

Summary of Findings Department of Energy Order No. 202-18-6

December 6, 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. 202-18-5, 202-18-4, 202-18-3, 202-18-2, 202-18-1, 202-17-4, and 202-17-2, as well as the September 5, 2018, June 11, 2018, December 13, 2017, November 6, 2017, and September 14, 2017 Summaries of Findings.

On November 13, 2018, PJM Interconnection, L.L.C. (PJM) submitted its *Order No. 202-18-5 Renewal Application Filing* (November Renewal Application) to DOE. The filing incorporated by reference all reports required by Order No. 202-18-5, which are included in the docket of this Order. *See* November Renewal Application at 1. In a report on a revised Outage Schedule, submitted on October 2, 2018, PJM and Virginia Electric & Power Company (Dominion) stated that “[t]he [new] Outage Schedule shortens the March 12, 2018 Outage Schedule for all of the 230 kV and 115 kV planned transmission outages for the Skiffes Creek Transmission Project from May 15, 2019 to December 18, 2018.” Report on Yorktown Units 1 and 2 Revised Transmission Project Outage Schedule – Order No. 202-18-5, at 2 (Oct. 2, 2018), included in the docket of this Order. With the completion of the 230 kV and 115 kV transmission upgrades, and based on the revised schedule, PJM and Dominion expect “that after December 18, 2018, Yorktown Units 1 and 2 will not be needed to support transmission outages” but that the units “will still be needed for peak load

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operations during the 2018-2019 winter period.” *See id.* at 3. PJM and Dominion added that “[t]he Skiffes Creek Transmission Project is scheduled to be completed when the new 500 kV line is energized between Surry Station and Skiffes Creek Station on March 31, 2019” instead of May 15, 2019 (the date anticipated in the March 2018 Outage Schedule). *Id.* The November Renewal Application confirms the change in the construction schedule, with completion expected in March 2019. *See* November Renewal Application at 7.

At PJM’s direction, Dominion operated Yorktown Units 1 & 2 for power generation from August 27 through December 5, including the periods needed to startup and ramp down the units. Unit 2 was dispatched seven times but for longer durations compared to five times for Unit 1 during these dates. At all times Unit 1 overlapped with Yorktown Unit 2’s run time.

According to PJM’s compliance reports, Unit 2 was still operating at 11:59 p.m. on August 27, 2018. Specifically, Unit 2 started power output during the 2 a.m. hour on August 28, 2018 and continued to operate through the 10 p.m. hour on August 30, when the unit came off line. At approximately 8 a.m. on September 3, 2018, PJM directed Unit 2 to come back on line. Unit 2 was online by the 12 noon hour and still operating at 11:59 p.m. on September 10, 2018, the end of the reporting period. Also, on September 6, 2018, PJM directed Unit 1 to be online at approximately 7 a.m., and Unit 1 operated until coming off line during the 8 p.m. hour on September 7, 2018. Report on Yorktown Units 1 and 2 Operations Pursuant to Order Nos. 202-18-4 and 202-18-5, at 1 (Sept. 12, 2018), included in the docket of this Order.

Unit 2 continued operating from September 10, 2018 through the morning of September 22. PJM directed the unit off line during the 6 a.m. hour, and the unit came off line during the 10 a.m. hour. On September 12, at approximately 7 a.m., PJM directed Unit 1 to be on line by 11 a.m. on September 13. Unit 1 went off line at approximately 2 a.m. on September 14. Again on September 16, PJM directed that Unit 1 be online at approximately 10 a.m. on September 17, and the unit resumed operation shortly thereafter, remaining operational until going off line at approximately 2 a.m. on September 22. On September 24, at approximately 8 a.m., PJM directed that both Unit 1 and Unit 2 be back on line by 8 a.m. on September 25, and Yorktown began the start-up process as directed. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (Sept. 26, 2018), included in the docket of this Order.

