

April 21, 2008

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

RE: *Wholesale Competition in Regions with Organized Electric Markets*,
Docket Nos. RM07-19-000 and AD07-7-000

Comments of the PPL Parties

Dear Secretary Bose:

Please find enclosed for electronic filing in the above-captioned proceeding the Comments of the PPL Parties.

If you should have any questions regarding this filing, please contact the undersigned.

Sincerely,

/s/ Sandra E. Rizzo

Sandra E. Rizzo

SER/bh
Enclosure

cc: Official Service List

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Wholesale Competition in Regions)	Docket Nos. RM07-19-000
with Organized Electric Markets)	AD07-7-000
)	

COMMENTS OF THE PPL PARTIES

Pursuant to the Notice of Proposed Rulemaking ("NOPR")¹ issued by the Federal Energy Regulatory Commission ("Commission") on February 22, 2008, the PPL Parties² respectfully submit these comments. Various of the PPL Parties are members of the PJM Power Providers Group ("P3") and the Electric Power Supply Association ("EPSA"), each of which individually and contemporaneously are filing comments in this proceeding.

The PPL Parties are in general agreement with those comments and will focus the discussion herein on the Commission's request for comments regarding the appropriate market rules to govern price formation during periods of operating reserve shortage. The PPL Parties wholeheartedly agree with the Commission's view that demand response will be encouraged substantially as a result of market rule changes that permit prices to rise during periods of scarcity. Scarcity pricing will have other salutary effects on resource adequacy as well. Of

¹ *Wholesale Competition in Regions with Organized Electric Markets*, Notice of Proposed Rulemaking, 73 Fed. Reg. 12576 (Mar. 7, 2008), 122 FERC ¶ 61,167 (2008) ("NOPR").

² For purposes of this filing, the PPL Parties are PPL Brunner Island, LLC, PPL Edgewood Energy, LLC, PPL Electric Utilities Corporation, PPL EnergyPlus, LLC, PPL Great Works, LLC, PPL Holtwood, LLC, PPL Maine, LLC, PPL Martins Creek, LLC, PPL Montana, LLC, PPL Montour, LLC, PPL Shoreham Energy, LLC, PPL Susquehanna, LLC, PPL University Park, LLC, PPL Wallingford Energy LLC and Lower Mount Bethel Energy, LLC.

the approaches to provide price signals that promote demand response and bolster resource adequacy, the PPL Parties believe that requiring a demand curve for operating reserves in each Regional Transmission Organization ("RTO")³ market is the optimal approach. Alternately, lifting of administrative caps for both energy and demand and allowing prices to rise to the Value of Lost Load ("VOLL") without mitigation is appropriate.

I. DESCRIPTION OF PARTIES

The PPL Parties include Commission-jurisdictional subsidiaries of PPL Corporation that own or control facilities located in, or conduct business in, various Regional Transmission Organizations ("RTO"), including the PJM Interconnection, LLC ("PJM"), the Midwest System Operator, Inc., LLC, the New York Independent System Operator, LLC, and ISO New England, Inc. as well as in non-RTO markets. The PPL Parties own, operate and/or market a generation portfolio from a portfolio including coal, natural gas, oil, nuclear and hydroelectric generation facilities.

II. COMMENTS

A. The Commission Accurately Has Identified the Need for Reform that Permits Energy and Operating Reserve Prices to Reflect Supply and Demand Conditions

The Commission indicates in the NOPR that, after considering all the responses to its Advance Notice of Proposed Rulemaking ("ANOPR"), it continues to believe that:

³ RTO will be used to refer to both RTOs and Independent System Operators in these comments.

existing market rules appear to be unjust, unreasonable and unduly discriminatory or preferential during times of scarcity. In particular, they may not accurately reflect the true value of energy and, by failing to do so, may harm reliability, inhibit demand response, deter new entry of demand response and generation resources and thwart innovation.⁴

It also concludes that "without prices that reflect the true value of energy, we cannot expect the full integration of demand response into organized markets."⁵

The Commission indicates that artificial price caps mute the price signals that will attract new entrants and demand response resources and adversely affect resource adequacy.⁶ The Commission will provide each region the opportunity to demonstrate that its current rules do not need to be altered because they already provide compensation reflecting the value of energy when supplies are scarce.⁷ Each region must make a compliance filing within six months of the Final Rule issuance proposing efforts to value energy appropriately during periods of scarcity, such as operating reserve shortages.⁸

PJM is an organized market that would benefit from the measures the Commission describes. While PJM has a scarcity pricing mechanism, it is not triggered by system reserve violations, but kicks in far too late. As Dr. Roy J. Shanker has explained:

these existing rules do not even trigger any actions to reduce price mitigation when reserve levels are violated. Under PJM's existing rules, price mitigation is not suspended until PJM physically calls on

⁴ NOPR at P 107.

⁵ P 109.

⁶ P 111.

⁷ P 115.

