No. 18-868

In The Supreme Court of the United States

ELECTRIC POWER SUPPLY ASSOCIATION; NRG ENERGY, INC.; and CALPINE CORP.,

Petitioners,

v.

ANTHONY STAR, in his official capacity as Director of the Illinois Power Agency; BRIEN J. SHEAHAN; JOHN R. ROSALES; SADZI MARTHA OLIVA; D. ETHAN KIMBREL; and ANASTASIA PALIVOS, in their official capacities as Commissioners of the Illinois Commerce Commission; and EXELON GENERATION COMPANY, LLC,

Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Seventh Circuit

BRIEF OF *AMICI CURIAE* INDUSTRIAL CUSTOMERS IN SUPPORT OF PETITIONERS

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INTEREST OF *AMICI CURIAE*[1]

The *Amici Curiae* are the PJM Industrial Customer Coalition, the American Forest & Paper Association, the Illinois Industrial Energy Consumers, and the Electricity Consumers Resource Council (together, "Industrial Customers"). As significant users of electricity, the Industrial Customers have a substantial financial interest in this proceeding because the subsidization of uneconomic nuclear generation facilities directly and significantly impacts the Industrial Customers' electricity costs. The Industrial Customers consist of manufacturers and other large commercial businesses and institutions that consume substantial quantities of electricity. The Industrial Customers represent a diverse range of industries, including paper and wood products, steel, aluminum, food processing, food retailers, fertilizer, insulation, glass, chemicals, plastics, pharmaceutical, medical, building products, automotive, oil refining, and cement.

If the petition for writ of certiorari is not granted and the decision of the court of appeals is not reversed, more states will seek to implement programs that provide Zero Emissions Credits ("ZECs") to purportedly

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[1] Pursuant to this Court's Rule 37, the Industrial Customers state that no counsel for any party in this proceeding authored this brief in whole or in part, and no person or entity other than the members of the Industrial Customers made a monetary contribution to the preparation or submission of this brief. Counsel of record for all of the parties were timely notified at least 10 days prior to filing regarding the intent to file this brief. All parties in this case have filed blanket consents consenting to the filing of *amicus curiae* briefs in this proceeding.

economically distressed nuclear generation facilities. The Industrial Customers generally support the federally regulated wholesale markets that were designed to ensure competitive supply and demand dynamics and procure least-cost generation resources. In addition to the near-term negative impact of ZEC charges on customers, ZEC programs interfere with and distort prices in the competitive wholesale markets, leading to long-term increases in electricity costs for consumers. Because energy is one of the top expenditures for the Industrial Customers, significant increases in electricity costs impact the viability and competitiveness of the Industrial Customers' businesses. The economic ramifications of ZEC programs may limit operations and even lead to downsizing, closures, or relocations. Accordingly, the Industrial Customers have a strong interest in this Court's review of the decision below.

SUMMARY OF ARGUMENT

The decision of the United States Court of Appeals for the Second Circuit[2] and the decision of the United States Court of Appeals for the Seventh Circuit[3] upholding ZEC programs in New York and Illinois undermine the Federal Energy Regulatory Commission's ("FERC") well-established jurisdiction to oversee and

[2] *Coalition for Competitive Elec. v. Zibelman*, 906 F.3d 41 (2d Cir. 2018) (on petition for writ of certiorari in Docket No. 18-879).

[3] *Elec. Power Supply Ass'n (EPSA) v. Star*, 904 F.3d 518 (7th Cir. 2018) (on petition for writ of certiorari in Docket No. 18-868).

regulate the wholesale energy and capacity markets to ensure that electricity prices paid by consumers are just and reasonable, as required pursuant to the Federal Power Act. By subsidizing uneconomic nuclear plants, state ZEC programs distort prices and materially influence market decisions, enabling ZEC-eligible nuclear plants to make inefficient offers that skew market clearing prices, provide inaccurate information to investors and market participants, allow for strategic bidding and the exercise of market power, and ultimately drive up prices for consumers. ZEC programs also interfere with efficient market entry and exit decisions by generators of electricity and will result in the retention of ZEC-eligible plants serving as barriers to entry to other resources, including renewable resources, that otherwise would have been more competitive and efficient than the ZEC-benefitting nuclear plants.

