

Appendix A

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 23-1157**September Term, 2023****EPA-88FR36654****Filed On: September 25, 2023**

State of Utah, by and through its Governor,
Spencer J. Cox, and its Attorney General,
Sean D. Reyes,

Petitioner

v.

Environmental Protection Agency and
Michael S. Regan, Administrator, U.S. EPA,

Respondents

City of New York, et al.,
Intervenors

Consolidated with 23-1181, 23-1183,
23-1190, 23-1191, 23-1193, 23-1195,
23-1199, 23-1200, 23-1201, 23-1202,
23-1203, 23-1205, 23-1206, 23-1207,
23-1208, 23-1209, 23-1211

BEFORE: Pillard, Walker*, and Childs, Circuit Judges

ORDER

Upon consideration of the motions for stay in Nos. 23-1181, 23-1183, 23-1190, 23-1191, 23-1193, 23-1195, 23-1199, 23-1202, and 23-1205, the oppositions thereto, the replies, and the amicus briefs, it is

ORDERED that the motions for stay be denied. Petitioners have not satisfied the stringent requirements for a stay pending court review. See Nken v. Holder, 556

* Judge Walker would stay the federal implementation plan in question.

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 23-1157

September Term, 2023

U.S. 418, 434 (2009); D.C. Circuit Handbook of Practice and Internal Procedures 33 (2021).

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Tatiana Magruder
Deputy Clerk

Appendix B

**IN THE UNITED STATES COURT OF APPEALS FOR
THE DISTRICT OF COLUMBIA CIRCUIT**

STATE OF KENTUCKY, et al.,	:	
	:	
<i>Petitioners,</i>	:	
v.	:	Case No. _____
U.S. ENVIRONMENTAL	:	
PROTECTION AGENCY and	:	
MICHAEL S. REGAN, in his official	:	
capacity as Administrator of the U.S.	:	
Environmental Protection Agency,	:	
	:	
<i>Respondents.</i>	:	

DECLARATION OF ROBERT HODANBOSI

I, Robert Hodanbosi, make the following Declaration pursuant to 28 U.S.C. §1746, and state that under the penalty of perjury the following is true and correct to the best of my knowledge and belief.

1. I am currently the Chief of the Division of Air Pollution Control (“DAPC”). DAPC—part of the Ohio Environmental Protection Agency (“Ohio EPA”)—ensures Ohio’s compliance with the federal Clean Air Act (“CAA”); reviews, issues, and enforces permits for installation and operation of air pollution; and oversees monitoring to ensure that air pollution is not adverse to the public health, in addition to other responsibilities. These activities are part of the Ohio EPA’s DAPC mission to attain and maintain air quality for the protection of human health and the environment.

2. In my role as Chief of the Division of Air Pollution Control, I am responsible for the air pollution control program for the State of Ohio and for the development of the programs needed to comply with the Clean Air Act. I supervise all the activities of the division including but not limited to permitting, enforcement, and air quality monitoring for public health. I have been employed by the Ohio EPA for over 40 years, and have been Chief of the DAPC for more than 20 years. My education includes a Bachelor of Chemical Engineering Degree and a Master of Science in Chemical Engineering Degree from Cleveland State University.

3. I understand that the State of Ohio, through the Ohio EPA, submitted to the U.S. Environmental Protection Agency (“U.S. EPA”) a proposed State Implementation Plan (“SIP”) to comply with the CAA’s Interstate Transport Provision for ozone. Clean Air Act §110(a)(2)(D).

4. On February 13, 2023, EPA disapproved several States’ SIPs, including Ohio’s. 88 Fed. Reg. 9336. As a result of the disapproval, EPA adopted a federal implementation plan (“FIP”) titled “Federal ‘Good Neighbor Plan’ for the 2015 Ozone National Ambient Air Quality Standards,” published in the Federal Register at ___ Fed. Reg. _____ (April ____, 2023) (EPA Docket No. EPA-HQ-OAR-2021-0668).

5. I have reviewed the FIP. It imposes requirements on 23 states—including Ohio—aimed at eliminating their allegedly significant contribution to nonattainment, or interference with maintenance, of the 2015 ozone National Ambient Air Quality Standards (“NAAQS”) in other States. The FIP’s goal is to effectuate the “good neighbor” or “interstate transport” provision of the Clean Air Act (“CAA”).

6. My declaration focuses on the FIP’s adverse effects on the Ohio EPA and Ohio’s industry, as well as the impacts on the reliability of Ohio’s electric grid.

I. The FIP imposes excessive burdens on the electricity-generating power plants in the Midwest and will, in turn, affect the reliability of Ohio’s electric grid.

7. The FIP establishes preset statewide nitrogen oxide (“NO_x”) emissions budgets for each ozone season from 2023 through 2029 for Ohio’s electricity-generating units (“EGUs”). For the 2026 through 2029 ozone seasons, the budgets set forth in the FIP serve as floors—levels with which the States must comply unless the EPA raises them. These floors are predictive. They reflect factors such as committed fleet changes expected to occur in the baseline. And they take into account announced and confirmed retirements, new builds, and retrofits that occur after 2021 but prior to 2023. The baseline budgets for the 2026 to 2029 ozone season may be adjusted upward pursuant to a dynamic budgeting process that will use more recent information.

8. Ohio is in the service territory of PJM. PJM is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia. The power plants in the PJM system supply power on a regional basis so that the reliability of power in Ohio relies on not just Ohio's power plants but power stations outside of the state.

9. Based on my knowledge, expertise, and understanding, the preset emissions budgets for Ohio and the other states subject to the new Rule restrict emissions to levels that are too low to be cost-effective reductions and are potentially unachievable on the timeline set by EPA.

10. The Ohio EPA noted in its comments to the proposed FIP that it has worked with several utilities to maximize performance during periods of peak ozone in efforts to attain the 2015 ozone standard in Ohio's nonattainment areas. Those sources voluntarily went beyond their minimum requirements. Because those units were already optimizing their performance, it is unlikely that they will be able to achieve substantially lower rates and allocations imposed by the FIP in a cost-effective manner.

11. It is my understanding that there are currently 5 coal-fired power plants in Ohio that are operating a total of 15 coal-fired EGUs. Based on information provided by Ohio's electric power companies, it is projected that, by 2028, only 3 plants operating 10 EGUs will remain operational in the state.

12. The FIP's low budget and accelerated timeline risks forcing further unplanned outages of critical power-generating plants for 2023 through the 2029 control period due to the expensive cost of compliance or the potential threat of noncompliance. Since the imposition of the 2015 NAAQS, Ohio has seen fifteen power plants—that is, over thirty critical electric-generating units—shut down. Any further reductions of Ohio's electric generating capacity will lower Ohio's net electricity generation, risk Ohio's having insufficient electric generating capacity to meet electrical demand, and place other states in a similar circumstance of having reduced power supply.

13. As an example of a shortage in electrical generation capacity, in December of 2022, PJM notified the United States Department of Energy that an impending cold weather event would threaten the electric grid and cause a potential shortage of electric energy in the 14 jurisdictions it covers—including Ohio. *See* Ex. A. To ensure grid reliability, the Department issued an Emergency Order on December 24, 2022, temporarily suspending air emissions and other permit limitations for EGUs

so that they could operate up to their maximum generation output levels for that emergency period. That Order is attached to this Declaration as Exhibit A.

14. The dynamic budgeting process is unlikely to decrease materially the excessive cost of compliance with the FIP requirements. The FIP continues to use the prior-established system of trading and banking of emissions allowances. It is my understanding that, starting in 2024, the EPA will annually recalibrate the quantity of accumulated banked allowances under the program to prevent the quantity of allowances carried over from each control period to the next from exceeding a target bank level. The target bank level will be revised lower each year to represent a preset percentage of the sum of the state emissions budgets for each control period. And that preset percentage will also be revised lower from 21 percent for control periods through 2029 to 10.5 percent for control periods starting in 2030.

15. The annual recalibration of tradeable allowances risks making future allowance purchases prohibitively expensive by significantly reducing the available allowances in the future. Thus, any potential gains through dynamic upward adjustments to the 2026 through 2029 budget floors will be likely offset by the prohibitively expensive costs of purchasing tradeable allowances during that time period.

II. The FIP will impose burdensome and arbitrary regulations on non-electricity-generating sources.

16. For the first time since 1998, the U.S. EPA will require states to reduce NO_x emissions under the good neighbor provision of the Clean Air Act for non-electric generating industrial sources (“non-EGUs”). The new Rule will regulate emissions for the following non-EGUs: pipeline transportation of natural gas, kilns in cement and cement-product manufacturing, reheat furnaces in iron and steel mills and ferroalloy manufacturing, furnaces in glass and glass-product manufacturing, boilers in iron and steel mills and ferroalloy manufacturing, metal-ore mining, basic chemical manufacturing, petroleum and coal-products manufacturing, and pulp, paper, and paperboard mills, and combustors and incinerators in solid waste combustors or incinerators.

