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

BRIEF FOR THE STATE OF ILLINOIS, CITIZENS UTILITY BOARD, DELAWARE DIVISION OF THE PUBLIC ADVOCATE, OFFICE OF THE PEOPLE'S COUNSEL FOR THE DISTRICT OF COLUMBIA, INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR, MARYLAND OFFICE OF PEOPLE'S COUNSEL, NEW JERSEY RATE COUNSEL, PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE, PENNSYLVANIA OFFICE OF SMALL BUSINESS ADVOCATE, AND WEST VIRGINIA CONSUMER ADVOCATE DIVISION AS *AMICI CURIAE* IN SUPPORT OF PETITIONERS

DAVID T. EVRARD
Counsel of Record
PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
(717) 783-5048
DEvrard@paoca.org
Counsel to Amici Curiae

[Additional Counsel Listed On Signature Page]

COCKLE LEGAL BRIEFS (800) 225-6964
WWW.COCKLELEGALBRIEFS.COM

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INTEREST OF *AMICI CURIAE*[1]

Amici Curiae are a coalition of states and consumer advocates with statutory mandates from their respective states to represent the interests of residential and business electric utility customers in proceedings before state public utility commissions and the Federal Energy Regulatory Commission ("FERC"). *Amici* also are members of Regional Transmission Organizations ("RTOs") that operate wholesale electricity markets. As consumer advocates, *amici* work to ensure safe, reliable and affordable electric service for consumers. Because demand-side management programs reduce the overall price of electricity, increase competitiveness in generation resource ownership, and improve system reliability, *amici* are interested in ensuring continued participation of demand-side management resources in wholesale energy markets.

SUMMARY OF THE ARGUMENT

Demand response has proven to be a cost-effective resource for system operators to use in balancing supply and demand. It provides not only

[1] Pursuant to Rule 37.6, counsel certifies that this brief was not authored in whole or in part by counsel for any party and that no person or entity other than *amici* or counsel made a monetary contribution to its preparation or submission. Pursuant to Rule 37.3(a) counsel for all parties have consented to its filing.

critical support in emergencies, but reduces peak demand, which, in turn, provides economic benefits not only to those customers who reduce their demand but to all customers within a wholesale market. *Amici* offer this brief to show how the benefits of demand response have been captured in the years since FERC first began incorporating them into its system planning and wholesale market operations.

Amici agree with Petitioners that FERC was entirely within its authority to promulgate Order 745,[2] which regulates the rules used by operators of wholesale electricity markets to compensate demand response resources that participate in the wholesale energy market. *Amici* further agree with Petitioners that the Court of Appeals committed legal error in deciding otherwise. Accordingly, *amici* limit argument here to demonstrating the importance of demand response resources to the wholesale electricity market, the value of compensating these resources as FERC determined, and addressing the statutory bases for FERC action incorporating demand response resources into the wholesale energy markets.

[2] *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 2008-2013 FERC Stats. & Regs., Regs. Preambles ¶ 31,322. ("Order 745")

ARGUMENT

I. Demand response resources provide system benefits and economic value to customers through wholesale markets.

The Court of Appeals decision[3] jeopardizes the wide array of benefits – from lower prices to enhanced reliability – for electric customers and fails to recognize the value that demand response resources provide to system operators at the wholesale level. When demand for electricity peaks, the wholesale price for electricity can soar. Demand response resources help lower the overall wholesale price for electricity, producing savings for all customers of wholesale markets. By lowering peak demand, there is less need to build costly generation and transmission which may then sit idle except for a few hours during a year. FERC Order 719-A, 128 FERC ¶ 61,059 (2009) P 47.[4]

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[3] *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014) ("EPSA"), *cert. granted*, 83 U.S.L.W. 3835 (U.S. May 4, 2015) (No. 14-840) *& consolidated sub nom. EnerNOC, Inc. v. Elec. Power Supply Ass'n*, 83 U.S.L.W. 3835 (U.S. May 4, 2015) (No. 14-841).

[4] *Wholesale Competition in Regions with Organized Elec. Mkts.*, Order No. 719-A, 2008-2013 FERC Stats. & Regs., Regs. Preambles ¶ 31,292.

Indeed, Order 745 is one of a series of FERC efforts to secure these benefits. *See* Pet. App. 61a-63a. It seeks to remedy unpredictable and discriminatory compensation practices, which were found to inhibit demand response participation in wholesale energy markets.

FERC's decision to incorporate demand response resources into its wholesale market structures and properly compensate them was then appropriate given its mandate to ensure just and reasonable rates and ensure reliable electric service. A decision eliminating wholesale demand response resources from the energy market undermines FERC's decade-long effort to implement Congress's directive that unnecessary barriers to demand response participation in energy, capacity and ancillary services markets should be eliminated. Energy Policy Act (EPAct), Pub. L. No. 109-58, § 1252(f), 119 Stat. 594 at 966.

A. Demand response resources play a critical role in ensuring supply and demand are balanced as cost-effectively as possible, leading to lower costs for consumers and more efficient grid operations.

1. Determining energy prices in the wholesale market.

FERC created RTOs and Independent System Operators ("ISOs") (collectively, "system operators") to coordinate generation and transmission across wide geographic regions and to operate wholesale electricity markets. *See Morgan Stanley Capital Grp., Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527, 536 (2008). These RTOs and ISOs operate one or more distinct competitive bidding markets comprising various elements of FERC jurisdictional electric service, including what are referred to as markets for "energy," "capacity,"

and "ancillary services." *See* Federal Power Act ("FPA") § 201(b), 16 U.S.C. § 824(b) (granting FERC jurisdiction over wholesale sales of energy); FPA §§ 205, 206, 16 U.S.C. §§ 824d, 824e (granting jurisdiction over wholesale rates and charges, as well as over rules, regulations, practices, and contracts affecting wholesale rates).

