

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Settlement Intervals and Shortage Pricing
in Markets Operated by Regional
Transmission Organizations and
Independent System Operators

Docket No. RM15-24-000

**COMMENTS OF THE
ELECTRICITY CONSUMERS RESOURCE COUNCIL (ELCON)**

ELCON appreciates the opportunity to comment on the Commission's September 17, 2015 *Notice of Proposed Rulemaking* (NOPR) on settlement intervals and shortage pricing in markets operated by RTOs and ISOs.

The NOPR would require that each ISO and RTO settle energy transactions in its real-time markets at the same time interval it dispatches energy and settle operating reserves transactions in its real-time markets at the same time interval it prices operating reserves. The NOPR also would require that each RTO/ISO trigger shortage pricing for any dispatch interval during which a shortage of energy or operating reserves occurs. The NOPR states that adopting these reforms would align prices with resource dispatch instructions and operating needs, providing appropriate incentives for resource performance.

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. ELCON members have operations in one or more ISOs and RTOs and would be affected by the proposed

changes. ELCON also participated in a December 2014 technical workshop addressing issues associated with price formation in the organized wholesale electric markets.

SUMMARY OF COMMENTS

The proposed changes to the settlements intervals are a long-overdue correction. Aligning the two intervals would eliminate an unwarranted economic incentive to game the market.

On the other hand, there is a less compelling need for the proposed change to the shortage price trigger, and ELCON would oppose the proposed change if the intent is to preserve and expand the use of shortage pricing. The proposed change should be adopted only if FERC promotes the development of technology-neutral fast-ramp products that are paid to provide the specific shortage service and for which compensation would not inflate the real-time LMPs.

As a matter of process, ELCON is concerned about the potential inefficiencies in pursuing market reforms on a piecemeal basis and urges FERC to take a more unified approach in the future.

I. ELCON SUPPORTS THE NOPR'S PROPOSAL ON SETTLEMENT INTERVALS

Some RTOs and ISOs do not settle resources at the same intervals at which they dispatch resources in their real-time energy markets. All of them dispatch resources in a 5-minute interval. CAISO, NYISO and SPP also use a settlement interval that matches the dispatch interval. ISO-NE, MISO and PJM do not. They use an hourly average for real-time settlement. There are several problems with hourly prices. The hourly price does not reflect system needs and costs and may result in over or under recovery of costs depending on how the shortage plays out during the hour. When the Southwest Power Pool moved to sub-hourly settlements, overall system costs were lower. The greater granularity of pricing benefits resources such as Demand Response, energy storage and generators that can respond quicker (both ramp up and ramp down). In

addition, according to a study by the two national laboratories -- NREL and Argonne -- hourly prices create an economic incentive to disregard dispatch instructions with the intent of earning significant additional payments. Finally, sub-hourly settlement can reduce some uplift payments to the extent that hourly settlement under-recovers actual costs.

Because implementation of 5-minute settlements would have a cost, there is a need for a formal directive to the ISOs and RTOs. Accordingly, ELCON believes that the NOPR is necessary to address a discrete but important fault in the market design of the organized markets -- an embedded inconsistency in market operation that promotes gaming and other forms of ill behavior or inefficiencies. Accordingly, ELCON supports the settlement interval provision of the NOPR.

II. ELCON'S SUPPORT FOR THE SHORTAGE PRICING TRIGGER PROPOSAL IS QUALIFIED

It is debatable whether all situations in which the system experiences a shortage of energy and operating reserves should trigger shortage pricing. Shortage pricing is, if left unconstrained, letting the market charge what the market will bear.¹ Some ISOs and RTOs delay the onset of shortage pricing until sometime after the shortage conditions are evident to the system operator -- a task that is usually performed with computer models. They argue that many events are "transient" or relatively brief shortages that are a "mathematical artifact" of system modeling or are expected to be resolved before generators can respond. This is not always a clean process and sometimes out-of-market actions are necessary for which the costs have to be recovered

¹ All ISO and RTO markets have offer caps and in the six FERC-jurisdictional ISOs and RTOs the cap is \$1000 per MWh. In general, generators want all and any event to quickly trigger shortage pricing and they want the shortage price to be reflected in all real-time LMPs such that every resource that is dispatched is compensated at the higher LMP whether the generator responded to the shortage or not.

in uplift payments. But uplift costs are generally very small and probably a fair price to pay to avoid an overly complicated market design. The solution to compensate all generators operating at the time with shortage prices amounts to a very substantial increase in revenue that has to be recovered from end-use consumers. Only a limited number of generators (or Demand Response resources) with fast-ramp capability want and can take advantage of the opportunity to respond to shortage conditions but all generators would benefit from the higher real-time prices.

The NOPR preliminarily finds that restricting shortage pricing to shortages lasting longer than one dispatch interval (5 minutes), or not invoking shortage pricing during relatively brief shortages, even though a shortage exists, results in rates that may be unjust and unreasonable. FERC believes that ISOs and RTOs can take steps to minimize the distortions created by transient events. Also, the proposal in the NOPR addresses the trigger for invoking shortage pricing, not the shortage price. The separate processes by which each ISO or RTO administratively sets shortage prices remains the same and are unaffected by this proposed rule change.

