

Summary of Findings
Department of Energy Order No. 202-18-5

September 5, 2018

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “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 issue an order “requir[ing] . . . such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1). If the order “may result in a conflict with [an] environmental law or regulation,” then the Secretary must “ensure that such 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 any applicable . . . environmental law or regulation and minimizes any adverse environmental impacts.” *Id.* § 824a(c)(2). Orders issued under FPA section 202(c) “that may result in a conflict with [an] environmental law or regulation” expire 90 days after they are issued, but the Secretary “may renew or reissue such order[s] . . . for subsequent periods, not to exceed 90 days for each period, as [the Secretary] determines necessary to meet the emergency and serve the public interest.” *Id.* § 824a(c)(4)(A).

This Summary of Findings incorporates by reference the procedural history, section 202(c) analysis, and environmental analysis in DOE Order Nos. 202-18-4, 202-18-3, 202-18-2, 202-18-1, 202-17-4, and 202-17-2, as well as the June 8, 2018, December 13, 2017, November 6, 2017, and September 14, 2017 Summaries of Findings.

On August 17, 2018, PJM Interconnection, L.L.C. (PJM) submitted its *Order No. 202-18-4 Renewal Application Filing* (August Renewal Application) to DOE. The filing incorporated by reference all reports required by Order No. 202-18-4, which are included in the docket of this Order. *See* August Renewal Application at 1-2. In a March 16, 2018 filing, PJM and Virginia Electric & Power Company (Dominion) stated that construction of the Project is now “estimated to be completed August 21, 2019, although under the revised [Outage Schedule] PJM is not expected to dispatch [Yorktown Unit 1 or 2] after May 15, 2019.” *See id.* at 2 n.4; *see also* Report on Yorktown Units 1 and 2 Revised Outage Schedule – Order No. 202-18-3, at 2 (Mar. 16, 2018), included in the docket of this Order. The March report explained that “[a]fter numerous consultations between PJM and [Dominion], the construction schedule, the transmission outage schedule, and the estimated run days were revised due to complications encountered in the construction of the Skiffes Creek transmission project.” Report on Yorktown Units 1 and 2 Revised Outage Schedule, at 2-3. The complications included what PJM and Dominion called “a manufacturer’s defect in the Y Clevis which holds the wire to the insulator used on the line rebuild sections,” which required “climbing each [tower] structure and replacing this [defective] part on all three phases,” as well as the discovery that “several additional

transmission towers will need to be replaced that were not in the original plan due to deterioration found in the field.” *Id.* at 3. To fix the problems with the least inconvenience to customers, “PJM and [Dominion] agreed to rearrange the construction schedule and the outage schedule to minimize the impact of transmission outages . . . during the 2018 summer peak and the 2019 winter peak periods.” *Id.* The August Renewal Application confirms the change in the construction schedule, with completion expected in August 2019. *See* August Renewal Application at 6.

At PJM’s direction, Dominion operated only Yorktown Unit 2 for power generation from June 5 through August 27, including the periods needed to startup and ramp down the units. Specifically, Unit 2 was operating at midnight on June 5 and continuously generated power until coming off line during the 11 p.m. hour on June 13. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order Nos. 202-18-3 and 202-18-4, at 2 (June 20, 2018) & Attachment 1, included in the docket of this Order. Also, at approximately 7:20 a.m. on June 17, PJM directed Unit 2 to come back on line the next morning. *Id.* Unit 2 started ramp-up operations during the 3 p.m. hour on June 17 and began generating power during the 2 a.m. hour on June 18. *Id.* & Attachment 1. On June 19, during the 10 p.m. hour, PJM directed the unit off line, and the unit came off line at approximately 11 p.m. Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4, at 1-2 (July 3, 2018), included in the docket of this Order. On June 29, at approximately 4 p.m., PJM directed that Unit 2 be back on line by 8 a.m. June 30. *Id.* at 2. Unit 2 was back on line at approximately 1 a.m. on June 30. *Id.* On July 3 at approximately 8 p.m., PJM directed Unit 2 off line, and the unit was off line at approximately 9 p.m. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4, at 1-2 (July 18, 2018), included in the docket of this Order. Between August 14 and August 27, Yorktown Unit 2 was dispatched three times and Yorktown Unit 1 underwent a test run. Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4, at 2 (Aug. 29, 2018), included in the docket of this Order. During that time, one or both units operated from the 4 p.m. hour on August 15 through the 12 midnight hour on August 18; from the 10 a.m. hour on August 22 through the 7 p.m. hour on August 23; and from the 10 a.m. hour on August 27 through the 11 p.m. hour that same day, the end of the reporting period. *See id.*, Attachments 1 and 2.

