these situations even in the absence of transmission outages taken as part of the construction of new PJM-ordered RTEPP transmission upgrades in the area ("Scenario One").

2. *Scenario Two: The Need for the Yorktown Units during transmission outages to support construction of the Transmission Project*

During the construction of the PJM ordered transmission project, when transmission facilities are planned to be out of service, the Yorktown Units will be needed at lower Dominion Energy Virginia total load levels to maintain reliability and avoid risk of cascading outages and potential violations of NERC Reliability Standards in the North Hampton Roads area.

A planned sequence of transmission outages is necessary to support the transmission project. The trigger to run the Yorktown Units will be at lower load levels during the planned outages of the transmission facilities to support the RTEP transmission project. The specific planned transmission outage condition will determine the Dominion Energy Virginia total load level at which the Yorktown Unit are required to run to maintain reliability. Specifically, with no transmission outage, the Yorktown Units are not needed until Dominion Energy Virginia total load reaches [redacted] When a [redacted] is out for construction, for

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example, a Yorktown generator will be needed when Dominion Energy Virginia total load reaches approximately [redacted].[16]

C) Emergency Relief Needed Until the PJM-Ordered Transmission Project is Placed in Service to Avoid Loss of Electric Service

PJM has appropriately limited this request by only seeking the authority to run the Yorktown Units when:

a. needed to avoid loss of electric service in North Hampton Roads area;

b. when certain total Dominion Energy Virginia load levels are reached; and

c. only until the PJM ordered RTEPP transmission project is placed in service.

Without the authorization to operate the Yorktown Units, a temporary "remedial action scheme" or "RAS" could be implemented in Newport News, Hampton, Poquoson, and York County in the North Hampton Roads area. The RAS is an automated controlled load shed scheme that would cut electric service on the Virginia Peninsula in a manner designed to avoid cascading outages. At the PJM Planning Committee on January 12, 2017, Dominion Energy Virginia presented the "North Hampton RAS" to mitigate the cascading outage issues seen with the Yorktown Units' deactivations.

PJM load flow studies indicate that generation from the Yorktown Units will be needed under normal system conditions when Dominion Energy Virginia total load is above approximately [redacted] MW with no transmission outages. Without the support of the Yorktown Units, it is will be necessary to arm the RAS for implementation to prevent the possibility of uncontrolled power disruptions in the North Hampton Roads [redacted]

[16] Other examples of running the Yorktown Units at different Dominion Energy Virginia total load levels concurrent with planned transmission outages to ensure reliability are shown in Appendix III.

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[redacted][17]

It is not unusual for total customer load for Dominion Energy Virginia to exceed [redacted] during peak customer demand conditions, typically during the summer and/or winter months. Dominion Energy Virginia exceeded [redacted] in each of the past five years for a total of [redacted] hours and is expected to exceed it again in both 2017 and 2018.

Under the RAS plan controlled power interruptions to approximately 950 MWs of load during peak periods including over 150,000 customers in Newport News, Hampton, Poquoson, and York County will be implemented to maintain grid reliability. The table below represents the number of customers potentially affected by the RAS, and the number of accounts in each special condition category, some of which represent critical facilities on the Peninsula.

	Total Customers	TRANSMISSION/ PRIMARY DELIVERY	HOSPITALS	LARGE MILITARY BASES AND POSTS	EMERGENCY OPER CENTERS, 911, FIRE, POLICE & RESCUE SQUADS	WATER/MAJOR SEWAGE TREATMENT	CENTRAL TELECOM FACILITIES	TUNNELS, WMATA, MAJOR AIRPORTS
Remedial Action Scheme	169,809	5	8	4	55	30	15	4

Under Scenario One, during peak load periods, with no planned transmission outages and with the loss of [redacted], rotating outages may be necessary in the Virginia Peninsula. A detailed load shed plan has been developed for this scenario. Distribution circuits on the Virginia Peninsula have been

[17] The North Hampton RAS will be armed for implementation based on total load conditions. Upon loss of certain facilities, the scheme will trip the remaining feeds to the Yorktown area which sheds electric service to customers to prevent voltage collapse. The North Hampton RAS is temporary and will allow the outages for the remaining transmission system upgrades to proceed reliably.

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prioritized, and the table below represents the number of customers in each priority grouping that may be affected by rotating outages if controlled load shed scenarios arise (e.g. "W" is lowest priority and represents primarily residential customers; "Z" is highest priority and represents facilities such as hospitals, 911 centers, and water treatment plants.) Under Scenario Two, during peak load periods with planned transmission outages, a similar load shed plan would be implemented on the Virginia Peninsula.

Priority	Total Customers	TRANSMISSION/ PRIMARY DELIVERY	HOSPITALS	LARGE MILITARY BASES AND POSTS	EMERGENCY OPER CENTERS, 911, FIRE, POLICE & RESCUE SQUADS	WATER/MAJOR SEWAGE TREATMENT	CENTRAL TELECOM FACILITIES	TUNNELS, WMATA, MAJOR AIRPORTS
W	38,255	0	0	0	0	0	0	0
X	123,792	1	0	1	34	11	15	5
Y	15,136	3	0	2	10	5	4	0
Z	37,012	2	11	3	21	24	3	3

Other than the Yorktown Units, the generation available to support electric service in the North Hampton Roads area of the Virginia Peninsula is very limited (See Appendix II for details on such generation).

IV. LEGAL BASIS FOR PETITION

Under FPA Section 202(c) ("Temporary connection and exchange of facilities during emergency") the Secretary is empowered "whenever [he] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes, … to require by order such temporary connections of facilities and such generation, delivery, interchange, or

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transmission of electric energy as in [his] judgment will best meet the emergency and serve the public interest."[18]

PJM respectfully submits the information above and the request for relief below satisfies the requirements of FPA Section 202(c) (1), (2), (3) and (4) and the procedures in the DOE's regulations, 16 C.F.R. § 205.373 ("Application Procedures"). Attached hereto as Appendix III and Appendix IV is additional information required by the Application Procedures and DOE requested additional requirements for this emergency relief application.

This request for emergency relief is supported by recent past precedent. On April 14, 2017, the Secretary issued Order No. 202-17-1 under Section 202 (c) of the FPA. In that order, the Secretary determined that an emergency exists in Oklahoma due to a shortage of Electric energy, a shortage of facilities for the generation of electric energy, and other causes. The Grand River Dam Authority ("GRDA") requested emergency relief to allow three coal-fired generators in Oklahoma to operate beyond their MATS requirements following the expiration of the second of two one-year extensions. GRDA's application was supported from Southwest Power Pool ("SPP").[19] In that case, the Secretary granted the request and directed the coal units to operate in the event that SPP determines that generation is needed to maintain grid reliability.

[18] In 2016, Congress passed the FAST Act which clarified the breadth of the statute; indicated that the Secretary's emergency actions can include temporarily suspending operation of specific environmental regulations to the extent application of those regulations was causing or contributing to the emergency; and clarified that the Secretary can act without public notice or the requirements of a formal notice and comment period.

[19] SPP is a Federal Energy Regulatory Commission approved RTO.

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V. REQUESTED RELIEF

PJM respectfully requests the Secretary issue an order pursuant to FPA Section 202(c) temporarily permitting PJM to direct Dominion Energy Virginia to operate, and for Dominion Energy Virginia to operate, Yorktown Units 1 & 2 to prevent uncontrolled power disruptions and shedding of critical load in the North Hampton Roads area until construction of the transmission project is completed.

Dominion Energy Virginia has represented to PJM that it will employ all reasonable efforts to comply with all Federal, state and local environmental laws and regulations.[20] It is PJM's and Dominion Energy's understanding that pursuant to Section 202(c) as recently amended in the FAST Act,[21]PJM's direction to operate, and Dominion Energy Virginia's operation of the Yorktown Units in accordance with a DOE order issued pursuant to FPA Section 202(c) will result in emissions but such emissions shall not be considered a violation of any federal, state and local environmental laws or regulations or subject PJM or Dominion Energy Virginia to any requirement, civil or criminal liability, or a citizen suit under such environmental laws or regulations.[22] In addition to operations during dispatch, emissions will occur during startup, shutdown, and basic, periodic and compliance related activities consistent with normal operating procedures and good engineering practices to ensure the units remain reliable and capable of operating when necessary. These activities include, but are not limited to, operating equipment for maintenance testing and reliability check out, testing of fuel systems,

[20] *See* Appendix V which identifies such Federal, state and local environmental laws and regulations.

[21] Pubic Law No. 114-94 amending FPA Section 202(c).

[22] FPA Section 202(c)(3).

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tuning of units, required emissions or operational testing, and emptying of coal bunkers. Without the ability to perform these activities Dominion may not be prepared to run the Yorktown Units when directed by PJM.

VI. PROPOSED DURATION OF RQUESTED RELIEF

It is anticipated the PJM ordered RTEPP transmission project will take approximately 18-20 months after receipt of all applicable permits and authorizations to be completed and placed into service.

Given the extended nature of the emergency, PJM proposes to submit requests for renewals of the Secretary's emergency order for successive 90 day periods provided PJM and Dominion Energy Virginia submits status reports at least 10 business days prior to the end of the initial 90 day period and each successive 90 day renewal period on the status of operation of the Yorktown Units, the level of operation and emissions from the Yorktown Units over the prior period and the status of the construction of the transmission line project.

The order would also place PJM and Dominion under an affirmative obligation to notify the Secretary of any changes to the circumstances which gave rise to the emergency. Absent a demonstration of changed circumstances, PJM proposes the Secretary's Order 'roll over' for subsequent 90-day periods. PJM expects its status reports to be available on the DOE website and transparent to the public so all stakeholders can gauge the progress of the project as well as the steps Dominion Energy Virginia has taken during this period to limit emissions from Yorktown Units. PJM will similarly be posting its filing with the Secretary on the PJM website. These steps will ensure compliance with the requirements of FPA Section 202(c) (2) and (4) which apply

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when such an order issued potentially conflicts with environmental laws and regulations including the need to "minimize any adverse environmental impacts to the extent practicable."

VII. OPERATING CONDITIONS AND MITIGATION

Under Scenario Two, PJM will direct Dominion Energy Virginia to operate the Yorktown Units during construction of the transmission project in order to ensure continued system reliability. Dependent on when the outages will be permitted to start, PJM expects that construction of the transmission project and the associated outages of existing facilities could require at least one unit operating about [redacted] of the time during the anticipated 18–20 month construction timeline. The second unit will need to be ready if the first unit is not available or if local load and transmission conditions require additional generation. Under Scenario One, PJM anticipates that the Yorktown Units will be needed at total Dominion Energy Virginia peak loads above [redacted] for local area transmission system support. PJM expects such peak load to occur during months of January, February, May, June, July, August, and/or September based on historic days of high load and periods of time when emergency generation has been required.

As a result of these identified reliability requirements, PJM and Dominion Energy Virginia will work together to establish a dispatch methodology that operates the Yorktown Units when called upon for reliability issues associated with the transmission project, as well as for other expected and actual local area transmission issues or generation emergencies. The Yorktown Units could be required to operate above or below the estimates provided above, depending on the results of power flow studies. Given the often unforeseen circumstances that can arise in the event of grid instability,

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PJM believes such flexibility for operating the Yorktown Units is needed to address reliability during the period until the required transmission project is completed.

VIII. CONCULUSION AND REQUESTED RELIEF

PJM respectfully requests that the Secretary grant this Petition and order the temporary generation of Yorktown Units 1 & 2 to alleviate the emergency described hereinabove. Specifically, PJM seeks an Order of the Secretary under Section 202(c) which provides: PJM shall direct the operation, and Dominion Energy Virginia shall operate, Yorktown Units 1 & 2 only as needed in order to address NERC reliability issues or for other local area transmission issues. Dominion Energy Virginia shall implement a dispatch methodology with PJM that operates Yorktown Units 1 & 2 only when called upon for NERC reliability issues or for other local area transmission issues.

Respectfully submitted,

/s/ Steven R Pincus

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.

Dated: June 13, 2017

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APPENDIX I
Description of PJM-Order Transmission Project

A) Background

By letters dated December 14, 2011 and April 11, 2014, PJM notified Dominion Energy Virginia under Section 113.2 of the Tariff that the deactivation of Yorktown Units 1 & 2 respectively would adversely affect the PJM transmission system absent the installation of certain transmission upgrades ("the Reliability Impact Letters" copies of which are attached as Attachment D and Attachment E). In the Reliability Impact Letters, PJM described the reliability impacts resulting from the proposed deactivation and provided an estimated deadline of the first quarter of 2016[23] for completion of transmission upgrades necessary to address the reliability impacts. PJM included the required transmission upgrade in the PJM RTEPP approved by the PJM Board of Managers on May 17, 2012.

The PJM RTEP project (b1905)[24] comprises among other things a new 500 kV transmission line across the James River. Pursuant to the PJM Operating Agreement, on November 19, 2012, PJM notified Dominion Energy Virginia to begin construction of the Skiffes Creek Transmission Project. The schedule objective was intended to align completion of the transmission project prior to the deadline for compliance by Yorktown Units 1 & 2 with EPA's MATS requirements. However, construction was significantly delayed by interventions in the U.S. Army Corps of Engineer's permitting process.

The Skiffes Creek Transmission Project was reviewed with all stakeholders as part of PJM's public RTEP process where the need and proposed electrical location of the line was considered and the lack of alternatives explained. Moreover, Dominion Energy Virginia engaged in state public hearings in Richmond and Williamsburg in the Commonwealth of Virginia's siting proceeding before the Virginia State Corporation Commission ("SCC") in Case No. PUE-2012-00029.[25] The U.S. Army Corps of Engineer's permitting process also included a public hearing in Williamsburg on October 30, 2015. Thus, given the nature of the emergency, the previous reviews of the need for the project through a public process and the lack of suitable short term alternatives, PJM respectfully submits there is no need for additional public hearings or comments for the Secretary to issue the FPA Section 202(c) emergency order requested herein.

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[23] The December 14, 2011 letter for the Yorktown Units estimated a deadline of June 2015 to complete the reliability upgrades, which was extended when PJM issued the April 11, 2014 letter for the Yorktown Units which estimated a deadline of fourth quarter 2016 to complete the reliability upgrades.

[24] The Skiffes Creek Transmission Project.

[25] The SCC held a public hearing in Williamsburg on October 24, 2012, and held public hearings in Richmond on January 10, 2013; April 9-12, 2013; April 15, 2013; April 18, 2013; and January 30, 2014. Public witnesses and intervenors had full opportunity to present testimony and argue for alternatives to the proposed transmission project. The SCC granted a Certificate of Public Convenience and Necessity to construct the Skiffes Creek Transmission Project by orders dated November 26, 2013 and February 28, 2014.

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Dominion Energy Virginia notified PJM by letter dated May 2, 2014, in accordance with Section 113.2 of the PJM Tariff it intended to continue operating Yorktown Units 1 & 2 through the earlier of the first quarter of 2016 or the Skiffes Creek Transmission Project completion date which was, at that time, intended to be in service prior to the last available extension under the MATS rule. Dominion Energy Virginia subsequently sent PJM letters on September 5, 2014, June 1, 2015, and March 30, 2016, notifying PJM it would extend the projected retirement date for Yorktown Units 1 & 2 to the earlier of Spring 2017 or the date of the Skiffes Creek Transmission Project completion; however those extensions were limited by the final date for compliance with the MATS rule.[26]

The Skiffes Creek Transmission Project is anticipated to take approximately 18-20 months after receipt of all applicable permits and authorizations to complete. Significant permitting delays at the federal level have prevented Dominion Energy Virginia from commencing with construction of the Skiffes Creek Transmission Project. Due to the identified reliability impacts, Dominion Energy Virginia has continually deferred the date that Yorktown Units 1 & 2 would be deactivated.[27]

B) If Permitted, the Availability of Transmission Facilities During the Period of Construction of the Skiffes Creek Transmission Project will Impact the Need for the Yorktown Units

Once all necessary permits are obtained, building the Skiffes Creek Transmission Project will require that certain Dominion Energy Virginia transmission facilities be taken out of service for a period of time as part of the overall construction and interconnection of the Skiffes Creek Transmission Project. These planned transmission outages will be coordinated between PJM and Dominion Energy Virginia to ensure the reliability of service in the area and to support the construction schedule. The planned transmission outage may also require that PJM direct the running of the Yorktown Units to maintain transmission system reliability. Based on PJM load flow studies of the current transmission system configuration, without factoring the planned transmission outages supporting the Skiffes Creek Transmission Project, the Yorktown Units must be available in various configurations depending on certain total load conditions to provide the needed energy and reactive support to keep the power grid stable in the North Hampton Roads area on the Virginia Peninsula.

[26] Given that the Yorktown Units are approximately 60 years old, after extensive analysis Dominion determined that retrofitting the Yorktown Units 1 & 2 to comply with environmental regulations, including the MATS rule, was not a viable alternative to the Skiffes Creek Transmission Project. Retrofitting the Yorktown Units would be prohibitively expensive, take too long to permit and construct, and not maintain long-term NERC compliance of the transmission system.

[27] Yorktown Units 1 & 2 operated under EPA ACO that ended April 15, 2017.

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APPENDIX II
Other Generation Available on the Virginia Peninsula

Dominion Energy Virginia owns and operates in North Hampton Roads area of the Virginia Peninsula and the oil-fired at the Yorktown Power Station ("Yorktown Unit 3"). While Yorktown Unit 3 with a capacity of 789 MW could, in theory, be available at higher load conditions, Yorktown Unit 3 has limitations which prevent PJM from relying on that unit consistently and for extended periods of time. Yorktown Unit 3 has experienced a significantly high outage rate in the past and is operating pursuant to a capacity factor limitation to comply with MATS under the rule's limited use oil-fired unit provisions defined in 40 CFR 63.10042. These provisions limit Unit 3's annual capacity factor when burning oil to less than 8 percent of its maximum capacity or nameplate heat input, whichever is less, averaged over a 24 month block contiguous period, the first of which commenced on May 1, 2015, (the first of the month following the compliance date specified in the MATS rule at 40 CFR 63.9984 (April 16, 2015). Exceeding the 8 percent capacity factor limitation would subject the unit to stringent emission limits for particulate matter, mercury, hydrogen chloride and hydrogen fluoride that would require extensive and costly retrofit pollution controls.

Other than the Yorktown Units, PJM has approximately 14 MW of PJM Demand Response available on the peninsula and Dominion Energy Virginia has about 20 MW of Demand Side Management capability on the peninsula in the form of remote air-conditioning control as well as the ability to curtail a large industrial customer an average of 75 MWs for transmission emergencies. The air conditioning control is limited to a total of 120 hours and for 30 days during the summer months. Thus while PJM and Dominion Energy Virginia have a very limited amount of demand response available on the peninsula, it is not sufficient to ensure reliable service.

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APPENDIX III
16 C.F.R. §§ 205.373 Application Procedures

(a) *The exact legal name of the applicant and of all other "entities" named in the application.*

See petition.

(b) *The name, title, post office address, and telephone number of the person to whom correspondence in regard to the application shall be addressed.*

See petition.

(c) *The political subdivision in which each "entity" named in the application operates, together with a brief description of the area served and the business conducted in each location.*

See petition.

(d) *Each application for a section 202(c) order shall include the following baseline data:*

(1) *Daily peak load and energy requirements for each of the past 30 days and projections for each day of the expected duration of the emergency;*

The Yorktown Units are required to control projected transmission constraints and to support transmission outages associated with the Skiffes Creek Transmission Project. The constrained facilities will be required to transfer energy to serve load until the Skiffes Creek Transmission Project upgrades are completed.

During peak load conditions with no transmission outage, Yorktown generation is needed at Dominion Energy Virginia load levels above approximately [redacted]. A series of transmission outages are necessary to support the Skiffes Creek Project to construct a new 230 kV line from the Skiffes Creek switching station to the Whealton substation. The specific outage conditions will determine the Dominion Energy Virginia zonal load level at which Yorktown generation is required to maintain reliability. When a [redacted] Yorktown generation will be needed when Dominion Energy Virginia load reaches approximately [redacted]. The following table contains Yorktown 1 & 2 run time estimates for an outage sequence starting in the summer of 2017, which is dependent upon the issuance of the Army Corps of Engineers permit:

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Outage	Scheduled Outage Duration	Limiting Contingency	Load Threshold	Estimated Run Time (Summer Start)
[redacted]				

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The following table summarizes the history of Dominion Energy Virginia load levels above [redacted], which would require Yorktown generation to control transmission overloads with all lines in service.

	2012	2013	2014	2015	2016
# of days Dominion Energy Virginia load exceeded [redacted] MW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
# of hours Dominion Energy Virginia load exceeded [redacted] MW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

(2) *All capacity and energy receipts or deliveries to other electric utilities for each of the past 30 days, indicating the classification for each transaction;*

Not Applicable.

(3) *The status of all interruptible customers for each of the past 30 days and the anticipated status of these customers for each day of the expected duration of the emergency, assuming both the granting and the denial of the relief requested herein;*

Currently, approximately 14 MW of PJM Demand Response is available in the in the North Hampton Roads area on the Virginia Peninsula. Since usage is limited, PJM will only implement DR as needed post-contingency to restore customer load.

Currently, Dominion Energy Virginia has about 20 MW of Demand Side Management capabilities in the peninsula in the form of remote air-conditioning control as well as the ability to curtail a large industrial customer up to 75 MWs for transmission emergencies. This air conditioning control is limited to a total of 120 hours and for 30 days during the summer months. Dominion Energy Virginia will reserve this capability for the highest need days to reduce load in the North Hampton Roads area on the Virginia Peninsula.

(4) *All scheduled capacity and energy receipts or deliveries to other electric utilities for each day of the expected duration of the emergency.*

Not Applicable. PJM is a single Balancing Authority, and as such performs a single Security Constrained Economic Dispatch to economically dispatch generation to service Dominion Energy Virginia load. However, the Yorktown Units are required to control projected transmission constraints and to support transmission outages associated with the Skiffes Creek Transmission Project.

(e) *A description of the situation and a discussion of why this is an emergency, including any necessary background information. This should include any contingency plan of the applicant and the current level of implementation.*

See petition.

(f) *A showing that adequate electric service to firm customers cannot be maintained without additional power transfers.*

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PJM's analysis follows the requirements set out by NERC Reliability Standard TPL-001-4 - Transmission System Planning Performance Requirements. Requirement R2 refers to specific planning events listed in Table 1 – Steady State & Stability Performance Planning Events categorized as P0 through P7. Additional details are contained in Appendix III Response 1.

(g) *A description of any conservation or load reduction actions that have been implemented. A discussion of the achieved or expected results or these actions should be included.*

See response to item d(3) above.

(h) *A description of efforts made to obtain additional power through voluntary means and the results of such efforts; and a showing that the potential sources of power and/or transmission services designated pursuant to paragraphs (i) through (k) of this section informed that the applicant believed that an emergency existed within the meaning of § 205.371.*

Not applicable.

(i) *A listing of proposed sources and amounts of power necessary from each source to alleviate the emergency and a listing of any other "entities" that may be directly affected by the requested order.*

There are no other impacted entities. There are a limited number of transmission facilities serving the Dominion Energy Virginia load within the North Hampton area on the Virginia Peninsula.

(j) *Specific proposals to compensate the supplying "entities" for the emergency services requested and to compensate any transmitting "entities" for services necessary to deliver such power.*

On January 5, 2017, Dominion Energy Virginia filed with the Federal Energy Regulatory Commission ("FERC") Deactivation Avoidable Cost ("DAC") Rates for the Yorktown Units pursuant to Section 116 of the PJM Tariff (FERC Docket No. ER17-750-000). The DAC Rate filing was accepted by FERC letter order issued on March 2, 2017.

(k) *A showing that, to the best of the applicant's knowledge, the requested relief will not unreasonably impair the reliability of any "entity" directly affected by the requested order to render adequate service to its customers.*

No entity will be adversely impacted.

(l) *Description of the facilities to be used to transfer the requested emergency service to the applicant's system.*

The Yorktown Units are required to control projected transmission constraints and to support transmission outages associated with the Skiffes Creek Transmission Project. The constrained facilities will be required to transfer energy to serve load until the Skiffes Creek Transmission Project is completed.

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(1) *If a temporary interconnection under the provisions of section 202(c) is proposed independently, the following additional information shall be supplied for each such interconnection:*

Not Applicable

(i) *Proposed location;*

(ii) *Required thermal capacity or power transfer capability of the interconnection;*

(iii) *Type of emergency services requested, including anticipated duration;*

(iv) *An electrical one line diagram;*

(v) *A description of all necessary materials and equipment; and*

(vi) *The projected length of time necessary to complete the interconnection.*

(2) *If the requested emergency assistance is to be supplied over existing facilities, the following information shall be supplied for each existing interconnection:*

Not Applicable.

(i) *Location;*

(ii) *Thermal capacity of power transfer capability of interconnection facilities; and*

(iii) *Type and duration of emergency services requested.*

(m) *A general or key map on a scale not greater than 100 kilometers to the centimeter showing, in separate colors, the territory serviced by each "entity" named in the application; the location of the facilities to be used for the generation and transmission of the requested emergency service; and all connection points between systems.*

(n) *An estimate of the construction costs of any proposed temporary facilities and a statement estimating the expected operation and maintenance costs on an annualized basis. (Not required on section 202(d) applications.)*

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APPENDIX IV
Yorktown Units 1 & 2 Extension – DOE Filing Requirements

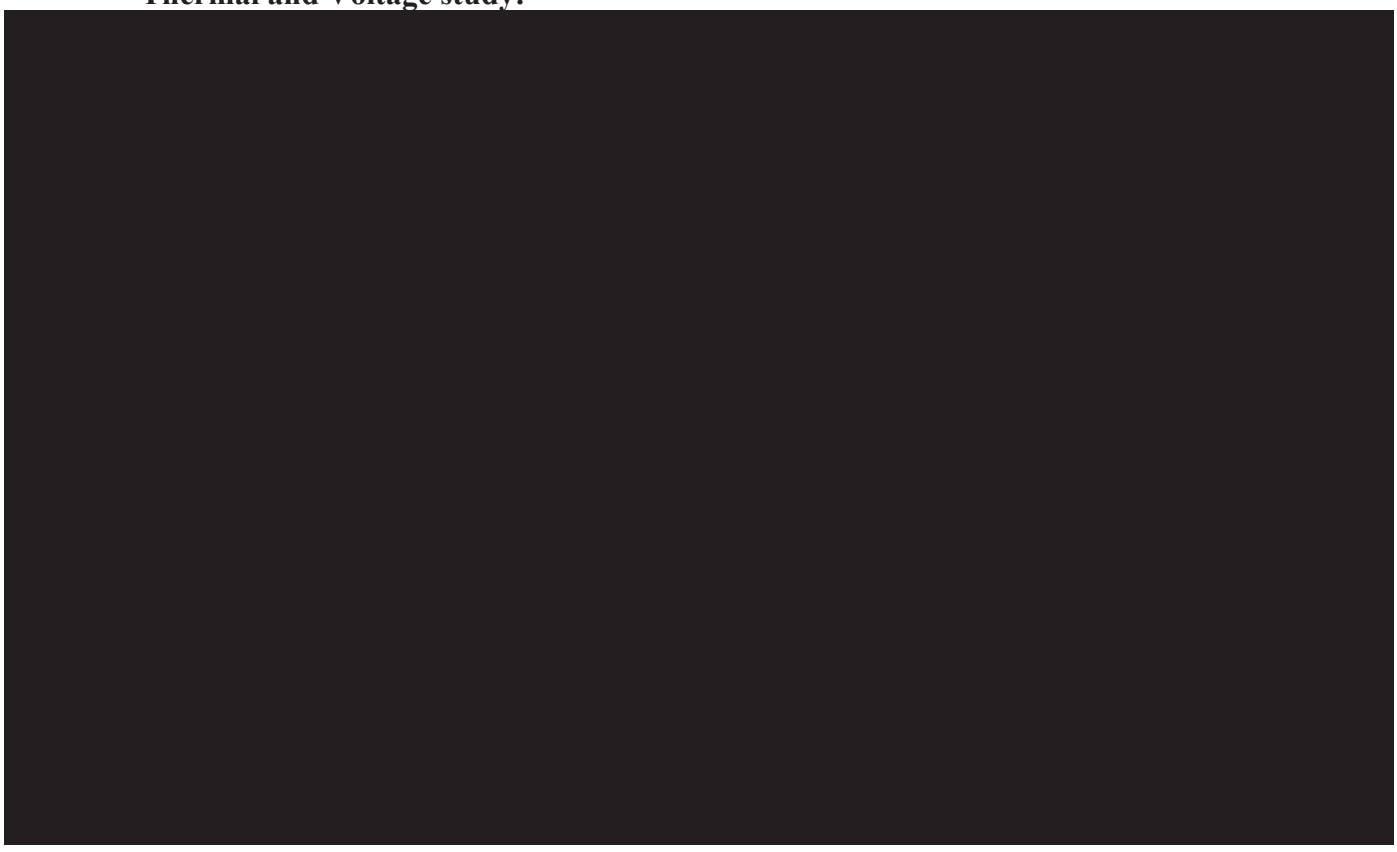
In addition to the filing requirements specified in DOE's regulations at 10 CFR 205.370 through 205.379, please include as much of the following information as is applicable to your organization's circumstances:

1. *Specific scenarios under which non-operation of the facilities at issue would lead to FERC/NERC reliability standard violations and identify the reliability standard(s) that would be violated*.

PJM's Planning Division performed a study of the 2017 summer Transmission System to understand the system conditions expected given the delays in completing the required transmission system upgrades along with the impending deactivation of the Yorktown Units on April 15, 2017.

PJM's analysis follows the requirements set out by NERC Reliability Standard TPL-001-4 - Transmission System Planning Performance Requirements. Requirement R2 refers to specific planning events listed in a common "Steady State & Stability Performance Planning Events" table. The specific scenarios in which planning performance requirements for steady-state were not met are:

NERC Category P6 (Multiple Contingency – 2 overlapping single contingencies) - Thermal and Voltage study:



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NERC Category P7 (Multiple Contingency – Common Structure) - Common mode outage & Generation Deliverability Study

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The following map depicts the transmission lines referenced above:

2. *All contingency analyses, including N-1, N-2, etc. Provide all the load flow models used to perform the studies.*

Contingency analyses that identified planning issues are listed in the response to Question 1 above. The load flow model provided in an attachment is a summer 2017 representation.

With the current system configuration, i.e. no transmission outages to support the Skiffes Creek Transmission Project, PJM load flow studies indicate that Yorktown generation or arming the RAS will be necessary when Dominion Energy Virginia total load is above approximately . The mitigation measure is needed to prevent the possibility of uncontrolled power disruptions in the North Hampton area on the Virginia Peninsula due a tower contingency loss of . Dominion Energy Virginia total load exceeded approximately in each of the past five years and is expected to exceed it again in 2017 and 2018.

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	2012	2013	2014	2015	2016
# of days Dominion Energy Virginia load exceeded [redacted] MW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
# of hours Dominion Energy Virginia total load exceeded [redacted] MW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

3. *Contingency reserve obligations, if any, including the following information*:

   a. *Contingency reserve policies, including the minimum reserve requirement for any group and its members involving the facilities at issue*.

   Not Applicable. PJM is a single Balancing Authority; there is no need to secure reserves specific to the North Hampton area on the Virginia Peninsula.

   b. *The permissible mix of operating reserve, spinning and operating reserve, and supplemental reserve that may be included in contingency reserve.*

   See response to item 3a above.

   c. *The procedure for applying contingency reserve.*

   See response to item 3a above.

4. *Historical values of the facilities at issue (run time including days and hours, amount of MW) for the past three years for all seasons*.

	Total Run Time and Net MWh								
	Yorktown 1			**Yorktown 2**			**Yorktown 3**		
Year	**Run Hours**	**Run Days**	**Net MWh**	**Run Hours**	**Run Days**	**Net MWh**	**Run Hours**	**Run Days**	**Net MWh**
2014	3455	144	417996	3871	161	473232	325	14	101018
2015	1162	48	136115	962	40	104968	640	27	248292
2016	404	17	38892	2122	88	277498	366	15	97052

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5. Studies for the near-term and long-term transmission planning horizons:

   a. For the stability portion, the contingency analyses. Studies must assess the impact of the extreme events.
   b. For transient voltage response, the criteria that shall at a minimum, specify a low-voltage level and a maximum length of time that transient voltages may remain below that level.

   c. The criteria or methodology used in the analysis to identify system instability for conditions such as cascading, voltage instability, or uncontrolled islanding.

   PJM Planning's deactivation analysis consists of a steady-state thermal and voltage evaluation on a near-term planning horizon case that represents the year in which the generator requests deactivation. In the case of Yorktown Units, the original deactivation date of December 31, 2014 was revised to April 15, 2017. The analysis presented here was performed on a summer 2017 case (see answer to Appendix III Question 1). PJM does not perform stability analysis as part of its deactivation evaluation since there will be no stability issues resulting from the generation retirement.

6. *Emission/discharge estimates, if the operation of the facilities at issue may result in noncompliance with any environmental law or regulation, for worst-(maximum output of the unit), medium-, and best-case scenarios for all four seasons. Specify the relevant environmental law or regulation*.

   - EPA's MATS requirements for Yorktown Units 1&2 set forth in 40 CFR Part 63, Subparts A and UUUUU.[28]

   See Attachment F.

7. *Plans for reactive power support*.

   There are capacitor banks in the area providing static reactive power support. However, not all the capacitor banks can be switched into service due to the high voltage limits. PJM does not depend on out-of-service capacitor banks to provide mitigation for post-contingency low voltage violations, rather PJM relies on dynamic MVAR support, which is provided by Yorktown Generation. The Yorktown Units provides reactive power support when they are online.

[28] In addition to operations during dispatch, emissions will occur during startup, shutdown, and basic, periodic and compliance related activities consistent with normal operating procedures and good engineering practices to ensure the units remain reliable and capable of operating when necessary. These activities include, but are not limited to, operating equipment for maintenance testing and reliability check out, testing of fuel systems, tuning of units, required emissions or operational testing, and emptying of coal bunkers.

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8. *Remedial action scheme and plans to mitigate operating emergencies for insufficient generating capacity*.
Remedial Action Scheme ("RAS") was created as a temporary stopgap to maintain compliance with TPL standard and permit outages to proceed reliably.

At the PJM Planning Committee on January 12, 2017, Dominion Energy Virginia presented a new remedial action scheme: "North Hampton RAS" to mitigate the issues seen with the Yorktown Unit deactivations. The North Hampton RAS is necessary to maintain reliability and compliance with the TPL-001-4 standard when the Yorktown Units deactivate on April 15, 2017, and the required transmission system upgrades will not be in service. The North Hampton RAS is armed based on load conditions. Upon loss of certain facilities, the scheme will trip the remaining feeds to the North Hampton area on the Virginia Peninsula which sheds load to prevent voltage collapse. The North Hampton RAS is temporary and will allow the outages for the remaining transmission system upgrades to proceed reliably. It will be removed upon commissioning of all of the required transmission system upgrades.

9. *Short-term and long-term schedules for both the generating unit and the transmission project referenced in the 202(c) application*.

Dominion Energy Virginia proposes to construct the Skiffes Creek Transmission Project which consists of approximately 8 miles of new 500 kV electric transmission line from the existing 500 kV Surry Switching Station to a new 500 kV-230 kV-115 kV Skiffes Creek Switching Station in James City County to be constructed on a 51-acre parcel of land owned by Dominion Energy Virginia. The proposed Skiffes Creek Switching Station will consist of two (2) 500 kV-230 kV transformers and one (1) 230k V-115 kV transformer and associated 230 kV and 115kV breaker and a half arrangements. An approximately 20.2 mile new 230 kV line will be extended from the proposed Skiffes Creek Switching Station to the existing Whealton Substation. The original in-service date for the proposed Project was May of 2015, with the estimated construction time of 18–20 months after receipt of all applicable permits and authorizations.

The Skiffes Creek Transmission Project requires seven significant transmission outages for a total time span of approximately 18-20 months after receipt of all applicable permits and authorizations:

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1) 292 Rock Landing – Yorktown 230 kV line (95 days).
2) 285 Yorktown - Denbigh – Waller 230 kV line (6 days).
3) 292 Rock Landing - Warwick – Whealton 230 kV line (140 days).
4) Whealton #2 Transformer (27 days).
5) 209 Yorktown - Kingsmill 230 kV line (27 days).
6) 285 Yorktown - Denbigh – Waller 230 kV line (81 days).
7) 58 Yorktown - Grafton 115 kV line (136 days).

The map below depicts the Skiffes Creek Transmission Project:

[redacted]

10. *The load shedding plan during peak load conditions and other time horizons. Provide the area where customers would be affected and specify how many and what type of customers would be affected.*

The North Hampton RAS is only valid for the [redacted] resulting in the loss of approximately 150,000 customers in order to prevent voltage collapse.

11. *The critical facilities (such as health care facilities, sanitation/sewer facilities, government facilities) that would be affected due to load shedding.*
Under the RAS plan controlled power interruptions to approximately 950 MWs of load during peak periods including over 150,000 customers in Newport News, Hampton, Poquoson, and York County will be implemented to maintain grid

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reliability. The table below represents the number of customers potentially affected by the RAS, and the number of accounts in each special condition category, some of which represent critical facilities on the Peninsula.

	Total Customers	TRANSMISSION/ PRIMARY DELIVERY	HOSPITALS	LARGE MILITARY BASES AND POSTS	EMERGENCY OPER CENTERS, 911, FIRE, POLICE & RESCUE SQUADS	WATER/MAJOR SEWAGE TREATMENT	CENTRAL TELECOM FACILITIES	TUNNELS, WMATA, MAJOR AIRPORTS
Remedial Action Scheme	169,809	5	8	4	55	30	15	4

Under Scenario One (the need for the Yorktown Units when there are no transmission outages), during peak load periods, with no planned transmission outages and with the loss of one of the four 230 kV lines feeding the peninsula, rotating outages may be necessary in the Virginia Peninsula. A detailed load shed plan has been developed for this scenario. Distribution circuits on the Virginia Peninsula have been prioritized, and the table below represents the number of customers in each priority grouping that may be affected by rotating outages if controlled load shed scenarios arise (e.g. "W" is lowest priority and represents primarily residential customers; "Z" is highest priority and represents facilities such as hospitals, 911 centers, and water treatment plants.) Under Scenario Two (the need for the Yorktown Units during transmission outages to support construction of the Transmission Project), during peak load periods with planned transmission outages, a similar load shed plan would be implemented on the Virginia Peninsula.

Priority	Total Customers	TRANSMISSION/ PRIMARY DELIVERY	HOSPITALS	LARGE MILITARY BASES AND POSTS	EMERGENCY OPER CENTERS, 911, FIRE, POLICE & RESCUE SQUADS	WATER/MAJOR SEWAGE TREATMENT	CENTRAL TELECOM FACILITIES	TUNNELS, WMATA, MAJOR AIRPORTS
W	38,255	0	0	0	0	0	0	0
X	123,792	1	0	1	34	11	15	5
Y	15,136	3	0	2	10	5	4	0
Z	37,012	2	11	3	21	24	3	3

12. *Any compliance and mitigation agreement*.

Not applicable.

13. *Operating criteria for the transmission and generation utilization during the construction of any anticipated project referenced in the 202(c) application*.

PJM anticipates the need of running the Yorktown Units to control N-1 overload under some transmission outage conditions to support the Skiffes Creek Transmission Project. The most significant N-1 overloads are:

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[redacted]

Additionally, Dominion Energy Virginia will request PJM to run the Yorktown Units' generation to control for the [redacted] The operating criteria to commit the Yorktown Units for the N-2 contingency are:

a. Unsolved N-2 contingency;
b. Any voltage exceedance less than 0.90 p.u.; and
c. Any thermal contingency violation above the load dump rating.

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APPENDIX V
Impacted Federal, State and Local Environmental Laws

- EPA's MATS requirements (see Section III A above).

- The Yorktown Power Station is subject to the requirements of Section 316(b) of the Clean Water Act as a result of cooling water intake necessary to operate the Yorktown Units. Continued operation of the Yorktown Units will result in an increase of cooling water. This increased intake of cooling water will trigger additional study requirements in accordance with 316(b) of the Clean Water Act that would be otherwise unnecessary. These studies will likely require costly modifications to the existing cooling water intake system which would otherwise be unnecessary for units that will be ceasing operations once the Skiffes Creek Transmission Project is in service. Gallons of cooling intake water used while operating as dispatched by PJM pursuant to this request , should be excluded from calculations to determine the Yorktown Power Station "Actual Intake Flow" (AIF) as defined by 40 CFR 125.92(a). Noncompliance with these study requirements should not be considered a violation to the extent the requirements are triggered by PJM-ordered dispatch pursuant to the order issued by the Secretary.

- Yorktown Units are subject to a Conditional Use Permit ("CUP") with York County. This CUP includes environmental requirements unrelated to state and federal regulations. When operating the Yorktown Units for reliability purposes, Dominion Energy Virginia advises PJM it will employ every reasonable effort to comply with the CUP, however, in the event of plant malfunctions or operational conditions the station may be unable to comply with each requirement. Noncompliance with the CUP requirements should not be considered a violation to the extent the requirements are triggered by PJM-ordered dispatch pursuant to the order issued by the Secretary.

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Attachment A

Map of North Hampton Roads Area

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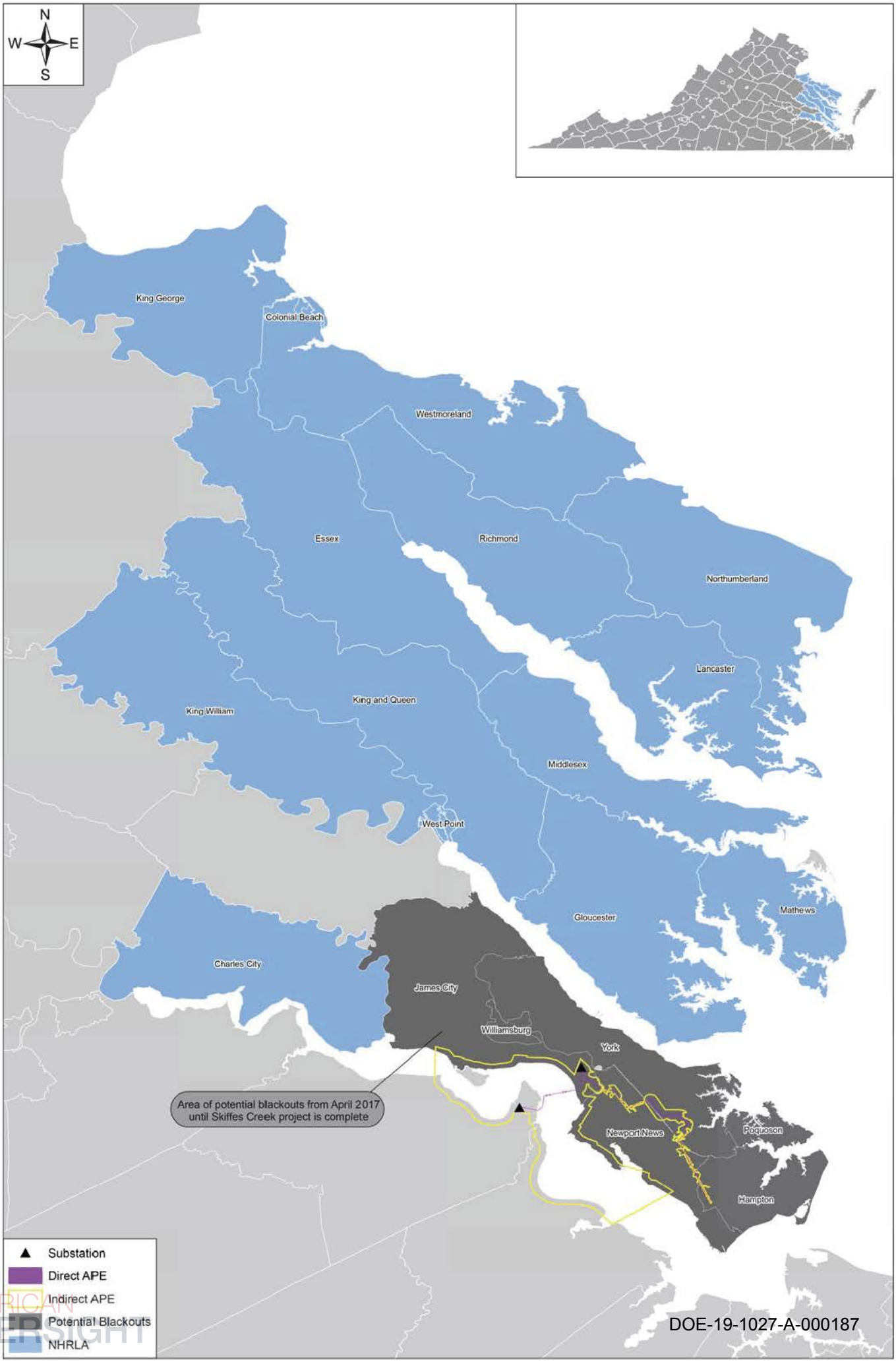

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Attachment B

DEQ Extension YT 12

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COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax: 804-698-4019 - TDD (804) 698-4021
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

June 24, 2014

Ms. Pamela F. Faggert
Chief Environmental Officer and
Vice President-Corporate Compliance
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Compliance Extension Approval for 40 CFR 63 Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coal- and Oil-fired Electric Utility Steam Generating Units

Dear Ms. Faggert:

The Virginia Department of Environmental Quality (DEQ) received your request dated May 15, 2014 for compliance extensions from the requirements of the National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (MATS) for affected units at the Yorktown Power Station in accordance with 40 CFR 63.6(i)(4)(i)(A). Specifically, Dominion Virginia Power (Dominion) requests a one year extension for Units 1 and 2 at the Yorktown Power Station in Yorktown, Virginia to complete construction of the additional transmission facilities necessary to deactivate the units without risk of triggering the reliability issues identified by PJM, and provide the flexibility to dispatch these generation assets during the outages of other units where pollution control installations or replacement generation are being constructed in order to comply with MATS and other environmental obligations. DEQ deems your request complete.

The compliance date for existing sources subject to 40 CFR 63, Subpart UUUUU is April 16, 2015. Per 40 CFR 63.6(i)(4)(i)(A), DEQ has the authority to grant compliance extensions up to twelve months beyond the compliance date. DEQ considers Dominion's compliance extension requests to fall within the purview of EPA's guidelines detailed in the preamble of the MATS published in the Federal Register on February 16, 2012. Accordingly, the DEQ is extending the MATS compliance dates as follows:

Dominion Virginia Power – Yorktown Power Station; Registration Number: 60137
Units 1 & 2 (one year extension until April 16, 2016)

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Semiannual progress reports indicating whether the steps toward compliance outlined in the extension request have been reached shall be submitted no later than January 31 for the July 1 to December 31 period and July 31 for the January 1 to June 30 period each year. The first progress report is due July 31, 2014. A final progress report shall be submitted after all the affected units are retired. Progress reports shall be submitted to Mr. John M. Brandt, Regional Air Compliance & Monitoring Manager, Virginia Department of Environmental Quality, Tidewater Regional Office, 5636 Southern Blvd., Virginia Beach, VA 23462.

In accordance with 40 CFR 63.6(i)(14), DEQ may terminate this extension of compliance at any time if steps toward compliance are not taken. Any compliance extension requests beyond April 16, 2016 must be made to the United States Environmental Protection Agency. If you have any questions about this extension request approval, please contact Patty Buonviri at (804) 698-4016 or by electronic mail at patricia.buonviri@deq.virginia.gov.

Sincerely,

Michael G. Dowd
Director, Air Division

ec: Ray Chalmers, EPA Region 3
Tamera Thompson, Central Office
Todd Alonzo, Central Office
Troy Breathwaite, TRO Air Permit Manager
John Brandt, TRO Air Compliance Manager

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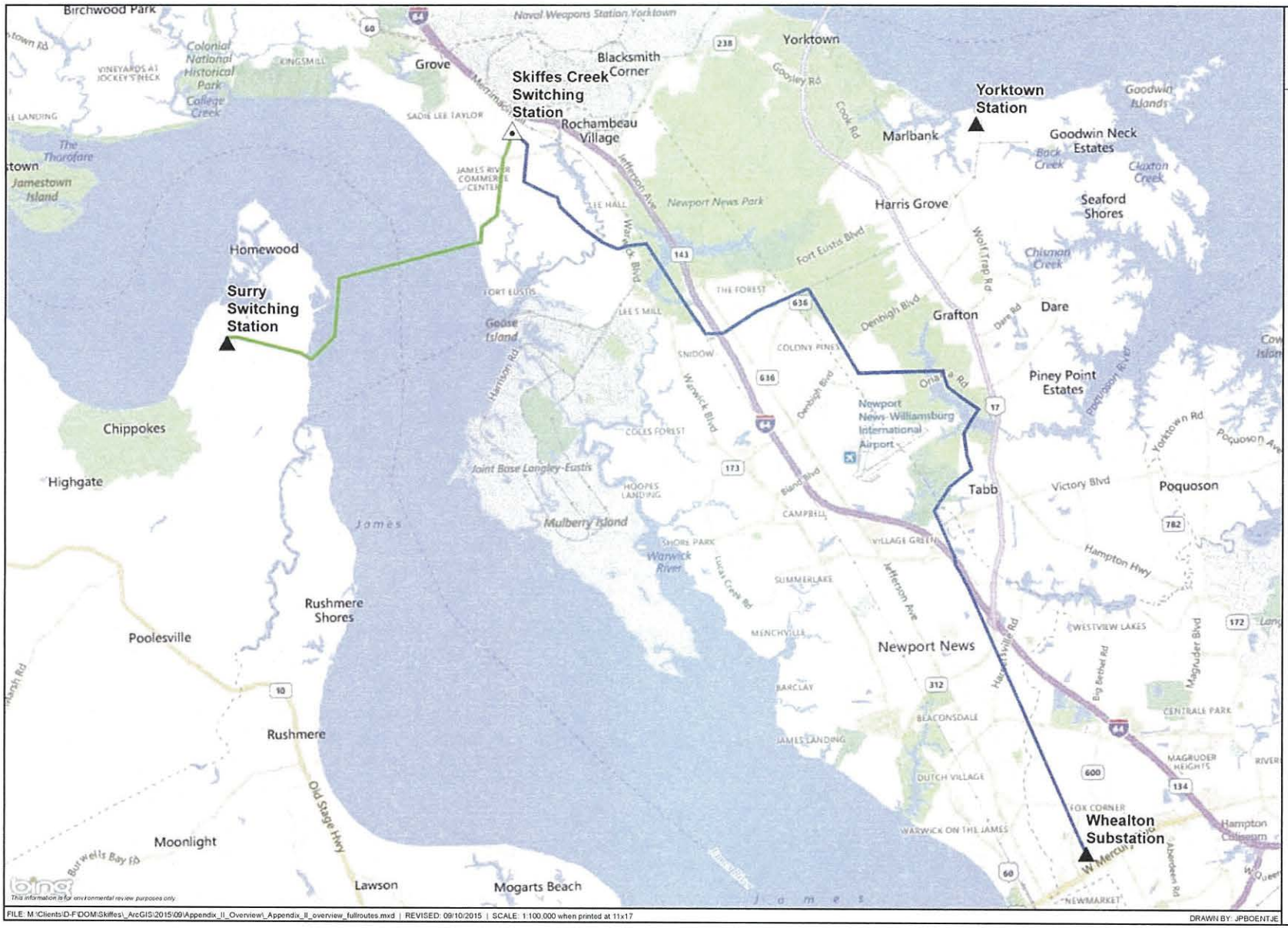
Attachment C



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DRAWN BY: JPBOENTJE

Dominion

Surry-Skiffes Creek 500 kV Transmission Line

Skiffes Creek-Whealton 230 kV Transmission Line

- Existing Station
- Proposed Station
- State Certified 500 kV Route
- State Certified 230 kV Route

NATURAL RESOURCE GROUP

an ERM Group company

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Miles

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Attachment C

Administrative Compliance Order on Consent, April 16, 2016

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Virginia Electric and Power Company, Respondent.	Administrative Compliance Order on Consent AED-CAA-113(a)-2016-0005

ADMINISTRATIVE COMPLIANCE ORDER

A. PRELIMINARY STATEMENT

1. This Administrative Compliance Order ("Order") is issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency ("EPA") by Section 113(a) of the Clean Air Act ("CAA" or the "Act"), 42 U.S.C. § 7413(a)(3) and (4).
2. On the EPA's behalf, Phillip A. Brooks, Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, is delegated the authority to issue this Order under Section 113(a) of the Act.
3. Respondent is Virginia Electric and Power Company, doing business as Dominion Virginia Power (hereinafter, "Respondent" or "Dominion"), a corporation doing business in the Commonwealth of Virginia. Respondent is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e). Respondent owns and/or operates Yorktown Power Station (hereafter, the "Facility"), located in the Commonwealth of Virginia. The Facility includes two coal-fired units (Units 1&2) and an oil-fired unit (Unit 3).
4. Respondent signs this Order on consent.