The FERC-regulated competitive wholesale markets are designed to provide energy-intensive businesses like the Industrial Customers with reliable, competitively priced electricity to sustain their operations and to maintain their competitiveness. ZEC programs undermine FERC's jurisdiction and well-established ratemaking process by imposing unjust and unreasonable rates on retail customers. The ZEC Program in Illinois will create an estimated $3.30 billion in subsidies over the next ten years. New York's ZEC Program will result in a wealth transfer from consumers to ZEC-eligible generators of more than $600 million per year.

Arguments that uneconomic nuclear units must stay open to help ensure grid resilience or grid reliability are mistaken and must fail. Regional electricity grid operators like PJM Interconnection, L.L.C. ("PJM") already have concluded that there are no reliability issues or threats to system reliability in the PJM region. Even if reliability or resilience were an issue, PJM already has mechanisms in place to ensure system reliability. PJM's processes and market rules effectively facilitate the exit of uneconomic and inefficient generation and facilitate the entry of economic and efficient new generation. If uneconomic and inefficient generation is needed on a temporary basis for reliability reasons, PJM may compensate those units until system enhancements are implemented. PJM's most recent capacity auction results demonstrate that PJM does not face a capacity shortfall, and there is no current or imminent shortage of generation resources.

Finally, even if ZEC programs are invalidated and determined to be preempted by the Federal Power Act, states' authority to create Renewable Portfolio Standards will not be affected.

ARGUMENT

The ZEC programs in Illinois and New York establish multibillion-dollar subsidies for certain nuclear generating units that will substantially distort prices in federally regulated wholesale electricity markets.

New Jersey and Connecticut have already followed the lead from New York and Illinois and have enacted ZEC programs in those states. Other states, such as Ohio and Pennsylvania, are considering such programs or subsidies. The establishment of precedent that allows for a patchwork of differing state subsidy programs that materially influences wholesale prices jeopardizes efficient pricing in FERC-jurisdictional markets, to the detriment of consumers including the Industrial Customers. Accordingly, the Industrial Customers respectfully support the Petitioners' request that this Court review the decisions below and find that ZEC programs illegally encroach on FERC's jurisdiction over the wholesale electricity markets.

A. By Subsidizing Uneconomic Nuclear Plants, State ZEC Programs Distort Prices and Materially Influence Market Decisions in the Federally Regulated Wholesale Energy and Capacity Markets.

Under the Federal Power Act, Congress granted FERC the exclusive jurisdiction over wholesale sales of electricity and transmission of electricity in interstate commerce. 16 U.S.C. § 824 *et seq.*; *Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1292 (2016). To ensure that those rates are just, reasonable, and not unduly discriminatory or preferential, FERC regulates regional grid operators, such as PJM and Midcontinent Independent System Operator, Inc. ("MISO"), that administer wholesale sales of electricity in energy and capacity markets. In energy market auctions, generators

offer on a spot or short-term basis to sell a specified quantity of megawatt hours ("MWh") of electricity. In capacity market auctions, generators make offers to commit to produce a specified amount of energy as needed at some point in the future. These organized wholesale electricity markets "were created to address ever-increasing electricity prices and to encourage innovation through free-enterprise competition."[4] To ensure just and reasonable rates, these organized markets were designed with competitive principles (*e.g.*, price transparency and an even playing field) and support a fuel-neutral, least-cost supply of electricity. As a result, when these competitive markets operate efficiently, consumers have benefitted from lower electricity prices.

