#### Nos. 14-840 & 14-841

# In The Supreme Court of the United States

FEDERAL ENERGY REGULATORY COMMISSION,

Petitioner,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, ET AL., Respondents.

ENERNOC, INC., ET AL.,

Petitioners,

v.

ELECTRIC POWER SUPPLY ASSOCIATION, ET AL., Respondents.

On Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

BRIEF OF THE MICROGRID RESOURCES
COALITION AS AMICUS CURIAE IN SUPPORT OF
PETITIONERS AND IN SUPPORT OF REVERSAL

ERIK S. JAFFE
(Counsel of Record)
ERIK S. JAFFE, P.C.
5101 34<sup>th</sup> Street, N.W.
Washington, DC 20008
(202) 237-8165
jaffe@esjpc.com

Counsel for Amicus Curiae

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#### INTEREST OF AMICUS CURIAE 1

Amicus curiae the Microgrid Resources Coalition (MRC) is a consortium of leading microgrid owners, operators, developers, suppliers, and investors formed to advance microgrids as grid resources. A microgrid is the result of one or more electricity endusers generating, storing, or otherwise actively managing their electrical and other energy needs for their properties and facilities. Microgrids produce or store their own energy in addition to purchasing energy at retail. They can operate either in parallel to or in isolation from the electrical grid and, when operating in parallel, can provide some combination of energy, capacity, and ancillary or related services to the grid. Microgrids typically have advanced control systems that enable them to provide more, and more responsive, grid services than other demand-response resources.

Many of today's microgrids are on academic or industrial campuses that have been generating their own electricity since the early days of electric generation – in some cases before they were connected to the larger grid. MRC member Princeton University, for example, has been operating a microgrid since 1880, providing at least a portion of the electricity and heat to its campus. Over the years that grid has evolved and improved, and now Princeton owns one of the most advanced microgrids in the country, and uses its

<sup>&</sup>lt;sup>1</sup> No counsel for a party authored this brief in whole or in part, nor did any person or entity, other than *amicus* or its counsel, make a monetary contribution intended to fund the preparation or submission of this brief. This brief is submitted with the written individual or blanket consent of all parties.

extensive experience to educate potential microgrid owners and government officials from around the country. MRC member the International District Energy Association is an international association of owners and suppliers of electric and thermal cogeneration, which includes numerous members that own microgrids.

MRC promotes the implementation of microgrids through advocacy for laws, regulations, and tariffs that support their access to markets, compensate them for their services, and provide a level playing field for their deployment and operations. Additional information regarding MRC can be found at: http://www.microgridresources.com. Because microgrids are among the most efficient and effective sources of demand-response resources, MRC is acutely interested in this case and in FERC's efforts to encourage fair and nondiscriminatory treatment of such resources.<sup>2</sup>

#### **STATEMENT**

The Federal Power Act (FPA) provides FERC with "jurisdiction over all facilities for" the "transmission of electric energy in interstate commerce" and the "sale of electric energy at wholesale in interstate commerce" but generally excludes jurisdiction over "any other sale of electric energy." 16 U.S.C. § 824(b)(1). The act also confers FERC jurisdiction

<sup>&</sup>lt;sup>2</sup> The comments contained in this brief represent the position of MRC as an organization, but not necessarily the views of any particular member with respect to any issue.

over, *inter alia*, any "practice, or contract affecting" wholesale rates. 16 U.S.C. § 824e(a).

The demand-response resources at issue in this case serve a number of functions in connection with the transmission and purchase of wholesale electric energy. Such resources can substitute for a portion of energy generation in the real-time and day-ahead wholesale auction markets, thereby balancing supply and demand and helping to establish a lower market-clearing price. They also serve to maintain the reliability and proper functioning of the transmission system by balancing and mitigating short-term spikes or imbalances in supply and demand, as well as helping regulate the frequency of the transmission system through small, short-term, and ongoing adjustments, up or down, to the load on the system.