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B. STATUTORY AND REGULATORY BACKGROUND

5. Section 112 of the CAA, 42 U.S.C. § 7412, authorizes the Administrator of EPA to regulate hazardous air pollutants ("HAPs") which may have an adverse effect on health or the environment.

6. Pursuant to Section 112 of the CAA, the EPA finalized National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Subpart UUUUU on December 16, 2011, 77 FR 9304 (Feb. 16, 2012) (40 C.F.R. Part 63 Subpart UUUUU), commonly known as the "Mercury and Air Toxics Standards." *Id.* (hereafter, "MATS"). The MATS adopt emission limits on mercury, acid gases and other toxic pollutants for affected coal and oil-fired electric utility generating units ("EGUs").

7. Pursuant to 40 C.F.R. § 63.9981, the MATS applies to owners or operators of coal-fired EGUs or oil-fired EGUs as defined in 40 C.F.R. § 63.10042.

8. Pursuant to 40 C.F.R. § 63.2, "owner or operator" is defined as "any person who owns, leases, operates, controls, or supervises a stationary source."

9. Section 111(a)(3) of the Act, 42 U.S.C. § 7411(a)(3), and 40 C.F.R. § 63.2 defines a "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant."

10. Pursuant to 40 C.F.R. § 63.2, "affected source" is defined as "the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a Section 112(c) source category or subcategory for which a Section 112(d) standard or other relevant standard is established pursuant to Section 112 of the Act."

11. Pursuant to 40 C.F.R. § 63.9982, the affected source to which the provisions of the MATS, 40 C.F.R. Part 63, Subpart UUUUU, applies is the collection of all existing coal- or oil-fired EGUs, as

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DOE-19-1027-A-000194

defined in 40 C.F.R. § 63.10042, within a subcategory, [and] … each new or reconstructed coal- or oil-fired EGU, as defined in 40 C.F.R. § 63.10042."

12. On December 16, 2011, in parallel with finalizing the MATS, the Office of Enforcement and Compliance Assurance issued a policy memorandum describing its intended approach regarding issuance of Section 113(a) administrative orders ("Orders") to sources that are unable to comply with the MATS but that may need to operate for up to a year to address a specific and documented reliability concern. *See* The Environmental Protection Agency's Enforcement Response Policy For Use Of Clean Air Act Section 113(a) Administrative Orders In Relation To Electric Reliability And The Mercury and Air Toxics Standard (hereafter, "2011 MATS Enforcement Policy"). The 2011 MATS Enforcement Policy is limited in application to units that are critical for reliability purposes.

13. In issuing the 2011 MATS Enforcement Policy, the EPA believed that there would be few, if any, cases in which affected sources would not be able to comply with the MATS within the compliance period specified by Section 112(i)(3) of the CAA (including, as applicable, any extensions permitted under Section 112(i)(3)(B)), which has proven to be the case. Nonetheless, the EPA acknowledged that there may be isolated instances in which the deactivation or retirement of a unit or a delay in installation of controls due to factors beyond the owner's/operator's control could have an adverse, localized impact on electric reliability that could not be timely predicted or planned for with specificity. In such instances, sources could find themselves in the position of either operating in noncompliance with the MATS or halting operations and thereby potentially impacting electric reliability. Thus, although the EPA generally does not speak publicly to the intended scope of its enforcement efforts in advance of the date when a violation may occur, the Agency issued the 2011 MATS Enforcement Policy to describe the EPA's intended enforcement response in such instances and to provide confidence

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with respect to electric reliability. The policy is informed, as are EPA's enforcement actions in general, by the need to find an appropriate balance between critical public interests, bearing in mind the resources and process time required for any enforcement response.

14. The 2011 MATS Enforcement Policy specifies that to qualify for an Order in connection with it, an owner/operator must, in summary, provide early written notice of its compliance plans to the Planning Authority[1] for the area in which the source is located, timely request an Order and provide notice of such request to the EPA, FERC, its Planning Authority, any state public utility or service commission, and any state, tribal or local environmental agencies, with jurisdiction over the area in which the EGU is located, and submit a complete request for an Order.

15. A complete request pursuant to the 2011 MATS Enforcement Policy must include the following elements: copies of the early notice provided to the Planning Authority; written analysis of the reliability risk, which demonstrates that operation of the unit after the MATS Compliance Date is critical to maintaining electric reliability; written concurrence with the reliability analysis by the relevant Planning Authority (or a written explanation of why such concurrence cannot be provided); copies of any written comments received from third parties in favor of, or opposed to, operation of the unit after the MATS Compliance Date; a plan to achieve compliance with the MATS no later than one year after the MATS Compliance Date; and identification of the level of operation required to avoid the reliability risk and proposed operational limits and/or work practices to minimize or mitigate emissions to the extent practicable during non-compliant operation.

[1] Planning Authorities are the entities tasked, under NERC reliability standards, with addressing electric reliability through grid planning. In the 2011 MATS Enforcement Policy, Planning Authority was defined as "the entity defined as such in the "Glossary of Terms Used in NERC Reliability Standards," available at: http://www.nerc.com/docs/standards/rs/Reliability_Standards_Complete_Set.pdf, or any successor term thereto approved by FERC, and includes, in relevant jurisdictions, RTOs and ISOs."

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16. With respect to the demonstration of reliability risk, the 2011 MATS Enforcement Policy states that the analysis provided in an Order request should demonstrate that operation of the unit after the MATS Compliance Date is critical to maintaining electric reliability, and that failure to operate the unit would: (a) result in the violation of at least one of the reliability criteria required to be filed with the Commission, and, in the case of the Electric Reliability Council of Texas, with the Texas Public Utility Commission; or (b) cause reserves to fall below the required system reserve margin.

17. Although the EPA's issuance of an Order is not conditioned upon the approval or concurrence of any entity, in light of the complexity of the electric system and the local nature of many reliability issues, for purposes of using its Section 113(a) Order authority in connection with the 2011 MATS Enforcement Policy, the EPA has sought advice in the identification and/or analysis of reliability risks, as necessary and on a case-by-case basis from reliability experts, including, but not limited to, the Federal Energy Regulatory Commission ("FERC"), Regional Transmission Operators ("RTOs"), Independent System Operators and other Planning Authorities, as EPA indicated it would do in the 2011 MATS Enforcement Policy.

18. The 2011 MATS Enforcement Policy specifically stated that an owner/operator interested in receiving a Section 113(a) administrative order pursuant to the policy should provide FERC with a copy of its complete and timely written request to the EPA.

19. On May 17, 2012, FERC issued a policy statement explaining how it intended to provide advice to the EPA on requests for an administrative order pursuant to the 2011 MATS Enforcement Policy. *See* Policy Statement of the Commission's Role Regarding the Environmental Protection Agency's Mercury and Air Toxics Standards, 139 FERC ¶ 61,131 (2012) ("FERC Policy Statement"). The FERC Policy Statement provided that the Commission will advise the EPA by submitting written Commission comments to the EPA based on the Commission's review of the

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information provided in an informational filing containing the copy of the request for the administrative order provided to the Commission in an AD docket. *Id.* at Paragraph 21. Further, the FERC Policy Statement indicated that the Commission's comments would provide advice to the EPA on whether, based on the Commission's review of the informational filing, there might be a violation of a Commission-approved Reliability Standard, and may also identify issues within its jurisdiction other than a potential violation of a Commission-approved Reliability Standard. *Id.*

C. FINDINGS

20. Respondent owns and/or operates two existing coal-fired electric utility steam generating unit, as defined in 40 C.F.R. § 63.10042.
21. Respondent's operation at the Facility is subject to the MATS.
22. On June 24, 2014 Respondent received a one year extension pursuant to 40 C.F.R. 63.6(i)(4)(i)(A) from its permitting authority, extending the date by which it must comply with the MATS with respect to Unit 1 and Unit 2 at the Facility to April 15, 2016. *See* June 24, 2014 Letter from Michael G. Dowd, Virginia Department of Environmental Quality, to Pamela F. Faggert.
23. On October 15, 2015, Respondent submitted a timely and complete request for an Order pursuant to the 2011 MATS Enforcement Policy to the EPA, with a copy to FERC. That request can be found in the FERC AD docket, AD16-11-000 (hereafter "Order Request").
24. Pursuant to the Order Request, Respondent seeks an Order from April 16, 2016 to April 15, 2017, on grounds that it will not be able to comply with the MATS at Units 1 and 2 of the Facility without halting operations and thereby potentially impacting electric reliability, until a new high-voltage electric transmission line across the James River in James County, Virginia and

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related project components are completed and in service (collectively, "Skiffes Creek Project"[2]), which is expected no earlier than the second quarter of 2017. *See* Order Request at 17 and 21. In the Order Request, Respondent claims that construction of the Skiffles Creek Project was delayed due to factors outside of its control, including appeals of the Certificate of Convenience and Necessity for the Skiffles Creek Project and other approvals. *Id.* at 1 – 2, 4, 11 - 15.

25. More specifically, the Order Request states that Respondent will be unable to avoid violations of Reliability Standards developed by the North American Electric Reliability Corporation ("NERC") if Units 1 and 2 are deactivated prior to the Skiffes Creek Project being put into service unless Respondent resorts to load shedding. *Id.* at 17. Specifically, Respondent maintains that the retirement of Units 1 and 2 before completion of the Skiffes Creek Project would result in Category B, C and D violations under the NERC Transmission Planning Reliability Standards without load shedding. *Id.* at 18-19; *see also,* note 11.

26. In its Order Request, Respondent provided concurrence from its Planning Authority with the reliability assessment. *See id.*, Attachment C (Written Concurrence of Planning Coordinator) at 2. In its concurrence, the Planning Authority states that "the Deactivation of both Yorktown Unit Nos. 1 and 2 will adversely affect the reliability of the PJM Transmission System, and that updates to the system were required." *Id.*, Attachment K (PJM April 11, 2014 Letter) at 1.

27. FERC reviewed the reliability risk presented in the Order Request in accordance with the FERC Policy Statement and on December 2, 2015 found that "the loss of Dominion's Yorktown Unit Nos. 1 and 2 prior to the completion of the Skiffes Creek Project might result in violations of NERC Reliability Standards in the absence of load shedding," and "Dominion's Yorktown Unit

[2] The Skiffes Creek Project consists of construction of the Surry-Skiffes Creek 500 kV transmission line, the Skiffes Creek-Whealton 230 kV transmission line, and the Skiffes Creek 500 kV-230 kV-115 kV Switching Station ("Skiffes Station"), and work at Dominion Virginia Power's existing Surry and Whealton Stations. *Id.* at 10 and note 4. The Skiffes Creek Project will be located in the Counties of James City, Surrey, and York and the Cities of Hampton and Newport News within Virginia.

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Nos. 1 and 2 are needed during the administrative order period, as requested by Dominion, to maintain electric reliability and to avoid possible NERC Reliability Standard violations." *See* Commission Comments On Requests For EPA Administrative Order (December 2, 2015), at Paragraph 5, Docket No. AD16-11-000.

28. Respondent proposes to minimize emissions by operating Units 1 and 2 only as needed in order to meet the NERC Reliability Standards discussed in Paragraphs 25 - 27 of this Order. In order to do so, Respondent asserts that it will work with its Planning Authority to establish a dispatch methodology that operates Units 1 and 2 "only when called upon for reliability issues associated with the Skiffes Creek construction project, as well as for other expected and actual local area transmission issues or generation emergencies from April 16, 2016 to April 15, 1017." *Id.* at 22-23.[3] Respondent expects the required combined operation of Units 1 and 2 "to be in an estimated monthly range between 30% and 50% in any month during which the [] units are required to operate to support the Skiffes Creek project and up to 10% in months without Skiffes Creek support but requiring support for generation or local transmission reasons;" however, "the units could be required to operate above or below the estimates provided above, depending on system operating requirements." *Id.*

D. ORDER

29. Respondent is ordered to take the actions described in this section of this Order.

30. Between April 16, 2016 and April 15, 2017, Respondent shall operate Units 1 and 2 only as needed in order to meet the NERC Reliability Standards discussed in Paragraphs 25 - 27 of this Order. In order to do so, from April 16, 2016 to April 15, 1017, Respondent shall implement a

[3] Respondent indicates that "in order to maintain compliance with NERC Reliability Standards, if the [] Units must be retired before the Skiffes Creek Project is completed and operational, the Company will implement special protection schemes to shed load under certain system conditions." Order Request at note 17.

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dispatch methodology with PJM that operates Units 1 and 2 only when called upon for reliability issues associated with the Skiffes Creek Project or for other local area transmission issues or generation emergencies. Respondent expects the required combined operation of Units 1 and 2 to be between 30% and 50% in any month during which the units are required to operate to support the Skiffes Creek Project and up to 10% in months requiring support for generation or local transmission reasons in the absence of support for the Skiffes Creek Projects; however, the units may be required to operate above or below the estimates provided above, depending on system operating requirements.

31. By 11:59 pm April 15, 2017, Respondent shall achieve full compliance with the MATS at Units 1 and 2 at the Facility.

32. Within 30 days of achieving full compliance with the MATS at the Facility, Respondent shall provide written notice to the EPA indicating that compliance has been achieved and the date by which is it was achieved, pursuant to the process specified in paragraph 39 of this Order.

E. OTHER TERMS AND CONDITIONS

33. Respondent admits the jurisdictional allegations contained in Sections A (Preliminary Statement) and B (Statutory and Regulatory Background) of this Order.

34. Respondent neither admits nor denies the findings in Section C (Findings) of this Order.

F. GENERAL PROVISIONS

35. Any violation of this Order may result in a civil administrative or judicial action for an injunction or civil penalties of up to $37,500 per day per violation, or both, as provided in Sections 113(b)(2) and 113(d)(1) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d)(1), as well as criminal sanctions as provided in Section 113(c) of the Act, 42 U.S.C. § 7413(c). The EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

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36. Nothing in this Order shall relieve Respondent of the duty of achieving and maintaining compliance with all applicable provisions of the Act or other federal, state or local laws or statutes, nor shall it restrict the EPA's authority to seek compliance with any applicable laws or regulations, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

37. Nothing herein shall be construed to limit the power of the EPA to undertake any action against Respondent or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

38. The provisions of this Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, trustees, servants, authorized representatives, successors, and assigns. From the Effective Date of this Order until the Termination Date as set out in paragraph 44 below, Respondent must give written notice and a copy of this Order to any successors in interest prior to any transfer of ownership or control of any portion of or interest in the Facility. Simultaneously with such notice, Respondent shall provide written notice of such transfer, assignment, or delegation to the EPA. In the event of any such transfer, assignment, or delegation, Respondent shall not be released from the obligations or liabilities of this Order unless the EPA has provided written approval of the release of said obligations or liabilities.

39. Unless this Order states otherwise, whenever, under the terms of this Order, written notice or other documentation is required to be given, it shall be directed to the individuals specified at the addresses below unless those individuals or their successors give notice of a change of address to the other party in writing:

    Phillip A. Brooks
    Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, US Environmental Protection Agency
    Mail Code 2242A, Room 1119
    1200 Pennsylvania Ave, NW
    Washington, DC 20460 mail or 20004 courier (note Room 1119 on courier packages)

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Dennis M. Abraham
Senior Assistant Regional Counsel
United State Environmental Protection Agency, Region III
Office of Regional Counsel, Air Branch (3RC10)
Philadelphia, PA 19103-2029
abraham.dennis@epa.gov

Pamela F. Faggert
Chief Environmental Officer and Vice President-Corporate Compliance
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

Daniel L. Siegfried
Senior Counsel
Dominion Resources Services, Inc.
120 Tredegar Street
Richmond, VA 23220

All notices and submissions shall be considered effective upon receipt.

40. To the extent this Order requires Respondent to submit any information to the EPA, Respondent may assert a business confidentiality claim covering part or all of that information, but only to the extent and only in the manner described in 40 C.F.R. Part 2, Subpart B. The EPA will disclose information submitted under a confidentiality claim only as provided in 40 C.F.R. Part 2, Subpart B. If Respondent does not assert a confidentiality claim, the EPA may make the submitted information available to the public without further notice to Respondent.

41. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Order to execute and bind legally the Parties to this document.

G. EFFECTIVE DATE AND OPPORTUNITY FOR A CONFERENCE

42. Pursuant to Section 113(a)(4) of the Act, an Order does not take effect until the person to whom it has been issued has had an opportunity to confer with the EPA concerning the alleged violations. By signing this Order, Respondent acknowledges and agrees that it has been provided

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an opportunity to confer with the EPA prior to issuance of this Order. Accordingly, this Order will take effect immediately upon signature by the latter of Respondent or the EPA.

H. JUDICIAL REVIEW

43. Respondent waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this Order, including any right of judicial review under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1).

I. TERMINATION

44. This Order shall terminate on the earlier of the following (the "Termination Date") at which point Respondent shall operate in compliance with the Act:

    a. 11:59 pm April 15, 2017;

    b. The effective date of any determination by the EPA that Respondent has achieved compliance with all terms of this Order; or

    c. Immediately upon receipt by Respondent of notice from the EPA finding that an imminent and substantial endangerment to public health, welfare, or the environment has occurred.

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DOE-19-1027-A-000204

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR ENFORCEMENT DIVISION, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE
BEFORE THE ADMINISTRATOR

In the Matter of: Virginia Electric and Power Company, Respondent.	Administrative Compliance Order on Consent AED-CAA-113(a)-2016-0005

For United States Environmental Protection Agency, Air Enforcement Division, Office of Enforcement and Compliance Assurance:

4/16/2016
Date

[redacted]
Phillip A. Brooks
Division Director of the Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance,
US Environmental Protection Agency
Mail Code 2242A, Room 1119
1200 Pennsylvania Ave, NW
Washington, DC 20460 mail or 20004 courier (note Room 1119 on courier packages)

For Virginia Electric and Power Company:

[redacted]
Signature

4/11/2016
Date

Printed Name: Pamela F. Faggert
Title: Chief Environmental Officer and Vice President-Corporate Compliance
Address: Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

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DOE-19-1027-A-000205

CERTIFICATE OF SERVICE

I certify that the foregoing "Administrative Compliance Order" in the Matter of Virginia Electric and Power Company, Order AED-CAA-113(a)-2016-0005, was filed and copies of the same were mailed to the parties as indicated below.

Certified Mail

Pamela F. Faggert
Chief Environmental Officer and Vice President-Corporate Compliance
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

Daniel L. Siegfried
Senior Counsel
Dominion Resources Services, Inc.
120 Tredegar Street
Richmond, VA 23220

Michael G. Dowd
Director, Air Enforcement Division
Virginia Department of Environmental Quality
629 East Main Street
P.O. Box 1105
Richmond, Virginia 23218

4/18/16
Date

[redacted]
Tawanna Cathey

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Attachment D

Reliability Impact Letter, December 14, 2011

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955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403-2497

Michael J. Kormos
Senior Vice President - Operations

December 14, 2011

Doug Holley
Vice President – Fossil & Hydro System Operations
Dominion Generation
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Deactivation Request for Chesapeake Unit 1 and Unit 2 and Yorktown Unit 1

Dear Mr. Holley,

This letter is submitted on behalf of PJM Interconnection, L.L.C. ("PJM"), in response to the Dominion Generation ("Dominion") notices dated November 7, 2011 ("November 7 Notices") requesting to deactivate (retire) the Chesapeake generating units Nos. 1 and 2 and the Yorktown generating unit No. 1 located in the PJM region, effective December 31, 2014. PJM combined the deactivation analysis for these three units into one report since they are scheduled to be deactivated on the same date.

In accordance with section 113.2 of the PJM Tariff, this letter will serve to notify you that the Deactivation of the Chesapeake generating units Nos. 1 and 2 and the Yorktown generating unit No. 1 will adversely affect the reliability of the PJM Transmission absent upgrades to the Transmission System.

PJM Interconnection Analysis performed a preliminary study of the Transmission System and found reliability concerns resulting from the deactivation of these generating units. The specific reliability impacts resulting from the proposed Deactivations include:

Load deliverability study:

- Voltage collapse for the loss of the Bedington – Black Oak 500 kV line.

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N-1-1 Thermal and Voltage study:

- Overload of the Millville – Old Chapel 138 kV line (AP) for the loss of the Morrisville – Front Royal 500 kV line plus the loss of the Loudoun – Meadowbrook 500 kV line.

In addition, Dominion Transmission Planning assessed the impact of the proposed generator retirements using the posted Dominion Planning Criteria. The specific reliability impacts resulting from that analysis includes:

Critical System Condition (No Yorktown #3):

- Overload of Dooms – Lexington 500 kV line for the outage of Bath – Valley 500 kV line.
- Overload of Chuckatuck – Newport News 230 kV line for outage of Surry – Winchester 230 kV line.
- Overload of Surry – Winchester 230 kV line for outage of Chuckatuck – Newport News 230 kV line.
- Overload of Whealton – Winchester 230 kV line for outage of Chuckatuck – Newport News 230 kV line.
- Overload of Lanexa – Waller 230 kV line for outage of Chickahominy – Waller 230 kV line.
- Overload of Chuckatuck – Newport News 230 kV line for outage of Lanexa – Waller 230 kV line plus outage of Chickahominy – Waller 230 kV line.
- Overload of Thrasher to Huntsman 230 kV line for outage of Septa – Fentress 500 kV line and outage of Yadkin – Suffolk 500 kV line.
- Overload of Lanexa – Waller 230 kV line for outage of Chickahominy – Waller 230 kV line and outage of Newport News – Shellbank 230 kV line. Voltage issues also identified at Northampton Roads.
- Overload of Chickahominy – Waller 230 kV line, Lanexa – Waller 230 kV line, and Yorktown – Whealton line for outage of tower line Surry – Winchester and Chuckatuck – Newport News. Also identified voltage collapse in the North and South Hampton Roads area.

Critical System Condition (No Surry #2):

- Overload of Dooms – Lexington 500 kV line for outage of Bath – Valley 500 kV line.

Critical System Condition (No Chesapeake #4):

- Overload of Yadkin – Chesapeake line for outage of Yadkin – Chesapeake – Greenwich 230 kV line.

PJM and the affected Transmission Owners, primarily Dominion Virginia Power, estimate that it will take approximately three and one-half years to complete the Transmission System upgrades necessary to alleviate the identified reliability impacts. This estimated timeframe of June 2015, to complete the required reliability upgrades,

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would have them in-service prior to the next summer peak period following Dominion's proposed Deactivation Date of December 31, 2014 for the Chesapeake generating units Nos. 1 and 2 and the Yorktown generating unit No. 1. PJM continues to work with the affected Transmission Owner Zones to finalize the details of the required upgrade(s), including a more specific completion date. As some of the required upgrades are large in scope and may require siting approval by state commissions, PJM will continue to evaluate the estimated in-service date for these required system upgrades and will report back to you periodically regarding those projected completion dates.

Regardless of whether the deactivation of a generating unit would adversely impact the reliability of the Transmission System, the Generation Owner may deactivate its generating unit, subject to section 113.1 notice requirements. Pursuant to Section 113.2 of the PJM Tariff, Dominion will need to inform PJM of its Deactivation Date for the Chesapeake generating units Nos. 1 and 2 and the Yorktown generating unit No. 1.

Please be advised that PJM's deactivation analysis does not supersede any outstanding contractual obligations between the Chesapeake generating units Nos. 1 and 2 and the Yorktown generating unit No. 1 and any other parties that must be resolved before deactivating the generating units.

Also please note that in accordance with the PJM Tariff Part VI, Subpart C, a Generation Owner will lose the Capacity Interconnection Rights associated with a deactivated generating unit one year from the Deactivation Date unless the holder of such rights submits a new Generation Interconnection Request within one year after the Deactivation Date.

In addition, if a generating unit is receiving Schedule 2 payments for Reactive Supply and Voltage Control, the generating unit owner must inform PJM when the unit is deactivated so that an adjustment in those payments can be made.

Please contact Bill Patzin (610-666-4698) (patziw@pjm.com) in PJM's Interconnection Coordination Department to discuss the next steps in this process, or if you have any questions about the PJM analysis.

Very truly yours,

Michael J. Kormos
Senior Vice President
Operations

cc: Jeff Currier, Dominion {jeffrey.currier@dom.com}

#677403

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Attachment E

Reliability Impact Letter, April 11, 2014

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2750 Monroe Blvd
Audubon, PA 19403-2497

Michael J. Kormos
Executive Vice President –
Operations

April 11, 2014

Edward H. Baine
VP, Power Generation System Operations
Dominion Generation
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Updated PJM Reliability Notification for Deactivation of Yorktown Generating Units Nos. 1 and 2

Dear Mr. Baine:

This letter is submitted by PJM Interconnection, L.L.C. ("PJM") as a follow-up to the November 8, 2012 and December 14, 2012 ("PJM Letters") Deactivation Response letters sent to Mr. Doug Holley of Dominion Generation ("Dominion Generation") regarding the Deactivation of Dominion's Yorktown generating units Nos. 1 and 2. The PJM Letters indicated that the Deactivation of both Yorktown Units Nos. 1 and 2 will adversely affect the reliability of the PJM Transmission System, and that upgrades to the system were required. The PJM Letters also mentioned that the upgrades were expected to be completed by June 1, 2015 and, therefore, the Yorktown Units Nos. 1 and 2 could deactivate as scheduled on December 31, 2014. PJM has determined that due to regulatory and permitting issues, the required upgrades will not be completed by June 1, 2015. Instead, such upgrades are estimated to be completed by the 4th quarter of 2016. This new date is beyond the requested Deactivation Date of December 31, 2014 for the Yorktown Units Nos. 1 and 2. PJM will continue to refine its analysis, to determine when the Yorktown Units can be released without adversely impacting the reliability of the bulk electric system.

As you are aware, regardless of whether Deactivation of a generating unit would adversely impact the reliability of the Transmission System, the Generation Owner may deactivate its generating unit, subject to section 113.1 notice requirements. Pursuant to Part V, Section 113.2 of the PJM Tariff, the Generation Owner must notify PJM within 30 days of this letter whether these generating units will continue to operate beyond their desired Deactivation Date during the period of construction of the Transmission System reliability upgrades necessary to alleviate the reliability impacts resulting from the Deactivation of these generating units. If Dominion Generation determines that the generating units will continue operating, Dominion Generation must provide PJM with an updated estimate of the amount of any project investment that would be required to keep the units in service and the time period the generating units would be out of

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service for repairs, if any. For generating units that will continue to operate beyond their Deactivation Date, (i) PJM shall provide, within 45 days of this letter, an updated estimate of the amount of time it will take to complete the necessary upgrades to alleviate the reliability impact; and (ii) within 60 days of the letter, PJM will post on its internet site the full details of the transmission upgrades necessary to alleviate the reliability impact resulting from the Deactivation of the unit(s).

Please contact Bill Patzin (610-666-4698) (William.Patzin@pjm.com) in PJM's Infrastructure Coordination Department or Aaron Berner (610-666-8951) (Aaron.Berner@pjm.com) Manager of PJM's Interconnections Analysis Department to discuss the next steps for these proposed deactivated units, or if you have any questions about the PJM analysis.

Sincerely,

Michael J. Kormos

cc: Jeff Currier, Dominion {jeffrey.currier@dom.com}

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Attachment F

Appendix IV Question No. 6, "EPA MATS Requirement for Yorktown Units 1 & 2 Set Forth in 40 CFR Part 63

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Yorktown Emissions Calculations

Best Case Emissions

15% per year for construction	Total Emissions (TPY)*	PM	SO2	NOx	Hg
25-day runs annually for load		272	5,753	1,525	8.2

Expected Case Emissions

15% per year for construction	Total Emissions (TPY)*	PM	SO2	NOx	Hg
30-day runs annually for load		422	7,749	2,055	11.6

Worst Case Emissions

8760 hours per year	Total Emissions (TPY)*	PM	SO2	NOx	Hg
		2,166	39,801	10,553	59.5

* Total emissions for mercury is reported in pounds per year (PPY) instead of tons per year (TPY)

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Yorktown Water Usage Calculations

Best Case Flows

15% annually for grid stability 25-day runs annually for load	Total Water Flow (MGY)	26,096

Expected Case Flows

15% annually for grid stability 30-day runs annually for load	Total Water Flow (MGY)	33,917

Worst Case Flows

8760 hours annually	Total Water Flow (MGY)	115,632

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PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Steven R. Pincus
Associate General Counsel
T: (610) 666-4438 I F: (610) 666-8211
steven.pincus@pjm.com

August 24, 2017

The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Order No. 202-17-2 Renewal Application Filing

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),[1] Section 301(b) of the Department of Energy Organization Act,[2] the Department of Energy's ("DOE") Rules of Practice and Procedure[3] and Order No. 202-17-2 (the "Order") issued on June 16, 2017, by the Secretary of Energy ("Secretary"), PJM Interconnection, L.L.C. ("PJM") respectfully submits a request for a 90-day renewal of the Order. PJM incorporates by reference PJM's application submitted on June 13, 2017 (the "Application"), and all attachments and appendices thereto. Concurrent with this renewal request, PJM along with Dominion Virginia Electric and Power Company ("Dominion Energy Virginia") submits a separate report and data required by the Order that will allow the Secretary to review past action under the Order to support the continued need for the emergency relief.

BACKGROUND

In the Application, PJM stated the need to request renewals of the Order on a rolling basis until the PJM ordered Regional Transmission Expansion Planning Process ("RTEPP") Skiffes Creek Transmission Project is placed into service, which was at that time anticipated to

[1] 16 U.S.C. § 824a(c)
[2] 42 U.S.C. § § 7101 and 7151(b)
[3] 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373

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be completed 18-20 months once all permits are issued. The Secretary directed such renewal requests to be submitted 21 days prior to expiration of the Order (*i.e.* August 24, 2017) "if the conditions change – for example, if Dominion Energy Virginia obtains all permitting approvals for the RTEPP upgrade…"[4]

In the Order, the Secretary determined "that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest."[5] In doing so, the Secretary directed Dominion Energy Virginia to operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the entire 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.[6]

In the Order, the Secretary authorized PJM to operate Yorktown Units 1 and 2, with no planned transmission outages, to maintain reliability when Dominion Energy Virginia total load reaches approximately 18,400 MW (referred to as "Scenario 1" in the Application).[7] The Order also authorized operation of the Yorktown Units 1 and 2 to maintain reliability at lower Dominion Energy Virginia load levels during various planned transmission outage to support construction of the Skiffes Creek Transmission Project (referred to as "Scenario 2"). As stated in the Application, under Scenario 2 the specific planned transmission outage condition will determine the Dominion Energy Virginia total load level at which the Yorktown Units are required to run to maintain reliability.[8] A table in Appendix III of the Application included the

[4] Order at page 2 (the RTEPP upgrade referenced in the Order is the "Skiffes Creek Transmission Project)"
[5] Order at page 1
[6] Order as page 2
[7] Order at page 1
[8] Appendix II of the Application includes examples of running the Yorktown Units at different Dominion Energy Virginia total load levels concurrent with planned transmission outages to ensure reliability.

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then current estimates for Yorktown units run time for a planned transmission outage sequence starting in the summer of 2017, which was dependent upon the issuance of the Army Corps of Engineers' permit. The Army Corps' permit was issued July 3, 2017, and Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. The planned transmission outages are coordinated between PJM and Dominion Energy Virginia to ensure the reliability of service in the area and to support the construction schedule.

RENEWAL REQUEST

As stated in the Application, the Skiffes Creek Transmission Project is expected to be completed and placed into service approximately 18-20 months after receipt of all applicable permits. Thus, given the extended nature of the emergency, PJM proposed to submit requests for renewals of the Secretary's emergency order for successive 90 day periods. Following issuance of the Army Corps' permit on July 3, 2017, Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. Therefore, the emergency as set forth in the Application and as determined in the Order continues.

The attached Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (Attachment 1), includes a revised construction schedule and planned transmission outage sequence, and Yorktown run and emission estimates. Attachment 1 also provides actual emissions from the July 11-25 Yorktown unit runs, and the current estimated planned transmission outage time frames, transmission limiting contingencies, Dominion Zone load thresholds which trigger the need to operate Yorktown Units 1 and/or 2, estimated run time in days, and Dominion Energy Virginia's estimated emissions for the remainder of the Order period based on the run time estimates. PJM called on Yorktown Unit 2 to run on August 22, 2017 to ensure reliability in compliance with the

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Order, and since the emission and water usage data is not yet available, the Attachment 1 will be updated with all actual run and emissions data for the 90 day period as directed in the Order when the next renewal request is submitted or as otherwise directed by the Secretary.

The attached spreadsheet (Attachment 2), Yorktown Projected Emissions, provides detailed estimated emissions for the Yorktown Units 1 and 2 on a monthly basis for August 2017 through December 2018 as well as actual emissions data for the July 11-25 runs. The construction schedule will likely change and, if necessary, PJM and Dominion Energy Virginia will provide DOE with revised construction schedules and estimated emissions with each renewal application under the Order. Given the extended nature of the emergency, PJM will continue to submit requests for renewals of the Secretary's emergency order for successive 90 day periods until such time as the Skiffes Creek Construction Transmission is completed and placed into service and the emergency no longer exists.

CONCLUSION

PJM respectfully requests that the Secretary grant this renewal application and order the continued generation of Yorktown Units 1 & 2 to alleviate the emergency described in the Application and hereinabove prior to the expiration of the current Order (i.e. September 14, 2017). PJM seeks an order of the Secretary under Section 202 (c) of the FPA which provides: (i) an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of a renewal Order will meet the emergency and serve the public interest; (ii) from September 14, 2017 to December 13, 2017, Dominion Energy Virginia is directed to operate Yorktown Units 1 and 2 as directed by PJM as needed to maintain grid reliability or for other

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local area transmission issues; (iii) Dominion Energy Virginia shall continue to follow the dispatch methodology submitted by PJM on June 27, 2017, as required by the Order; and (iv) PJM and Dominion Energy Virginia shall report all dates on which Yorktown Units 1 and 2 are operated as well as the estimated emissions and water usage date associated with their operation to be submitted at least 14 days before the expiration of the renewal Order. PJM also respectfully requests that DOE clarify that the Order applied, and all renewal orders will apply, to all times where Yorktown Units 1 and 2 are needed to run for reliability, including the periods referred to as "Scenario 1" and "Scenario 2" in the Application.

REQUEST FOR CEII DESIGNATION

The filing consists of the following:

1. Non Public version of Attachments 1 (password protected containing Critical Energy Infrastructure ("CEII") material).

2. Public version Attachments 1 (public version with CEII material redacted).

In regard to the Non Public version of Attachments 1, PJM respectfully requests the information submitted to the DOE be designated as CEII pursuant Federal Power Act ("FPA") Section 215A(d) and the implementing regulations, 18 C.F.R. Section 388.113.

In FAST Act Section 215A(a)(3), CEII is specifically defined as information "designated as critical electric infrastructure information by … the Secretary of the Department of Energy pursuant to subsection (d)."[9] Under FPA Section 215A(a)(3), CEII includes information that is

[9] FAST Act, Pub. L. No. 114-94, section 61,003, 129 Stat. 1312, 1776.

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submitted to the DOE, and designated as such by DOE.[10] The regulations define CEII in pertinent part as follows:

> *"1) Critical electric infrastructure information* means information related to critical electric infrastructure …Provided to the Commission or other Federal agency … that is designated as critical electric infrastructure information by the Commission or the Secretary of the Department of Energy pursuant to section 215A(d) of the Federal Power Act. Such term includes information that qualifies as critical energy infrastructure information under the Commission's regulations. Critical Electric Infrastructure Information is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552(b)(3) and shall not be made available by any Federal, State, political subdivision or tribal authority pursuant to any Federal, State, political subdivision or tribal law requiring public disclosure of information or records pursuant to section 215A(d)(1)(A) and (B) of the Federal Power Act."
>
> 2) *Critical energy infrastructure information* means specific engineering, vulnerability, or detailed design information about … existing critical infrastructure that:
>
> (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
>
> (ii) Could be useful to a person in planning an attack on critical infrastructure;
>
> (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
>
> (iv) Does not simply give the general location of the critical infrastructure."[11]

PJM submits the redacted information in Attachment 1 is CEII because it provided details about the production, generation and transportation of energy, which if publically available could

[10] FAST Act, Pub. L. No. 114-94, section 61,003, 129 Stat. 1312, 1773 ("critical electric infrastructure information means information … generated by or provided to the Commission or other Federal agency … that is designated as critical electric infrastructure information by the Commission or the Secretary pursuant to subsection (d)").

[11] 18 C.F.R. Section 388.113(c)(1) and (2).

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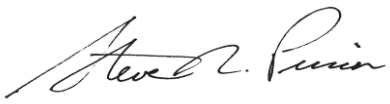
be useful in planning an attack on critical infrastructure in the North Hampton Road area of the Commonwealth of Virginia namely the electric transmission system.

Respectfully submitted,



Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Cc: Pat Hoffman, U.S. Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program (Public Version of Attachment 1)

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ATTACHMENT 1

Skiffes Creek outages table_081817 with Emissions Estimates Renewal

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Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (subject to change)

Outage	Outage Time Frame	Limiting Contingency	Load Threshold	Hours over Load Threshold**	Days over load threshold **	Dominion Emissions Estimates
Redacted Information is CEII	7/9/17-9/29/17	Redacted Information is CEII	Redacted Information is CEII	87	18	NOx 243.06 SO2 933.11 PM10 7.73 CO2 122,385.60 Pb 0.0100 Hg 0.0015 HCl 22.01 HF 3.56 CO 11.88
Redacted Information is CEII	9/25/17-10/29/17	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 - Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
Redacted Information is CEII	9/29/17-10/27/17	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 - Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
Redacted Information is CEII	10/27/17-01/19/18	Redacted Information is CEII	Redacted Information is CEII	21	4	NOx 54.01 SO2 207.36 PM10 1.72 CO2 27,196.80 Pb 0.0022 Hg 0.0003 HCl 4.89 HF 0.79 CO 2.64
Redacted Information is CEII	10/30/17-1/28/18	Redacted Information is CEII	Redacted Information is CEII	8	3	NOx 40.51 SO2 155.52 PM10 1.29 CO2 20,397.60 Pb 0.0017 Hg 0.0003 HCl 3.67 HF 0.59

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Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (subject to change)

						CO 1.98
Redacted Information is CEII	11/13/17-11/17/17	Redacted Information is CEII	Redacted Information is CEII Redacted Information is CEII	7	2 0	NOx 27.01 SO2 103.68 PM10 0.86 CO2 13,598.40 Pb 0.0011 Hg 0.0002 HCl 2.45 HF 0.40 CO 1.32
Redacted Information is CEII	1/8/18-2/4/18	Redacted Information is CEII	Redacted Information is CEII	5	2	NOx 27.01 SO2 103.68 PM10 0.86 CO2 13,598.40 Pb 0.0011 Hg 0.0002 HCl 2.45 HF 0.40 CO 1.32
Redacted Information is CEII	2/5/18-2/25/18	Redacted Information is CEII	Redacted Information is CEII Redacted Information is CEII	147	10 5	NOx 202.55 SO2 777.59 PM10 6.44 CO2 101,988.00 Pb 0.0083 Hg 0.0013 HCl 18.34 HF 2.97 CO 9.90
Redacted Information is CEII	2/26/18-3/25/18	Redacted Information is CEII	Redacted Information is CEII	37	6	NOx 81.02 SO2 311.04 PM10 2.58 CO2 40,795.20 Pb 0.0033 Hg 0.0005 HCl 7.34 HF 1.19 CO 3.96
Redacted Information is CEII	3/26/18-5/6/18	Redacted Information is CEII	Redacted Information is CEII Redacted Information is CEII	16	4	NOx 54.01 SO2 207.36 PM10 1.72 CO2 27,196.80 Pb 0.0022 Hg 0.0003 HCl 4.89 HF 0.79 CO 2.64

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Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (subject to change)

Redacted Information is CEII	4/23/18-9/23/18	Redacted Information is CEII	Redacted Information is CEII	117	21	NOx 283.57 SO2 1088.63 PM10 9.02 CO2 142,783.20 Pb 0.0116 Hg 0.0018 HCl 25.68 HF 4.16 CO 13.86
Redacted Information is CEII	10/8/18-10/14/18	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 - Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
Redacted Information is CEII	10/8/18-12/9/18	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 - Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
Redacted Information is CEII	10/8/18-12/30/18	Redacted Information is CEII	Redacted Information is CEII	3	1	NOx 13.50 SO2 51.84 PM10 0.43 CO2 6,799.20 Pb 0.0006 Hg 0.0001 HCl 1.22 HF 0.20 CO 0.66
Redacted Information is CEII	10/15/18-10/21/18	Redacted Information is CEII	Redacted Information is CEII Redacted Information is CEII	40	4 1	NOx 54.01 SO2 207.36 PM10 1.72 CO2 27,196.80 Pb 0.0022 Hg 0.0003 HCl 4.89 HF 0.79 CO 2.64
Redacted Information is CEII	10/22/18-10/28/18	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 -

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Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (subject to change)

						Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
Redacted Information is CEII	10/29/18-11/11/18	Redacted Information is CEII	Redacted Information is CEII	0	0	NOx 0.0 SO2 0.0 PM10 0.0 CO2 - Pb 0.0 Hg 0.0 HCl 0.0 HF 0.0 CO 0.0
			Total Estimate	488	81	NOx 1093.77 SO2 4199.00 PM10 34.80 CO2 550,735.20 Pb 0.0449 Hg 0.0069 HCl 99.04 HF 16.04 CO 53.47

*Outages scheduled to complete 12/30/18.

** Estimates are for both Yorktown 1 & 2 units.

		07-2017	08-2017	09-2017	10-2017	11-2017	12-2017	01-2018	02-2018	03-2018	04-2018	05-2018	06-2018	07-2018	08-2018	09-2018	10-2018	11-2018	12-2018
Days over load threshold **		9	9	0	0	2	2	7	17	4	3	1	0	10	9	2	5	0	1
Hours over Load Threshold**		39	48	0	0	7	7	27	158	26	13	3	0	55	59	3	40	0	3
Dominion	NOx	97.89	121.53	0.0	0.0	27.01	27.01	94.52	229.56	54.01	40.51	13.50	0.0	135.03	121.53	27.01	67.52	0.0	13.50

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Skiffes Creek Construction Transmission Outage Schedule and Yorktown Units 1 and 2 Emission Estimates as of August 18, 2017 (subject to change)

Emission Estimates (tons)	SO2	391.87	466.56	0.0	0.0	103.68	103.68	362.88	881.27	207.36	155.52	51.84	0.0	518.39	466.56	103.68	259.20	0.0	51.84
	PM10	3.72	3.87	0.0	0.0	0.86	0.86	3.01	7.30	1.72	1.29	0.43	0.0	4.30	3.87	0.86	2.15	0.0	0.43
	CO2	49,173.9	61,192.8	-	-	13,598.4	13,598.4	47,594.4	115,586.4	27,196.8	20,397.6	6,799.2	-	67,992.0	61,192.8	13,598.4	33,996.0	-	6,799.2
	Pb	0.0040	0.0050	0.0	0.0	0.0011	0.0011	0.0039	0.0094	0.0022	0.0017	0.0006	0.0	0.0055	0.0050	0.0011	0.0028	0.0	0.0006
	Hg	0.0008	0.0008	0.0	0.0	0.0002	0.0002	0.0006	0.0014	0.0003	0.0003	0.0001	0.0	0.0008	0.0008	0.0002	0.0004	0.0	0.0001
	HCl	11.48	11.00	0.0	0.0	2.45	2.45	8.56	20.79	4.89	3.67	1.22	0.0	12.23	11.00	2.45	6.11	0.0	1.22
	HF	1.43	1.78	0.0	0.0	0.40	0.40	1.39	3.37	0.79	0.59	0.20	0.0	1.98	1.78	0.40	0.99	0.0	0.20
	CO	4.78	5.94	0.0	0.0	1.32	1.32	4.62	11.22	2.64	1.98	0.66	0.0	6.60	5.94	1.32	3.30	0.0	0.66

Figures highlighted in green are actual emission data for the month

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ATTACHMENT 2

Copy of Yorktown July 2017 Run Time and Projected Emissions Renewal

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Date/Hour	YT00 PGMW1 Value	YT00 PGMW2 Value	YT00 QHIPM Value	YT00 QHIPM Missing	YT00 QNOXE Value	YT00 QNOXE Missing	YT00 QSO2	YT00 QSO2M Value	YT00 QSO2M Missing	YT00 QCO2	YT00 QCO2M	YT00 QCO2M Missing	0
07/10/2017 00	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 01	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 02	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 03	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 04	0	0	4.4	FALSE	0.141	FALSE	84.3	11.2	FALSE	1	0.5	FALSE	0
07/10/2017 05	0	0	1.1	FALSE	0.158	FALSE	52.6	0.7	FALSE	2.3	0.1	FALSE	0
07/10/2017 06	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 08	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 09	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 10	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 11	0	0	1	FALSE	0.064	TRUE	31.1	63.4	TRUE	0	0	FALSE	56
07/10/2017 12	0	0	14	FALSE	0.064	TRUE	31.1	65.2	TRUE	0.2	1.4	FALSE	60
07/10/2017 13	0	0	30.6	FALSE	0.064	TRUE	31.1	71	TRUE	0.4	3.1	FALSE	60
07/10/2017 14	0	0	40.3	FALSE	0.064	TRUE	31.1	74.9	TRUE	0.5	4.1	FALSE	60
07/10/2017 15	0	0	59.2	FALSE	0.064	TRUE	31.1	78.6	TRUE	0.7	6.1	FALSE	60
07/10/2017 16	0	0	61.2	FALSE	0.064	TRUE	31.1	81.2	TRUE	0.7	6.3	FALSE	60
07/10/2017 17	0	0	340	FALSE	0.064	TRUE	31.1	83.1	TRUE	3.8	34.9	FALSE	60
07/10/2017 18	0	0	521.5	TRUE	0.064	TRUE	0	0	FALSE	5.8	53.5	TRUE	60
07/10/2017 19	0	0	525.7	TRUE	0.064	TRUE	0	0	FALSE	5.8	53.9	TRUE	60
07/10/2017 20	0	0	528.3	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.2	TRUE	60
07/10/2017 21	0	0	526.9	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.1	TRUE	60
07/10/2017 22	0	0	529.1	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.3	TRUE	60
07/10/2017 23	0	0	529.2	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.3	TRUE	60
07/11/2017 00	0	0	540.4	TRUE	0.064	TRUE	0.3	0.8	FALSE	5.8	55.4	TRUE	60
07/11/2017 01	0	0	581.6	TRUE	0.064	TRUE	1.1	3.3	FALSE	5.8	59.7	TRUE	60
07/11/2017 02	0	0	586.7	TRUE	0.064	TRUE	0.6	1.8	FALSE	5.8	60.2	TRUE	60
07/11/2017 03	0	0	595.2	TRUE	0.064	TRUE	0.7	2.1	FALSE	5.8	61.1	TRUE	60
07/11/2017 04	0	9	593.2	TRUE	0.064	TRUE	40.8	124.7	FALSE	5.8	60.9	TRUE	60
07/11/2017 05	0	16	583.2	TRUE	0.064	TRUE	101.5	305	FALSE	5.8	59.8	TRUE	60
07/11/2017 06	0	44	579	TRUE	0.288	TRUE	189.8	566.2	FALSE	5.8	59.4	TRUE	60
07/11/2017 07	0	65	600.6	TRUE	0.536	TRUE	275.2	851.5	TRUE	5.8	61.6	TRUE	60
07/11/2017 08	0	88	936.8	FALSE	0.342	FALSE	360.6	1310.9	FALSE	7.7	96.1	FALSE	60
07/11/2017 09	0	111	1046.9	FALSE	0.419	FALSE	411.1	1648.7	FALSE	7.8	107.4	FALSE	60
07/11/2017 10	0	101	951.9	FALSE	0.443	FALSE	443	1657.9	FALSE	7.6	97.7	FALSE	60
07/11/2017 11	0	99	946.7	FALSE	0.443	FALSE	444.9	1656	FALSE	7.6	97.1	FALSE	60
07/11/2017 12	0	117	1051.6	FALSE	0.479	FALSE	462.8	1888.6	FALSE	7.7	107.9	FALSE	60
07/11/2017 13	0	136	1187.9	FALSE	0.528	FALSE	463.3	2081.7	FALSE	7.9	121.9	FALSE	60
07/11/2017 14	0	139	1197.4	FALSE	0.52	FALSE	473	2115.4	FALSE	8	122.9	FALSE	60
07/11/2017 15	0	140	1184.2	FALSE	0.525	FALSE	482.9	2135.9	FALSE	8	121.5	FALSE	60
07/11/2017 16	0	140	1206.6	FALSE	0.512	FALSE	485.9	2136.3	FALSE	8.2	123.8	FALSE	60
07/11/2017 17	0	140	1184.2	FALSE	0.524	FALSE	486.2	2150.4	FALSE	8	121.5	FALSE	60
07/11/2017 18	0	134	1160.4	FALSE	0.51	FALSE	487.3	2111.9	FALSE	8	119.1	FALSE	60
07/11/2017 19	0	115	1049.9	FALSE	0.528	FALSE	481.4	1936.2	FALSE	7.8	107.7	FALSE	60
07/11/2017 20	0	119	1096.7	FALSE	0.506	FALSE	485.6	1989.1	FALSE	8	112.5	FALSE	60
07/11/2017 21	0	107	989.7	FALSE	0.526	FALSE	458.9	1785.6	FALSE	7.6	101.5	FALSE	60
07/11/2017 22	0	99	917.7	FALSE	0.516	FALSE	450	1690.3	FALSE	7.3	94.2	FALSE	60
07/11/2017 23	0	100	946.5	FALSE	0.506	FALSE	448.4	1690.8	FALSE	7.5	97.1	FALSE	60
07/12/2017 00	0	100	950.8	FALSE	0.502	FALSE	442.2	1675.1	FALSE	7.5	97.6	FALSE	60
07/12/2017 01	0	100	954.5	FALSE	0.507	FALSE	437.6	1664	FALSE	7.5	97.9	FALSE	60
07/12/2017 02	0	100	954.7	FALSE	0.508	FALSE	430.1	1635.9	FALSE	7.5	98	FALSE	60
07/12/2017 03	0	100	960.2	FALSE	0.51	FALSE	424.6	1624.3	FALSE	7.5	98.5	FALSE	60
07/12/2017 04	0	100	960.9	FALSE	0.51	FALSE	417.6	1598.7	FALSE	7.5	98.6	FALSE	60
07/12/2017 05	0	100	948.4	FALSE	0.515	FALSE	404.7	1549.8	FALSE	7.4	97.3	FALSE	60
07/12/2017 06	0	100	948.3	FALSE	0.519	FALSE	400.5	1533.5	FALSE	7.4	97.3	FALSE	60
07/12/2017 07	0	100	947.5	FALSE	0.522	FALSE	395.6	1513.6	FALSE	7.4	97.2	FALSE	60
07/12/2017 08	0	100	958.5	FALSE	0.515	FALSE	396.3	1513.3	FALSE	7.5	98.3	FALSE	60