17. Regulated non-EGUs will now need to obtain new, or update existing, major-source or minor-source permits based upon a calculation of each unit’s potential to emit NO_x pollutants.

18. In Ohio, most non-EGUs subject to the FIP operate pursuant to Title V permits and will require updates to their existing Title V permits reflecting the requirements of the FIP.

19. These permitting updates will impose substantial costs on the Ohio EPA. Because each affected facility has its unique Title V permit, Ohio EPA will

expend significant resources developing permit content in order to correctly implement the FIP requirements for the individual, affected units. And Ohio EPA will expend significant resources ensuring that permitted sources continue to comply with the newly imposed FIP Good Neighbor Plan rules by overseeing tests and reviewing reports and records related to continued monitoring.

20. The FIP does not apply to sources that presently operate pursuant to synthetic-minor permits. Sources operating with synthetic-minor permits have the potential to emit NO_x in amounts that are at or above the applicable threshold for major-source designation (“major-source threshold”), which is also the threshold for the FIP’s applicability. These sources have voluntarily restricted emissions to levels below the major-source threshold and are thus permitted to operate as though they are minor sources with synthetic-minor permits.

21. The FIP applies, however, to all sources with the potential to emit pollutants over the major-source threshold that operate after the FIP goes into effect, regardless of what they do in fact emit, except those that are operating with a synthetic-minor permit at the time the Rule goes into effect. That means, it will apply to any major sources operating with Title V permits at the time the Rule goes into effect even if they thereafter voluntarily restrict emissions below the major-source threshold with synthetic-minor permitting.

22. The FIP thus imposes significant burdens on Ohio's non-EGU industries by arbitrarily covering some, but not all, non-EGUs that voluntarily emit below the major-source threshold. Non-EGUs already operating with synthetic-minor permits will not be covered by the FIP and thus will not assume the higher costs of installing control technology as well as testing and monitoring equipment and personnel to ensure compliance with the FIP even though they have potential to emit above the major-source threshold. Those costs are unavoidable for other major-source non-EGUs that are currently operating with a Title V permit, or any new major-source non-EGUs. Non-EGUs currently operating with Title V permits cannot take advantage of the exemption for sources operating with synthetic-minor permits because they will not have time to obtain synthetic-minor permits before the Rule goes into effect. They will consequently be unable to avoid the much higher costs of compliance imposed by the FIP even if they volunteer to restrict emissions below the major-source threshold. And, any new sources with the potential to emit above the major-source threshold but willing to emit less will also be unable to avoid the higher costs of compliance imposed by the FIP.

23. Many of Ohio's non-EGUs that are affected by the FIP—most of which operate with Title V permits—will thus be unable to avoid the FIP's high costs of

compliance, regardless of their actual emission levels, because they may have to install expensive control technology and will have to invest in additional emission monitoring including possible continuous monitoring technology to be compliant with the FIP. But, similarly situated non-EGUs that obtained their synthetic-minor permits before the FIP, but have potential to emit at the same levels as non-EGUs operating with Title V permits, will be exempt from the costs imposed by the FIP and thus reap significant cost advantages relative to their peers. Thus the FIP's uneven coverage of identical sources imposes unjustified and arbitrary burdens on Ohio's non-EGU industries by favoring similar sources based on the happenstance of when the sources chose to voluntarily restrict emissions.

24. The Ohio EPA will also incur additional costs to ensure that even those non-EGUs that voluntarily operate below the major-source threshold are fitted with appropriate control technology and routinely tested and monitored for compliance with the FIP.

25. The FIP's arbitrary coverage over some, but not all, non-EGUs emitting below the major-source threshold has another adverse consequence: non-EGUs that previously would have voluntarily reduced emissions to obtain the benefit of non-regulation under the FIP, will no longer be able to secure that advantage. Perversely, by removing this incentive to reduce emission levels, the FIP threatens to

potentially increase the State's aggregate pollution levels relative to what they would be otherwise.

DATED: May 1, 2023

Respectfully submitted,

Robert Hodanbosi

Robert Hodanbosi

EXHIBIT A



Department of Energy

Washington, DC 20585

Order No. 202-22-4

Pursuant to the authority vested in the Secretary of Energy by section 202(c) of the Federal Power Act (FPA), 16 U.S.C. § 824a(c), and section 301(b) of the Department of Energy Organization Act, 42 U.S.C. § 7151(b), and delegated by email correspondence (Dec. 23, 2022), and for the reasons set forth below, I hereby determine that an emergency exists in the electricity grid operated by PJM Interconnection, LLC (PJM) 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.

Emergency Situation

On December 24, 2022, PJM, the Regional Transmission Operator (RTO) for 65 million people in thirteen states and the District of Columbia (the PJM Region), filed a *Request for Emergency Order Under Section 202(c) of the Federal Power Act* (Application) with the United States Department of Energy (Department) “to preserve the reliability of the bulk electric power system.”

The PJM Region, like many regions across the country, is currently being affected by a severe winter weather system. PJM states that this weather system caused a significant drop in temperatures across the PJM Region on December 23, 2022, accompanied by high winds in excess of 40 mph. As a consequence of the impact of wind and decreasing temperatures, the demand for electricity in the PJM Region rose to an unusually high peak load on the evening of December 23, 2022, in excess of 135,000 MW. This severely cold weather is expected to last through Sunday morning.

While the vast majority of generating units in the PJM Region continue to function adequately under these stressed conditions, some units have experienced operating difficulties due to cold weather or fuel limitations, primarily gas. Specifically, approximately 45,000 MW of generating units (the majority of which are thermal) are currently outaged or derated. PJM has expressed its concern that these units will be unable to return to service over at least the next 48 hours, which coincides with the time period for which PJM is requesting this Order. Since these units may not promptly return to service, and in the event PJM experiences additional generating unit outages, PJM states that it may need to curtail some amount of firm load on December 24, December 25, or December 26, 2022 in order to maintain the security and reliability of the PJM system.

Description of Mitigation Measures

In its Application, PJM identifies the measures it is taking to ensure the supply of generation will continue to be sufficient to meet system demand and reserve requirements. On December 20, 2022, PJM issued a cold weather advisory in the PJM Region in anticipation of the forecasted weather conditions. Then on December 23, 2022, PJM issued

a PJM Region-wide cold weather alert which further highlighted PJM's expected need to call higher-than-normal generation resources in light of the anticipated weather.

On December 23, 2022, generating reserves diminished to a level that required PJM to declare an Energy Emergency Alert (EEA) Level 2 and take other emergency actions. PJM states that after having exhausted economic operation, PJM triggered a Maximum Generation Emergency Action to increase the PJM Region generation above the maximum economic level. Further, PJM triggered its load management reduction actions to provide additional load relief by using PJM-controllable load management programs. PJM called on demand response providers and curtailment service providers to reduce load. PJM also issued public appeals for consumers to reduce usage. PJM has continued to employ these emergency actions through December 24, 2022, and anticipates needing to continue them through the order end date that it has requested.

Since December 23, 2022, PJM has also taken additional measures to provide additional reserves, including:

- Reducing exports to neighboring regions and requested shared reserves for neighboring regions; consistent with joint operating agreements and other regulatory requirements, PJM has continued to communicate and collaborate with its interconnected neighboring systems when the demand on the PJM system has exceeded expected energy and reserve requirements and when emergency transfers were required to support PJM's interconnected neighboring systems;
- Issuing additional public conservation appeals;
- Running uneconomic generation during lower load periods to ensure their availability during peak conditions;
- Utilizing its Emergency Procedures to assist in maximizing the pumped storage hydro generation levels;
- Communicating and preparing transmission and distribution service providers to implement distribution voltage reduction measures; and
- Communicating and preparing transmission and distribution service providers to implement firm load shed.

In its Application, PJM committed to continue to take such actions, including utilizing other supply resources before calling upon any generators to operate in excess of permitting levels. According to PJM, it is nevertheless possible that the measures it has and will take may not be sufficient to avoid the need to curtail firm load in order to ensure system reliability.

Request for Order

PJM requests that the Secretary issue an order immediately, effective today, December 24, 2022, through 12:00 p.m. Eastern Time on Monday, December 26, 2022, authorizing the electric generating units identified in Exhibit A, as well as any other

generating units subject to emissions or other permit limitations in the PJM Region to operate up to their maximum generation output levels under the limited circumstances described in this Order, notwithstanding air quality or other permit limitations. The generating units (Specified Resources) that this Order pertains to are listed on the Order 202-22-4 Resources List, as described below.