⁸ P 117.

emergency generation, purchases emergency generation from outside of PJM, declares a voltage reduction or takes even more draconian actions such as load shedding. These triggers can and do occur after system reserve levels are violated. Merely violating reserve levels does not trigger suspension of price mitigation under PJM's existing rules. Second, under PJM's scarcity pricing rules, conditions must be met across large areas of the system in order to suspend bid mitigation. These triggers totally ignore local reserve violations. Such local violations can often be seen when the only operator contingency responses are identified as load dump, *i.e.*, non-sufficient reserves.

The need for triggers based upon shortages of operating reserves and local reserve violations is very important, because without these, accurate prices, and the associated benefits of conveying the right price to load, will not be realized. An example of this may have occurred in PJM on August 8, 2007, when there were clear indications of significant areas of reduced operating reserves, yet no adjustment in pricing occurred consistent with the current rules until well after such conditions began. The issue here is not that PJM necessarily failed to implement their rules appropriately, but that the rules were too coarse to respond to true shortage conditions with appropriate prices.⁹

Operational experience in PJM provides a cogent example of the system's deficiencies in providing appropriate price signals during shortage conditions. During 2006, PJM took a number of emergency actions, including the serious step of issuing primary reserve warnings on August 2 and 3, 2006.¹⁰ Primary reserve warnings are issued whenever available primary reserve capacity is less than the primary reserve requirement. This is a classic example of a scarcity situation, yet no scarcity price signals resulted from any of the emergency actions

⁹ Comments of the PJM Power Providers Group, Docket Nos. RM07-19-000 and AD07-7-000 (filed Sept. 14, 2007), Attachment A, Affidavit of Roy J. Shanker, Ph.D. at PP 28-29.

¹⁰ See Summer Peak Operations for 2006 at 14-15 (Sept. 28, 2006), *available at* <http://www.pjm.com/committees/members/downloads/20060928-item-07b-summer-operations.pdf>. See also Executive Report at 11 (Aug. 2006), *available at* <http://www.pjm.com/committees/members/downloads/20060928-item-07b-executive-operations-report-august-2006.pdf>.

instituted by PJM. A more robust scarcity pricing mechanism is needed if the benefits of scarcity pricing are to be seen in PJM.

Wholesale electric markets should reflect actual supply and demand conditions to the maximum extent possible. Scarcity pricing in organized markets can play an important role in encouraging a vibrant demand response market. Accurate price signals are the link between current usage and future expansion.¹¹ If market prices paid to demand responders reflect the value of scarce supply, demand is much more likely to have an incentive respond to those price signals than if the market prices are stunted by artificial caps.¹² Both demand response and other sources of energy supply will participate in the markets to a greater degree if prices more accurately reflect the value of the supply these entities provide.

Implementing appropriate scarcity pricing will require permitting energy prices to rise when warranted to reflect the average value of lost load ("VOLL"). Demand bids and resource bids should have comparable opportunities to respond to scarcity price signals. At the same time, the organized market must co-optimize the economic dispatch of energy and operating reserves and begin to price operating reserves consistent with the alternative, namely, loss of load. As real scarcity pricing is implemented in the organized market, the amount of price responsive demand will naturally increase—without the need for either explicit or implicit subsidies to demand responders.

¹¹ *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. [Regs. Preambles] ¶ 31,089 at 31,165 (2000).

¹² *Id.* at PP 57-82.

Energy prices may only approach the average VOLL on infrequent occasions. Nonetheless, reliability will be enhanced through this transparent price signal. Consumers will be protected because the price signal will encourage more robust bilateral contracting, self-supplied generation, the improved use of hedging and financial instruments, and increased amounts of demand responsive load. Forces of supply and demand will ensure the lowest, long-run costs for electricity while reducing unnecessary regulatory interference and the amount of money collected through capacity payments.

B. A Demand Curve Should be Implemented for Operating Reserves

The PPL Parties support using a demand curve for operating reserves to achieve the goals of scarcity pricing. Using the demand curve, when available generating capacity is insufficient to meet pre-determined reserve obligations, the market price for energy and operating reserves would increase along the curve with prices adjusting based upon the extent of the shortage. That is, prices will reflect the severity of the shortage. The demand curve should permit energy prices to rise to the VOLL in scarcity situations. While a demand curve continues an administrative-type feature that does not let supply and demand forces achieve unfettered price signals, it avoids various concerns regarding the exercise of market power because it supplies the appropriate maximum prices depending on the severity of shortages experienced.

The Commission already has approved a demand curve approach in the NYISO and ISO-NE markets,¹³ and most recently in the Midwest ISO market.¹⁴ The Commission also has found that demand curves for operating reserves "more effectively encourage and facilitate voluntary demand response than the use of involuntary load curtailment as a scarcity pricing mechanism[.]" and that the approach "also reduces the incentive for sellers to withhold during reserve shortages. . . ."¹⁵ Demand curves that exist today may require modification to achieve the purposes the Commission has outlined in the NOPR, however. Specifically, the demand curves must be carefully crafted so that they do not artificially dampen prices below VOLL. If properly designed, demand curves are the best approach for achieving scarcity pricing.

