

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

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Demand Response Compensation in)	Docket No. RM10-17-000
Organized Wholesale Energy Markets)	
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**COMMENTS OF
THE NEW ENGLAND CONFERENCE OF PUBLIC UTILITIES COMMISSIONERS**

TABLE OF CONTENTS

I.	Summary of Recommendations	2
II.	The Buy-the-Baseline Approach is Not Likely to Achieve the Commission’s Goal of Fostering Price-Responsive Demand.....	3
	A. Achieving Economic Efficiency Through Minimizing Total Resource Costs.....	3
	B. Buying-the-Baseline to Determine the Value of a Customer’s Consumption	4
	C. Administrative Customer Baselines are Adequate for Infrequent Dispatch	5
III.	ISO New England’s Analysis Relies Upon Flawed Assumptions	6
IV.	A Regionally-Implemented ‘Net Benefits’ Test Balances Regulatory Interests While Protecting Customers and Increasing Competition in the Wholesale Energy Market.....	9
	A. The Need for a ‘Net Benefits’ Test	10
	B. Objectives of a ‘Net Benefits’ Test.....	12
	C. Defining Appropriate Costs and Benefits to be Considered	13
	D. Methods for Implementing a ‘Net Benefits’ Test.....	14
	E. The Commission Should Not Require a Standard Test Across Regions	16
V.	Costs Should Be Allocated to the Beneficiaries of Demand Response	17
VI.	Conclusion	19

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Pursuant to the Supplemental Notice of Proposed Rulemaking issued by the Federal Energy Regulatory Commission (the “Commission”) on August 2, 2010 (the “SNOPR”),¹ the New England Conference of Public Utilities Commissioners (“NECPUC”) hereby submits the comments contained herein. In the SNOPR, the Commission seeks additional comments on whether the Commission should adopt requirements related to two issues: (1) if the Commission were to adopt a net benefits test for determining when to compensate demand response providers, what, if any, requirements should apply to the methods for determining net benefits; and (2) what, if any, requirements should apply to how the costs of demand response (“DR”) are allocated.² NECPUC appreciates this opportunity to provide additional comments, in addition to its testimony from the September 13 Technical Conference on demand response compensation in organized wholesale energy markets.³

¹ *Demand Response Compensation in Organized Wholesale Energy Markets*, 132 FERC ¶ 61,094 (Aug. 2, 2010) (the “SNOPR”).

² SNOPR at 1.

³ See *Technical Conference Comments of John J. Keene, Jr. on behalf of the New England Conference of Public Utilities Commissioners* (Sept. 13, 2010).

I. Summary of Recommendations

NECPUC reiterates its support for the Commission's proposal to compensate demand response resources with the market price, i.e., full locational marginal price ("LMP"), and its recommendation to limit the number of hours demand response ("DR") can be dispatched through use of a 'net benefits' test. For reasons set forth in our original comments, and as expounded upon herein, NECPUC recommends that the Commission:

- Adopt full LMP as the appropriate payment level for demand response resources in the wholesale energy market, but only in a limited number of hours.
- Require development at the ISO/RTO level of a 'net benefits' test as a mechanism for limiting the hours of full LMP payment.
- Establish the following objectives to be used in developing 'net benefits' tests at the regional level:
 - Provide all market customers with net benefits;
 - Mitigate price formation concerns;
 - Protect the integrity of baselines and other methods of measuring and verifying load curtailment; and
 - Maintain an appropriate balance between wholesale and retail demand response.
- Allocate the costs of procuring demand response resources to the beneficiaries, i.e., energy market customers who enjoy reduced prices in the hour the demand response is dispatched.

Prescribing full LMP compensation in limited hours determined by a 'net benefits' test, and allocating costs to beneficiaries, will (1) provide sufficient compensation to overcome market barriers and imperfections in hours when DR can provide the greatest benefit, (2) mitigate the legitimate concerns regarding price formation raised by those opposed to paying full LMP,

(3) enhance competition in the wholesale energy market, (4) protect consumers, and (5) enable necessary regional flexibility.