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07/12/2017 09	0	100	991.9	FALSE	0.493	FALSE
07/12/2017 10	0	100	1001	FALSE	0.49	FALSE
07/12/2017 11	0	100	971.9	FALSE	0.509	FALSE
07/12/2017 12	0	102	992	FALSE	0.506	FALSE
07/12/2017 13	0	114	895.3	TRUE	0.507	TRUE
07/12/2017 14	0	129	926.4	TRUE	0.511	TRUE
07/12/2017 15	0	142	961.6	TRUE	0.511	TRUE
07/12/2017 16	0	147	1020.7	TRUE	0.511	TRUE
07/12/2017 17	0	147	1018.5	TRUE	0.511	TRUE
07/12/2017 18	0	147	1305.7	TRUE	0.511	TRUE
07/12/2017 19	0	147	1425.5	TRUE	0.511	TRUE
07/12/2017 20	0	148	1434.8	TRUE	0.475	TRUE
07/12/2017 21	0	144	1430.7	TRUE	0.511	TRUE
07/12/2017 22	0	102	1223.8	TRUE	0.507	TRUE
07/12/2017 23	0	99	1215.4	TRUE	0.507	TRUE
07/13/2017 00	0	98	1218.6	TRUE	0.507	TRUE
07/13/2017 01	0	98	1284.8	TRUE	0.507	TRUE
07/13/2017 02	0	98	1318.8	TRUE	0.507	TRUE
07/13/2017 03	0	98	1324.3	TRUE	0.507	TRUE
07/13/2017 04	0	98	1324.3	TRUE	0.507	TRUE
07/13/2017 05	0	98	1308.1	TRUE	0.507	TRUE
07/13/2017 06	0	98	1303.5	TRUE	0.507	TRUE
07/13/2017 07	0	98	1300.8	TRUE	0.507	TRUE
07/13/2017 08	0	100	1303.3	TRUE	0.507	TRUE
07/13/2017 09	0	129	1471.4	TRUE	0.511	TRUE
07/13/2017 10	0	145	1546.2	TRUE	0.511	TRUE
07/13/2017 11	0	146	1537	TRUE	0.511	TRUE
07/13/2017 12	0	146	1280.9	FALSE	0.48	FALSE
07/13/2017 13	0	145	1280.9	FALSE	0.457	FALSE
07/13/2017 14	0	144	1324.8	FALSE	0.439	FALSE
07/13/2017 15	0	144	1349.8	FALSE	0.443	FALSE
07/13/2017 16	34	144	1627.7	FALSE	0.438	FALSE
07/13/2017 17	52	144	1800.9	FALSE	0.419	FALSE
07/13/2017 18	68	143	2029.2	FALSE	0.397	FALSE
07/13/2017 19	84	143	2245.9	FALSE	0.418	FALSE
07/13/2017 20	102	143	2399.8	FALSE	0.463	FALSE
07/13/2017 21	101	135	2287.5	FALSE	0.462	FALSE
07/13/2017 22	100	104	2019.9	FALSE	0.47	FALSE
07/13/2017 23	100	99	1991.6	FALSE	0.477	FALSE
07/14/2017 00	100	98	1971	FALSE	0.49	FALSE
07/14/2017 01	100	98	1972.4	FALSE	0.494	FALSE
07/14/2017 02	101	98	1980.5	FALSE	0.497	FALSE
07/14/2017 03	101	98	1984.6	FALSE	0.497	FALSE
07/14/2017 04	101	98	1986.4	FALSE	0.498	FALSE
07/14/2017 05	101	99	1962.6	FALSE	0.502	FALSE
07/14/2017 06	101	99	1984.9	FALSE	0.495	FALSE
07/14/2017 07	101	99	1985	FALSE	0.496	FALSE
07/14/2017 08	101	100	1991	FALSE	0.496	FALSE
07/14/2017 09	130	136	2582.9	FALSE	0.471	FALSE
07/14/2017 10	147	145	2755	FALSE	0.479	FALSE
07/14/2017 11	147	145	2761.4	FALSE	0.473	FALSE
07/14/2017 12	147	145	2744.1	FALSE	0.468	FALSE
07/14/2017 13	147	145	2732.9	FALSE	0.466	FALSE
07/14/2017 14	146	144	2745.3	FALSE	0.459	FALSE
07/14/2017 15	144	144	2730.5	FALSE	0.437	FALSE
07/14/2017 16	136	135	2543.6	FALSE	0.44	FALSE
07/14/2017 17	121	120	2322.2	FALSE	0.428	FALSE
07/14/2017 18	125	124	2369.6	FALSE	0.442	FALSE
07/14/2017 19	108	101	2047.6	FALSE	0.45	FALSE

395.5	1502.9	FALSE	7.8	101.8	FALSE	60
394	1491.7	FALSE	7.9	102.7	FALSE	60
391.8	1477.7	FALSE	7.7	99.7	FALSE	60
392.3	1490.8	FALSE	7.8	101.8	FALSE	60
336.9	1365.6	TRUE	6.6	91.9	TRUE	60
336.9	1413	TRUE	6.6	95	TRUE	60
336.9	1466.6	TRUE	6.6	98.7	TRUE	60
336.9	1556.7	TRUE	6.6	104.7	TRUE	60
336.9	1553.4	TRUE	6.6	104.5	TRUE	60
336.9	1991.6	TRUE	6.6	134	TRUE	60
336.9	2174.3	TRUE	6.6	146.3	TRUE	60
336.9	2188.4	TRUE	6.6	147.2	TRUE	60
336.9	2182.2	TRUE	6.6	146.8	TRUE	60
336.9	1866.6	TRUE	6.6	125.6	TRUE	60
336.9	1853.8	TRUE	6.6	124.7	TRUE	60
336.9	1858.7	TRUE	6.6	125	TRUE	60
336.9	1959.6	TRUE	6.6	131.8	TRUE	60
336.9	2011.4	TRUE	6.6	135.3	TRUE	60
336.9	2019.9	TRUE	6.6	135.9	TRUE	60
336.9	2019.8	TRUE	6.6	135.9	TRUE	60
336.9	1995.2	TRUE	6.6	134.2	TRUE	60
336.9	1988.2	TRUE	6.6	133.7	TRUE	60
336.9	1984	TRUE	6.6	133.5	TRUE	60
336.9	1987.9	TRUE	6.6	133.7	TRUE	60
336.9	2244.2	TRUE	6.6	151	TRUE	60
336.9	2358.4	TRUE	6.6	158.6	TRUE	60
336.9	2344.3	TRUE	6.6	157.7	TRUE	60
281.4	1994.5	FALSE	5.4	131.4	FALSE	60
285.2	2021.3	FALSE	5.4	131.4	FALSE	60
299.1	2114.3	FALSE	5.6	135.9	FALSE	60
290.1	2052.7	FALSE	5.7	138.5	FALSE	60
326.7	2302.9	FALSE	6.9	167	FALSE	60
377.8	2675	FALSE	7.6	184.8	FALSE	60
467.2	3372.3	FALSE	8.4	208.2	FALSE	60
502.4	3920.4	FALSE	8.6	230.4	FALSE	60
538.4	4337.9	FALSE	8.9	246.2	FALSE	60
532.4	4135.1	FALSE	8.8	234.7	FALSE	60
511.6	3632.7	FALSE	8.5	207.2	FALSE	60
509.2	3564.9	FALSE	8.5	204.3	FALSE	60
507.9	3561	FALSE	8.4	202.2	FALSE	60
506.4	3552.9	FALSE	8.4	202.4	FALSE	60
504.9	3557	FALSE	8.4	203.2	FALSE	60
503.8	3556.6	FALSE	8.4	203.6	FALSE	60
504.2	3562.7	FALSE	8.4	203.8	FALSE	60
498	3518.6	FALSE	8.3	201.4	FALSE	60
498.3	3518.3	FALSE	8.4	203.7	FALSE	60
495.9	3501.5	FALSE	8.4	203.7	FALSE	60
493.3	3493.7	FALSE	8.4	204.3	FALSE	60
523.9	4543.1	FALSE	8.9	265	FALSE	60
524	4846.7	FALSE	8.9	282.7	FALSE	60
522.9	4793.8	FALSE	9	283.3	FALSE	60
524.6	4779.2	FALSE	9	281.5	FALSE	60
523.7	4751.6	FALSE	9	280.4	FALSE	60
526	4741.4	FALSE	9.1	281.7	FALSE	60
539.4	4732	FALSE	9.3	280.1	FALSE	60
533.3	4454	FALSE	9.1	261	FALSE	60
528.3	4073	FALSE	9	238.3	FALSE	60
528.5	4157.7	FALSE	9	243.1	FALSE	60
501	3523.2	FALSE	8.7	210.1	FALSE	60

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07/14/2017 20	99	99	1950.1	FALSE	0.47	FALSE
07/14/2017 21	69	99	1623.4	FALSE	0.462	FALSE
07/14/2017 22	0	98	965.2	FALSE	0.434	FALSE
07/14/2017 23	0	77	794.2	FALSE	0.293	FALSE
07/15/2017 00	0	3	388.8	FALSE	0.152	FALSE
07/15/2017 01	0	0	51	FALSE	0	FALSE
07/15/2017 02	0	0	52.5	FALSE	0	FALSE
07/15/2017 03	0	0	56.2	FALSE	0	FALSE
07/15/2017 04	0	0	259	FALSE	0.148	FALSE
07/15/2017 05	0	0	421.6	FALSE	0.156	FALSE
07/15/2017 06	0	0	30.7	FALSE	0	FALSE
07/15/2017 07	0	0	30.6	FALSE	0	FALSE
07/15/2017 08	0	0	30.5	FALSE	0.001	FALSE
07/15/2017 09	0	0	20.4	FALSE	0	FALSE
07/15/2017 10	0	0	14.4	FALSE	0	FALSE
07/15/2017 11	0	0	9.8	FALSE	0.001	FALSE
07/15/2017 12	0	0	0.1	FALSE	0	FALSE
07/15/2017 13	0	0	0	FALSE	0	FALSE
07/15/2017 14	0	0	0.1	FALSE	0	FALSE
07/15/2017 15	0	0	0.1	FALSE	0	FALSE
07/15/2017 16	0	0	0	FALSE	0	FALSE
07/15/2017 17	0	0	0.3	FALSE	0	FALSE
07/15/2017 18	0	0	0.5	FALSE	0	FALSE
07/15/2017 19	0	0	0.7	FALSE	0	FALSE
07/15/2017 20	0	0	0.6	FALSE	0	FALSE
07/15/2017 21	0	0	0.5	FALSE	0	FALSE
07/15/2017 22	0	0	0.7	FALSE	0	FALSE
07/15/2017 23	0	0	0.7	FALSE	0	FALSE
07/16/2017 00	0	0	0.8	FALSE	0	FALSE
07/16/2017 01	0	0	0.6	FALSE	0	FALSE
07/16/2017 02	0	0	0.5	FALSE	0	FALSE
07/16/2017 03	0	0	0.5	FALSE	0	FALSE
07/16/2017 04	0	0	12.3	FALSE	0.142	FALSE
07/16/2017 05	0	0	4.2	FALSE	0.152	FALSE
07/16/2017 06	0	0	0	FALSE	0	FALSE
07/16/2017 07	0	0	0	FALSE	0	FALSE
07/16/2017 08	0	0	0	FALSE	0	FALSE
07/16/2017 09	0	0	0	FALSE	0	FALSE
07/16/2017 10	0	0	0	FALSE	0	FALSE
07/16/2017 11	0	0	0	FALSE	0	FALSE
07/16/2017 12	0	0	0	FALSE	0	FALSE
07/16/2017 13	0	0	0	FALSE	0	FALSE
07/16/2017 14	0	0	0	FALSE	0	FALSE
07/16/2017 15	0	0	0	FALSE	0	FALSE
07/16/2017 16	0	0	0	FALSE	0	FALSE
07/16/2017 17	0	0	0	FALSE	0	FALSE
07/16/2017 18	0	0	0	FALSE	0	FALSE
07/16/2017 19	0	0	0	FALSE	0	FALSE
07/16/2017 20	0	0	0	FALSE	0	FALSE
07/16/2017 21	0	0	0	FALSE	0	FALSE
07/16/2017 22	0	0	0	FALSE	0	FALSE
07/16/2017 23	0	0	0	FALSE	0	FALSE
07/17/2017 00	0	0	0	FALSE	0	FALSE
07/17/2017 01	0	0	0	FALSE	0	FALSE
07/17/2017 02	0	0	0	FALSE	0	FALSE
07/17/2017 03	0	0	0	FALSE	0	FALSE
07/17/2017 04	0	0	6.5	FALSE	0.141	FALSE
07/17/2017 05	0	0	1.4	FALSE	0.152	FALSE
07/17/2017 06	0	0	0	FALSE	0	FALSE

488	3345.3	FALSE	8.5	200.1	FALSE	60
395.4	2557.3	FALSE	7.5	166.6	FALSE	60
236.7	1516.9	FALSE	4.5	99	FALSE	60
154.8	1113.2	FALSE	3.3	81.5	FALSE	60
54.5	372.5	FALSE	1.7	39.9	FALSE	11
0	0	FALSE	0.2	5.2	FALSE	0
0	0	FALSE	0.2	5.4	FALSE	0
0	0	FALSE	0.2	5.8	FALSE	0
88.4	456.1	FALSE	1.5	26.6	FALSE	0
48	215.9	FALSE	2.8	43.3	FALSE	0
0	0	FALSE	0.2	3.2	FALSE	0
0	0	FALSE	0.2	3.1	FALSE	0
0	0	FALSE	0.2	3.1	FALSE	0
0	0	FALSE	0.2	2.1	FALSE	0
0	0	FALSE	0.2	1.5	FALSE	0
0	0	FALSE	0.2	1	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0.1

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07/17/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 08	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 09	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 10	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 11	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 12	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 13	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 14	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 15	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 16	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 17	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 18	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 19	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 20	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 21	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 22	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 23	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 00	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 01	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 02	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 03	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 04	0	0	7.1	FALSE	0.141	FALSE	87.7	11.7	FALSE	1.6	0.7	FALSE	0
07/18/2017 05	0	0	1.1	FALSE	0.151	FALSE	47.2	0.6	FALSE	2.9	0.1	FALSE	0
07/18/2017 06	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 08	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 09	0	0	0.7	FALSE	0	FALSE	0	0	FALSE	0.2	0.1	FALSE	0
07/18/2017 10	0	0	49.7	FALSE	0	FALSE	0	0	FALSE	0.3	5.1	FALSE	0
07/18/2017 11	0	0	78.8	FALSE	0.001	FALSE	0	0	FALSE	0.3	8.1	FALSE	0
07/18/2017 12	0	0	45.1	FALSE	0	FALSE	0	0	FALSE	0.3	4.6	FALSE	5
07/18/2017 13	0	0	44.7	FALSE	0	FALSE	0	0	FALSE	0.3	4.6	FALSE	60
07/18/2017 14	0	0	46	FALSE	0.001	FALSE	0	0	FALSE	0.3	4.7	FALSE	60
07/18/2017 15	0	0	123.4	FALSE	0.009	FALSE	0	0	FALSE	0.8	12.7	FALSE	60
07/18/2017 16	0	0	219.6	FALSE	0.026	FALSE	0	0	FALSE	1.3	22.5	FALSE	60
07/18/2017 17	0	0	204.4	FALSE	0.029	FALSE	0	0	FALSE	1.2	21	FALSE	60
07/18/2017 18	0	0	204.5	FALSE	0.034	FALSE	0	0	FALSE	1.2	21	FALSE	60
07/18/2017 19	0	0	225	FALSE	0.038	FALSE	0	0	FALSE	1.3	23.1	FALSE	60
07/18/2017 20	0	0	230.5	FALSE	0.037	FALSE	0	0	FALSE	1.3	23.7	FALSE	60
07/18/2017 21	0	0	248.7	FALSE	0.043	FALSE	0	0	FALSE	1.4	25.5	FALSE	60
07/18/2017 22	0	2	301.3	FALSE	0.078	FALSE	7.6	40.2	FALSE	1.7	30.9	FALSE	60
07/18/2017 23	0	9	400.8	FALSE	0.204	FALSE	45.1	234.8	FALSE	2.3	41.1	FALSE	60
07/19/2017 00	0	31	560.8	FALSE	0.249	FALSE	105.3	551.4	FALSE	3.2	57.5	FALSE	60
07/19/2017 01	0	73	838.6	FALSE	0.286	FALSE	192.4	1071.4	FALSE	4.5	86	FALSE	60
07/19/2017 02	0	96	985.5	FALSE	0.41	FALSE	238	1460.1	FALSE	4.8	101.1	FALSE	60
07/19/2017 03	0	103	1036.1	FALSE	0.428	FALSE	254.7	1577.1	FALSE	5	106.3	FALSE	60
07/19/2017 04	0	103	1056	FALSE	0.422	FALSE	251.4	1586.5	FALSE	5	108.3	FALSE	60
07/19/2017 05	9	101	1174.8	FALSE	0.436	FALSE	258.9	1652.4	FALSE	5.5	120.5	FALSE	60
07/19/2017 06	59	101	1609	FALSE	0.386	FALSE	396.3	2540.3	FALSE	7.5	165.1	FALSE	60
07/19/2017 07	92	101	1941.8	FALSE	0.366	FALSE	452.2	3161.1	FALSE	8.3	199.2	FALSE	60
07/19/2017 08	101	125	2254.2	FALSE	0.444	FALSE	493.7	3822.2	FALSE	8.7	231.3	FALSE	60
07/19/2017 09	117	143	2556.2	FALSE	0.425	FALSE	520.2	4366.3	FALSE	9.1	262.3	FALSE	60
07/19/2017 10	133	145	2680.3	FALSE	0.434	FALSE	524.7	4617.7	FALSE	9.1	275	FALSE	60
07/19/2017 11	136	144	2687.5	FALSE	0.423	FALSE	527.8	4607	FALSE	9.2	275.7	FALSE	60
07/19/2017 12	136	145	2700.2	FALSE	0.413	FALSE	529.3	4591.9	FALSE	9.3	277	FALSE	60
07/19/2017 13	136	145	2686.2	FALSE	0.42	FALSE	525.7	4586.4	FALSE	9.2	275.6	FALSE	60
07/19/2017 14	136	145	2690.9	FALSE	0.426	FALSE	524.1	4580.5	FALSE	9.2	276.1	FALSE	60
07/19/2017 15	136	145	2664.4	FALSE	0.436	FALSE	522.1	4567.7	FALSE	9.1	273.4	FALSE	60
07/19/2017 16	136	145	2653.5	FALSE	0.432	FALSE	521	4539.3	FALSE	9.1	272.2	FALSE	60
07/19/2017 17	137	145	2651.4	FALSE	0.431	FALSE	520.4	4530.6	FALSE	9.1	272	FALSE	60

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07/19/2017 18	137	145	2642.6	FALSE	0.437	FALSE
07/19/2017 19	137	146	2636.3	FALSE	0.434	FALSE
07/19/2017 20	136	145	2624.2	FALSE	0.428	FALSE
07/19/2017 21	136	145	2628.8	FALSE	0.428	FALSE
07/19/2017 22	135	145	2622.2	FALSE	0.426	FALSE
07/19/2017 23	119	120	2265.8	FALSE	0.415	FALSE
07/20/2017 00	96	98	1905.6	FALSE	0.395	FALSE
07/20/2017 01	95	98	1927.5	FALSE	0.398	FALSE
07/20/2017 02	98	96	1906.8	FALSE	0.41	FALSE
07/20/2017 03	98	93	1869.5	FALSE	0.419	FALSE
07/20/2017 04	98	96	1918.7	FALSE	0.418	FALSE
07/20/2017 05	98	99	1879.5	FALSE	0.426	FALSE
07/20/2017 06	114	114	2136	FALSE	0.427	FALSE
07/20/2017 07	135	137	2541.3	FALSE	0.447	FALSE
07/20/2017 08	135	144	2564.4	FALSE	0.458	FALSE
07/20/2017 09	135	145	2572.4	FALSE	0.469	FALSE
07/20/2017 10	135	144	2584.3	FALSE	0.458	FALSE
07/20/2017 11	134	144	2583.7	FALSE	0.461	FALSE
07/20/2017 12	134	144	2576.7	FALSE	0.464	FALSE
07/20/2017 13	135	144	2584	FALSE	0.468	FALSE
07/20/2017 14	132	148	2595.5	FALSE	0.47	FALSE
07/20/2017 15	116	145	2407.6	FALSE	0.482	FALSE
07/20/2017 16	125	145	2525.9	FALSE	0.466	FALSE
07/20/2017 17	136	146	2592.6	FALSE	0.47	FALSE
07/20/2017 18	136	146	2609.6	FALSE	0.473	FALSE
07/20/2017 19	137	146	2613.9	FALSE	0.472	FALSE
07/20/2017 20	137	146	2615.9	FALSE	0.471	FALSE
07/20/2017 21	137	146	2616.5	FALSE	0.467	FALSE
07/20/2017 22	113	113	2124.9	FALSE	0.437	FALSE
07/20/2017 23	96	97	1877.8	FALSE	0.4	FALSE
07/21/2017 00	96	98	1908.5	FALSE	0.396	FALSE
07/21/2017 01	98	96	1894.8	FALSE	0.409	FALSE
07/21/2017 02	98	97	1886	FALSE	0.419	FALSE
07/21/2017 03	99	97	1890.5	FALSE	0.424	FALSE
07/21/2017 04	98	98	1898.9	FALSE	0.433	FALSE
07/21/2017 05	110	111	2094.6	FALSE	0.463	FALSE
07/21/2017 06	134	142	2562.9	FALSE	0.471	FALSE
07/21/2017 07	136	145	2589.3	FALSE	0.462	FALSE
07/21/2017 08	136	145	2610.2	FALSE	0.453	FALSE
07/21/2017 09	135	144	2593.4	FALSE	0.448	FALSE
07/21/2017 10	136	144	2613.9	FALSE	0.441	FALSE
07/21/2017 11	135	144	2589.4	FALSE	0.453	FALSE
07/21/2017 12	135	144	2597	FALSE	0.454	FALSE
07/21/2017 13	136	144	2600	FALSE	0.455	FALSE
07/21/2017 14	137	144	2604.5	FALSE	0.458	FALSE
07/21/2017 15	136	144	2619.7	FALSE	0.45	FALSE
07/21/2017 16	136	145	2628.2	FALSE	0.458	FALSE
07/21/2017 17	137	146	2610.4	FALSE	0.465	FALSE
07/21/2017 18	137	146	2615.8	FALSE	0.467	FALSE
07/21/2017 19	138	146	2627.8	FALSE	0.47	FALSE
07/21/2017 20	138	147	2626	FALSE	0.472	FALSE
07/21/2017 21	138	146	2626.9	FALSE	0.467	FALSE
07/21/2017 22	112	115	2108.8	FALSE	0.453	FALSE
07/21/2017 23	96	99	1875.1	FALSE	0.413	FALSE
07/22/2017 00	96	97	1894.8	FALSE	0.41	FALSE
07/22/2017 01	98	95	1878.8	FALSE	0.421	FALSE
07/22/2017 02	98	96	1892.7	FALSE	0.426	FALSE
07/22/2017 03	99	98	1898.2	FALSE	0.447	FALSE
07/22/2017 04	100	98	1909.9	FALSE	0.454	FALSE

513.6	4505.9	FALSE	9	271.1	FALSE	60
512.2	4483	FALSE	9	270.5	FALSE	60
512.4	4464.2	FALSE	9	269.2	FALSE	60
510.3	4453.7	FALSE	9	269.7	FALSE	60
508.3	4425.1	FALSE	9	269	FALSE	60
485.7	3779.7	FALSE	8.7	232.5	FALSE	60
469	3179.1	FALSE	8.4	195.5	FALSE	60
469	3177.8	FALSE	8.5	197.8	FALSE	60
463.5	3143.8	FALSE	8.4	195.6	FALSE	60
458.1	3083.2	FALSE	8.3	191.8	FALSE	60
459.8	3138.3	FALSE	8.4	196.9	FALSE	60
461	3157.2	FALSE	8.2	192.8	FALSE	60
482.9	3625.9	FALSE	8.5	219.2	FALSE	60
492.6	4250.7	FALSE	8.8	260.7	FALSE	60
501.5	4366.7	FALSE	8.8	263.1	FALSE	60
501.7	4382.1	FALSE	8.8	263.9	FALSE	60
507.7	4405	FALSE	8.9	265.2	FALSE	60
510.5	4428.2	FALSE	8.9	265.1	FALSE	60
509.4	4406.8	FALSE	8.9	264.4	FALSE	60
509	4415.7	FALSE	8.9	265.1	FALSE	60
506.1	4410.2	FALSE	8.9	266.3	FALSE	60
499.4	4129.5	FALSE	8.7	247	FALSE	60
509.6	4321.5	FALSE	8.9	259.2	FALSE	60
517.4	4503.5	FALSE	8.9	266	FALSE	60
515.4	4515.5	FALSE	8.9	267.7	FALSE	60
513.6	4507.1	FALSE	8.9	268.2	FALSE	60
515.4	4526.4	FALSE	8.9	268.4	FALSE	60
520.4	4571.4	FALSE	8.9	268.5	FALSE	60
500.6	3739.3	FALSE	8.5	218	FALSE	60
494.9	3345.5	FALSE	8.3	192.7	FALSE	60
497.9	3380.2	FALSE	8.4	195.8	FALSE	60
492.1	3356.7	FALSE	8.3	194.4	FALSE	60
488.1	3354.4	FALSE	8.2	193.5	FALSE	60
486.2	3349.3	FALSE	8.2	194	FALSE	60
480.6	3325.5	FALSE	8.2	194.8	FALSE	60
486.9	3671.5	FALSE	8.3	214.9	FALSE	60
511.2	4499.7	FALSE	8.7	263	FALSE	60
514.8	4578	FALSE	8.7	265.7	FALSE	60
518.1	4591.9	FALSE	8.8	267.8	FALSE	60
523.7	4611.5	FALSE	8.8	266.1	FALSE	60
527	4624.8	FALSE	8.9	268.2	FALSE	60
527.1	4634.5	FALSE	8.8	265.7	FALSE	60
526.6	4643.6	FALSE	8.8	266.5	FALSE	60
528.8	4668.3	FALSE	8.8	266.8	FALSE	60
528.4	4672.9	FALSE	8.8	267.2	FALSE	60
530.4	4665	FALSE	8.9	268.8	FALSE	60
531.7	4691.6	FALSE	8.9	269.7	FALSE	60
529.7	4694.9	FALSE	8.8	267.8	FALSE	60
528.2	4691.5	FALSE	8.8	268.4	FALSE	60
525.6	4689.7	FALSE	8.8	269.6	FALSE	60
527.3	4701.6	FALSE	8.8	269.4	FALSE	60
527.4	4704.2	FALSE	8.8	269.5	FALSE	60
493.6	3747.3	FALSE	8.3	216.4	FALSE	60
486.5	3324	FALSE	8.2	192.4	FALSE	60
489.3	3337.6	FALSE	8.3	194.4	FALSE	60
486.5	3330.7	FALSE	8.2	192.8	FALSE	60
484.1	3338.8	FALSE	8.2	194.2	FALSE	60
476.9	3339.4	FALSE	8.1	194.8	FALSE	60
472.5	3329	FALSE	8.1	196	FALSE	60

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07/22/2017 05	100	98	1889.4	FALSE	0.453	FALSE
07/22/2017 06	99	98	1893.4	FALSE	0.447	FALSE
07/22/2017 07	98	98	1881.5	FALSE	0.444	FALSE
07/22/2017 08	99	98	1874.5	FALSE	0.441	FALSE
07/22/2017 09	110	106	2036.3	FALSE	0.435	FALSE
07/22/2017 10	119	120	2256.7	FALSE	0.468	FALSE
07/22/2017 11	136	143	2587.6	FALSE	0.481	FALSE
07/22/2017 12	136	145	2592.8	FALSE	0.473	FALSE
07/22/2017 13	135	145	2594.5	FALSE	0.459	FALSE
07/22/2017 14	135	145	2587.3	FALSE	0.451	FALSE
07/22/2017 15	136	145	2586.9	FALSE	0.447	FALSE
07/22/2017 16	136	145	2595.5	FALSE	0.447	FALSE
07/22/2017 17	137	145	2629.7	FALSE	0.452	FALSE
07/22/2017 18	138	146	2614.7	FALSE	0.462	FALSE
07/22/2017 19	138	146	2639.9	FALSE	0.451	FALSE
07/22/2017 20	139	146	2640.4	FALSE	0.453	FALSE
07/22/2017 21	104	114	2024.5	FALSE	0.43	FALSE
07/22/2017 22	99	98	1896.5	FALSE	0.392	FALSE
07/22/2017 23	99	97	1900	FALSE	0.405	FALSE
07/23/2017 00	99	97	1883.4	FALSE	0.423	FALSE
07/23/2017 01	98	97	1888.6	FALSE	0.428	FALSE
07/23/2017 02	97	98	1861.5	FALSE	0.437	FALSE
07/23/2017 03	96	98	1856.4	FALSE	0.441	FALSE
07/23/2017 04	97	98	1860.5	FALSE	0.443	FALSE
07/23/2017 05	98	98	1865.7	FALSE	0.439	FALSE
07/23/2017 06	98	98	1872	FALSE	0.44	FALSE
07/23/2017 07	98	98	1885.3	FALSE	0.434	FALSE
07/23/2017 08	98	98	1885.3	FALSE	0.434	FALSE
07/23/2017 09	99	98	1886.3	FALSE	0.43	FALSE
07/23/2017 10	113	114	2128.8	FALSE	0.44	FALSE
07/23/2017 11	133	140	2521.7	FALSE	0.491	FALSE
07/23/2017 12	135	147	2583.9	FALSE	0.489	FALSE
07/23/2017 13	135	144	2549.9	FALSE	0.481	FALSE
07/23/2017 14	135	144	2533.6	FALSE	0.479	FALSE
07/23/2017 15	135	144	2558.6	FALSE	0.471	FALSE
07/23/2017 16	128	128	2356.8	FALSE	0.454	FALSE
07/23/2017 17	125	119	2260.4	FALSE	0.452	FALSE
07/23/2017 18	125	118	2260.7	FALSE	0.451	FALSE
07/23/2017 19	107	102	1955.3	FALSE	0.454	FALSE
07/23/2017 20	98	98	1873.5	FALSE	0.424	FALSE
07/23/2017 21	99	98	1878.2	FALSE	0.426	FALSE
07/23/2017 22	99	98	1883.1	FALSE	0.427	FALSE
07/23/2017 23	97	98	1890.4	FALSE	0.429	FALSE
07/24/2017 00	98	98	1888.8	FALSE	0.43	FALSE
07/24/2017 01	100	96	1884.4	FALSE	0.426	FALSE
07/24/2017 02	100	96	1890.5	FALSE	0.424	FALSE
07/24/2017 03	100	98	1898.3	FALSE	0.432	FALSE
07/24/2017 04	101	98	1902.1	FALSE	0.435	FALSE
07/24/2017 05	101	98	1877.4	FALSE	0.442	FALSE
07/24/2017 06	101	99	1878	FALSE	0.438	FALSE
07/24/2017 07	101	99	1898.8	FALSE	0.433	FALSE
07/24/2017 08	101	99	1897.8	FALSE	0.431	FALSE
07/24/2017 09	100	98	1895.6	FALSE	0.433	FALSE
07/24/2017 10	99	98	1897.4	FALSE	0.436	FALSE
07/24/2017 11	100	102	1926.3	FALSE	0.439	FALSE
07/24/2017 12	110	127	2214.9	FALSE	0.494	FALSE
07/24/2017 13	127	119	2278.8	FALSE	0.47	FALSE
07/24/2017 14	132	110	2232.9	FALSE	0.486	FALSE
07/24/2017 15	134	136	2465.3	FALSE	0.484	FALSE

469.4	3312.6	FALSE	8	193.9	FALSE	60
473.9	3310	FALSE	8.1	194.3	FALSE	60
474.9	3296.1	FALSE	8.1	193	FALSE	60
476.9	3297.6	FALSE	8.1	192.3	FALSE	60
492.6	3611.1	FALSE	8.3	208.9	FALSE	60
502.8	3988.6	FALSE	8.5	231.5	FALSE	60
516.9	4593.7	FALSE	8.7	265.5	FALSE	60
522.8	4602.5	FALSE	8.8	266	FALSE	60
529	4607.9	FALSE	8.9	266.2	FALSE	60
531.9	4620.3	FALSE	8.9	265.5	FALSE	60
531.9	4619.5	FALSE	8.9	265.4	FALSE	60
530.3	4620.9	FALSE	8.9	266.3	FALSE	60
528.9	4669.5	FALSE	8.9	269.8	FALSE	60
528.5	4692.1	FALSE	8.8	268.3	FALSE	60
536.6	4755.8	FALSE	8.9	270.9	FALSE	60
540.7	4793.2	FALSE	8.9	270.9	FALSE	60
503.6	3670.4	FALSE	8.3	207.7	FALSE	60
505.7	3452.5	FALSE	8.3	194.6	FALSE	60
508.2	3476	FALSE	8.3	194.9	FALSE	60
507	3479.4	FALSE	8.2	193.2	FALSE	60
506.4	3484.9	FALSE	8.2	193.8	FALSE	60
509	3495.3	FALSE	8.1	191	FALSE	60
515.3	3528.8	FALSE	8.1	190.5	FALSE	60
520.5	3572.3	FALSE	8.1	190.9	FALSE	60
529.4	3643.4	FALSE	8.1	191.4	FALSE	60
530.2	3661.3	FALSE	8.1	192.1	FALSE	60
534.4	3671.3	FALSE	8.2	193.4	FALSE	60
540.7	3714.5	FALSE	8.2	193.4	FALSE	60
543.6	3736.5	FALSE	8.2	193.5	FALSE	60
566.4	4289	FALSE	8.4	218.4	FALSE	60
575.7	5043.9	FALSE	8.6	258.7	FALSE	60
581.9	5163.9	FALSE	8.7	265.1	FALSE	60
586	5132	FALSE	8.7	261.6	FALSE	60
588.7	5122.7	FALSE	8.7	260	FALSE	60
592	5143.2	FALSE	8.8	262.5	FALSE	60
584	4727.1	FALSE	8.7	241.8	FALSE	60
581.9	4570	FALSE	8.6	231.9	FALSE	60
580.5	4559.5	FALSE	8.6	231.9	FALSE	60
555.5	3957.9	FALSE	8.2	200.6	FALSE	60
552.8	3773.8	FALSE	8.2	192.2	FALSE	60
552.6	3782	FALSE	8.2	192.7	FALSE	60
552.9	3793.9	FALSE	8.2	193.2	FALSE	60
551.7	3800.4	FALSE	8.2	194	FALSE	60
552.5	3802.7	FALSE	8.2	193.8	FALSE	60
554.6	3808.1	FALSE	8.2	193.3	FALSE	60
556.3	3832.2	FALSE	8.2	194	FALSE	60
553.5	3828.7	FALSE	8.2	194.8	FALSE	60
552.5	3829.4	FALSE	8.2	195.2	FALSE	60
548	3795.1	FALSE	8.1	192.6	FALSE	60
548.8	3801.9	FALSE	8.1	192.7	FALSE	60
552.4	3822.1	FALSE	8.2	194.8	FALSE	60
548.6	3793.9	FALSE	8.2	194.7	FALSE	60
544.7	3762.4	FALSE	8.2	194.5	FALSE	60
542.6	3751.5	FALSE	8.2	194.7	FALSE	60
541.4	3800.3	FALSE	8.2	197.6	FALSE	60
545.1	4294.7	FALSE	8.4	227.2	FALSE	60
552.9	4429	FALSE	8.5	233.8	FALSE	60
539	4332.8	FALSE	8.3	229.1	FALSE	60
558.5	4783.8	FALSE	8.6	252.9	FALSE	60

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07/24/2017 16	130	112	2234.8	FALSE	0.42	FALSE
07/24/2017 17	127	124	2317.3	FALSE	0.482	FALSE
07/24/2017 18	126	127	2329.1	FALSE	0.448	FALSE
07/24/2017 19	120	116	2200.3	FALSE	0.45	FALSE
07/24/2017 20	119	114	2200.4	FALSE	0.447	FALSE
07/24/2017 21	119	114	2199.4	FALSE	0.454	FALSE
07/24/2017 22	119	114	2196.7	FALSE	0.453	FALSE
07/24/2017 23	109	116	2095.9	FALSE	0.41	FALSE
07/25/2017 00	110	131	2163.3	FALSE	0.392	FALSE
07/25/2017 01	111	130	2175.1	FALSE	0.394	FALSE
07/25/2017 02	87	129	1958.6	FALSE	0.378	FALSE
07/25/2017 03	84	122	1865.2	FALSE	0.339	FALSE
07/25/2017 04	85	110	1778.1	FALSE	0.292	FALSE
07/25/2017 05	86	112	1787.9	FALSE	0.316	FALSE
07/25/2017 06	81	94	1623.3	FALSE	0.281	FALSE
07/25/2017 07	70	56	1283.6	FALSE	0.29	FALSE
07/25/2017 08	47	31	859.4	FALSE	0.3	FALSE
07/25/2017 09	41	34	844.4	FALSE	0.294	FALSE
07/25/2017 10	48	44	993.3	FALSE	0.251	FALSE
07/25/2017 11	49	44	1013.9	FALSE	0.244	FALSE
07/25/2017 12	50	16	724	FALSE	0.198	FALSE
07/25/2017 13	49	0	502.4	FALSE	0.129	FALSE
07/25/2017 14	5	0	480.5	FALSE	0.127	FALSE
07/25/2017 15	0	0	48.8	FALSE	0	FALSE
07/25/2017 16	0	0	51.6	FALSE	0	FALSE
07/25/2017 17	0	0	48	FALSE	0	FALSE
07/25/2017 18	0	0	46.8	FALSE	0.001	FALSE
07/25/2017 19	0	0	45.8	FALSE	0	FALSE
07/25/2017 20	0	0	44.5	FALSE	0	FALSE
07/25/2017 21	0	0	35.9	FALSE	0	FALSE
07/25/2017 22	0	0	17.4	FALSE	0	FALSE
07/25/2017 23	0	0	16.8	FALSE	0	FALSE
07/26/2017 00	0	0	2.2	FALSE	0.001	FALSE
07/26/2017 01	0	0	0.7	FALSE	0	FALSE
07/26/2017 02	0	0	0.7	FALSE	0	FALSE
07/26/2017 03	0	0	0.6	FALSE	0	FALSE
07/26/2017 04	0	0	15.6	FALSE	0.141	FALSE
07/26/2017 05	0	0	17.9	FALSE	0.151	FALSE
07/26/2017 06	0	0	0.3	FALSE	0	FALSE
07/26/2017 07	0	0	0.1	FALSE	0	FALSE
07/26/2017 08	0	0	0	FALSE	0	FALSE
07/26/2017 09	0	0	0.1	FALSE	0	FALSE
07/26/2017 10	0	0	0	FALSE	0	FALSE
07/26/2017 11	0	0	0	FALSE	0	FALSE
07/26/2017 12	0	0	0	FALSE	0	FALSE
07/26/2017 13	0	0	0	FALSE	0	FALSE
07/26/2017 14	0	0	0.1	FALSE	0	FALSE
07/26/2017 15	0	0	0	FALSE	0	FALSE
07/26/2017 16	0	0	0	FALSE	0	FALSE
07/26/2017 17	0	0	0	FALSE	0	FALSE
07/26/2017 18	0	0	0.1	FALSE	0	FALSE
07/26/2017 19	0	0	0.2	FALSE	0	FALSE
07/26/2017 20	0	0	0.1	FALSE	0	FALSE
07/26/2017 21	0	0	0.1	FALSE	0	FALSE
07/26/2017 22	0	0	0	FALSE	0	FALSE
07/26/2017 23	0	0	0	FALSE	0	FALSE

551.9	4335.8	FALSE	8.5	229.3	FALSE	60
545.9	4446.9	FALSE	8.5	237.8	FALSE	60
553.9	4482.3	FALSE	8.6	239	FALSE	60
547.9	4237.8	FALSE	8.5	225.7	FALSE	60
547.9	4238	FALSE	8.5	225.8	FALSE	60
544.9	4213	FALSE	8.5	225.7	FALSE	60
542.8	4191.5	FALSE	8.5	225.4	FALSE	60
510.5	3851.8	FALSE	8.3	215	FALSE	60
476.1	3753.1	FALSE	8.2	222	FALSE	60
475.2	3766.3	FALSE	8.2	223.2	FALSE	60
454.9	3369.9	FALSE	7.9	201	FALSE	60
450.7	3179.6	FALSE	7.9	191.4	FALSE	60
443.6	3021.5	FALSE	7.8	182.4	FALSE	60
433.5	3007.6	FALSE	7.7	183.4	FALSE	60
417.3	2628.7	FALSE	7.7	166.5	FALSE	60
331.6	1956.6	FALSE	6.5	131.7	FALSE	60
217.5	1117.1	FALSE	5	88.2	FALSE	60
221	1138	FALSE	4.9	86.6	FALSE	60
269.9	1381.1	FALSE	5.8	101.9	FALSE	60
275.7	1415.7	FALSE	5.9	104	FALSE	60
193.8	975	FALSE	4.3	74.3	FALSE	60
134.8	674.5	FALSE	3	51.5	FALSE	60
107.3	616.2	FALSE	2.5	49.3	FALSE	8
0	0	FALSE	0.2	5	FALSE	0
0	0	FALSE	0.2	5.3	FALSE	0
0	0	FALSE	0.2	4.9	FALSE	0
0	0	FALSE	0.2	4.8	FALSE	0
0	0	FALSE	0.2	4.7	FALSE	0
0	0	FALSE	0.2	4.6	FALSE	0
0	0	FALSE	0.2	3.7	FALSE	0
0	0	FALSE	0.1	1.8	FALSE	0
0	0	FALSE	0.1	1.7	FALSE	0
0	0	FALSE	0.1	0.2	FALSE	0
0	0	FALSE	0.1	0.1	FALSE	0
0	0	FALSE	0.1	0.1	FALSE	0
0	0	FALSE	0.1	0.1	FALSE	0
89.9	30	FALSE	1.4	1.6	FALSE	0
48.8	9.6	FALSE	2.7	1.8	FALSE	0
0	0	FALSE	0.1	0

