# STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

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May 13, 2010

SENT VIA ELECTRONIC FILING
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Room 1-A209
Washington, D.C. 20426

Re: Docket No. RM10-17-000- Demand Response Compensation in Organized Wholesale Energy Markets; and, EL09-68-000 - PJM Interconnection, L.L.C.

Dear Secretary Bose:

For filing, please find the Notice of Intervention and Comments of the New York State Public Service Commission in the above-entitled proceeding. Should you have any questions, please feel free to contact me at (518) 474-1585.

Very truly yours,

Alan T. Michaels
Assistant Counsel

Attachment

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

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| Demand Response Compensation in Organized Wholesale Energy Markets | ) | Docket No. RM10-17-000 |
| PJM Interconnection, L.L.C. | ) | EL09-68-000 |

# NOTICE OF INTERVENTION AND COMMENTS OF THE NEW YORK STATE PUBLIC SERVICE COMMISSION

## NOTICE OF INTERVENTION

On March 18, 2010, the Federal Energy Regulatory Commission (FERC or Commission) issued a Notice of Proposed Rulemaking (NOPR) in which it proposed compensation for demand response resources participating in organized wholesale energy markets. The New York State Public Service Commission (NYPSC) hereby submits its Notice of Intervention and Comments in the above-captioned proceeding pursuant to the Notice published in the Federal Register on March 29, 2010, and Rule 214 of the Commission's Rules of Practice and Procedure.

Copies of all correspondence and pleadings should be addressed to:


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## BACKGROUND

On March 18, 2010 the Commission issued a NOPR which proposed an approach for compensating demand response resources participating in organized energy markets.[1] FERC states its goal is to "improve the competitiveness of organized wholesale energy markets and thus ensure just and reasonable rates."[2]

The Commission states that over the past several decades, it has acted to expand wholesale energy markets and support competitive markets.[3] In Order No.719, FERC determined that "active participation by customers in organized wholesale energy markets through demand reductions helps to increase competition in those markets."[4] FERC also found that demand reductions can occur generally in two ways: (1) response of customers to dynamic rates; and, (2) demand response that acts as a resource.[5] Within the NOPR, the Commission demonstrates its support for compensation for demand response acting as a resource and requests comments from stakeholders.

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[1] Docket No. RM10-17-000, Demand Response Compensation in Organized Wholesale Energy Markets, , 130 FERC ¶61,213 (issued March 18, 2010), hereinafter referred to as the "NOPR".

[2] NOPR at Summary para.

[3] *Id.* at para. 2.

[4] *Id.* at para. 3.

[5] *Id.*

## INTRODUCTION

Within the NOPR, the Commission states that demand response helps to improve the functioning and competitiveness of energy markets by lowering prices, mitigating generator market power, and has the potential to support system reliability.[6] The Commission then requests comment on eight specific questions relating to its proposal for demand response compensation.[7] Each will be reviewed in turn.

## DISCUSSION

The NYPSC supports demand response (DR) as a method of achieving greater competitiveness in wholesale markets. However, the methodology for demand response compensation must be considered in the context of the existing retail market structures to determine the best implementation approach. As discussed below, we recognize that paying the consumer Locational Marginal Price (LMP) for demand response compensation provides value to the customer of LMP plus the avoided retail rate (if the customer is billed at LMP by its retail service provider, the value "paid" would be 2 times LMP). However, we believe LMP plus the retail rate remains the best approach for New York, given the circumstances of our wholesale and retail

[6] NOPR at para 4.

[7] *See*, NOPR at para. 20, 21, and 22.

markets. This payment approach will provide a strong initial incentive for fledgling DR programs, recognize the cost of externalities, reflect the beneficial effect of DR on market power mitigation, and maintain simplicity. An LMP-based DR program should be reviewed within five years (or sooner, as circumstances require) to determine its effect on the market, and whether there exists a continued need.

It should first be noted that the New York wholesale market has an ISO-based demand response program as proposed by the NOPR. Since 2001, the New York wholesale market has had a demand response program based on day ahead energy prices (the Day Ahead Demand Response Program or DADRP). The current program uses LMP as the compensation method, and has a minimum bid threshold of $75/MWh. The enrollment in the program has remained small compared to the New York Independent System Operator's (NYISO's) capacity and emergency based DR programs.[8]

From a theoretical perspective, an Independent System Operator's/Regional Transmission Organization's (ISO/RTO's) demand response program at the wholesale level is a substitute for retail dynamic rates that signal to customers the value of the product purchased. In many cases, retail prices do not signal to customers the hourly marginal cost of electricity, but

[8] According to the Report of the NYISO to the FERC Re: Annual Report in Docket Nos. ER01-3001 and ER03-647 on the NYISO's Demand Side Management programs, dated January 15, 2010, 22 customers were enrolled in the DADRP in 2009.

instead signal a monthly average price. This means that for peak hours, the retail price for non-LMP-billed customers is below the wholesale hourly price, and consumers consume more than the efficient amount due to the inappropriate price signal.