ORDER

Given the emergency nature of the expected load stress, the responsibility of PJM to ensure maximum reliability on its system, and the ability of PJM to identify and dispatch generation necessary to meet the additional load, I have determined that, under the conditions specified below, additional dispatch of the Specified Resources is necessary to best meet the emergency and serve the public interest for purposes of FPA section 202(c). This determination is based on, among other things:

- The emergency nature of the expected load stress caused by the current cold weather event threatens to cause loss of power to homes and local businesses in the areas that may be affected by curtailments, presenting a risk to public health and safety.
- The expected shortage of electric energy, shortage of facilities for the generation of electric energy, and other causes in the PJM Region demonstrate the need for the Specified Resources to contribute to the reliability of the PJM Region.
- PJM is responsible to ensure maximum reliability on its system, and, with the authority granted in this Order, its ability to identify and dispatch generation, including the Specified Resources, necessary to meet the additional load resulting from the cold weather event is enhanced.

In line with the anticipated circumstances precipitated by the cold weather event, this Order is limited to the period beginning with the issuance of this Order on December 24, 2022 through 12:00 pm Eastern Time on December 26, 2022. Because the additional generation may result in a conflict with environmental standards and requirements, I am authorizing only the necessary additional generation on the conditions contained in this Order, with reporting requirements as described below.

FPA section 202(c)(2) requires the Secretary of Energy to ensure that any 202(c) order that may result in a conflict with a requirement of any environmental law be limited to the “hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable,” be consistent with any applicable environmental law and minimize any adverse environmental impacts. PJM anticipates that this Order may result in exceedance of emissions of sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide emissions, as well as wastewater release limits. To minimize adverse environmental impacts, this Order limits operation of dispatched units to the times and within the parameters determined by PJM for reliability purposes.

Department of Energy Order No. 202-22-4

Based on my determination of an emergency set forth above, I hereby order:

A. From the time this Order is issued on December 24, 2022, to 12:00 pm Eastern Time on December 26, 2022, in the event that PJM determines that generation from the Specified Resources is necessary to meet the electricity demand that PJM anticipates in the PJM Region during this event, I direct PJM to dispatch such unit or units and to order their operation only as needed to maintain the reliability of the power grid in the PJM Region when the demand on the PJM system exceeds expected energy and reserve requirements. Specified Resources are those generating units set forth on the Order 202-22-4 Resource List, subject to updates directed here and as described in paragraph D, which the Department shall post on www.energy.gov.

B. To minimize adverse environmental impacts, this Order limits operation of dispatched units to the times and within the parameters determined by PJM for reliability purposes. Consistent with good utility practice, PJM shall exhaust all reasonably and practically available resources, including available imports, demand response, and identified behind-the-meter generation resources selected to minimize an increase in emissions, to the extent that such resources provide support to maintain grid reliability, prior to dispatching the Specified Resources. PJM shall provide a daily notification to the Department reporting each generating unit that has been designated to use the allowance and operated in reliance on the allowances contained in this Order.

In furtherance of the foregoing and, in each case, subject to the exhaustion of all available imports, demand response, and identified behind-the-meter generation resources selected to minimize an increase in emissions available to support grid reliability:

- (i) For any generation resource whose operator notifies PJM that the unit is unable, or expected to be unable, to produce at its maximum output due to an emissions or other limit in any federal environmental permit, and during the pendency of a PJM-triggered Maximum Generation Emergency Action, at any point before 12:00 Eastern Time on Monday, December 26, 2022, the unit will be allowed to exceed any such limit only during any period for which PJM has declared an Energy Emergency Alert (EEA) Level 2 or Level 3 (during which time PJM will have triggered a Maximum Generation Emergency Action), except as described in item (iii) below in certain limited circumstances in anticipation of an EEA Level 2. Once PJM declares that the EEA Level 2 event has ended, the unit would be required to immediately return to operation within its permitted limits. And at all other times, the unit would be required to operate within its permitted limits, except for the limited exceptions provided herein for operations in anticipation of an EEA Level 2 to prevent the cycling of units or facilitate the charging or pumping of other resources necessary for the EEA Level 2.
- (ii) For any generation resource whose operator notifies PJM that the unit is offline or would need to go offline at any point before 12:00 Eastern Time on Monday, December 26, 2022, due to an emissions or other limit in any

federal environmental permit, PJM may direct the unit operator to bring the unit online, or to keep the unit online, and to operate at the level consistent with its permits but subject to the exceptions set forth in this Order. In this circumstance, the operator is allowed to make all of the unit's capacity available to PJM for dispatch during any period for which PJM has declared an EEA Level 2 or 3 (during which time PJM has triggered a Maximum Generation Emergency Action), except as described in item (iii) below in certain limited circumstances in anticipation of an EEA Level 2. Once PJM declares that such an EEA Level 2 event has ended and the Maximum Generation Emergency Action is discontinued, the unit would be required to immediately return to operating at a level below the higher of its minimum operating level or the maximum output allowable under the permitted limit.

- (iii) PJM is hereby granted authority to operate the Specified Units that are combined cycle generating units in certain limited circumstances in advance of declaring an EEA Level 2, Maximum Generation Emergency, or in between such events, where such operation or continued operation of the Specified Resource is reasonably necessary to avoid shutting down and restarting the Specified Unit. PJM has represented that such cycling of units can cause reliability issues regarding restarting, delays, and increased emissions during start up. PJM is further authorized to operate the Specified Units in certain limited circumstances in advance of the declaring an EEA Level 2, Maximum Generation Emergency where such operation or continued operation of the Specified Resource is reasonably necessary to facilitate charging storage resources or pumping for pumped storage facilities that will be needed during an anticipated EEA Level 2. PJM is required to take measures to dispatch units for which cycling would otherwise be required in a manner reasonably intended to limit the duration and operating level of those units in such a way as to minimize exceedance of permit limitations consistent with the security and reliability of the PJM Region.
- (iv) To minimize adverse environmental impacts as set forth herein, this Order limits operation of dispatched units to the times and within the parameters determined by PJM for reliability purposes. Consistent with good utility practice, and notwithstanding standard merit order dispatch, PJM shall exhaust all reasonably and practically available resources, including available imports, demand response and identified behind-the-meter generation resources selected to minimize an increase in emissions to the extent that such resources provide support to maintain grid reliability prior to dispatching the Specified Resources at levels above their permitted emissions levels. PJM shall provide a daily notification to the Department reporting each generating unit that has been designated to use the allowance and operated in reliance on the allowances contained in this Order.

C. All operation of the Specified Resource must comply with applicable environmental requirements, including but not limited to monitoring, reporting, and recordkeeping requirements, to the maximum extent feasible while operating consistent with the emergency conditions. This Order does not provide relief from any obligation to pay fees or purchase offsets or allowances for emissions that occur during the emergency condition or to use other geographic or temporal flexibilities available to generators.

D. In the event that PJM identifies additional generation units that it deems necessary to operate in excess of federal environmental permitting limits in order to maintain the reliability of the power grid in the PJM Region when the demand on the PJM system exceeds expected energy and reserve requirements, PJM shall provide prompt written notice to the Department of Energy at AskCR@hq.doe.gov with the name and location of those units that PJM has identified, as well as additional notice by the same means through updating Exhibit A to its Application with such additional generation units, the fuel type of such unit, and the anticipated category of environmental impact, at 09:00 Eastern Time or 21:00 Eastern Time, whichever follows closest in time to the unit identification by PJM to the greatest extent feasible. Such additional generation unit shall be deemed a Specified Resource for the purpose of this Order for the hours prior to the required written notice to the Department updating Exhibit A, and PJM may dispatch such additional generation units, provided that if the Department of Energy notifies PJM that it does not approve of such generation unit being designated as a Specified Resource, such generation unit shall not constitute a Specified Resource upon notification from the Department. The Department shall post an updated Order 202-22-4 Resource List as soon as practicable following notification from PJM under this paragraph.

E. PJM shall provide such additional information regarding the environmental impacts of this Order and its compliance with the conditions of this Order, in each case as requested by the Department of Energy from time to time. By January 26, 2023, PJM shall report all dates between December 24, 2022, and December 26, 2022, inclusive, on which the Specified Resources were operated, the hours of operation, and exceedance of permitting limits, including sulfur dioxide, nitrogen oxide, mercury, carbon monoxide, and other air pollutants, as well as exceedances of wastewater release limits. PJM shall submit a final report by February 27, 2023, with any revisions to the information reported on January 26, 2023. The environmental information submitted in the final report shall also include the following information:

- (i) Emissions data in pounds per hour for each Specified Resource unit, for each hour of the operational scenario, for CO, NO_x, PM₁₀, VOC, and SO₂;
- (ii) Emissions data must include emissions (lbs/hr) calculated consistent with reporting obligations pursuant to operating permits, permitted operating/emission limits, and the actual incremental emissions above the permit limits;

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- (iii) The number and actual hours each day that each Specified Resource unit operated in excess of permit limits or conditions, e.g., “Generator #1; December 25, 2022; 4 hours; 04:00-08:00 CT”;
- (iv) Amount, type and formulation of any fuel used by each Specified Resource;
- (v) All reporting provided under the Specified Resource’s operating permit requirements over the last three years to the United States Environmental Protection Agency or local Air Quality Management District for the location of a Specified Resource that operates pursuant to this Order;
- (vi) Additional information requested by DOE as it performs any environmental review relating to the issuance of this Order; and
- (vii) Information provided by the Specified Resource describing how the requirements in paragraph C above were met by the Specified Resource while operating under the provisions of this Order.