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Date Hou	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (mmBtu	Heat Input Valid	Common Stack NOx Lb mmBtu	Common Stack NOx Lb H	NOx Valid	Common Stack SO2 (Lb mmBtu	Common Stack SO2 (Lb H	SO2 valid	Common Stack CO2 (Percen	Common Stack CO2 (Tons H	CO2 valid	Unit Operation (minutes	Coal tons h	PM-10 (lb mmBtu	Lead (lb h	Mercury (lb TBtu	Mercury (lb h	HCl (lb mmBtu	HCl (lb h	HF (lb h	CO (lb h	PM10 lb mmBtu	Lead lb on	Mercury lb on	HCl lb on	HF lb on	CO lb on
07 10 2017 00	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00	0.0168	0.000 2	0.000083	1.2	0.15	0.5
07 10 2017 01	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00	Stack Test 7/21/201 AP- 2, Table AP- 2 Table 1 : AP- 2, Table AP- 2, Table 1 AP- 2, Table 1.1-3					
07 10 2017 02	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00	AP 2, Fif h Edi ion, Volume I					
07 10 2017 03	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00	Chapter 1: External Combustion Sources					
07 10 2017 04	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 05	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	2.3	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 06	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 07	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 08	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 09	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 10	0	0	0	YES	0.000	0.000	YES	0.000	0.000	YES	0	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00						
07 10 2017 11	0	0	1	YES	0.06	0.06	NO	63. 00	63. 00	NO	0	0.0	YES	56	0.0	0.0168	0.00002	3.31	3.31E-06	0.0 7809	0.05	0.01	0.02						
07 10 2017 12	0	0	1	YES	0.06	0.896	NO	.657	65.198	NO	0.2	1.	YES	60	0 56	0.0168	0.00023	3.31	.63E-05	0.0 7809	0.67	0.08	0.28						
07 10 2017 13	0	0	30.6	YES	0.06	1.958	NO	2.320	70.992	NO	0.	3.1	YES	60	1 22	0.0168	0.00051	3.31	0.000101	0.0 7809	1. 6	0.18	0.61						
07 10 2017 14	0	0	0.3	YES	0.06	2 579	NO	1.859	7 .918	NO	0.5	.1	YES	60	1,61	0.0168	0.00067	3.31	0.000133	0.0 7809	1.93	0.2	0.80						
07 10 2017 15	0	0	59.2	YES	0.06	3.789	NO	1.328	78.618	NO	0.7	6.1	YES	60	2 36	0.0168	0.00099	3.31	0.000196	0.0 7809	2.83	0.35	1.18						
07 10 2017 16	0	0	61.2	YES	0.06	3.917	NO	1.327	81.212	NO	0.7	6.3	YES	60	2.	0.0168	0.00102	3.31	0.000202	0.0 7809	2.93	0.37	1.22						
07 10 2017 17	0	0	3 0	YES	0.06	21.760	NO	0.2	82.960	NO	3.8	3 .9	YES	60	13 55	0.0168	0.00569	3.31	0.00112	0.0 7809	16.25	2.03	6.77						
07 10 2017 18	0	0	521.5	NO	0.06	33 376	NO	0.000	0.000	YES	5.8	53.5	NO	60	20.78	0.0168	0.00873	3.31	0.00172	0.0 7809	2 .93	3.12	10.39						
07 10 2017 19	0	0	525.7	NO	0.06	33.6 5	NO	0.000	0.000	YES	5.8	53.9	NO	60	20.9	0.0168	0.00880	3.31	0.001738	0.0 7809	25.13	3.1	10. 7						
07 10 2017 20	0	0	528.3	NO	0.06	33.811	NO	0.000	0.000	YES	5.8	5 .2	NO	60	21.05	0.0168	0.0088	3.31	0.0017 7	0.0 7809	25.26	3.16	10.52						
07 10 2017 21	0	0	526.9	NO	0.06	33.722	NO	0.000	0.000	YES	5.8	5 .1	NO	60	20.99	0.0168	0.00882	3.31	0.0017 2	0.0 7809	25.19	3.15	10.50						
07 10 2017 22	0	0	529.1	NO	0.06	33.862	NO	0.000	0.000	YES	5.8	5 .3	NO	60	21.08	0.0168	0.00885	3.31	0.00175	0.0 7809	25.30	3.16	10.5						
07 10 2017 23	0	0	529.2	NO	0.06	33.869	NO	0.000	0.000	YES	5.8	5 .3	NO	60	21.08	0.0168	0.00886	3.31	0.00175	0.0 7809	25.30	3.16	10.5						
07 11 2017 00	0	0	5 0.	NO	0.06	3 586	NO	0.001	0.5 0	YES	5.8	55.	NO	60	21 53	0.0168	0.0090	3.31	0.001787	0.0 7809	25.8	3.23	10.76						
07 11 2017 01	0	0	581.6	NO	0.06	37 222	NO	0.006	3. 90	YES	5.8	59.7	NO	60	23 17	0.0168	0.00973	3.31	0.001923	0.0 7809	27.81	3. 8	11.59						
07 11 2017 02	0	0	586.7	NO	0.06	375 9	NO	0.003	1.760	YES	5.8	60.2	NO	60	23 37	0.0168	0.00982	3.31	0.0019	0.0 7809	28.05	3.51	11.69						
07 11 2017 03	0	0	595.2	NO	0.06	38.093	NO	0.00	2.381	YES	5.8	61.1	NO	60	23.71	0.0168	0.00996	3.31	0.001968	0.0 7809	28. 6	3.56	11.86						
07 11 2017 04	0	9	593.2	NO	0.06	37.965	NO	0.210	12 .572	YES	5.8	60.9	NO	60	23.63	0.0168	0.00993	3.31	0.001962	0.0 7809	28.36	3.55	11.82						
07 11 2017 05	0	16	583.2	NO	0.06	37 325	NO	0.523	305.01	YES	5.8	59.8	NO	60	23 2	0.0168	0.00976	3.31	0.001929	0.0 7809	27.88	3. 9	11.62						
07 11 2017 06	0		579	NO	0.288	166.752	NO	0.978	566.262	YES	5.8	59.	NO	60	23.07	0.0168	0.00969	3.31	0.001915	0.0 7809	27.68	3. 6	11.53						
07 11 2017 07	0	65	600.6	NO	0.536	321.922	NO	1. 18	851.651	NO	5.8	61.6	NO	60	23.93	0.0168	0.01005	3.31	0.001986	0.0 7809	28.71	3.59	11.96						
07 11 2017 08	0	88	936.8	YES	0.3 2	320 386	YES	1.399	1310.583	YES	7.7	96.1	YES	60	37 32	0.0168	0.01568	3.31	0.003098	0.0 7809	.79	5.60	18.66						
07 11 2017 09	0	111	10 6.9	YES	0. 19	38.651	YES	1.575	16 8.868	YES	7.8	107.	YES	60	1.71	0.0168	0.01752	3.31	0.003 62	0.0 7809	50.05	6.26	20.85						
07 11 2017 10	0	101	951.9	YES	0. 3	21.692	YES	1.7 2	1658.210	YES	7.6	97.7	YES	60	37.92	0.0168	0.01593	3.31	0.0031 8	0.0 7809	5.51	5.69	18.96						
07 11 2017 11	0	99	9 6.7	YES	0. 3	19 388	YES	1.7 9	1655.778	YES	7.6	97.1	YES	60	37.72	0.0168	0.0158	3.31	0.003131	0.0 7809	5.26	5.66	18.86						
07 11 2017 12	0	117	1051.6	YES	0. 79	503.716	YES	1.796	1888.67	YES	7.7	107.9	YES	60	1.90	0.0168	0.01760	3.31	0.003 77	0.0 7809	50.28	6.28	20.95						
07 11 2017 13	0	136	1187.9	YES	0.528	627 211	YES	1.752	2081.201	YES	7.9	121.9	YES	60	7 33	0.0168	0.01988	3.31	0.003928	0.0 7809	56.79	7.10	23.66						
07 11 2017 14	0	139	11 97.	YES	0.52	622.6 8	YES	1.767	2115.806	YES	8	122.9	YES	60	7.71	0.0168	0.0200	3.31	0.00396	0.0 7809	57.25	7.16	23.85						
07 11 2017 15	0	1 0	118 .2	YES	0.525	621, 705	YES	1.80	2136.297	YES	8	121.5	YES	60	7 18	0.0168	0.01982	3.31	0.003916	0.0 7809	56,62	7.08	23.59						
07 11 2017 16	0	1 0	1206.6	YES	0.512	617.779	YES	1.771	2136.889	YES	8.2	123.8	YES	60	8.07	0.0168	0.02019	3.31	0.00399	0.0 7809	57.69	7.21	2 .0						
07 11 2017 17	0	1 0	118 .2	YES	0.52	620 521	YES	1.816	2150.507	YES	8	121.5	YES	60	7 18	0.0168	0.01982	3.31	0.003916	0.0 7809	56.62	7.08	23.59						
07 11 2017 18	0	13	1160.	YES	0.51	591.80	YES	1.820	2111.928	YES	8	119.1	YES	60	6 23	0.0168	0.019 2	3.31	0.003837	0.0 7809	55. 8	6.93	23.12						
07 11 2017 19	0	115	10 9.9	YES	0.528	55 3 7	YES	1.8	1936.016	YES	7.8	107.7	YES	60	1.83	0.0168	0.01757	3.31	0.003 72	0.0 7809	50.19	6.27	20.91						
07 11 2017 20	0	119	1096.7	YES	0.506	55 .930	YES	1.81	1989. 1	YES	8	112.5	YES	60	3.69	0.0168	0.01835	3.31	0.003627	0.0 7809	52. 3	6.55	21.85						
07 11 2017 21	0	107	989.7	YES	0.526	520 582	YES	1.80	1785. 19	YES	7.6	101.5	YES	60	39. 3	0.0168	0.01656	3.31	0.003273	0.0 7809	7.32	5.91	19.72						
07 11 2017 22	0	99	917.7	YES	0.516	73 533	YES	1.8 2	1690. 03	YES	7.3	9 .2	YES	60	36 56	0.0168	0.01536	3.31	0.003035	0.0 7809	3.87	5. 8	18.28						
07 11 2017 23	0	100	9 6.5	YES	0.506	78.929	YES	1.786	1690. 9	YES	7.5	97.1	YES	60	37.71	0.0168	0.0158	3.31	0.00313	0.0 7809	5.25	5.66	18.85						
07 12 2017 00	0	100	950.8	YES	0.502	77 302	YES	1.762	1675,310	YES	7.5	97.6	YES	60	37.88	0.0168	0.01591	3.31	0.0031	0.0 7809	5. 6	5.68	18.9						
07 12 2017 01	0	100	95 .5	YES	0.507	83.932	YES	1.7 3	1663.69	YES	7.5	97.9	YES	60	38.03	0.0168	0.01597	3.31	0.003156	0.0 7809	5.63	5.70	19.01						
07 12 2017 02	0	100	95 .7	YES	0.508	8 .988	YES	1.71	1636.356	YES	7.5	98.0	YES	60	38.0	0.0168	0.01598	3.31	0.003157	0.0 7809	5.6	5.71	19.02						
07 12 2017 03	0	100	960.2	YES	0.51	89.702	YES	1.692	162 .658	YES	7.5	98.5	YES	60	38.25	0.0168	0.01607	3.31	0.003175	0.0 7809	5.91	5.7	19.13						
07 12 2017 04	0	100	960.9	YES	0.51	90.059	YES	1.66	1598.938	YES	7.5	98.6	YES	60	38 28	0.0168	0.01608	3.31	0.003177	0.0 7809	5.9	5.7	19.1						
07 12 2017 05	0	100	9 8.	YES	0.515	88. 26	YES	1.63	15 9.686	YES	7.4	97.3	YES	60	37.78	0.0168	0.01587	3.31	0.003136	0.0 7809	5.3	5.67	18.89						
07 12 2017 06	0	100	9 8.3	YES	0.519	92 168	YES	1.617	1533. 01	YES	7.4	97.3	YES	60	37.78	0.0168	0.01587	3.31	0.003136	0.0 7809	5.3	5.67	18.89						
07 12 2017 07	0	100	9 7.5	YES	0.522	9 595	YES	1.597	1513.158	YES	7.4	97.2	YES	60	37.75	0.0168	0.01585	3.31	0.003133	0.0 7809	5.30	5.66	18.87						
07 12 2017 08	0	100	958.5	YES	0.515	93.628	YES	1.579	1513. 72	YES	7.5	98.3	YES	60	38 19	0.0168	0.0160	3.31	0.00317	0.0 7809	5.82	5.73	19.09						
07 12 2017 09	0	100	991.9	YES	0. 93	89.007	YES	1.515	1502.729	YES	7.8	101.8	YES	60	39 52	0.0168	0.01660	3.31	0.00328	0.0 7809	7. 2	5.93	19.76						
07 12 2017 10	0	100	1001	YES	0. 9	90. 90	YES	1. 90	1 91. 90	YES	7.9	102.7	YES	60	39.88	0.0168	0.01675	3.31	0.00331	0.0 7809	7.86	5.98	19.9						
07 12 2017 11	0	100	971.9	YES	0.509	9 .697	YES	1.520	1 77.288	YES	7.7	99.7	YES	60	38.72	0.0168	0.01626	3.31	0.00321	0.0 7809	6. 7	5.81	19.36						
07 12 2017 12	0	102	992	YES	0.506	501,952	YES	1,503	1 90.976	YES	7.8	101.8	YES	60	39 52	0.0168	0.01660	3.31	0.00328	0.0 7809	7. 3	5.93	19.76						
07 12 2017 13	0	11	895.3	NO	0.507	53.917	NO	1.525	1365.333	NO	6.6	91.9	NO	60	35.67	0.0168	0.01 98	3.31	0.002961	0.0 7809	2.80	5.35	17.83						
07 12 2017 14	0	129	926.	NO	0.511	73 390	NO	1.525	1 12.760	NO	6.6	95.0	NO	60	36.91	0.0168	0.01550	3.31	0.003063	0.0 7809	.29	5.5	18. 5						
07 12 2017 15	0	1 2	961.6	NO	0.511	91 378	NO	1.525	1 66. 0	NO	6.6	98.7	NO	60	38 31	0.0168	0.01609	3.31	0.00318	0.0 7809	5.97	5.75	19.16						
07 12 2017 16	0	1 7	1020.7	NO	0.511	521 578	NO	1.525	1556.568	NO	6.6	10 .7	NO	60	0.67	0.0168	0.01708	3.31	0.003375	0.0 7809	8.80	6.10	20.33						
07 12 2017 17	0	1 7	1018.5	NO	0.511	520. 5	NO	1.525	1553.213	NO	6.6	10 .5	NO	60	0 58	0.0168	0.0170	3.31	0.003368	0.0 7809	8.69	6.09	20.29						
07 12 2017 18	0	1 7	1305.7	NO	0.511	667 213	NO	1.525	1991.193	NO	6.6	13 .0	NO	60	52.02	0.0168	0.02185	3.31	0.00 318	0.0 7809	62. 2	7.80	26.01						
07 12 2017 19	0	1 7	1 25.5	NO	0.511	728. 31	NO	1.525	2173.888	NO	6.6	1 6.3	NO	60	56.79	0.0168	0.02385	3.31	0.00 71	0.0 7809	68.15	8.52	28. 0						
07 12 2017 20	0	1 8	1 3 .8	NO	0. 75	681 530	NO	1.525	2188.070	NO	6.6	1 7.2	NO	60	57 16	0.0168	0.02 01	3.31	0.00 7 5	0.0 7809	68.60	8.57	28.58						
07 12 2017 21	0	1	1 30.7	NO	0.511	731.088	NO	1.525	2181.818	NO	6.6	1 6.8	NO	60	57.00	0.0168	0.0239	3.31	0.00 731	0.0 7809	68. 0	8.55	28.50						
07 12 2017 22	0	102	1223.8	NO	0.507	620. 67	NO	1.525	1866.295	NO	6.6	125.6	NO	60	8.76	0.0168	0.020 8	3.31	0.00 0 7	0.0 7809	58.51	7.31	2 .38						
07 12 2017 23	0	99	1215.	NO	0.507	616 208	NO	1.525	1853. 85	NO	6.6	12 .7	NO	60	8. 2	0.0168	0.0203	3.31	0.00 019	0.0 7809	58.11	7.26	2 .21						
07 13 2017 00	0	98	1218.6	NO	0.507	617.830	NO	1.525	1858.365	NO	6.6	125.0	NO	60	8 55	0.0168	0.02039	3.31	0.00 03	0.0 7809	58.26	7.28	2 .27						
07 13 2017 01	0	98	128 .8	NO	0.507	651 39	NO	1.525	1959.320	NO	6.6	131.8	NO	60	51 19	0.0168	0.02150	3.31	0.00 2 9	0.0 7809	61. 2	7.68	25.59						
07 13 2017 02	0	98	1318.8	NO	0.507	668.632	NO	1.525	2011.170	NO	6.6	135.3	NO	60	52 5	0.0168	0.02207	3.31	0.00 361	0.0 7809	63.05	7.88	26.27						
07 13 2017 03	0	98	132 .3	NO	0.507	671. 20	NO	1.525	2019.558	NO	6.6	135.9	NO	60	52.76	0.0168	0.02216	3.31	0.00 379	0.0 7809	63.31	7.91	26.38						
07 13 2017 04	0	98	132 .3	NO	0.507	671. 20	NO	1.525	2019.558	NO	6.6	135.9	NO	60	52.76	0.0168	0.02216	3.31	0.00 379	0.0 7809	63.31	7.91	26.38						
07 13 2017 05	0	98	1308.1	NO	0.507	663 207	NO	1.525	199 .853	NO	6.6	13 .2	NO	60	52 12	0.0168	0.02189	3.31	0.00 326	0.0 7809	62.5	7.82	26.06						
07 13 2017 06	0	98	1303.5	NO	0.507	660.875	NO	1.525	1987.838	NO	6.6	133.7	NO	60	51.93	0.0168	0.02181	3.31	0.00 31	0.0 7809	62.32	7.79	25.97						
07 13 2017 07	0	98	1300.8	NO	0.507	659 506	NO	1.525	1983.720	NO	6.6	133.5	NO	60	51.82	0.0168	0.02177	3.31	0.00 301	0.0 7809	62.19	7.77	25.91						
07 13 2017 08	0	100	1303.3	NO	0.507	660.773	NO	1.525	1987.533	NO	6.6	133.7	NO	60	51.92	0.0168	0.02181	3.31	0.00 31	0.0 7809	62.31	7.79	25.96						
07 13 2017 09	0	129	1 71.	NO	0.511	751.885	NO	1.525	22 3.885	NO	6.6	151.0	NO	60	58.62	0.0168	0.02 62	3.31	0.00 866	0.0 7809	70.35	8.79	29.31						
07 13 2017 10	0	1 5	15 6.2	NO	0.511	790 108	NO	1.525	2357.955	NO	6.6	158.6	NO	60	61.60	0.0168	0.02587	3.31	0.005113	0.0 7809	73.92	9.2	30.80						
07 13 2017 11	0	1 6	1537	NO	0.511	785. 07	NO	1.525	23 3.925	NO	6.6	157.7	NO	60	61.2	0.0168	0.02572	3.31	0.005083	0.0 7809	73. 8	9.19	30.62						
07 13 2017 12	0	1 6	1280.9	YES	0. 8	61 .832	YES	1.557	199 .361	YES	5.4	131.	YES	60	51.03	0.0168	0.021 3	3.31	0.00 236	0.0 7809	61.2	7.65	25.52						
07 13 2017 13	0	1 5	1280.9	YES	0, 57	585 371	YES	1,578	2021,260	YES	5.4	131.	YES	60	51.03	0.0168	0.021 3	3.31	0.00 236	0.0 7809	61,2	7.65	25.52						
07 13 2017 14	0	1	132 .8	YES	0. 39	581 587	YES	1.596	211 .381	YES	5.6	135.9	YES	60	52.78	0.0168	0.02217	3.31	0.00 381	0.0 7809	63.3	7.92	26.39						
07 13 2017 15	0	1	13 9.8	YES	0. 3	597.961	YES	1.521	2053.0 6	YES	5.7	138.5	YES	60	53.78	0.0168	0.02259	3.31	0.00 63	0.0 7809	6 .53	8.07	26.89						
07 13 2017 16	3	1	1627.7	YES	0. 38	712.993	YES	1. 15	2303.196	YES	6.9	167.0	YES	60	6 .85	0.0168	0.0272	3.31	0.005382	0.0 7809	77.82	9.73	32. 2						
07 13 2017 17	52	1	1800.9	YES	0. 19	75 577	YES	1. 85	267 .337	YES	7.6	18 .8	YES	60	71.75	0.0168	0.03013	3.31	0.005955	0.0 7809	86.10	10.76	35.87						
07 13 2017 18	68	1 3	2029.2	YES	0.397	805 592	YES	1.662	3372.530	YES	8.4	208.2	YES	60	80.8	0.0168	0.03395	3.31	0.00671	0.0 7809	97.01	12.13	0. 2						
07 13 2017 19	8	1 3	22 5.9	YES	0. 18	938.786	YES	1.7 6	3921.3 1	YES	8.6	230.	YES	60	89. 8	0.0168	0.03758	3.31	0.007 27	0.0 7809	107.37	13. 2	.7						

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07/13/2017 20	102	1 3	2399.8	YES	0. 63	1111.07	YES	1.808	338.838	YES	8.9	2 6.2	YES	60	95.61	0.0168	0 0 016	3.31	0.007936	0.0 7809	11 .73	1 .3	7.80								
07/13/2017 21	101	135	2287.5	YES	0. 62	1056.825	YES	1.808	135.800	YES	8.8	23 .7	YES	60	91 1	0.0168	0 03828	3.31	0.00756	0.0 7809	109.36	13.67	5.57								
07/13/2017 22	100	10	2019.9	YES	0. 7	9 9353	YES	1.798	3631.780	YES	8.5	207.2	YES	60	80. 7	0.0168	0 03380	3.31	0.006679	0.0 7809	96.57	12.07	0.2								
07/13/2017 23	100	99	1991.6	YES	0. 77	9 9.993	YES	1.790	356 .96	YES	8.5	20 .3	YES	60	79 35	0.0168	0 03333	3.31	0.006586	0.0 7809	95.22	11.90	39.67								
07/14/2017 00	100	98	1971	YES	0. 9	965.790	YES	1.807	3561.597	YES	8.4	202.2	YES	60	78 53	0.0168	0 03298	3.31	0.006518	0.0 7809	9 .23	11.78	39.26								
07/14/2017 01	100	98	1972.	YES	0. 9	97 .366	YES	1.801	3552.292	YES	8.4	202.	YES	60	78.58	0.0168	0.03300	3.31	0.006522	0.0 7809	9 .30	11.79	39.29								
07/14/2017 02	101	98	1980.5	YES	0. 97	98 3.09	YES	1.796	3556.978	YES	8.4	203.2	YES	60	78.90	0.0168	0.0331	3.31	0.0065 9	0.0 7809	9 .69	11.8	39. 5								
07/14/2017 03	101	98	198 .6	YES	0. 97	986 3 6	YES	1.792	3556. 03	YES	8.4	203.6	YES	60	79.07	0.0168	0.03321	3.31	0.006563	0.0 7809	9 .88	11.86	39.53								
07/14/2017 04	101	98	1986.	YES	0. 98	989 227	YES	1.79	3563.602	YES	8.4	203.8	YES	60	79 1	0.0168	0.0332	3.31	0.006569	0.0 7809	9 .97	11.87	39.57								
07/14/2017 05	101	99	1962.6	YES	0,502	985 225	YES	1.793	3518.9 2	YES	8.3	201.	YES	60	78 19	0.0168	0.0328	3.31	0.006 9	0.0 7809	93.83	11.73	39.10								
07/14/2017 06	101	99	198 .9	YES	0. 95	982 526	YES	1.773	3519.228	YES	8.4	203.7	YES	60	79.08	0.0168	0.03321	3.31	0.00656	0.0 7809	9 .90	11.86	39.5								
07/14/2017 07	101	99	1985	YES	0. 96	98 560	YES	1.76	3501.5 0	YES	8.4	203.7	YES	60	79.08	0.0168	0.03322	3.31	0.00656	0.0 7809	9 .90	11.86	39.5								
07/14/2017 08	101	100	1991	YES	0. 96	987.536	YES	1.755	3 9 .205	YES	8.4	20 .3	YES	60	79.32	0.0168	0.03332	3.31	0.00658	0.0 7809	95.19	11.90	39.66								
07/14/2017 09	130	136	2582.9	YES	0. 71	1216 5 6	YES	1.759	5 3.321	YES	8.9	265.0	YES	60	102.90	0.0168	0 0 322	3.31	0.0085 1	0.0 7809	123. 9	15.	51. 5								
07/14/2017 10	1 7	1 5	2755	YES	0. 79	1319.6 5	YES	1.759	8 6.0 5	YES	8.9	282.7	YES	60	109.76	0.0168	0 0 610	3.31	0.00911	0.0 7809	131.71	16. 6	5 .88								
07/14/2017 11	1 7	1 5	2761.	YES	0. 73	1306 1 2	YES	1.736	793.790	YES	9	283.3	YES	60	110.02	0.0168	0 0 621	3.31	0.009131	0.0 7809	132.02	16.50	55.01								
07/14/2017 12	1 7	1 5	27 .1	YES	0. 68	128 239	YES	1.7 2	780.222	YES	9	281.5	YES	60	109 33	0.0168	0 0 592	3.31	0.00907	0.0 7809	131.19	16. 0	5 .66								
07/14/2017 13	1 7	1 5	2732.9	YES	0. 66	1273 531	YES	1.739	752.513	YES	9	280.	YES	60	108.88	0.0168	0 0 573	3.31	0.009037	0.0 7809	130.66	16.33	5 .								
07/14/2017 14	1 6	1	27 5.3	YES	0. 59	1260.093	YES	1.727	7 1.133	YES	9.1	281.7	YES	60	109 37	0.0168	0 0 59	3.31	0.009078	0.0 7809	131.25	16. 1	5 .69								
07/14/2017 15	1	1	2730.5	YES	0. 37	1193 229	YES	1.733	731.957	YES	9.3	280.1	YES	60	108.78	0.0168	0 0 569	3.31	0.009029	0.0 7809	130.5	16.32	5 .39								
07/14/2017 16	136	135	25 3.6	YES	0.	1119 18	YES	1.751	53.8	YES	9.1	261.0	YES	60	101 3	0.0168	0 0 256	3.31	0.008 11	0.0 7809	121.61	15.20	50.67								
07/14/2017 17	121	120	2322.2	YES	0. 28	993.902	YES	1.75	073.139	YES	9	238.3	YES	60	92 52	0.0168	0.03886	3.31	0.007679	0.0 7809	111.02	13.88	6.26								
07/14/2017 18	125	12	2369.6	YES	0. 2	10 7363	YES	1.755	158.6 8	YES	9	2 3.1	YES	60	9 . 1	0.0168	0.03965	3.31	0.007836	0.0 7809	113.29	1 .16	7.20								
07/14/2017 19	108	101	20 7.6	YES	0. 5	921. 20	YES	1.721	3523.920	YES	8.7	210.1	YES	60	81 58	0.0168	0 03 26	3.31	0.006771	0.0 7809	97.89	12.2	0.79								
07/14/2017 20	99	99	1950.1	YES	0. 7	916 5 7	YES	1.715	33 . 22	YES	8.5	200.1	YES	60	77.69	0.0168	0.03263	3.31	0.006 9	0.0 7809	93.23	11.65	38.85								
07/14/2017 21	69	99	1623.	YES	0. 62	750.011	YES	1.575	2556.855	YES	7.5	166.6	YES	60	6 .68	0.0168	0 02716	3.31	0.005368	0.0 7809	77.61	9.70	32.3								
07/14/2017 22	0	98	965.2	YES	0. 3	18.897	YES	1.572	1517.29	YES	4.5	99.0	YES	60	38. 5	0.0168	0 01615	3.31	0.003192	0.0 7809	6.15	5.77	19.23								
07/14/2017 23	0	77	79 .2	YES	0.293	232.701	YES	1. 02	1113. 68	YES	3.3	81.5	YES	60	31.6	0.0168	0 01329	3.31	0.002626	0.0 7809	37.97	.75	15.82								
07/15/2017 00	0	3	388.8	YES	0.152	59.098	YES	0.958	372. 70	YES	1.7	7.3	YES	11	15. 9	0.0168	0 00651	3.31	0.001286	0.0 7809	18.59	2.32	7.75								
07/15/2017 01	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 02	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 03	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 04	0	0	0	YES	0	0.000	YES	0	0.000	YES	1.5	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 05	0	0	0	YES	0	0.000	YES	0	0.000	YES	2.8	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 06	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 07	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 08	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 09	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 10	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 11	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 12	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 13	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 14	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 15	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 16	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 17	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 18	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 19	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 20	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 21	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 22	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/15/2017 23	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 00	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 01	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 02	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 03	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 04	0	0	0	YES	0	0.000	YES	0	0.000	YES	1.5	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 05	0	0	0	YES	0	0.000	YES	0	0.000	YES	2.8	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 06	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 07	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 08	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 09	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 10	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 11	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 12	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 13	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 14	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 15	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 16	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 17	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 18	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 19	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 20	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 21	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 22	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/16/2017 23	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 00	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 01	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 02	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 03	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 04	0	0	0	YES	0	0.000	YES	0	0.000	YES	1.5	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 05	0	0	0	YES	0	0.000	YES	0	0.000	YES	2.9	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 06	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 07	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 08	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 09	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 10	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 11	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 12	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 13	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 14	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 15	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 16	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 17	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								
07/17/2017 18	0	0	0	YES	0	0.000	YES	0	0.000	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00								

AMERICAN OVERSIGHT

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AMERICAN OVERSIGHT

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AMERICAN OVERSIGHT

MAX	2761.4	mmBtu hr	MAX hourl heat input comb ned, Units 1 and 2
AVERAGE	1816.1	mmBtu hr	AVERAGE hourl heat input combined, Units 1 and 2 (used or MIN LOAD scena io)

DAILY COMBINED HEAT INPUT (16 hours min load, 8 hours max load)

MAX	22091.2	mmBtu
MIN	29057.78	mmBtu
TOTAL	51148.98	mmBtu da

	FACTOR	UNITS	PROJECTED DA LY EMISSIONS MAX (lbs/day)
NOx	0 528	b mmBtu	11664 15
SO2	2 027	b mmBtu	44778 86
PM-10	0 0168	b mmBtu	371 13
CO2	283 3	ons hr	2266 40
ead	0 0462	b hr	0 37
Mercury	3 3068	b T Btu	0 07
HCl	0 0478	b mmBtu	1056 15
HF	16 5024	b hr	132 02
CO	55 0080	b hr	440 06

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AMERICAN OVERSIGHT

880 tons coal | 110 tons coal hr max
1088 tons coal | 68 tons coal hr avg
1968 tons coal da

MIN (lbs/day)	TOTAL (lbs/day)	TOTAL (tons/day)	PROJECTED EMISSIONS BY OUTAGE DAYS (tons)											ul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	an-18	Feb-18	Ma -18	Apr-18	Ma -18	un-18	ul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
			18	0	1	4	3	2	2	15	6	4	21	81	ACTUALS	9	0	0	2	2	7	17	4	3	1	0	10	9	2	5	0	1
15342 51	27006 66	13.50	243 06	0.00	13.50	54.01	40.51	27.01	27.01	202.55	81.02	54 01	283 57	1093.77	97 89	121.53	0.00	0.00	27 01	27.01	94.52	229.56	54 01	40.51	13.50	0.00	135.03	121 53	27 01	67.52	0 00	13.50
58900 13	103678 99	51.84	933 11	0.00	51.84	207.36	155.52	103.68	103.68	777.59	311.04	207 36	1088 63	4199.00	391 87	466.56	0.00	0.00	103 68	103.68	362.88	881.27	207 36	155.52	51.84	0.00	518.39	466 56	103 68	259.20	0 00	51.84
488 17	859 30	0.43	7 73	0.00	0.43	1.72	1.29	0.86	0.86	6.44	2 58	1 72	9 02	34.80	3 72	3.87	0.00	0.00	0 86	0.86	3.01	7.30	1 72	1.29	0.43	0.00	4.30	3.87	0 86	2.15	0 00	0.43
4532 80	6799 20	6799.20	122,385 60	-	6 799.20	27,196.80	20,397.60	13 598.40	13 598.40	101 988.00	40,795 20	27,196 80	142,783.20	550 735.20	49,173.9	61,192 8	-	-	13,598.4	13 598.4	47,594.4	115,586.4	27,196.8	20 397.6	6,799.2	-	67 992.0	61,192 8	13,598.4	33 996.0	-	6 799.2
0 74	1 11	0.0006	0.0100	0 0000	0.0006	0.0022	0.0017	0 0011	0 0011	0.0083	0.0033	0.0022	0.0116	0.0449	0.0040	0.0050	0.0000	0.0000	0.0011	0 0011	0.0039	0.0094	0.0022	0 0017	0.0006	0.0000	0 0055	0.0050	0.0011	0 0028	0.0000	0.0006
0 10	0 17	0.0001	0.0015	0 0000	0.0001	0.0003	0.0003	0 0002	0 0002	0.0013	0.0005	0.0003	0.0018	0.0069	0.0008	0.0008	0.0000	0.0000	0.0002	0 0002	0.0006	0.0014	0.0003	0 0003	0.0001	0.0000	0 0008	0.0008	0.0002	0 0004	0.0000	0.0001
1389 22	2445 37	1.22	22 01	0.00	1.22	4.89	3.67	2.45	2.45	18.34	7 34	4 89	25 68	99.04	11.48	11.00	0.00	0.00	2.45	2.45	8.56	20.79	4 89	3.67	1.22	0.00	12.23	11.00	2.45	6.11	0 00	1.22
264 04	396 06	0.20	3 56	0.00	0.20	0.79	0.59	0.40	0.40	2.97	1.19	0 79	4 16	16.04	1.43	1.78	0.00	0.00	0.40	0.40	1.39	3.37	0 79	0.59	0.20	0.00	1.98	1.78	0.40	0.99	0 00	0.20
880 13	1320 19	0.66	11 88	0.00	0.66	2.64	1.98	1.32	1.32	9.90	3.96	2 64	13 86	53.47	4 78	5.94	0.00	0.00	1 32	1.32	4.62	11.22	2 64	1.98	0.66	0.00	6.60	5.94	1 32	3.30	0 00	0.66

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PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Steven R. Pincus
Associate General Counsel
T: (610) 666-4438 I F: (610) 666-8211
steven.pincus@pjm.com

November 29, 2017

The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Order No. 202-17-4 Renewal Application Filing

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),[1] Section 301(b) of the Department of Energy Organization Act,[2] the Department of Energy's ("DOE") Rules of Practice and Procedure[3] and Order No. 202-17-4 issued on September 14, 2017 by the Secretary of Energy ("Secretary") (the "September 14 Order"), PJM Interconnection, L.L.C. ("PJM") respectfully submits a request for a 90-day renewal of the September 14 Order. PJM incorporates by reference PJM's application submitted on June 13, 2017 (the "June 13 Application") and all attachments and appendices thereto, and PJM's August 24, 2017 renewal application (the "August 24 Application") and all attachments and appendices thereto. PJM also incorporates by reference the various reports to DOE concerning the operations and emission data provided by PJM and Virginia Electric and Power Company ("Dominion Energy Virginia") referenced below.

[1] 16 U.S.C. § 824a(c).

[2] 42 U.S.C. § § 7101 and 7151(b).

[3] 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373.

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Background

In the June 13 Application, PJM stated the need to request renewals of the Order No. 202-17-2 issued on June 16, 2017 (the "June 16 Order") on a rolling basis until the PJM ordered Regional Transmission Expansion Planning Process ("RTEPP") Skiffes Creek Transmission Project is placed into service, which was at that time anticipated to be completed in 18-20 months once all permits are issued.[4] In the June 16 Order, the Secretary determined "that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest."[5] In doing so, the Secretary directed Dominion Energy Virginia to operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the initial 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.[6] The Secretary also directed PJM and Dominion Energy Virginia to develop and implement a dispatch methodology and submit it to the DOE upon implementation.[7] The dispatch methodology was submitted by PJM on June 27, 2017.

In the August 24 Application, PJM submitted a request for a 90 day renewal of the June 16 Order. PJM requested an order of the Secretary under Section 202 (c) of the FPA which provides among other things that an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric

[4] On October 12, 2017, PJM and Dominion Energy Virginia submitted a report updating the outage schedule for the Skiffes Creek Transmission Project with an extension of the construction schedule of approximately five and one-half months from December 30, 2018 to May 12, 2019.

[5] June 16 Order page 1.

[6] June 16 Order page 2.

[7] June 16 Order page 2.

AMERICAN OVERSIGHT

energy, and other causes, and that issuance of a renewal order (*i.e.* the September 14 Order) will meet the emergency and serve the public interest for another 90 renewal period (i.e. from September 14, 2017 to December 13, 2017).

In the September 14 Order, the Secretary determined "that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy."[8] The Secretary granted PJM's August 24 Application allowing operation of Yorktown Units 1 and 2, with certain modifications, for an additional 90-day period to expire on December 13, 2017.[9] The Secretary's directives required PJM and Dominion to "exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 and Yorktown Unit 2" consistent with "good utility practices" and in compliance with the dispatch methodology.[10]

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[8] September 14 Order page 1

[9] September 14 Order page 1

[10] September 14 Order page 2, paragraphs A and B. PJM has a detailed registration process as applied to demand response resources which are serving as capacity resources. PJM would utilize that information in applying this provision recognizing that: (i) the amount of registered demand response resources on the peninsula is limited; and (ii) during the renewal period covered by this application, certain demand response resources are available to PJM only in the summer period during the period. PJM has catalogued behind the meter resources based on data provided by the United States Energy Information Administration ("EIA"), Dominion and other sources. Although behind the meter resources are not subject to PJM's direction, PJM works with Dominion to seek their assistance pursuant to the existing dispatch methodology. However, the DOE's directive that PJM and Dominion Energy Virginia exhaust reasonably and practically available demand response and/or behind-the-meter resources applies only if exhausting such resources would lessen the need to operate the Yorktown Units 1 and/or 2 for reliability of the grid consistent with the dispatch methodology, PJM's Governing Agreements and good utility practices. For example, if demand response and/or behind-the-meter resources would not provide needed reactive support, or otherwise not lessen the need to operate the Yorktown units for reliability, such resources would not be "reasonably and practically available" and operating the resources would not be consistent with the dispatch methodology, PJM's Governing Agreements and good utility practices.

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The September 14 Order directed PJM and Dominion Energy Virginia to report every two weeks during the term of the September 14 Order all dates on which Yorktown Units 1 and/or 2 are operated and associated air emissions and water usages for those dates.[11] The Secretary also directed reporting in the event the outage schedule or estimates changes from those presented in the August 24 Application. PJM and Dominion Energy Virginia submitted reports on September 28, 2017, August 22, 2017 and November 10, 2017, on the operation of Yorktown Units 1 and/or 2, and a report on October 12, 2017 revising the Skiffs Creek Transmission Project construction schedule and providing associated emission estimates.

The September 14 Order stated that "(i)f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before (the September 14 Order) expires."[12] As conditions creating the emergency remain substantially unchanged, this renewal application is due on November 29, 2017.

Renewal Request

As stated in the June 13 Application as revised by the August 24 Application, the Skiffes Creek Transmission Project was expected to be completed and placed into service approximately 18-20 months after receipt of all applicable permits. With issuance of the U.S. Army Corps of Engineers' ("Army Corps") permit on July 3, 2017, Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. As reported on October 12, 2017, the Skiffs Creek Transmission Project is scheduled to be completed May 12, 2019. Thus, given the continued extended nature of the emergency, PJM respectfully submits that the emergency as set

[11] September 14 Order page 2, paragraph C.

[12] September 14 Order page 2, paragraph D.

AMERICAN OVERSIGHT

forth in the June 13 Application and August 24 Application and as determined by the Secretary in the June 16 Order and September 14 continues to exist.

Therefore, PJM respectfully requests that the Secretary grant this renewal application and order the continued operation of Yorktown Units 1 and 2 to alleviate the emergency described in the June 13 Application, the August 24 Application and hereinabove prior to the expiration of the current order (*i.e.* December 13, 2017) under Section 202 (c) of the FPA. PJM request the requested renewal order provide as follows:

(i) that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy and that issuance of a renewal Order will meet the emergency and serve the public interest;

(ii) from December 13, 2017 to March 13, 2018, Dominion Energy Virginia is directed to operate Yorktown Units 1 and 2 as directed by PJM as needed to maintain grid reliability or for other local area transmission issues;

(iii) the limitations on operations ensure, to the maximum extent practicable, consistency with applicable laws and regulations, and the reporting requirements for operations and estimated emissions ensure transparency of implementation;

(iv) consistent with the dispatch methodology submitted by PJM on June 27, 2017, good utility practice and the PJM Tariff, PJM and Dominion Energy Virginia shall exhaust all reasonably and practically available resources including demand response and identified behind-the-meter generation resources to the extent that

AMERICAN OVERSIGHT

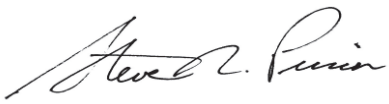
such resources address maintenance of grid reliability, prior to operating Yorktown Units 1 and/or 2;[13]

(v) Dominion Energy Virginia shall continue to follow the dispatch methodology submitted by PJM on June 27, 2017;

(vi) PJM and Dominion Energy Virginia shall report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage date for those dates within ten (10) business days of such operation; and

(vii) in the event that the outage schedule or estimates change from those presented in this renewal application, within ten (10) business days PJM and Dominion Energy Virginia shall also provide updated outages schedules and associated Yorktown Units 1 and 2 emission estimates.

Respectfully submitted,



Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Cc (via electronic mail): Pat Hoffman, U.S. Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program

[13] *See* Footnote 10.

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Monday, January 08, 2018 6:32 AM
To: Batra, Rakesh
Subject: RE: 202c

Thank you!

-----Original Message-----
From: Batra, Rakesh
Sent: Monday, January 08, 2018 9:30 AM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Bowie, America <America.Bowie@hq.doe.gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: RE: 202c

We received 202 (c) applications from two applicants, PJM/Dominion and GRDA in 2017.
Attached are the PJM/Dominion Original and two renewal applications and GRDA application.

Please let me know if I could be of further assistance.

Thanks,
Rakesh

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:52 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: FW: 202c

Brian McCormack requested the applications for all 202c orders in the past year. I had trouble finding them on the O Drive, but I at least had the first one from PJM.

Is the regulations I found on the O drive the correct version?

Can we have all the applications ready to go Monday morning?

Thanks!
Katie

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:38 PM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Bowie, America <America.Bowie@hq.doe.gov>
Subject: 202c

Hi Wayne and America,

AMERICAN OVERSIGHT

Attached is the DOE implementing regulations document, which provides the information required for requesting an order from the Secretary. Right after we talked I found the email with the application and relevant attachments from PJM for the ongoing 202c emergency order that began back in June. So we have the real thing for the most recent order!

In the mean time I will ask Rakesh Batrah and my staff to provide the applications for the previous orders.

Have a great weekend!
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c) (b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov
202.586.4666

** Please contact Shamika for all meeting and scheduling requests. **

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Rodriguez, Susan (CONTR)

From: Smith, Wayne D
Sent: Monday, January 08, 2018 8:10 AM
To: Batra, Rakesh;Jereza, Catherine;Bowie, America
Cc: Mills, Brian;Rosenbaum, Matthew;Lawrence, Christopher
Subject: RE: 202c

Importance: High

Any updates. (b) (5) I'm happy to print them out.

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Monday, Jan 08, 2018, 9:56 AM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>, Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Bowie, America <America.Bowie@hq.doe.gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>, Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>, Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: RE: 202c

Below is the link we discussed.

https://energy.gov/oe/services/electricity-policy-coordination-and-implementation/other-regulatory-efforts/does-use

Thanks,
Rakesh
-----Original Message-----
From: Smith, Wayne D
Sent: Monday, January 08, 2018 9:54 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Bowie, America <America.Bowie@hq.doe.gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: RE: 202c

Thank you.

Wayne D. Smith | Director
Office of the Executive Secretariat
U.S. Department of Energy | wayne.smith@hq.doe.gov
(202) 586-6207 |(b) (6) (mobile)

-----Original Message-----
From: Batra, Rakesh
Sent: Monday, January 08, 2018 9:30 AM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Bowie, America

AMERICAN OVERSIGHT

<America.Bowie@hq.doe.gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: RE: 202c

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To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
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Sent: Friday, January 05, 2018 5:38 PM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Bowie, America <America.Bowie@hq.doe.gov>
Subject: 202c

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Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c) (b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov

AMERICAN OVERSIGHT

202.586.4666

** Please contact Shamika for all meeting and scheduling requests. **

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Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Monday, January 08, 2018 9:58 AM
To: Batra, Rakesh;Rosenbaum, Matthew
Subject: RE: 202(c) files- California energy crisis

Thanks!

From: Batra, Rakesh
Sent: Monday, January 08, 2018 12:44 PM
To: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: RE: 202(c) files- California energy crisis

https://www.eia.gov/electricity/policies/legislation/california/subsequentevents.html

The web site lists several actions taken by CA and Federal Government to Contain the Energy Crisis. :

The following actions were taken by DOE to help mitigate the energy crisis and to put into place permanent solutions to the problems California has been experiencing since the summer of 2000:

December 14, 2000: The Secretary of Energy initiated an order requiring certain generators and power marketers to supply electricity to California's power system operator in order to help avert power outages. The Order was extended every week until Feb 7, 2001.

-----Original Message-----
From: Rosenbaum, Matthew
Sent: Monday, January 08, 2018 11:53 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: FW: 202(c) files

Here is a major addition to what we submit.

Matt

-----Original Message-----
From: Drake, Christopher
Sent: Monday, January 08, 2018 11:42 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Subject: RE: 202(c) files

Rakesh & Matt,

I have attached a .zip file with all pre-2000 202(c) orders. They are all FPC orders — DOE did not invoke its authority under 202(c), which it obtained via section 301(b) of the DOE Organization Act in 1977, until December 2000.

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Unfortunately, we do not have a chart of all these orders, but they are all in the attached .zip file, with citations to the FPC reporter.

Chris Drake
Attorney-Adviser
U.S. Department of Energy, Office of General Counsel
Office of Electricity & Fossil Energy (GC-76)
Forrestal North, Room 6B-256
Tel. 202.586.2919
Christopher.Drake@hq.doe.gov

This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Lawrence, Shamika
Sent: Tuesday, January 16, 2018 5:38 AM
To: Jereza, Catherine
Subject: RE: Timeline for the next PJM/Dominion 202 (c) filing

I will reach out to Rakesh to set something up for this week.

Shamika Lawrence
ICF, Contractor to the US Department of Energy
Office of Electricity Delivery & Energy Reliability
1000 Independence Avenue S.W. | Suite 6E-092 | Washington, DC 20585
Office: 202-586-4666
DOE Email: shamika.lawrence@hq.doe.gov

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 12, 2018 11:59 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Cc: Lawrence, Shamika <Shamika.Lawrence@hq.doe.gov>
Subject: RE: Timeline for the next PJM/Dominion 202 (c) filing

I have several comments, some I thought we discussed previously. Let's talk next week. Can you make the edits before we meet?

Shamika can you schedule?

Thanks
Katie

-----Original Message-----
From: Batra, Rakesh
Sent: Thursday, December 28, 2017 3:16 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: Timeline for the next PJM/Dominion 202 (c) filing

Katie:

Please find attached, timeline for the next PJM/Dominion 202 (c) filing. After incorporating your comments, Matt, Brian and I reviewed it.

Please let me know if I missed anything or you have any further comments.

Thanks,
Rakesh Batra
202-586-1283

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Rodriguez, Susan (CONTR)

From: Bittner, Kathy (CONTR)
Sent: Tuesday, January 23, 2018 7:42 AM
To: Batra, Rakesh
Cc: Jereza, Catherine
Subject: RE: new Section 202c applications

Thank you.

From: Batra, Rakesh
Sent: Tuesday, January 23, 2018 10:17 AM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: RE: new Section 202c applications

Kathy,
As of yesterday, I have not received any 202(c) application.

Rakesh

From: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Date: Tuesday, Jan 23, 2018, 10:02 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: new Section 202c applications

Good morning Rakesh,

I received a phone call from Exec Sec asking if OE has a new Section 202c application.

Would you please let me know if OE has received any?

Thanks,
Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Fisher, Travis
Sent: Friday, February 02, 2018 2:11 PM
To: Turner, Alexa
Subject: RE: Pacific Gas and Electric

Perfect. I'll be around... Ext. 6-1117

Have a great weekend!

-----Original Message-----
From: Turner, Alexa
Sent: Friday, February 02, 2018 5:09 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

Interesting...let's chat on Monday.

Alexa Turner
Special Advisor
Office of the Deputy Secretary

-----Original Message-----
From: Fisher, Travis
Sent: Friday, February 02, 2018 5:05 PM
To: Turner, Alexa <Alexa.Turner@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

No worries at all. (b) (6)

-----Original Message-----
From: Turner, Alexa
Sent: Thursday, February 01, 2018 6:04 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

Hey, thanks for your help on this one.

Alexa Turner
Special Advisor
Office of the Deputy Secretary

-----Original Message-----
From: Fisher, Travis
Sent: Monday, January 29, 2018 3:16 PM
To: Turner, Alexa <Alexa.Turner@hq.doe.gov>

AMERICAN OVERSIGHT

Cc: Singer, Emily <Emily.Singer@hq.doe.gov>; Walker, Bruce <Bruce.Walker@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

Gotcha. I wasn't in the loop on this, but it looks like PG&E is catching some of the blame for the fires: https://www.nbcbayarea.com/news/local/PGE-Wildfire-Response-Questioned-467972693.html

And last week, PG&E decided to change its policy on reclosers: https://www.nbcbayarea.com/news/local/PGE-Makes-Apparent-Policy-Change-for-Fire-Season-471396853.html

I'm copying Bruce in case he has anything to add from the utility perspective.

-----Original Message-----
From: Turner, Alexa
Sent: Monday, January 29, 2018 3:07 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov>
Cc: Singer, Emily <Emily.Singer@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

So we just heard back from them and they're indicating that the topic will be the CA wildfires.

Alexa Turner
Special Advisor
Office of the Deputy Secretary

-----Original Message-----
From: Fisher, Travis
Sent: Monday, January 29, 2018 1:26 PM
To: Turner, Alexa <Alexa.Turner@hq.doe.gov>
Cc: Singer, Emily <Emily.Singer@hq.doe.gov>
Subject: RE: Pacific Gas and Electric

I did a quick search to see what the latest news was on Diablo Canyon, but I found something even more interesting: https://www.greentechmedia.com/articles/read/pge-must-solicit-energy-storage-ders-to-replace-three-existing-gas-plants#gs.CTx3EtU (b) (5)

Here's an op-ed from a Heritage energy expert on Diablo Canyon. (b) (5)
https://www.sgvtribune.com/2018/01/25/diablo-canyon-shutdown-last-chapter-for-clean-nuclear-power-in-california/

Is this the kind of stuff you were looking for?

-----Original Message-----
From: Turner, Alexa
Sent: Monday, January 29, 2018 1:14 PM
To: Fisher, Travis <Travis.Fisher@hq.doe.gov>
Cc: Singer, Emily <Emily.Singer@hq.doe.gov>
Subject: Pacific Gas and Electric

Travis-

AMERICAN OVERSIGHT

As a heads up, S2 is meeting with PG&E tomorrow (Jeff Miller, CFO, SVP of Strategy & Policy, and Manager of Federal Affairs attending). We're trying to get in touch with them right now about topic/background material but haven't heard back. Do you think OE would have anything to flag for this meeting? If not, we'll just pull together some quick overview facts.

Thanks!

Alexa

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Friday, February 09, 2018 8:40 AM
To: Konieczny, Katherine;Fibbe, George
Subject: RE: 202c story

What Kathy says is true.

From: Konieczny, Katherine
Sent: Friday, February 09, 2018 11:29 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: RE: 202c story

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(b) (5)

I've copied Katie to confirm the facts above.
Thanks,
Kathy

From: Fibbe, George
Sent: Friday, February 09, 2018 10:59 AM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Subject: FW: 202c story

From: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Date: Friday, Feb 09, 2018, 10:41 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>, Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: RE: 202c story

Thanks! Time sensitive so asap.

From: Fibbe, George
Sent: Friday, February 09, 2018 10:41 AM

AMERICAN OVERSIGHT

To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>; Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: RE: 202c story

I will check with Kathy Konieczny in Bernie's group.

From: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Date: Friday, Feb 09, 2018, 10:39 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>, Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: FW: 202c story

Has anything come through GC?

From: Varnasidis, Sophia
Sent: Friday, February 09, 2018 10:35 AM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

Shaylyn is going to check with OE and GC. (b) (5)

From: McCormack, Brian
Sent: Friday, February 09, 2018 10:31 AM
To: Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

Wouldn't they come through OE or GC? Can we pulse those offices?

From: Varnasidis, Sophia
Sent: Friday, February 09, 2018 10:29 AM
To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

(b) (5)

From: Colgary, James
Sent: Friday, February 09, 2018 10:05 AM
To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>; Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>
Subject: RE: 202c story

(b) (5)

AMERICAN OVERSIGHT

Jim Colgary
Chief of Staff to the
Deputy Secretary
Department of Energy
202-586-5500

From: Hynes, Shaylyn
Sent: Friday, February 09, 2018 9:48 AM
To: Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>; Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>
Subject: RE: 202c story

Just spoke to Darius on this and he followed up asking for a unique quote. Are you all ok with this?

(b) (5)

From: Darius Dixon [mailto:ddixon@politico.com]
Sent: Friday, February 09, 2018 9:38 AM
To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Subject: Re: 202c story

Not to belabor this but is there any way I could have a line on the record about how currently there are no applications, and that DOE would not proceed without an application?

--
Darius Dixon
Energy reporter
POLITICO
(b) (6) (m)

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Friday, February 09, 2018 8:42 AM
To: Harbin, Christine
Subject: FW: 202c story

FYI. All true.

From: Konieczny, Katherine
Sent: Friday, February 09, 2018 11:29 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: RE: 202c story

PRIVILEGED – ATTORNEY-CLIENT – ATTORNEY WORK-PRODUCT
(b) (5)

I've copied Katie to confirm the facts above.
Thanks,
Kathy

From: Fibbe, George
Sent: Friday, February 09, 2018 10:59 AM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Subject: FW: 202c story

From: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Date: Friday, Feb 09, 2018, 10:41 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>, Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: RE: 202c story

Thanks! Time sensitive so asap.

From: Fibbe, George
Sent: Friday, February 09, 2018 10:41 AM

AMERICAN OVERSIGHT

To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>; Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: RE: 202c story

I will check with Kathy Konieczny in Bernie's group.

From: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Date: Friday, Feb 09, 2018, 10:39 AM
To: Fibbe, George <George.Fibbe@hq.doe.gov>, Brown, Michael <Michael.Brown@hq.doe.gov>
Subject: FW: 202c story

Has anything come through GC?

From: Varnasidis, Sophia
Sent: Friday, February 09, 2018 10:35 AM
To: McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

Shaylyn is going to check with OE and GC. I(b) (5)

From: McCormack, Brian
Sent: Friday, February 09, 2018 10:31 AM
To: Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>; Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

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To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Cc: Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>
Subject: RE: 202c story

(b) (5)

From: Colgary, James
Sent: Friday, February 09, 2018 10:05 AM
To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>; Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>
Subject: RE: 202c story

(b) (5)

AMERICAN OVERSIGHT

Jim Colgary
Chief of Staff to the
Deputy Secretary
Department of Energy
202-586-5500

From: Hynes, Shaylyn
Sent: Friday, February 09, 2018 9:48 AM
To: Menezes, Mark <Mark.Menezes@hq.doe.gov>; McCormack, Brian <Brian.Mccormack@hq.doe.gov>; Colgary, James <James.Colgary@hq.doe.gov>; Varnasidis, Sophia <Sophia.Varnasidis@hq.doe.gov>
Subject: RE: 202c story

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Sent: Friday, February 09, 2018 9:38 AM
To: Hynes, Shaylyn <Shaylyn.Hynes@hq.doe.gov>
Subject: Re: 202c story

Not to belabor this but is there any way I could have a line on the record about how currently there are no applications, and that DOE would not proceed without an application?

--
Darius Dixon
Energy reporter
POLITICO
(b) (6) (m)

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Stanek, Jason <Jason.Stanek@mail.house.gov>
Sent: Thursday, February 15, 2018 1:43 PM
To: Fisher, Travis
Subject: FPA 202(c) - emergency authority

Hey – I was taking a look at this section and the authority seems to rest with FERC, not DOE.

How is it that DOE can use this authority when the FPA gives this authority only to FERC? Did something change along the way?

Thanks,
J.

PS: Having a call with the Bennett staff tomorrow.

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From:	Batra, Rakesh
Sent:	Tuesday, February 20, 2018 1:27 PM
To:	Pitcher, Lisa
Cc:	Mills, Brian;Jereza, Catherine;Rosenbaum, Matthew;Drake, Christopher;Bittner, Kathy (CONTR)
Subject:	FW: Order No. 202-18-2, PJM Interconnection, L.L.C., Renewal Application Filing
Attachments:	DOE Order 202-18-2 Renewal Application 2-20-18 Filing Letter Final.pdf

FYI. We received the attached PJM/Dominion 202(c) filing.

Thanks
Rakesh

From: Pincus, Steven <Steven.Pincus@pjm.com>
Date: Tuesday, Feb 20, 2018, 2:19 PM
To: Secretary Perry <The.Secretary@hq.doe.gov>, Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>, Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>, Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Cc: Michael Regulinski (Services - 6) <michael.regulinski@dominionenergy.com>, Bryson, Mike E. <Michael.Bryson@pjm.com>, Souder, David W. <David.Souder@pjm.com>, Tam, Simon K. <Simon.Tam@pjm.com>, Glazer, Craig <Craig.Glazer@pjm.com>, O'Hara, Chris <Chris.OHara@pjm.com>, casey.roberts@sierraclub.org <casey.roberts@sierraclub.org>, Robinson, Evelyn <Evelyn.Robinson@pjm.com>
Subject: Order No. 202-18-2, PJM Interconnection, L.L.C., Renewal Application Filing

Dear Secretary Perry:

PJM respectfully submits for filing a ninety (90) day Renewal Application in accordance with Section 202(c) of the Federal Power Act, the Department of Energy's Rules of Practice and Procedure and Order No. 202-18-24.

Please contact me if you have any questions.

Thank you for your consideration.

Respectfully,

Steven R. Pincus
Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com
PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403
This e-mail message and any attached files are confidential and are solely for the use of the intended recipient.

AMERICAN OVERSIGHT

PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Steven R. Pincus
Associate General Counsel
T: (610) 666-4438 I F: (610) 666-8211
steven.pincus@pjm.com

February 20, 2018

The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Order No. 202-18-2 Renewal Application Filing

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act ("FPA"),[1] Section 301(b) of the Department of Energy Organization Act,[2] the Department of Energy's ("DOE") Rules of Practice and Procedure[3] and Order No. 202-18-2 issued on December 13, 2018 by the Secretary of Energy ("Secretary") (the "December 13 Order"), PJM Interconnection, L.L.C. ("PJM") respectfully submits a request for a 90-day renewal of the December 13 Order. PJM incorporates by reference PJM's initial application submitted on June 13, 2017, and all attachments and appendices thereto (the "June 13 Application"). PJM also incorporates by reference (i) PJM's renewal applications submitted on November 29, 2017 (the "November 29 Application"), June 13, 2017 (the "June 13 Application") and August 24, 2017 (the "August24 Application") and all attachments and appendices thereto (collectively, "Renewal Applications"); and (ii) the various reports to DOE concerning the operations and emission data provided by PJM and Virginia Electric and Power Company ("Dominion Energy Virginia") referenced below.

