UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Demand Response Compensation in Organized Wholesale Energy Markets	RM10-17-000

Comments of the Electricity Consumers Resource Council (ELCON)

The Electricity Consumers Resource Council (ELCON) appreciates the opportunity to comment on the Commission's Notice of Proposed Rulemaking (NOPR) which would require Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs) to compensate qualifying demand response resources at market prices.[1] ELCON unequivocally supports the proposed rule and regards it as a significant contribution to the increased competitiveness of organized energy markets.

ELCON is the national association representing large industrial consumers of electricity. ELCON member companies produce a wide range of products from virtually every segment of the manufacturing community. ELCON members operate hundreds of major facilities and are consumers of electricity in the footprints of all organized markets and other regions throughout the United States. Many ELCON members are demand

[1]The NOPR would implement this requirement by adding the following as paragraph (g)(1)(v) to section 35.28 of the Federal Power Act:

§ 35.28 Non-discriminatory open access transmission tariff.

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(v) Demand response compensation in energy markets. Each Commission-approved independent system operator or regional transmission organization that has a tariff provision permitting demand response resources to participate as a resource in the energy market by reducing consumption of electric energy from their expected levels in response to price signals must pay to those demand response providers, in all hours, the market price for energy for these reductions.

response capable and have provided curtailable loads to utility system operators for decades.

Executive Summary

ELCON unequivocally supports the NOPR, which is an important step towards the full inclusion of demand response resources in organized wholesale energy markets. Consumers will benefit from lower prices and greater reliability as a result of the increased competition that will be introduced by equal treatment of demand resources. Recognizing the importance of the NOPR, ELCON believes the final rule should adhere to the following four principles:

- The full LMP is the correct price signal for demand response resources in the day-ahead and real-time energy markets. However, alternative pricing mechanisms may be necessary in other contexts (for example ancillary services or capacity markets) for demand response providers to fully recover their variable and going-forward costs.
- Demand response providers should be allowed to participate in the energy markets on a 24–7, year-round basis. LMP would be equal to the marginal value of both demand response and generation in any hour, any season or any time of day.
- As an essential component of the final rule, the Commission should provide its jurisdictional ISOs and RTOs with clear and unambiguous instructions for complying with the directive to compensate qualifying demand response resources at market prices by, for example, codifying the final rule in a *pro forma* tariff.
- This rulemaking should be only the first step in a comprehensive rationalization of the ISO and RTO markets, including the elimination of any inconsistencies between wholesale and retail markets.

Background

Over a decade ago, when the Congress, FERC and many states initiated industry restructuring, *it was assumed that price-responsive end-use consumers would be able to compete head-to-head with generators to establish market-clearing prices and that they would be paid*

compensation on an equivalent basis for the actual value provided to the market. This mechanism was central to the choice of the nodal (LMP) market design adopted by the ISOs and RTOs. Unfortunately this did not come to pass; consequently there is now a growing body of interests that question the wisdom of creating the organized markets.

In comments to the Commission after a 2007 Technical Conference on Competition in Wholesale Power Markets, ELCON noted that demand response had become one of the most studied topics in the history of the industry, and feared that it had been studied to death.[2] There was then—and continues to be—no end to reports, surveys, conferences, initiatives, collaboratives, national town meetings and other efforts to jump-start this critical market function. The results have been a handful of halfhearted ISO and RTO-implemented demand-response "programs" without a commitment to true market reform. In the same comments, ELCON remarked:

> Active resistance to demand response is pervasive within the governance structures of ISOs and RTOs where the placement of dots and commas in tariffs are argued endlessly with a coalition of suppliers who would lose money if loads were dispatched off, rather than generation dispatched up. The solution is to get back on track with real industry restructuring or greater recognition that demand response has tremendous merit in any context: market or regulation. Demand response will constrain marginal generation costs in any context. Only the generators would not want that and it may be inevitable that they will claim new 'missing money' resulting from lower spot prices.[3]

The proposed rule—in its entirety a modest one sentence—goes a long way towards correcting those problems. ELCON commends the Commission for bucking the anti-competitive interests in the industry who would prefer that demand response in any form remain mired in studies and surveys.