In addition, PJM shall provide information to the Department quantifying the net revenue in aggregate associated with generation in excess of environmental limits in connection with orders issued by the Department pursuant to Section 202(c) of the Federal Power Act.

F. PJM shall take reasonable measures to inform affected communities where all Specified Resources operate that PJM has been issued this Order, in a manner that ensures that as many members of the community as possible are aware of the Order, and explains clearly what the Order allows PJM to do. At a minimum, PJM shall post a description of this Order on its website (with a link to this Order) and identify the name, municipality or other political subdivision, and zip code of Specified Resources covered by this Order, as the Specified Resources may be updated pursuant to paragraph D above. In addition, in the event that a Specified Resource operates pursuant to this Order, a general description of the action authorized by this Order will be included in any press release issued by PJM with respect to the cold weather event and will include a reference to the website posting required by the preceding sentence for further information. PJM shall describe the actions taken to comply with this paragraph in the reports delivered to the Department pursuant to paragraph E above.

G. This Order shall not preclude the need for the Specified Resource to comply with applicable state, local, or Federal law or regulations following the expiration of this Order.

H. PJM shall be responsible for the reasonable third-party costs of performing analysis of the environmental and environmental justice impacts of this Order, including any analysis conducted pursuant to the National Environmental Policy Act.

I. This Order shall be effective upon its issuance, and shall expire at 12:00 Eastern Time on Monday, December 26, 2022, with the exception of the reporting requirements in

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paragraph E. Renewal of this Order, should it be needed, must be requested before this Order expires.

Issued in Washington, D.C. at 5:30 PM Eastern Standard Time on this 24th day of December 2022.

Undersecretary of Energy for Infrastructure

Appendix C

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of Ohio, et al.,
Petitioners,

v.

Environmental Protection Agency and Michael S. Regan, in his official capacity,
as Administrator of the U.S. Environmental Protection Agency
Respondents.

On Petition for Review of Action by the U.S. Environmental Protection Agency

**DECLARATION OF LAURA M. CROWDER IN SUPPORT OF
PETITIONERS' MOTION FOR STAY PENDING REVIEW AND FOR
AN ADMINISTRATIVE STAY**

I, Laura M. Crowder, make the following declaration pursuant to 28 U.S.C.
§ 1746:

1. I currently serve as Director for West Virginia's Division of Air Quality ("WVDAQ") within the West Virginia Department of Environmental Protection ("WVDEP"). I have held this position since May 11, 2019. Prior to then, I served as the Deputy Director of WVDAQ and have been with WVDAQ since February 1994. I have a bachelor's degree in electrical engineering from West Virginia Institute of Technology. I am over the age of 18 and am competent to testify concerning the matters in this declaration based on my personal knowledge, my experience with WVDAQ, and information provided to me by WVDAQ personnel.

2. I am providing this declaration in support of the State of West Virginia's motion for a stay of the Federal Implementation Plan, or "FIP," published by the U.S. Environmental Protection Agency ("EPA") as a Final Rule titled "Federal 'Good Neighbor Plan' for the 2015 Ozone National Ambient Air Quality Standards," 88 Fed. Reg. 36,654 (June 5, 2023). I am aware that EPA published the FIP following EPA's disapproval of the West Virginia State Implementation Plan ("SIP") addressing interstate transport for the 2015 ozone National Ambient Air Quality Standards ("NAAQS") on February 13, 2023. *See* Air Plan Disapprovals; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards, Final Rule, 88 Fed. Reg. 9336 (Feb. 13, 2023). EPA's FIP will result in imminent, irreparable harm to the State and its citizens.

I. West Virginia's Division of Air Quality

3. WVDAQ's mission is to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

4. To these ends, WVDAQ provides for a coordinated statewide program of air pollution prevention, abatement and control; facilitates cooperation across jurisdictional lines in dealing with problems of air pollution not confined within

single jurisdictions; assures the economic competitiveness of the state by providing for the timely processing of permit applications and other authorizations; and provides a framework within which all values may be balanced in the public interest.

5. WVDAQ is responsible for ensuring that West Virginia's air meets public health and welfare standards established under the federal Clean Air Act ("CAA"), as amended. To fulfill this responsibility, WVDAQ must attain EPA's NAAQS within West Virginia's borders.

6. Among other things, WVDAQ promulgates legislative rules pertaining to air quality standards, develops SIPs to meet the federal standards, works to obtain EPA approval of SIP elements, issues pre-construction and operating permits to stationary sources, and ensures compliance with state and federal air quality rules.

7. As WVDAQ's Director, I am authorized to develop ways and means for the regulation and control of air pollution of the state, to promulgate legislative rules relating to the control of air pollution, and to employ personnel to accomplish its purpose. *See* W. Va. Code § 22-5-4(1), (4), (8).

8. I am also authorized to do all things necessary and convenient to prepare and submit a plan or plans for the implementation, maintenance and enforcement of the CAA, as amended, and to promulgate legislative rules to establish air permit applications and requirements. *See* W. Va. Code § 22-5-4(17), (18).

9. WVDAQ is responsible for preparing and developing plans for the prevention, abatement, and control of air pollution in West Virginia, complying with the requirements of federal air pollution laws, and enforcing West Virginia air pollution laws. As WVDAQ's Director, I am responsible for managing WVDAQ's staff and programs associated with these endeavors.

II. EPA's Overlapping SIP and FIP Rulemaking

10. The CAA requires West Virginia to submit a SIP to EPA within three years after the promulgation of new or revised NAAQS. 42 U.S.C. § 7410(a)(1). States must include in their SIPs "adequate provisions" prohibiting "any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will ... contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any" primary or secondary NAAQS. *Id.* § 7410(a)(2)(D)(i). When necessary, upwind states must reduce emissions within their borders to account for emissions that travel outside the state that will "contribute significantly" to nonattainment, or "interfere with maintenance," of NAAQS in downwind states. *Id.* This is known as the "Good Neighbor" provision.

11. On October 26, 2015, EPA revised the NAAQS for ozone, lowering the primary and secondary standards from 75 parts per billion (ppb) to 70 ppb. *See* 80

Fed. Reg. 65,292. This triggered West Virginia's obligation to prepare a SIP to ensure compliance with the new NAAQS.

12. On February 4, 2019, WVDEP, on behalf of West Virginia, submitted to EPA a SIP addressing the CAA's Section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS. WVDEP noted that it had proposed legislative rule 45 CSR 43, which incorporates by reference the federal Cross-State Air Pollution Rule ("CSAPR") and CSAPR Update Rule, to the legislature. WVDEP thus sought conditional approval of its SIP and told EPA that it would submit 45 CSR 43 to EPA upon authorization from the legislature and promulgation.

13. On June 5, 2019, WVDEP submitted a corresponding SIP revision to add 45 CSR 43, which had by then been approved by the legislature. Legislative rule 43 "establishes West Virginia CSAPR state trading programs for annual NO_x, ozone season NO_x, and annual SO₂ emissions for units in the state" and would be integrated with, and substantively identical to, three federal trading programs. 84 Fed. Reg. 41,944, 41,947 (Aug. 16, 2019). WVDEP requested that EPA fully approve the Good Neighbor SIP submitted on February 4, 2019. EPA proposed approving 45 CSR 43 as part of West Virginia's SIP on August 16, 2019. *See* 84 Fed. Reg. 41,944-48. But EPA has not yet taken final action on WVDEP's request to revise its SIP to include 45 CSR 43 into the SIP, which incorporated by reference

the then-current trading programs under CSAPR into the SIP, now that 45 CSR 43 has been approved.

14. West Virginia's SIP submissions were the culmination of extensive analysis, public comment, plan development, and consultation with EPA and other states—all of which was meant to maximize the likelihood that EPA would approve West Virginia's SIP.

15. West Virginia's SIP reflected review and comments from EPA Region 3 staff on a draft proposed SIP that WVDAQ had provided EPA earlier on that assessed the impact of emissions from West Virginia on the attainment or maintenance of EPA's 2015 ozone NAAQS in downwind states.