The ZEC programs are antithetical to free enterprise and market competition. In Illinois, the ZEC program was designed to subsidize one nuclear generating company—Exelon—at the expense of other generators and electricity consumers. Certain units of Exelon's nuclear generating fleet purportedly had been on the edge of financial collapse, with Exelon losing approximately $800 million at the Quad Cities and Clinton plants over seven years.[5] Major electric utilities and, in

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[4] "The Value of Markets." PJM Interconnection, L.L.C., *available at* https://www.pjm.com/-/media/about-pjm/newsroom/fact-sheets/the-value-of-pjm-markets.ashx?la=en (last accessed Jan. 27, 2019).

[5] *See* "Exelon Announces Early Retirement of Clint and Quad Cities Nuclear Plants" (June 2, 2016), *available at* http://www.exelon corp.com/newsroom/clinton-and-quad-cities-retirement (last accessed Jan. 27, 2019). Similarly, in New Jersey, Public Service Electric &

turn, their customers are now required to purchase ZECs from Exelon at a set price that purportedly equals the Social Cost of Carbon, initially $16.50 per MWh.[6] Exelon's plants can use this ZEC revenue (*i.e.*, out-of-market payments) to cover costs that otherwise would need to be recovered in FERC-jurisdictional wholesale markets, including in energy and capacity markets coordinated by PJM and MISO. Given the size of the subsidies provided to the ZEC-benefitting nuclear units and their propensity to influence capacity prices at the margin, the ZEC programs have the potential to profoundly disrupt FERC-regulated wholesale markets.

1. ZEC Programs Distort Prices in FERC-Regulated Markets.

When bidding into electricity market auctions, a generator submits an offer to supply energy or capacity at the price at which it is willing to offer capacity or produce energy for each particular auction interval, which is typically hourly for energy and annually for capacity. The grid operator, such as PJM or the New York Independent System Operator, Inc. ("NYISO"),

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Gas ("PSEG") threatened to shut down its Hope Creek, Salem I, and Salem II nuclear plants if PSEG did not receive massive subsidies from the state. *See* "PSEG Affirms It Will Shut Down Nuclear Plants Unless It Gets Big Subsidies." NJ Spotlight, *available at* https://www.njspotlight.com/stories/18/10/04/pseg-affirms-it-will-shut-down-nuclear-plants-unless-it-gets-big-subsidies/ (last accessed Jan. 27, 2019).

[6] 20 Ill. Comp. Stat. 3855/1-75(d-5).

"stacks" the generators' bids in order from lowest to highest until the grid operator obtains the required amount of energy or capacity to meet demand in a particular market interval. The last and highest bid establishes the "market clearing price." Generators that bid at or below that price "clear the auction" and receive that price. As the highest accepted bid, the "market-clearing" price is "the price an efficient market would produce" and is paid to all generators. *FERC v. Electric Power Supply Ass'n (EPSA)*, 136 S. Ct. 760, 769 (2016).

By paying a subsidy to ZEC-eligible nuclear generators for each MWh of energy generated and sold, or for each MW of committed capacity, ZEC programs enable ZEC-eligible nuclear plants to make inefficient offers that are inconsistent with dynamically competitive markets. Accordingly, ZEC programs directly and materially influence pricing in the FERC-regulated energy and capacity markets. Using massive subsidies, ZEC programs encourage inefficient economic behavior by subsidy recipients and threaten the integrity of the FERC-regulated markets in the long-term.

The ZEC programs in Illinois and New York provide colossal subsidies to keep nuclear plants in the energy and capacity markets, even though certain nuclear plants would likely be forced to shut down if they were subject only to market forces and acted rationally in response to those market forces. The continued existence of uneconomic plants artificially increases supply in the energy market relative to the level that would be present in the absence of such subsidies. Under the fundamentals of supply and demand,

the greater injection of supply into the market through ZEC programs allows ZEC-benefitting nuclear units to make lower offers and thereby, in the short-term, suppress the market clearing price for energy in the wholesale market. As a result, the resulting price signals in the auctions do not provide accurate information for efficient new entry. ZEC-eligible units could artificially drive down the market clearing price by submitting lower offers or those units could bid more strategically because the subsidies provide the units with greater leeway. Either way, prices are distorted. The FERC-sanctioned auction-based markets are designed to produce just and reasonable rates. *See Hughes*, 136 S. Ct. at 1291-92. However, those just and reasonable rate outcomes can only occur if price signals provide accurate information that causes excess or uneconomic generation to exit the market in response to prices that are too low to justify their continued operation. ZEC programs cause aberrations in energy market outcomes.