In holding that FERC lacked jurisdiction over demand-response resources because they involved behavior by end-users of electricity and hence were part of the "retail market," FERC Pet. App. 8a, 9a n.1, the court below has undermined the ability to use such resources in the transmission and purchase of wholesale electric energy. It has thereby undermined the important role such resources play in establishing reasonable wholesale prices and facilitating a reliable transmission system.

#### SUMMARY OF ARGUMENT

Amicus agrees with Petitioners that the rules regulating how demand-response resources may participate in interstate wholesale auction markets are well within FERC's jurisdiction over "the sale of electric energy at wholesale in interstate commerce" and over any practice "affecting" wholesale rates for such energy. See 16 U.S.C. §§ 824(b)(1), 824e(a); FERC Pet. Br. 19-20, 24-34; Private Pet. Br. 29-40.

Amicus also agrees that the exception to FERC jurisdiction for "any other sale of electric energy," i.e., retail sales, 16 U.S.C. § 824(b)(1), does not oust FERC jurisdiction over matters that are not retail sales but that merely affect retail sales. FERC Pet. Br. 40-44; Private Pet. Br. 32-33. Several additional considerations support such analysis and FERC's jurisdiction over the participation of demand-response resources in the wholesale interstate auction markets run by Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs).

1. Exclusive state regulatory authority preserved by the FPA does not extend to "retail markets," a phrase that does not appear in the statute at all, but only to "any other sale of electric energy." The parties and the court below all agree that demandresponse commitments are not "sales" of electricity at all, much less retail sales. FERC Pet. App. 6a, 9a n.1. It thus is irrelevant whether Order 745 and other FERC rules relating to the participation of demandresponse resources in wholesale markets somehow touches upon other matters that might be characterized as part of a broader "retail market." It is similarly irrelevant to the jurisdictional debate that demand-response utilization ultimately involves conduct and commitments by end-users of electricity who are *also* retail customers. The FPA limitation on FERC's broad jurisdiction only carves out specific transactions - "other," non-wholesale "sales" of electric energy – not specific people.

Such a reading of the statute's terms is not only faithful to the language, but it is the only reading that makes sense. Virtually every participant in the wholesale market also is a participant in the retail market and their activities impact their own and others' retail purchase of electricity. Electricity generators also purchase electricity from their local utilities, with the amount they purchase potentially varying depending on whether they are temporarily producing more electricity than the market requires and depending on wholesale prices. Utilities likewise are participants in both the wholesale and retail markets: as purchasers in the former and sellers in the latter. That other types of retail electricity consumers can simultaneously participate in the wholesale market by selling demand-response commitments thus should be no surprise and should pose no jurisdictional difficulties. State jurisdiction encompasses their intrastate purchase transactions from utilities – the utilities' retail sales - and FERC jurisdiction encompasses their sales of demand-response commitments on the interstate wholesale auction markets.

The court of appeals' attempted expansion of the narrow exclusion of FERC jurisdiction over retail "sales" of electricity to encompass the indeterminate concept of "retail markets" more broadly is contrary to the text of the statute, contrary to the deference due FERC as to any potential ambiguity, and contrary to common sense.

2. Limiting the carve-out for exclusive state jurisdiction to only those matters involving the prices and terms of retail "sales" of electricity, and not the discretionary conduct of consumers "behind the meter,"

also better comports with the history and purposes of the FPA. The FPA was adopted to prevent utilities from using their monopoly power over transmission to manipulate the sources and cost of wholesale energy purchased on the interstate market, thereby passing on noncompetitive costs to consumers. New York v. FERC, 535 U.S. 1, 8-10 (2002). While States could and did regulate the prices and terms of retail sales of electric energy to protect consumers from monopoly utilities, States could not effectively regulate interstate wholesale transactions and hence federal action was needed. But even such state regulation as did exist when the FPA was adopted did not regulate the conduct of consumers in their choices to use or not use any given quantity of electricity, to generate their own electricity, or to use other demand reducing technologies such as cogeneration. Those consumerside decisions certainly impacted energy consumption, but consumers did not require any protection from their own consumption choices.