PJM reported that while operating, Unit 1 suffered an unexpected failure of a critical component and tripped off line at approximately 7 p.m. on June 2. Report on Yorktown Units 1 and 2 Operations Pursuant to Order Nos. 202-18-3 and 202-18-4, at 2 (June 20, 2018). Therefore, Unit 1 was taken out of service. *Id.* The most recent runtime report and attachments from August 29 note that Unit 1 was available for a test run, but not for power generation. *See* Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4, at 2 (Aug. 29, 2018). Attachment 2 to that Report indicates that Unit 1 was online (but not generating power) from the 11 a.m. hour August 22 through the 7 p.m. hour on August 23 and then again from the 10 a.m. hour August 27 through the 11 p.m. hour that same day, the end of the reporting period. *See id.*, Attachment 2.

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Including ramp-up and ramp-down times, Yorktown Unit 2 operated for all or part of 479 hours during the reporting period:^{*} beginning at midnight on June 5 through the 10 p.m. hour on June 13; from the 3 p.m. hour on June 17 through the 10 p.m. hour on June 19; from the 12 p.m. hour through the 9 p.m. hour on June 28 (no power generation); from the 3 p.m. hour on June 29 through the 8 p.m. hour on July 3; from the 4 p.m. hour on August 15 through the 12 midnight hour on August 18; from the 10 a.m. hour on August 22 through the 3 p.m. hour on August 23; and from the 12 noon hour through the 11 p.m. hour on August 27. *See* Attachment 1 to Report on Yorktown Units 1 & 2 Operations Pursuant to Order Nos. 202-18-3 and 202-18-4 (June 20, 2018); Attachment 1 to Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4 (July 3, 2018); Attachment 1 to Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4 (July 18, 2018); Attachment 1 to Report on Yorktown Units 1 & 2 Operations Pursuant to Order No. 202-18-4 (Aug. 29, 2018), all included in the docket of this order. The same attachments report emissions data from June 5, 2018 through August 27, 2018.

Discussion

Order Nos. 202-17-2, 202-17-4, 202-18-2, 202-18-3, 202-18-4 and 202-18-5 direct operation of Yorktown Units 1 and 2 as needed to address reliability issues, subject to a dispatch methodology submitted to the Department for review. To date, while Order Nos. 202-17-2, 202-17-4, 202-18-2, 202-18-3 and 202-18-4 have been in force, PJM has reported operation of Yorktown Units 1 and/or 2 for all or part of 65 days. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4, Attachment 1 (Dec. 1, 2017); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-2, Attachment 1 (Jan. 11, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-3, Attachment 1 (May 9, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-3, Attachment 1 (May 23, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-3 and 202-18-4, Attachment 1 (June 20, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4, Attachment 1 (July 3, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4, Attachment 1 (July 18, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4, Attachments 1 and 2 (Aug. 29, 2018).

In considering renewal or reissuance of an order under FPA section 202(c) that may conflict with an environmental law or regulation, DOE is required to “consult with the primary Federal agency with expertise in the environmental interest protected by such law or regulation” and to include “conditions as such Federal agency determines necessary . . . to the extent practicable.” 16 U.S.C. § 824a(c)(4). The Environmental Protection Agency (EPA) is the primary federal agency in this case with expertise in the protected environmental interest, and the Department consulted with EPA after receiving the August Renewal Application. Email from

^{*} Yorktown Unit 1’s test run periods occupied 47 hours: from the 11 a.m. hour August 22 through the 7 p.m. hour August 23 and from the 10 a.m. hour through the 11 p.m. hour August 27. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4, Attachment 2 (Aug. 29, 2018). All but six of the 47 hours overlapped with Yorktown Unit 2’s run time. *See id.* & Attachment 1.

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Larry Starfield, Principal Deputy Assistant Administrator, U.S. EPA Office of Enforcement and Compliance Assurance, to Bruce Walker, Assistant Secretary for the Office of Electricity, *et al.* (Aug. 28, 2018), included in the docket of this Order. After consulting with EPA, and consistent with that consultation, the Department found that the only appropriate short-term emissions limitation on Yorktown Units 1 and 2 would be to curtail operating hours to the maximum extent practical for reliability purposes.

Pursuant to the National Environmental Policy Act of 1969, as amended, the Department has determined that issuance of this Order fits within the category of actions included in Categorical Exclusion (CX) B4.4 and otherwise meets the requirements for application of a CX. The Order fits within the category of actions because it authorizes “[p]ower marketing services and power management activities (including, but not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities), provided that the operations of generating projects would remain within normal operating limits.” Records of Categorical Exclusion Determination, Order No. 202-18-5, at 3 (August 20, 2018), included in the docket of this Order; 10 C.F.R. part 1021, subpt. D, app. B, para. B4.4.

For the reasons stated above, the Secretary of Energy finds that an emergency exists threatening imminent electric energy shortages, and that this Order is necessary to address the emergency and serve the public interest in the North Hampton Roads area of Virginia. The limitations on operation set forth in Order No. 202-18-5 and outlined above are, to the maximum extent practicable, consistent with applicable environmental laws or regulations and minimize any adverse environmental impacts, and the reporting requirements for operations and estimated emissions ensure transparency of implementation.