[1] 16 U.S.C. § 824a(c).

[2] 42 U.S.C. § § 7101 and 7151(b).

[3] 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373.

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I. BACKGROUND

A. The June 13 Application

In the Renewal Applications, PJM stated the need to request renewals of the Order No. 202-17-2 issued on June 16, 2017 (the "June 16 Order") on a rolling basis until the PJM ordered Regional Transmission Expansion Planning Process ("RTEPP") Skiffes Creek Transmission Project is placed into service, which was originally anticipated to be completed in 18-20 months once all permits are issued.[4] In the June 16 Order, the Secretary determined "that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest."[5] In doing so, the Secretary directed Dominion Energy Virginia to operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the initial 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.[6] The Secretary also directed PJM and Dominion Energy Virginia to develop and implement a dispatch methodology and submit it to the DOE upon implementation.[7] The dispatch methodology was submitted by PJM on June 27, 2017.

B. The August 24 Application for Renewal of the June 16 Order.

In the August 24 Application, PJM submitted a request for a 90 day renewal of the June 16 Order. PJM requested an order of the Secretary under Section 202 (c) of the FPA which

[4] On October 12, 2017, PJM and Dominion Energy Virginia submitted a report updating the outage schedule for the Skiffes Creek Transmission Project with an extension of the construction schedule of approximately five and one-half months from December 30, 2018 to May 12, 2019

[5] June 16 Order, page 1.

[6] June 16 Order, page 2.

[7] June 16 Order, page 2.

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provides among other things that an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of a renewal order will meet the emergency and serve the public interest for another 90 renewal period (i.e. from September 14, 2017 to December 13, 2017). As a result, the Secretary issued Order No. 202-17-4 (the "September 14 Order").

In the September 14 Order, the Secretary determined "that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy."[8] The Secretary granted PJM's August 24 Application allowing operation of Yorktown Units 1 and 2, with certain modifications, for an additional 90-day period to expire on December 13, 2017.[9] The Secretary's directives required PJM and Dominion to "exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 and Yorktown Unit 2" consistent with "good utility practices" and in compliance with the dispatch methodology.[10]

[8] September 14 Order page 1

[9] September 14 Order page 1

[10] September 14 Order, page 2, paragraphs A and B. PJM has a detailed registration process as applied to demand response resources which are serving as capacity resources. PJM would utilize that information in applying this provision recognizing that: (i) the amount of registered demand response resources on the peninsula is limited; and (ii) during the renewal period covered by this application, certain demand response resources are available to PJM only in the summer period during the period. PJM has catalogued behind the meter resources based on data provided by the United States Energy Information Administration ("EIA"), Dominion and other sources. Although behind the meter resources are not subject to PJM's direction, PJM works with Dominion to seek their assistance pursuant to the existing dispatch methodology. However, the DOE's directive that PJM and Dominion Energy Virginia exhaust reasonably and practically available demand response and/or behind-the-meter resources applies only if exhausting such resources would lessen the need to operate the Yorktown Units 1 and/or 2 for reliability of the grid consistent with the dispatch methodology, PJM's Governing Agreements and good utility practices. For example, if demand response and/or behind-the-meter resources would not provide needed reactive support, or otherwise not lessen the need to operate the Yorktown units for reliability, such resources would not be "reasonably

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The September 14 Order directed PJM and Dominion Energy Virginia to report every two weeks during the term of the September 14 Order all dates on which Yorktown Units 1 and/or 2 are operated and associated air emissions and water usages for those dates.[11] The Secretary also directed reporting in the event the outage schedule or estimates changes from those presented in the August 24 Application. PJM and Dominion Energy Virginia submitted reports on September 28, 2017, August 22, 2017 and November 10, 2017, on the operation of Yorktown Units 1 and/or 2, and a report on October 12, 2017 revising the Skiffs Creek Transmission Project construction schedule and providing associated emission estimates.

The September 14 Order stated that "(i)f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before (the September 14 Order) expires."[12] As conditions creating the emergency remain substantially unchanged, the renewal application was due on November 29, 2017.

C. The November 29 Application for Renewal of the September 14 Order.

As conditions creating the emergency remained substantially unchanged from the date of the issuance of the September 14 Order, PJM submitted a 90 day renewal application (*i.e.*, the November 29 application). In the November 29 Application, PJM requested an order of the Secretary under Section 202 (c) of the FPA which provides among other things that an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric

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and practically available" and operating the resources would not be consistent with the dispatch methodology, PJM's Governing Agreements and good utility practices.

[11] September 14 Order page 2, paragraph C.

[12] September 14 Order page 2, paragraph D.

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energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of a renewal order will meet the emergency and serve the public interest for another 90 renewal period (*i.e.*, from December 14, 2017 to March 13, 2018). As a result, the Secretary issued the December 13 Order.

In the December 13 Order, the Secretary determined "that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy."[13] The Secretary granted PJM's November 29 Application allowing operation of Yorktown Units 1 and 2, with certain modifications, for an additional 90-day period to expire on March 13, 2017.[14] The Secretary's directives require PJM and Dominion to "exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 and Yorktown Unit 2" consistent with "good utility practices" and in compliance with the dispatch methodology.[15]

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[13] December 13 Order, page 1.

[14] December 13 Order, page 1.

[15] December 13 Order, page 2, paragraphs A and B. In the Summary of Findings of Department of Energy Order No. 202-18-2, the Secretary concurred with PJM's interpretation of the implementing paragraphs A and B of the September 14 Order as follows: *In the November 29 Renewal Application, PJM sought to clarify how it is implementing ordering paragraphs A and B of Order No. 202-17-4, which require that (1) "Consistent with good utility practice, PJM and Dominion shall exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 or Yorktown Unit 2," and (2) "Dominion shall continue to comply with the dispatch methodology submitted by PJM on June 27, 2017." PJM explained that "if demand response and/or behind-the-meter resources would not provide needed reactive support, or otherwise not lessen the need to operate the Yorktown units for reliability, such resources would not be 'reasonably and practically available' and operating the resources would not be consistent with the [terms of Order No. 202-17-4]." Renewal Application at 3 n.10. DOE concurs with this interpretation, and adjustments have been made to the ordering paragraphs of Order No. 202-18-2 to reflect that view.* December 12 Order page 2.

AMERICAN OVERSIGHT

The December 13 Order directed PJM and Dominion Energy Virginia to report every two weeks during the term of the December 13 Order all dates on which Yorktown Units 1 and/or 2 are operated and associated air emissions and water usages for those dates.[16] The Secretary also directed reporting in the event the outage schedule or estimates changes from those presented in the November 29 Application. PJM and Dominion Energy Virginia submitted a report to the Secretary on January 11, 2018, on the dates Yorktown Units and/or 2 were operated and associated air emissions (the January 11 Report"). Because the intake circulating water usage data for Yorktown Unit 2 operations was not yet available on January 11, 2018, PJM and Dominion Energy Virginia submitted a report on January 25, 2018, reporting to the secretary the water usage data for Yorktown Unit 2 operations on the dates PJM dispatched Yorktown Unit 2 (*i.e.*, January 2 through January 8, 2018).

The December 13 Order stated that "(i)f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before (the September 14 Order) expires."[17] Since the December 13 Order expired on March 13, 2018, PJM respectfully submits this renewal request.

II. RENEWAL REQUEST

As stated in the June 13 Application, the Skiffes Creek Transmission Project was expected to be completed and placed into service approximately 18-20 months after receipt of all applicable permits. With issuance of the U.S. Army Corps of Engineers' ("Army Corps") permit

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[16] December 13 Order, page 2, paragraph C.

[17] December 13 Order, page 2, paragraph D.

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on July 3, 2017, Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. As reported on October 12, 2017, the Skiffs Creek Transmission Project is scheduled to be completed May 12, 2019.[18]

Thus, given the continued extended nature of the emergency, PJM respectfully submits that the emergency continues to exist as set forth in the June 13 Application, and the Renewal Applications and as determined by the Secretary in the June 16 Order, September 14 Order and November 29 Order.

Therefore, PJM respectfully requests that the Secretary grant this renewal application and order the continued operation of Yorktown Units 1 and 2 to alleviate the emergency described in the June 13 Application, and the Renewal Applications prior to the expiration of the current order (*i.e.* March 13, 2017) under Section 202 (c) of the FPA. PJM request the requested renewal order provide as follows:

(i) that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy and that issuance of a renewal Order will meet the emergency and serve the public interest;

(ii) from March 14, 2017 to June 11, 2018, Dominion Energy Virginia is directed to operate Yorktown Units 1 and 2 as directed by PJM as needed to maintain grid reliability or for other local area transmission issues;

[18] In accordance with the Secretary's directives, PJM will report on changes to the Skiffes Creek Transmission project construction schedule and revised outage schedules as necessary and appropriate.

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(iii) the limitations on operations ensure, to the maximum extent practicable, consistency with applicable laws and regulations, and the reporting requirements for operations and estimated emissions ensure transparency of implementation;

(iv) consistent with the dispatch methodology submitted by PJM on June 27, 2017, good utility practice and the PJM Tariff, PJM and Dominion Energy Virginia shall exhaust all reasonably and practically available resources including demand response and identified behind-the-meter generation resources to the extent that such resources address maintenance of grid reliability, prior to operating Yorktown Units 1 and/or 2;[19]

(v) Dominion Energy Virginia shall continue to follow the dispatch methodology submitted by PJM on June 27, 2017; and

(vi) Every two weeks, PJM and Dominion Energy Virginia shall report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage date for those dates; and

(vii) In the event that the outage schedule or estimates change from those presented in the renewal application, PJM and/or Dominion Energy Virginia shall also provide updated outages schedules and associated Yorktown Units 1 and 2 emission estimates within 2 weeks of such change.

[19] *See* Footnote 10.

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Respectfully submitted,

/s/ Steven R. Pincus

Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Cc (via electronic mail): Pat Hoffman, U.S. Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Monday, January 08, 2018 9:27 AM
To: Smith, Wayne D
Subject: FW: 202(c) files
Attachments: FPC Orders.zip; mirant_082405 Petition.pdf; Applications Status.docx

Wayne - attached are the following:

1. a word file with the status and comments of the applications we've provided to so far according to the applicant (3 of 8 since 2000). The other 38 we're digging for.
2. the Mirant application
3. Orders from 1941 to 1972 that are not posted on our website.

We'll keep on looking

Katie
-----Original Message-----
From: Batra, Rakesh
Sent: Monday, January 08, 2018 11:54 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: FW: 202(c) files

Chris Drake sent the attached FPC Orders.zip file with all pre-2000 202(c) orders. I was able to track down the Mirant petition.
I will keep searching for the rest.

Rakesh

-----Original Message-----
From: Drake, Christopher
Sent: Monday, January 08, 2018 11:42 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Subject: RE: 202(c) files

Rakesh & Matt,

I have attached a .zip file with all pre-2000 202(c) orders. They are all FPC orders — DOE did not invoke its authority under 202(c), which it obtained via section 301(b) of the DOE Organization Act in 1977, until December 2000. Unfortunately, we do not have a chart of all these orders, but they are all in the attached .zip file, with citations to the FPC reporter.

Chris Drake
Attorney-Adviser
U.S. Department of Energy, Office of General Counsel
Office of Electricity & Fossil Energy (GC-76)
Forrestal North, Room 6B-256
Tel. 202.586.2919

AMERICAN OVERSIGHT

Christopher.Drake@hq.doe.gov

This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.

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UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY AND
FEDERAL ENERGY REGULATORY COMMISSION

Emergency Petition and Complaint of District of Columbia Public Service Commission	)))	**Docket No. EL05-145-000**

EMERGENCY PETITION AND COMPLAINT OF THE DISTRICT OF COLUMBIA PUBLIC SERVICE COMMISSION

Pursuant to Sections 202(c), 207 and 309 of the Federal Power Act ("FPA"), 16 U.S.C. §§ 824a(c), 824f and 825h, the District of Columbia Public Service Commission ("DCPSC") hereby submits this Emergency Petition and Complaint to avert the impending shutdown of the Potomac River Generating Station power plant ("Potomac River Plant" or "Plant") owned and operated by Mirant Corporation and its public utility subsidiaries (collectively, "Mirant") in Alexandria, Virginia.

Due to certain air quality concerns recently reported in an environmental study performed by the Virginia Department of Environmental Quality ("VDEQ"), Mirant has publicly announced that its Potomac River Plant will be shut down at midnight on August 24, 2005.[1] The DCPSC believes that, the proposed shutdown will have a drastic and potentially immediate effect on the electric reliability in the greater Washington, D.C., area and could expose hundreds of thousands of consumers, agencies of the Federal Government and critical federal infrastructure

[1] The DCPSC has not performed any independent study of the VDEQ findings and takes no position on the correctness of the VDEQ's findings.

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to curtailments of electric service, load shedding and, potentially, blackouts. As a result, immediate action by the Secretary of Energy ("Secretary") and the Federal Energy Regulatory Commission ("FERC" or "Commission") is needed to avoid the potentially dangerous and security-threatening interruption of electric service to the District of Columbia that may occur as a result of the Potomac River Plant's proposed shutdown.

Accordingly, the DCPSC requests that the Secretary issue orders pursuant to Section 202(c) of the FPA, finding that an emergency exists within the meaning of this statutory provision as a result of the proposed shutdown of the Potomac River Plant and direct Mirant to continue the operation of the Potomac River Plant until further orders are issued. The DCPSC further requests that the Commission, pursuant to its authority under Sections 207 and 309 of the FPA, institute a hearing and take immediate action preventing Mirant from ceasing operations at the Potomac River Plant to ensure that electric reliability in the area is not adversely affected.

I. NOTICE

All correspondence related to this proceeding should be addressed to:

Richard Beverly
General Counsel
Public Service Commission of the
District of Colombia
1333 H Street, N.W.
Washington, DC 20005
(202) 626-9200
(202) 626-9212

Sheila S. Hollis
Duane Morris LLP
1667 K Street N.W., Suite 700
Washington, DC 20006
(202) 776-7810
(202) 776-7801 (fax)

WSH\134643.2

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DOE-19-1027-A-000283

II. STATEMENT OF CONCERNS

The DCPSC is the agency charged with the protection of all retail electric system consumers within the District of Columbia, including matters involving the construction and operation of electric power facilities and the rates charged for electric power.[2]

The District of Columbia encompasses many critical aspects of the United States government. The White House, Congress, Supreme Court, and other essential Federal Courts, most cabinet level agencies including the Departments of State, Justice, Energy, Interior, Health and Human Services, Labor, and regulatory agencies, and a host of other essential entities are located in the District. In addition, large numbers of commercial and residential consumers are located in the District. A major load shedding event triggered by the shutdown of a major generating facility combined with extreme weather or other events on the grid could be catastrophic for the District and the Nation, could endanger homeland security and threaten the ability of the Nation to function worldwide and domestically. While the shutdown of the Potomac River Plant would not in and of itself immediately have these effects, the combination of other events, such as a severe weather situation, the loss of key transmission capability or other major outages, could endanger electric service to the District. The DCPSC, with the statutory responsibility to protect the consumers of electric energy in the District, including key Federal installations, is extremely concerned about the safety, reliability and availability of electric energy in the District. The shutdown of the Potomac River Plant scheduled by Mirant in response to VDEQ's studies threatens essential electric service to the District and thus to the Nation. It is in this light that the DCPSC hereby requests that the Department of Energy

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[2] *See* 11 D.C. Code Ann. §§ 34-101, et seq.

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("DOE"), the FERC, and the Department of Homeland Security take all appropriate and immediate steps to prevent the shutdown of the Potomac River Plant and to protect the Nation and the District of Columbia.

The DCPSC recognizes the complexity of the situation. The Potomac River Plant is owned by Mirant Corporation, a bankrupt enterprise with concerns regarding its potential liabilities under all scenarios with the Potomac River Plant operation or non-operation. (Mirant's proposed reorganization is pending before the FERC, and the DCPSC is an intervenor in that case and the DCPSC's Petition and Complaint are not intended to impact that proceeding.)

The Potomac River Plant is located in Virginia, which receives no power from it. Virginia has legitimate interest in the environmental impacts of the Potomac River Plant. And, distribution service in the District is provided by PEPCO, regulated by the DCPSC. Yet, there is no escaping the fact that the Potomac River Plant is for now and the foreseeable future, an essential element in the provision of electric service to the District of Columbia.[3] Without the power generated by it, catastrophe could be very near. The DCPSC asks that the DOE and FERC immediately step in, pursuant to their jurisdiction under the Federal Power Act to protect the public and national interest and such other authority that exists, to prevent this extraordinary step from being taken by Mirant. The DCPSC also requests that its Petition and Complaint be referred to the Department of Homeland Security if the FERC and the DOE believe it is necessary.

[3] *See* Washington Post Article of August 23, 2005 attached.

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III. FACTUAL BACKGROUND

1. On August 22, 2005, Mirant Corporation announced that it had taken action to address concerns raised by a just-completed VDEQ environmental study of air quality in the vicinity of the Potomac River Plant.[4]

2. Mirant said that, as its initial response to the study, it had already reduced output of all five units at the Plant to their lowest feasible levels.

3. Mirant said it expects to meet soon with the VDEQ to discuss both short and long-term plans to address air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power Plant no later than midnight **Wednesday, August 24, 2005** until a solution can be identified and implemented. It is DCPSC's understanding that no solution has been found as of the time of this filing.

4. On August 23, 2005, the DCPSC issued an order in Case No. 1023, directing PEPCO to review Mirant's August 22, 2005 press release and advise the DCPSC, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers. A copy of this Order is attached hereto.[5]

5. The coal-fired power Plant, which began operation in 1949, produces 482 megawatts of electricity for Washington, D.C. and surrounding communities. It is located in Alexandria, Va. The Plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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[4] Mirant Press Release of August 22, 2005 attached.

[5] *See* DCPSC's Order No. 13748 issued August 23, 2005.

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6. The Plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic States and some portions of some Midwestern states, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River Plant could result in a severe strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

7. Because of the advance notice required to be given to PJM and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant has continued to operate the Plant at a reduced level until midnight tonight.

8. If all of the units are shut down at Potomac River Plant, PEPCO has two 230 KV underground cables and two 69 KV lines through Blue Plains that may be available to supply the load that Potomac River Plant supplies. In addition, it is the DCPSC's understanding that PEPCO has developed as a second scenario, which assumes that if the Potomac River Plant is shut down and one of the two 230 KV lines were to go down, that there may nonetheless be sufficient transmission capability to supply the load provided by the Potomac River Plant. DCPSC considers such a scenario to be highly precarious, given the variables and the nature of the load in the District.

9. The VDEQ has been advised previously by the PJM of the impact of the shutdown of the Potomac River Plant. (See Attached letter from Craig Glazer, PJM Vice President, Government Policy, to VDEQ, dated April 14, 2004). In the PJM letter, a description of the technical aspects of the impact of the shutdown is set forth. We believe that the letter establishes the extremely serious nature of the immediate and long term impact of the Potomac River Plant shutdown.

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IV. LEGAL BASIS FOR PETITION AND COMPLAINT

A. Secretary's Authority Under Section 202(c) of the FPA

Section 202(c) of the FPA states as follows:

> Temporary connection and exchange of facilities during emergency. During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes, the Commission shall have authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest. If the parties affected by such order fail to agree upon the terms of any arrangement between them in carrying out such order, the Commission, after hearing held either before or after such order takes effect, may prescribe by supplemental order such terms as it finds to be just and reasonable, including the compensation or reimbursement which should be paid to or by any such party.[6]

Under this provision, the Secretary is empowered "whenever [he] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes . . . to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest." The Secretary recently used this authority both during the 2000-2001 California crisis and the August 2003 Northeast blackout.[7] As explained above and in the attached evidence, the proposed shut-down of the Potomac River Plant at midnight on August 24, 2005, creates a potential for similar

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[6] 16 U.S.C. § 824a(c).

[7] *See, e.g.,* Order pursuant to Section 202(c) of the Federal Power Act" (December 14, 2000); "Order pursuant to Section 202(c) of the Federal Power Act" (January 11, 2001); Order No. 202-03-1 (August 14, 2003).

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blackouts to occur in the greater Washington, DC, area and may have a serious adverse effect on hundreds of thousands of consumers and the Federal Government and its agencies. The DCPSC, therefore, requests that the Secretary use its emergency authority under Section 202(c) of the FPA to order Mirant to continue operating is Potomac River Plant until further orders are issued by the Secretary or the Commission in the instant proceeding.

B. FERC's Authority Under Sections 207 and 309 of the FPA

Section 207 of the FPA provides as follows:

> Whenever the Commission, upon complaint of a State commission, after notice to each State commission and public utility affected and after opportunity for hearing, shall find that any interstate service of any public utility is inadequate or insufficient, the Commission shall determine the proper, adequate, or sufficient service to be furnished, and shall fix the same by its order, rule, or regulation: Provided, That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel the public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers.[8]

This Emergency Petition and Complaint satisfies the requirements of this provision. The DCPSC is a "State commission" within the meaning of Section 207 of the FPA. The Potomac River Plant provides "interstate service" by supplying electricity into Washington, DC, Maryland and across the entire PJM region. Mirant is a jurisdictional public utility under the FPA. The evidence attached hereto indicates that failure to avert the proposed shutdown of the Potomac River Plant will render this interstate service inadequate or insufficient. Further, no enlargement of the existing facilities is required and continuation of the Plant's operation will ensure that adequate service is rendered to Mirant's customers.

While Section 207 appears to require a hearing, the Commission is empowered, under Section 309 of the FPA, "to perform any and all acts, and to prescribe, issue, make, amend,

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[8] 16 U.S.C. 824f

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and rescind such orders, rules and regulations as it may find necessary or appropriate to carry out the provisions of [the FPA]." The immediate relief requested in this Emergency Petition and Complaint comes squarely within this enforcement authority and is clearly in the national and public interest.

V. WAIVERS OF REGULATIONS AND SERVICE

Due to the emergency nature of the instant submission and the speed with which events have developed over the past 48 hours, the DCPSC requests a waiver of all DOE and FERC filing and other regulations that may be otherwise applicable to this submission including the regulations set forth at 10 C.F.R. § 205.370, et seq. The DCPSC is serving this Emergency Petition and complaint on all entities designated to receive service under 10 C.F.R. § 205.372. Granting this waiver is in the public interest.

VI. CONCLUSION

WHEREFORE, for the above stated reasons, the DCPSC requests that the Secretary and the FERC grant immedite relief as described herein.

Respectfully Submitted,

/s/ Sheila S. Hollis

Richard A. Beverly
General Counsel
Public Service Commission of the
District of Columbia
1333 H Street, N.W.
Washington, DC 20005
Phone: (202) 626-9200
Fax: (202) 626-9212

Sheila S. Hollis
llia Levitine
Duane Morris LLP
1667 K Street, NW, Suite 700
Washington, D.C. 20006
Phone: (202) 776-7810
Fax: (202) 776-7801

ATTORNEYS FOR THE PUBLIC
SERVICE COMMISSION OF THE
DISTRICT OF COLUMBIA

DATED: August 24, 2005

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Power Plant Faces Shutdown Over Pollutants

Mirant Facility That Serves D.C., Md. Violates National Air Quality Standards, Analysis Shows

By Leef Smith
Washington Post Staff Writer
Tuesday, August 23, 2005; Page B01

The Mirant Corp. power plant in Alexandria, which provides electricity to homes in the District and Maryland, is in violation of national air quality standards and has been ordered by Virginia officials to take immediate steps to reduce pollution. Mirant officials said they will shut down the plant by tomorrow night if they can't satisfy the state's demand.

The directive was issued Friday night by the Department of Environmental Quality after reviewing the results of an analysis that showed that some pollutants found in the vicinity of the coal-fired power plant are at times considerably higher than what national standards allow.

"People should be concerned about this information," said Bill Hayden, spokesman for the Department of Environmental Quality. "That's why we want to have steps taken immediately to fix it."

Mirant officials responded Sunday night by reducing the output of all five of its boilers from a maximum output of 482 megawatts of electricity to 175 megawatts and said they plan to meet with state officials tomorrow afternoon to discuss plans to resolve air-quality issues. Still, Mirant officials said they will temporarily shut the plant no later than midnight tomorrow if no acceptable short-term solution is agreed on.

"We acted very quickly in this matter" to address the public health concern, said Lisa D. Johnson, Mirant's regional president.

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The plant, which began operation in 1949, supplies enough electricity to the region's power grid to serve about 400,000 homes in the District and Maryland. It does not serve Virginia. Officials with PJM Interconnected, which manages the flow of electricity over transmission lines in 13 states and the District, said yesterday that a shutdown would not affect the area's power supply because it has alternative electricity sources.

"Barring some unforeseen circumstance, we'll be able to manage," said Terry Williamson, spokesman for PJM.

Atlanta-based Mirant Corp., which filed for bankruptcy in 2003, operates four plants in the area, including three in Maryland -- in Montgomery, Prince George's and Charles counties.

Neighbors of the Alexandria plant, on the banks of the Potomac in the northern end of the city, have complained for years about what they believed to be high levels of mercury, contaminants in the air and water, and of a sooty substance that they say covers surfaces around their homes and gardens.

In 2001, longtime residents decided to investigate, eventually submitting a thick report to the city that concluded that the plant was a potential danger. It cited several studies showing that a significant portion of the soot collected in the neighborhood was directly associated with Mirant. Last year, the City Council revoked a 12-year-old ordinance that allowed the plant to operate indefinitely, as well as two special-use permits, making the plant in violation of zoning and giving Mirant seven years to close shop.

In February, Mirant sued the city to stop the zoning changes. Mirant participated in the pollution study as part of a 2004 settlement agreement relating to alleged ozone violations at the Alexandria plant.

The report, based on data collected from 2000 to 2004, looks at worst-case scenarios involving pollution, weather and operational capacity. Researchers found that under certain conditions, levels of sulfur dioxide, nitrogen dioxide and particles in the vicinity of the plant are higher than the national ambient air quality standards allow.

For example, over a 24-hour period, the health-based limit for sulfur dioxide exposure is 365 micrograms per cubic meter. The study says the plant could release more than 5,000 micrograms per cubic meter within a heavily populated half-mile radius.

Johnson said Mirant will consider switching to a different type of coal that potentially has a lower sulfur content or to an injection technology that uses minerals to reduce sulfur output. Officials said

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they might also consider increasing the height of their smokestacks to better allow pollutants to dissipate.

"We don't have to shut down if the solution we propose is satisfactory to all the parties involved," Johnson said. "That remains to be seen."

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News Release

Media contact:
Steve Arabia, (b) (6)
steven.arabia@mirant.com

David Thompson, (b) (6)
dave.thompson@mirant.com

Investor relations contact:
Cameron Bready, (b) (6)
cameron.bready@mirant.com

Stockholder inquiries:
(b) (6)

August 22, 2005

Mirant Takes Immediate Action to Address Air Quality Concerns Raised in New Study Of Area Near Potomac River Generating Station

Plant Operations Have Been Significantly Reduced; Full Shut Down to Occur Unless Acceptable Interim Operating Plan Can Be Identified by Wednesday

ALEXANDRIA, VA – Mirant Corp. (Pink Sheets:MIRKQ) announced today that it has taken rapid action to address concerns raised by a just-completed environmental computer modeling study of air quality in the vicinity of Mirant's Potomac River generating station.

Mirant said that, as its initial response to the study findings, it has already reduced output of all five units at the plant to their lowest feasible levels.

Mirant said it expects to meet soon with the Virginia Department of Environmental Quality (DEQ) to discuss both short and long-term plans to resolve the newly identified local air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power plant no later than midnight Wednesday, August 24, until a solution can be identified and implemented.

Even taking the new study findings into consideration, the Potomac River generating station remains in compliance with all its operating permits, which set overall limits on the quantity of emissions from the plant, the company said.

The coal-fired power plant, which began operation in 1949, produces 482 megawatts of electricity for Washington D.C. and surrounding communities. It is located in Alexandria, VA. The plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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"As soon as we received results of an environmental computer modeling analysis that showed emissions from the Potomac River generating station could be significantly contributing to localized, modeled exceedances of National Ambient Air Quality Standards (NAAQS), we acted quickly," said Curt Morgan, executive vice president and chief operating officer, Mirant.

"However, it's important to understand the nature of the study that has just been completed. The computer model was designed to analyze local air quality levels using a 'worst case' set of assumptions, including the operation of all five units at maximum permitted output with maximum emissions, combined with unfavorable wind conditions. These combined circumstances do not typically occur all at once, so the model works with hypothetical conditions that are not usually seen during normal plant operation," Mr. Morgan said. "Nevertheless, we take these findings extremely seriously, as demonstrated by our actions."

"The decision to curtail and possibly halt power production at the plant involves many complex issues, including important electric system reliability considerations in the Nation's Capital and throughout the Mid-Atlantic region. We are working closely with all affected parties. However, the overriding factor in our decision has been, and will continue to be, protection of public health," said Lisa D. Johnson, president, Mirant's Northeast and Mid-Atlantic business unit.

The plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic states as far west as Chicago, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River generating station could result in a strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

Because of the advance notice required to be given to the regional electric grid operator and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant will continue to operate the plant at a reduced level for a few days.

The company also noted that it will maintain the plant in a state of operational readiness during the period of reduced operations or temporary shutdown of all units.

The new findings arose in a study completed August 19, 2005. It was commissioned under an agreement between Mirant and the Virginia Department of Environmental Quality (DEQ). The computer modeling of five air pollutants from the plant showed that for three types of emissions — PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or smaller), NO_2 (nitrogen dioxide), and SO_2 (sulfur dioxide) – the plant's emissions have the potential to contribute to localized, modeled exceedances of NAAQS under some conditions.

The potential localized air quality concerns impact an area within a half-mile radius of the plant. The newly identified air quality impacts are the result of a phenomenon known as "downwash." According to the U.S. Environmental Protection Agency, downwash is defined as "impacts associated with building wake effects. These effects cause the pollutant plume to fall to ground-level quicker." At the Potomac River plant, the unique combination of relatively short emissions stacks at the power plant (165 feet) and the presence of nearby tall buildings —built well after

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the power plant was completed — produce conditions that the newly completed computer model identified as being capable of causing downwash under some wind conditions. Computer modeling of possible downwash effects had never previously been required or conducted at the Potomac River plant.

"Although the exact time frame for the return to full service of the Potomac River power plant cannot currently be determined, we are confident that we can identify solutions, and hopeful we can gain the cooperation of all parties to implement them," Ms. Johnson said.

Mirant said it does not expect to return the plant to full service until appropriate solutions are implemented. However, Mirant may be required to operate the plant to meet mandatory system stability obligations, or if there is a legal obligation to operate the plant at higher output levels than would otherwise be in effect. Mirant also said it will need to operate plant units occasionally to test technological modifications to the plant.

Mirant is a competitive energy company that produces and sells electricity in the United States, the Caribbean, and the Philippines. Mirant owns or leases more than 18,000 megawatts of electric generating capacity globally. The company operates an asset management and energy marketing organization from its headquarters in Atlanta. For more information, please visit www.mirant.com.

# # #

Caution regarding forward-looking statements:

Some of the statements included herein involve forward-looking information. Mirant cautions that these statements involve known and unknown risks and that there can be no assurance that such results will occur. There are various important factors that could cause actual results to differ materially from those indicated in the forward-looking statements, such as, but not limited to, (i) the instructions, actions, decisions and orders of the U.S. Bankruptcy Court for the Northern District of Texas, Fort Worth Division in connection with the voluntary petitions for reorganization filed on July 14, 2003, July 15, 2003, August 18, 2003, October 3, 2003 and November 18, 2003, by Mirant Corporation and substantially all of its wholly-owned and certain non-wholly-owned U.S. subsidiaries under Chapter 11 (Chapter 11") of the United States Bankruptcy Code; (ii) the duration of Mirant's Chapter 11 proceedings and the effects of the Chapter 11 proceedings on Mirant's liquidity; (iii) changes in, or changes in the application of, environmental and other laws and regulations to which Mirant and its subsidiaries and affiliates are subject; (iv) the performance of Mirant's assets and projects; (v) potential business strategies, including acquisitions or dispositions of assets that Mirant may pursue, (vi) weather and other natural phenomenon; (vii) timely completion of permitting requirements and regulatory approvals; (viii) Mirant's inability to complete required modifications to the Potomac River facility or its operations to address the downwash issue, (ix) actions and claims of third parties (including regulators) in response to Mirant's plans to address the downwash issue and (x) other factors discussed in Mirant's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the Securities and Exchange Commission ("SEC"), in Mirant Americas Generation, LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC, or in Mirant Mid-Atlantic,

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LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC..

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Craig A. Glazer
Vice President - Governmental Policy
PJM Washington Office
(202) 393-7756 .FAX (202) 393-7741
e-mail: glazec@pjm.com

Via Electronic Mail

April 12, 2004

Director
Office of Air Regulatory Development
Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, Virginia 23240

Re: Potomac River Generating Plant

Dear Director:

PJM Interconnection L.L.C. ("PJM") is the Regional Transmission Organization responsible for the maintenance of electric reliability in the service territory of Potomac Electric Power Company (PEPCO). The Potomac River Generating Plant which serves greater Washington, D.C. is within the PJM Control Area. We are writing in response to your request for formal written comments concerning a proposed amendment to the state operating permit for the Mirant Mid-Atlantic Potomac River Station located in the City of Alexandria, Virginia. This letter is similar to one we previously submitted to Mirant on April 7 in response to their request and is a supplement to our letter of March 2, 2004 to Jack Welsch, a copy of which is attached for submission in the record.

This letter does not address the impact that any set of emissions standards might have on the availability or operations of the Potomac River power plant. Rather, PJM has taken as its assumption the representation made by Mirant of a limit in production by as much as 50-60% from historical levels. PJM Interconnection LLC ("PJM") has reviewed the requirement for this plant strictly from a reliability perspective in order to determine what is required to maintain suitable reliability in the region. PJM's reliability standards are governed by Mid-Atlantic Area Council ("MAAC") criteria. MAAC criteria states that the system must be planned to sustain the loss of one transmission element with any other transmission system element out of service (an N-2 contingency) under peak load conditions. As explained below, PJM expects that a minimum of three Potomac River units must be running at all times during moderate load periods (moderate load period is approximately between October and June) and all five units must be running during the summer peak load time period (approximately June through September) in order to ensure reliability.

As discussed in Denise Foster's letter to the Virginia DEQ dated March 2, 2004, recent analysis has confirmed that a minimum of one Potomac River unit must be available at peak load conditions to eliminate any reliability concerns. One unit is sufficient if both of the two Palmers Corner 230 kV circuits are in service. In the event

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of an outage of either Palmers Corner-Blue Plains 230 kV circuit sufficient generation must be available to balance the load in the area for the loss of the other 230 kV circuit While the exact MWs of generation required depend on the load existing at the time of the outage, review of the historical area data indicates that under all circumstances between three and five Potomac River generators would be required to maintain reliability when either of the Palmers Corner 230 kV circuit are out of service. For example, in the event one of the lines to the Potomac River plant is out of service due t maintenance, the system must be adjusted in order to be prepared to lose the next line a well.

Peak load for the summer in this region occurs between June 15 and September 15. During this period, PJM anticipates that all units would be required to be available run in order to ensure reliability, as described above. The requirement "available to run means the units must be made available within four hours of an unplanned trip of one o the 230 kV transmission lines serving the Potomac River plant. The start up data that h been provided to PJM by Mirant shows that the Potomac River plants require a minimu of 43 to 83 hours notice to start from the cold state.

During summer peak conditions, all five of the Potomac River units should be required to remain available within a four hour period, or remain "hot." PJM further anticipates that under typical non-peak conditions, two or three of the units would be required to remain hot for seven days a week. All five units would be required to remai hot and available to run from Tuesday through Friday each week, in order to accommodate days of the week when the load has historically reached its highest level. Theoretically, and depending on load, certain units could be shut down for the weekend with prior approval from PJM.

In summary, if Mirant intends to run the units with production decreased by 50-60%, this situation may cause the transmission system to be non-compliant with PJM's reliability standards, and PJM would request permission to have these plants available fc reliability purposes.

PJM has had limited time to analyze all of the facts and consider alternatives that would address the DEQ's environmental concerns while also ensuring the continued reliability of electric power supply in greater Washington. We would welcome the opportunity to work with you and the Department in order to explore the facts further an determine a resolution that meets our respective public policy goals. Please contact the undersigned or Ms. Denise Foster of PJM should you wish to discuss this issue further.

Sincerely,

Craig Glazer
Vice President—Government Policy
PJM Interconnection, L.L.C.
202-393-7756
GLAZEC@PJM.COM

AMERICAN OVERSIGHT

1023-E-160

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA
1333 H STREET, N.W., SUITE 200, WEST TOWER
WASHINGTON, DC 20005

ORDER

August 23, 2005

FORMAL CASE NO. 1023 IN THE MATTER OF THE INVESTIGATION INTO THE EFFECT OF THE BANKRUPTCY OF MIRANT CORPORATION ON THE RETAIL ELECTRIC SERVICE IN THE DISTRICT OF COLUMBIA, Order No. 13748

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia ("Commission") directs the Potomac Electric Power Company ("Pepco") to review the attached Mirant Corporation ("Mirant") August 22, 2005 Press Release and advise the Commission, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers.

II. BACKGROUND

2. On August 22, 2005, Mirant issued a Press Release announcing that it had taken immediate action to reduced to the lowest feasible levels the output of all five of the units at the generation station and that it would potentially close down the station until an acceptable solution to the local air quality issues are identified and implemented. Mirant maintains that it remains in compliance with the overall limits set on the quantity of emissions from the plant.

3. The press release noted that PJM interconnection has designated the generation station as the entity responsible for the reliability of the transmission system for the Mid-Atlantic States and as critical to electric system reliability in the District of Columbia. The press release goes on to state that removal of the generation station could cause a strain on the transmission system and also electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

III. DISCUSSION

4. The Commission is aware that Mirant is faced with a number of issues concerning the continued operation of the Potomac River Generating Station. However, the Commission's primary concern is system reliability in the District of Columbia. To that end, Pepco must provide an immediate assessment to the Commission regarding the impact Mirant's actions might have on the District of Columbia electrical system and

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District of Columbia consumers. In its submission, Pepco must include its plan for dealing with the potential impact(s) of the shutdown of the Potomac River Generation Station, if it occurs. Additionally, Pepco is to provide to the Commission any other information pertaining to this matter received from PJM, Mirant, or any other source.

THEREFORE, IT IS ORDERED THAT:

5. Pepco is to file a response in accordance with paragraph four (4) of this Order in no later than five (5) days.

A TRUE COPY:

BY DIRECTION OF THE COMMISSION:

Freda A. James

CHIEF CLERK

FREDA A. JAMES
ACTING COMMISSION SECRETARY

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DOE-19-1027-A-000301

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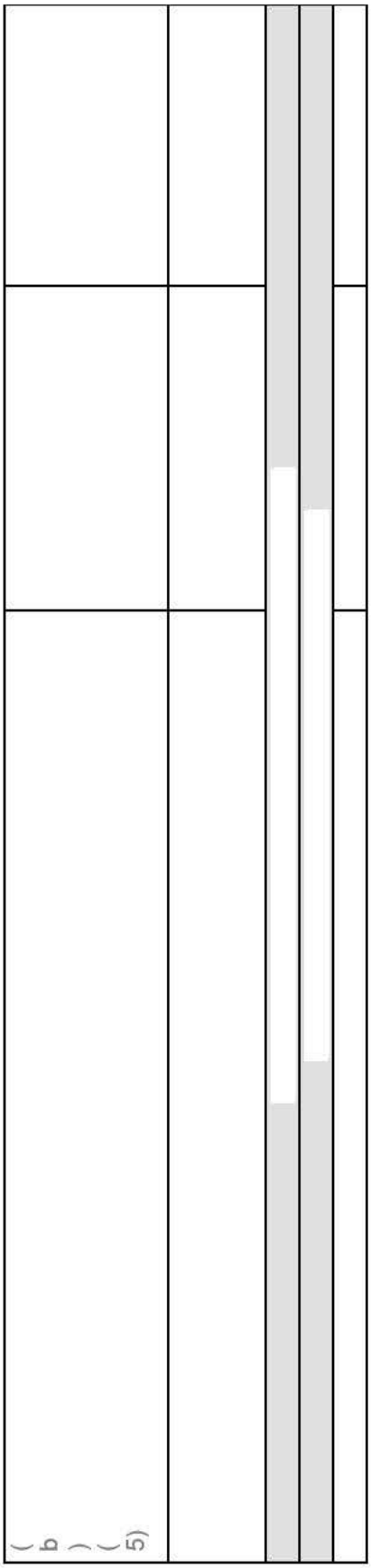

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Rodriguez, Susan (CONTR)

From: Rosenbaum, Matthew
Sent: Tuesday, January 09, 2018 11:29 AM
To: Jereza, Catherine
Cc: Batra, Rakesh
Subject: FW: 202c
Attachments: Older Incoming Letters -FPA 202c.zip

Katie,

Here is some additional correspondence that Kathy B was able to dig up regarding the LIPA 202c orders and Centerpoint 202c for Hurricane Ike.

Hope they help -- Matt

From: Bittner, Kathy (CONTR)
Sent: Tuesday, January 09, 2018 2:23 PM
To: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Minnick, Debra B. (CONTR) <Debra.Minnick@hq.doe.gov>
Subject: RE: 202c

Hi Matt,

Attached please find a zip file with documents from the older 202c requests.

In some cases, we could not find the incoming letters but included other documents that referenced the incoming requests.

Please let us know if you need additional information.

Thanks,

Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

From: Rosenbaum, Matthew
Sent: Monday, January 08, 2018 12:04 PM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Subject: FW: 202c

AMERICAN OVERSIGHT

From: Batra, Rakesh
Sent: Monday, January 08, 2018 9:13 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: RE: 202c

Katie:
Below is the link to all the 202(c) Orders and applications. The bottom two are for the year 2017.

https://energy.gov/oe/services/electricity-policy-coordination-and-implementation/other-regulatory-efforts/does-use

Also, I have placed the PJM Dominion and GRDA applications for the year 2017 on "O" drive. Below are the links:

O:\FPA 202(c)\Historical Orders\PJM Dominion Applications

O:\FPA 202(c)\Historical Orders\GRDA Applications

Please let me know if I could be of further assistance.

Thanks,
Rakesh

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:52 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Lawrence, Christopher <Christopher.Lawrence@hq.doe.gov>
Subject: FW: 202c

Brian McCormack requested the applications for all 202c orders in the past year. I had trouble finding them on the O Drive, but I at least had the first one from PJM.

Is the regulations I found on the O drive the correct version?

Can we have all the applications ready to go Monday morning?

Thanks!
Katie

-----Original Message-----
From: Jereza, Catherine
Sent: Friday, January 05, 2018 5:38 PM
To: Smith, Wayne D <Wayne.Smith@hq.doe.gov>; Bowie, America <America.Bowie@hq.doe.gov>
Subject: 202c

Hi Wayne and America,

Attached is the DOE implementing regulations document, which provides the information required for requesting an order from the Secretary. Right after we talked I found the email with the application and relevant attachments from PJM for the ongoing 202c emergency order that began back in June. So we have the real thing for the most recent order!

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In the mean time I will ask Rakesh Batrah and my staff to provide the applications for the previous orders.

Have a great weekend!
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov
202.586.4666

** Please contact Shamika for all meeting and scheduling requests. **

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Exec - 200

2000-029838

CenterPoint Energy

1005 Congress Avenue,
Suite 650
Austin, TX 78701
CenterPointEnergy.com

September 14, 2008

Samuel W. Bodman
Secretary of Energy
U. S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Kevin M. Kolevar
Assistant Secretary for Electricity Delivery and Energy Reliability
U. S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

David R. Hill
General Counsel
U. S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

RE: Emergency Interconnection of Electric Facilities and the Transfer of Electricity to Alleviate an Emergency Shortage of Electric Power

Dear Sirs:

Pursuant to 10 CFR 205.377(c), CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) is providing notice that it has provided an emergency interconnection of the electric facilities owned and operated by CenterPoint Energy to electric facilities owned and operated by Entergy Gulf States, Inc. (Entergy). CenterPoint Energy is the transmission and distribution service provider in the area in and around Houston, Texas, and operates within the Electric Reliability Council of Texas (ERCOT). In Docket No. E-6820, the Federal Power Commission issued an Order Approving Maintenance of Permanent Connection for Emergency Use Only on May 29, 1958. The Order allows CenterPoint Energy to maintain a permanent connection for emergency use only of a 138 kV tie at CenterPoint Energy's Huffman Switchrack near Huffman, Harris County, Texas, to Entergy's 138 kV Dayton-Huffman line.

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Due to the landfall of Hurricane Ike, an emergency situation in Entergy's service territory has occurred. After consultation with representatives from the Department of Energy, the City of Houston, the Public Utility Commission of Texas, and other governmental agencies, it was determined that it was necessary to close the connection switches in order to provide emergency service to customers located within the service territory of Entergy. The interconnection was closed in order to serve load at 5:39 PM on Monday, September 15, 2008.

CenterPoint Energy will continue to work with the Public Utility Commission of Texas and the Department of Energy to address issues related to the provision of electric service. In addition, CenterPoint Energy will notify the Department of Energy after the emergency no longer exists and the connection is opened. Please contact me with related correspondence concerning this matter:

DeAnn T. Walker, Assistant General Counsel
CenterPoint Energy Houston Electric, LLC
1005 Congress, Suite 650
Austin, Texas 78701
Telephone: 512-397-3032
Facsimile: 512-397-3050
E-mail: deann.walker@CenterPointEnergy.com

If you should have any questions, please do not hesitate to contact me.

Yours truly,

DeAnn T. Walker

DeAnn T. Walker
Assistant General Counsel

Cc: Chairman Barry T. Smitherman, Public Utility Commission of Texas
Commissioner Donna L. Nelson, Public Utility Commission of Texas
Commissioner Kenneth W. Anderson, Jr., Public Utility Commission of Texas
Chairman Joseph T. Kelliher, Federal Energy Regulatory Commission
Bob Kahn, Electric Reliability Council of Texas

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014604

RICHARD BLUMENTHAL
ATTORNEY GENERAL

55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120

(860) 808-5318

Office of The Attorney General
State of Connecticut

TELEFAX COMMUNICATION

Date: August 14, 2002

To: Secretary Spencer Abraham

Telefax #: (202) 586-4403

Number of Pages: 3
(including this)

From: R. Blumenthal

Telephone #: (860) 808.5020

Telefax #: (860) 808.5387

Information
faxed by: A Snook

COMMENT:

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RICHARD BLUMENTHAL
ATTORNEY GENERAL

55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120

Office of The Attorney General
State of Connecticut

August 14, 2002

Honorable Spencer Abraham
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Secretary Abraham:

I have been informed that Mr. Richard Kessel of the Long Island Power Authority ("LIPA") has sought an order from the Department of Energy ("DOE") directing the Cross-Sound Cable Company LLC ("Cross Sound") to commence operation of an underwater electric transmission cable that has not been completely constructed and has not met the terms of its state and federal permits. Specifically, during May of this year, Cross Sound began installing a controversial power line between Connecticut and Long Island. Cross Sound was unable to complete installation to the required depth and, due to various important environmental concerns, the permits issued to Cross Sound prohibit construction under the Long Island Sound during the summer months. The relevant state and federal regulatory authorities concluded that the cable cannot be legally operated until the terms of the permits are met. Accordingly, I went to court to obtain an injunction to prevent illegal operation of the cable. Cross Sound, the defendant in that action, agreed in open court not to operate the cable until the environmental and safety terms of the permit are met.

Now LIPA is seeking a federal "emergency" order to compel Cross Sound to violate state and federal law. It is hardly necessary to point out that the safety of the public and the protection of the environment are paramount issues that cannot be cavalierly ignored by LIPA.

Further, there is no indication that any of the normal load-shedding or other activities associated with a true emergency have occurred on Long Island. It would make no sense to issue an order to violate state law and operate an incomplete transmission line that does not meet

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minimum safety standards when no emergency operating conditions exist in Long Island and when operation of the cable could trigger a true emergency in New England.

Even if there were a true emergency, the Federal Power Commission's (FPC) statutory authority simply does not permit the Department of Energy or the Commission to order that an unlicensed incomplete cable be used to transport electricity. The Federal Power Act (FPA) does not preempt the siting and licensing function of the states concerning electric transmission facilities. Rather, the FPA only authorizes federal authority over the operation and sale of electric transmission services after the transmission facilities are properly licensed by the State. 16 United States Code § 824a(b) provides certain emergency powers over the "connections of [electric transmission] facilities." Obviously, "facilities for the ...transmission of" electricity do not include unpermitted, incomplete and unsafe partially installed cables.

LIPA has failed to make any factual showing that the extraordinary action it requests is appropriate. At present, LIPA has failed to show any likelihood of success in proving that a true emergency of the sort contemplated by the FPA exists. Second, LIPA has failed to show, much less recognize, the effect that a transfer of 300 MW of electricity from New England to Long Island would have on New England. Much of New England, and particularly Connecticut, shares the same weather as Long Island and thus is subject to the same power demands during a heat wave. Third, LIPA has failed to show that it has exhausted all other remedies available to it. LIPA has numerous interconnections with ConEd that may or may not be overloaded. Moreover, LIPA has failed to show that it has taken any steps to run peaking generating units on Long Island that were recently installed but are not yet able to run pursuant to New York environmental standards. Certainly LIPA should seek to meet or even lawfully circumvent New York law to meet its own power needs before it attempts to overrun the laws of its neighbor.

I urge you, therefore, to deny this improper, illegal and unjustified request.

Very truly yours,

Richard Blumenthal

RICHARD BLUMENTHAL

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Secretary, The

From: Mitchell, Matilda [MMitchell@duanemorris.com]
Sent: Wednesday, August 24, 2005 7:12 PM
To: Secretary, The; Meyer, David; Parks, William; Kolevar, Kevin; Hill, David R.
Cc: Hollis, Sheila Slocum
Subject: Emergency Petition and Complaint of the District of Columbia Public Service Commission

TO WHOM THIS MAY CONCERN:

Attached is the Emergency Petition and Complaint of the District of Columbia Public Service Commission ("DCPSC") in Docket No. EL-05-145-000, requesting emergency relief from the Federal Energy Regulatory Commission and the Department of Energy regarding the shutdown of the Mirant Corporation's Potomac River Power Plant tonight at midnight. Please feel free to contact the DCPSC or me with any questions regarding this matter.

Sheila Hollis, attorney for the DCPSC

Sheila Slocum Hollis
Duane Morris LLP
1667 K Street, N.W.
Suite 700
Washington, D.C. 20006
(202) 776-7810
(202) 776-7801-fax
sshollis@duanemorris.com
www.duanemorris.com

<<DCPSC's Petition and Complaint.doc>>

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UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY AND
FEDERAL ENERGY REGULATORY COMMISSION

Emergency Petition and Complaint of District of Columbia Public Service Commission	)))	**Docket No. EL05-145-000**

EMERGENCY PETITION AND COMPLAINT OF THE DISTRICT OF COLUMBIA PUBLIC SERVICE COMMISSION

Pursuant to Sections 202(c), 207 and 309 of the Federal Power Act ("FPA"), 16 U.S.C. §§ 824a(c), 824f and 825h, the District of Columbia Public Service Commission ("DCPSC") hereby submits this Emergency Petition and Complaint to avert the impending shutdown of the Potomac River Generating Station power plant ("Potomac River Plant" or "Plant") owned and operated by Mirant Corporation and its public utility subsidiaries (collectively, "Mirant") in Alexandria, Virginia.