16. In preparing its proposed SIP, WVDAQ relied on one of the guidance memoranda provided by EPA on analyzing downwind impacts: "Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(1)," ("March 2018 Memo"). WVDAQ did not rely on a second guidance memorandum issued August 31, 2018, "Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards," ("August 2018 Memo") because it was issued immediately before WVDAQ went to public notice on the Proposed SIP and after WVDAQ

received its early engagement feedback from EPA, Region 3; therefore, the guidance was not considered timely.

17. The SIP reflected WVDAQ's coordination with the regional air planning organizations regarding each state's understanding of the Good Neighbor Provisions' requirements, including Southeastern Air Pollution Control Agencies ("SESARM") and the Association of Air Pollution Control Agencies ("AAPCA").

18. The SIP also reflected WVDAQ's consultation with various groups to discuss West Virginia's emission inputs and West Virginia's modeled impacts to nonattainment and maintenance monitors, including the Midwest Ozone Group ("MOG"), Alpine Geophysics, LLC ("Alpine"), and the Lake Michigan Air Directors Consortium ("LADCO").

19. In forming the West Virginia's proposed SIP, WVDAQ applied its exhaustive analysis to EPA's recommended four-step analytical framework to assess contributions under the "Good Neighbor" provision.

20. West Virginia considered various modeling studies and used the "Good Neighbor" Modeling provided by Alpine (June 2018), which relied on a nested 4-km grid as the most robust way to identify the nonattainment and maintenance receptors to which West Virginia significantly contributes. A nested 4-km grid is more granular than the 12-km grid used in EPA's modeling from March 2018. *See* Sections 3.4.e and 3.5 of West Virginia's February 2019 SIP Submission.

21. West Virginia used the 1% of the NAAQS threshold (or 0.70 ppb) which was more conservative than the alternative threshold allowed of 1 ppb, for determining the significant contribution to downwind states' nonattainment at Step 2 of the analysis. Based on the 1% threshold, West Virginia determined that it was "linked" to the downwind 8-hour ozone nonattainment receptor at Harford, MD and "linked" to three maintenance receptors at Gloucester, NJ, Richmond, NY, and Philadelphia, PA.

22. WVDAQ engaged in further review and analysis relevant to those areas under Steps 3 and 4. West Virginia identified the emissions reductions necessary (if any), considering cost and air quality factors. WVDAQ conducted a thorough analysis and determined there were not any additional highly cost-effective reductions available for the 2015 ozone NAAQS beyond incorporating by reference the CSAPR trading program into the West Virginia SIP under legislative rule 45 CSR 43.

23. EPA did not respond to, act upon, or otherwise engage with West Virginia on its February 4, 2019 SIP submission for years. EPA did not note any deficiencies in the submission and did not otherwise provide comment on West Virginia's analysis of significant contribution. When consulting with EPA during the SIP drafting process, EPA did not provide any "Key Comments" that must be addressed in the SIP before it could be approved. And during West Virginia's public

comment period between September 7, 2018 and October 8, 2019, EPA chose not to provide comments to WVDAQ on its proposed SIP. WVDEP did not receive a letter from EPA stating that the SIP was deemed administratively and technically complete. Therefore, it was deemed administratively and technically complete by operation of law six months later on August 4, 2019. *See* 42 U.S.C. § 7401(k)(1)(B).

24. The next time WVDAQ received feedback from EPA on its SIP was February 22, 2022, when EPA announced its proposed disapproval of the SIP for noncompliance with the CAA’s “Good Neighbor” provision, and did so through a proposed rule titled “Air Plan Disapproval; West Virginia; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards,” 87 Fed. Reg. 9516. That proposed rule stated that any “[w]ritten comments must be received on or before April 25, 2022.” 87 Fed. Reg. at 9517.

25. On April 13, 2022, WVDAQ submitted comments on the proposed rule disapproving West Virginia’s SIP. *See* EPA Docket R03-OAR-2021-0873-0006.

26. On April 6, 2022—one week earlier and almost three weeks before the comment period on the proposed rule disapproving West Virginia’s SIP was scheduled to close—EPA issued another proposed rule that would impose a FIP for West Virginia and 26 other states whose SIPs did not receive EPA’s approval. This proposed rule was titled “Federal Implementation Plan Addressing Regional Ozone

Transport for the 2015 Ozone National Ambient Air Quality Standard,” 87 Fed. Reg. 20,036.

27. On June 21, 2022, WVDEP submitted comments on the proposed rule to implement the FIP. *See* EPA Docket HQ-OAR-2021-0668-0359.

28. On February 13, 2023, EPA issued a final rule and final agency action finalizing full or partial disapproval of SIPs filed by 21 states, titled “Air Plan Disapprovals; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards,” 88 Fed. Reg. 9336. West Virginia was among the states whose SIP received a full disapproval. *See* 88 Fed. Reg. at 9360.

29. On April 14, 2023, the State of West Virginia filed its Petition for Review of EPA’s SIP disapproval. *See* Petition, *State of West Virginia v. U.S. EPA, et al.*, No. 23-1418 (Apr. 14, 2023, 4th Cir.), ECF 3-1.

30. On June 5, 2023, EPA issued a rule finalizing the FIP, which applies to West Virginia and 22 other states. 88 Fed. Reg. 36,654. On July 17, 2023, the State of West Virginia filed a Petition for Review of EPA’s FIP.

III. Problems with EPA’s Final Rule

31. As noted in its earlier comment letters, WVDEP has several concerns with EPA’s rulemakings.

A. EPA failed to follow the CAA's cooperative federalism mandate

32. EPA's conduct in denying West Virginia's proposed SIP and immediately imposing the FIP is inconsistent with the CAA's cooperative federalism mandate, which gives States, not EPA, primary responsibility for regulating air quality within their borders. Indeed, EPA may impose a FIP only if a State fails to submit a SIP that meets the requirements of the CAA. *See* 42 U.S.C. § 7410(c).

33. As detailed in WVDEP's comment letter regarding EPA's proposal to deny West Virginia's SIP submission, EPA ignored numerous statutory deadlines to provide West Virginia feedback about its proposal. Rather than working with West Virginia to resolve any concerns with the proposed SIP, it seems EPA dedicated its resources to developing and issuing the FIP.

34. By proposing a FIP instead of working with West Virginia to perfect the proposed SIP, EPA demonstrated its preference for promulgating a FIP instead of helping West Virginia develop an approvable SIP. West Virginia made substantial investments in time and personnel resources on the proposed SIP and stood ready to work with EPA to address any issues.

35. Again, the CAA is structured to prefer state regulation of air quality with limited federal oversight. But EPA shelved West Virginia's plan, preventing West Virginia from addressing alleged deficiencies while the agency developed a FIP that it could impose immediately after disapproving West Virginia's proposed

SIP. EPA's disapproval of West Virginia's SIP deprived West Virginia and WVDAQ of the ability to fashion an interstate transport program that considers West Virginia and the region's unique circumstances, determines the appropriate sources that may need additional pollution controls, assess and determine the acceptability of the costs of implementation, and adequately consider the needs of West Virginia's citizens and economy. EPA's actions fundamentally undermine Congress's intention that West Virginia should have primary responsibility for developing and administering its air quality program. Thus, EPA's Final Rule harms West Virginia's sovereign interests.

B. The EPA's Final Rule Uses New Modeling

36. At the time West Virginia was preparing its proposed SIP, EPA provided updated modeling information with its March 2018 Memo for states to consider in developing their SIPs. West Virginia used the information provided in the March 2018 Memo to evaluate the impacts that West Virginia's emissions may have on downwind monitors.

37. But EPA disapproved West Virginia's proposed SIP as noncompliant with the "Good Neighbor" provision based on a second version of newly modeled data that was only made available to West Virginia well past the statutory deadline to submit a SIP for the 2015 ozone NAAQS. Indeed, this modeling was available only after EPA was statutorily required to act on West Virginia's SIP submission

(but had failed to do so). This new modeling is significant because the monitors previously linked as being impacted by West Virginia have changed with the newly available data. West Virginia also had no opportunity to evaluate these new modeling results in crafting its SIP submittal.

IV. The Final Rule Harms West Virginia and Regulated Sources

38. The consequences from the Final FIP imposed on West Virginia harm West Virginia and the regulated sources within its borders. Although the FIP is based on an assessment of statewide emissions of all relevant pollutants, it will require emission controls only for NO_x emissions, with the most onerous emissions targets impacting coal-fired electricity generating plants within the State. In total, 40 EGUs across 13 facilities will be impacted—24 of these units are coal-fired, and they span 8 facilities.

39. As identified in the WVDEP comments regarding the proposed FIP, West Virginia was not previously linked to the receptors identified in the proposed FIP when it developed its 2015 Good Neighbor SIP based on a more robust modeling platform. However, to the extent emissions controls are needed, EPA has deprived West Virginia of its rights under the CAA to identify and regulate in-state sources as needed to mitigate significant contributions.