The process of selling wholesale electricity in a regional day-ahead and real-time energy market begins when generators bid into the wholesale markets, stating the prices at which they are willing to sell energy during specific periods of time. The ISO/RTO accepts the offers (i.e., tells suppliers to generate electricity) from the lowest to the highest price until the demand has been met, that is, until the "market clears." FERC Order 745 at P 51. In the day-ahead markets, the clearing price for a given hour-long period is set at the price of the lowest marginal cost resource necessary to meet the hour's total energy demand (load). The entire day-ahead market is cleared hourly, and all generators are paid the market clearing price regardless of their actual cost to run.

The following day, in the real-time market, the ISO/RTO dispatches sufficient energy each hour (and at small increments within each hour) to meet customer demand, moving up the dispatch stack, starting with the least costly power needed to meet demand. Each RTO has procedures in place to ensure sufficient energy is dispatched to meet real-time, security-constrained operating conditions. This

process achieves a real-time balance of supply and demand, as the RTO/ISO dispatches just the amount of supply needed to match demand in a given hour. FERC Order 745 at P 49.

Some suppliers can offer electricity inexpensively, while others are more costly to operate. As the demand for electricity peaks (*e.g.*, during a heat wave), the system operator may be required to dispatch resources from more costly suppliers to meet demand.[5] As recently as the twelve-month period ending April 30, 2015, prices in the three major RTOs peaked at over $200, despite monthly peaks of less than $50.[6] At any given moment, the wholesale market price used to compensate *all* suppliers is the marginal cost of electricity, known as the locational marginal price ("LMP"). It is "designed to reflect the least-cost of meeting an incremental megawatt-hour of demand at each location on the grid, and thus prices vary based on location and time." *Sacramento Mun. Util. Dist. v.*

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[5] In one extreme example, wholesale prices in California, which had been in the range of $27 per megawatt-hour in May 2000, spiked to $450 per megawatt-hour seven months later. *See* Electric Energy Market Competition Task Force, Report to Congress on Competition in Wholesale and Retail Markets for Electric Energy (2007) at 28.

[6] *See* U.S. Energy Information Agency, Electric Monthly Update (June 25, 2015), *available at* http://www.eia.gov/electricity/monthly/update/wholesale_markets.cfm (accessed July 6, 2015).

FERC, 616 F.3d 520, 524 (D.C. Cir. 2010) (per curiam); *see also* Order 745 at P 53.[7]

In short, these markets are designed to ensure that the supply of, and demand for, electricity is balanced continuously throughout the day and that there will be adequate supply with sufficient transmission facilities to meet demand. To do this, system operators must take into account certain system realities: (a) transmission constraints can cause congestion during periods of peak demand, preventing low-cost supply from being dispatched and delivered; (b) at present, electricity is difficult and costly to store in large amounts; and (c) that increasing amounts of renewable energy, which vary in their production of energy with the time of day and the weather, are being connected.[8]

Fundamentally, however, there are only two ways to balance supply and demand: dispatch additional generation or reduce demand. "Demand response" is the process of lowering demand for energy; that is, it is not actually energy production but a mechanism designed to result in a reduction in electricity consumption. *See* 18 C.F.R. § 35.28(b)(4) (defining demand

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[7] RTOs and ISOs calculate LMP differently, but "each method establishes the marginal value of resources in that market." Order 745 P 2 n.5.

[8] Kassakian, John, et al, *The Future of the Electric Grid – An Interdisciplinary MIT Study* (Dec. 5, 2011) at 55, *available at* http://mitei.mit.edu/publications/reports-studies/future-electric-grid ("The Future of the Electric Grid").

response as "a reduction in the consumption of electric energy by customers from their expected consumption in response to an increase in the price of electric energy or to incentive payments designed to induce lower consumption of electric energy"). These resources are programs where larger industrial and commercial consumers who can participate directly in the wholesale markets and smaller customers acting through aggregators choose to curtail their electric demand for a specific period of time. Given the challenges inherent in storing electricity, by reducing consumption during periods of peak demand or high prices, demand response offers a cost-effective alternative to the expenses associated with using high-priced energy or building additional generation supply. *See, e.g.*, 18 C.F.R. § 35.28(b)(4).

Because supply bids in energy markets are organized in ascending order – from lowest to highest – the higher the demand, the higher the market clearing price. When demand is extremely high, usually on hot summer days, the wholesale price can skyrocket. When demand peaks, wholesale markets must dramatically increase supply in order to keep up with the demand – unless demand response is deployed.

> 2. Demand response resources provide direct benefits to those customers who reduce stress on the electricity system and lower the marginal cost of energy for all customers.

By reducing demand at times of peak usage, demand response resources can lower peak wholesale prices that affect all consumers by reducing the marginal cost of electricity. Moreover, high peak prices have a multiplier effect because of the use of a single market clearing price mechanism in wholesale electricity markets: when a high-cost generating unit is dispatched and sets price in the energy market for the hour, that higher price is multiplied across (and the additional revenues flow to) every generating unit that is operating in the hour the high-cost unit comes on. With demand response, the exact opposite occurs – that is, a higher incremental price is *avoided*, resulting in a lower incremental market clearing price multiplied across every unit of energy sold. These savings flow to customers. Consequently, the potential savings from full-scale participation by demand response resources in the wholesale energy markets can be profound.

The dampening effect of demand response on peak-clearing prices will make all customers better off. For example, PJM estimates the cost savings for customers in its market have ranged from $9.3 billion to $11.8 billion for just one given year.[9] On one day alone in PJM it is estimated that the participation of

[9] The 2017/2018 RPM Base Residual Auction: Sensitivity Analyses, Independent Market Monitor for PJM, July 10, 2014, *available at* http://www.monitoringanalytics.com/reports/Reports/2014/IMM_20172018_RPM_BRA_Sensitivity_Analyses_20140710.pdf.

demand response resources in the market reduced LMP by $600/per megawatt-hour at the peak and produced energy cost savings for the day of more than $239 million.[10] The principal beneficiaries of the price-reducing effect of demand response thus include both participating and non-participating customers.