The NOPR correctly notes that demand response—in which customers reduce electricity consumption from normal usage levels in response to price signals—can occur in two ways: (1) customers reduce demand by responding to dynamic rates that are based on

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[2] Supplemental Comments of the Electricity Consumers Resource Council (ELCON), Docket No. AD07-7-000 ("Conference on Competition in Wholesale Power Markets"), dated March 12, 2007 ("ELCON 2007 Comments").

[3] ELCON 2007 Comments at 13.

wholesale prices; or (2) customers can provide demand response that *acts as a resource in wholesale markets* to balance supply and demand.[4] The NOPR addresses the second type of demand response, which is the easiest to implement and which can deliver immediate benefits. The potential benefits of demand response acting as a resource in organized wholesale energy markets are well established. Demand Response helps to improve the functioning and competitiveness of such markets in several ways:

1. More efficient and lower prices for all consumers,
2. Greater transparency,
3. Less need for new generation and transmission infrastructure,
4. Mitigation of generator market power, and
5. Greater support system reliability and resource adequacy.

Demand response providers participating as resources in the day-ahead and real-time energy markets are the subject of this proceeding.[5] The Commission previously has allowed a case-by-case (or "system-by-system") approach for the design of demand response programs and the determination of demand response compensation. Nonetheless, demand response resources still play at best a small role in wholesale markets. Further, "evidence of demand reductions in PJM, and inadequate demand response participation, now and in the future, may be the result of compensation that is no longer just and reasonable, because … the existing and varying levels of compensation generally fail to reflect the marginal value of demand response resources to ISO and RTO markets."[6] ELCON couldn't agree more.

ELCON Comments

A. *LMP is the Correct Price Signal for Demand Response Resources*

The organized markets were designed to make LMPs the benchmark price of marginal resources in energy markets, in other words, the LMP establishes the marginal value of all resources in the market. The LMP that clears an energy market (by whatever

[4] NOPR at ¶ 10.
[5] NOPR at ¶ 8.
[6] NOPR at ¶ 10.

resource) becomes the basis for compensation for *all resources* that are dispatched in either the day-ahead or real-time market and thus minimizes the cost of production by exactly balancing supply and demand. As a result, it was never intended to be a price signal dedicated to generation resources to the exclusion of other competitive resources, such as demand response resources. There is no theoretical (or practical) basis for precluding the use of LMP as the price signal for demand response resources.

That is not to say that LMP standing alone will always be a sufficient price signal; the day-ahead and real-time energy markets are not the only markets available to resources (supply or demand side). The organized markets also administer markets for capacity products and ancillary services (including emergency services). It is the sum total of all the revenue streams available in these markets that fully compensate resource providers for their variable and going-forward costs and that provide an incentive for resource providers to follow dispatch instructions.[7] Indeed, the NOPR acknowledges that both generation and demand response resources "have the potential to earn other revenues through bilateral arrangements, capacity markets, where they exist, and ancillary services."[8] Accordingly, the total mix of compensation available to demand resources should include other sources of compensation where LMP alone would result in underinvestment in demand resources.

B. *Demand Response Providers Should Receive the LMP at All Times*

The proposed rule would allow demand response resources to enter the energy markets in "all hours." This is a refreshing departure from proposals offered by generators or their sympathizers in the ISO/RTO stakeholder processes to limit demand response participation to certain hours or to a fixed number of events during the year. Such proposals would in essence create islands of robust competition in a sea of arbitrarily

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[7] See PJM Interconnection, Inc. *A Review of Generation Compensation and Cost Elements in the PJM Markets*, 2009 (PJM Report). This report states in its conclusion: "The market design is that the combined markets cover the combined marginal and going-forward costs. This should not be misinterpreted to say that the Energy Market revenues are designed to cover only the marginal production costs and the RPM Capacity Market revenues are designed to cover only the going-forward costs in all cases." PJM Report at 39.