40. EPA's FIP imposes a May 1, 2026, compliance deadline when additional complex and costly controls are required under the FIP for non-EGU

sources within West Virginia. WVDAQ must permit these new controls through its permitting process for the affected facilities. The permitting process must start as soon as the FIP becomes final and effective to meet the compliance deadline because it may take several years for some sources to install required controls after WVDAQ permits them.

41. WVDAQ must permit numerous facilities in the state that are subject to the FIP control requirements. WVDAQ estimates 52 facilities will be subject to the non-EGU control requirements finalized in the FIP and 13 facilities will be subject to the EGU requirements (both coal and non-coal fired) of the FIP. The non-EGU facilities subject to the FIP represent engines at natural gas transportation facilities, cement manufacturing, iron and steel mills and ferroalloy manufacturing facilities, and industrial boilers. Additionally, under the FIP, the following categories of sources will require permitting decisions: natural gas pipeline engines; cement kilns; iron, steel, and ferroalloy manufacturing boilers; glass manufacturing furnaces; large boilers used in chemical manufacturing, petroleum, and coal manufacturing; and large boilers used in pulp, paper, and paperboard mills manufacturing. WVDAQ will need to begin identifying which industrial sources will be required to install controls and obtain permits, including analysis of an estimated 130 engines in the pipeline transportation of natural gas.

42. The FIP compliance deadlines impose immediate permitting burdens on WVDAQ. The permitting process is lengthy and resource intensive. It involves staff review and development of draft permits, public notice, potential public meetings, and likely extensive public input. WVDAQ will then review and respond to the submitted comments on the proposed permit changes, in some circumstances adjusting the permits. Groups that usually oppose coal-fired power plants, chemical manufacturing, and other emissions sources, are likely to comment and formally object to the proposed permits.

43. These permitting burdens will put a significant strain on WVDAQ's staff and will coincide with WVDAQ's other critical work involving the same key personnel. That personnel is already strained as WVDAQ currently has 15 vacant positions (17% vacancy), including 4 in the permitting section; though WVDAQ is trying to fill these positions, it is having trouble finding interested and qualified candidates. The Permitting Section reviews applications for modifications, new facilities, and renewals and subsequently issues construction and operating permits. An onslaught of applications to modify permits for the Ozone Transport FIP would divert attention from new and expanding facilities in West Virginia, negatively impacting economic growth and public protection. The Planning Section is responsible for reviewing and commenting on proposed federal regulations and develops SIPs and State Plans required when EPA issues emission guidelines for

existing sources. WVDAQ provides valuable comments to EPA on how regulations will impact West Virginia air quality and economic activity. Diverting resources away from these important projects undermines West Virginia's interest in protecting public health.

44. Each of these problems with EPA's FIP and Final Rule disapproving the SIP causes West Virginia immediate harm to its sovereign interests and harms regulated sources in the State. Because the compliance deadlines are rapidly approaching, West Virginia and its regulated entities must begin planning for compliance and implementation immediately.

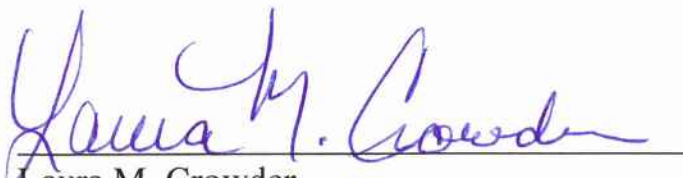
45. Staying the FIP during the pendency of this litigation, however, will cause no harm. A stay will maintain the status quo. The FIP is set to take effect on August 4, 2023 with immediate control stringencies for the 2023 ozone season, which began May 1, 2023. The program cannot be effectively implemented in West Virginia that quickly. Past control projects for emissions have required years of design, permitting, construction and sequencing of shut-downs to provide power reliably to the utility customers. Assuming expeditious resolution of this litigation, a stay during its pendency should not significantly affect the implementation of the FIP for later ozone seasons.

46. Moreover, WVDAQ has already implemented several programs that have reduced ozone and other emissions, and which will continue to do so. For

example, West Virginia ozone-season NOx emissions from EGUs have decreased from 60,528 tons in 2003 to 11,531 tons in 2022 which is an 81% reduction in statewide NOx emissions. These reductions have been achieved through several regulations including: the Acid Rain Program, CAIR, CSAPR, MATS, Regional Haze, and SIPs. With these other programs in place, air quality within West Virginia and in downwind states is already improved and will continue to improve. Thus, WVDAQ is taking adequate steps to address public health in West Virginia, while there is no need for regulated sources to move forward with complying with EPA's flawed Final FIP pending judicial review.

* * * *

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on this 18th day of July, 2023, in Charleston, West Virginia.

A handwritten signature in blue ink that reads "Laura M. Crowder". The signature is written in a cursive style and is positioned above a horizontal line.

Laura M. Crowder

Director

West Virginia Division of Air Quality

West Virginia Department of Environmental Protection

Appendix D

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of Ohio, et al.,
Petitioners,

v.

Environmental Protection Agency and Michael S. Regan, in his official capacity,
as Administrator of the U.S. Environmental Protection Agency
Respondents.

On Petition for Review of Action by the U.S. Environmental Protection Agency

**DECLARATION OF CHARLOTTE R. LANE IN SUPPORT OF
PETITIONERS' MOTION FOR STAY PENDING REVIEW AND FOR
AN ADMINISTRATIVE STAY**

I, Charlotte R. Lane, make the following declaration pursuant to 28 U.S.C. § 1746:

1. I am the Chairman of the Public Service Commission of West Virginia (“PSCWV”). I have held this position from July 1, 2019 to present and from 1997 to 2001. I served as Commissioner from 1985 to 1991. I served on the International Trade Commission from 2003 to 2011. I have also served for several years in the West Virginia House of Delegates. I served as President of the Mid-Atlantic Conference of Regulated Utility Commissioners as well as a member of the Board of Directors of the National Association of Utility Regulatory Commissioners. I practiced law in State and Federal Courts in West Virginia for many years. I was

awarded the Justitia Officium Award from the West Virginia College of Law and the Distinguished Alumnus Award from Marshall University. I am also a Fellow of the American Bar Foundation and the West Virginia Bar Foundation. I am over the age of 18 and am competent to testify concerning the matters in this declaration based on my personal knowledge, my experience with PSCWV, and information provided to me by PSCWV personnel.

2. The PSCWV is responsible for regulating the service and rates of utilities, including electric utilities serving retail customers in West Virginia. As Chairman and a member of the Commission, I am charged with the responsibility for appraising and balancing the interests of current and future utility service customers, the general interests of the state's economy and the interests of the utilities subject to Commission jurisdiction in its deliberations and decisions, including matters relating to PJM Interconnection, LLC ("PJM") and the Federal Energy Regulatory Commission.

3. I am providing this declaration in support of the State of West Virginia's motion for a stay of the Federal Implementation Plan, or "FIP," published by the U.S. Environmental Protection Agency ("EPA") as a Final Rule titled "Federal 'Good Neighbor Plan' for the 2015 Ozone National Ambient Air Quality Standards," 88 Fed. Reg. 36,654 (June 5, 2023), promulgated to regulate West Virginia's nitrogen oxides ("NOx") emissions. The FIP forces regulated coal-fired

electricity generating units (“EGUs”) within the state to install expensive new emission control technologies in order to comply with the FIP’s stringent emissions allowance budgets. The effective date of the FIP is August 4, 2023. *Id.*

4. I am aware that EPA published the FIP following EPA’s final rule issued on February 13, 2023, disapproving the state implementation plan (“SIP”) submitted by West Virginia on February 4, 2019 to comply with the interstate transport requirements for the 2015 8-hour ozone National Ambient Air Quality Standards (“NAAQS”). *See* Air Plan Disapprovals; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards, Final Rule, 88 Fed. Reg. 9336.

5. The FIP will burden West Virginia, its ratepayers, and its vertically integrated electric utilities¹ that own and operate electric generation facilities—both by destabilizing the power grid and by making electricity less affordable.

6. The FIP capacity restrictions will make electricity less reliable in West Virginia and throughout the electricity grid by forcing the retirement of base load, fuel-reliable, always-available, fossil fuel-fired thermal generation resources, including the most fuel-reliable of the fossil fuel plants—coal-fired plants—which

¹ Vertically integrated electric utilities provide all functions of electric service with their own facilities, production, transmission and distribution.

can store fuel supply on-site and remain available for extended operations when needed to back up less reliable generation resources.