Demand-related conduct by consumers thus was no part of the States' pre-existing regulatory concerns when the FPA was enacted. It thus is with unpleasant irony that purported state jurisdiction over behind-the-meter behavior that they do not, and have no justification to, regulate is being used to block federal requirements for non-discriminatory access to the wholesale markets. Rather than protecting endusers, such a ruling interferes with the freedom of end-users to agree to modulate their private demand for electricity as a mechanism for competing in the wholesale markets, reducing the wholesale prices of

electricity, and enhancing the reliability of interstate transmission of electricity.

3. A further reason supporting FERC jurisdiction over demand-response resources bid into the interstate wholesale auction markets is that the bidders are typically not the end-users themselves, but intermediary companies (including some utilities) that aggregate commitments from end-users and then bid in larger blocks of demand response. FERC Pet. App. 3a; FERC Pet. Br. 8. Order 745 as a practical matter primarily regulates such aggregated bids, not the underlying agreements with the end-users (i.e., the "retail customers") directly. Even assuming, arguendo, that the notion of a "retail market" is relevant, aggregators, like utilities themselves, bridge the gap between such a retail market and the wholesale mar-By obtaining demand-response commitments from end-users and grouping them for block resale in the auction markets, aggregators are performing the mirror image of what utilities do when they group the demand of their customers and buy power in bulk – i.e., at wholesale – to satisfy that demand. A utility's demand, after all, is nothing more than the aggregate demand of its customers. Just as the bulk purchases by utilities on the wholesale market are under the jurisdiction of FERC notwithstanding their retail relationship with their customers, so too the bulk sales of demand response in the wholesale market are under FERC's jurisdiction regardless of the aggregators' downstream agreements with end-users. At a minimum, therefore, even if the "retail market" rationale of the decision below were accepted at face value, it would not apply to the bulk of transactions to which Order 745 applies and hence is not a valid reason for ousting FERC jurisdiction over such transactions.

4. Finally, while demand-response resources are frequently treated as a substitute for generation on the supply side of the wholesale energy markets, they also provide an ancillary service essential to the interstate transmission of electric energy. One of the central functions of the RTOs is balancing the transmission load on the grid over periods of days, hours, and even seconds. Demand response is an important component of that function across each of those intervals. See FERC, Energy Primer: A Handbook of Energy Market Basics 47-48 (July 2012) (Energy Primer) (http://www.ferc.gov/market-oversight/guide/energyprimer.pdf); Jeff St. John, 2012 Top Trends in Demand Response, GREENTECHGRID, Dec. 21, 2012 (http://www.greentechmedia.com/articles/read/2012top-trends-in-demand-response). Load-balancing and frequency regulation on the transmission grid require frequent and prompt adjustment of both generation and demand. Large-scale adjustment of supply and demand is load-balancing. Fine adjustment of the push and pull of the load on the grid over the course of seconds or minutes is frequency balancing. These activities are less about meeting overall demand than they are about doing so in a manner that will not cause a failure of grid components. Demand response performs these functions as well as helping to clear the real-time and day-ahead auction markets. Understood as providing such important services for maintaining the transmission system, regulating the wholesale purchase of demand-response resources falls within FERC's "transmission" jurisdiction in addition to its "wholesale sales" jurisdiction. Such transmission jurisdiction is not dependent upon distinctions between wholesale and retail sales or wholesale and retail markets. *New York v. FERC*, 535 U.S. at 19-20.

5. Given the important role played by demandresponse resources in the Nation's electric energy economy, it is important to allow FERC to provide fair and adequate incentives for the development and deployment of such resources in the wholesale markets. Microgrids such as run by various MRC members are extremely sophisticated and capable means of providing such beneficial resources and services. But that same advanced capacity and management ability requires significant investment as well. Preventing FERC from removing barriers to fair and nondiscriminatory participation in wholesale energy markets could chill the progress and investment made in developing such resources and thus undermine the development of these valuable contributors to the Nation's wholesale electric energy markets and transmission systems.

#### ARGUMENT

I. FERC Has Jurisdiction Over Agreements to Reduce Consumption on Demand In Order to Satisfy Anticipated Wholesale Demand for Electric Energy.

