

UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

Notice of Inquiry on Third-Party  
Provision of Ancillary Services:  
Accounting and Financial Reporting for  
New Electric Storage Technologies

Docket Nos. RM11-24-000, AD10-13-000

Comments of the  
Electricity Consumers Resource Council  
(ELCON)

The Electricity Consumers Resource Council (ELCON) appreciates the opportunity to submit comments in response to its June 16, 2011 *Notice of Inquiry on Third-Party Provision of Ancillary Services: Accounting and Financial Reporting for New Electric Storage Technologies* (NOI). ELCON is the national association of large industrial consumers of electricity. ELCON members have an interest in the use and rate treatment of non-traditional technologies for ensuring an adequate, affordable and reliable supply of electricity for their manufacturing facilities.

ELCON appreciates that a stated objective of the NOI is to “seek comment on ways in which [the Commission] can facilitate the development of robust competitive markets for the provision of ancillary services from all resource types.” ELCON supports the sentiment expressed in the NOI that “[a] variety of resources are poised to provide ancillary services but may be frustrated from doing so by certain aspects of the Commission’s market-based rate policies coupled with a lack of access to the information that could help satisfy the requirements of those policies.” As technologies for electric storage and other ancillary services develop, there are new opportunities for

NERC and grid operators to balance load and resources, even as their challenges increase as more variable energy resources (VERs) enter interconnection queues.<sup>1</sup>

It is critical to align the rate treatment of such technologies to regulatory practices and regulations originally intended for the traditional unbundled technologies: generation, transmission and distribution. As an overarching comment, ELCON reiterates its strong concurrence with the recommendation already submitted to Commission staff by Dr. Lawrence D. Kirsch that:

...the Commission accurately define the services that are provided by such technologies so that the providers of such technologies are fully and fairly compensated, so that the owners of certain generating technologies are not inadvertently subsidized through mispricing of storage technology services, and so consumers do not pay for vaguely defined services that they do not in fact receive.<sup>2</sup>

Dr. Kirsch further adds that “providers of electric storage technologies will be fully and fairly compensated if they are simply paid for services that have already been defined by the Commission as part of its mandated Open Access Transmission Tariffs (OATT).”<sup>3</sup>

The NOI focuses on two topics – market power issues associated with third-party provision of ancillary services, and accounting and recordkeeping requirements for energy storage resources. Although these are noteworthy issues, as are those raised in the recent notice of proposed rulemaking on frequency regulation compensation,<sup>4</sup> ELCON’s urges that the Commission pursue a more global approach to the developing ancillary services technologies and markets. In particular, ELCON reiterates its earlier

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<sup>1</sup> See North American Electric Reliability Corporation, *Accommodating High Levels of Variable Generation, Reliability Issues White Paper*, April 2008, and *Reliability Impacts of Climate Change Initiatives: Technology Assessment and Scenario Development*, July 2010.

<sup>2</sup> Comments of Dr. Lawrence D. Kirsch (Christensen Associates Energy Consulting LLC), FERC Docket No. AD10-13-000 (“Rates, Accounting and Financial Reporting for New Electric Storage Technologies”), Dated July 7, 2010 at 1.

<sup>3</sup> Kirsch at 2.

<sup>4</sup> 76 Fed. Reg. 11177 (Mar. 1, 2011).

comments in Docket No. AD10-13 that there should be a framework that provides for full and fair compensation for all ancillary services, including but not limited to electric storage technologies.

**I. The Regulatory Treatment of Electric Storage Technologies Should Be Part of A Generic Commission Policy on Resource Neutrality.**

Electric energy storage is another “non-traditional” resource that is vying for access to wholesale power markets dominated by “traditional” resources. Other non-traditional resources are demand response resources (DRR), combined heat and power (CHP) and VERs. Non-traditional resources (VERs and DRR) are two of the Commission’s top three priorities, along with Smart Grid. ELCON submits that the threshold issue before FERC should be the need to retool resource eligibility standards and to adopt the tariff and market rule changes that will enable access to wholesale power markets by non-traditional resources. Dispatch software may also have to be revised to remove any bias in favor of traditional resources in the manner in which the grid is presumed to operate.

In response to the Commission’s Notice of Proposed Rulemaking on Variable Energy Resources (VERs), ELCON defined a regulatory policy on “source neutrality” that is relevant to electric storage facilities and other non-traditional resources that may emerge.<sup>5</sup> Our comments on that NOPR stated in part:

Without the adoption of a resource planning paradigm based on *[resource] neutrality*, almost any non-traditional resource may fall prey to undue discrimination with respect to transmission of electric energy and sales of electric energy for resale in interstate markets. Traditional utility resource planning is designed to accommodate traditional supply-side resources—and little else. Many non-traditional resources—such as combined heat & power (CHP), waste-to-energy technologies, demand response, and distributed energy—have encountered various regulatory barriers that interfere with cost-effective adoption of the technologies. Efforts by states (in the form of integrated resource planning or IRP) or by FERC (creation of ISOs and RTOs) have not satisfactorily removed these barriers.