7. One of the affected power plants is the Fort Martin plant, owned by a vertically integrated electric utility, Monongahela Power Company (MPCo). Fort Martin is an integral component of MPCo's fleet in West Virginia, providing approximately 1,300 Megawatts ("MW"), or over thirty percent of MPCo's load requirement. The plant is a valuable asset for the West Virginia utility and has been upgraded and maintained at the cost of the West Virginia ratepayers so that it can provide service for the next fifteen or more years. The budgets imposed by the FIP beginning in 2026 are based on an assumption that selective catalytic reduction ("SCR") equipment can be installed on existing units by the start of the 2026 ozone season, but Fort Martin is not equipped with SCR equipment. Therefore, under the FIP, Fort Martin will be required to be (1) retrofitted with expensive SCR equipment, (2) significantly reduce its capacity utilization, or (3) retire prematurely. Any of these solutions to satisfy the FIP will cost ratepayers much more than the average cost estimates put out by EPA for its new rule. Retrofitting SCR equipment on the plant will cost in excess of \$500 million and will substantially increase operating costs. These costs will be passed on to West Virginia ratepayers. In the alternative, the plant may be scheduled for early retirement which will entail equally high costs for ratepayers, and add to the instability of the electric grid in the future.

8. Although the two units at the Pleasants Power Station have ceased operations, the facility has not surrendered its operating permit, so it might be able to resume operations if needed to maintain electric reliability during the retrofit at the Fort Martin units. This is not a certainty, however, because the present owner has announced an agreement to sell the plant to a new owner with plans to use the plant for new load and to produce hydrogen. If the electrical output at Pleasants is directed to a new load related to hydrogen production, then it may not be able to substitute for the capacity lost at Fort Martin to maintain electric reliability. Moreover, based on its announced retirement, the FIP does not allocate any NOx allowances to either of the two units at the Pleasants Power Station. Therefore, whether Pleasants could be used for hydrogen production or to support the electric reliability during installation at Fort Martin, it would be unable to do so without purchasing NOx allowances on the market. The cost of purchasing enough allowances to operate the EGUs at the Pleasants Power Station would likely be exorbitantly expensive, assuming enough credits are even available.

9. Decisions to spend or not spend over a half billion dollars to allow the plant to continue to operate efficiently or to shut down prematurely cannot be delayed. If the FIP stays in place, planning for the installation of SCR equipment and construction timelines will require immediate decisions that will have long-term debilitating consequences for ratepayers.

10. Alternative decisions to forego installation of SCR equipment will likewise have to be made quickly and once made will have long-term cost consequences. If the decision is made to retire the plant prematurely, MPCo will be required to notify PJM of the planned retirement and plan for replacement capacity. PJM will conduct a retirement study to determine whether transmission system upgrades will be needed due to the redistribution of electricity flows across the PJM system. If transmission upgrades are required, they could be very expensive and involve transmission construction in surrounding states.

11. Replacement of 1,300 MW of coal-fired generation with no-NOx wind or solar generation will require between 3,000 and 6,000 MW of these intermittent wind or solar capacity resources.² Assuming that MPCo could purchase those levels of capacity to substitute for the capacity from Fort Martin, it could not contract for the capacity at a price below the PJM market price of capacity. The current cost of 6,000 MW of intermittent capacity in the PJM market is \$78 million per year. That cost, however, fluctuates from year to year and is currently at a relatively low level. Based on capacity costs over the last five years, it is more likely that 6,000 MW of

² PJM has stated that replacement of thermal fired generation capacity will require many multiples of solar or wind capacity because of the unreliable and limited capabilities of those replacement facilities to generate twenty-four hours per day, year-round, as is the case for thermal generation plants.

market-priced capacity will cost between \$120 million and \$220 million per year.³ Costs of this level, imposed on a relatively small West Virginia utility, far exceed the fractional average percentage nationwide compliance cost set forth in the FIP.

12. The forced premature retirement of West Virginia utility-owned power plants brought on by the FIP will require replacement capacity supplied by less reliable sources, and that, in turn, will increase utility costs and electricity rates while destabilizing the grid. The PSCWV and MPCo will not have the luxury of waiting for future developments before making decisions that will lead to expensive construction of SCR equipment or acquisition of replacement capacity for a prematurely retired unit. Evaluation of alternatives, filings with the PSCWV, evidentiary proceedings and decisions by the PSCWV, and implementation of the selected compliance strategies will take time and cannot be delayed.

³ Another option for MPCo to replace a prematurely retired Fort Martin power plant would be to construct, own and operate a new thermal generation plant. Given the restrictions on new coal-fired power plants, a new thermal power plant would have to be natural-gas-fired. If existing thermal capacity is replaced with new thermal capacity, it would require the same amount of capacity rather than the multiples required for intermittent wind or solar resources. A recent study for PJM estimated that the 2026/2027 net Cost of New Entry (CONE) for thermal capacity (natural gas-fired generation) would be between \$307 and \$356 per MW per day. PJM CONE 2026/2027 Report, Prepared for PJM Interconnection, April 21, 2022, <https://bit.ly/3pTxSVj> (last visited July 18, 2023). At those net CONE levels, 1,300 MW of replacement capacity will cost between \$145 million and \$169 million per year.

13. In addition to cost of compliance, the FIP is problematic because it will place increased reliance on intermittent (wind-powered and solar-powered) electric generation resources within the region that includes the electric grid operated by PJM—the regional transmission and supply organization responsible for transmission adequacy and power supply markets in the region encompassing West Virginia, twelve other states, and the District of Columbia. This move to intermittent resources will be unsafe and unreliable without online reserve resources necessary to provide the constant balance of supply to load when wind and solar resources are intermittent; that is, when the wind is not blowing (or blowing unevenly) or the sun is not shining (or shining unevenly).

14. Indeed, PJM has recently warned in a February 2023 report on the risks relating to energy resource transitions that a movement away from base load dispatchable generation will cause capacity deficiencies and reliability degradation as dispatchable thermal plants are retired prematurely. In its report, PJM stated:

The composition of the PJM Interconnection Queue has evolved significantly in recent years, primarily increasing in the amount of renewables, storage, and hybrid resources and decreasing in the amount of natural gas-fired resources entering the queue...

By the 2028/2029 Delivery Year and beyond, at Low New Entry scenario levels, projected reserve margins would be 8%, as projected demand response may be insufficient to cover peak demand expectations, unless new entry progresses at levels exhibited in the High New Entry scenario. This will require the ability to maintain needed existing resources, as well as quickly incentivize and integrate new entry ...

Thermal generators are retiring at a rapid pace due to government and private sector policies as well as economics ...

PJM's interconnection queue is composed primarily of intermittent and limited-duration resources. Given the operating characteristics of these resources, we need multiple megawatts of these resources to replace 1 MW of thermal generation.

Energy Transition in PJM: Resource Retirements, Replacements & Risks, 1, 10, 16 (Feb. 24, 2023), <https://bit.ly/3D0BRIP>.

15. This shift of generation will also be expensive. The report noted that PJM requires multiple MW of intermittent and limited duration resources to replace one MW of thermal generation. If the FIP puts significant quantities of thermal generation resources out of business, replacing each MW of thermal generation with “multiple megawatts” of “intermittent and limited-duration resources” will have major cost implications and major impacts on electricity rates.

16. EPA's argument that solar and wind resources are “cheap” relative to thermal resources is incomplete and incorrect. First, the thermal resources that are affected by the FIP are legacy, up and running generation units that have embedded ratemaking values that are much lower than the cost of new capacity. And second, it will take many multiples of generation capacity to replace thermal generation capacity with intermittent and limited-duration wind and solar generation resources. PJM has quantified the ability of wind and solar resources to serve load: replacing 1,000 MW of thermal capacity will require either 10,000 MW of onshore wind,

4,000 MW of more expensive offshore wind, 3,300 MW of fixed solar, or 2,000 MW of more expensive tracking solar. *Updated ELCC Class Ratings for the 2025/26 BRA reflecting FERC Order accepting PJM's ELCC CIR proposal*, <https://bit.ly/3ND5EWB>.

17. Thus, even if a MW of new wind or solar capacity is “cheaper” to construct than a thermal facility, that advantage is offset, again, by the need to construct “multiple megawatts of these resources to replace 1 [megawatt] of thermal generation.” *Energy Transition, supra*, at 1. And, again, these multiple MW are still not consistent and certain—they produce energy only when the wind is blowing or the sun is shining.

18. Proponents of the FIP believe that PJM approval of a few individual thermal generation retirements in recent years demonstrates that such units can be retired without jeopardizing system reliability. Not so. The FIP will cause not isolated but wide-spread and coincidental premature retirements of fossil fuel thermal units. This, in turn, will accelerate the closing of the fuel-reliable coal-fired thermal generation plants, leaving our area unnecessarily vulnerable to brownouts and blackouts.

19. West Virginia has approved plans to allow utility-owned thermal resources to comply with EPA rules in place prior to the recent proposed ozone transport rules and FIP that strain base load coal-fired thermal units, which are the

critically needed units that can provide electricity reliability and resilience with an onsite, multi-month fuel source.