Those customers serving as demand response resources flatten the load shape of the market overall, which lowers cost by reducing the amount of generation capacity needed to meet reserve adequacy requirements and avoids the need to build peaking plants to serve just a few hours of (curtailable) peak usage by customers.[11] Because they place lower demand on the system, they require less capacity for themselves and the system as a whole, a benefit realized in the form of reduced capacity obligations or demand charges.[12] One estimate of such benefits

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[10] *Demand Response in Wholesale Markets*, Docket No. AD07-11-000, Testimony of Andrew L. Ott, Vice President, Markets, PJM Interconnection, L.L.C., April 23, 2007 (noting that if the same analysis was extended to a full week, the price reductions brought about by demand response participation in the market resulted in a total of $650 million in equivalent energy payment reductions).

[11] The Brattle Group, *Quantifying Demand Response Benefits in PJM* (Jan. 29, 2007) at 25, ("Quantifying Demand Response Benefits"), *available at* http://www.brattle.com/system/publications/pdfs/000/004/917/original/Quantifying_Demand_Response_Benefits_in_PJM_Jan_29_2007.pdf?1379343092.

[12] *Id.*

Electricity customers are charged for the cost of building the system to meet peak demand based on how much demand each

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concluded that PJM demand response resource participants received a $73 million annual benefit by participating in demand response programs.[13] These same customers also saved money by not incurring the cost of energy they would have used – benefits estimated at anywhere between $9-$26 million per year.[14]

In addition to price reductions and savings associated with reduced demand on the system as a whole, system operators pay demand response resources. These payments place hundreds of millions of dollars in the hands of American businesses, state governments, schools, hospitals and countless municipalities that participate in demand response programs.[15]

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customer contributes to the system peak. This "capacity obligation" is set for a given planning period to ensure sufficient capacity resources are installed to provide an acceptable level of reliability. This requires capacity be installed and committed so that usage does not exceed available capacity more often than, on average, one day every ten years. By lowering peak demand, a customer can lower their capacity obligation and the associated capacity charges. *See* PJM Manual 17, Capacity Obligations, at 7 (Feb. 24, 2006), *available at* http://www.pjm.com/~/media/documents/manuals/archive/m17/m17v07-capacity-obligations-02-24-2006.ashx (accessed July 10, 2015).

[13] *Quantifying Demand Response Benefits in PJM* at 25.

[14] *Quantifying Demand Response Benefits* at 21.

[15] *See* McAnany, James, *2013 Demand Response Operations Markets Activity Report* 9 fig.10 (2013), *available at* http://www.pjm.com/~/media/markets-ops/dsr/2013-dsr-activity-report-20131210.

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Moreover, even those customers who do not participate in demand response programs benefit from the reduction in peak energy costs provided by those customers who do. For example, in PJM, the direct benefits to non-curtailed loads – that is, all other customers who are not reducing demand – within five states in PJM has been estimated at $57-$182 million per year just for those.[16] Secondary price effects produce an additional $7-$20 million in net benefits. This results in a total of $65-$203 million in net benefits throughout PJM from less than 1% demand reduction in just 100 hours in just five areas within the PJM wholesale market.[17] Curtailing the super-peak load by just 3% in those areas would reduce PJM's overall peak load by 0.9%, yielding an energy market price reduction of $8-$25 per mega-watt-hour, or 5-8% on average.[18] Experts have concluded based on this evidence that more widespread participation in demand response and deeper curtailments would result in even greater price impacts.

Finally, full integration of demand response resources will make the electric markets more competitive by reducing the concentration of resource ownership, thereby making the markets less prone to the control of a few large generators.

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ashx (reporting over $400 million paid to demand response participants).

[16] *Quantifying Demand Response Benefits* at 21.

[17] *Id.*

[18] *Quantifying Demand Response Benefits* at 2.

3. Using demand response resources can postpone or eliminate the need for expensive new generation or transmission facilities.

Meeting peak demand with supply alone causes a number of serious challenges and adverse impacts that demand response can help avoid or minimize. "[T]here has been overbuilding of plants that only run at peak hours," because a "strictly supply-side management strategy requires sufficient peaking capacity and reserve margins to reliably meet the highest load on hot summer days . . . plus a contingency for outages and other disruptive events."[19] Because electricity presently cannot be stored efficiently, system operators typically meet high demand largely by dispatching "peaking units," power plants that operate only when demand is close to its peak. These peaking units may run only for a relatively small number of hours each year, but the system still needs to build them to provide power during those peak times.[20]

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[19] Eisen, Joel, *Who Regulates the Smart Grid?*, 4 San Diego J. of Climate & Energy L. 69, 78 (2012-13).

[20] *The Future of the Electric Grid* app. B at 259; *see also* U.S. Dep't of Energy, National Transmission Grid Study (May 2002) at p. 41, *available at* http://energy.gov/oe/information-center/library/reportsdocuments#demand (discussing bottlenecks in transmission lines that demonstrate physical limits of system, and explaining how demand response can relieve such bottlenecks); U.S. Dep't of Energy, Benefits of Demand Response in Electricity Markets and Recommendations for Achieving Them (February 2006) at ix-xi, *available at* http://eetd.lbl.gov/ea/ems/reports/congress-1252d.pdf (explaining that demand

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Because power systems need to be sized to meet peak demands, system operators require reserve margins to ensure reliability. However, those periods of peak demand are increasingly infrequent. As a result, often more than 20% of energy generation capacity (and, correspondingly, transmission and distribution capacity) was in use less than 12% of the time.[21] From 2005-2009, in those areas, demand exceeded 70% of its peak for only about 1,000 hours so that more than 30% of capacity was in use less than 12% of the time.[22]

Overall, it is estimated that fewer than 1% of annual hours (or 60-100 of 8,760 hours) account for 10%-18% of the capacity needs in North America, a trend which has been increasing over time.[23] This trend raises average costs because the costs of this idle system infrastructure must be covered by all electricity consumers. It affects electricity transmission and distribution networks, each of which must be sized to meet predicted maximum demand (plus a safety margin) at all times and across all geographical locations.[24] Relying solely on generation resources or "supply resources" exacerbates the need to build new generation plants and transmission lines together

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response programs are established so that the load can be reduced when the grid becomes unreliable).

[21] *The Future of the Electric Grid* at 15.

[22] *Id.*

[23] *The Future of the Electric Grid* at 146.