Demand response programs offered by an ISO/RTO augment the retail price signal by paying customers not to consume electricity. There are two different approaches that may be used to compensate consumers who participate in an ISO/RTO DR program. To obtain an efficient economic value signal of the electricity, i.e. one in which price equals marginal cost, the formula for DR compensation should be the LMP minus the retail rate. This formula yields a net price signal that equals the wholesale LMP ([(LMP - Retail Rate) + Retail Rate = LMP]). Alternatively, the ISO/RTO DR incentive may be set at LMP. Using the latter formula, the customer receives a price signal of the retail rate plus LMP.

While the NYPSC acknowledges the overstated price signal inherent in an LMP-based formula for DR compensation, NYPSC, on balance, favors the proposal to use the LMP-based formula for demand response compensation presented within the NOPR for the near term. The NYPSC recognizes the benefit of the objectives sought by FERC, and agrees that demand response compensation is a vehicle to achieve these goals. Although, we understand that an LMP demand response compensation formula may result in

uneconomic demand response decisions in the markets (i.e., a price signal that exceeds marginal cost), it also creates an incentive to participate in DR programs, helps to account for the cost of externalities, and is relatively simple to apply. Further, while high signals may exist within the LMP proposal, we have seen little interest from market participants under the New York ISO's LMP-based payment approach. Changing the compensation approach to anything less than what is presently offered by the NYISO will only create a lesser incentive for participants. Accordingly, implementing the LMP-based compensation discussed in the NOPR is supported, subject to the caveat that demand response program compensation be revisited.

DR programs created as a result of this NOPR should be reviewed within five years, or sooner, if warranted. The purpose of the review should be to determine the market responses to the DR compensation. Further, real time pricing at the retail level may increase, making DR compensation at the wholesale level as a resource unnecessary.[9]

In order to focus responses and to promote a thorough review of the topic, the Commission provided questions on the

[9] For customers already receiving hourly pricing, the demand for DR program payments should be reviewed much earlier. As noted previously, when customers are subject to hourly pricing in their retail rates, the overpayment provided in an LMP-based DR compensation approach at the wholesale level is the most severe. Therefore, the application of the ISO-based demand response program to hourly retail pricing customers

subject of demand response, and requested comments to each, which are provided below.

1. **Is there a need to compensate demand response acting as a resource in organized wholesale energy markets?**[10]

The NYPSC supports the Commission's proposal to compensate demand response. In instances where the retail rate does not provide a signal of the marginal cost of electricity as determined by the wholesale market, DR should provide that signal to customers. Demand response programs without adequate incentives for customers to reduce their energy usage are likely to fail. To attract ratepayers to actively participate in wholesale markets, incentives must offset the cost of altering regular daily habits and activities. The NYISO currently has a demand response program which has LMP-based compensation, and yet despite the tariff, the program is barely utilized by customers. Any approach that provides an incentive less than an LMP-based compensation would achieve even fewer results. To procure demand response, LMP compensation for DR appears to be warranted.

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should be reviewed at least within two years to assess the effectiveness of the DR program and the continued need for compensation exceeding LMP.

[10] NOPR at para.20.

**2. What alternative approaches to compensating demand response are viable compared to the approach recommended by FERC?[11]**

The NYPSC is aware of two prominent alternative approaches, both of which deduct retail prices from LMP to compensate demand response. The first would have the ISO/RTO charge the Load Serving Entity of the DR provider for the MWh of DR provided. The LSE would in turn charge the DR provider the retail rate for the DR MWh provided. This approach would have the effect of subtracting the retail rate from the DR provider's DR compensation. The net effect is a price that equals LMP.

A second approach is to use a proxy retail rate to subtract from the LMP incentive. The first approach suffers from a potential to be unduly confusing for the end user charged for MWh that were not used. The second approach suffers from the administrative burden of tracking retail rates for multiple utilities, ESCOs and power authorities. These approaches would create undue confusion for retail customers and administrative difficulties for state commissions and ISOs/RTOs.

The NYPSC recommends maintaining programs using LMP-based compensation and revisiting the market response in five years, or earlier, as required. The compensation must create an incentive for customers to enroll in the program and curtail their energy usage. In New York, despite using LMP as a

[11] *Id.*

compensation formula in the DADRP, and providing assistance for installing meters or technology, customers are not participating in the demand response program to any significant degree. Anything less than LMP-based compensation would only provide a lower incentive for customers to participate.

The Commission also asked whether reduction in consumption is comparable to increase in electricity production. The two market changes are comparable, but demand response may be preferable to supply stimulation due to the externalities that are not included in price of generation. For example, the addition of generation creates non-internalized air pollution costs and associated facilities' environmental costs (e.g. transmission lines), which are not fully included in generator rates. Therefore, the Commission should err, if at all, by over-stimulating demand response resources in the short term, and revisiting and reevaluating the market's response in five years, or sooner, if as warranted.

### 3. Is paying LMP to demand response resources comparable to compensation paid for generation in ISO/RTO markets?[12]

Paying LMP for demand response may be considered comparable to the compensation paid to the generators. NYPSC also notes the significant administrative difficulties that would be

created by adopting a formula for demand response compensation which begins with LMP and reduces it by a number of other factors, often customer specific. The market mechanisms are already complicated and we do not believe the public would be well served by adopting a complex compensation calculation that could vary by customer.