20. Under the FIP, West Virginia ratepayers will be harmed by the uneconomic premature retirement of thermal power plants. West Virginia's generating utilities have hundreds of millions of dollars invested in base load thermal units—an investment that grows monthly as the utilities spend money on construction necessary to meet previously finalized EPA rules. If the FIP forces those generating units to retire prematurely, the utilities will expect West Virginia ratepayers to both (1) help recover the unrecovered investments in these facilities, and (2) shoulder the additional cost of replacement capacity. In effect, West Virginia ratepayers will be expected to pay for unreliable capacity that would not be needed but for the unreasonable early retirement of our existing, reliable generation resources forced by the FIP.

21. The resulting harm to West Virginia ratepayers will be real and lasting. It will hit households in a state with some of the lowest average incomes and oldest populations in the United States. But the negative impact will not be limited to rate impact in West Virginia.

22. The electricity grid instability brought on by the FIP will only serve to exacerbate these harms as brownouts and blackouts become commonplace due to

overreliance on intermittent generation resources and insufficient thermal generation with reliable on site fuel supply.

23. This is neither the time nor the place for a FIP that is likely going to force premature retirement of the very resources that are needed for reliability in the face of accelerated growth in less reliable intermittent solar and wind resources. *See generally Energy Transition, supra* (PJM report discussing the risks from the pace of additions intermittent resources and accelerated retirements of thermal resources).

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on this 18th day of July, 2023, in Austin, Texas.



Charlotte R. Lane
Chairman
Public Service Commission of West Virginia

Appendix E

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of Ohio, et al.,
Petitioners,

v.

Environmental Protection Agency and Michael S. Regan, in his official capacity,
as Administrator of the U.S. Environmental Protection Agency
Respondents.

On Petition for Review of Action by the U.S. Environmental Protection Agency

**DECLARATION OF GEORGE J. FARAH IN SUPPORT OF
PETITIONERS' MOTION FOR STAY PENDING REVIEW AND FOR
AN ADMINISTRATIVE STAY**

I, George J. Farah, hereby make the following declaration pursuant to 28 U.S.C. § 1746:

1. I am the Vice President, Utility Services for FirstEnergy Service Company which provides various services to Monongahela Power Company, a West Virginia electric utility operating subsidiary of FirstEnergy Corp. (hereinafter, "Mon Power" or "FirstEnergy"). Mon Power owns and operates two coal-fired power stations in West Virginia and is headquartered in Fairmont, West Virginia. I have been employed by FirstEnergy or its predecessors since May 1986. I earned a Bachelor of Science degree in Mechanical Engineering from the University of Pittsburgh in 1986. In 2007 I earned a Master's degree in Business Administration from Indiana University of Pennsylvania. I have worked in various corporate and

power station roles for over 37 years. I am over the age of 18 and am competent to testify concerning the matters in this declaration based on my personal knowledge, my experience with Mon Power, and information provided to me by Mon Power personnel.

2. I am providing this declaration in support of the State of West Virginia's motion for a stay Federal Implementation Plan, or "FIP," published by the U.S. Environmental Protection Agency ("EPA") as a Final Rule titled "Federal 'Good Neighbor Plan' for the 2015 Ozone National Ambient Air Quality Standards," 88 Fed. Reg. 36,654 (June 5, 2023). I am aware that EPA published the FIP following EPA's disapproval of the West Virginia State Implementation Plan ("SIP") addressing interstate transport for the 2015 ozone National Ambient Air Quality Standards ("NAAQS") on February 13, 2023. *See* Air Plan Disapprovals; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards, Final Rule, 88 Fed. Reg. 9336 (Feb. 13, 2023). EPA's FIP will result in imminent, irreparable harm to the State and its citizens

3. In the operation of its business, Mon Power generates electric power at its power stations for the benefit of its and Potomac Edison's approximately 550,000 customers located in West Virginia. As Vice President of Utility Services for FirstEnergy Service Corporation, I am charged with overseeing engineering,

environmental, fuel and reagent procurement, and other duties for Mon Power's generating plants.

4. Mon Power owns and/or operates over 3,000 megawatts of installed generation capacity in West Virginia; employs approximately 2,000 full-time employees; and spends approximately \$1.5 billion annually in the form of taxes, fuel, maintenance, and other operating and capital expenditures, and its impact on gross state product and gross domestic product is substantial.

5. I am aware that the State of West Virginia, through the West Virginia Department of Environmental Protection ("WVDEP"), submitted to EPA a proposed SIP to comply with the interstate transport requirements for the 2015 8-hour ozone National Ambient Air Quality Standards ("NAAQS").

6. Mon Power engaged with and provided comments to the WVDEP regarding the proposed SIP during West Virginia's public comment period from September 7, 2018 to October 8, 2018.

7. On February 22, 2022, EPA announced its proposed disapproval of West Virginia's SIP for noncompliance with the CAA's "Good Neighbor" provision. *See* Air Plan Disapproval; West Virginia; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards, 87 Fed. Reg. 9516. On April 25, 2022, Mon Power, by virtue of its membership in the

Midwest Ozone Group, submitted comments on the proposed rule disapproving West Virginia's SIP. *See* EPA Docket R03-OAR-2021-0873-0007.

8. I am aware that, on April 6, 2022, EPA issued another proposed rule that would impose a FIP for West Virginia and 26 other states whose SIPs did not receive EPA's approval. *See* Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone National Ambient Air Quality Standard, 87 Fed. Reg. 20,036. On June 21, 2022, Mon Power, by virtue of its membership in the Midwest Ozone Group, submitted comments on the proposed rule to implement the FIP. *See* EPA Docket HQ-OAR-2021-668-0323.

9. I am also aware that as a result of the EPA's disapproval of West Virginia's SIP on February 13, 2023, the agency promulgated a final rule on June 5, 2023, imposing a FIP on West Virginia and 22 other states with an effective date of August 4, 2023. *See* Federal "Good Neighbor Plan" for the 2015 Ozone National Ambient Air Quality Standards, 88 Fed. Reg. 36,654.

10. The FIP will cause immediate, detrimental, and irreversible harm to Mon Power as well as its affiliate, The Potomac Edison Company, who contracts for all of its power supply requirements for its West Virginia customers from Mon Power. Our other customers, suppliers, vendors, and contractors will be negatively impacted as well. When vendors are impacted, communities and local business are

impacted as well as local and state governments and their respective employees, vendors, and communities in which they operate.

11. The annual allocations of seasonal NO_x allowances have decreased and are expected to decrease more in the future. In 2022, Mon Power had to purchase thousands of seasonal NO_x allowances from the market in order to be able to operate its Fort Martin Power Station. The prices for these allowances increased dramatically to over \$40,000 per credit causing an additional cost burden on our customers of over \$50 million for just the five month period of May through September 2022.

12. Options at Fort Martin for compliance with the FIP are still under review and consideration, but all compliance options result in additional costs which would be borne by our customers. Options include upgrades of existing combustion systems, enhancements to the selective non-catalytic reduction (“SnCR”) equipment, lowering generation output, and/or installing selective catalytic reduction (“SCR”) equipment that EPA assumes in the FIP will be installed at many power stations by 2026. The impacts could range into the hundreds of millions of dollars in capital compliance and construction costs.

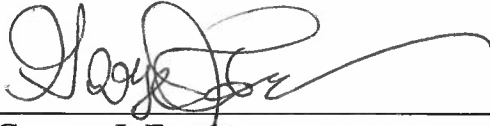
13. Additionally, the cost of reagents, if either the option of enhancing SnCR or installing SCR equipment is chosen, would be in the millions of dollars per year, and there are additional Operation & Maintenance costs annually estimated for

equipment and operations. Power generation will be reduced and/or lost at times in order to perform installation of and periodic maintenance of the equipment, which is difficult to estimate but can be substantial. Finally, additional capital is typically required in future years to replace equipment and catalysts.

14. Regardless of which option is chosen for compliance, rates would increase to West Virginia customers as a result. Rate increase estimates could be in the range of \$50-\$85 million per year depending on the option chosen for compliance.

15. Absent a stay, Mon Power will need to take imminent action in order to comply with the FIP. In order to comply with the FIP beginning in 2026, when state budgets reduce substantially based on the assumption that SCRs are installed on many existing units, Mon Power will need to make a decision in the near future regarding installation of equipment for compliance. Without a stay of the FIP, Mon Power must incur engineering, design, procurement, and construction expenditures on an option that may ultimately not be necessary if the FIP is held unlawful. Issuance of a stay would avoid wasteful expenditures on rule compliance that may be altered and thereby would avoid unnecessary customer rate increases.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on this 18th day of July, 2023, in Fairmont, West Virginia.



George J. Farah
Vice President
FirstEnergy Service Company
Monongahela Power Company