Due to certain air quality concerns recently reported in an environmental study performed by the Virginia Department of Environmental Quality ("VDEQ"), Mirant has publicly announced that its Potomac River Plant will be shut down at midnight on August 24, 2005.[1] The DCPSC believes that, the proposed shutdown will have a drastic and potentially immediate effect on the electric reliability in the greater Washington, D.C., area and could expose hundreds of thousands of consumers, agencies of the Federal Government and critical federal infrastructure

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[1] The DCPSC has not performed any independent study of the VDEQ findings and takes no position on the correctness of the VDEQ's findings.

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to curtailments of electric service, load shedding and, potentially, blackouts. As a result, immediate action by the Secretary of Energy ("Secretary") and the Federal Energy Regulatory Commission ("FERC" or "Commission") is needed to avoid the potentially dangerous and security-threatening interruption of electric service to the District of Columbia that may occur as a result of the Potomac River Plant's proposed shutdown.

Accordingly, the DCPSC requests that the Secretary issue orders pursuant to Section 202(c) of the FPA, finding that an emergency exists within the meaning of this statutory provision as a result of the proposed shutdown of the Potomac River Plant and direct Mirant to continue the operation of the Potomac River Plant until further orders are issued. The DCPSC further requests that the Commission, pursuant to its authority under Sections 207 and 309 of the FPA, institute a hearing and take immediate action preventing Mirant from ceasing operations at the Potomac River Plant to ensure that electric reliability in the area is not adversely affected.

I. NOTICE

All correspondence related to this proceeding should be addressed to:

Richard Beverly
General Counsel
Public Service Commission of the
District of Colombia
1333 H Street, N.W.
Washington, DC 20005
(202) 626-9200
(202) 626-9212

Sheila S. Hollis
Duane Morris LLP
1667 K Street N.W., Suite 700
Washington, DC 20006
(202) 776-7810
(202) 776-7801 (fax)

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II. STATEMENT OF CONCERNS

The DCPSC is the agency charged with the protection of all retail electric system consumers within the District of Columbia, including matters involving the construction and operation of electric power facilities and the rates charged for electric power.[2]

The District of Columbia encompasses many critical aspects of the United States government. The White House, Congress, Supreme Court, and other essential Federal Courts, most cabinet level agencies including the Departments of State, Justice, Energy, Interior, Health and Human Services, Labor, and regulatory agencies, and a host of other essential entities are located in the District. In addition, large numbers of commercial and residential consumers are located in the District. A major load shedding event triggered by the shutdown of a major generating facility combined with extreme weather or other events on the grid could be catastrophic for the District and the Nation, could endanger homeland security and threaten the ability of the Nation to function worldwide and domestically. While the shutdown of the Potomac River Plant would not in and of itself immediately have these effects, the combination of other events, such as a severe weather situation, the loss of key transmission capability or other major outages, could endanger electric service to the District. The DCPSC, with the statutory responsibility to protect the consumers of electric energy in the District, including key Federal installations, is extremely concerned about the safety, reliability and availability of electric energy in the District. The shutdown of the Potomac River Plant scheduled by Mirant in response to VDEQ's studies threatens essential electric service to the District and thus to the Nation. It is in this light that the DCPSC hereby requests that the Department of Energy

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[2] *See* 11 D.C. Code Ann. §§ 34-101, et seq.

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("DOE"), the FERC, and the Department of Homeland Security take all appropriate and immediate steps to prevent the shutdown of the Potomac River Plant and to protect the Nation and the District of Columbia.

The DCPSC recognizes the complexity of the situation. The Potomac River Plant is owned by Mirant Corporation, a bankrupt enterprise with concerns regarding its potential liabilities under all scenarios with the Potomac River Plant operation or non-operation. (Mirant's proposed reorganization is pending before the FERC, and the DCPSC is an intervenor in that case and the DCPSC's Petition and Complaint are not intended to impact that proceeding.)

The Potomac River Plant is located in Virginia, which receives no power from it. Virginia has legitimate interest in the environmental impacts of the Potomac River Plant. And, distribution service in the District is provided by PEPCO, regulated by the DCPSC. Yet, there is no escaping the fact that the Potomac River Plant is for now and the foreseeable future, an essential element in the provision of electric service to the District of Columbia.[3] Without the power generated by it, catastrophe could be very near. The DCPSC asks that the DOE and FERC immediately step in, pursuant to their jurisdiction under the Federal Power Act to protect the public and national interest and such other authority that exists, to prevent this extraordinary step from being taken by Mirant. The DCPSC also requests that its Petition and Complaint be referred to the Department of Homeland Security if the FERC and the DOE believe it is necessary.

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[3] *See* Washington Post Article of August 23, 2005 attached.

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III. FACTUAL BACKGROUND

1. On August 22, 2005, Mirant Corporation announced that it had taken action to address concerns raised by a just-completed VDEQ environmental study of air quality in the vicinity of the Potomac River Plant.[4]

2. Mirant said that, as its initial response to the study, it had already reduced output of all five units at the Plant to their lowest feasible levels.

3. Mirant said it expects to meet soon with the VDEQ to discuss both short and long-term plans to address air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power Plant no later than midnight **Wednesday, August 24, 2005** until a solution can be identified and implemented. It is DCPSC's understanding that no solution has been found as of the time of this filing.

4. On August 23, 2005, the DCPSC issued an order in Case No. 1023, directing PEPCO to review Mirant's August 22, 2005 press release and advise the DCPSC, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers. A copy of this Order is attached hereto.[5]

5. The coal-fired power Plant, which began operation in 1949, produces 482 megawatts of electricity for Washington, D.C. and surrounding communities. It is located in Alexandria, Va. The Plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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[4] Mirant Press Release of August 22, 2005 attached.

[5] *See* DCPSC's Order No. 13748 issued August 23, 2005.

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6. The Plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic States and some portions of some Midwestern states, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River Plant could result in a severe strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

7. Because of the advance notice required to be given to PJM and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant has continued to operate the Plant at a reduced level until midnight tonight.

8. If all of the units are shut down at Potomac River Plant, PEPCO has two 230 KV underground cables and two 69 KV lines through Blue Plains that may be available to supply the load that Potomac River Plant supplies. In addition, it is the DCPSC's understanding that PEPCO has developed as a second scenario, which assumes that if the Potomac River Plant is shut down and one of the two 230 KV lines were to go down, that there may nonetheless be sufficient transmission capability to supply the load provided by the Potomac River Plant. DCPSC considers such a scenario to be highly precarious, given the variables and the nature of the load in the District.

9. The VDEQ has been advised previously by the PJM of the impact of the shutdown of the Potomac River Plant. (See Attached letter from Craig Glazer, PJM Vice President, Government Policy, to VDEQ, dated April 14, 2004). In the PJM letter, a description of the technical aspects of the impact of the shutdown is set forth. We believe that the letter establishes the extremely serious nature of the immediate and long term impact of the Potomac River Plant shutdown.

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DOE-19-1027-A-000318

IV. LEGAL BASIS FOR PETITION AND COMPLAINT

A. Secretary's Authority Under Section 202(c) of the FPA

Section 202(c) of the FPA states as follows:

> Temporary connection and exchange of facilities during emergency. During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes, the Commission shall have authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest. If the parties affected by such order fail to agree upon the terms of any arrangement between them in carrying out such order, the Commission, after hearing held either before or after such order takes effect, may prescribe by supplemental order such terms as it finds to be just and reasonable, including the compensation or reimbursement which should be paid to or by any such party.[6]

Under this provision, the Secretary is empowered "whenever [he] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes . . . to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest." The Secretary recently used this authority both during the 2000-2001 California crisis and the August 2003 Northeast blackout.[7] As explained above and in the attached evidence, the proposed shut-down of the Potomac River Plant at midnight on August 24, 2005, creates a potential for similar

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[6] 16 U.S.C. § 824a(c).

[7] *See, e.g.*, Order pursuant to Section 202(c) of the Federal Power Act" (December 14, 2000); "Order pursuant to Section 202(c) of the Federal Power Act" (January 11, 2001); Order No. 202-03-1 (August 14, 2003).

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blackouts to occur in the greater Washington, DC, area and may have a serious adverse effect on hundreds of thousands of consumers and the Federal Government and its agencies. The DCPSC, therefore, requests that the Secretary use its emergency authority under Section 202(c) of the FPA to order Mirant to continue operating is Potomac River Plant until further orders are issued by the Secretary or the Commission in the instant proceeding.

B. FERC's Authority Under Sections 207 and 309 of the FPA

Section 207 of the FPA provides as follows:

> Whenever the Commission, upon complaint of a State commission, after notice to each State commission and public utility affected and after opportunity for hearing, shall find that any interstate service of any public utility is inadequate or insufficient, the Commission shall determine the proper, adequate, or sufficient service to be furnished, and shall fix the same by its order, rule, or regulation: Provided, That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel the public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers.[8]

This Emergency Petition and Complaint satisfies the requirements of this provision. The DCPSC is a "State commission" within the meaning of Section 207 of the FPA. The Potomac River Plant provides "interstate service" by supplying electricity into Washington, DC, Maryland and across the entire PJM region. Mirant is a jurisdictional public utility under the FPA. The evidence attached hereto indicates that failure to avert the proposed shutdown of the Potomac River Plant will render this interstate service inadequate or insufficient. Further, no enlargement of the existing facilities is required and continuation of the Plant's operation will ensure that adequate service is rendered to Mirant's customers.

While Section 207 appears to require a hearing, the Commission is empowered, under Section 309 of the FPA, "to perform any and all acts, and to prescribe, issue, make, amend,

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[8] 16 U.S.C. 824f

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and rescind such orders, rules and regulations as it may find necessary or appropriate to carry out the provisions of [the FPA]." The immediate relief requested in this Emergency Petition and Complaint comes squarely within this enforcement authority and is clearly in the national and public interest.

V. WAIVERS OF REGULATIONS AND SERVICE

Due to the emergency nature of the instant submission and the speed with which events have developed over the past 48 hours, the DCPSC requests a waiver of all DOE and FERC filing and other regulations that may be otherwise applicable to this submission including the regulations set forth at 10 C.F.R. § 205.370, et seq. The DCPSC is serving this Emergency Petition and complaint on all entities designated to receive service under 10 C.F.R. § 205.372. Granting this waiver is in the public interest.

VI. CONCLUSION

WHEREFORE, for the above stated reasons, the DCPSC requests that the Secretary and the FERC grant immedite relief as described herein.

Respectfully Submitted,

/s/ Sheila S. Hollis
Sheila S. Hollis
Ilia Levitine
Duane Morris LLP
1667 K Street, NW, Suite 700
Washington, D.C. 20006
Phone: (202) 776-7810
Fax: (202) 776-7801

Richard A. Beverly
General Counsel
Public Service Commission of the
District of Columbia
1333 H Street, N.W.
Washington, DC 20005
Phone: (202) 626-9200
Fax: (202) 626-9212

ATTORNEYS FOR THE PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

DATED: August 24, 2005

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DOE-19-1027-A-000321

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• TV Ad Using Steele Irritates Democrats

Power Plant Faces Shutdown Over Pollutants

Mirant Facility That Serves D.C., Md. Violates National Air Quality Standards, Analysis Shows

By Leef Smith
Washington Post Staff Writer
Tuesday, August 23, 2005; Page B01

The Mirant Corp. power plant in Alexandria, which provides electricity to homes in the District and Maryland, is in violation of national air quality standards and has been ordered by Virginia officials to take immediate steps to reduce pollution. Mirant officials said they will shut down the plant by tomorrow night if they can't satisfy the state's demand.

The directive was issued Friday night by the Department of Environmental Quality after reviewing the results of an analysis that showed that some pollutants found in the vicinity of the coal-fired power plant are at times considerably higher than what national standards allow.

"People should be concerned about this information," said Bill Hayden, spokesman for the Department of Environmental Quality. "That's why we want to have steps taken immediately to fix it."

Mirant officials responded Sunday night by reducing the output of all five of its boilers from a maximum output of 482 megawatts of electricity to 175 megawatts and said they plan to meet with state officials tomorrow afternoon to discuss plans to resolve air-quality issues. Still, Mirant officials said they will temporarily shut the plant no later than midnight tomorrow if no acceptable short-term solution is agreed on.

"We acted very quickly in this matter" to address the public health concern, said Lisa D. Johnson, Mirant's regional president.

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The plant, which began operation in 1949, supplies enough electricity to the region's power grid to serve about 400,000 homes in the District and Maryland. It does not serve Virginia. Officials with PJM Interconnected, which manages the flow of electricity over transmission lines in 13 states and the District, said yesterday that a shutdown would not affect the area's power supply because it has alternative electricity sources.

"Barring some unforeseen circumstance, we'll be able to manage," said Terry Williamson, spokesman for PJM.

Atlanta-based Mirant Corp., which filed for bankruptcy in 2003, operates four plants in the area, including three in Maryland -- in Montgomery, Prince George's and Charles counties.

Neighbors of the Alexandria plant, on the banks of the Potomac in the northern end of the city, have complained for years about what they believed to be high levels of mercury, contaminants in the air and water, and of a sooty substance that they say covers surfaces around their homes and gardens.

In 2001, longtime residents decided to investigate, eventually submitting a thick report to the city that concluded that the plant was a potential danger. It cited several studies showing that a significant portion of the soot collected in the neighborhood was directly associated with Mirant. Last year, the City Council revoked a 12-year-old ordinance that allowed the plant to operate indefinitely, as well as two special-use permits, making the plant in violation of zoning and giving Mirant seven years to close shop.

In February, Mirant sued the city to stop the zoning changes. Mirant participated in the pollution study as part of a 2004 settlement agreement relating to alleged ozone violations at the Alexandria plant.

The report, based on data collected from 2000 to 2004, looks at worst-case scenarios involving pollution, weather and operational capacity. Researchers found that under certain conditions, levels of sulfur dioxide, nitrogen dioxide and particles in the vicinity of the plant are higher than the national ambient air quality standards allow.

For example, over a 24-hour period, the health-based limit for sulfur dioxide exposure is 365 micrograms per cubic meter. The study says the plant could release more than 5,000 micrograms per cubic meter within a heavily populated half-mile radius.

Johnson said Mirant will consider switching to a different type of coal that potentially has a lower sulfur content or to an injection technology that uses minerals to reduce sulfur output. Officials said

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they might also consider increasing the height of their smokestacks to better allow pollutants to dissipate.

"We don't have to shut down if the solution we propose is satisfactory to all the parties involved," Johnson said. "That remains to be seen."

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News Release

Media contact:
Steve Arabia, (b) (6)
steven.arabia@mirant.com

David Thompson, (b) (6)
dave.thompson@mirant.com

Investor relations contact:
Cameron Bready, (b) (6)
cameron.bready@mirant.com

Stockholder inquiries:
(b) (6)

MIRANT

August 22, 2005

Mirant Takes Immediate Action to Address Air Quality Concerns Raised in New Study Of Area Near Potomac River Generating Station

Plant Operations Have Been Significantly Reduced; Full Shut Down to Occur Unless Acceptable Interim Operating Plan Can Be Identified by Wednesday

ALEXANDRIA, VA – Mirant Corp. (Pink Sheets:MIRKQ) announced today that it has taken rapid action to address concerns raised by a just-completed environmental computer modeling study of air quality in the vicinity of Mirant's Potomac River generating station.

Mirant said that, as its initial response to the study findings, it has already reduced output of all five units at the plant to their lowest feasible levels.

Mirant said it expects to meet soon with the Virginia Department of Environmental Quality (DEQ) to discuss both short and long-term plans to resolve the newly identified local air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power plant no later than midnight Wednesday, August 24, until a solution can be identified and implemented.

Even taking the new study findings into consideration, the Potomac River generating station remains in compliance with all its operating permits, which set overall limits on the quantity of emissions from the plant, the company said.

The coal-fired power plant, which began operation in 1949, produces 482 megawatts of electricity for Washington D.C. and surrounding communities. It is located in Alexandria, VA. The plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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"As soon as we received results of an environmental computer modeling analysis that showed emissions from the Potomac River generating station could be significantly contributing to localized, modeled exceedances of National Ambient Air Quality Standards (NAAQS), we acted quickly," said Curt Morgan, executive vice president and chief operating officer, Mirant.

"However, it's important to understand the nature of the study that has just been completed. The computer model was designed to analyze local air quality levels using a 'worst case' set of assumptions, including the operation of all five units at maximum permitted output with maximum emissions, combined with unfavorable wind conditions. These combined circumstances do not typically occur all at once, so the model works with hypothetical conditions that are not usually seen during normal plant operation," Mr. Morgan said. "Nevertheless, we take these findings extremely seriously, as demonstrated by our actions."

"The decision to curtail and possibly halt power production at the plant involves many complex issues, including important electric system reliability considerations in the Nation's Capital and throughout the Mid-Atlantic region. We are working closely with all affected parties. However, the overriding factor in our decision has been, and will continue to be, protection of public health," said Lisa D. Johnson, president, Mirant's Northeast and Mid-Atlantic business unit.

The plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic states as far west as Chicago, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River generating station could result in a strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

Because of the advance notice required to be given to the regional electric grid operator and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant will continue to operate the plant at a reduced level for a few days.

The company also noted that it will maintain the plant in a state of operational readiness during the period of reduced operations or temporary shutdown of all units.

The new findings arose in a study completed August 19, 2005. It was commissioned under an agreement between Mirant and the Virginia Department of Environmental Quality (DEQ). The computer modeling of five air pollutants from the plant showed that for three types of emissions -- PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or smaller), NO_2 (nitrogen dioxide), and SO_2 (sulfur dioxide) -- the plant's emissions have the potential to contribute to localized, modeled exceedances of NAAQS under some conditions.

The potential localized air quality concerns impact an area within a half-mile radius of the plant. The newly identified air quality impacts are the result of a phenomenon known as "downwash." According to the U.S. Environmental Protection Agency, downwash is defined as "impacts associated with building wake effects. These effects cause the pollutant plume to fall to ground-level quicker." At the Potomac River plant, the unique combination of relatively short emissions stacks at the power plant (165 feet) and the presence of nearby tall buildings -- built well after

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DOE-19-1027-A-000326

the power plant was completed — produce conditions that the newly completed computer model identified as being capable of causing downwash under some wind conditions. Computer modeling of possible downwash effects had never previously been required or conducted at the Potomac River plant.

"Although the exact time frame for the return to full service of the Potomac River power plant cannot currently be determined, we are confident that we can identify solutions, and hopeful we can gain the cooperation of all parties to implement them," Ms. Johnson said.

Mirant said it does not expect to return the plant to full service until appropriate solutions are implemented. However, Mirant may be required to operate the plant to meet mandatory system stability obligations, or if there is a legal obligation to operate the plant at higher output levels than would otherwise be in effect. Mirant also said it will need to operate plant units occasionally to test technological modifications to the plant.

Mirant is a competitive energy company that produces and sells electricity in the United States, the Caribbean, and the Philippines. Mirant owns or leases more than 18,000 megawatts of electric generating capacity globally. The company operates an asset management and energy marketing organization from its headquarters in Atlanta. For more information, please visit www.mirant.com.

# # #

Caution regarding forward-looking statements:

Some of the statements included herein involve forward-looking information. Mirant cautions that these statements involve known and unknown risks and that there can be no assurance that such results will occur. There are various important factors that could cause actual results to differ materially from those indicated in the forward-looking statements, such as, but not limited to, (i) the instructions, actions, decisions and orders of the U.S. Bankruptcy Court for the Northern District of Texas, Fort Worth Division in connection with the voluntary petitions for reorganization filed on July 14, 2003, July 15, 2003, August 18, 2003, October 3, 2003 and November 18, 2003, by Mirant Corporation and substantially all of its wholly-owned and certain non-wholly-owned U.S. subsidiaries under Chapter 11 (Chapter 11") of the United States Bankruptcy Code; (ii) the duration of Mirant's Chapter 11 proceedings and the effects of the Chapter 11 proceedings on Mirant's liquidity; (iii) changes in, or changes in the application of, environmental and other laws and regulations to which Mirant and its subsidiaries and affiliates are subject; (iv) the performance of Mirant's assets and projects; (v) potential business strategies, including acquisitions or dispositions of assets that Mirant may pursue, (vi) weather and other natural phenomenon; (vii) timely completion of permitting requirements and regulatory approvals; (viii) Mirant's inability to complete required modifications to the Potomac River facility or its operations to address the downwash issue, (ix) actions and claims of third parties (including regulators) in response to Mirant's plans to address the downwash issue and (x) other factors discussed in Mirant's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the Securities and Exchange Commission ("SEC"), in Mirant Americas Generation, LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC, or in Mirant Mid-Atlantic,

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LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC..

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Craig A. Glazer
Vice President - Governmental Policy
PJM Washington Office
(202) 393-7756 FAX (202) 393-7741
e-mail: glazec@pjm.com

Via Electronic Mail

April 12, 2004

Director
Office of Air Regulatory Development
Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, Virginia 23240

Re: Potomac River Generating Plant

Dear Director:

PJM Interconnection L.L.C. ("PJM") is the Regional Transmission Organization responsible for the maintenance of electric reliability in the service territory of Potomac Electric Power Company (PEPCO). The Potomac River Generating Plant which serves greater Washington, D.C. is within the PJM Control Area. We are writing in response to your request for formal written comments concerning a proposed amendment to the state operating permit for the Mirant Mid-Atlantic Potomac River Station located in the City of Alexandria, Virginia. This letter is similar to one we previously submitted to Mirant on April 7 in response to their request and is a supplement to our letter of March 2, 2004 to Jack Welsch, a copy of which is attached for submission in the record.

This letter does not address the impact that any set of emissions standards might have on the availability or operations of the Potomac River power plant. Rather, PJM has taken as its assumption the representation made by Mirant of a limit in production by as much as 50-60% from historical levels. PJM Interconnection LLC ("PJM") has reviewed the requirement for this plant strictly from a reliability perspective in order to determine what is required to maintain suitable reliability in the region. PJM's reliability standards are governed by Mid-Atlantic Area Council ("MAAC") criteria. MAAC criteria states that the system must be planned to sustain the loss of one transmission element with any other transmission system element out of service (an N-2 contingency) under peak load conditions. As explained below, PJM expects that a minimum of three Potomac River units must be running at all times during moderate load periods (moderate load period is approximately between October and June) and all five units must be running during the summer peak load time period (approximately June through September) in order to ensure reliability.

As discussed in Denise Foster's letter to the Virginia DEQ dated March 2, 2004, recent analysis has confirmed that a minimum of one Potomac River unit must be available at peak load conditions to eliminate any reliability concerns. One unit is sufficient if both of the two Palmers Corner 230 kV circuits are in service. In the event

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of an outage of either Palmers Corner-Blue Plains 230 kV circuit sufficient generation must be available to balance the load in the area for the loss of the other 230 kV circuit While the exact MWs of generation required depend on the load existing at the time of the outage, review of the historical area data indicates that under all circumstances between three and five Potomac River generators would be required to maintain reliability when either of the Palmers Corner 230 kV circuit are out of service. For example, in the event one of the lines to the Potomac River plant is out of service due t maintenance, the system must be adjusted in order to be prepared to lose the next line a well.

Peak load for the summer in this region occurs between June 15 and September 15. During this period, PJM anticipates that all units would be required to be available run in order to ensure reliability, as described above. The requirement "available to run means the units must be made available within four hours of an unplanned trip of one o the 230 kV transmission lines serving the Potomac River plant. The start up data that h been provided to PJM by Mirant shows that the Potomac River plants require a minimu of 43 to 83 hours notice to start from the cold state.

During summer peak conditions, all five of the Potomac River units should be required to remain available within a four hour period, or remain "hot." PJM further anticipates that under typical non-peak conditions, two or three of the units would be required to remain hot for seven days a week. All five units would be required to remai hot and available to run from Tuesday through Friday each week, in order to accommodate days of the week when the load has historically reached its highest level. Theoretically, and depending on load, certain units could be shut down for the weekend with prior approval from PJM.

In summary, if Mirant intends to run the units with production decreased by 50-60%, this situation may cause the transmission system to be non-compliant with PJM's reliability standards, and PJM would request permission to have these plants available fc reliability purposes.

PJM has had limited time to analyze all of the facts and consider alternatives that would address the DEQ's environmental concerns while also ensuring the continued reliability of electric power supply in greater Washington. We would welcome the opportunity to work with you and the Department in order to explore the facts further an determine a resolution that meets our respective public policy goals. Please contact the undersigned or Ms. Denise Foster of PJM should you wish to discuss this issue further.

Sincerely,

Craig Glazer
Vice President—Government Policy
PJM Interconnection, L.L.C.
202-393-7756
GLAZEC@PJM.COM

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1023-E-160

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA
1333 H STREET, N.W., SUITE 200, WEST TOWER
WASHINGTON, DC 20005

ORDER

August 23, 2005

FORMAL CASE NO. 1023 IN THE MATTER OF THE INVESTIGATION INTO THE EFFECT OF THE BANKRUPTCY OF MIRANT CORPORATION ON THE RETAIL ELECTRIC SERVICE IN THE DISTRICT OF COLUMBIA, Order No. 13748

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia ("Commission") directs the Potomac Electric Power Company ("Pepco") to review the attached Mirant Corporation ("Mirant") August 22, 2005 Press Release and advise the Commission, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers.

II. BACKGROUND

2. On August 22, 2005, Mirant issued a Press Release announcing that it had taken immediate action to reduced to the lowest feasible levels the output of all five of the units at the generation station and that it would potentially close down the station until an acceptable solution to the local air quality issues are identified and implemented. Mirant maintains that it remains in compliance with the overall limits set on the quantity of emissions from the plant.

3. The press release noted that PJM interconnection has designated the generation station as the entity responsible for the reliability of the transmission system for the Mid-Atlantic States and as critical to electric system reliability in the District of Columbia. The press release goes on to state that removal of the generation station could cause a strain on the transmission system and also electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

III. DISCUSSION

4. The Commission is aware that Mirant is faced with a number of issues concerning the continued operation of the Potomac River Generating Station. However, the Commission's primary concern is system reliability in the District of Columbia. To that end, Pepco must provide an immediate assessment to the Commission regarding the impact Mirant's actions might have on the District of Columbia electrical system and

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District of Columbia consumers. In its submission, Pepco must include its plan for dealing with the potential impact(s) of the shutdown of the Potomac River Generation Station, if it occurs. Additionally, Pepco is to provide to the Commission any other information pertaining to this matter received from PJM, Mirant, or any other source.

THEREFORE, IT IS ORDERED THAT:

5. Pepco is to file a response in accordance with paragraph four (4) of this Order in no later than five (5) days.

A TRUE COPY:

BY DIRECTION OF THE COMMISSION:

Freda A. James

CHIEF CLERK

FREDA A. JAMES
ACTING COMMISSION SECRETARY

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DOE-19-1027-A-000332

LIPA
Long Island Power Authority

333 Earle Ovington Boulevard
Suite 403
Uniondale, NY 11553
(516) 222-7700 Fax (516) 222-9137
http://www.lipower.org

August 15, 2002

The Honorable Spencer Abraham
Secretary
United States Department of Energy
1000 Independence Avenue, S.W.
Washington D.C. 20585

Re: Request for Order Pursuant to Section 202(c) of the Federal Act

Dear Secretary Abraham:

This letter responds to your request for comment on the letter of the Attorney General of Connecticut dated August 14, 2002 addressing the captioned matter. At the outset, I wish to affirm that the Attorney General's letter was without factual or legal foundation.

The Attorney General's statement that there is no evidence of an electrical emergency warranting issuance of an emergency order under §202(c) of the Federal Power Act is wholly incorrect. The relevant facts demonstrating this error are set forth in LIPA's request for such an order dated August 14, 2002. Among the errors the Attorney General makes are the following:

1. The Cross Sound Cable is complete, tested, ready to operate and fully certificated and permitted by the relevant federal and state authorities, including Connecticut.

2. The authorities in New England and New York, with responsibility for assuring regional electrical supply in those regions, i.e. ISO New England and the New York ISO, confirm that generating capacity is fully committed and that reserve margins are below levels necessary to protect against contingencies that would interrupt service.

3. LIPA has exhausted alternatives to supplementation of generation through the Cross Sound Cable. It has been running all of its peaking units all summer, and will continue to do so to meet load caused by the extremely hot weather projected over the next few weeks.

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The Attorney General has neither the statutory jurisdiction nor the technical expertise to assess electrical needs in New York and New England. Such assessments are the province of the regional power pools, the state commissions responsible for regulating retail electric service, the Federal Energy Regulatory Commission, and under Section 202(c) of the Federal Power Act, the Secretary of Energy

Finally, the Attorney General's contention that Section 202(c) of the Federal Power Act does not preempt state law as he interprets it is wholly mistaken. Section 202(c) is founded on both the Commerce and War Powers in Article I, Sec. 8 of the Constitution. It is designed to address emergencies caused by war and power shortages of the kind presently threatened in Southeastern New York, and plainly over-rides state authorities who would frustrate its goals. Section 202(c)'s references to transmission confirm that a completed line like the Cross Sound Cable is subject to its requirements.

Sincerely,
LONG ISLAND POWER AUTHORITY

Richard M. Kessel
Chairman and Chief Executive Officer

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Secretary, The

From: Mitchell, Matilda [MMitchell@duanemorris.com]
Sent: Wednesday, August 24, 2005 7:12 PM
To: Secretary, The; Meyer, David; Parks, William; Kolevar, Kevin; Hill, David R.
Cc: Hollis, Sheila Slocum
Subject: Emergency Petition and Complaint of the District of Columbia Public Service Commission

TO WHOM THIS MAY CONCERN:

Attached is the Emergency Petition and Complaint of the District of Columbia Public Service Commission ("DCPSC") in Docket No. EL-05-145-000, requesting emergency relief from the Federal Energy Regulatory Commission and the Department of Energy regarding the shutdown of the Mirant Corporation's Potomac River Power Plant tonight at midnight. Please feel free to contact the DCPSC or me with any questions regarding this matter.

Sheila Hollis, attorney for the DCPSC

Sheila Slocum Hollis
Duane Morris LLP
1667 K Street, N.W.
Suite 700
Washington, D.C. 20006
(202) 776-7810
(202) 776-7801 fax
sshollis@duanemorris.com
www.duanemorris.com

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UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY AND
FEDERAL ENERGY REGULATORY COMMISSION

Emergency Petition and Complaint of District of Columbia Public Service Commission	)))	**Docket No. EL05-145-000**

EMERGENCY PETITION AND COMPLAINT OF THE DISTRICT OF COLUMBIA PUBLIC SERVICE COMMISSION

Pursuant to Sections 202(c), 207 and 309 of the Federal Power Act ("FPA"), 16 U.S.C. §§ 824a(c), 824f and 825h, the District of Columbia Public Service Commission ("DCPSC") hereby submits this Emergency Petition and Complaint to avert the impending shutdown of the Potomac River Generating Station power plant ("Potomac River Plant" or "Plant") owned and operated by Mirant Corporation and its public utility subsidiaries (collectively, "Mirant") in Alexandria, Virginia.

Due to certain air quality concerns recently reported in an environmental study performed by the Virginia Department of Environmental Quality ("VDEQ"), Mirant has publicly announced that its Potomac River Plant will be shut down at midnight on August 24, 2005.[1] The DCPSC believes that, the proposed shutdown will have a drastic and potentially immediate effect on the electric reliability in the greater Washington, D.C., area and could expose hundreds of thousands of consumers, agencies of the Federal Government and critical federal infrastructure

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[1] The DCPSC has not performed any independent study of the VDEQ findings and takes no position on the correctness of the VDEQ's findings.

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to curtailments of electric service, load shedding and, potentially, blackouts. As a result, immediate action by the Secretary of Energy ("Secretary") and the Federal Energy Regulatory Commission ("FERC" or "Commission") is needed to avoid the potentially dangerous and security-threatening interruption of electric service to the District of Columbia that may occur as a result of the Potomac River Plant's proposed shutdown.

Accordingly, the DCPSC requests that the Secretary issue orders pursuant to Section 202(c) of the FPA, finding that an emergency exists within the meaning of this statutory provision as a result of the proposed shutdown of the Potomac River Plant and direct Mirant to continue the operation of the Potomac River Plant until further orders are issued. The DCPSC further requests that the Commission, pursuant to its authority under Sections 207 and 309 of the FPA, institute a hearing and take immediate action preventing Mirant from ceasing operations at the Potomac River Plant to ensure that electric reliability in the area is not adversely affected.

I. NOTICE

All correspondence related to this proceeding should be addressed to:

Richard Beverly
General Counsel
Public Service Commission of the
District of Colombia
1333 H Street, N.W.
Washington, DC 20005
(202) 626-9200
(202) 626-9212

Sheila S. Hollis
Duane Morris LLP
1667 K Street N.W., Suite 700
Washington, DC 20006
(202) 776-7810
(202) 776-7801 (fax)

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II. STATEMENT OF CONCERNS

The DCPSC is the agency charged with the protection of all retail electric system consumers within the District of Columbia, including matters involving the construction and operation of electric power facilities and the rates charged for electric power.[2]

The District of Columbia encompasses many critical aspects of the United States government. The White House, Congress, Supreme Court, and other essential Federal Courts, most cabinet level agencies including the Departments of State, Justice, Energy, Interior, Health and Human Services, Labor, and regulatory agencies, and a host of other essential entities are located in the District. In addition, large numbers of commercial and residential consumers are located in the District. A major load shedding event triggered by the shutdown of a major generating facility combined with extreme weather or other events on the grid could be catastrophic for the District and the Nation, could endanger homeland security and threaten the ability of the Nation to function worldwide and domestically. While the shutdown of the Potomac River Plant would not in and of itself immediately have these effects, the combination of other events, such as a severe weather situation, the loss of key transmission capability or other major outages, could endanger electric service to the District. The DCPSC, with the statutory responsibility to protect the consumers of electric energy in the District, including key Federal installations, is extremely concerned about the safety, reliability and availability of electric energy in the District. The shutdown of the Potomac River Plant scheduled by Mirant in response to VDEQ's studies threatens essential electric service to the District and thus to the Nation. It is in this light that the DCPSC hereby requests that the Department of Energy

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[2] *See* 11 D.C. Code Ann. §§ 34-101, et seq.

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("DOE"), the FERC, and the Department of Homeland Security take all appropriate and immediate steps to prevent the shutdown of the Potomac River Plant and to protect the Nation and the District of Columbia.

The DCPSC recognizes the complexity of the situation. The Potomac River Plant is owned by Mirant Corporation, a bankrupt enterprise with concerns regarding its potential liabilities under all scenarios with the Potomac River Plant operation or non-operation. (Mirant's proposed reorganization is pending before the FERC, and the DCPSC is an intervenor in that case and the DCPSC's Petition and Complaint are not intended to impact that proceeding.)

The Potomac River Plant is located in Virginia, which receives no power from it. Virginia has legitimate interest in the environmental impacts of the Potomac River Plant. And, distribution service in the District is provided by PEPCO, regulated by the DCPSC. Yet, there is no escaping the fact that the Potomac River Plant is for now and the foreseeable future, an essential element in the provision of electric service to the District of Columbia.[3] Without the power generated by it, catastrophe could be very near. The DCPSC asks that the DOE and FERC immediately step in, pursuant to their jurisdiction under the Federal Power Act to protect the public and national interest and such other authority that exists, to prevent this extraordinary step from being taken by Mirant. The DCPSC also requests that its Petition and Complaint be referred to the Department of Homeland Security if the FERC and the DOE believe it is necessary.

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[3] *See* Washington Post Article of August 23, 2005 attached.

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DOE-19-1027-A-000339

III. FACTUAL BACKGROUND

1. On August 22, 2005, Mirant Corporation announced that it had taken action to address concerns raised by a just-completed VDEQ environmental study of air quality in the vicinity of the Potomac River Plant.[4]

2. Mirant said that, as its initial response to the study, it had already reduced output of all five units at the Plant to their lowest feasible levels.

3. Mirant said it expects to meet soon with the VDEQ to discuss both short and long-term plans to address air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power Plant no later than midnight **Wednesday, August 24, 2005** until a solution can be identified and implemented. It is DCPSC's understanding that no solution has been found as of the time of this filing.

4. On August 23, 2005, the DCPSC issued an order in Case No. 1023, directing PEPCO to review Mirant's August 22, 2005 press release and advise the DCPSC, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers. A copy of this Order is attached hereto.[5]

5. The coal-fired power Plant, which began operation in 1949, produces 482 megawatts of electricity for Washington, D.C. and surrounding communities. It is located in Alexandria, Va. The Plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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[4] Mirant Press Release of August 22, 2005 attached.

[5] *See* DCPSC's Order No. 13748 issued August 23, 2005.

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DOE-19-1027-A-000340

6. The Plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic States and some portions of some Midwestern states, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River Plant could result in a severe strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

7. Because of the advance notice required to be given to PJM and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant has continued to operate the Plant at a reduced level until midnight tonight.

8. If all of the units are shut down at Potomac River Plant, PEPCO has two 230 KV underground cables and two 69 KV lines through Blue Plains that may be available to supply the load that Potomac River Plant supplies. In addition, it is the DCPSC's understanding that PEPCO has developed as a second scenario, which assumes that if the Potomac River Plant is shut down and one of the two 230 KV lines were to go down, that there may nonetheless be sufficient transmission capability to supply the load provided by the Potomac River Plant. DCPSC considers such a scenario to be highly precarious, given the variables and the nature of the load in the District.

9. The VDEQ has been advised previously by the PJM of the impact of the shutdown of the Potomac River Plant. (See Attached letter from Craig Glazer, PJM Vice President, Government Policy, to VDEQ, dated April 14, 2004). In the PJM letter, a description of the technical aspects of the impact of the shutdown is set forth. We believe that the letter establishes the extremely serious nature of the immediate and long term impact of the Potomac River Plant shutdown.

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IV. LEGAL BASIS FOR PETITION AND COMPLAINT

A. Secretary's Authority Under Section 202(c) of the FPA

Section 202(c) of the FPA states as follows:

> Temporary connection and exchange of facilities during emergency. During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes, the Commission shall have authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest. If the parties affected by such order fail to agree upon the terms of any arrangement between them in carrying out such order, the Commission, after hearing held either before or after such order takes effect, may prescribe by supplemental order such terms as it finds to be just and reasonable, including the compensation or reimbursement which should be paid to or by any such party.[6]

Under this provision, the Secretary is empowered "whenever [he] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy or of fuel or water for generating facilities, or other causes . . . to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest." The Secretary recently used this authority both during the 2000-2001 California crisis and the August 2003 Northeast blackout.[7] As explained above and in the attached evidence, the proposed shut-down of the Potomac River Plant at midnight on August 24, 2005, creates a potential for similar

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[6] 16 U.S.C. § 824a(c).

[7] *See, e.g.*, Order pursuant to Section 202(c) of the Federal Power Act" (December 14, 2000); "Order pursuant to Section 202(c) of the Federal Power Act" (January 11, 2001); Order No. 202-03-1 (August 14, 2003).

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blackouts to occur in the greater Washington, DC, area and may have a serious adverse effect on hundreds of thousands of consumers and the Federal Government and its agencies. The DCPSC, therefore, requests that the Secretary use its emergency authority under Section 202(c) of the FPA to order Mirant to continue operating is Potomac River Plant until further orders are issued by the Secretary or the Commission in the instant proceeding.

B. FERC's Authority Under Sections 207 and 309 of the FPA

Section 207 of the FPA provides as follows:

> Whenever the Commission, upon complaint of a State commission, after notice to each State commission and public utility affected and after opportunity for hearing, shall find that any interstate service of any public utility is inadequate or insufficient, the Commission shall determine the proper, adequate, or sufficient service to be furnished, and shall fix the same by its order, rule, or regulation: Provided, That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel the public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers.[8]

This Emergency Petition and Complaint satisfies the requirements of this provision. The DCPSC is a "State commission" within the meaning of Section 207 of the FPA. The Potomac River Plant provides "interstate service" by supplying electricity into Washington, DC, Maryland and across the entire PJM region. Mirant is a jurisdictional public utility under the FPA. The evidence attached hereto indicates that failure to avert the proposed shutdown of the Potomac River Plant will render this interstate service inadequate or insufficient. Further, no enlargement of the existing facilities is required and continuation of the Plant's operation will ensure that adequate service is rendered to Mirant's customers.

While Section 207 appears to require a hearing, the Commission is empowered, under Section 309 of the FPA, "to perform any and all acts, and to prescribe, issue, make, amend,

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[8] 16 U.S.C. 824f

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and rescind such orders, rules and regulations as it may find necessary or appropriate to carry out the provisions of [the FPA]." The immediate relief requested in this Emergency Petition and Complaint comes squarely within this enforcement authority and is clearly in the national and public interest.

V. WAIVERS OF REGULATIONS AND SERVICE

Due to the emergency nature of the instant submission and the speed with which events have developed over the past 48 hours, the DCPSC requests a waiver of all DOE and FERC filing and other regulations that may be otherwise applicable to this submission including the regulations set forth at 10 C.F.R. § 205.370, et seq. The DCPSC is serving this Emergency Petition and complaint on all entities designated to receive service under 10 C.F.R. § 205.372. Granting this waiver is in the public interest.

VI. CONCLUSION

WHEREFORE, for the above stated reasons, the DCPSC requests that the Secretary and the FERC grant immedite relief as described herein.

Respectfully Submitted,

/s/ Sheila S. Hollis
Sheila S. Hollis
Ilia Levitine
Duane Morris LLP
1667 K Street, NW, Suite 700
Washington, D.C. 20006
Phone: (202) 776-7810
Fax: (202) 776-7801

Richard A. Beverly
General Counsel
Public Service Commission of the
District of Columbia
1333 H Street, N.W.
Washington, DC 20005
Phone: (202) 626-9200
Fax: (202) 626-9212

ATTORNEYS FOR THE PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

DATED: August 24, 2005

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Power Plant Faces Shutdown Over Pollutants

Mirant Facility That Serves D.C., Md. Violates National Air Quality Standards, Analysis Shows

By Leef Smith
Washington Post Staff Writer
Tuesday, August 23, 2005; Page B01

The Mirant Corp. power plant in Alexandria, which provides electricity to homes in the District and Maryland, is in violation of national air quality standards and has been ordered by Virginia officials to take immediate steps to reduce pollution. Mirant officials said they will shut down the plant by tomorrow night if they can't satisfy the state's demand.

The directive was issued Friday night by the Department of Environmental Quality after reviewing the results of an analysis that showed that some pollutants found in the vicinity of the coal-fired power plant are at times considerably higher than what national standards allow.

"People should be concerned about this information," said Bill Hayden, spokesman for the Department of Environmental Quality. "That's why we want to have steps taken immediately to fix it."

Mirant officials responded Sunday night by reducing the output of all five of its boilers from a maximum output of 482 megawatts of electricity to 175 megawatts and said they plan to meet with state officials tomorrow afternoon to discuss plans to resolve air-quality issues. Still, Mirant officials said they will temporarily shut the plant no later than midnight tomorrow if no acceptable short-term solution is agreed on.

"We acted very quickly in this matter" to address the public health concern, said Lisa D. Johnson, Mirant's regional president.

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The plant, which began operation in 1949, supplies enough electricity to the region's power grid to serve about 400,000 homes in the District and Maryland. It does not serve Virginia. Officials with PJM Interconnected, which manages the flow of electricity over transmission lines in 13 states and the District, said yesterday that a shutdown would not affect the area's power supply because it has alternative electricity sources.

"Barring some unforeseen circumstance, we'll be able to manage," said Terry Williamson, spokesman for PJM.

Atlanta-based Mirant Corp., which filed for bankruptcy in 2003, operates four plants in the area, including three in Maryland -- in Montgomery, Prince George's and Charles counties.

Neighbors of the Alexandria plant, on the banks of the Potomac in the northern end of the city, have complained for years about what they believed to be high levels of mercury, contaminants in the air and water, and of a sooty substance that they say covers surfaces around their homes and gardens.

In 2001, longtime residents decided to investigate, eventually submitting a thick report to the city that concluded that the plant was a potential danger. It cited several studies showing that a significant portion of the soot collected in the neighborhood was directly associated with Mirant. Last year, the City Council revoked a 12-year-old ordinance that allowed the plant to operate indefinitely, as well as two special-use permits, making the plant in violation of zoning and giving Mirant seven years to close shop.

In February, Mirant sued the city to stop the zoning changes. Mirant participated in the pollution study as part of a 2004 settlement agreement relating to alleged ozone violations at the Alexandria plant.

The report, based on data collected from 2000 to 2004, looks at worst-case scenarios involving pollution, weather and operational capacity. Researchers found that under certain conditions, levels of sulfur dioxide, nitrogen dioxide and particles in the vicinity of the plant are higher than the national ambient air quality standards allow.

For example, over a 24-hour period, the health-based limit for sulfur dioxide exposure is 365 micrograms per cubic meter. The study says the plant could release more than 5,000 micrograms per cubic meter within a heavily populated half-mile radius.

Johnson said Mirant will consider switching to a different type of coal that potentially has a lower sulfur content or to an injection technology that uses minerals to reduce sulfur output. Officials said

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they might also consider increasing the height of their smokestacks to better allow pollutants to dissipate.

"We don't have to shut down if the solution we propose is satisfactory to all the parties involved," Johnson said. "That remains to be seen."

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News Release

Media contact:
Steve Arabia, (b) (6)
steven.arabia@mirant.com

David Thompson, (b) (6)
dave.thompson@mirant.com

Investor relations contact:
Cameron Bready, (b) (6)
cameron.bready@mirant.com

Stockholder inquiries:
(b) (6)

MIRANT™

August 22, 2005

Mirant Takes Immediate Action to Address Air Quality Concerns Raised in New Study Of Area Near Potomac River Generating Station

Plant Operations Have Been Significantly Reduced; Full Shut Down to Occur Unless Acceptable Interim Operating Plan Can Be Identified by Wednesday

ALEXANDRIA, VA – Mirant Corp. (Pink Sheets:MIRKQ) announced today that it has taken rapid action to address concerns raised by a just-completed environmental computer modeling study of air quality in the vicinity of Mirant's Potomac River generating station.

Mirant said that, as its initial response to the study findings, it has already reduced output of all five units at the plant to their lowest feasible levels.

Mirant said it expects to meet soon with the Virginia Department of Environmental Quality (DEQ) to discuss both short and long-term plans to resolve the newly identified local air quality issues. If no acceptable short-term solutions can be found, Mirant will shut down all five units at the power plant no later than midnight Wednesday, August 24, until a solution can be identified and implemented.

Even taking the new study findings into consideration, the Potomac River generating station remains in compliance with all its operating permits, which set overall limits on the quantity of emissions from the plant, the company said.

The coal-fired power plant, which began operation in 1949, produces 482 megawatts of electricity for Washington D.C. and surrounding communities. It is located in Alexandria, VA. The plant has been identified as a critical component for the reliability of the electric grid in the Washington, D.C. area.

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"As soon as we received results of an environmental computer modeling analysis that showed emissions from the Potomac River generating station could be significantly contributing to localized, modeled exceedances of National Ambient Air Quality Standards (NAAQS), we acted quickly," said Curt Morgan, executive vice president and chief operating officer, Mirant.

"However, it's important to understand the nature of the study that has just been completed. The computer model was designed to analyze local air quality levels using a 'worst case' set of assumptions, including the operation of all five units at maximum permitted output with maximum emissions, combined with unfavorable wind conditions. These combined circumstances do not typically occur all at once, so the model works with hypothetical conditions that are not usually seen during normal plant operation," Mr. Morgan said. "Nevertheless, we take these findings extremely seriously, as demonstrated by our actions."

"The decision to curtail and possibly halt power production at the plant involves many complex issues, including important electric system reliability considerations in the Nation's Capital and throughout the Mid-Atlantic region. We are working closely with all affected parties. However, the overriding factor in our decision has been, and will continue to be, protection of public health," said Lisa D. Johnson, president, Mirant's Northeast and Mid-Atlantic business unit.

The plant has been designated by PJM Interconnection, the entity responsible for the reliability of the transmission system from the Mid-Atlantic states as far west as Chicago, as a facility critical to electric system reliability in the Washington, D.C. area. PJM's designation means that removing the Potomac River generating station could result in a strain on the transmission system and potential electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

Because of the advance notice required to be given to the regional electric grid operator and the complex and lengthy physical process to shut down large coal-fired steam boilers, Mirant will continue to operate the plant at a reduced level for a few days.

The company also noted that it will maintain the plant in a state of operational readiness during the period of reduced operations or temporary shutdown of all units.

The new findings arose in a study completed August 19, 2005. It was commissioned under an agreement between Mirant and the Virginia Department of Environmental Quality (DEQ). The computer modeling of five air pollutants from the plant showed that for three types of emissions -- PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or smaller), NO_2 (nitrogen dioxide), and SO_2 (sulfur dioxide) -- the plant's emissions have the potential to contribute to localized, modeled exceedances of NAAQS under some conditions.

The potential localized air quality concerns impact an area within a half-mile radius of the plant. The newly identified air quality impacts are the result of a phenomenon known as "downwash." According to the U.S. Environmental Protection Agency, downwash is defined as "impacts associated with building wake effects. These effects cause the pollutant plume to fall to ground-level quicker." At the Potomac River plant, the unique combination of relatively short emissions stacks at the power plant (165 feet) and the presence of nearby tall buildings -- built well after

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the power plant was completed — produce conditions that the newly completed computer model identified as being capable of causing downwash under some wind conditions. Computer modeling of possible downwash effects had never previously been required or conducted at the Potomac River plant.

"Although the exact time frame for the return to full service of the Potomac River power plant cannot currently be determined, we are confident that we can identify solutions, and hopeful we can gain the cooperation of all parties to implement them," Ms. Johnson said.

Mirant said it does not expect to return the plant to full service until appropriate solutions are implemented. However, Mirant may be required to operate the plant to meet mandatory system stability obligations, or if there is a legal obligation to operate the plant at higher output levels than would otherwise be in effect. Mirant also said it will need to operate plant units occasionally to test technological modifications to the plant.

Mirant is a competitive energy company that produces and sells electricity in the United States, the Caribbean, and the Philippines. Mirant owns or leases more than 18,000 megawatts of electric generating capacity globally. The company operates an asset management and energy marketing organization from its headquarters in Atlanta. For more information, please visit www.mirant.com.

# # #

Caution regarding forward-looking statements:

Some of the statements included herein involve forward-looking information. Mirant cautions that these statements involve known and unknown risks and that there can be no assurance that such results will occur. There are various important factors that could cause actual results to differ materially from those indicated in the forward-looking statements, such as, but not limited to, (i) the instructions, actions, decisions and orders of the U.S. Bankruptcy Court for the Northern District of Texas, Fort Worth Division in connection with the voluntary petitions for reorganization filed on July 14, 2003, July 15, 2003, August 18, 2003, October 3, 2003 and November 18, 2003, by Mirant Corporation and substantially all of its wholly-owned and certain non-wholly-owned U.S. subsidiaries under Chapter 11 (Chapter 11") of the United States Bankruptcy Code; (ii) the duration of Mirant's Chapter 11 proceedings and the effects of the Chapter 11 proceedings on Mirant's liquidity; (iii) changes in, or changes in the application of, environmental and other laws and regulations to which Mirant and its subsidiaries and affiliates are subject; (iv) the performance of Mirant's assets and projects; (v) potential business strategies, including acquisitions or dispositions of assets that Mirant may pursue, (vi) weather and other natural phenomenon; (vii) timely completion of permitting requirements and regulatory approvals; (viii) Mirant's inability to complete required modifications to the Potomac River facility or its operations to address the downwash issue, (ix) actions and claims of third parties (including regulators) in response to Mirant's plans to address the downwash issue and (x) other factors discussed in Mirant's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the Securities and Exchange Commission ("SEC"), in Mirant Americas Generation, LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC, or in Mirant Mid-Atlantic,

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LLC's Annual Report on Form 10-K for the year ended December 31, 2004 or Quarterly Report on Form 10-Q for the quarter ended June 30, 2005 filed with the SEC..