**4. Should payment of LMP apply to all hours?**[13]

The payment of LMP should not apply to all hours. Currently the DADRP program has a minimum bid threshold of $75/MWh. This static threshold limited participation in the program in 2009 because prices did not get above the threshold on a consistent basis. A bid threshold is needed to limit free riders, customers who had intended to reduce electric consumption for reasons other than market prices and seek DR compensation for their actions. The New England Independent System Operator's DR program has a dynamic threshold based on fuel prices and heat rates of marginal generation. This solution addresses the issue of a static threshold and limits free riders, and would be supported by NYPSC.

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[12] *Id.*

[13] *Id.*

**5. Should FERC require payment of LMP across all ISO/RTOs, or do the differences among ISO/RTOs justify varying levels of demand response resource compensation?[14]**

After an initial five year period of LMP compensation, the Commission should defer to each ISO/RTO to determine its needs for demand response resource compensation. As retail dynamic rates are implemented throughout ISO/RTO territories there may be less need for ISO-based DR programs. As the effectiveness of demand response compensation programs are based upon the markets, both wholesale and retail, each ISO/RTO may have different compensation levels required to stimulate active participation depending on the characteristics of their markets.

**6. Should the Commission allow regional variations for ISO/RTO that does not seek to compensate demand response?[15]**

The Commission should allow regional variation in compensation for DR. Each ISO/RTO is different and may have different needs that DR can address. Some regions may be able to address the need for DR through retail rates, and thus not need to continue a largely redundant wholesale DR program.

The New York wholesale market is unique in that it has a retail market where a significant amount of load is subject to dynamic rates. The NYPSC has worked to expand dynamic retail

[14] NOPR at para 20.

pricing for the state's largest commercial and industrial (C&I) customers[16]. C&I customers were put on default day ahead retail hourly pricing. Customers are free to seek other types of commodity rate structures from energy service companies (ESCOs), but if they remain with the utility, they are billed for commodity based on the day ahead hourly price. While the ESCO can bill customers on any rate structure they choose, the ESCO is responsible for buying their customer's actual hourly load from the wholesale market and should have an incentive to help customers flatten their load shape in order to reduce their energy cost. The load that is subject to hourly retail pricing far exceeds the amount of load participating in the DADRP program[17]. The Commission has stated that retail-level price responsive demand is not the subject of this proceeding;[18] the retail pricing situation, however, must be examined in order to determine if it will affect decisions about the proper design of wholesale market programs and incentives.

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[15] *Id.*

[16] See, Case 03-E-0641,Order Denying Petitions for Rehearing and Clarification in Part and Adopting Mandatory Hourly Pricing Requirements (MHP Order) (issued April 24, 2006), which expanded or implemented hourly pricing for all New York's major utilities.

[17] In 2009, the NYISO's DADRP had approximately 22 customers and 331 MW of load participating in the program, while approximately 625 customers totaling 1,128 MW of load were on retail day ahead hourly pricing (3.7% of load) and additional 2,248 customers totaling 4,533 MW (14.7% of load) on retail ESCO rates that could be dynamic also (totaling 18.3% of load). The NYPSC continues to expand the number of customers that are subject to retail mandatory hourly pricing.

[18] NOPR at FN 4.

**7. Should the Commission conduct periodic reviews of demand response compensation?[19]**

Once established, there is no need for the Commission to review the demand response of each ISO/RTO. It should be the responsibility of each ISO/RTO to administer and periodically review the demand response program within its market.

**8. Are the terms "expected levels," "price signals," and "market prices" sufficiently defined?[20]**

The terms noted above are understood by the stakeholders; there is no need to define them additionally.

## CONCLUSION

NYPSC recognizes that demand response compensation is a beneficial stimulant to obtain the goals established by FERC in the NOPR. Specifically, NYPSC agrees that demand response can improve competition, mitigate generator market power, and support system reliability.

NYPSC supports paying LMP for demand response even though, by producing a price signal of "LMP + retail rate", it overstates marginal cost. While this overstated price signal could be argued to produce inefficiently large demand reductions, we support it for three main reasons. First, an

[19] *Id.* at para. 21.

addition to LMP is needed to signal environmental externalities, and to reflect the beneficial effect of DR on market power mitigation. Second, proposals to net-out the retail rate can be either legally questionable, administratively difficult, or both. Third, the current NYISO DR program, despite its use of an LMP compensation approach, has yielded only a very small amount of demand response after eight years of experience. Any DR compensation structure that is less than LMP will fail to create the incentive required to stimulate active participation in demand response.

Finally, NYPSC respectfully suggests that each ISO/RTO revisit demand response compensation after five years, or sooner, should circumstances require. As each ISO/RTO is unique, each can determine its own needs or adjustments to demand response compensation. The application of the ISO-based demand response program to hourly pricing customers should be reviewed at least within two years to assess the effectiveness of the DR program and the continued need for compensation exceeding LMP.

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[20] *Id.*

Respectfully submitted,

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Albany, New York