Amicus agrees with Petitioners that the practices and agreements governing how demand-response resources can be traded, paid for, and factored into the prices charged on the wholesale electric energy auction markets fall well within FERC's jurisdiction over "the sale of electric energy at wholesale in interstate commerce" and over practices and contracts "affecting" wholesale rates for electric energy. FERC Pet. Br. 19-20, 24-34; EnerNOC Pet. Br. 29-40. Such resources are used to satisfy demand in the real-time and day-ahead wholesale markets, traded in those markets as substitutive of purchasing additional energy, and incorporated into the wholesale prices of such energy that is sold.

Given that Order 745 directly regulates the behavior of ISOs and RTOs, requiring them to provide access to the auction markets, requiring non-discriminatory bidding for demand response, and determining what costs may be recouped in the whole-sale rates for electric energy, it is baffling to suggest the order is beyond FERC's expansive jurisdiction. That it may have an effect on behavior by retail consumers of electricity seems completely irrelevant – virtually everything FERC does has such an effect.

Petitioners amply address such matters, however, and *amicus* will not rehash those points here. Instead, *amicus* offers the following additional arguments in support of FERC's jurisdiction over demandresponse resources purchased on the interstate wholesale auction markets.

A. The Court of Appeals Improperly Conflated the FPA's Reservation of State Authority Over "Any Other Sale" of Electric Energy with Exclusive State Control Over the Broader and Vague Concept of "Retail Markets."

In holding that Order 745 encroaches on exclusive state jurisdiction over "retail markets," the court of appeals improperly expanded the FPA's limited preservation of state regulatory authority. While the FPA expressly grants FERC jurisdiction over wholesale sales of electric energy and over practices and contracts "affecting" the rates charged for such sales, it only restricts FERC's jurisdiction over a very narrow class of transactions: "any other sale," i.e., retail sales, of electric energy. But the parties and the court below agree that demand-response commitments are not "sales" of electricity at all, much less retail sales. FERC Pet. App. 6a ("demand response is not a wholesale sale of electricity; in fact, it is not a sale at all"); id. at 9a n.1 ("we do not base our conclusion on the 'any other sales' language of  $\S 201(b)(1)$ ."). Instead, the court of appeals based its conclusion on the non-textual reasoning that under the "statutory scheme as a whole" demand response, "while not necessarily a retail *sale*, is indeed part of the retail *mar*ket" and thus "exclusively within the state's jurisdiction." *Id.* at 9 n.1 (emphasis in original).

The very notion that certain behavior can be part of a retail "market" without actually being a retail purchase or sale within that market is both questionable and highly amorphous. Presumably what the court of appeals meant is that demand response is behavior that affects or relates to retail sales in that it involves a choice or agreement to forego retail purchases. This Court recently recognized that equating inaction with economic activity in a market is specious in the context of the federal Commerce Power, and it is no less specious here. Cf. National Fed'n of Indep. Bus. v. Sebelius, 132 S. Ct. 2566, 2587 (2012) (noting that the individual mandate "does not regulate existing commercial activity" but instead claims authority to "regulate individuals precisely because they are doing nothing"; rejecting claimed authority to regulate the decision not to purchase a product on the ground that the "failure to do so affects interstate commerce") (emphasis in original).

Apart from the questionable logic that the decision not to make a retail purchase affects, and hence is part of, the retail market, the statute does not restrict FERC from regulating matters that merely "relate to" or "affect" retail sales or retail markets. Indeed, such a restriction would be incoherent insofar as FERC's undisputed primary jurisdiction — wholesale sales — plainly "affects" and "relates to" retail sales. Similarly, the fact that those who actually reduce their demand pursuant to such agreements, whether directly with an ISO or RTO, or under obligations to third-party aggregators, also purchase electricity at retail does not make their demandresponse commitments retail sales or part of the retail market.

The FPA's allocation of jurisdiction focuses on particular transactions and activities, not on particular persons. Indeed, focusing on the transaction rather than the identity of the participant is the only work-

able approach to determining the boundaries of state and federal jurisdiction because virtually every participant in the wholesale electric energy markets is likewise a participant in a retail electric energy market.

