The Brattle Group

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October 4, 2010

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

Re: Docket No. RM10-17-000

Dear Secretary Bose:

Enclosed are our comments in response to the August 12, 2010 Supplemental Notice of Public Rulemaking and September 13, 2010 Technical Conference regarding the wholesale compensation of demand response providers.

If you have any questions, please feel free to contact us.

Respectfully Submitted,

Samuel Newell

44 Brattle Street Cambridge, MA 02138-3736
Voice 617.864.7900 Facsimile 617.864.1576 email office@brattle.com

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Demand Response Compensation In Organized Wholesale Energy Markets	**)** **)** **)**	**Docket No. RM10-17-000**

COMMENTS OF SAMUEL NEWELL, KATHLEEN SPEES AND PHILIP Q HANSER[1]

We are pleased to submit comments in the relation to the Federal Energy Regulatory Commission (FERC) August 2, 2010 Supplemental Notice of Public Rulemaking (NOPR) and the September 13, 2010 Technical Conference on the compensation of demand response (DR) in wholesale energy markets. These comments represent only the opinions of the undersigned and are not the views of *The Brattle Group*, its clients, or any other organizations with whom we are associated. We are submitting these comments in an effort to reconcile the different positions about whether DR providers should receive the full locational marginal price (LMP) as payment for their services.

I. DEMAND RESPONSE SHOULD BE COMPENSATED THE SAME AS GENERATION, NOT MORE, NOT LESS

In an efficient market the marginal value of curtailed consumption through DR will be equal to the marginal cost of incremental supply, and equal to the LMP for energy. Does this mean wholesale providers of DR should be paid the full LMP from the wholesale market? The

[1] Dr. Samuel Newell and Mr. Philip Q Hanser are Principals, and Dr. Kathleen Spees is an Associate of *The Brattle Group* (www.Brattle.com). The views expressed herein are the authors' own.

answer is that it depends on how the DR provider has come into possession of the energy that it curtails and re-sells.

First consider the special case of end-users that has *already paid* for a certain amount of energy, e.g., through a take-or-pay contract with a load serving entity (LSE). These customers clearly own the energy, and if they decide not to consume some of it, they should be able to resell it in the wholesale energy market at the full LMP with no further adjustments.

II. IF CUSTOMERS HAVE NOT PAID FOR THE POWER THEY ARE SELLING BACK THROUGH DEMAND RESPONSE, A PORTION OF THEIR "FULL LMP COMPENSATION" COMES THROUGH AVOIDED RETAIL PURCHASE COSTS

Now consider the more usual case of end-users who pay their LSE for their metered load but do not pay for any energy they does not consume. In that case, "selling" a load reduction at full LMP amounts to re-selling a product the customer has neither purchased nor produced. This is analogous to a generator selling energy without having to pay for the fuel it uses. If either a DR provider or a generator can create a MWh of energy without needing to pay for the "fuel" used, they would earn too high a profit and make inefficient decisions to supply energy, even when their production cost is greater than the LMP. Another way of looking at this is that if customers providing demand response are paid the LMP from the wholesale market while also avoiding the retail purchase of the energy, they are re-selling, their total incentive *exceeds* full LMP by the amount of the avoided retail purchase costs. This would distort incentives and over-compensate DR resources relative to generation resources.[2]

[2] The full LMP payment could result, for example, in a customer foregoing consumption worth $200/MWh when the LMP is only $150/MWh (assuming the retail rate is more than $50/MWh). This is because the customer will minimize cost between his two options: 1) buying power at the retail rate of say $100/MWh, or 2) foregoing consumption (or running a behind-the-meter generator) worth $200/MWh and receiving a wholesale LMP payment of $150/MWh for the associated load reduction, at a net cost of $200-$150 = $50/MWh. The customer will rationally choose option 2 even though the cost of the load reduction is well above the LMP (which equals the wholesale market's marginal cost).

Nonetheless, even if customers have not pre-purchased the energy they are curtailing, they should still be allowed to sell their demand response into the wholesale market so that they have the right incentive to reduce consumption when the wholesale price of power is high. (Without the opportunity to sell load reductions, most customers have no incentive beyond the savings on their fixed retail rates to reduce consumption even when wholesale prices are very high). FERC's forthcoming order should contain provisions to ensure that there are no barriers to being able to do so. FERC should also ensure that the level of compensation DR providers receive reflects the full value created by reducing consumption (i.e., the full LMP) in order to achieve the efficient price incentive. But wholesale payments at the full LMP provide a benefit equal to full LMP only if the customer is required to purchase the energy from the LSE at the usual retail rate before reselling it. Similarly, the LSE should be required to purchase that energy from the wholesale market at the LMP, just as it would have in the absence of curtailment. Unfortunately, these requirements may not be consistent with most existing retail tariffs, and they create billing and accounting complexities that may be difficult to sort out at the retail level.

Fortunately, wholesale market payments can be structured in a way that incentivizes both DR and supply-side resources at the full LMP (not more and not less).[3] The wholesale market settlement should be structured with the full LMP payment going partly to the customer (or their representative in the wholesale market) and partly to the LSE (as a deduction from the LSE's wholesale purchase price for the same amount of energy). The Midwest ISO's proposed settlement system does exactly this: Midwest ISO pays non-LSE DR providers the LMP minus the Marginal Foregone Retail Rate (MFRR), and it bills the LSE for the same amount of energy

[3] Some might argue that providing for such an arrangement is a retail problem not a wholesale problem. However, the whole purpose of DR payments from wholesale energy markets (and all challenges it creates with defining customer baselines, M&V, etc.) is to provide efficient signals to end-users when most retail rates do not. Providing inefficient signals from the wholesale market could be as bad or worse than the flat "signal" provided by most retail rates.

at LMP minus MFRR.[4] This requires the DR provider to establish an appropriate MFRR for each customer, subject to LSE rejection and dispute resolution procedures.

This approach ensures that the DR customer's net incentive is the full LMP, not more, not less, because the customer achieves retail savings equal to MFRR *plus* wholesale payments equal to LMP minus MFRR. At the same time, the LSE faces the same financial outcome as if the customer had consumed the energy.

We hope these comments help reconcile the two sides of the argument.

[4] Midwest Independent System Operator "Filing Regarding Aggregators of Retail Customers," Filed before the Federal Energy Regulatory Commission, October 2, 2009. Docket ER10-26-000.

Commenter's Certification

We hereby certify that we have read the filing signed and know its contents are true as stated to the best of our knowledge and belief. We possess full power and authority to sign this filing.

Respectfully Submitted,

Samuel Newell
The Brattle Group
44 Brattle Street
Cambridge, MA 02136
617.234.5725
sam.newell@brattle.com

Kathleen Spees
The Brattle Group
44 Brattle Street
Cambridge, MA 02136
617.234.5783
kathleen.spees@brattle.com

Philip Q Hanser
The Brattle Group
44 Brattle Street
Cambridge, MA 02136
617.234.5678
phil.hanser@brattle.com

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