[8] NOPR at Footnote 42.

restricted and inefficient competition.[9] ELCON believes that consumers are entitled to full market efficiencies in all hours of the year. Exercise of market power by generators is not just a peak period phenomenon.

C. *FERC Should Mandate Clear and Unambiguous Instructions for Complying with the Rule*

In its proceeding on "Wholesale Competition in Regions with Organized Electric Markets" (Docket Nos. RM07-19-000 and AD07-7-000)), the Commission held out the promise of substantial reforms of the ISO/RTO demand response policies and tariffs. In comments in that proceeding, ELCON expressed concern that piecemeal implementation by RTO/ISO stakeholder processes would not produce the intended results absent strong leadership and more focused direction from the Commission.[10] The final order in that proceeding permitted each ISO and RTO to revise its tariffs separately using each organization's stakeholder process, which inevitably led to delay, inefficiency and inconsistencies that the instant NOPR seems to acknowledge. ELCON strongly urge the Commission to not duplicate those shortcomings, especially given that large industrial consumers typically have many facilities throughout the country and therefore often have major loads within the footprints of more than one ISO or RTO. Further delay in establishing regulations and business practices for demand response and fair and nondiscriminatory compensation will only create undue concern for those demand response providers that wish to participate in the market.

The Commission's long-standing practice (extending back at least to Order No. 888 in 1996) has been to standardize rules and procedures for generators and other transmission users with a *pro forma* OATT and the standardized features of day-ahead and real-time markets, as necessary, to promote consistency, avoid undue discrimination, and most

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[9] Several organized markets experience minimum load conditions that could benefit from demand response resources, *e.g.*, when load is shifted from peak to off-peak periods or load is created by backing off behind-the-meter generation.

[10] Comments of the Electricity Consumers Resource Council (ELCON), American Chemistry Council (ACC), American Iron and Steel Institute (AISI), Association of Businesses Advocating Tariff Equity (ABATE), Council of Industrial Boiler Owners (CIBO), and Wisconsin Industrial Energy Group, Docket Nos. RM07-19-000 & AD07-7-000 ("Wholesale Competition in Regions with Organized Electric Markets"), Dated April 21, 2008, At 7.

importantly, to provide clear instruction in a timely manner. ELCON again recommends that the final rule in this proceeding specify *pro forma* tariff language, or make use of a similar regulatory device, to provide its jurisdictional ISOs and RTOs with clear and unambiguous instructions for complying with the final rule, and avoid any "stakeholder process" that would permit critics to obstruct or compromise implementation of the final rule.

D. *Next Steps: Further Rationalization of ISO and RTO Market Design and Elimination of Price Inconsistencies between Retail and Wholesale Markets*

None of the market structures of existing ISOs and RTOs were anticipated at the height of the electric industry restructuring debate in the late 1990s. More likely people would have been horrified if they had been given advanced warning of today's market designs with separate energy and capacity markets, price mitigation, price caps, frequently mitigated units, out-of-market payments, ten-percent adders and other routine regulatory intrusions. Defenders of the status quo—mainly traditional resource suppliers and their consultants—take a purist position on market design issues affecting potential competitors, such as demand response providers, but conveniently overlook the jury-rigged markets that they currently dominate as price makers. Adding price elasticity to the organized markets would be a huge improvement to the credibility of these markets. It is ELCON's hope that this would begin a process for rationalizing the market designs of the ISOs and RTOs, including the elimination of inconsistencies between wholesale price setting and retail ratemaking.

ELCON Responses to Commission Questions

Question: The Commission seeks comment on the need to compensate demand response acting as a resource in organized wholesale energy markets. Commenters may address whether current compensation for demand response providers acting as a resource in the organized wholesale energy markets is adequately procuring demand response.