A similar phenomenon occurs with respect to capacity markets. The continued operation of ZEC-eligible nuclear generators results in an excess supply of capacity eligible to bid into the FERC-regulated capacity markets. The greater supply relative to demand for capacity will, all else being equal, artificially depress prices in the capacity market, in the short-term, relative to the operation of the market in the absence of ZEC programs. Bidding below costs in capacity auctions, due to the enjoyment of state subsidies, "may reduce the supply of electricity in the long run." *See NRG*

Power Mktg., LLC v. FERC, 862 F.3d 108, 111 (D.C. Cir. 2017). As is the case with energy markets, short-term aberrations in capacity markets produce long-term adverse impacts by crowding out efficient new entry, leaving both the market and consumers increasingly dependent on inefficient, subsidized resources over time.

2. ZEC Programs Materially Influence Decisions to Exit and Enter the Market for Wholesale Market Power Generation.

By influencing offers and distorting prices in the wholesale electricity markets, the ZEC programs will interfere with efficient market entry and exit decisions by power generators and other market resources, like demand response. Aside from setting the amount paid and received by buyers and sellers, the clearing price in these wholesale electricity auctions "identif[ies] need for new generation." *Hughes*, 136 S. Ct. at 1293. The Court has stated:

> A high clearing price in the capacity auction encourages new generators to enter the market, increasing supply and thereby lowering the clearing price in same-day and next-day auctions . . . ; a low clearing price discourages new entry and encourages retirement of existing high-cost generators.

Hughes, 136 S. Ct. at 1293. If a generator's long-run marginal cost is above the expected market clearing price, a generator (without the benefit of a massive

subsidy or windfall) will take that as a signal to exit the market. If a prospective generator believes its marginal cost will be below the expected market clearing price, then the prospective generator will take that as a signal to enter the market.

Prior to the creation of the ZEC programs, market signals in PJM and NYISO auctions indicated that the ZEC-eligible nuclear power plants, a subset of all nuclear power plants in those regions, were uneconomic and should retire. Plans to close the ZEC-eligible nuclear plants in Illinois and New York did not result from a market failure. Instead, the need to close those nuclear plants resulted from healthy competition among generators in the wholesale market meeting energy demand and reliability needs of consumers. Specifically, a revolution in natural gas extraction technologies contributed to lower natural gas prices that reduced costs broadly in electricity markets, to the benefit of consumers.

Aside from harming and discriminating against existing resources, the lower market equilibrium price created by the ZEC subsidies acts as a barrier to entry and discourages investment in new, more efficient resources that are poised to capitalize on technological advancements, such as those in natural gas extraction, wind and solar generation, and energy storage. Under ZEC programs, more efficient new generators and other resources are instead signaled to stay out of the market because they cannot recoup their operating costs. Thus, while these subsidies may artificially lower market prices in the short-term, in the

long-term, these subsidies ultimately will unnecessarily increase energy and capacity costs to all consumers through the market distortions they cause and through their deterrence of efficient new market entrants and new technologies.

The adverse impact of the ZEC subsidies on market entry and exit is likely to be sustained for a lengthy period of time. Once established, subsidies are very difficult to eradicate, even after the original perceived need for the out-of-market payment is no longer present. Subsidies create a sense of entitlement and the recipients of the subsidies are empowered—politically and financially—to influence processes that are necessary to expand subsidies or extend subsidies beyond their originally intended life.

In summary, healthy markets and least-cost energy supplies for consumers require quality market design and minimal out-of-market interventions. Massive subsidies like ZECs are inconsistent with market principles because they distort price signals and create an uneven playing field among competitors by shifting risk away from the ZEC-benefitting nuclear plants to the rest of the market. Competitive markets provide efficient price signals for entry and exit, including the exit of a few uneconomic nuclear units. ZEC programs run directly contrary to this outcome, fundamentally undermining market designs approved by

FERC pursuant to the Federal Power Act.[7] 16 U.S.C. § 824 *et seq*.