FERC, in part, argues that shortage pricing is necessary to incent long-term investments—particularly generators—as if all generators were the same.² A problem that ELCON has long recognized with the organized markets is the growing absence of product differentiation in generation and the failure to recognize that each product should be priced differently based on the value it provides to the market and system

² In 2012, the American Public Power Association (APPA) published a study, *Power Plants Are Not Built on Spec*, finding that only 2% of the generation constructed in 2011 was built by a merchant generator based solely on expected wholesale market revenues. In a 2014 update, only 2.4% of new capacity built in 2013 was based solely on expected wholesale revenues.

reliability. The utility industry was traditionally structured that way and the market (or rate-setting) values of base load, cycling and peaking generation were acknowledged to be different for good reason. There were also different types of operating reserves depending upon how fast the resource can be brought on line and in service as called by the system operator. The organized markets are adopting a paradigm in which all resources that are used during a dispatch interval are compensated with the highest priced resource operating anywhere on the system for whatever reason. A 30-year old nuclear plant gets the benefit of the same investment signal – the market clearing price for 10 hours of dispatch per year – as a fast-ramp combustion turbine that is only designed to operate for 10 hours.

An alternative approach to shortage pricing is the development of technology-neutral fast-ramp products that can be used specifically in shortage conditions and compensated based on its response characteristics. These products could be provided by Demand Response, energy storage technologies or generation. With the integration of growing quantities of wind and solar resources, the market for fast-ramp resources will likely expand. And the short-term spot prices of the organized markets will, in fact, send the appropriate signal to investors that want to develop these specialty products.

ELCON notes that the Organization of MISO States, which represents the 15 states (and other regulatory entities) within the MISO footprint, stated its support for fast-ramping products in comments submitted to FERC in March 2015:

OMS supports the establishment of a ramping product that is priced separately from the existing energy or ancillary [services] market products. A separate product is a better approach than sending a price

signal during the short duration of a shortage event which can lead to increased price volatility as generators overreact to sharp price spikes. A properly designed ramping product will reward units that provide needed flexibility, rather than provide windfall profits for units that happen to be in the market during the short-duration shortage event. With the expected changes to the generation portfolio and greater reliance on intermittent generators, creating the right incentives for flexible resources is crucial and RTOs are already working on new products to address this need.³

The comments of APPA and NRECA made a similar point:

New products, such as separately priced ramping products, may well be a better approach than shortage pricing for addressing transient scarcity events such as reserve shortages anticipated to last only one or two pricing intervals while needed additional resources are ramping up to address the shortage. Paying for needed resource flexibility through a fast-ramping product pricing mechanism could better incent investment in such resources at a lower cost to consumers than simply paying all generators a windfall during infrequent scarcity conditions that trigger costly shortage pricing penalty mechanisms. For example, PJM has experienced shortages on only five days over the last five years, and Staff's Analysis of Shortage Pricing in RTO and ISO Markets determined that most RTOs and ISOs experience relatively few shortage events. A new ramping product may well result in more reliable revenue streams and better incentives for investment in more flexible resources than the infrequent and unpredictable shortage pricing events.⁴

Accordingly, ELCON conditionally supports the provision on shortage price triggers when applied to technology-neutral fast-ramping products but not to real-time shortage pricing in which every resource dispatched or called by the system operator during a dispatch interval is paid the same price.

³ Organization of MISO States Post-Technical Workshop Comments, Docket No. AD14-14-000 ("Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators"), March 2, 2015, at 4-5.

⁴ Post-Technical Workshop Comments of the American Public Power Association and National Rural Electric Cooperative Association, Docket No. AD14-14-000 ("Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators"), March 2, 2015, at 40-41.

III. ANY FURTHER PRICE FORMATION PROPOSALS SHOULD BE PURSUED ON A UNIFIED BASIS

As stated in the NOPR, it is the “first step” of a planned, much broader price formation proceeding: “[t]he Commission expects to undertake further action addressing various price formation topics, including offer price caps, mitigation, uplift transparency, and uplift drivers.” All of these issues are interconnected. Even for purposes of these comments, it is difficult to comment on the shortage pricing provisions, for example, when there is no current indication of how offer price caps will be addressed. The result is functionally equivalent to the flaw of single-issue ratemaking.

Based on the technical conferences and staff papers that preceded the NOPR, ELCON expects that it would support of these price formulation actions and oppose others. So that they can be assessed holistically, however, ELCON urges FERC to wrap up the price formulation initiative by consolidating any additional proposals into a single NOPR.

CONCLUSION

For these reasons, ELCON supports the proposed changes to the settlements intervals, which are a long-overdue correction. On the other hand, ELCON’s support the proposed change to shortage price triggers is conditional; it should only be adopted if FERC promotes the development of technology-neutral fast-ramp products that are paid to provide the specific shortage service and for which compensation would not inflate the real-time LMPs.

ELCON looks forward to reviewing and commenting on further market reform initiatives and urges that in a further NOPR on price formation issues, FERC act on a unified rather than piecemeal basis.

NOTICES AND COMMUNICATIONS

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

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Dated: November 30, 2015

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.: November 30, 2015

/s/ W. RICHARD BIDSTRUP
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