ELCON Response:

Total revenues compensated to demand response providers for participating in all available markets must be equal to or greater than all variable and fixed (going forward)

costs of the provider. Participation in the wholesale day-ahead and real-time energy markets alone is unlikely to compensate the providers for the incremental cost of load curtailment or to cover all of their going-forward costs. Demand response providers will no doubt take this shortfall into consideration prior to participating in those markets. Thus, the NOPR's proposal for full LMP compensation in the energy markets is a good start. It must be further supplemented with revenues from ancillary services and capacity markets. The NOPR preamble clearly states:

> Ultimately, the markets themselves will determine the level of generation and demand response needed to balance energy and demand. The level of compensation provided to each resource, however, affects its willingness and ability to participate in the market.[11]

A footnote to this quote reads:

> Generation and demand response resources have the potential to earn other revenues through bilateral arrangements, capacity markets where they exist, and ancillary services.[12]

Question: The Commission seeks comment on alternative approaches to compensating demand response resources participating in organized wholesale energy markets, and the merit of those approaches in comparison to the one proposed here.

ELCON Response:

Participation in wholesale energy markets is only one of several revenue streams provided by organized markets. Demand response providers may need the full range of opportunities (and the resulting revenue streams) to provide the incentives necessary to have some or their entire load curtailed by a dispatch instruction.

Question: The Commission seeks comment on whether a reduction in consumption is comparable to an increase in electricity production for purposes of balancing supply and demand, and whether, therefore, demand response providers and generators should receive comparable compensation.

ELCON Response:

[11] NOPR at ¶ 16.
[12] NOPR at Footnote 42.

Since the NOPR addresses only the day-ahead and real-time energy markets that primarily capture short-run marginal costs (for an added kWh versus a curtailed kWh), any difference is likely *de minimus* for the sole purpose of balancing supply and demand. Curtailed load reduces the need for ancillary services, reduces line losses and generally reduces stress on the system compared to any increase in generation.

Question: The Commission seeks comment on whether paying LMP to demand response resources is comparable compensation or is more or less than comparable to compensation paid to generation in the ISO and RTO energy markets.

ELCON Response:

LMP is the economically correct price signal for energy. That said, alternative pricing methodologies may be appropriate for demand response participation in other ISO/RTO markets such as ancillary services (including emergency services) and capacity. Only access to, and participation in, the combined markets will cover the combined marginal and going-forward costs of demand resource providers.

Question: The Commission seeks comment on whether payment of LMP should apply to all hours, and, if not, the criteria that should be used for establishing the hours when LMP should apply.

ELCON Response:

There is no justification for limiting economic efficiency to only select hours, or to encourage market forces in some hours and not in others. Giving generators preferential access to off-peak hours—by shielding them from price competition with demand response providers—does not produce just and reasonable rates in those hours. The objective should be maximizing economic efficiency in all 8,765 hours of the year. There is no reason to allow anyone to second guess in which hours demand response is needed most and limiting participation to those hours. The markets should determine the level of generation and demand response needed to balance energy and demand in every hour, and consumers should not be denied the benefits of lower prices in off-peak hours. Demand response resource may also be used to help manage minimum load conditions by compensating loads that are shifted to minimum load periods that would not otherwise be there. This

would reduce the need to "dump energy" or "firm up" certain resources such as wind farms.

Question: The Commission seeks comment on whether requiring payment of LMP is appropriate across all ISOs and RTOs, or whether variations among ISOs and RTOs justify varying levels of demand response resource compensation.

ELCON Response:

The fundamental objective of nodal or locational pricing in ISO/RTO markets is to make the "LMPs" the basis for market clearing prices in each ISO/RTO's energy market—however such energy markets are structured. But resource compensation may vary across ISOs and RTOs when the markets for ancillary services and capacity are brought into the picture.

The Commission should also not attempt to second guess how retail regulators will change retail rate designs to accommodate (or not) participation of retail customers in the wholesale DR markets—either directly or via aggregators (ARCs). The full LMP is the appropriate target for the energy markets that all state and local regulators can use to make such changes.