[24] *Id.*

with the problem of siting them, which has been historically problematic.[25]

Demand response is uniquely able to counterbalance the need for marginal units of demand because it reduces the need for these peaking plants (and the transmission and distribution facilities that they require). Indeed, FERC's assessment of demand response potential indicates that at the highest level of demand response, overall wholesale demand could remain flat between 2009 and 2019.[26] Significantly, the 2019 peak load could be reduced by as much as 150 gigawatts (GW), compared to the business-as-usual scenario.[27] Demand response programs administered by wholesale system operators contributed approximately 27% of national peak reduction potential reported in 2010.[28] To provide some perspective, since a typical peaking power plant is about 75 megawatts, this reduction would thus be equivalent to the output of about 2,000 such power plants.[29] Reductions of peak demand such as this produce real cost savings for customers. FERC's current cost estimate for a

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[25] *Id.*, noting that "new facilities must go in someone's backyard."

[26] Staff Report for FERC, *A National Assessment of Demand Response Potential* (June 2009) at 27-28 ("National Assessment"), *available at* http://www.ferc.gov/legal/staff-reports/06-09-demand-response.pdf.

[27] *Id.*

[28] *The Future of the Electric Grid* at 153.

[29] *National Assessment* at x.

peaking plant is $112,868 per MW-year. Using this estimate, the projected 2019 peak load reduction of 150 GW would result in approximately $17 billion in cost savings. *In re PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,031 (2012) at P 4.

4. Demand response provides system operators important tools to maintain system reliability.

Demand response resources provide enhanced flexibility for system operators in responding to reliability threats.[30] When unusually high demand or loss of a major generator or transmission link threatens a power system's operating reserve margin, demand response resources have been used to maintain stability by calling on customers to curtail demand or by manually disconnecting specific customers from the grid.[31] As far back as 2001, the New York ISO quantified this benefit as ranging from $800,000–$3.4 million for just four such events during the summer of 2001; the system operator calculated the total reliability benefit for the entire summer of 2001 at over $20 million.[32]

FERC itself recognized the benefits of demand response in 2007, describing its use during system

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[30] *The Future of the Electric Grid* at 67; *see also* Hurley, Doug et al, *Demand Response as Power System Resource* at 33-34 (May 2013).

[31] *Id.*

[32] *The Future of the Electric Grid* at 152.

emergencies to ensure system reliability. FERC Order 719-A, n.76.[33] In just one summer, PJM and grid operators in New York and New England deployed emergency demand response for 13 days to avoid blackouts.[34] In the winter of 2014, PJM deployed demand response to maintain system reliability and to meet its highest ever winter peak demand.[35]

Utilizing wholesale demand response can help maximize the use of existing generation and transmission facilities and related infrastructure. Reducing consumption at or near system peaks can postpone or eliminate the need for expensive investment in additional generating capacity. Demand response can improve wholesale market efficiency by shifting consumption to off-peak periods and flattening load curves, improve capacity utilization on the system, and reduce the total cost of delivering a given quantity of energy.[36]

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[33] *Citing* FERC Staff Report, "Assessment of Demand Response and Advanced Metering," Dec. 2008, pp. 50-53.

[34] FERC Pet. For Reh'g 14-15 & n.7-8, 11-486 (D.C. Circuit); *see also* FERC, *Assessment of Demand Response and Advanced Metering* 12-13 (2013); Massey, William, Fleishman, Robert & Doyle, Mary, *Reliability-Based Competition in Wholesale Electricity: Legal and Policy Perspectives*, 25 Energy L.J. 319, 350-52 (2004) (describing NARUC and GAO studies identifying "the considerable reliability potential of demand response").

[35] *See* Maryland & California Pet. For Reh'g 12-13 & n.16-18.

[36] *The Future of the Electric Grid* at 143-44.

B. FERC acted appropriately to capture the full benefits of demand response and ensure just and reasonable rates.

As FERC explained in Order 745, "[i]mproving the competitiveness of organized wholesale energy markets is . . . integral to the Commission fulfilling its statutory mandate under the FPA to ensure supplies of electric energy at just, reasonable, and not unduly discriminatory or preferential rates." FERC Order 745 at P 8. Accordingly, over the years, FERC has taken a number of actions designed to strengthen competition in wholesale markets. *See New York v. FERC*, 535 U.S. 1 at 11-13. FERC concluded that "the development of regional markets is the best method of facilitating competition within the power industry." *Wholesale Competition in Regions with Organized Elec. Mkts.*, Order 719, 125 FERC ¶ 61,071 (2008) P 10, *aff'd*, Order 719-A, 128 FERC ¶ 61,059 (2009).

FERC began regulating demand response participation in organized wholesale electricity markets more than a decade ago. As early as May 2001, FERC found that "the current lack of meaningful demand side response is a flaw in the markets operated by PJM [the nation's largest RTO] which, if not corrected, could lead to dysfunction in those markets." *PJM Interconnection, LLC*, 95 FERC ¶ 61,306, at 62,043 (2001); *see also New England Power Pool ISO New England, Inc.*, 101 FERC ¶ 61,344 (2002) at P 46 ("measures that facilitate a robust demand response are essential to the success of competitive wholesale markets"). For years, FERC allowed each RTO and

ISO to develop its own methods to determine compensation for demand response resources participating in wholesale markets, with the consequence that participation varied substantially and generally was underwhelming. FERC Order 745 at P 14.

In 2010, FERC expressed a concern that disjointed demand response practices were failing to achieve potential benefits. FERC stated:

> Despite the benefits of demand response and various efforts by the Commission, ISOs and RTOs to address barriers to and compensation for demand response participation, demand response providers collectively play a small role in wholesale markets. After several years of observing demand response participation in ISO and RTO markets with different, and often evolving, demand response compensation structures, the Commission is concerned that some existing, inadequate compensation structures have hindered the development and use of demand response.

Demand Response Compensation in Organized Wholesale Energy Markets, 75 Fed. Reg. 15362, 15365, at P 9 (Mar. 29, 2010) FERC Stats. & Regs. ¶ 32,656 (2010) (Notice of Proposed Rulemaking).