II. The Buy-the-Baseline Approach is Not Likely to Achieve the Commission’s Goal of Fostering Price-Responsive Demand

Some commenters have recommended the Commission adopt a “buy-the-baseline” approach to compensating demand response resources in the wholesale energy market.⁴ The asserted rationale for recommending this modification to the Commission’s proposal is to enhance the economic efficiency of the market. However, while such an approach has some appeal in theory, it is unclear how, in practice, requiring demand response resources to buy-their-baseline will achieve economic efficiency or increase the price-responsiveness of demand. Although this buy-the-baseline approach may obviate measurement and verification issues and provide a sub-optimal solution to the cost-allocation question, the impact of this approach frustrates the objective of the Commission’s proposal.

A. Achieving Economic Efficiency Through Minimizing Total Resource Costs

Commenters opposed to compensating demand response resources at full LMP argue that consumers are provided an incentive to engage in behavior that is economically inefficient. ISO New England, Inc. (“ISO-NE”), for instance, states “[t]o avoid this perverse outcome, participants must purchase their expected energy consumption at the day-ahead LMP.”⁵ Accordingly, “not requiring participants to purchase their expected energy consumption gives participants the incentive to take actions that increase total resource costs.”⁶ However, this assertion is not supported by a complete consideration of the costs and benefits of demand

⁴ See e.g., *Comments of the ISO New England, Inc. Internal Market Monitor* at 12-13, *Comments of ISO New England, Inc.* at 26.

⁵ *Comments of ISO New England* at 26.

⁶ *Comments of ISO New England* at 26.

response.

“The benefits calculated in the Total Resource Cost Test are the avoided supply costs, the reduction in transmission, distribution, generation, and capacity costs valued at marginal cost for the periods when there is a load reduction.”⁷ The examples offered in support of buy-the-baseline only consider the avoided cost of energy and do not appear to include all of the other benefits in the Total Resource Cost test, as enumerated by the California Standard Practice Manual.⁸ Without considering these additional benefits, it is inappropriate to claim that consumers must buy-their-baseline to avoid inefficient behavior. As discussed below in section IV (C), an internally consistent analysis does not selectively choose which benefits and costs to include.

B. Buying-the-Baseline to Determine the Value of a Customer’s Consumption

Ostensibly, the objective of the buy-the-baseline approach is to determine a value for the marginal opportunity cost for foregone energy consumption. “While marginal costs may be difficult to estimate and may shift over time... a successful consumer (or an agent working on behalf of the consumer) would specify in the day-ahead market the most it would be willing to pay for energy based on the marginal cost of the demand resource under the consumer’s control, which also happens to equal the consumer’s marginal opportunity cost of energy.”⁹ However, a requirement to purchase one’s expected energy consumption as a condition for eligibility to sell the same energy at full LMP negates the incentive for price-responsive

⁷ California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, July 2002, at 18, available at <http://drrc.lbl.gov/pubs/CA-SPManual-7-02.pdf>. This manual establishes standard procedures for cost-effectiveness evaluations for utility-sponsored programs administered by the California Public Utility Commission and is broadly used by Commissions nationwide. Originally published in 1983, this third draft reflects economic and policy developments through 2000.

⁸ See Comments of ISO New England at 19-26.

⁹ Comments of ISO New England at 20 n. 31.

demand. In effect, buy-the-baseline is the mathematical equivalent of minus-G-plus-LMP (i.e., $LMP - G$).