Question: The Commission seeks comment on whether FERC should allow regional variations for an ISO or RTO that does not seek to compensate demand response resources participating in the organized wholesale energy market.

ELCON Response:

Although details of implementation can reflect regional differences, as a matter of both law and policy, the fundamental principles of just and full compensation for demand response resources participating in the organized wholesale energy market, as would be established by the proposed rule as drafted, must apply in all of the ISOs and RTOs. The Commission previously observed in its Final Rule on Wholesale Competition that "[i]mproving the competitiveness of organized wholesale markets is integral to the Commission fulfilling its statutory mandate to ensure supplies of electric energy at just,

reasonable and not unduly discriminatory or preferential rates."[13] The NOPR goes a step further, stating, "As the Commission recognized in Order No. 719, active participation by customers in organized wholesale energy markets through demand reductions helps to increase competition in those markets," it adds that demand response, "helps to improve the function and competitiveness of such markets" by lowering prices, mitigating generator market power, supporting system reliability, and addressing resources adequacy and management challenges related to loss of generation.[14]

In light of the many benefits of demand response enumerated in Order No. 719 and the NOPR, the Federal Power Act's requirement of just and reasonable rates dictates that the benefits of demand response be extended to all consumers, not just those fortunate enough to live in ISOs and RTOs that allow "demand response resources to participate as a resource in the energy market" as the NOPR currently provides. If the Commission believes, as stated in the NOPR, that demand response will result in lower prices and increased reliability, the Commission is obligated by the Section 205 of the Federal Power Act to extend those benefits to all organized energy markets.[15] Otherwise consumers in ISOs and RTOs without qualifying demand response programs will be forced to pay higher rates for less reliable service. Such disparate treatment, without any countervailing justification, is the antithesis of just and reasonable rates.

Moreover, enhancing demand response is a key objective of the Energy Independence and Security Act of 2007 ("EISA"), which identifies the "[d]evelopment and incorporation of demand response, demand-side resources, and energy-efficiency resources" as one of the key elements of the Smart Grid.[16] If the Commission is serious about encouraging the use of demand response, it should require equal access and fair

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[13] Wholesale Competition in Regions with Organized Electric Markets, Order No. 719, 73 Fed. Reg. 64,100 (Oct. 28, 2008) at 1.

[14] Demand Response Compensation in Organized Wholesale Energy Markets, 130 FERC ¶ 61,213 (March 18, 2010) at 3–5.

[15] The proposed rule, as drafted, might actually create a perverse incentive for ISOs and RTOs to limit or abandon existing demand response programs to avoid implementing its provisions.

[16] Energy Independence and Security Act of 2007, Pub. L. No. 110- 140, 121 Stat. 1492 (2007) at § 1301(4).

treatment for demand response resources in all organized energy markets subject to its jurisdiction.

Question: The Commission seeks comment on whether, and under what circumstances, FERC should conduct periodic reviews of demand response compensation and the criteria that should be used in making such assessments.

ELCON Response:

Wholesale electric markets are dynamic because of mergers and acquisitions (which can increase market power), changes in environmental laws, changes in consumer preferences and other factors. FERC always has a responsibility to review its policies to ensure that rates are just and reasonable in the face of such changes.

Question: The Commission seeks comments on whether terms in the proposed regulatory text such as "expected levels," "price signals" and "market prices" are sufficiently defined.

ELCON Response:

The proposed regulatory text is elegant and sufficiently workable in its simplicity.

Conclusion

ELCON applauds the Commission for moving forward with this important initiative. We urge the Commission to promulgate this rule without delay and to direct its jurisdictional ISOs and RTOs to promptly implement its directives. Electricity consumers of all sizes stand to realize tremendous benefits from the long overdue arrival of demand response resources as equal participants in organized energy markets.

Notices and Communications

Notices and communications with regard to these proceedings should be addressed to:

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Dated: May 13, 2010

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.: May 13, 2010

/s/ W. RICHARD BIDSTRUP
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