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DOE-19-1027-A-000351

Craig A. Glazer
Vice President - Governmental Policy
PJM Washington Office
(202) 393-7756 FAX (202) 393-7741
e-mail: glazec@pjm.com

Via Electronic Mail

April 12, 2004

Director
Office of Air Regulatory Development
Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, Virginia 23240

Re: Potomac River Generating Plant

Dear Director:

PJM Interconnection L.L.C. ("PJM") is the Regional Transmission Organization responsible for the maintenance of electric reliability in the service territory of Potomac Electric Power Company (PEPCO). The Potomac River Generating Plant which serves greater Washington, D.C. is within the PJM Control Area. We are writing in response to your request for formal written comments concerning a proposed amendment to the state operating permit for the Mirant Mid-Atlantic Potomac River Station located in the City of Alexandria, Virginia. This letter is similar to one we previously submitted to Mirant on April 7 in response to their request and is a supplement to our letter of March 2, 2004 to Jack Welsch, a copy of which is attached for submission in the record.

This letter does not address the impact that any set of emissions standards might have on the availability or operations of the Potomac River power plant. Rather, PJM has taken as its assumption the representation made by Mirant of a limit in production by as much as 50-60% from historical levels. PJM Interconnection LLC ("PJM") has reviewed the requirement for this plant strictly from a reliability perspective in order to determine what is required to maintain suitable reliability in the region. PJM's reliability standards are governed by Mid-Atlantic Area Council ("MAAC") criteria. MAAC criteria states that the system must be planned to sustain the loss of one transmission element with any other transmission system element out of service (an N-2 contingency) under peak load conditions. As explained below, PJM expects that a minimum of three Potomac River units must be running at all times during moderate load periods (moderate load period is approximately between October and June) and all five units must be running during the summer peak load time period (approximately June through September) in order to ensure reliability.

As discussed in Denise Foster's letter to the Virginia DEQ dated March 2, 2004, recent analysis has confirmed that a minimum of one Potomac River unit must be available at peak load conditions to eliminate any reliability concerns. One unit is sufficient if both of the two Palmers Corner 230 kV circuits are in service. In the event

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of an outage of either Palmers Corner-Blue Plains 230 kV circuit sufficient generation must be available to balance the load in the area for the loss of the other 230 kV circuit While the exact MWs of generation required depend on the load existing at the time of the outage, review of the historical area data indicates that under all circumstances between three and five Potomac River generators would be required to maintain reliability when either of the Palmers Corner 230 kV circuit are out of service. For example, in the event one of the lines to the Potomac River plant is out of service due t maintenance, the system must be adjusted in order to be prepared to lose the next line a well.

Peak load for the summer in this region occurs between June 15 and September 15. During this period, PJM anticipates that all units would be required to be available run in order to ensure reliability, as described above. The requirement "available to run means the units must be made available within four hours of an unplanned trip of one o the 230 kV transmission lines serving the Potomac River plant. The start up data that h been provided to PJM by Mirant shows that the Potomac River plants require a minimu of 43 to 83 hours notice to start from the cold state.

During summer peak conditions, all five of the Potomac River units should be required to remain available within a four hour period, or remain "hot." PJM further anticipates that under typical non-peak conditions, two or three of the units would be required to remain hot for seven days a week. All five units would be required to remai hot and available to run from Tuesday through Friday each week, in order to accommodate days of the week when the load has historically reached its highest level. Theoretically, and depending on load, certain units could be shut down for the weekend with prior approval from PJM.

In summary, if Mirant intends to run the units with production decreased by 50-60%, this situation may cause the transmission system to be non-compliant with PJM's reliability standards, and PJM would request permission to have these plants available fc reliability purposes.

PJM has had limited time to analyze all of the facts and consider alternatives that would address the DEQ's environmental concerns while also ensuring the continued reliability of electric power supply in greater Washington. We would welcome the opportunity to work with you and the Department in order to explore the facts further an determine a resolution that meets our respective public policy goals. Please contact the undersigned or Ms. Denise Foster of PJM should you wish to discuss this issue further.

Sincerely,

Craig Glazer
Vice President—Government Policy
PJM Interconnection, L.L.C.
202-393-7756
GLAZEC@PJM.COM

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1023-E-160

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA
1333 H STREET, N.W., SUITE 200, WEST TOWER
WASHINGTON, DC 20005

ORDER

August 23, 2005

FORMAL CASE NO. 1023 IN THE MATTER OF THE INVESTIGATION INTO THE EFFECT OF THE BANKRUPTCY OF MIRANT CORPORATION ON THE RETAIL ELECTRIC SERVICE IN THE DISTRICT OF COLUMBIA, Order No. 13748

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia ("Commission") directs the Potomac Electric Power Company ("Pepco") to review the attached Mirant Corporation ("Mirant") August 22, 2005 Press Release and advise the Commission, in writing, of the extent to which Mirant's actions may negatively impact the local system and District of Columbia consumers.

II. BACKGROUND

2. On August 22, 2005, Mirant issued a Press Release announcing that it had taken immediate action to reduced to the lowest feasible levels the output of all five of the units at the generation station and that it would potentially close down the station until an acceptable solution to the local air quality issues are identified and implemented. Mirant maintains that it remains in compliance with the overall limits set on the quantity of emissions from the plant.

3. The press release noted that PJM interconnection has designated the generation station as the entity responsible for the reliability of the transmission system for the Mid-Atlantic States and as critical to electric system reliability in the District of Columbia. The press release goes on to state that removal of the generation station could cause a strain on the transmission system and also electrical outages if other key generation and transmission facilities become unavailable during high demand periods.

III. DISCUSSION

4. The Commission is aware that Mirant is faced with a number of issues concerning the continued operation of the Potomac River Generating Station. However, the Commission's primary concern is system reliability in the District of Columbia. To that end, Pepco must provide an immediate assessment to the Commission regarding the impact Mirant's actions might have on the District of Columbia electrical system and

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DOE-19-1027-A-000354

District of Columbia consumers. In its submission, Pepco must include its plan for dealing with the potential impact(s) of the shutdown of the Potomac River Generation Station, if it occurs. Additionally, Pepco is to provide to the Commission any other information pertaining to this matter received from PJM, Mirant, or any other source.

THEREFORE, IT IS ORDERED THAT:

5. Pepco is to file a response in accordance with paragraph four (4) of this Order in no later than five (5) days.

A TRUE COPY:

BY DIRECTION OF THE COMMISSION:

Freda A. James

CHIEF CLERK

FREDA A. JAMES
ACTING COMMISSION SECRETARY

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DOE-19-1027-A-000355

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VanNess Feldman
ATTORNEYS AT LAW

Seattle, Washington
(206) 623-9372

David P. Yaffe
(202) 298-1840

August 14, 2002

The Honorable Spencer Abraham, Secretary
United States Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Re: Request for Order Pursuant to Section 202(c) of the Federal Power Act

Dear Secretary Abraham:

We are hereby providing you, on behalf of the Long Island Power Authority, with a faxed copy of a letter requesting an Order pursuant to Section 202(c) of the Federal Power Act. The original signed letter will be delivered on August 15, 2002.

Very truly yours,

David P. Yaffe
Counsel for the Long Island
Power Authority

DPY:dds
Enclosure

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LIPA
Long Island Power Authority

333 Earle Ovington Boulevard
Suite 403
Uniondale, NY 11553
(516) 222-7700 Fax (516) 222-9137
http://www.lipower.org

August 14, 2002

The Honorable Spencer Abraham, Secretary
United States Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

RE: Request for Order Pursuant to Section 202(c) of the Federal Power Act

Dear Secretary Abraham:

On behalf of the Long Island Power Authority ("LIPA"), I am hereby notifying you of an imminent emergency, as described below, and requesting you to invoke your authority under Section 202(c) of the Federal Power Act and the regulations at 10 C.F.R. §§205.370 – 205.379, and issue an order requiring the Cross Sound Cable Company, LLC ("CSC LLC") to transmit electric capacity and energy to Long Island over the newly constructed, but not yet operating, Cross Sound Cable under the emergency conditions described below. Specifically, LIPA requests that such an order require CSC LLC, for the remainder of August and all of September, 2002, to operate the CSC and accept schedules for transmission from LIPA on a day ahead basis when LIPA forecasts that its generation reserve margin on Long Island will be less than 600 MW in excess of its anticipated load for that day. The 600 MW margin, which is still less than the statewide required planning reserve of 18% of forecast load, is equal to the capacity of one of the existing transmission cables between Long Island and mainland New York. The CSC, which has been improperly prevented from operating, may mean the difference between continued service and blackouts on Long Island, and in Southwestern Connecticut.

A. Growth in Summer Electric Peak Usage in Southeastern New York Combined with Connecticut's Baseless Ban On Operation of the Cross Sound Cable Presents the Specter of an Emergency

The Summer of 2002 has been particularly warm for sustained periods in Southeastern New York. This sustained warmth has created demands for service exceeding the load projected for the period. Those demands, in turn, have reduced the operating reserve margin, *i.e.*, generation capacity held in reserve, that protects LIPA's customers against unexpected outages of generation or transmission. During this past month, LIPA experienced record electric energy consumption, a 21% increase in the amount of energy delivered, as compared with last July. LIPA also experienced new records in overall peak demand (5059 MW), duration of peak demands exceeding 4000 MW and other records of energy consumption. The attached press release, dated August

AMERICAN OVERSIGHT

8, 2002 (Attachment 1), summarizes the peak performance in July. LIPA's reserve capacity during the three peaks experienced in July was less than 5% in excess of load (or 255 MW on a peak of approximately 5000 MW) despite the fact that LIPA added 407 MW of new peak generating capacity during this year alone due to a major crash effort. LIPA experienced these peaks despite the fact that it shed approximately 150 MW of interruptible load pursuant to its established demand-side management programs. By contrast, the statewide planning reserve margin established by the New York Independent System Operator, Inc. ("NYISO") for this year was 18%. LIPA entered the year in conformance with that planning requirement, but its load exceeded expectations.

LIPA was faced with a serious operational challenge early in the summer when one of its principal electric transmission cable ties to the New York mainland, the 600 MW, Y-50 cable from Consolidated Edison's Dunwoodie substation to LIPA's Shore Road substation, had an unexpected outage. That cable was returned to service early in July, 2002, although it is being operated on a restricted basis due to concerns about its reliability. (LIPA's other principal interconnection to the New York mainland, the 600 MW, Y-49 cable owned by the New York Power Authority extending from Consolidated Edison's Sprainbrook substation to LIPA's Garden City substation, also was out of service for several weeks in June and has returned to service.) Fortunately, LIPA did not experience an unexpected outage of a major generating station or transmission facility on Long Island during that peak month of July, although concerns about the reliability of the Y-50 and Y-49 cables continued.

Electricity consumption has grown substantially on Long Island despite LIPA's aggressive efforts to promote conservation and the installation of new energy efficient appliances, production methods and other products to replace or augment existing products and methods. At the same time, LIPA is among the leaders among the load serving utilities in New York State in signing up customer electric load that can be interrupted at electric peak to provide demand response.

LIPA had planned and contracted for the Cross Sound Cable ("CSC") to meet the projected summer load that has now been overtaken by record demand. The CSC is a high voltage, direct current line connecting substations in New Haven, Connecticut with Shoreham, Long Island with a transfer capability of up to 330 MW. In August, 2000, LIPA entered into a 20 year contract with Cross Sound Cable Company, LLC, a subsidiary of Hydro-Quebec, a Canadian Crown corporation, to construct the CSC and put it in operation by May 1, 2002. It was to be the first merchant transmission facility in the United States and has been approved by the Federal Energy Regulatory Commission ("FERC"). LIPA had counted on the availability of the CSC among its key power supply resources to meet the expected growth in electric demand this summer. Through the CSC, LIPA anticipated purchasing the output from among the new large and efficient generating facilities that have come on line in New England. Conversely, LIPA assumed that the CSC would be available as well to meet electric demand needs in the transmission constrained area of Southwest Connecticut around New Haven.

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LIPA's power resource plan for 2002 depended on the availability of the CSC, and that line is now indispensable in light of this summer's extraordinary demands. In 2002, LIPA constructed upgrades and reinforcements to its transmission system to accommodate the output of the CSC. In 2002, LIPA also contracted for the construction of ten new simple cycle turbines with a combined capacity of 407 MW. All of those units are in service. In addition, and partially as a response to the Y-50 cable outage, LIPA also contracted for and installed 200 MW of temporary mobile generators for the 2002 summer season only. During the July 2002 summer peak, all generation and transmission resources available to LIPA performed reliably. Given the likelihood of similar heat spells during the remainder of August and into September, and the diminished reserve margin faced by LIPA at those times, loss of any major generating unit or transmission line during a peak period may render LIPA unable to meet its customers' needs and require it to begin cutting off customers, *i.e.*, shed load. Since the CSC has been tested and is physically available, such load shedding can be avoided with the intercession of the Department of Energy to override the otherwise groundless restrictions imposed by Connecticut authorities, as described below.

The CSC also would benefit severely transmission constrained southwest Connecticut. In an April 24, 2002 press release, ISO New England stated that "while Connecticut's overall capacity situation would ordinarily be adequate to meet summer peak demand, the inadequate transmission system serving southwest Connecticut could create critical power supply reliability problems for the area's 51 cities and towns." ISO New England's chief operating officer, while reciting a story about a transmission loss in southwest Connecticut during August, 2001, under less than severe conditions, stated that "only an emergency dispatch of electricity from Long Island over an existing cross-Sound cable prevented blackouts in southwest Connecticut." If the CSC was available, a portion of the power transmitted into Long Island over the CSC in excess of Long Island's energy requirements at that time could be wheeled across Long Island and over the existing LIPA – Northeast Utilities cable into southwest Connecticut.

B. Operation of the CSC Will Not Interfere With Either the Environment or Navigation

The CSC is not available today to meet needs on either Long Island or in southwestern Connecticut because of the improper interference of Connecticut authorities. Early in 2001, the Connecticut Siting Council rejected CSC LLC's original construction permit application. CSC LLC submitted revised permit applications to the Siting Council, the U.S. Army Corps of Engineers ("USCOE") and the Connecticut Department of Environmental Protection ("DEP"). CSC LLC received all relevant permits from Connecticut and New York authorities and the USCOE by mid-March, 2002. It laid the cable across Long Island Sound between the New Haven and Shoreham terminals during May. Commercial testing of the unit began on August 5 and, were it not for the renewed interference of Connecticut authorities, it would have been declared commercial.

AMERICAN OVERSIGHT

At the end of May, 2002, it was discovered that in seven isolated spots in New Haven Harbor, the CSC had hit rock or other obstructions and was not buried to the 48 feet below mean low water depth specified in the Connecticut Department of Environmental Protection ("DEP") and USCOE permits. In each case, the CSC was less than five feet off the mark. During the first week in June, the USCOE announced, on the basis of consultation with the DEP and the National Marine Fisheries Service, that these seven variances from the depth requirements would not cause either environmental harm or interference with navigation. The DEP and USCOE construction and environmental permits allow CSC LLC to meet all requirements within three years and do not prohibit operation of the CSC until all conditions are met. CSC LLC should have been able to operate the CSC this summer and take it out of service during the off-peak periods to make the few corrections required.

In late July, CSC LLC informed the DEP that it would test the CSC on August 5 and begin operation shortly thereafter. CSC LLC also stated that operation of the CSC would not have a negative environmental effect or adversely affect navigation. In a letter to CSC LLC dated July 22, 2002, the Assistant Commissioner of the DEP admitted that the DEP did not have jurisdiction over the CSC's operation but nevertheless requested CSC LLC to demonstrate that operation of the CSC would not have adverse effects on shellfish in the area, create electromagnetic fields or interfere with navigation. On July 24, 2002, CSC LLC provided convincing proof on all points and reasserted its rights to operate the CSC under its existing permits. Notwithstanding this fact, on August 1, 2002, the Connecticut Attorney General and the Commissioner of Environmental Protection filed an action in a Connecticut State Court to "enforce the permit" and requested injunctive relief that would prohibit operation of the CSC until all of the variances from the depth requirements have been remedied.

Notwithstanding its right to operate the CSC under its permits, CSC LLC announced on August 1, 2002 that it would not operate the CSC, other than for testing, until it had remedied all of the depth variances. On August 2, 2002, CSC LLC entered an agreement with the Connecticut Attorney General and the DEP into the record in Connecticut State Court to that effect. Since CSC LLC's permits only allow it to disturb the seabed in New Haven Harbor between October 1 and January 15, and again between April 1 and May 31 in order to avoid disturbing the spawning activities of the shellfish and flounder, CSC LLC has voluntarily made the CSC unavailable for scheduling to meet electric peak emergencies during the remaining summer months.

C. Requested Order

The continued high levels of electric energy usage during the sustained heat spells this summer have exceeded LIPA's projections and threatened the continued reliability of electric service on Long Island. Reserve generating margins on Long Island have diminished beyond reasonable expectations. Although LIPA has acted forcefully to encourage conservation and to add capacity to meet its growing demand, it is possible that an outage of a major generation or transmission facility during the next heat wave

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may lead to widespread outages. Such conditions meet the definition of "emergency" under the DOE Regulations at 10 C.F.R. §205.371.

Notably, the CSC has been tested and works and otherwise would be available to meet LIPA's needs. The availability of the CSC to LIPA for importing energy from New England during peak load conditions will provide sufficient margin for LIPA to withstand a major equipment outage at peak without losing load.

During the NYISO's daily phone call of August 13 (yesterday) among electric system operators, the NYISO notified the New York system operators that the 600 MW Y-50 cable was again under repair. Both LIPA and Consolidated Edison rely on the Y-50 cable to provide service to their transmission constrained loads. The notification was intended as an alert to both companies that the cable might be subject to unexpected outage during a heat wave as had happened earlier n the summer. The NYISO inquired whether the CSC could be ready for operation today. LIPA unfortunately could not provide that assurance because of the Connecticut restrictions explained above.

LIPA therefore requests the Secretary of Energy to issue an order, pursuant to Section 202(c) of the Federal Power Act, requiring CSC LLC, during the remainder of August and all of September, 2002, to operate the CSC and accept schedules for transmission from LIPA on a day ahead basis when LIPA predicts that its generation reserve margin on Long Island will be less than 600 MW in excess of its anticipated load for that day. The 600 MW is approximately 11% of LIPA's peak load; thus still below the statewide 18% planning reserve margin. The conditions in the requested order, therefore, are the minimum that LIPA requires in order to assure reliable service to its customers. The authority conferred on the Secretary by Section 202(c) of the Federal Power Act preempts state permit processes that would otherwise frustrate the statute's purpose to alleviate power shortages like those now threatened in southeastern New York.

D. Requirements Satisfying 10 C.F.R. §205.373

(a) The applicant is the Long Island Lighting Company, d/b/a LIPA. The order would be issued to Cross Sound Cable Company, LLC, the lessee and operator of the CSC.

(b) Correspondence with respect to this application should be directed to:

Richard M. Kessel
Chairman and CEO
Long Island Power Authority
333 Earle Ovington Boulevard
Suite 403
Uniondale, New York 11153

Telephone: 516/222-7700

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(c) LIPA operates in Nassau and Suffolk Counties and the Rockaways portion of Queens County, New York. Nassau and Suffolk Counties are on Long Island; the Rockaways portion of Queens is in New York City.

(d) (1) **Daily peak load and energy requirements for each of the past 30 days:** See Attachments 2 and 3 for the month of July, 2002. LIPA expects the load profiles for August and September to resemble the loads for July set forth in Attachments 2 and 3.

(2) **All capacity and energy receipts or deliveries to other electric utilities for each of the past 30 days:** LIPA is a member of, and participant in the markets administered by, the New York Independent System Operator, Inc. ("NYISO"). As a result, LIPA technically bids all of its electric capacity into, and purchases almost all of its electric energy requirements from, the NYISO on a daily basis. LIPA has not contracted to sell capacity to third parties on a long term basis.

(3) **The status of all interruptible customers for each of the past 30 days, and anticipated status of those customers during the next 30 days,etc:** LIPA has approximately 192 MW of load that is under contract to be interrupted under both NYISO-wide and LIPA-sponsored peak load reduction programs. On two of the three peak days in July, approximately 150 MW of that load was actually interrupted. Since the third peak occurred on a Monday, there was insufficient time to notify the customers.

(4) **All scheduled capacity and energy receipts or deliveries to other electric utilities, etc.** See answer to item (d)(2)

(e) – (j) Long Island is a transmission constrained area by virtue of its geography and electrical configuration. Currently, its only electrical connection to the mainland to import energy is through an existing unreliable cable between Northport, New York and Norwalk, Connecticut, and two cables connecting LIPA's service area with Consolidated Edison's service area. As a result, the NYISO has imposed a local installed capacity requirement on LIPA that requires LIPA to obtain 93% of its peak load requirements and 18% reserve margin from on-Island generation resources. LIPA operates its system within these limits to avoid or mitigate any emergencies.

(k) To the best of LIPA's knowledge, the emergency order requested herein will not unreasonably impair the reliability of any "entity" directly affected by the order. CSC LLC's only corporate purpose is to construct

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and operate the CSC. All of the CSC's transmission capacity has been dedicated to LIPA for a twenty year term at the prices outlined in their Firm Transmission Capacity Purchase Agreement, dated August 2, 2000.

(l) As noted above, the requested emergency service is to be transferred using the HVDC Cross Sound Cable between terminals at New Haven, Connecticut to Shoreham, New York. The thermal capacity of the cable is approximately 330 MW.

In view of the emergency conditions it faces, LIPA requests the Department of Energy to take action on this application by Thursday, August 15. Please do not hesitate to contact me.

Sincerely,
LONG ISLAND POWER AUTHORITY

Richard M. Kessel
Chairman and Chief Executive Officer

Attachments

cc: Cross Sound Cable Company, LLC
Honorable Patrick Wood, Chairman, FERC
Honorable George Pataki, Governor, State of New York
Honorable John Rowland, Governor, State of Connecticut
Honorable Charles Schumer
Honorable Hillary Rodham Clinton
Cynthia Marlette, Esq., General Counsel, FERC
Edward Schwerdt, Executive Director, Northeast Power Coordinating Council

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Attachment 1

FOR IMMEDIATE RELEASE
August 8, 2002

Contact:
Media Relations: (516) 719-9892
Media Pager: (516) 657-2993

LIPA Sets New Record For Electricity Delivered in July

Nearly 2.4 Million Megawatt Hours of Power Consumed in One Month

Enough to Power Garland Texas for One Year & About One-Third The Amount Con Edison Supplied to New York City Last Month

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Uniondale, NY – August 8, 2002 – The Long Island Power Authority (LIPA) today announced that the Authority not only set a new summer peak hour demand record on July 29th, when 5059 megawatts (MW) of electricity were delivered to customers, but a new record was set for the entire month when 2,357,253 Megawatt hours (MWHR) were delivered to the Long Island Control Area (LICA).

The new July record is 21% higher, 411,777 MWHRs, than last July's total of 1,945,476 MWHRs of electricity delivered by LIPA to the LICA. Additionally, during the month of July, the demand for electricity exceeded the 4000MW mark for a total of 133 hours during the month, or 17% of the total hours in the month. LIPA's peak demand level has already risen by 153MW from last year and the summer is not yet over. The previous peak increase had been approximately 100MW.

LIPA Chairman Richard M. Kessel said that as a result of July's record power use, the potential for installing additional generation to Long Island's on-island resources in time for the 2003 summer season is already being explored, when demand is expected to continue to increase at a rapid pace.

"Long Island's electricity continues to soar at unprecedented rates of growth," said Mr. Kessel. "A twenty-one percent jump in consumption for the month of July year to year is extraordinary. Long Island's appetite for electricity seems to be insatiable.

"When it's hot and humid, it's difficult to get people to conserve," said Mr. Kessel. "In today's modern society, we live in an air-conditioned environment almost all day long. So when folks get home, they want to be as comfortable as they are at work or in their car. Without much hesitation, the AC gets turned on full blast."

Air-conditioning can account for as much as one-third of the electricity consumed during the summer. So of the nearly 2.4 million Megawatt hours of electricity consumed during July, about three quarters of a million megawatts, or 777,894, were consumed by air conditioning alone. That's enough electricity to supply the City of Lubbock, Texas, with about 56,000 customers, for one year. LIPA's July demand is enough to supply the City of Garland, Texas, with 66, 000 customers, for one year.

Con Edison recently announced that it delivered a record 6,192,161 Megawatt hours of electricity to nearly 9 million residents in New York City and Westchester during the month of July. The amount of electricity delivered by LIPA in July to its nearly 2.7 million residents, 2,357,253 megawatt hours, is about one-third the amount delivered by Con Edison.

"Long Island needs more on-island resources to ensure an adequate, reliable supply of electricity to Long Island," said Mr. Kessel. "We can't depend on outside help. We need to make sure that Long Island has enough on-island resources to meet the growing demand for sustained amounts of ever-rising demand.

During July, LIPA's electricity delivery accomplished the following:

- Set a new peak hour demand of 5059 megawatts on July 29th;
- Set a new monthly record of 2,357,253 Megawatt hours;

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- Exceeded the 4000MW per hour level for a total of 133 hours;
- Exceeded the 4000MW per hour level on 16 days, or for 51% of the month;
- Exceeded 4000MW per hour for nine straight hours or more on eight days;
- Exceeded 4000MW per hour for 12 straight hours or more on four days;
- Exceeded 4000MW per hour for 12 straight hours or more on back to back days twice during the month, which means that on two occasions during July, during a 48-hour period LIPA delivered 4000MW or more to the LICA for 24 hours or more -- or 50% of the 48-hour period.

"What was recently an extraordinary event -- exceeding 4000MW per hour -- has become ordinary," said Mr. Kessel. "Now, exceeding 5000MW per hour is the extraordinary benchmark. At our current rate of growth, we will exceed 5000MW per hour on a routine basis next year."

LIPA owns the retail electric system on Long Island, and provides electric service to nearly 1.1 million customers in Nassau and Suffolk counties, and the Rockaway Peninsula in Queens. LIPA does not provide gas service.

-30-

Return to Press Releases

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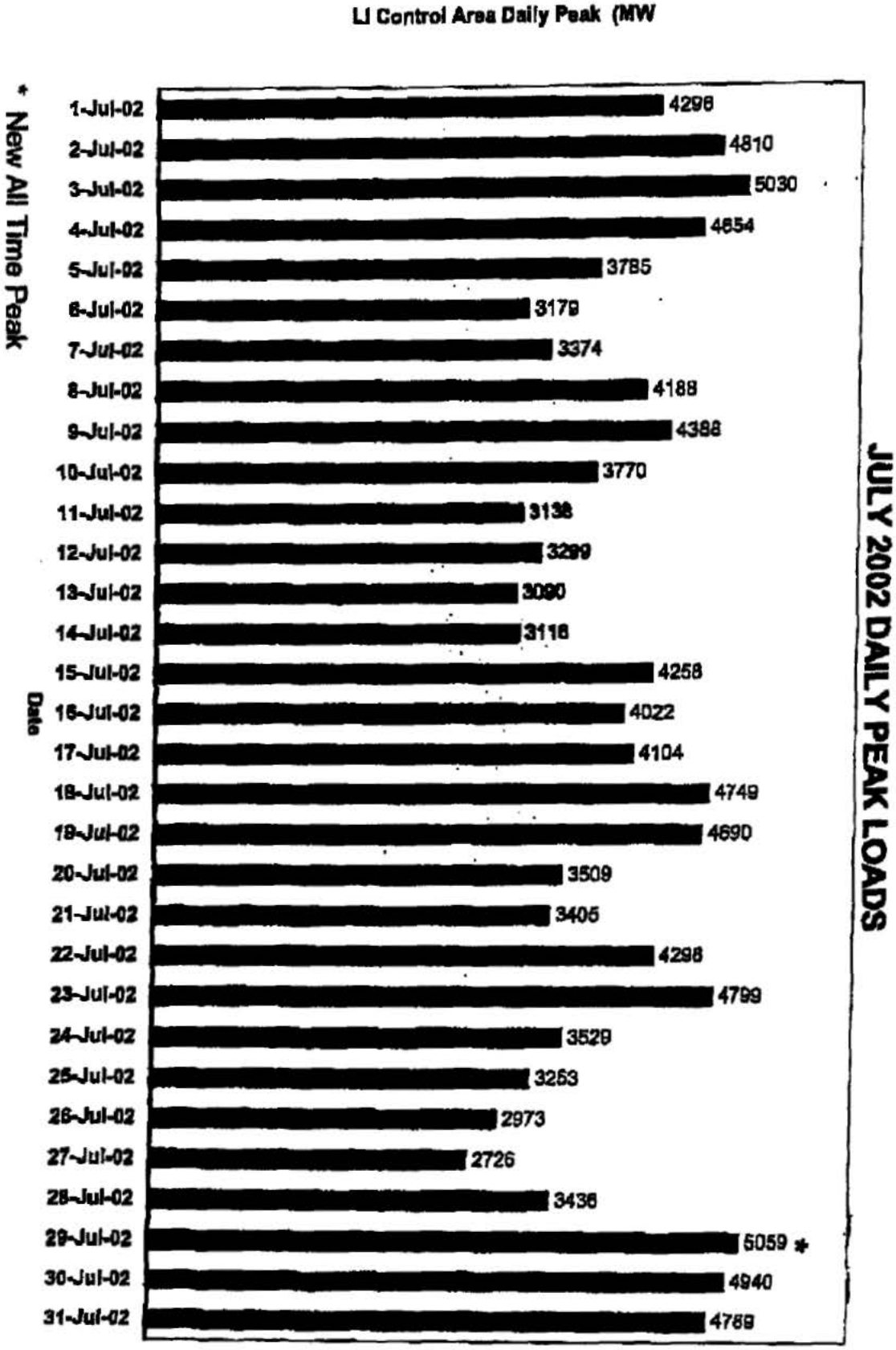

Attachment 2

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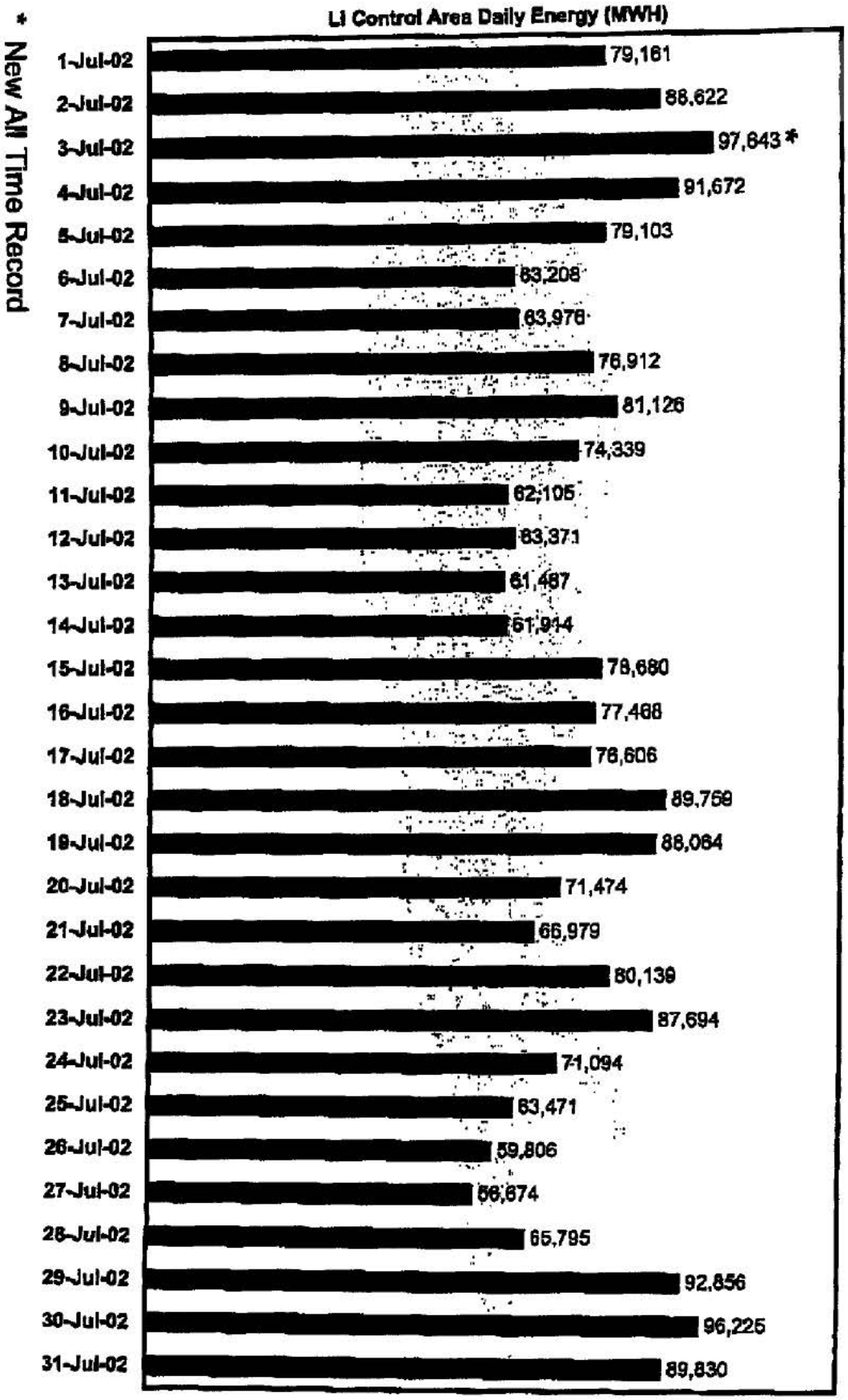

JULY 2002 Long Island Control Area 24 Hour Energy Requirements

Attachment 3

AMERICAN OVERSIGHT

OFFICE OF THE MAYOR

165 CHURCH STREET • NEW HAVEN • CONNECTICUT 06510

JOHN DESTEFANO, JR.
Mayor

*The vision of New Haven's children is our city's greatest resource.**

August 21, 2003

Secretary Spencer Abraham
Department of Energy
1000 Independence Avenue S.W.
Washington, DC 20585

RE: Order No. 202-03-1

Dear Mr. Secretary:

As Mayor of New Haven, I am requesting that you terminate your most recent Order No. 202-03-1 regarding the emergency activation of the yet-unfinished submarine electric transmission cable owned by Cross-Sound Cable Company, LLC ("Cross-Sound").

The power emergency that was used to justify transmission of electricity through the cable from New Haven to Long Island is over. There is no compelling public reason for allowing continued operation in violation of permit conditions established by the State of Connecticut Department of Environmental Protection-Office of Long Island Sound Programs ("DEP-OLISP") and the Army Corps of Engineers. The permits issued by those agencies are specific in their requirements that the cable be buried to -48' MLLW within the navigation channel in New Haven Harbor. The requirement for deeper burial was expressly established to address the City's concerns regarding the impact of this unprecedented project on the future of New Haven Harbor. Cross-Sound agreed to bury the cable to a level that would not interfere with future deepening of the navigation channel, because that was the only way the Army Corps and DEP-OLISP would approve its installation through that sensitive area.

As of this date, Cross-Sound has not been able to bury the cable to sufficient depth in at least seven separate areas within the navigation channel. Worse, it has not even been able to formulate a satisfactory plan for accomplishing proper burial depth in the near future. Neither the Army Corps nor the DEP-OLISP has agreed to modify the terms of their permits, and the conditions remain unsatisfied. Cross-Sound is under a court order not to operate the cable until the environmental and navigational issues imposed by the state and federal permits have been met.

phone 203.946.8200 *fax* 203.946.7683

**This creative impression is the work of Alicia Martineau, a student at Nathan Hale School.*

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While energy issues are of national concern, so too, is the continued viability of New Haven Harbor and the Port of New Haven. The Port and the Harbor generate significant benefits to the City and the State in the form of jobs, revenue, and taxes. Any interruptions or constraints on shipping activity in the navigation channel or the Harbor would have an adverse effect on the local and regional economy.

The debate is now moot as to whether temporary use of the cable to assist LIPA in restoring power to its customers was reasonable or necessary. Moreover, continuing the Order in present circumstances amounts to a troubling and improper delegation of federal emergency authority to the two private ISOs, neither of whom is responsible to the Army Corps or the State of Connecticut's DEP. The continuing nature of the Emergency Order is also in violation of the Federal Power Act, which does not allow one state to force an uncompleted transmission line into operation in another state. That Act is limited to properly-licensed facilities obviously not the case here.

It also appears that LIPA is using the black-out to improperly lobby for permanent use of the cable. Under the terms of LIPA's contract with Cross Sound, LIPA has the right to purchase all of the power that can be transmitted through the cable, for the next 20 years (renewable for another twenty.) This circumstance makes a mockery of any argument that premature activation of the cable furthers transmission between the regions. Quotes attributed to LIPA president Richard Kessel further illuminate the level of self dealing. Published reports quote Mr. Kessel as exuberantly yelling out "screw Connecticut" at the moment the first 100 m.w. of current passed through the cable on August 15th. (See Newsday article "LIPA Struggles to Restore Power," August 15, 2003.)

Allowing this unfinished cable project to operate at the discretion of the ISOs tells Americans that energy decisions are based on clout, and not on laws. It is a slap at Connecticut's courts and agencies, and trashes the navigation safeguards that were built into the conditional permits issued by the regulatory authorities. Please act promptly to terminate the Emergency Order.

Very truly yours,

Mayor John DeStefano, Jr.

cc: Senator Christopher Dodd
Senator Joseph Lieberman
Congresswoman Rosa DeLauro

K:\TUDE\Letters\Mayor ltr to Abraham re Order 202-03-1.doc

AMERICAN OVERSIGHT

EXEC-2008-010532

Exec Sec

STATE OF NEW YORK

August 21, 2003

GEORGE E. PATAKI
GOVERNOR

Re: Continuation of DOE Order No. 202-03-1 for Operation of the Cross Sound Cable

Dear Secretary Abraham:

On behalf of the residents and businesses of Long Island and the Long Island Power Authority ("LIPA"), I am writing to thank you for your immediate response to my request for an emergency order to allow us to utilize the Cross Sound Cable to support Long Island's power needs during the recent crisis. I am also writing to request that you extend the emergency order requiring continued energization and operation of the Cross Sound Cable between Shoreham, Long Island, New York and New Haven, Connecticut. DOE Order No. 202-03-1 requiring such energization and operation was issued several hours after the Northeast blackout that darkened large portions of New York and Long Island. Your order enabled substantial amounts of electric energy to flow from New England to Long Island on August 15th, August 16th, and August 17th and assisted in the restoration of full electric service to Long Island.

I am requesting that you extend the order requiring the Cross Sound Cable to be available for transfer of energy between Long Island and Connecticut. Since, there is no conclusion as to the reasons for the outage, the conditions that threaten the continuation of service cannot have been eliminated and are unlikely to be removed for the foreseeable future. In the event of another disturbance such as occurred last week, the Cross Sound Cable would be essential in stabilizing the grids in both New York and Connecticut.

The causes of both last week's blackout and, perhaps more importantly, the reason why the reliability rules in place did not limit the disruption to the area of disturbance are now under investigation. Given that the cause of the blackout did not originate in New York, the fact that the automatic protection feature mandated by the NERC and NPCC did not operate to prevent the outage from bringing down New York State's electric grid is both extremely disturbing and cause for taking all necessary precautions. Among the most important of those precautions has to be preserving the operability of a key link in the grid connecting New York and neighboring systems, the Cross Sound Cable, a virtually new and reliable transmission facility.

I am advised that continued operation of the Cross Sound Cable will have no adverse environmental impact on Long Island Sound or any surrounding area. CSC LLC received all relevant permits from Connecticut and New York authorities and the U.S. Army Corps of Engineers ("USCOE") by mid-March 2002. It laid the cable across Long Island Sound between the New Haven and Shoreham terminals during May 2002. At the end of May, 2002, it was discovered that in seven isolated spots in New Haven Harbor, the CSC had hit rock or other obstructions and was not buried to the 48 feet below mean low water depth specified in the Connecticut Department of Environmental Protection ("DEP") and USCOE permits. In each case, the CSC was less than five feet off the mark.

CSC LLC requested the DEP to amend the existing permit to allow the CSC to operate pending correction of the depth problems. The DEP responded that despite the fact that operation of the CSC may not cause any environmental harm, DEP was precluded from acting upon CSC LLC's request. In a January 6, 2003 letter to CSC LLC, the DEP stated, "While we may not have any environmental concerns with the operation of the

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cable in its current condition, we do have significant procedural concerns." In addition, by letter dated December 30, 2002, from the Army Corps of Engineers to CSC LLC, the USCOE stated that, "the Corp of Engineers, in consultation with the National Marine Fisheries Service has determined that there will be no undue short-term environmental harm or interference with navigation with the cable in its present location until full burial depth can be achieved. Since you are working in good faith to reach the required burial depth, the Corps of Engineers has no objections to you operating the cable at this time." We respectfully suggest that if any party has any evidence that continued operation of the Cross Sound Cable would harm the environment, they should come forward.

In conclusion, I urge the Department of Energy to recognize that the conditions described above present the basis for concluding that emergency conditions exist now and will continue to exist for the foreseeable future. Therefore, continued operation of the Cross Sound Cable is essential to prevent an imminent emergency and I request you to invoke your authority under Section 202(c) of the Federal Power Act and the regulations to 10 C.F.R. §§205.370-205.379, to issue a supplementary order to Order No. 202-03-1 to extend the authority for operation of the Cross Sound Cable.

Very truly yours,

The Honorable Spencer Abraham, Secretary
United States Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

AMERICAN OVERSIGHT

FACSIMILE TRANSMISSION COVERSHEET
STATE OF NEW YORK
EXECUTIVE CHAMBER
OFFICE OF THE SECRETARY TO THE GOVERNOR
Room 229
(518) 474-3522 / Fax (518) 473-9932

TO: Joe McMonigle

FROM: Bill Howard

DATE: August 21, 2003

PAGES: 3 (Including Cover sheet)

Remarks: Secretary Abraham letter

If you have any questions or require further information please contact me at the above phone number. Thank you.

This facsimile contains CONFIDENTIAL INFORMATION that is intended only for the use of the addressee(s) named above. If you are not the intended recipient of this facsimile or the employee or agent responsible for the delivering it to the intended recipient, you are hereby notified that any dissemination or copying of this facsimile is prohibited. If you receive this facsimile in error, please notify us by telephone and return the original to us at the above address via the US Postal Service. Thank you.

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EXEC-2008-

CALIFORNIA ISO

California Independent
System Operator

Terry M. Winter
President and Chief Executive Officer

December 14, 2000

Secretary William Richardson
United States Department of Energy
1000 Independence Ave, S.W.
Washington, DC 20585

Dear Secretary Richardson:

I am writing to request that you exercise your authority under section 202(c) of the Federal Power Act and issue an emergency order for the delivery of electric energy upon request of the California ISO ("ISO"). [1] The requested order should apply to all entities within the region covered by the Western Systems Coordinating Council. [2] The reasons for my request are described below.

Under the Department's regulations, an "Emergency" is defined as an unexpected inadequate supply that may result from various causes, including unexpected outages, a sudden increase in demand, an inability to obtain adequate fuel supply, regulatory action which prohibits the use of certain electric power facilities or other causes. [3] Moreover, an Emergency can result from "extended periods of insufficient power supply as a result of inadequate planning or the failure to construct necessary facilities." [4] Unfortunately, during the last six months California has experienced, and currently is experiencing, each of the above conditions to one degree or another.

From May 2000 through December 14, 2000, the ISO has issued 70 warnings and has declared 49 Stage One Emergencies, 32 Stage Two Emergencies, and 1 Stage Three Emergency. [5] Of these declared emergencies, 17 Stage One Emergencies, 15 Stage Two Emergencies, and the Stage Three Emergency occurred in the last six weeks.

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[1] Under the ISO's Tariff approved by FERC, the ISO, in contracting for energy or ancillary services, does not act as principal but acts as agent for, and on behalf of, Scheduling Coordinators. Scheduling Coordinators are required to submit schedules to the ISO that include the demand of the customers they represent (this encompasses the demand in California).

[2] The WSCC is a sub-region of North American Electric Reliability Council and covers the western part of the continental United States (California, Oregon, Washington, Idaho, Utah, Montana, Colorado, Nevada, Arizona, most of New Mexico and parts of South Dakota and western Nebraska), and portions of Canada (British Columbia and Alberta) and Mexico (Baja California, Mexico) .

[3] 10 C.F.R. § 205.371

[4] *Id.*

[5] To comply with WSCC minimum operating criteria, the ISO is required to maintain Operating Reserves equal to 5% of the demand to be met by generation from hydroelectric resources plus 7% of the demand to be met by generation from all other resources. In real time, when Operating Reserves are forecast to be less than these amounts, a Stage One Emergency is declared. If after dispatching all available resources, Operating Reserves are forecast to fall below 5%, a Stage Two Emergency is declared. At this point, large commercial customers that have signed up to voluntarily curtail power will be asked to do so. If Operating Reserves are forecast to fall below 1.5%, a Stage Three Emergency is declared. At this point, involuntary curtailments of firm Load, including "rotating blackouts," are possible. The ISO declared the first Stage Three emergency in its history on December 7, 2000.

151 Blue Ravine Road Folsom, California 95630 Telephone: 916 351-4400

AMERICAN OVERSIGHT

Emergency Conditions – Summer 2000

The emergency condition facing the ISO is a supply shortage and is the result of a combination of factors. The demand for energy in California and the West has increased dramatically over the last several years and there has not been an increase in supply to meet this demand. The increase in demand within the region also has reduced the amount of imports historically available to California. Moreover, during the past summer the scarcity of available generation was exacerbated by high temperatures, a further reduction in the amount of imported power, and low amounts of hydroelectric power usually available to California. These conditions led to a high usage of all the generating units in California in the past summer.

Emergency Conditions – Fall 2000

Much of the generating capacity in California is gas-fired and most of these units are over 30 years old. As a result of the strain put on these and other generating units during the summer, there has been an increase in the amount of generating unit outages (planned and unplanned) during the fall. During the last several weeks, planned outages have averaged approximately 4000MWs while unplanned outages have averaged approximately 7,000MWs. See, ***Attachment A,*** Generation Outage Report for December 8 through December 28, 2000. Despite having relatively mild demands compared to the summer, the 11,000 MWs of unavailable Generation and reduced imports have jeopardized the ISO's ability to secure the amounts of Operating Reserves needed to maintain system reliability.

Recently, due to the increase in production costs (principally the price of natural gas), some environmental limits, and a reduction in generation bid into the ISO markets, ISO operations personnel were forced to negotiate commercial terms in real time, jeopardizing the ISO's ability to manage the system and maintain reliability. On Friday December 8, 2000, the ISO filed, and the FERC approved, an amendment to the ISO Tariff that gave generating unit owners the opportunity to submit bids that will ensure recovery of their operating costs. In short, the amendment allows generation owners to bid a price and to be paid "as bid" subject to cost review by the FERC. The filing had immediate and beneficial effects, more generation was bid into and scheduled with the ISO, and operations personnel no longer were negotiating commercial terms in real time.

However, despite the beneficial effects of the amendment, a number of factors continue to place the ISO in an emergency situation where California is confronted with the possibility of rotating blackouts. First, internal transmission constraints in California have limited the amount of generation capable of serving Northern California. Second, significant generating resources that could serve northern California are unavailable or available at reduced output. These resources include a nuclear plant, a large pumped-storage hydroelectric facility, and several "qualifying facilities" (QFs) under the Public Regulatory Policies Act of 1978. Third, imports available to the ISO from the Northwest have dwindled to very small amounts.

Specifically, the dispersion of resources in California is such that most of the available capacity in the state is located in Southern California. In order for the Southern California capacity to be available to serve load in the entire state, that capacity must be transmitted north. Unfortunately, the primary transmission path (Path 15) between Southern and Northern California is limited in the amount of power that it can carry (i.e., has limited transfer capability). This fact, combined with low imports from the Northwest and unavailable QF generation (See ***Attachment B***), has raised concerns that the ISO will be unable to satisfy demand in Northern California. This problem is exacerbated by the fact that imports from the Northwest, which can serve load in Northern California, also serves to increase the transfer capability of Path 15 (by creating a counterflow). To the extent that the ISO is able to call on, for example, existing QF capacity in Northern California, the ISO can unload Path 15 and thereby use more Southern California resources to serve Northern California load.

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DOE-19-1027-A-000374

Importantly, the circumstances described above also have lead to a significant use of Northern California hydroelectric generation, draining critical water supplies perilously low. In fact, California has already exhausted water supplies that would have otherwise been needed next spring. We believe that the Northwest is in a similar situation. It is therefore imperative that all available thermal generation (e.g., gas, coal, nuclear, QF) in California and West be made available immediately. By making this generation available, California and the West can preserve critical water supplies for use later in the year and next year.

The increase in production costs and the scarcity of generation have led to high region-wide prices for electricity. These prices, in turn, have led suppliers in the Northwest and elsewhere to request credit assurances before supplying energy to California. Suppliers have been unwilling to rely on the credit of the existing investor-owned utilities in California: 85% of the ISO bills also go to, and are therefore dependent on, this credit. The result has been a reduction in the amount of imports being offered to the ISO. See, ***Attachment C***, outlining credit inquires received by the ISO.

Request for An Emergency Order

It is for the above reasons that I request an emergency order. A draft order should require that all entities in the WSCC with market-based rate authority from the FERC, and all QFs within the California, be ordered to generate, deliver and transmit electric energy to the ISO during such time periods and in such amounts as the ISO requests. The order should include, but not be limited to, the entities listed in ***Attachments B*** and ***D*** (.

As a result of suppliers' ability to be paid "as bid" (described above), the ISO would exercise its authority under the emergency order only if suppliers had not bid into the ISO markets. If suppliers have not submitted a bid and have not been scheduled with the ISO in the Day-Ahead Market, the ISO will forecast the amount of capacity it anticipates it will need and direct the necessary resources to bid into the Hour-Ahead and real-time markets. Such resources would then be compensated according to the provisions of the ISO tariff, as approved in Amendment No. 33 ***(Attachment E)***. For those entities that do not have a contractual or business relationship with the ISO, the ISO will negotiate appropriate compensation. Therefore, the ISO will ensure that it has procured the necessary capacity at rates that will ultimately be subject to a FERC just and reasonable review. For those entities with native load obligations, the amount of energy to be supplied to the ISO under the emergency order would be that energy available after fulfilling native load requirements.

As noted above, the emergency order would apply to QFs within the California. The ISO currently estimates that 1000-2000 MW of QF generation in California is currently unavailable, the majority of which is located in Southern California. The definition of Emergency under the Department's regulations includes regulatory action which prohibits the use of certain electric power facilities. Recently FERC issued an order waiving certain provisions of its QF regulations to allow QFs to provide more capacity in California. Unfortunately, there are still state regulatory barriers concerning the QFs and the IOUs with which the QFs have contracts. Certain QF generation is unavailable due to the concerns of: (1) the QFs regarding recovery of productions costs, and (2) the investor-owner utilities that have contracted with QFs regarding their ability to recover the increased payments to QFs. Your authority under section 202 (c) of the FPA section extends to QFs.[6] Attached is a list of organizational contacts for the QF generators in California to which the emergency order would apply. See ***Attachment B***. A detailed list of the QFS will be submitted later.