B. The Costs of the State ZEC Programs Are Imposed on Industrial Customers and Other Consumers.

Energy is one of the top expenditures for the Industrial Customers. ZEC programs impose significant, unnecessary cost increases on Industrial Customers and other consumers, thereby threatening the viability and competitiveness of the Industrial Customers' businesses.

As to the specific cost impact, the ZEC Program in Illinois will create an estimated $3.30 billion in subsidies over the next ten years.[8] An Illinois refinery is projected to incur an additional $1.45 million per year in increased electricity costs as a direct and sole consequence of the Illinois ZEC Program.[9] Smaller Illinois businesses with an electricity demand of 50 megawatts

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[7] Given the risks and increased long-term costs caused by subsidies and market distortions, FERC precedent establishes that supply and demand dynamics and market forces are the best means to set just and reasonable wholesale rates. *See generally* FERC Order No. 697 & Progeny, *available at* https://www.ferc.gov/industries/electric/gen-info/mbr/important-orders/OrderNo697.asp (last accessed Feb. 4, 2019).

[8] Brief of *Amici Curiae* the Illinois Chamber of Commerce & the Illinois Industrial Energy Consumers in Support of the Plaintiffs-Appellants and for Reversal of the District Court Order, *EPSA et al. v. Star et al.*, Case No. 17-2445 (7th Cir.) (Sep. 8, 2017) at p. 3-4.

[9] *Id.* at p. 5.

will incur nearly $800,000 in additional annual electricity costs as a sole consequence of the ZEC Program.[10]

In New York, the cost of the ZEC Program has been estimated at $600 million per year.[11] For the first six years of the program, wholesale electricity prices are calculated based on a recent period average forecast of energy prices plus a forecast of capacity prices—$39 per MWh. For the first two-year subsidy period, the New York ZEC Program ensures that the nuclear generators receive an additional payment of $17.48 per MWh of actual production, in addition to what those generators earn in capacity and energy market revenues.[12]

ZEC programs in other states have also been projected to create unjust and unreasonable rate impacts on customers. If the subsidies sought by the nuclear generators are granted in New Jersey, consumer bills will increase by $300 million a year, with $100 million

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[10] Brief of *Amici Curiae* the Illinois Chamber of Commerce & the Illinois Industrial Energy Consumers in Support of the Plaintiffs-Appellants and for Reversal of the District Court Order, *EPSA et al. v. Star et al.*, Case No. 17-2445 (7th Cir.) (Sep. 8, 2017) at p. 3-4.

[11] "Generators sue New York PSC over new ZEC charges." Power Markets Today (Oct. 20, 2016), *available at* https://www.powermarketstoday.com/public/Generators-sue-New-York-PSC-over-new-ZEC-charges.cfm (last accessed Jan. 28, 2019).

[12] Brief of Energy Economists as *Amici Curiae* in Support of Plaintiffs-Appellants and Reversal, *Coalition for Competitive Electricity et al. v. Zibelman*, Docket No. 17-2654-cv (2d Cir.) (Oct. 20, 2017) at p. 6.

going to Exelon, a part owner of the Salem nuclear plant.[13]

By allowing the ZEC programs to continue, the decisions below not only condone distortions of FERC-regulated wholesale markets, they condone massive wealth transfers from Industrial Customers and other consumers to owners of generation plants that the FERC-regulated wholesale market has determined to be inefficient and uneconomic.