Independent power producers (IPPs), for example, also purchase retail electricity to maintain the systems at their production facilities. But such purchases do not convert their wholesale sales of electric energy into part of the retail market. And that is true regardless whether they use the separate proceeds from such sales to pay for their retail purchases. The two transactions are distinct and cannot be merged together by ipsa dixit asserting that their wholesale sales reduce the price of their retail purchases. Similarly, that an IPP might choose to buy more power at retail during times of high demand so that it can sell more wholesale power at higher spot prices, or choose to consume less retail power and more of its own energy production at times of low wholesale prices, does not convert its dealings with the wholesale auction markets into retail transactions. The key issue is the role being played by any given person or entity and the transaction being regulated. Utilities likewise participate in both wholesale and retail markets, buying electric energy in wholesale transactions and selling electric energy in both wholesale and retail transactions. But their retail transactions do not oust FERC jurisdiction over their wholesale transactions, notwithstanding the obvious effect of each upon the other.

In the demand-response context, therefore, the fact that an end-user might reduce (or shift) their energy consumption pursuant to a contract with an aggregator or bid directly into the wholesale auction market does not make that contract part of the retail market. The mere fact that such agreements might affect when end-users consume electricity is not even remotely sufficient to oust FERC jurisdiction. Numerous agreements could have such an effect. When a person goes to work affects both the timing and amount of their electricity consumption. they install energy efficient windows and appliances affects their retail energy consumption. they purchase or use a backup generator, batteries, or more creative energy storage devices likewise affects their retail energy consumption. But none of those examples, and none of the agreements for purchase, maintenance, or support of such products and practices are themselves retail energy sales and are not fairly characterized as part of an amorphous "retail market" for electricity.

Some of the confusion over whether demand response is part of a wholesale or retail "market" stems from the fact that demand response is a term often used to describe two very different phenomena. Respondents EPSA, et al., and the court of appeals often refer to demand response as if it were "responsive" demand, i.e., end-user demand that responds to immediate fluctuations in the retail price of electricity in an Economics-101, supply/demand curve fashion. Thus, when Respondents talk of responsive pricing by utilities and imagine some sort of struggle between FERC and public utility commissions over whether retail pricing should be free-floating or fixed, EPSA BIO 1-2, 6-9, it is that sort of responsive demand that

they are describing. Such matters are indeed part of retail pricing and retail sales and provide ordinary price incentives for consumers to modulate their purchases according to immediate price cues. That aspect of retail pricing, however, has nothing to do with the demand-response commitments at issue in this case.

Demand response as relevant to FERC and to Order 745 does not involve variable retail pricing incentives, and does not alter the tariffs or rates of utilities. Rather, it is a separate payment for committing to act and acting quickly to reduce demand for electricity when called upon to do so. See Energy Primer at 47-48 (distinguishing between "dispatchable" wholesale demand response and "nondispatchable" retail demand response). That commitment, bid into the wholesale auction market for energy, is functionally equivalent to the sale of an equal amount of generated electric energy offered at wholesale. Particularly where the demand-response commitment is not made to the utility selling the end user retail electricity, and does not alter the rate paid to such utility, it cannot be characterized as part of any retail transaction, is not part of the retail "market," and is not under exclusive state jurisdiction.

# B. Behind-the-Meter Choices by Consumers Are Not Regulated by the States.

Limiting the jurisdictional carve-out for exclusive state regulation to only those matters involving actual retail transactions rather than the discretionary choices of consumers to refrain from consumption also better comports with the history and purpose of the FPA.

Electric energy consumers that provide demandresponse resources do so by controlling the timing of their consumption of electricity, their own production of electricity and other forms of energy, or both. Such conduct occurs "behind the meter" and is no part of their relationship or transactions with their local utility. Rather, it is the consumer's choice regarding how to use its own property and whether to purchase, conserve, or self-generate electricity in order to meet its needs at any given moment. Neither FERC nor the States have claimed the power to force consumers to purchase or abstain from purchasing electricity. Once again, those are choices behind the meter.