On September 25, Unit 1 came online and operated until September 27, 2018, when PJM directed it to go offline at approximately 12 noon. Again, on October 2, PJM dispatched Unit 1 to be online on October 3, 2018. The unit went off line on October 5. Unit 2 came online on September 25 as directed at approximately midnight, until PJM directed Unit 2 to be offline at approximately 2 a.m. on September 27. On September 30, PJM directed that Unit 2 be online at approximately 10 a.m. on October 1, and the unit was operational at the end of the reporting period. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (Oct. 10, 2018), included in the docket of this Order.

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On September 30, PJM had directed that Unit 2 be online on October 1, and the unit was operational through October 12, when PJM directed the unit off line. Unit 1 was not dispatched for this reporting period. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (Oct. 24, 2018), included in the docket of this Order.

On November 5, PJM dispatched Unit 2 to be online at 6 a.m. on November 6. Unit 1 was not dispatched, and Unit 2 was still in the start-up mode at the end of the reporting period. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (Nov. 7, 2018), included in the docket of this Order.

Unit 2 was operational through November 7 until approximately 1:00 a.m., after PJM directed the unit off line. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (November 21, 2018), included in the docket of this Order.

On November 27, PJM dispatched Unit 2 at 12 p.m. to be online on November 28. Unit 2 came on-line on November 28 at 4 a.m. and tripped off-line at 9 a.m. the same day. The unit was restarted on the same day and cooling water was kept in service for turbine cooling. The unit came back on-line at 10 p.m. and the unit was dispatched off-line the next day (November 29) at 12 p.m. Unit 1 was dispatched late on November 27, and was in start-up mode when the dispatch was cancelled by PJM the next day around midday. The unit never came on-line but cooling water was in service for a period of time during start-up activities. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, at 1 (December 5, 2018), included in the docket of this Order.

Including ramp-up and ramp-down times, Yorktown Units 1 and 2 operated for all or part of 1,090 hours during the reporting period:¹ starting on August 28 and ending just after midnight on December 5 - Unit 2 was online and generating power during 68 consecutive hours from August 28 to August 30; during 167 consecutive hours from September 4 to September 10; during 274 consecutive hours from September 11 to September 22, during 243 consecutive hours from September 25 to September 27; during 193 consecutive hours from September 30 till October 8; during 75 consecutive hours from October 9 till October 12; during 19 consecutive hours from November 6 till November 7, during 45 hours from November 27 to November 29. Unit 1 was online and generating power during 10 consecutive hours on September 7, during 18 consecutive hours starting from September 13 till September 14, during 120 consecutive hours from September 17 till September 22, during 47 consecutive hours from September 25 till September 27 and during 51 consecutive hours from October 3 till October 5.

Attachment 2 to each of the reports dated September 12, 2018, September 26, 2018, October 10, 2018, October 24, 2018, November 7, 2018, and November 21, 2018, December 5, 2018, provide actual runtime and emission data from August 28 through

¹ Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-4 and Order No. 202-18-5, Attachment 2 (Sept. 12, 2018) and Reports on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 2, Sept. 26, 2018, Oct. 10, 2018, Oct. 24, 2018, Nov. 7, 2018, Nov 21, 2018, Dec 5, 2018. All but 246 of the 1090 hours overlapped with Yorktown Unit 2's run time.

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December 5, 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, 202-18-4 and 202-18-5 have been in force, PJM has reported operation of Yorktown Units 1 and/or 2 for all or part of 88 days. Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4, Attachment 1 (Dec. 1, 2017); PJM Interconnection, L.L.C., 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 and 202-18-5, Attachment 1 (Sept. 12, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Sept. 26, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Oct. 10, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Oct. 24, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Nov. 7, 2018); Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Nov. 21, 2018) and; Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-18-5, Attachment 1 (Dec. 5, 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 November Renewal Application. Email from 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.* (Dec. 3, 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, the Department has determined that issuance of this Order fits within the category of actions included in

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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. 202-18-6, at 3 (Nov. 16, 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. 202-18-6 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.