When “it is less expensive to save energy than to produce it, society benefits from saving the energy. However, with no incentive payments, the participant will consume high-cost energy from the grid even though the cost of saving energy is less than the avoided cost of energy.”¹⁰ Without an incentive payment, and now with an additional requirement to pre-pay, it is unclear how a buy-the-baseline will do anything more than reinforce the status quo of relatively inelastic demand.¹¹

C. Administrative Customer Baselines Are Adequate for Infrequent Dispatch

“The principal benefit of [the buy-the-baseline] approach is the elimination of the need to use an administrative customer baseline.”¹² While this may be true, use of a net benefits test limits dispatch of demand response resources to a level adequately handled by existing measurement and verification methods.¹³

The buy-the-baseline approach is not necessary to maintain economic efficiency in the wholesale energy market. The benefits of integrating demand response resources into the market are greatest at high end of the supply stack. A net benefits test which limits eligibility for full LMP to those hours when LMP is most likely to exceed the marginal opportunity cost of foregone energy consumption will achieve economically efficient outcomes without resorting to erecting an additional market barrier. If the objective of the Commission’s proposal is to

¹⁰ Comments of ISO New England at 22.

¹¹ Nakajima and Hamori, *Change in consumer sensitivity to electricity prices in response to retail deregulation: A panel empirical analysis of the residential demand for electricity in the United States*, Energy Policy (2010), at P 6, doi: 10.1016/j.enpol.2009.12.041

¹² Comments of the ISO New England, Inc. Internal Market Monitor at 12.

¹³ See Comments of ISO New England at 34 n.47.

provide compensation adequate to surmount known market barriers, requiring customers to buy their baseline would frustrate that objective and is not necessary to address other implementation issues.

III. ISO New England's Analysis Relies Upon Flawed Assumptions

At the September 13, 2010 Technical Conference, ISO-NE explained that it retained the Brattle Group to conduct an “analysis of alternative compensation proposals.”¹⁴ This analysis used a different definition of net benefits than that recommended by NECPUC and relied upon a series of simplifying assumptions. Accordingly, the conclusions of this analysis are inapposite in evaluating demand response compensation in the organized wholesale energy market.

The definition of ‘net benefits’ that ISO-NE used in its analysis is not the same as the one suggested by NECPUC. ISO-NE contends that “Net Benefit = **value** of energy consumption – **cost** of producing energy” (emphasis in original).¹⁵ In addition, ISO-NE claims that a net benefits test comprised of the difference between energy savings and the cost to procure DR, similar to the NECPUC proposal, misestimates net benefits by ignoring the costs of producing energy and the value of foregone energy to consumers and “**overstates** the true net benefit of reducing energy consumption” (emphasis in original).¹⁶ Thus, a distinction should be made between the conclusions of this analysis and the net benefits test suggested by NECPUC.

¹⁴ Ethier, Robert, ISO New England, Inc., *Maximizing Net Benefits Using Price-Responsive Demand Response*, (September 13, 2010) (“ISO-NE Presentation”) at slide 6.

¹⁵ Id. at slide 4.

¹⁶ Id. at slide 4.

Apparently, ISO-NE has assumed that the value of foregone energy can be estimated from the price elasticity of demand. “[T]he underlying demand curve for most customers, whose consumption is based on uniform rates instead of the wholesale spot market price, cannot be observed directly. The only point on the underlying hourly demand curve that can be observed directly is the actual quantity consumed at the fixed retail rate. Taking this point as an anchor, the rest of each hour’s demand curve can be approximated by using a short-run elasticity of demand.”¹⁷ This means that ISO New England has assumed that all customers have the same price elasticity of demand in all hours of the year. NECPUC believes this assumption to be so unrealistic as to make the study results questionable at best.