While state utility commissions certainly have the authority to regulate the terms of service and the prices charged by utilities to their retail customers, and may even seek to incentivize certain behavior through such terms and prices, they do not have jurisdiction over the fundamental consumption choices by such end-users or whether they will meet their needs through purchasing retail energy, generation, or conservation and storage. Both the States and FERC, however, are in a comparable position of being able to provide incentives for consumers to exercise their choices in a way that serves either the wholesale or retail markets. State regulators have jurisdiction over utility tariffs that may incent consumers to be responsive to periods of high demand and high prices, just as FERC has jurisdiction over RTO rules and rates that seek to incent large endusers or aggregates of such users to provide wholesale demand-response resources. If the incentive operates through transactions for services or resources for the wholesale market or the transmission system, it is within FERC's jurisdiction. If the incentive operates through adjustment to the retail rates and tariffs of utilities, it is within state jurisdiction.

The above reading better comports with both the purposes of the FPA and the continuing role of the States as envisioned by Congress. The FPA was enacted at a time when retail sales took place under virtually monopoly conditions. New York v. FERC, 535 U.S. at 5. Vertically integrated utilities generated their own power and sold that power to captive customers who typically lacked their own generating capacity. States thus regulated those sales in order to protect those captive customers. As for those larger industrial or similar customers who did have their own generating capacity, they were far less captive to the local utility and needed little protecting. State utility commissions did not regulate the decisions of such customers to generate their own power for their own consumption.

States, however, lacked the power to regulate interstate energy transactions. In order to avoid some state regulation, therefore, integrated utilities began purchasing some of their power from out-of-state suppliers who transmitted electricity across state lines. Such then-unregulated interstate transactions were rife with abuse and self-dealing, with discrimination against the purchase and transmission of electricity from independent and lower-priced producers, to the detriment of consumers. *Id.* at 5-9. The FPA was enacted to stop such discriminatory and costly

practices and to create a more competitive environment in the interstate sale of electricity at wholesale.

Given this history, there is a certain distasteful irony in the decision below denying FERC the authority to ensure fair access to the auction markets for demand-response providers who compete with large producers of energy. The very point of the FPA was to ensure competitive and non-discriminatory markets and transmission for wholesale energy. Excluding demand-response resources from FERC's jurisdiction over such markets and transmission turns the statute on its head to the detriment of consumers and the benefit of those who would avoid competition from new ways of meeting and managing wholesale electric energy demands.

## C. Demand-Response Bids Offered by Third-Party Aggregators, Rather than Directly by End-Users, Fall Outside Even a Broad Conception of "Retail Markets."

Even assuming, arguendo, that the concept of a retail electricity "market" was jurisdictionally relevant, and further assuming that an agreement directly with an end-user of electricity providing for on-call demand response qualifies as part of the retail electricity market, that still would not oust FERC of jurisdiction. The vast majority of demand-response agreements traded on the ISO and RTO markets are bid by third-party aggregators (including some utilities), not the end-users themselves. FERC Pet. App. 3a (under Commission orders allowing demandresponse resources to participate in wholesale auc-

tions, "ISOs and RTOs maintaining economic demand response programs could file tariffs with the Commission and accept bids for ancillary services and from aggregators of retail customers directly into the wholesale energy markets"); FERC Pet. Br. 8 ("At the wholesale level, third-party aggregators of electricity users, as well as local utilities and large individual users like factories, 'bid' demand-response commitments into the wholesale markets"); Energy Primer at 48 ("Some of the RTO [demand response] comes from individual entities; the rest is accumulated through third-party aggregators, or curtailment service providers (CSPs), who recruit customers too small to participate on their own"). At most, therefore, the logic of the court of appeals would render the initial agreements between the consumers and the intermediaries "retail" transactions. But the subsequent agreements and bids put in by the aggregators are more analogous to wholesale transactions.3

Neither step in the process involves "sales" of energy, of course, but instead, sales of a "call" on demand reduction. The principles, however, are analogous. In the ordinary course of electricity consumption and purchase, end-users demand a certain amount of electricity from their utilities and the utilities aggregate that demand (and anticipated demand) and purchase such electricity from bulk energy producers and on the real-time and day-ahead auction