Before Order 745, demand response resources had not been fully deployed in the wholesale markets because of inadequate and inconsistent pricing structures. FERC Order 745 at P 57; *see also* Demand Response Supporters, Reply Comments at 9 n.29

(Aug. 30, 2010) (citing a U.S. Department of Energy calculation that, in 2008, demand side management programs comprised only 2% of the market). FERC identified some of the most critical barriers as "the lack of market incentives to invest in enabling technologies that would allow electric customers and aggregators of retail customers to see and respond to changes in marginal costs of providing electric service as those costs change." FERC Order 745 at P 57; *see also*, FERC Order 745 at P 47; *Demand Response Compensation in Organized Wholesale Energy Markets, order on reh'g & clarification*, Order 745-A, 137 FERC ¶ 61,215 (2011) at PP 72-75.

To address these barriers, FERC concluded that system operators should compensate demand response resources "at the market price for energy, referred to as the locational marginal price" if it assists in "balance[ing] supply and demand as an alternative to a generation resource" and if "dispatch of that demand response resource is cost-effective as determined by the net benefits test." FERC Order 745 at PP 2, 58. FERC ordered RTOs and ISOs to amend their tariffs to implement FERC's new requirements. *Id.* at PP 6, 81; *see also* 18 C.F.R. § 35.28(b). FERC found this approach "necessary to ensure that rates are just and reasonable in the organized wholesale energy markets." Order 745 at P 2. However, FERC limited its directive by not extending this requirement to bidders from states that prohibited demand response participation in wholesale markets. *See* 18 C.F.R. § 35.28(g)(1)(i)(A).

Since Order 745, participation of demand response resources in the wholesale energy and capacity markets has dramatically increased.[37] Numerous participants have invested time and money in demand response based on settled expectations of the marketplace structure, expectations that have been consistently reinforced by both FERC and the courts. *See Ind. Util. Regulatory Comm'n v. FERC*, 668 F.3d 735 (D.C. Cir. 2012) (dismissing challenges to FERC Order 719 provisions concerning demand response).

The decision below has already upset years of system planning and market operations. RTOs and ISOs now count on demand response resources to enhance system reliability and to meet their capacity needs in years to come. They have limited the building of unnecessary generation and transmission resources in reliance upon demand response resources. A decision eliminating wholesale demand response resources from the energy market undermines FERC's decade-long effort to implement Congress's directive that unnecessary barriers to demand response participation in energy, capacity and ancillary services markets should be eliminated. EPAct, § 1252(f), 119 Stat. at 966.

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[37] PJM Interconnection, 2012 ECONOMIC DEMAND RESPONSE PERFORMANCE REPORT: ANALYSIS OF ECONOMIC DR PARTICIPATION IN THE PJM WHOLESALE ENERGY MARKET AFTER THE IMPLEMENTATION OF ORDER 745 at 2 (March 2013) (demand response greater in 7 months following Order 745 than in previous 3 years).

C. FERC appropriately concluded that demand response resources should be compensated at the equivalent price of all other resource providing similar value to the electric grid.

In Orders 745 and 745-A, FERC seeks to reduce the barriers to demand response resources in the wholesale markets consistent with the Energy Policy Act's (EPAct) directive that unnecessary barriers to demand response participation in wholesale markets be eliminated. FERC Order 745 at PP 113, 115; EPAct, § 1252(f), 119 Stat. 966. The Orders require ISOs/RTOs to pay demand response resources (that is, the larger industrial and commercial consumers who can participate directly in the wholesale markets and aggregators of smaller electricity consumers) in a manner that accurately reflects their value.

The reason FERC directs demand response resources to be paid on an equivalent basis to traditional generation supply resources is that both demand response and supply provide a comparable service to the wholesale market of balancing supply and demand and maintaining a reliable electricity grid. FERC Order 745 at P 47; Order 745-A at PP 58, 60, 73. FERC established that demand response resources provide net benefits to all energy market consumers by lowering the energy market clearing price whenever energy prices are above a certain threshold, and directed that any costs associated with the participation of demand response resources be distributed among all energy market participants.

Payment to demand response resources is then required only when dispatch of that demand response resource is cost-effective under FERC's net benefits test. FERC Order 745 Summary, at PP 48, 50. As a result, demand response can provide energy services that primarily enhance efficient price formation in wholesale energy markets.[38]

Failure to compensate demand response resources on an equivalent basis to supply resources would produce rates unduly discriminatory to those resources. If FERC had allowed the adjustment to compensation for demand response resources suggested during the Order 745 rulemaking (*e.g.*, generation or transmission offsets), the resulting rates would have been unduly discriminatory when compared to the compensation paid to supply-side resources – it would mean demand responders would be paid less than the market value of the service they provide. Any such reduction of LMP would reduce the market value by the individual value of electricity to a particular demand response program participant. This is contrary to the concept of the single market clearing price because it fails to treat demand responders as sellers of a service to the market. Instead of crediting demand response resources with the market value of the service they provide, the RTO/ISO would be engaging in a customer by customer review

[38] Hurley, Doug et al, *Demand Response as a Power System Resource* 9 (May 2013), *available at* http://www.synapse-energy.com/project/demand-response-power-system-resource.

of retail prices, not treating demand response resources as comparable to the supply-side solutions for balancing the grid when the evidence indicates these resources are equivalent. All generators that clear the energy market are paid LMP even though their individual costs may vary, and just as the particular circumstances of individual generators are irrelevant to what they are actually paid, the particular circumstances of individual demand responders (*i.e.*, the particulars of their retail contract) should likewise be irrelevant to the compensation they receive.

FERC correctly concluded that demand response resources should be compensated at an equivalent value to traditional supply since, as discussed above, wholesale demand response actually provides a number of public-interest benefits that make it even more valuable than supply – benefits FERC is entitled to consider in its decisions. *Elizabethtown Gas Co. v. FERC*, 10 F.3d 866, 872 (D.C. Cir. 1993) (FERC "has wide discretion to balance competing equities against the backdrop of the public interest").

II. FERC reasonably and appropriately concluded it had jurisdiction over reductions in electricity consumption, including the payment for reductions through adjustments in wholesale rates.