C. Regional Electricity Grid Operators Already Have Mechanisms in Place to Ensure System Reliability and Resilience.

The PJM region is not facing a reliability or capacity crisis that warrants subsidizing uneconomic nuclear plants. PJM has concluded that the region is not facing any reliability issues. In response to a request to provide subsidies to coal and nuclear units due to their "resilience," PJM stated: "without reservation there is no immediate threat to system reliability," due to the announced expected retirements of those coal and nuclear plants.[14] PJM's processes and market

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[13] "PSEG Affirms It Will Shut Down Nuclear Plants Unless It Gets Big Subsidies." NJ Spotlight, *available at* https://www.njspotlight.com/stories/18/10/04/pseg-affirms-it-will-shut-down-nuclear-plants-unless-it-gets-big-subsidies/ (last accessed Jan. 27, 2019).

[14] PJM Letter to Secretary Perry re First Energy Solutions' Request for Emergency Relief under Section 202 of the Federal Power Act at 1 (Mar. 30, 2018), *available at* https://www.pjm.com/~/media/documents/ferc/filings/2018/20180330-request-for-doe-energy-relief.ashx (last accessed Feb. 3, 2019).

rules are working by facilitating the exit of uneconomic and inefficient old generation and facilitating the entry of economic and efficient new generation.

Furthermore, ample capacity reserve margins in PJM demonstrate that retirements have not been premature. In the PJM capacity auction for the 2021/2022 Delivery Year, the reserve margin for the entire PJM footprint was 21.5 percent—or 5.7 percentage points higher than the target reserve margin of 15.8 percent.[15] In the 2021/2022 auction, PJM procured for the second time 100 percent Capacity Performance Resources, which "must be capable of sustained, predictable operation, and are expected to be available and capable of providing energy and reserves when needed through the Delivery Year."[16] Thus, PJM does not face a capacity shortfall, and there is no current or imminent shortage of generation resources that warrants providing uneconomic nuclear units with massive subsidies. The need for some nuclear generating facilities to retire, or plan in the near future to retire, is simply a function of market economics.

Even with the potential loss of baseload generation due to the retirements of nuclear plants, grid operators

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[15] *See* 2021/2022 Reliability Pricing Model Base Residual Auction Results, *available at* https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (last accessed Jan. 29, 2019).

[16] *See* 2021/2022 Reliability Pricing Model Base Residual Auction Results, *available at* https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx (last accessed Jan. 29, 2019).

such as PJM, MISO, and NYISO already have mechanisms in place to ensure resource adequacy, system reliability, and system resilience. In PJM and NYISO, these mechanisms are known as Reliability Must Run ("RMR") service agreements. Per Attachment Y-1 in its Tariff, MISO has a similar mechanism called a System Support Resources ("SSR") agreement wherein MISO designates certain generators as SSRs and negotiates agreements to compensate those SSRs to keep running.

Under an RMR agreement, PJM will call upon a generating unit that is slated for retirement to remain operational beyond its proposed retirement date, for a limited period of time, because the unit is needed for reliability reasons until a system solution is implemented. Thus, the RMR process provides PJM with the ability to keep essential assets online if, and only to the extent that, a reliability problem exists. PJM has used the process infrequently, further confirming that the organized wholesale electricity markets are by no means facing the loss of critical generation facilities needed for reliability or "resilience."

PJM's generation deactivation process adequately evaluates all generation retirements for an adverse impact on reliability. In its Open Access Transmission Tariff and in PJM Manual 14D, PJM describes a detailed process it follows when a generation retirement is announced. After such an announcement, a timetable begins in which PJM initiates an analysis and explores transmission solutions to enable power to

continue to reliably flow to customers.[17] Generator retirements are also included in PJM's Regional Transmission Expansion Planning ("RTEP") process. PJM utilizes criteria to identify potential transmission system problems due to specific retirements. PJM may order transmission upgrades to keep the grid reliable in response to generator retirements.

PJM has in place Tariff provisions (Attachment K Appendix Section 6) that provide adequate compensation to RMR units. Under PJM Manual 14D, PJM may request a generating unit to operate past its desired deactivation date. Upon this notice, the generator may file with FERC for cost recovery; alternatively, the generator owner may elect to receive avoidable cost compensation.