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<sup>5</sup> We have since adopted the term “resource neutrality,” which we will use in these comments.

In this inquiry, the Commission seeks to explore whether existing rules, regulations, tariffs, or industry practices within FERC's jurisdiction may hinder the reliable and efficient integration of VERs, resulting in rates that are unjust and unreasonable and/or terms of service that unduly discriminate against certain types of resources. Given that VER is now the energy resource du jour, it joins the list of maligned resources.

In comments to the Commission in Dockets RM07-19-000 & AD07-7-000 ("Wholesale Competition in Regions with Organized Electric Markets"), ELCON and other industrial trade groups introduced the concept of "[resource] neutrality" in the context of RTO procurement rules for ancillary services out of fear that the Commission's proposed "comparability" standard might be interpreted to force demand response (DR) bids to be comparable to generator bids, *i.e.*, industrial providers of demand response in A/S markets must package their product to resemble generation. But the DR capabilities of many industrial loads can often provide grid operators with greater value compared to the typical generator. This value cannot be used in the A/S markets, and the improved market and operational efficiencies realized, if grid operators' expectations are limited to generation-like resources. This is inefficient. Resource planning, business practices and OATT terms and conditions, and reliability standards need to be rewritten to ensure [resource] neutrality and not favor any particular type or class of technologies. *This is the only long-term solution for preventing rates that are unjust and unreasonable and/or terms of service that unduly discriminate against certain types of resources.* Impediments to open access transmission service for all resources need to be eliminated to facilitate the efficient, least-cost development of infrastructure and ensure that the reliability of the grid is adequately maintained—consistent with environmental law. [Emphasis added.]

The Commission's on-going initiatives intended to remove entry barriers to non-traditional resources (VERs, demand response and electric storage) would greatly benefit from a clear enunciation of a generic policy on resource neutrality. This policy can be implemented by reviewing and modifying, as necessary, the technical qualifications of existing tariff services (including energy, capacity and ancillary services) to eliminate any bias in favor of traditional resources. In addition, technical qualifications or eligibility criteria that are no longer needed or unduly obstruct the deployment of non-traditional services should be eliminated. The overall objective should be to replace references in tariffs and market rules to specific types of resource technologies with descriptions of generic, resource-neutral operational needs—consistent with the spirit of source neutrality and with the goal of improving performance and lowering delivered costs. Each service should be reevaluated/-

developed to determine optimal response times, optimal duration of service delivery, minimum energy deliverability requirements in a defined time period, frequency of service during a defined time period, etc. An example of a new or retooled service is “fast regulation.” The type of review that ELCON is recommending would ascertain whether faster response time will increase performance at a lower delivered cost, and, if so, define this service.

A generic policy on resource neutrality will eliminate or reduce opportunities for regulatory arbitrage and minimize the need to determine an electric storage facility’s “intended use and capabilities” by shifting the focus away from the technology supplying a resource to the service delivered. The policy will also eliminate the need to rewrite tariffs and market rules every time a new technology gets introduced.<sup>6</sup> ELCON urges FERC to revisit the resource and issue specific approach of the NOI and instead devote its resources to development of such a generic policy.

## **II. The Commission Should Not Use Regulatory Policies to Pick Winning Storage Technologies; Instead, Resource Selection Should Be Based on Lowest Delivery Cost.**

A variety of electric storage technologies claim to be “grid ready” and developers are actively competing to enter the power market to demonstrate their technology’s potential capabilities. They include compressed air, pumped hydro, flywheels, thermal energy storage, ultra-capacitors, and batteries (*e.g.*, sodium sulfur, lithium ion, and flow batteries). FERC policies or regulations should not give preferential treatment to any specific storage technology. Nor should electric storage technologies, as a technology class, be given preferential treatment with respect to competing technologies capable of providing similar services (*e.g.*, ancillary services). The services of any non-traditional or traditional resource should be procured based on its ability to offer the lowest delivered, out-of-pocket cost.

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<sup>6</sup> The Commission has initiated a series of rulemakings and inquiries specific to non-traditional resources (*e.g.*, variable energy resources in Docket No. RM10-11-000), demand response resources in Docket No. RM10-17-000 and Order No. 719, and now, electric storage. In so doing, the Commission missed the opportunity to address entry barriers in a single generic rulemaking proceeding. .

ELCON notes, for example, that in *Western Grid Development*, the Commission approved a package of rate incentives for certain energy storage projects that included: (1) 100% of construction work in progress (CWIP) in rate base; (2) combined rates of return on equity adders of as high as 195 basis points; (3) deferred cost recovery through creation of a regulatory asset for pre-commercial costs; and (4) a hypothetical capital structure of 50% equity and 50% debt.<sup>7</sup> This is an example of preferential treatment of a facility or class of facilities that unfairly disadvantages competing technologies. At this stage in the development of electric storage technologies, such cost recovery policies will likely suppress further innovation by subsidizing relatively inferior technologies, over-compensating superior technologies, and insulating both from fair market tests. It is not a foregone conclusion that all existing types of electric storage technologies will succeed in producing grid scalable services at competitive rates or prices. Perhaps the biggest uncertainty associated with storage is the economics of the storage business model. Yet, it is important that the industry quickly determines which ones will work for sake of economic efficiency. Subsidies can delay or interfere with this determination by masking the underlying economics.