A. The FPA grants FERC jurisdiction over rules affecting wholesale rates, including rules governing the participation of demand response resources in wholesale energy markets.

In the Court of Appeals, FERC cited sections 205 and 206 of the FPA as authority for its promulgation of Order 745. These sections charge FERC with ensuring that "all rules and regulations *affecting* . . . rates" in connection with the sale of electric energy at wholesale are "just and reasonable." 16 U.S.C. § 824d(a); (emphasis added) *see also id*. § 824e(a). FERC argued that these sections of the FPA constituted clear grants of authority to issue Order 745 because demand response *directly affects* wholesale electricity rates. FERC CA Br. at 7-8, 32-40.

Although the court acknowledged that "demand response compensation affects the wholesale market," it considered that effect to be equivalent to the effect that a reduction in *retail* consumption would have on the wholesale price. *EPSA* at 221. The court found FERC's assertion of the "affecting" jurisdiction under FPA §§ 205 and 206 to be unavailing, finding that FERC's rationale "has no limiting principle" and "could ostensibly authorize FERC to regulate steel, fuel, and labor markets," all of which are inputs into

the production of electricity. *Id.* The court went on to discern a limiting principle by looking to the FPA's declaration of policy in section 201 which states that FERC's authority "extend[s] only to those matters which are not subject to regulation by the States." 16 U.S.C. § 824(a). Because "States retain exclusive authority to regulate the retail market," the court determined that FPA §§ 205 and 206 (setting forth FERC's "affecting" jurisdiction) could not be relied upon as authority to promulgate Order 745, which the court saw as improperly intruding on the retail market. *Id.* According to the court, "the broad 'affecting' language of §§ 205 and 206 does not erase the specific limits of 201." *Id.* at 222.

Amici agree with Petitioners that the Court of Appeals' analysis was erroneous. The errors cited here and more fully in Petitioners' briefs call for this Court to reverse the decision of the Court of Appeals.

1. The Court of Appeals improperly equated the effect of wholesale demand response and retail demand response on wholesale prices.

Initially, the court improperly equated the effect of wholesale demand response and retail demand response on wholesale prices. In FERC's Petition for Certiorari, it addressed this issue as follows:

> The level at which demand-response providers are compensated by wholesale-market operators for bids into the wholesale system has "about as 'direct' an effect and as clear a 'nexus' with the wholesale transaction as can

> be imagined": The payments to demand-response providers are recouped by adjusting the *wholesale rate* paid by purchasers in the *wholesale market*. *Id.* at 40a (Edwards, J., dissenting) (citations omitted) (emphasis added).
>
> That is a far closer relationship than the connection between the wholesale rate and *retail-level* demand-response programs, where, for example, local utilities pay consumers to curtail consumption. It is undoubtedly true that in both cases the reduction in demand can exert an effect on the wholesale market. But in the latter case, the compensation for demand-response commitments is not funded by adjusting the wholesale rates charged in day-ahead and real-time markets, and the demand-response commitments are not selected based on their ability to clear the wholesale market. Rather, the demand-response payments are recouped through adjustments to the *retail* rate (potentially over the long term, depending on regulatory requirements). Only an attenuated chain of causation exists between such retail-level demand-response payments and changes to the wholesale rate. That is not true for demand-response commitments bid directly into wholesale-electricity markets.

FERC Pet. for Cert. at 25. FERC's explanation belies the Court of Appeals' conclusion of equivalence between the effects of wholesale and retail demand response on wholesale prices and the court's reliance

on such equivalence is mistaken. The salutary effects of demand response discussed above, including reduced prices and enhanced reliability, cannot be attained unless demand response resources are bid into wholesale markets based on consistent federal rules.

2. The court below ignored its own precedent.

In finding that the FERC's rationale for relying on FPA sections 205 and 206 to support Order 745 was flawed because it lacked a "limiting principle," the Court of Appeals failed to observe its own precedent. In *California Indep. Sys. Operator v. FERC*, 372 F.3d 395 (D.C. Cir. 2004), the D.C. Circuit held that FERC's statutory authority to regulate rules and practices "affecting" wholesale rates "is limited to those methods or ways of doing things on the part of the utility that *directly affect* the rate or are closely related to the rate." *Id.* at 403 (emphasis added); *accord American Gas Ass'n v. FERC*, 912 F.2d 1496 (D.C. Cir. 1990).

There can be no doubt that Order 745 "directly affects" a wholesale rate. As FERC explained, there is a direct "nexus" between demand response that is bid into the wholesale market and the wholesale price that the market establishes. The "limiting principle" to be applied to the analysis of whether Order 745 fell within the ambit of the FPA's "affecting" authority, was set forth in the Court of Appeals' own precedent.

3. The Court of Appeals incorrectly equated direct effects on wholesale prices with indirect effects.

The Court of Appeals' assertion that FERC's logic would allow the agency to regulate inputs to electric generation such as steel, fuel and labor is mistaken. Costs such as steel, fuel and labor are not directly bid into wholesale electric markets. Rather, they are bid indirectly, if at all, as components of the cost of a completed generating facility. Demand response resources, by contrast, participate directly in wholesale markets and their participation directly affects wholesale prices because of their direct effect on demand. FERC clearly recognized this distinction between direct and indirect effects as well as the impact on its authority in its Order.[39]

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[39] While the Court of Appeals could find no "limiting principle" in FERC's authority, FERC had no difficulty articulating its own in Order 745-A. There the agency said:

> We recognize that merely because an input to generation may affect a wholesale rate, our jurisdiction does not extend to the regulation of the input itself. Demand response resources that participate in an RTO- or ISO-administrated organized wholesale energy market, however, are not merely an input cost for generation that indirectly affects wholesale rates. Rather, in the circumstances covered by the Final Rule, demand response resources are direct participants in the organized wholesale energy markets over which we have jurisdiction (just as is generation), and that participation has a direct and substantial effect on rates in those markets. In light of this distinction, we disagree with Joint Petitioners' claim that the

(Continued on following page)

The Court of Appeals' reliance on FPA section 201's declaration of policy to find a limit on FERC's authority under §§ 205 and 206 is likewise misplaced. This Court has long held that section 201(a)'s "mere 'policy declaration' * * * 'cannot nullify a clear and specific grant of jurisdiction, even if the particular grant seems inconsistent with the broadly expressed purpose.'" *New York v. FERC*, 535 U.S. 1, 22 (2002) (quoting *FPC v. Southern Cal. Edison Co.*, 376 U.S. 205, 215 (1964) (quoting *Connecticut Light & Power Co. v. FPC*, 324 U.S. 515, 527 (1945))).