C. Artificial Price Caps Should be Removed for Demand and Supply Bids

The next-best alternative to permit appropriate scarcity pricing to be achieved is to remove price caps that suppress prices during periods of shortage. Price and bid caps initially were implemented as temporary features, while new market designs were being developed and implemented.¹⁶ The demerits of such

¹³ *New York Indep. Sys. Operator, Inc.*, 106 FERC ¶ 61,111 (2004); *New England Power Pool and ISO New England Inc.*, 115 FERC ¶ 61,175 (2006).

¹⁴ *Midwest Indep. Transmission Sys. Operator, Inc.*, 122 FERC ¶ 61,172 (2008) (The Commission found that the Midwest ISO's proposed demand curves for operating reserves, with corresponding scarcity prices, should provide a significant incentive for short-term reliability, for the triggering of demand response during shortages, and for load to contract forward at prices lower than the scarcity prices.)

¹⁵ *Calif. Indep. Sys. Oper. Corp.*, 112 FERC ¶ 61,013 (2005).

¹⁶ *See, e.g., See Calif. Indep. Sys. Oper. Corp.*, 86 FERC ¶ 61,059 (1999) (describing price cap imposition as "temporary" measure and rejecting ISO's proposal to extend the use of price caps beyond the time market improvements would be implemented); *NSTAR Servs. Co. v. New England Power Pool*, 92 FERC ¶ 61,065

caps have consistently been recognized by the Commission¹⁷ and its Staff,¹⁸ even as the caps were temporarily implemented. It is unfortunate that they have become a design feature of many markets for so long. Given the adverse consequences on reliability and investment associated with them, it is appropriate for the Commission to take action to eliminate these caps now so that prices can reflect the VOLL when appropriate.

(2000) (emphasizing the temporary nature of bid caps as a transition mechanism); *ISO New England, Inc.*, 88 FERC ¶ 61,316 (1999) (approving price cap for the Operable Capability market effective *until* December 31, 1999); *New England Power Pool*, 89 FERC ¶ 61,209 (1999), *reh'g dismissed*, 90 FERC ¶ 61,053 (2000) (approving price cap for the Operating Reserve markets during emergency conditions only and only until the date certain on which a market design change to alleviate the perceived market problem was to be filed); *ISO New England, Inc.*, 90 FERC ¶ 61,170 (2000) (extending price caps limited to periods of capacity deficiency or emergency when market flaws exist *until* an alternative market design to remedy the flaw is made on February 29, 2000); *AES Redondo Beach, LLC, et al.*, 87 FERC ¶ 61,208 (1999) (allowing purchase price caps for Ancillary Services and Imbalance Energy to continue until November 15, 1999, noting the ISO's proposal to implement several redesign elements and eliminate existing caps upon implementation of these changes.); *AES Redondo Beach, LLC, et al.*, 84 FERC ¶ 61,046, *reh'g denied*, 85 FERC ¶ 61,123 (1998), *reh'g denied*, 87 FERC ¶ 61,208 (1999) (approving price caps temporarily).

¹⁷ As early as November 21, 2000, a Commissioner stated that price caps would "undermine valuable demand response options, such as customer hedging and bilateral arrangements, as well as conservation." *New York Indep. Sys. Operator*, 93 FERC ¶ 61,189 at 61,631 (2000) (Hébert, Jr., dissenting).

¹⁸ For example, as early as the "Staff Report to the Federal Energy Regulatory Commission on the Causes of Wholesale Electric Pricing Abnormalities in the Midwest During June 1998", the Commission Staff reported:

The team believes that price caps, whether they are applied generally or intended for specific emergency situations, create a situation in which prices are not allowed to perform their rationing function. In addition, they can distort market signals and prevent the efficient allocation of resources resulting in shortages. The team also notes that the Commission recently proposed the removal of price caps on shippers' short-term releases of capacity on interstate natural gas pipelines because it had the 'unintended effect of reducing capacity during peak periods, the time at which the industry would most benefit from having as much pipeline capacity as possible.'

Id. at 5-5.

These caps send a price signal that energy is not overly valuable during periods of scarcity. This adversely affects both demand response and peaking generation infrastructure in particular. To justify putting into place equipment, controls and procedures to reduce demand during emergency conditions, demand responders must see an accurate price signal that justifies their efforts to curtail usage. Similarly, peaking plants may produce energy only very infrequently, yet the energy revenues they receive may be stunted by the failure to reflect the value those suppliers are adding by being available during those brief periods.

III. CONCLUSION

The PPL Parties appreciate the opportunity to submit these comments for in this proceeding and request that the Commission issue a Final Rule that directs RTOs to adopt scarcity pricing, and expresses a preference for an operating reserve demand curve as the market design mechanism for doing so. Alternatively, the Commission should indicate that demand and supply bid caps should contemporaneously be lifted in RTOs where they exist.

Respectfully submitted,

Date: April 21, 2008

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CERTIFICATE OF SERVICE

I hereby certify that I served a copy of the foregoing pleading this 21st day of April 2008, upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Sandra E. Rizzo

Sandra E. Rizzo