PJM has used the RMR process infrequently, indicating that generation needed for reliability or "resilience" is not retiring prematurely. However, RMR processes provide PJM the tools to make it economic to keep generators online when necessary for grid reliability. The RMR and generator deactivation processes and PJM's careful management of the grid negate the need for providing massive subsidies to uneconomic nuclear units. Furthermore, FERC reviews and

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[17] *See* PJM Manual 14D: Generator Operational Requirements, Revision 47 (Dec. 20, 2018), § 9.1, *available at* https://www.pjm.com/~/media/documents/manuals/m14d.ashx (last accessed Jan. 29, 2019). *See also* "Explaining Power Plant Retirement in PJM." PJM Learning Center, *available at* http://learn.pjm.com/three-priorities/planning-for-the-future/explaining-power-plant-retirements.aspx (last accessed Jan. 29, 2019).

approves RMR agreements to ensure those agreements are just, reasonable, and not unduly discriminatory or preferential. Additionally, resilience is embedded within independent reliability standards that are promulgated and enforced by the North American Electric Reliability Council ("NERC"), the not-for-profit electric reliability organization that develops and enforces reliability standards and is subject to FERC's oversight. NERC is well-positioned to provide intelligence, knowledge, metrics, and threat analyses to apply to resilience vulnerability and high-impact, low-frequency events that test grid resilience.[18] Accordingly, grid operators, FERC, and NERC all have robust mechanisms in place to manage resource adequacy, ensure resilience, and to facilitate the exit of generation from the grid in a reliable fashion.

D. Invalidation of the ZEC Programs Would Not Impair A State's Authority to Establish Renewable Energy Portfolio Standards.

ZECs are very different from state Renewable Portfolio Standards ("RPS") that create tradeable instruments known as Renewable Energy Credits ("RECs").

In the Second Circuit decision, the court of appeals erred in equating ZECs to RECs. *See Zibelman*, 906

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[18] *See* NERC's State of Reliability 2018 Report (June 2018), *available at* https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/NERC_2018_SOR_06202018_Final.pdf (last accessed Jan. 29, 2019).

F.3d at 54-55. RECs are state-created and state-issued instruments certifying that a select quantity (usually 1 MWh) of electric energy was generated pursuant to certain requirements. RECs were created primarily to recognize the environmental attributes of wind, solar, and other renewable generation types. A REC is traded and sold as a separate commodity in an open market. Thus, the holder of a REC at any time may be a market participant that is not a renewable energy resource.

In contrast, ZECs are *ad hoc* income guarantees and bailouts provided only to existing eligible nuclear generating units that are uneconomic in wholesale electricity markets. Specifically established for nuclear energy production, and ostensibly based on a construct of the "social cost of carbon," ZECs are calibrated to backfill the difference between wholesale market revenue and the claimed revenue requirement of particular uneconomic nuclear units. While RECs are traded on an open market among various market participants, ZECs are state-mandated payments from customers in that state to specific qualifying nuclear units. The value and price of a REC is determined in a voluntary market (based on supply and demand principles) irrespective of the federally regulated wholesale electricity markets. ZEC prices are administratively determined, and ZEC values in New York are based on a forecast of wholesale electricity prices. ZEC prices in Illinois were nominally based on an administratively-determined Social Cost of Carbon, but, in reality, were set sufficiently high to provide opportunities for Exelon to postpone retirement of certain nuclear units.

ZECs are designed to dictate a project-specific operational decision—*i.e.*, to continue operation when retirement is the indication from the wholesale markets. State government policy supplants federal policy in the fashioning of market designs to help ensure that competitive forces determine resource entry and exit in the wholesale markets. RECs do not guarantee resource entry/exit for specific resources. Unlike ZECs, RPS-driven RECs do not dictate project-specific investment decisions and therefore do not substitute for competition in resource allocation.

Importantly, even if ZECs are invalidated and determined to be preempted by the Federal Power Act, state authority to establish RPS will not be affected. *See generally WSPP Inc.*, 139 FERC ¶ 61,061 (2012).

CONCLUSION

The petition for a writ of certiorari should be granted.

Dated: February 7, 2019

Respectfully submitted,

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