Amici submit that FPA section 205's authorization to ensure that wholesale electricity rates (and the rules and regulations that affect them) are just and reasonable, and FPA 206's authorization to review and change any rule, regulations, practice or contract affecting a wholesale rate, constitute "clear and specific grants of jurisdiction" as contemplated in *New York*. Just as with respect to FERC's jurisdiction over the interstate transmission at issue in *New York*, "the prefatory language [of FPA § 201(a)] does not undermine FERC's jurisdiction." *Id.* at 22.

Commission's actions in the Final Rule create a slippery slope that will lead to limitless Commission jurisdiction. As discussed above, the Commission's statutory authority extends to those rules, regulations, practices, or contracts that directly affect the jurisdictional rates charged by public utilities. Order 745-A at ¶ 31.

Judge Edwards in his dissent below made points similar to the ones *amici* offer here:

> Absent an affirmative limitation under section 201, there is no doubt that demand response participation in wholesale markets and the ISOs' and RTOs' market rules concerning such participation constitute "practice[s] . . . affecting" wholesale rates under section 206 of the Act . . . Petitioners' arguments to the contrary ignore the direct effect that the ISOs' and RTOs' market rules have on wholesale electricity rates squarely within FERC's jurisdiction. The Commission has authority to "determine the just and reasonable . . . practice" by setting a level of compensation for demand response resources that, in its expert judgment, will ensure that the rates charged in wholesale electricity markets are "just and reasonable." It was therefore reasonable for the Commission to conclude that it could issue Order 745 under the Act's "affecting" jurisdiction.

EPSA at 227 (citations omitted).

B. The EPAct established a national policy to eliminate barriers to demand response participation in energy markets and in so doing, acknowledges a role for FERC in regulating demand response in the wholesale energy market.

In 2005, Congress enacted the EPAct. Section 1252(f) of that Act provides as follows:

> FEDERAL ENCOURAGEMENT OF DEMAND RESPONSE DEVICES. – *It is the policy of the United States that time-based pricing and other forms of demand response*, whereby electricity customers are provided with electricity price signals and the ability to benefit by responding to them, *shall be encouraged*, the deployment of such technology and devices that enable electricity customers to participate in such pricing and demand response systems *shall be facilitated*, *and unnecessary barriers to demand response participation in energy, capacity and ancillary service markets shall be eliminated*. It is further the policy of the United States that the benefits of such demand response that accrue to those not deploying such technology and devices, *but who are part of the same regional electricity entity*, shall be recognized.

EPAct, 119 Stat. 966 (emphasis added).

Before the Court of Appeals, FERC cited this section as support for its construction of its "affecting" jurisdiction under FPA sections 205 and 206 with regard to promulgation of Order 745.[40] The Court of Appeals, however, was unpersuaded by FERC's argument. Rather than reading the EPAct to complement FERC's FPA jurisdiction over demand response,

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[40] FERC specifically stated in its Brief before the Court of Appeals that it "does not rely on the Energy Policy Act of 2005 as an independent basis of jurisdiction." *EPSA*, Brief for Respondent FERC at 40.

the court found that the language of § 1252(f) supported the opposite conclusion – that Congress intended demand response resources to be regulated by states as part of the retail markets. The court saw the EPAct as clarifying that FERC's authority over demand response was limited to assisting and advising state and regional demand response programs. *EPSA* at 223-24. As *amici* will explain, the Court of Appeals' analysis of the EPAct's relationship to the core issue in this case – FERC jurisdiction over demand response in wholesale markets – was seriously flawed and should be rejected.

In evaluating the court's assessment of the EPAct, it is important to focus on the phrase "unnecessary barriers to demand response in participation in energy, capacity and ancillary service markets shall be eliminated." The operation of energy, capacity and ancillary service markets occurs primarily, if not exclusively, within FERC-regulated ISOs and RTOs. It is reasonable to expect that Congress was aware of, and indeed supported, the notion that demand response was participating in the wholesale markets administered by the ISOs and RTOs. But the court below either ignored or failed to consider this fact.

Rather than construing the EPAct to limit federal involvement with demand response, the court should have recognized Section 1252(f) as representing express Congressional acknowledgement of the role demand response plays at the wholesale level. As part of discerning Congressional intent with respect to the

provisions of the FPA, the court could have looked to the later-enacted EPAct for evidence that Congress was aware and approved of wholesale-level demand response participation in interstate energy markets. Had it done so, the court would have concluded that indeed EPAct supported FERC's understanding of its jurisdiction under the FPA. Indeed, as stated by some of the instant *amici* in their *Amicus* Brief on Pet. for Cert.:[41]

> The conclusion that Congress "unambiguously," assigned demand response to the "retail market" is especially remarkable in view of Congress's enactment of the EPAct, a statute that was a significant impetus for FERC's Order, which *does* speak to the specific question the court below decided, announcing elimination of "unnecessary barriers to demand response *participation in* [wholesale] *energy, capacity and ancillary service markets*" to be the Nation's "policy." Neither reading this statutory language "in tandem," with adjacent provisions nor doing so in light of its title, changes its plain import: that demand response participation in wholesale markets regulated by FERC is not only "importan[t]," but lawful.

Delaware Brief at 17-18. (internal citations omitted) (emphasis in original).

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[41] *See* Brief *Amici Curiae* of Delaware Division of the Public Advocate *et al.* on Pet. for Cert. ("Delaware Brief").

The Court of Appeals' understanding of the EPAct as limiting FERC to an advisor to the states with regard to demand response is further contradicted by the mandatory nature of the language in 1252(f): "unnecessary barriers to demand response participation in energy, capacity and ancillary service markets *shall be eliminated*." EPAct 119 Stat. 966 (emphasis added). *Amici* submit that this contemplates an active, not passive, role for FERC in the markets it oversees – energy, capacity and ancillary services.