<sup>&</sup>lt;sup>3</sup> Indeed, there is nothing that would prevent intermediaries from aggregating demand-response commitments from endusers in multiple states within a transmission region and thus offering a truly interstate wholesale bid. State authority to regulate such interstate behavior seems more than unlikely.

markets. That a utility in that example is merely aggregating the demand of retail purchasers hardly converts the utility's upstream purchase into part of the retail market. Likewise with demand reduction commitments: that intermediaries receive and agree to pay for demand-response commitments from endusers, and then aggregate those individual demand-response commitments into a larger package for bid on the auction markets is the equivalent (though inverted) type of transaction engaged in by utilities themselves.

Respondents EPSA, et al. largely ignore the true nature of the market for demand response by lumping such wholesalers in with the end-users as nothing more than their "agents." EPSA BIO at 10, 20, 24. Even were that an accurate characterization – and in general it is not – it could equally be applied to utilities themselves by calling them the mere purchasing agents for end-users of electricity. The minor truth to such a description – obviously intermediaries are in some sense translating the needs and desires of the parties on either side of the intermediary – says nothing about where to draw the line between a wholesale and a retail transaction or between the wholesale and retail "markets." In fact, it is generally the presence of an intermediary who aggregates and disaggregates between the smallest transactions and progressively larger transactions that marks the dividing line between retail and wholesale transactions.

In the demand-response context, therefore, virtually all of the bids made on the RTO markets would constitute wholesale bids of demand-response commitments. While the commitments of individual end-

users to the intermediaries or aggregators might constitute a "retail" transaction of sorts under the decision below, that has no bearing on FERC's jurisdiction over the upstream bids. The States' role under the court of appeals' logic, therefore, would extend at best to regulating the transactions between consumers and intermediaries just as they regulate the transactions between consumers and utilities. But the subsequent transactions between intermediaries or utilities and the wholesale auction markets are well outside state purview regardless whether the product or service being aggregated and traded is electricity demand satisfaction or electricity demand reduction.

### D. Demand-Response Agreements Are Within FERC's Jurisdiction Over the "Transmission" of Electric Energy.

Although much of the jurisdictional discussion in this case has addressed demand-response commitments as substitutes for increased electric energy production and their role in helping to clear the real-time and day-ahead auction markets, such demandresponse resources simultaneously play a role in providing a reliable interstate transmission grid. Having such resources available at the wholesale level fills the same roles as do reserves and other ancillary services that help ISOs and RTOs manage their control areas reliably.

As ISOs and RTOs took over management of control areas they needed to acquire the balancing power, reserves, and ancillary services needed to manage the control area. RTO energy markets serve primari-

ly to allocate the use of the transmission system on a non-discriminatory basis, not to facilitate the sale of energy as such.<sup>4</sup> RTO markets also provide balancing power, frequency regulation, and other services needed to assure the reliability of the system in real-time.

The transmission service role of demand-response resources also can be seen in the short-term product used by RTOs called "frequency regulation." For example, to balance demand and supply over very brief intervals the PJM Interconnection requests capable resources in its Mid-Atlantic region to ramp their load up or down in small increments on 10 seconds notice. MRC member Princeton University provides this service using its cogeneration facility and specialized software on 2 seconds notice. No net energy is exported, but Princeton moves its load up and down at PJM's request in order to keep the transmission frequency within a required range. This is a specialized service, not a decision to consume or not consume energy.

Such upward or downward adjustments in demand have little or no impact on aggregate demand for energy, but instead modulate the second-by-second or minute-by-minute pull and push of energy to keep the interstate transmission grid balanced and the frequency of the alternating current within operational parameters. That the ultimate provider of such frequency and load-balancing demand response also happens to be a retail customer modulating its behind-the-meter consumption and/or self-production of

<sup>&</sup>lt;sup>4</sup> Most wholesale power transactions take place through longer-term, bilateral contracts outside of the RTO markets.

electricity (and hence its demand from the distributor) in order to perform that function means absolutely nothing. The fees paid to such demand-response providers are not paid by the utilities, they are not given in the form of rebates, they do not alter the rates charged by the utilities, and have nothing to do with regulating the retail sales transactions themselves. Rather, they are parallel transactions that are paid for by RTOs and are compensated via wholly separate contract or tariff mechanisms.