[6] See, 18 C.F.R. § 292.307(a)(2).

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DOE-19-1027-A-000375

I appreciate you consideration of this request and look forward to hearing from you as soon as possible.

Sincerely,

Terry M. Winter

Terry M. Winter
President & Chief Executive Officer

TMW/ klh

Enclosures

AMERICAN OVERSIGHT

Original of 014604

RICHARD BLUMENTHAL
ATTORNEY GENERAL

55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120

Office of The Attorney General
State of Connecticut

August 14, 2002

Honorable Spencer Abraham
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Secretary Abraham:

I have been informed that Mr. Richard Kessel of the Long Island Power Authority ("LIPA") has sought an order from the Department of Energy ("DOE") directing the Cross-Sound Cable Company LLC ("Cross Sound") to commence operation of an underwater electric transmission cable that has not been completely constructed and has not met the terms of its state and federal permits. Specifically, during May of this year, Cross Sound began installing a controversial power line between Connecticut and Long Island. Cross Sound was unable to complete installation to the required depth and, due to various important environmental concerns, the permits issued to Cross Sound prohibit construction under the Long Island Sound during the summer months. The relevant state and federal regulatory authorities concluded that the cable cannot be legally operated until the terms of the permits are met. Accordingly, I went to court to obtain an injunction to prevent illegal operation of the cable. Cross Sound, the defendant in that action, agreed in open court not to operate the cable until the environmental and safety terms of the permit are met.

Now LIPA is seeking a federal "emergency" order to compel Cross Sound to violate state and federal law. It is hardly necessary to point out that the safety of the public and the protection of the environment are paramount issues that cannot be cavalierly ignored by LIPA.

Further, there is no indication that any of the normal load-shedding or other activities associated with a true emergency have occurred on Long Island. It would make no sense to issue an order to violate state law and operate an incomplete transmission line that does not meet

AMERICAN OVERSIGHT

minimum safety standards when no emergency operating conditions exist in Long Island and when operation of the cable could trigger a true emergency in New England.

Even if there were a true emergency, the Federal Power Commission's (FPC) statutory authority simply does not permit the Department of Energy or the Commission to order that an unlicensed incomplete cable be used to transport electricity. The Federal Power Act (FPA) does not preempt the siting and licensing function of the states concerning electric transmission facilities. Rather, the FPA only authorizes federal authority over the operation and sale of electric transmission services after the transmission facilities are properly licensed by the State. 16 United States Code § 824a(b) provides certain emergency powers over the "connections of [electric transmission] facilities." Obviously, "facilities for the ...transmission of" electricity do not include unpermitted, incomplete and unsafe partially installed cables.

LIPA has failed to make any factual showing that the extraordinary action it requests is appropriate. At present, LIPA has failed to show any likelihood of success in proving that a true emergency of the sort contemplated by the FPA exists. Second, LIPA has failed to show, much less recognize, the effect that a transfer of 300 MW of electricity from New England to Long Island would have on New England. Much of New England, and particularly Connecticut, shares the same weather as Long Island and thus is subject to the same power demands during a heat wave. Third, LIPA has failed to show that it has exhausted all other remedies available to it. LIPA has numerous interconnections with ConEd that may or may not be overloaded. Moreover, LIPA has failed to show that it has taken any steps to run peaking generating units on Long Island that were recently installed but are not yet able to run pursuant to New York environmental standards. Certainly LIPA should seek to meet or even lawfully circumvent New York law to meet its own power needs before it attempts to overrun the laws of its neighbor.

I urge you, therefore, to deny this improper, illegal and unjustified request.

Very truly yours,

Richard Blumenthal

RICHARD BLUMENTHAL

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Batra, Rakesh
Sent: Monday, January 22, 2018 6:49 AM
To: Jereza, Catherine;Rosenbaum, Matthew
Subject: PJM/Dominion 202 (c) Filing - Purpose and Timeline
Attachments: PJM Dominion Order Timeline.xlsx

Please see attached.

Thanks,
Rakesh Batra

AMERICAN OVERSIGHT

Purpose: To order PJM/Dominion, to operateYorktown Units 1 and 2 to avoid load shedding across the North Hampton Roads area which could impact over half a million people.

No.	PJM/Dominion 202(C) Proceeding/Order Timeline						
	Activity	Title/Name	Due Day	Due Date		Primary POC	Secondary POC
				All Cases			
1	Last Order		Wednesday	(b) (5)			
2	Emmissions Data Received		Thursday	(b) (5)	Every 2 weeks	Brian	Brian/Matt
3	Water Data Received				Every 2 weeks	Brian	Brian/Matt
3	Application & Data		Tuesday	(b) (5)		Rakesh Batra	Brian/Kathy/Matt
4	Review Application		Tuesday	(b) (5)		Rakesh Batra	Brian/Kathy/Matt
5	Review Data		Tuesday	(b) (5)		Brian	Brian/Matt
6	EPA Consultation Request		Tuesday	(b) (5)		Brian/ Kathy K	Julie/ Chris Drakes
7	Senior staff Heads Up		Monday	(b) (5)	by 3:30PM	Rakesh to Kathy B.	Matt to Kathy B.
8	Draft Order		Thursday	(b) (5)		Kathy K	Rakesh
9	Summary of Findings		Thursday	(b) (5)		Kathy K	Rakesh
10	Action Memo		Friday	(b) (5)		Rakesh Batra	Kathy K
11	NEPA Review/CX		Friday	(b) (5)		Brian/ Kathy K	Julie/ Chris Drakes
12	EPA Consultation Confirmation	Kellie Ortega	Friday	(b) (5)		Brian/ Kathy K	Julie/ Chris Drakes
13	Briefing principles		(b) (5)			Rakesh Batra/ Brian Mills	Matt Rosenbaum / Brian Mills
14	Concurrence Staff Availability		Check availability of Concurrence staff and available backup staff - Kathy B.			Rakesh Batra/ Matt Rosenbaum	Matt/Brian
15	Concurrence - OE	DAS - Catherine Jereza	Thursday	(b) (5)		Rakesh Batra	Matt
16	Concurrence - OE	AS - Bruce Walker	Thursday	(b) (5)		Rakesh Batra	Jereza, Catherine
17	Concurrence - CI	DAS -Douglas Little	Thursday	(b) (5)		Catherine Jereza	Kathy Bittner
18	Concurrence - CF	CFO -John Vonglis	Thursday	(b) (5)		Catherine Jereza	Kathy Bittner
19	Concurrence - PA	Dir - W Turenne	Thursday	(b) (5)		Catherine Jereza	Kathy Bittner
20	Concurrence - GC	Deputy - John Lucas	Thursday	(b) (5)		Catherine Jereza	Kathy Bittner
21	Concurrence - S3	Under Sec Mark Menezes	Friday	(b) (5)		Lisa Pitcher	Tanisha Fuller
22	Concurrence - S2	Deputy Sec - Dan Brouillette	Friday	(b) (5)		Lisa Pitcher	Tanisha Fuller
23	Concurrence - DCOS	Deputy - Dan Wilmont	Friday	(b) (5)		Lisa Pitcher	Tanisha Fuller
24	Concurrence - COS	Brian McCormack	Friday	(b) (5)		Lisa Pitcher	Tanisha Fuller
25	Concurrence -S1	Rick Perry	Monday	(b) (5)		Lisa Pitcher	Tanisha Fuller
26	Next Order		Monday	(b) (5)			
27	PJM/Dominion Communication	Steven Pincus / M. Regulinski	Monday	(b) (5)		Rakesh Batra	Kathy Bittner

(b) (5)

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Drake, Christopher
Sent: Wednesday, February 21, 2018 6:27 AM
To: Batra, Rakesh;Konieczny, Katherine
Cc: Jereza, Catherine;Rosenbaum, Matthew;Mills, Brian
Subject: RE: 202 (c) Draft order

Rakesh:

(b) (5)

-----Original Message-----
From: Batra, Rakesh
Sent: Wednesday, February 21, 2018 8:28 AM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: 202 (c) Draft order

Kathy and Chris:

(b) (5)

Also, Brian will need the "Order Number" for CX.

Thanks,
Rakesh

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Mills, Brian
Sent: Friday, March 09, 2018 10:48 AM
To: Jereza, Catherine
Subject: FW: 202(c) Package

-----Original Message-----
From: Bittner, Kathy (CONTR)
Sent: Friday, March 09, 2018 1:47 PM
To: Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: RE: 202(c) Package

Still with S3

-----Original Message-----
From: Mills, Brian
Sent: Friday, March 09, 2018 11:56 AM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Subject: 202(c) Package

Any update on progress?

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Konieczny, Katherine
Sent: Tuesday, March 13, 2018 11:29 AM
To: Jereza, Catherine
Subject: Automatic reply: 202 (c) Update

I will not be in the office Tuesday, March 13, through Thursday, March 15, but I will be periodically checking email. For urgent matters, please call my cell phone at (b) (6) .

Have a great day,
Kathy

Kathy Konieczny
Acting Assistant General Counsel for Electricity and Fossil Energy
U.S. Department of Energy

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Konieczny, Katherine
Sent: Tuesday, March 13, 2018 11:29 AM
To: Jereza, Catherine
Subject: Automatic reply: 202 (c) Update

I will not be in the office Tuesday, March 13, through Thursday, March 15, but I will be periodically checking email. For urgent matters, please call my cell phone at (b) (6) .

Have a great day,
Kathy

Kathy Konieczny
Acting Assistant General Counsel for Electricity and Fossil Energy
U.S. Department of Energy

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Jereza, Catherine
Sent: Tuesday, March 13, 2018 11:29 AM
To: Batra, Rakesh
Cc: Konieczny, Katherine
Subject: RE: 202 (c) Update

Thanks!

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Tuesday, Mar 13, 2018, 2:03 PM
To: Minnick, Debra B. (CONTR) <Debra.Minnick@hq.doe.gov>, Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>, Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>, Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: 202 (c) Update

I personally met Wayne Smith and America Bowie to get the latest update on 202 (c) order.
No new updates are available. COS was at White House the entire morning. (b) (5)

Thanks,
Rakesh

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Sent: Tuesday, March 13, 2018 11:29 AM
To: Batra, Rakesh
Cc: Konieczny, Katherine
Subject: RE: 202 (c) Update

Thanks!

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Tuesday, Mar 13, 2018, 2:03 PM
To: Minnick, Debra B. (CONTR) <Debra.Minnick@hq.doe.gov>, Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>, Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>, Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: 202 (c) Update

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Batra, Rakesh
Sent: Wednesday, March 14, 2018 12:06 PM
To: Rosenbaum, Matthew;Bittner, Kathy (CONTR)
Cc: Mills, Brian;Jereza, Catherine;Minnick, Debra B. (CONTR)
Subject: RE: 2018-001435 - response required
Attachments: Congressional Response V1 cdh kj.docx

Kathy,

Attached is the revised draft response (I found an extra period and parenthesis in paragraph 4).

In your action memo and formal note you can add the following:

BACKGROUND: On February 21, 2018, a few Senators and Representatives sent a letter calling on the President to safeguard the grid's fuel security and direct the Secretary of Energy to exercise his Section 202(c) emergency powers under the Federal Power Act. Also, the Senators and Representatives requested that the Department of Energy evaluate the announced and expected retirement of additional fuel-secure baseload generation units and the potential national security and economic ramifications.

(b) (5)

Please let me know if you need anything else - Rakesh

From: Rosenbaum, Matthew
Sent: Wednesday, March 14, 2018 9:24 AM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Minnick, Debra B. (CONTR) <Debra.Minnick@hq.doe.gov>
Subject: RE: 2018-001435 - response required

Kathy,

Attached is our draft response.

Please let me know if you need anything else - Matt

From: Bittner, Kathy (CONTR)
Sent: Thursday, March 08, 2018 1:11 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Mills, Brian <Brian.Mills@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Minnick, Debra B.

AMERICAN OVERSIGHT

(CONTR) <Debra.Minnick@hq.doe.gov>
Subject: 2018-001435 - response required

All,

Attached please find the new Congressional incoming correspondence pertaining to Section 202c.

It is a signature level of S-1. Please let me know if that is an appropriate signature level. If it is, I will send an Action Memo that will need to be completed. If not, a signature downgrade form will need to be completed.

May I please have the draft response **by COB Thursday, March 15th**?

I have also attached the closeout form that was used for the Murray letter.

Let me know if you need any additional information.

Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

AMERICAN OVERSIGHT

March 8, 2018

Dear Senators and Representatives:

(b) (5)

Sincerely,

Hon Mark Wesley Menezes
Under Secretary of Energy
U.S. DEPARTMENT OF ENERGY.
1000 Independence Ave. SW
Washington DC 20585

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Batra, Rakesh
Sent: Thursday, March 22, 2018 11:08 AM
To: Jereza, Catherine;Harbin, Christine
Cc: Rosenbaum, Matthew
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019
Attachments: 2018-001400 - Draft Action Memo to S3 (003) v2.docx

Please see attached action memo addressing your comments. Please let me know if you want any further revisions.

Thanks,
Rakesh

From: Jereza, Catherine
Sent: Thursday, March 22, 2018 12:14 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019

Another thing. There is supposed to be a sentence explaining why we are focusing on the request rather than engage in a lengthy debate. The memo must demonstrate our rationale so leadership is comfortable with signing the letter

---

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Thursday, Mar 22, 2018, 11:31 AM
To: Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: FW: Hearing Request to keep Navajo Generating Station operational beyond 2019

Looping in Christine. Forgot first time.

-----Original Message-----
From: Batra, Rakesh
Sent: Thursday, March 22, 2018 11:28 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: Hearing Request to keep Navajo Generating Station operational beyond 2019

Katie,

(b) (5)

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Thanks,
Rakesh

AMERICAN OVERSIGHT

MEMORANDUM FOR THE UNDER SECRETARY

FROM: BRUCE J. WALKER
ASSISTANT SECRETARY
ELECTRICITY DELIVERY AND ENERGY RELIABILITY

SUBJECT: Navajo Generating Station (NGS) operation beyond 2019.

ACTION: Approval of Response to letter to Under Secretary Mark Menezes from Representative Mark Finchem, Vice Chair, Arizona House Federalism, Property Rights and Public Policy Committee, Arizona House of Representatives

ISSUE: Whether to approve the response letter declining a hearing request from Arizona Representative Finchem.

BACKGROUND:

Primary Request from the State Legislators:
On February 12, 2018, Arizona Rep. Mark Finchem, Vice-Chair of the Arizona House Federalism, led a group of Arizona state legislators in sending a letter requesting the Department of Energy (DOE) to convene a hearing on the premature closing of NGS. This 2,250 MW coal-fired electricity generation plant in northern Arizona faces decommissioning and is scheduled to shut down in 2019. The purpose of the requested hearing is to address the following specific questions: (a) higher than market coal purchase price, making NGS appear to be non-competitive when in fact it is not; (b) load to capacity dark space, a "lucrative black hole" for hiding profitability; (c) inflated labor costs; (d) premature launch of a decommissioning plan, allegedly already underway; and (e) he economic impact to the Navajo nation, the Hopi Tribe, the State of Arizona, and America.

Additional Issues Raised in the Letter:
1. NGS was created by an Act of Congress and can only be shut down by Congress
2. The Obama Administration based its plan to shut down NGS on faulty and incomplete analysis
3. The state of Arizona will lose over $8 billion in revenue, and the City of Page and Coconino County may likely go bankrupt, according to W.P. Carey Report commissioned by SRP in 2012
4. Navajo and Apache Counties may be hit hard economically

DRAFT

AMERICAN OVERSIGHT

5. The natural resource that the Navajo and Hopi rely on for over 65% of their income will be stranded

DOE Response:

DOE response is focused on the specific request for a hearing. DOE will focus on finding a comprehensive solution to this issue, in partnership with other federal agencies, instead of hosting a lengthy discussion about the additional issues raised in the letter as listed above.

DOE is aware of the potential national and economic security risks associated with our changing portfolio of electric power generation nationwide that is depleting our fuel assured generation; specifically, coal and nuclear. In lieu of holding a hearing in the immediate term, DOE remains committed to partnering with other federal agencies -- including FERC, NERC, and the Department of Interior – in reaching a positive solution for the nation's electric grid. DOE respects the regulatory process and will seek a solution that is in the best interest of national and economic security.

Secretary of Energy at DOE has the authority to keep facilities temporarily operational under Section 202(c) of the Federal Power Act (FPA) to best meet the emergency and serve the public interest.

SENSITIVITIES: Salt River Project (SRP) in its 2017 Annual report provides economic reasons for the shutdown of the NGS. Tucson Electric Power Company's (TEP) 2017 Integral Resource Plan also provides economic reasons for the shutdown. SRP, TEP and Peak Reliability, the Reliability Coordinator of the region, all are silent on any reliability issues for the closure of NGS.

POLICY IMPACT: N/A

URGENCY: N/A

RECOMMENDATION: That you approve the response letter to Representative Finchem.

APPROVE: _____ DISAPPROVE: _____ NEEDS DISCUSSION: _____ DATE:_____

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Batra, Rakesh
Sent: Thursday, March 22, 2018 1:10 PM
To: Jereza, Catherine;Harbin, Christine
Cc: Rosenbaum, Matthew
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019

Will the below paragraph work:

(b) (5)

From: Jereza, Catherine
Sent: Thursday, March 22, 2018 3:00 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019

(b) (5)

Need to see the changes in the letter as well

Thanks
Katie

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Thursday, Mar 22, 2018, 2:07 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019

AMERICAN OVERSIGHT

Please see attached action memo addressing your comments. Please let me know if you want any further revisions.

Thanks,
Rakesh

From: Jereza, Catherine
Sent: Thursday, March 22, 2018 12:14 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: Hearing Request to keep Navajo Generating Station operational beyond 2019

(b) (5)

From: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Date: Thursday, Mar 22, 2018, 11:31 AM
To: Harbin, Christine <Christine.Harbin@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>, Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: FW: Hearing Request to keep Navajo Generating Station operational beyond 2019

Looping in Christine. Forgot first time.

-----Original Message-----
From: Batra, Rakesh
Sent: Thursday, March 22, 2018 11:28 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: Hearing Request to keep Navajo Generating Station operational beyond 2019

Katie,

Attached are two documents - Draft Action Memo to S3 and DOE response, to AZ Rep's letter requesting hearing to keep Navajo Generating Station operational beyond 2019. I have made all the changes we discussed on Tuesday evening. This is just a reminder that we need to submit the drafts response into the concurrence process quickly to meet the required due date.

(b) (5)

Thanks,
Rakesh

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 6:15 AM
To: Rosenbaum, Matthew
Cc: Jereza, Catherine;Kim, Joyce
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29
Attachments: QFR 3-20-18 SENR S1 - Q33 re use of FPA sec 202c.docx

Found a grammar error after I had sent below.

Correct file to use attached.

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 9:05 AM
To: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Draft for response to Q33 re use of FPA Sec. 202(c) attached.

From: Rosenbaum, Matthew
Sent: Monday, March 26, 2018 3:06 PM
To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: FW: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Larry,

Can you please take a shot at answering this by tomorrow as we discussed on the phone? It is similar to the rest of the 202c related questions you have been answering.

Thanks, Matt

From: Perrin, Rusty
Sent: Monday, March 26, 2018 2:52 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

In either case, could you get me an answer **by Thursday?**

RP

AMERICAN OVERSIGHT

From: Perrin, Rusty
Sent: Monday, March 26, 2018 1:31 PM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

From: Perrin, Rusty
Sent: Monday, March 26, 2018 10:19 AM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Attached, please see questions for the record from the Secretary's 3/20/2018 hearing before the Senate Energy and Natural Resources Committee. Please draft responses for questions assigned to you, and return them to me **by Thursday, 3/29.**

Note there is one response that I am in process of trying to get reassigned to WAPA. If any of you, however, feel competent to answer it, let me know and I'll call off the reassignment effort.

RP

AMERICAN OVERSIGHT

QUESTIONS FROM CHAIRMAN MURKOWSKI

Q7. Alaska is home to more than 200 microgrids and leads the world on innovation in bringing together locally-available renewable resources in hybrid energy microgrids to decrease cost and emissions for our people. Microgrids have been a major topic for the Committee this year. Many are looking to microgrid concepts to provide increased power reliability and resilience to high-value assets on the major interconnected grids, or to provide similar value to the grids in Puerto Rico and the U.S. Virgin Islands. Although microgrids are an effective enabling technology for many small generating sources such as microreactors and marine hydrokinetics, there must be more research to refine these concepts and improve technologies.

Q7a. How do you plan to advance microgrid research, development, and deployment through the Department of Energy?

(b) (5)

(b) (5)

Q7b. How will that work facilitate work in the many DOE Offices?

A7b.

Q7c. Are hybrid-energy system microgrids a significant enabling technology for increasing grid reliability and resilience?

A7c.

AMERICAN OVERSIGHT

Q7d. Are hybrid-energy system microgrids a significant enabling technology for distributed energy generation sources such as microreactors, small hydro, small wind, small solar, and energy storage?

A7d.

Q7e. How do you plan to advance microgrid research, development, and deployment through the Department of Energy?

A7e.

Assistant Secretary:	B. Walker	Preparation Lead:	M. Pesin
Date:		Preparation Team:	G. Bindewald, D. Haught
Phone:	6-1411	Phone:	6-5298

Concurrences:
OE:
GC:
CI:
CF:
OP:
EERE:
NE:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM RANKING MEMBER CANTWELL

Q21. Secretary Perry said at a hearing in the House that he is "not confident" the federal government has an adequate strategy in place to address the cybersecurity threat.

Q21a. What additional authority do you need to meet this challenge?

A21a.

(b) (5)

Q21b. If you have all the authority you need, why have you not been able to develop an adequate strategy?

A21b.

Q21c. What have you done in the past year to advance DOE's role as the Energy Cybersecurity Sector Specific Agency?

A21c.

Q22. In response to what has been characterized by the Federal government as a "multi-stage intrusion campaign by Russian government cyber actors who …gained remote access into energy sector networks" the FBI and DHS issued a joint alert to critical infrastructure sectors, including the energy sector. Yet on the same day, Secretary Perry testified in front of the House of Representatives that he did not think the Federal government had an adequate strategy in place to address the number of cyberattacks directed at the United States. Why did it appear that the FBI, DHS, and DOE were not all coordinated in what appears to be the most significant public federal response to Russian cyber intrusions on the grid? Please explain to this committee how you have used your authority as Secretary of the Sector Specific Agency in charge of energy cybersecurity to work with the Director of the FBI and the Secretary of Homeland Security on energy cybersecurity matters? How can you ensure you will coordinate better with DHS and FBI?

A22.

Q24. Why has energy cybersecurity been overlooked in the infrastructure bill despite the fact that the Administration and the Department of Energy have agreed that our grid is vulnerable to cyberattack, the FBI and DHS admitted last week that our grid is currently under attack?

A24.

AMERICAN OVERSIGHT

Q25a. Are you confident that President Trump understands the gravity of the threat of cyberattacks to our way of life?

A25a.

Q25b. How will you ensure that an effective federal strategy will be developed to meet this challenge?

A25b.

Q25c. When can we expect a comprehensive capability and vulnerability assessment to be completed?

A25c.

Assistant Secretary:	B. Walker	Preparation Lead:	H. Kenchington
Date:		Preparation Team:	D. Streit
Phone:	6-1411	Phone:	6-1878

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q26. There were 16 separate billion-dollar weather and climate disaster events in 2017, costing the economy hundreds of billions in losses – a record breaking year. The DOE budget proposal includes a 64 percent cut to Transmission Reliability and Resilience and an 80 percent cut to Resilient Distribution Systems. After a record year of weather and climate disaster events, which clearly illustrate the need for increased resilience for our electric grid, how do you justify these drastic cuts to electricity resiliency?

A26.

AMERICAN OVERSIGHT

Assistant Secretary:	B. Walker	Preparation Lead:	M. Pesin
Date:		Preparation Team:	G. Bindewald, D. Haught
Phone:	6-1411	Phone:	6-5298

Concurrences:
OE:
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CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q27. The DOE proposed budget includes a 74 percent cut to the energy storage program within the Office of Electricity Delivery and a 75 cut to battery and electrification technologies within EERE's vehicles office. At a hearing in the House, Secretary Perry said that energy storage is the "Holy Grail." If energy storage is the "Holy Grail," why does the budget proposal cut it in multiple offices?

A27.

Assistant Secretary:	B. Walker	Preparation Lead:	M. Pesin
Date:		Preparation Team:	G. Bindewald, D. Haught (coordinate w/ EERE)
Phone:	6-1411	Phone:	6-5298

Concurrences:
OE:
GC:
CI:
CF:
OP:
EERE:
Cleared for Hill:

Date Q received: 3/23/2018

Q33. Will DOE commit not to abuse the Federal Power Act to keep coal plants open that are simply not competitive?

(b)
(5)

AMERICAN OVERSIGHT

(b) (5)

Assistant Secretary:	B. Walker	Preparation Lead:	K. Jereza
Date:		Preparation Team:	L. Mansueti
Phone:	6-1411	Phone:	6-0334

Concurrences:
OE:
GC:
CI:
CF:
OP:
EERE:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM SENATOR WYDEN

Q8. DOE's budget proposal reduces energy storage research at the Office of Electricity Delivery by 74%. This office is funding new types of energy storage beyond current lithium-ion technologies.

What specific next-generation energy storage research, including those currently being funded, would be disrupted with this budget cut?

A8.

Assistant Secretary:	B. Walker	Preparation Lead:	M. Pesin
Date:		Preparation Team:	G. Bindewald, D. Haught
Phone:	6-1411	Phone:	6-5298

Concurrences:
OE:
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CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM SENATOR SANDERS

Q3. In December 2017, several organizations including the Department of Energy submitted a report, *Build Back Better: Reimagining and Strengthening the Power Grid of Puerto Rico*, to New York Governor Cuomo, Puerto Rico Governor Roselló, and FEMA Administrator Long. This report recommended a resilient rebuilding plan for Puerto Rico that focuses on distributed energy sources like wind and solar as well as "islandable" microgrids. Furthermore, according to the DOE Office of Electricity Delivery and Energy Reliability's March 14 Situation Report on Hurricanes Maria and Irma:

> *"The U.S. Department of Energy (DOE) continues to support restoration and recovery efforts related to Hurricanes Maria and Irma. On Puerto Rico, DOE continues to provide support to FEMA. Subject matter experts from the DOE Power Marketing Administration remain deployed to provide technical assistance to the U.S. Army Corps of Engineers. DOE has also deployed a responder to Puerto Rico under the National Disaster Recovery Framework to support the FEMA recovery mission and development of a Federal Recovery Plan."*

Q3a. Please outline the status of your work, including a timeline, with FEMA, the U.S. Army Corps, and private contractors to implement the suggestions laid out in the *Build Back Better* report.

A3a.

Q3b. Please outline the National Disaster Recovery Framework referenced in the March 14 Situation Report and describe how it relates to the *Build Back Better* report's recommendations to increase distributed energy and microgrids in Puerto Rico. Specifically, how many of the report's recommendations are currently being implemented in both recovery and rebuilding efforts in Puerto Rico?

A3b.

Q3c. Please describe any other recommendations that the Department of Energy has considered for ensuring that Puerto Rico's electric grid is expeditiously rebuilt in a way that is decentralized and resilient.

A3c.

AMERICAN OVERSIGHT

Assistant Secretary:	B. Walker	Preparation Lead:	B. Parks
Date:		Preparation Team:	D. Streit
Phone:	6-1411	Phone:	6-9292

Concurrences:
OE:
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OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q3d. The March 14 Situation Report states that "responders deployed to the U.S. Virgin Islands (USVI) demobilized on January 12th." Please provide an outline of the work on the U.S. Virgin Islands that was completed with the DOE's guidance. Also, please list the justifications for the demobilization in the U.S. Virgin Islands.

A3d.

Assistant Secretary:	B. Walker	Preparation Lead:	D. Streit
Date:		Preparation Team:	
Phone:	6-1411	Phone:	6-7181

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM SENATOR DAINES

Q2. Grid security has been a major focus of mine and well as this Committee. A frequent issue for rural electric cooperatives is the lack of resources to fight against cyber-attacks against the grid. How will the reorganization of Office of Electricity and Energy Reliability and accompanying budget effect DOE's ability to support our rural electric cooperatives and can you commit to continue to work with rural electric cooperatives to secure our grid from cyber-attacks?

A2.

Assistant Secretary:	B. Walker	Preparation Lead:	D. Streit
Date:		Preparation Team:	H. Kenchington
Phone:	6-1411	Phone:	6-7181

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM SENATOR GARDNER

Q1. The Office of Electricity Delivery and Energy Reliability has led an effort, in coordination with the national laboratories, to address the technical challenges of grid modernization. In many cases, these assets are privately owned with little resources for research and development. Therefore, DOE has provided critical support in research, testing and validation, and deployment of technologies for the grid.

The Fiscal Year 2019 budget request would split this office into two offices, one focused on cybersecurity and energy security and one focused on electricity delivery.

Q1a. The DOE Grid Modernization Initiative and the Grid Modernization Laboratory Consortium have brought together technical expertise from national laboratories to address specific challenges facing the grid from cybersecurity to energy storage. This crosscutting initiative has been a success, and it is important that DOE continue to lead this program. Can you comment on the department's plans for these two efforts?

A1a.

Assistant Secretary:	B. Walker	Preparation Lead:	B. Parks
Date:		Preparation Team:	G. Bindewald, D. Haught
Phone:	6-1411	Phone:	6-9292

Concurrences:
OE:
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CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q1b. Given this week's news on the attempts of foreign nations to attack our grid, are you confident the department's budget request will provide the resources necessary to ensure that our electric grid remains secure?

A1b.

Q1c. Is there something else we could be doing to support a strong, coordinated interagency federal effort to make sure our critical infrastructure has the necessary cybersecurity?

A1c.

(b) (5)

AMERICAN OVERSIGHT

Assistant Secretary:	B. Walker	Preparation Lead:	H. Kenchington
Date:		Preparation Team:	D. Streit
Phone:	6-1411	Phone:	6-1878

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q2. On March 1st Assistant Secretary Bruce Walker testified before this committee that his office was working with DoD and the Western Area Power Administration (WAPA) on Defense Critical Electric Infrastructure issues, essentially using WAPA as a testing ground for cyber issues. How does your elimination of WAPA's Infrastructure Security and Energy Restoration funding and your proposal that WAPA sell off its transmission assets help address these important Defense Critical Electrical Infrastructure issues?

A2.

Assistant Secretary:	B. Walker	Preparation Lead:	Propose for reassign to WAPA
Date:		Preparation Team:	
Phone:	6-1411	Phone:	

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

QUESTIONS FROM SENATOR MASTO

Q6. On March 15, 2018, the Department of Homeland Security released a warning that accused Russian government hackers of carrying out a deliberate, ongoing operation to penetrate vital U.S. industries, including the energy grid, including energy generation, nuclear, commercial, and water facilities. Russian cyber-attacks on our power and water infrastructure remind us the threat is not only the loss of privacy and the spread of disinformation, but the potential for physical damage to our critical infrastructure and potentially the loss of life. A security expert recently told the New York Times, regarding the Russian attacks, "They have the ability to shut the power off, all that's missing is some political motivation." Do you believe the Russians have the ability to disrupt or damage our power grid?

A6.

Q6a. How many other countries and non-state actors can do this?

A6a.

Assistant Secretary:	B. Walker	Preparation Lead:	H. Kenchington
Date:		Preparation Team:	D. Streit
Phone:	6-1411	Phone:	6-1878

Concurrences:
OE:
GC:
CI:
CF:
OP:
Cleared for Hill:

Date Q received: 3/23/2018

Q7. Hydropower accounts for about 40 percent of the renewable energy produced in Nevada. Under Presidential Policy Directive-21, which addresses critical infrastructure security and resilience (also referred to as PPD-21), DOE is responsible for the security of the power grid and DHS is responsible for the security of dams. What are some of the unique challenges faced by hydroelectric facilities and how are you working with Homeland Security to address them?

A7.

AMERICAN OVERSIGHT

Q7a. Can you further clarify your respective roles and authorities, for example in developing regulations?

(b) (5)

Q8. Through the DOE Budget Request, you recently announced your intention to establish an Office of Cybersecurity, Energy Security, and Emergency Response (CESER) "to strengthen the Department's role as the sector-specific agency for cybersecurity in the energy sector. This office would be created from existing responsibilities from within the Office of Electricity Delivery and Energy Reliability (OE). What exactly will DOE be doing differently through the creation of this new office from what OE has already been doing?

(b) (5)

AMERICAN OVERSIGHT

(b) (5)

Q9. Nevada's Governor Sandoval recently created the Office of Cyber Defense Coordination, which serves as the primary focal point for cyber threats and security for the State of Nevada. With the addition of a Cyber Defense Coordinator, the office will serve as the primary conduit with the federal government, as well as the primary entity managing cyber threat issues across the State of Nevada. As a former governor, how do you think the federal government can best coordinate with State cyber offices like Nevada's to perform cyber threat analysis and reporting of threat information?

(b) (5)

(b) (5)

AMERICAN OVERSIGHT

Assistant Secretary:	B. Walker	Preparation Lead:	D. Streit
Date:		Preparation Team:	H. Kenchington
Phone:	6-1411	Phone:	6-7181

Concurrences:
OE:
GC:
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OP:
Cleared for Hill:

Date Q received: 3/23/2018

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 6:40 AM
To: Jereza, Catherine
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Hold on. Sending another (urgh) mistake correction in a sec.

From: Jereza, Catherine
Sent: Tuesday, March 27, 2018 9:38 AM
To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

I hear ya!! ☺

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 9:37 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
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Ughh.

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To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

It said indeed to use so I switched this to indeed used....

I think we're good to go now. Final draft:

Q33. Will DOE commit not to abuse the Federal Power Act to keep coal plants open that are simply not competitive?

(b) (5)

AMERICAN OVERSIGHT

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Subject: FW: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Larry,

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To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
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Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

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Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR)

AMERICAN OVERSIGHT

<Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

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Sent: Monday, March 26, 2018 10:19 AM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Attached, please see questions for the record from the Secretary's 3/20/2018 hearing before the Senate Energy and Natural Resources Committee. Please draft responses for questions assigned to you, and return them to me **by Thursday, 3/29.**

Note there is one response that I am in process of trying to get reassigned to WAPA. If any of you, however, feel competent to answer it, let me know and I'll call off the reassignment effort.

RP

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 6:43 AM
To: Jereza, Catherine
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

I looked again at the other letter I took the text from. Somehow I deleted two words ("indeed took action to use Federal Power Act"

I think (you may disagree) those words help. It would read (original words to add back in CAPS)

(b)
(5)

From: Jereza, Catherine
Sent: Tuesday, March 27, 2018 9:38 AM
To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

I hear ya!! ☺

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 9:37 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Ughh.

From: Jereza, Catherine
Sent: Tuesday, March 27, 2018 9:36 AM
To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

AMERICAN OVERSIGHT

It said indeed to use so I switched this to indeed used....

I think we're good to go now. Final draft:

(b)
(5)

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 9:15 AM
To: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: USE THIS ONE QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Found a grammar error after I had sent below.

Correct file to use attached.

From: Mansueti, Lawrence
Sent: Tuesday, March 27, 2018 9:05 AM
To: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Draft for response to Q33 re use of FPA Sec. 202(c) attached.

From: Rosenbaum, Matthew
Sent: Monday, March 26, 2018 3:06 PM
To: Mansueti, Lawrence <Lawrence.Mansueti@hq.doe.gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: FW: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Larry,

Can you please take a shot at answering this by tomorrow as we discussed on the phone? It is similar to the rest of the 202c related questions you have been answering.

Thanks, Matt

AMERICAN OVERSIGHT

From: Perrin, Rusty
Sent: Monday, March 26, 2018 2:52 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

From: Perrin, Rusty
Sent: Monday, March 26, 2018 1:31 PM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

From: Perrin, Rusty
Sent: Monday, March 26, 2018 10:19 AM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Attached, please see questions for the record from the Secretary's 3/20/2018 hearing before the Senate Energy and Natural Resources Committee. Please draft responses for questions assigned to you, and return them to me **by Thursday, 3/29.**

Note there is one response that I am in process of trying to get reassigned to WAPA. If any of you, however, feel competent to answer it, let me know and I'll call off the reassignment effort.

RP

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Rosenbaum, Matthew
Sent: Tuesday, March 27, 2018 10:31 AM
To: Perrin, Rusty;Jereza, Catherine
Cc: Kim, Joyce
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Rusty,

Here is the answer to our question:

(b) (5)

Please let me know if you need anything else.

Matt

From: Perrin, Rusty
Sent: Monday, March 26, 2018 2:52 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Kim, Joyce <Joyce.Kim@Hq.Doe.Gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

From: Perrin, Rusty
Sent: Monday, March 26, 2018 1:31 PM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hg.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hg.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hg.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hg.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hg.Doe.Gov>; Hawk, Carol

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<Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: RE: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

(b) (5)

RP

From: Perrin, Rusty
Sent: Monday, March 26, 2018 10:19 AM
To: Streit, Devon (Lisa) HQ <Devon.Streit@Hq.Doe.Gov>; Kenchington, Henry <Henry.Kenchington@hq.doe.gov>; Pesin, Michael <Michael.Pesin@hq.doe.gov>; Parks, William <William.Parks@hq.doe.gov>
Cc: Baumgartner, Jeffrey <Jeffrey.Baumgartner@Hq.Doe.Gov>; Calderon, Victor (CONTR) <Victor.Calderon@hq.doe.gov>; Kaushiva, Akhlesh <Akhlesh.Kaushiva@Hq.Doe.Gov>; Hawk, Carol <Carol.Hawk@Hq.Doe.Gov>; Bindewald III, Gilbert <Gilbert.Bindewald@hq.doe.gov>; Haught, Debbie <Debbie.Haught@hq.doe.gov>; Lee, Terri <Terri.Lee@hq.doe.gov>; Harbin, Christine <Christine.Harbin@hq.doe.gov>
Subject: QFRs, 3/20/2018 SENR/S-1 Hearing--draft responses due by Thursday, 3/29

Attached, please see questions for the record from the Secretary's 3/20/2018 hearing before the Senate Energy and Natural Resources Committee. Please draft responses for questions assigned to you, and return them to me **by Thursday, 3/29.**

Note there is one response that I am in process of trying to get reassigned to WAPA. If any of you, however, feel competent to answer it, let me know and I'll call off the reassignment effort.

RP

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Sent: Thursday, March 29, 2018 8:23 AM
To: Lotto, Adrienne
Subject: RE: 202 (c) FirstEnergy Request

Thank you. I will be in the office. We should discuss.

From: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Date: Thursday, Mar 29, 2018, 7:26 AM
To: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Harris, Aleisha (CONTR)
Sent: Thursday, March 29, 2018 6:50 AM
To: Jereza, Catherine
Subject: FW: Document - 202 (c) Hand Delivered

FYI

-----Original Message-----
From: Harris, Aleisha (CONTR)
Sent: Thursday, March 29, 2018 9:37 AM
To: Troy, Angela (CONTR) <Angela.Troy@Hq.Doe.Gov>
Cc: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: Document - 202 (c) Hand Delivered

Hi Angie,

This morning I had to use your stamp for the 202 (c) document that was hand delivered. I left a sticky note on your desk and gave the 3 copies to Rakesh.

Thanks
Aleisha

Aleisha M. Harris
ICF, Contractor to the US Department of Energy
Office of Electricity Delivery & Energy Reliability
1000 Independence Avenue S.W. | Suite 8H-033 | Washington, DC 20585
O: (202) 586-1411 | Aleisha.harris@hq.doe.gov

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Subject:	Brief discussion - 202 (c) emergency order request from FirstEnergy Solutions
Location:	(b) (7)(E)
Start:	Thu 3/29/2018 8:00 AM
End:	Thu 3/29/2018 8:30 AM
Show Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Batra, Rakesh
Required Attendees:	Batra, Rakesh; Rosenbaum, Matthew; Bittner, Kathy (CONTR); Konieczny, Katherine; Drake, Christopher; Mansueti, Lawrence; Meyer, David; Mills, Brian; Harbin, Christine; Jereza, Catherine
Optional Attendees:	Cunningham, Sean; Lotto, Adrienne

Please plan on attending for a quick brief discussion on 202 (c) emergency order request that came in this morning from FirstEnergy Solutions.

Thanks

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Subject: FW: Brief discussion - 202 (c) emergency order request from FirstEnergy Solutions
Location: (b) (7)(E)

Start: Thu 3/29/2018 8:00 AM
End: Thu 3/29/2018 8:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Batra, Rakesh

-----Original Appointment-----
From: Batra, Rakesh
Sent: Thursday, March 29, 2018 10:22 AM
To: Batra, Rakesh; Rosenbaum, Matthew; Bittner, Kathy (CONTR); Konieczny, Katherine; Drake, Christopher; Mansueti, Lawrence; Meyer, David; Mills, Brian; Harbin, Christine; Jereza, Catherine
Cc: Cunningham, Sean; Lotto, Adrienne
Subject: Brief discussion - 202 (c) emergency order request from FirstEnergy Solutions
When: Thursday, March 29, 2018 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: (b) (5)

Please plan on attending for a quick brief discussion on 202 (c) emergency order request that came in this morning from FirstEnergy Solutions.

Thanks

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Hoffman, Patricia
Sent: Thursday, March 29, 2018 8:23 AM
To: Lotto, Adrienne
Subject: RE: 202 (c) FirstEnergy Request

Thank you. I will be in the office. We should discuss.

From: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Date: Thursday, Mar 29, 2018, 7:26 AM
To: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

Sorry – meant to send this to you as well.

Adrienne Lotto

Chief of Staff for Assistant Secretary Bruce J. Walker
Office of Electricity
1000 Independence Avenue, SW
Room 8H-033
Washington, DC 20585
Tel: (202) 586-1117

From: Lotto, Adrienne
Sent: Thursday, March 29, 2018 10:18 AM
To: Brian McCormack, Chief of Staff <ChiefofStaff@hq.doe.gov>; Walker, Bruce <Bruce.Walker@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

Brian and Bruce,

As requested. See below and attached.

Adrienne Lotto

Chief of Staff for Assistant Secretary Bruce J. Walker
Office of Electricity
1000 Independence Avenue, SW
Room 8H-033
Washington, DC 20585
Tel: (202) 586-1117

AMERICAN OVERSIGHT

From: Walker, Bruce
Sent: Thursday, March 29, 2018 10:16 AM
To: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

From: Batra, Rakesh
Sent: Thursday, March 29, 2018 10:15:17 AM (UTC-05:00) Eastern Time (US & Canada)
To: Walker, Bruce; Hoffman, Patricia; Jereza, Catherine; Lotto, Adrienne
Cc: Rosenbaum, Matthew; Bittner, Kathy (CONTR); Konieczny, Katherine; Drake, Christopher; Mansueti, Lawrence; Meyer, David; Mills, Brian; Minnick, Debra B. (CONTR); Harbin, Christine
Subject: 202 (c) FirstEnergy Request

This is just to inform you that I received a 202 (c) emergency order request from FirstEnergy Solutions. The request was hand delivered earlier today.

The applicant, FirstEnergy Solutions, requests that the Secretary find that an emergency condition exists in the footprint of the PJM that requires immediate intervention by the Secretary, in the form of a Section 202(c) emergency order directing:

a) certain existing nuclear and coal-fired generators in PJM, to enter into contracts and all necessary arrangements with PJM, on a plant-by-plant basis, to generate, deliver, interchange, and transmit electric energy, capacity, and ancillary services as needed to maintain the stability of the electric grid and
b) PJM to promptly compensate at-risk merchant nuclear and coal-fired power plants for the full benefits they provide to energy markets and the public at large, including fuel security and diversity, as detailed in the application.

I will start working on it right away and prepare a timeline for processing the application.

Thanks,
Rakesh Batra

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Sanjay Narayan <sanjay.narayan@sierraclub.org>
Sent: Thursday, March 29, 2018 8:47 AM
To: Jereza, Catherine
Subject: First Energy Request for 202 Order

Ms. Jereza:

I hope you're well. First Energy has issued a press release indicating that it has submitted an application to the Department for an emergency order under FPA 202(c). I was wondering whether the Department would be willing to make that application public, or open a docket for it.

Thanks much,

Sanjay

--
I check e-mail infrequently. For urgent matters, please call me at the number below.

Sanjay Narayan
Managing Attorney
Sierra Club Environmental Law Program
2101 Webster St., Suite 1300
Oakland, CA 94612
(415) 977-5769

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

From: Hoffman, Patricia
Sent: Thursday, March 29, 2018 8:53 AM
To: Lotto, Adrienne
Subject: RE: 202 (c) FirstEnergy Request

I will be in the office tomorrow- let's discuss. My list is growing.

Cyber positions
202c
Jones act follow up
North American model discussion w/ Carl
Ornl discussion
Gmlc -get briefed on your conversation

From: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Date: Thursday, Mar 29, 2018, 8:34 AM
To: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>
Subject: RE: 202 (c) FirstEnergy Request

I'm in a meeting now with Katie's team on it. Ill give you the scoop when you have a moment.

From: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>
Date: Thursday, Mar 29, 2018, 11:23 AM
To: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Subject: RE: 202 (c) FirstEnergy Request

Thank you. I will be in the office. We should discuss.

From: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Date: Thursday, Mar 29, 2018, 7:26 AM
To: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

Sorry – meant to send this to you as well.

AMERICAN OVERSIGHT

Adrienne Lotto

Chief of Staff for Assistant Secretary Bruce J. Walker
Office of Electricity
1000 Independence Avenue, SW
Room 8H-033
Washington, DC 20585
Tel: (202) 586-1117

From: Lotto, Adrienne
Sent: Thursday, March 29, 2018 10:18 AM
To: Brian McCormack, Chief of Staff <ChiefofStaff@hq.doe.gov>; Walker, Bruce <Bruce.Walker@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

Brian and Bruce,

As requested. See below and attached.

Adrienne Lotto

Chief of Staff for Assistant Secretary Bruce J. Walker
Office of Electricity
1000 Independence Avenue, SW
Room 8H-033
Washington, DC 20585
Tel: (202) 586-1117

From: Walker, Bruce
Sent: Thursday, March 29, 2018 10:16 AM
To: Lotto, Adrienne <Adrienne.Lotto@hq.doe.gov>
Subject: FW: 202 (c) FirstEnergy Request

From: Batra, Rakesh
Sent: Thursday, March 29, 2018 10:15:17 AM (UTC-05:00) Eastern Time (US & Canada)
To: Walker, Bruce; Hoffman, Patricia; Jereza, Catherine; Lotto, Adrienne
Cc: Rosenbaum, Matthew; Bittner, Kathy (CONTR); Konieczny, Katherine; Drake, Christopher; Mansueti, Lawrence; Meyer, David; Mills, Brian; Minnick, Debra B. (CONTR); Harbin, Christine
Subject: 202 (c) FirstEnergy Request

This is just to inform you that I received a 202 (c) emergency order request from FirstEnergy Solutions. The request was hand delivered earlier today.

The applicant, FirstEnergy Solutions, requests that the Secretary find that an emergency condition exists in the footprint of the PJM that requires immediate intervention by the Secretary, in the form of a Section 202(c) emergency order directing:

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a) certain existing nuclear and coal-fired generators in PJM, to enter into contracts and all necessary arrangements with PJM, on a plant-by-plant basis, to generate, deliver, interchange, and transmit electric energy, capacity, and ancillary services as needed to maintain the stability of the electric grid and
b) PJM to promptly compensate at-risk merchant nuclear and coal-fired power plants for the full benefits they provide to energy markets and the public at large, including fuel security and diversity, as detailed in the application.

I will start working on it right away and prepare a timeline for processing the application.

Thanks,
Rakesh Batra

AMERICAN OVERSIGHT

Rodriguez, Susan (CONTR)

Subject:	202 (c) Meeting
Location:	(b) (7)(E)
Start:	Thu 3/29/2018 10:00 AM
End:	Thu 3/29/2018 11:00 AM
Show Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Lotto, Adrienne
Required Attendees:	Walker, Bruce

AMERICAN OVERSIGHT

Ruda, Anjelica M. (CONTR)

From: Uddo, Joe
Sent: Saturday, April 01, 2017 8:58 AM
To: Griffith, Wells
Subject: FW: (b) (6) Info
Attachments: (b) (6) 2016 Resume (2).pdf

From: Wilmot, Dan
Sent: Saturday, April 1, 2017 7:50:07 AM
To: Uddo, Joe; McCormack, Brian
Subject: FW: (b) (6) Info

From: D Wil (b) (6)
Sent: Friday, March 31, 2017 9:30:02 PM
To: Wilmot, Dan
Subject: Fwd: (b) (6) Info

Dan Wilmot

Begin forwarded message:

> **From:** Jeffrey Miller <Jeff@russomiller.com>
> **Date:** March 31, 2017 at 21:23:16 EDT
> **To:** (b) (6) <(b) (6) >, Dan Wilmot <(b) (6) >
> **Subject: Fwd:** (b) (6) **Info**

Sent from my iPhone

Begin forwarded message:

> **From:** Michael Moran <mike.moran@zurichna.com>
> **Date:** March 27, 2017 at 1:52:47 PM CDT
> **To:** Jeff Miller <Jeff@russomiller.com>
> **Cc:** (b) (6) (b) (6)
> **Subject:** (b) (6) **Info**
>
> Jeff –
> Thanks for taking care of this (b) (6) As you can see from his resume, he has worked on energy and "western" issues for some time. (b) (6)
>
> Talk soon,

AMERICAN OVERSIGHT

Mike

Michael E. Moran
Vice President, Federal Affairs
Zurich
1201 F. Street, NW Suite 950
Washington, DC 20004
Phone: 202-585-3166
Cell: (b) (6)

********** PLEASE NOTE **********
This message, along with any attachments, is for the designated recipient(s) only and may contain privileged, proprietary, or otherwise confidential information. If this message has reached you in error, kindly destroy it without review and notify the sender immediately. Any other use of such misdirected e-mail by you is prohibited. Where allowed by local law, electronic communications with Zurich and its affiliates, including e-mail and instant messaging (including content), may be scanned for the purposes of information security and assessment of internal compliance with company policy.

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(b) (6)

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(b) (6)

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Ruda, Anjelica M. (CONTR)

From: Dan Brouillette (b) (6)
Sent: Wednesday, August 02, 2017 2:11 PM
To: McCormack, Brian;Colgary, James;Loraine, Jennifer A.;Wilmot, Dan
Subject: Fwd: Nice.

FYI

Sent from my iPhone

Begin forwarded message:

> **From:** Jeffrey Miller <Jeff@russomiller.com>
> **Date:** August 2, 2017 at 2:01:57 PM EDT
> **To:** Dan Brouillette (b) (6)
> **Cc:** "Rob (b) (6) Johnson" <rob@johnsonstrategies.com>
> **Subject: Nice.**
>
> The Majority Leader asks unanimous consent the Senate proceed to Executive Session to consider Executive Calendar #103, Dan Brouilette, to be Deputy Secretary of Energy.
>
> The Majority Leader then asks that there be 10 minutes for debate only on the nomination equally divided in the usual form; that upon the use or yielding back of time, the Senate proceed to vote without intervening action or debate on the nomination; that if confirmed, the motion to reconsider be considered made and laid upon the table, the President be immediately notified of the Senate's action and the Senate then resume Legislative session without any intervening action or debate.
>
> DEPARTMENT OF ENERGY
> Cal. #103 Dan Brouilette, of Texas, to be Deputy Secretary of Energy
>
> Sent from my iPhone

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