CONCLUSION

For the reasons discussed herein, the decision of the Court of Appeals should be reversed.

Respectfully submitted,

LISA MADIGAN
Attorney General of Illinois
100 W. Randolph Street, 12th Floor
Chicago, IL 60601

KRISTIN MUNSCH
Director of Policy and Senior Attorney
309 W. Washington, Suite 800
Chicago, IL 60606
Counsel for Citizens Utility Board

REGINA A. IORII
Deputy Attorney General
DELAWARE DEPARTMENT OF JUSTICE
820 N. French Street, 6th Floor
Wilmington, DE 19801
Counsel for the Delaware Division of the Public Advocate

SANDRA MATTAVOUS-FRYE
People's Counsel
1133 15th Street NW, Suite 500
Washington, DC 20005
Counsel for the Office of the People's Counsel for the District of Columbia

ROBERT G. MORK
Deputy Consumer Counselor for Federal Affairs
115 W. Washington Street, Suite 1500 S.
Indianapolis, IN 46204
Counsel for the Indiana Office of Utility Consumer Counselor

PAULA M. CARMODY
People's Counsel
WILLIAM F. FIELDS
Senior Assistant People's Counsel
6 St. Paul Street, Suite 2102
Baltimore, MD 21202
Counsel for Maryland Office of People's Counsel

STEFANIE A. BRAND,
Director
140 E. Front Street, 4th Floor
P.O. Box 003
Trenton, NJ 08625
Counsel for New Jersey
Division of Rate Counsel

DAVID T. EVRARD
Assistant Consumer Advocate
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
Counsel for Pennsylvania Office
of Consumer Advocate and
Counsel of Record

ELIZABETH R. TRISCARI
Deputy Small Business Advocate
300 N. Second Street, Suite 202
Harrisburg, PA 17101
Counsel for Pennsylvania Office
of Small Business Advocate

JACQUELINE LAKE ROBERTS
Consumer Advocate Director
723 Kanawha Blvd. E., Suite 700
Charleston, WV 25301
Counsel for Public Service Commission
of West Virginia

APPENDIX

DECRIPTION OF *AMICI CURIAE*

Citizens Utility Board ("CUB") is a statutorily created non-profit organization whose mission is to represent the interests of residential and small commercial utility customers in state and federal regulatory and judicial proceedings. CUB is a membership-funded organization with approximately 100,000 members across Illinois. CUB does not have any parent companies, and no publicly-held company has a 10 percent or greater ownership interest in CUB. CUB does not issue stock.

The Delaware Division of the Public Advocate ("DE DPA") represents residential and small commercial customers of regulated utilities in the State of Delaware, which is within the PJM Interconnection, LLC footprint. The Delaware Public Service Commission has authorized its load serving entities to implement demand response programs and to offer that DR into the PJM wholesale energy auctions. LSEs whose bids are selected in the auctions use the proceeds that they receive from PJM to pay participants in DR programs for reducing their energy usage. The DE DPA represents the interests of Delaware customers whose rates are directly affected by the LSEs' ability to bid DR into the PJM auctions.

The Office of the People's Counsel of the District of Columbia ("DC OPC") is an independent agency of the District of Columbia government. DC OPC is the statutory representative of District of

Columbia consumers in energy and public utility proceedings before the District of Columbia Public Service Commission, federal regulatory agencies, and state and federal courts. D.C. Code § 34-804(d) (2010). DC OPC is authorized to investigate and intervene in proceedings regarding the operation and valuation of utility companies and energy service providers on both the distribution and transmission levels. DC OPC's statutory mandate is to advocate for the provision of quality utility service and equitable treatment of all District consumers at rates that are reasonable and just with full consideration of conservation of natural resources and the preservation of environmental quality.

The New Jersey Division of Rate Counsel ("NJ Rate Counsel") is the administrative agent charged under New Jersey law with the general protection of the interests of utility ratepayers. N.J.S.A. 52:27E-50 *et seq*. The courts have recognized that it is the ratepayers who ultimately shoulder the cost of electricity. *See Conn. Dep't of Pub. Util. Control v. Fed. Energy Regulatory Comm'n*, 569 F.3d 477, 479 (D.C. Cir. 2009). Cost is a significant concern to ratepayers, as is reliability, both of which are at stake here. Electricity is an essential need, and without reliable service at just and reasonable rates, ratepayers will be irreparably harmed. For this reason, NJ Rate Counsel has a heightened interest in the outcome of this matter.

The Maryland Office of People's Counsel ("MD OPC") represents the residential customer interest

in matters involving regulated utility service in the State of Maryland, which is within the PJM Interconnection, LLC ("PJM") footprint. The Maryland Public Service Commission has authorized load serving entities ("LSEs") in Maryland to implement demand response ("DR") programs and to offer that DR into the PJM wholesale energy auctions. Md OPC represents the interests of Maryland customers whose rates are directly affected by the LSEs' ability to bid DR into the PJM auctions.

The Pennsylvania Office of Consumer Advocate is the state office statutorily authorized to represent the interests of consumers of public utility services in matters before the Pennsylvania Public Utility Commission, equivalent federal regulatory agencies, and state and federal courts.

The Pennsylvania Office of Small Business Advocate ("OSBA") was established by the General Assembly by the Act of December 21, 1988 (P.L. 1871, No. 181), known as the Small Business Advocate Act, 73 P.S. §§399.41., et seq., to represent the interests of small business customers in regulated utility matters before the Pennsylvania Public Utility Commission ("PUC"), before comparable federal agencies, and in the courts. The OSBA acts as the small business consumers' voice/legal representative in utility regulation, competition, and policy matter. The OSBA is involved in rulemakings, policy statements, and a variety of cases that involve either the price small business consumers pay for vital utility services, or the quality of the services they actually receive.

The West Virginia Consumer Advocate Division is the West Virginia statutory representative of residential utility customers in state and federal regulatory and judicial proceedings.