While frequency regulation is purchased on different terms than the load-balancing commitments bid into the same-day and day-ahead auction markets, both forms of demand response serve the function of protecting and enhancing the reliability of the transmission grid.

Given the transmission-facilitating role played by demand-response resources, FERC's power to regulate the "transmission of electric energy in interstate commerce," 16 U.S.C. § 824(b)(1), is an independent basis for its jurisdiction over such demand-response resources offered on the wholesale markets. As this Court recognized in *New York v. FERC*, such transmission jurisdiction is not dependent upon distinctions between wholesale and retail sales or wholesale and retail markets:

[The FPA's] statutory text thus unambiguously authorizes FERC to assert jurisdiction over two separate activities – transmitting and selling. It is true that FERC's jurisdiction over the *sale* of power has been specifically confined to the wholesale market. However, FERC's jurisdiction over electricity *transmissions* con-

tains no such limitation. Because the FPA authorizes FERC's jurisdiction over interstate transmissions, without regard to whether the transmissions are sold to a reseller or directly to a consumer, FERC's exercise of this power is valid."

535 U.S. at 19-20 (emphasis in original).

Given that all parties recognize the role of demand-response resources in maintaining system reliability, the debate over whether the providers of such resources are also part of the retail market is largely beside the point.

# II. Providing Adequate Incentives for Demand-Response Resources Capable of Modulating Wholesale Energy Demand Is Important to the Management of the Nation's Energy Grid.

Given the important role of demand-response resources in multiple aspects of the interstate energy grid, it is equally important that FERC have the power to provide adequate incentives for such resources. Microgrids have been providing demandresponse services to RTOs pursuant to FERCapproved tariffs since well before Order 745 under review in this case. Demand response, the rapid adjustment of consumption or self-generation by endusers in response to grid requirements, is the grid's safety valve, typically called on by grid operators to relieve stress on the grid at times of highest demand. Indeed, demand-response capacity provides nearly half of the reserve margin in the PJM Interconnection, the nation's largest RTO.

The MRC is concerned that the decision below will have a chilling effect on the ability of behind-themeter resources to benefit the grid by providing competitive services in wholesale markets for energy, capacity, and ancillary services. Distributed energy resources such as microgrids are playing a dramatically expanding role in meeting the Nation's energy needs and improving the reliability and resilience of the grid. There is widespread agreement that deployment of these resources at scale will play an even greater role in the Nation's energy economy in the future.

Though modern microgrids are connected to the larger grid, they are not simply purchasers of electricity, but include one or more electric generating facilities capable of meeting a significant proportion of the microgrid's load. In addition, microgrids often provide thermal energy (heating and cooling), typically through co-generation with electricity, and they use thermal and electric storage devices and advanced building controls to economically manage their combined energy use. Because of the multiple energy sources and the sophisticated control systems that are an inherent part of a microgrid, microgrids can be extremely capable of responding to the needs of wholesale grid operators. Microgrids can also fully separate from the larger grid if needed to preserve grid stability and reliability. But those same sophisticated energy and management capabilities require significant investment. The inability to participate on fair and reasonable terms in wholesale electric energy markets – a consequence threatened by the decision below – makes the decisions of end-users to invest in such sophisticated microgrids more difficult.

Upholding FERC's jurisdiction to provide for the fair and nondiscriminatory participation of demandresponse resources, including microgrids, in the interstate electric energy markets is an important step in maintaining and extending the progress of and benefits from such resources.

#### CONCLUSION

For the foregoing reasons, this Court should reverse the decision below.

Respectfully submitted,

ERIK S. JAFFE
(Counsel of Record)
ERIK S. JAFFE, P.C.
5101 34<sup>th</sup> Street, N.W.
Washington, D.C. 20008
(202) 237-8165
jaffe@esjpc.com

Counsel for Amicus Curiae

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