In ISOs and RTOs, electric storage technologies should not be shielded from wholesale price signals with respect to locational decisions (*e.g.*, siting and congestion relief) or the timing of its operation. The benefits and incurred costs of an electric storage facility will depend on the siting decision.<sup>8</sup> Electric storage facilities should not be allowed to escape any additional costs it imposes on the grid. Electric storage technologies must be required to respond to price signals, and face the full economic consequences of grid integration so as to incent further technological improvements,

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<sup>7</sup> *Western Grid Development, LLC*, 130 FERC ¶ 61,056 (2010). The developer in this case—in a form of regulatory arbitrage—asked for and got FERC approval for treatment as “transmission facilities” so as to qualify for lucrative transmission and SmartGrid incentives. Western Grid intends to build Sodium Sulfur (NaS) batteries. The projects would support reliability on the CAISO system by addressing, among other things, voltage drop situations, emergency level thermal overload on transmission lines, and prevention of the loss of load to retail customers. Western Grid opted not to seek classification as a generator or load selling demand response.

<sup>8</sup> See Adam Pollock, *Energy Storage: Framework for Developing Regulation*, National Regulatory Research Institute, Undated Paper. At 3.

particularly related to scalability. Energy purchases and sales by non-traditional resources should be settled using wholesale prices on the same basis as traditional resources.

### **III. Rate Treatment Should Be Based on Cost Causation Principles.**

Federal regulatory policies should ensure that rate structures developed to price the services of electric storage facilities (or any traditional and non-traditional resource) are based on cost causation principles, *i.e.*, electric storage facilities should be assigned all costs that the technology imposes on the system. There must be a direct link in rates between the actions that cause costs to be incurred and the incentives provided by the allocation of such costs. The fact that electric storage resources may be deemed “new and promising” is no justification to depart from cost causation. From a consumer perspective the only legitimate benefit from “new and promising” technology is the potential for services at lower delivered cost.

The fundamental principles of rate design require that allocation of costs follow causation of such costs as closely as possible. This alignment of cost allocation with cost causation promotes economically efficient production, consumption and investment decisions by sending clear price signals.

Public policy considerations also argue in favor of cost causation because those who are allocated costs based on actual, demonstrable benefits they need are less likely to object than those who are allocated costs based on an assumption that they will receive some general, unquantifiable benefit. Cost causation is, therefore, more likely to increase transparency and accountability, reduce controversy and assure that the necessary infrastructure is built where the costs truly are justified.

**IV. Cost Recovery Should Not Be Enhanced By Allowing Costs to be Shifted Between Retail and Wholesale Rates, Nor Should the Resource Enjoy the Benefit of Guaranteed or Excessive Cost Recovery.**

It is essential that sufficient safeguards protect against cross-subsidization or other forms of rate manipulation that would result in excessive cost recovery. Specifically, ELCON supports the following statements in the *Request for Comments* in Docket AD10-13:

Unlike traditional transmission assets, electric storage serving a transmission function and receiving cost-based transmission rates would also be physically capable of providing ancillary services or otherwise enhancing the value of generation in wholesale energy markets. Accordingly, potential cross-subsidization, competition, and discrimination issues could arise if the storage participated in those markets at the same time it is receiving full cost-recovery through transmission rates. At 7.

Staff also added:

There is some precedent in retail ratemaking for permitting guaranteed cost recovery (in bundled retail rates) while also permitting profit-seeking off-system sales in a competitive environment. *Id.*

ELCON believes that it is essential that safeguards are established to protect against cross-subsidization. Staff suggests one example of a safeguard in which the Commission approved a revenue-sharing ratemaking treatment for secondary uses of jurisdictional assets that is comparable to the practice of some retail regulators under similar circumstances. Some state PUCs have addressed this issue by requiring a utility making off-system sales from generation built at retail ratepayer expense to credit to retail rates at some portion of the revenues of such off-system sales.

Similarly, there should not be double-recovery of costs, such as through cost-based rates and additional recoveries in other, wholesale markets, or through treatment of an ancillary resource such as electric storage facilities as both generation and transmission. ELCON supports accounting treatments that could enhance cost transparency.

## CONCLUSION

Although ELCON appreciates the Commission's efforts in issuing the NOI, it instead should proceed promptly to a more global rulemaking proceeding that would enable non-traditional resources to be deployed in wholesale electric markets, enhancing the performance of the grid and producing the lowest possible costs to consumers.

## NOTICES AND COMMUNICATIONS

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Respectfully submitted,

/s/ JOHN P. HUGHES

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Dated: August 22, 2011

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary of this proceeding.

Dated at Washington, D.C.:            August 22, 2011

/s/ W. RICHARD BIDSTRUP  
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