Furthermore, ISO New England has chosen a price elasticity of demand value that may or may not be meaningful. In this study, ISO-NE used a demand elasticity value of -0.05.¹⁸ However, when Brattle preformed a similar study for ISO-NE in early 2009, the demand elasticity value used was -0.20, four times more responsive to changes in price. As referenced in the February 2009 report, Faruqui and Sergici (2008) found that:

Across the range of experiments studied, time-of-use pricing tariffs lead to a drop in peak demand that range between 3 and 6 percent and critical-peak pricing tariffs lead to a drop in peak demand of 13 to 20 percent. When accompanied with enabling technologies, the latter set of tariffs leads to a drop in peak demand in the 27 to 44 percent range.¹⁹

¹⁷ ISO New England, Inc., DRAFT *Status Report on the Future of Price-Responsive Demand Programs Administered by ISO New England Inc.*, (“ISO-NE 2009”) February 13, 2009, at 34, available at: http://www.iso-ne.com/committees/comm_wkgrps/mrkt comm/mrkt/mtrls/2009/feb202009/a2_iso_status_report_prd_draft_version_1_02_13_09.pdf.

¹⁸ ISO-NE Presentation at slide 14.

¹⁹ ISO-NE 2009 at 23 citing Faruqui and Sergici (2008), “Household Response to Dynamic Pricing of Electricity: A Survey of Seventeen Pricing Experiments”, The Brattle Group, San Francisco, CA, and Cambridge, MA. See <http://www.hks.harvard.edu/hepg/Papers/2009/The%20Power%20of%20Experimentation%2001-11-09.pdf>

ISO-NE also references the RAND study, which apparently, “reported a range of elasticities between -0.318 and -0.054 for various regions, and -0.192 for New England.” In light of the range of values to use for this important modeling assumption, it is unclear how or why this relatively small elasticity value of -0.05 was selected.

Further, the study presumes that customers are not likely to engage in significant levels of price-responsive demand. In order to simulate the change in price that will result from demand response, the analysis assumes that only a fraction of customers will respond by the amount of the assumed price elasticity of demand. This assumption ignores many customers who might respond to prices in high priced hours. The three levels of DR penetration in the analysis were: (a) half of the current demand response participation in the capacity market, (b) all of the current demand response participation in the capacity market, and (c) the achievable participation level from the Commission’s 2009 National Assessment of Demand Response Potential. Multiplying the penetration level by the demand elasticity value yields the expected price-responsive demand. For example, a 10% response (the middle level) times a -0.05 demand elasticity yields a price-responsive demand of half a percent of curtailed demand. It is unclear how this methodological assumption is reflective of actual conditions.

Finally, the analysis raises a key concern, “[c]apacity price increases could fully offset LMP reductions if DR is paid full LMP, making consumers worse off.”²⁰ This result is apparently reached by incorporating two additional assumptions. First, “long-term effects can be represented in the same economic framework as that used in the short-term analysis by assuming a much higher long-term elasticity of supply, reflecting producers’ ability to adjust their capacity in the long term. Doing so demonstrates that the long-term effect of price-

²⁰ ISO-NE Presentation at slide 5.

responsive demand on economic surplus (and especially consumer surplus) is lower than the short-term effect.”²¹ And, “[i]n the long run, however, the price must return to the equilibrium level, and the transient gains experienced by consumers will disappear.”²² It is unclear what basis was used for a “much higher long-term elasticity of supply” and when the long run occurs. As the capacity market impacts were compared to economic surplus over an unknown time horizon, the value of this conclusion for the Commission’s inquiry on ‘net benefits’ is dubious.

Given the analysis’ many assumptions and methodological limitations, the usefulness of its conclusions in this proceeding is uncertain. In any event, its results are in no way a reflection on the net benefits test, as suggested by NECPUC.

IV. A Regionally-Implemented ‘Net Benefits’ Test Balances Regulatory Interests While Protecting Customers and Increasing Competition in the Wholesale Energy Market

The Commission notes that “[s]ome commenters address the need for a net benefits test” and asks commenters to “[a]ddress why the Commission should adopt a net benefits test for determining demand response compensation, and what the objectives of any such test would be.”²³ NECPUC was one such commenter that noted the need for a net benefits test and provided a list of objectives such a test should seek to balance.²⁴ Using a regionally implemented ‘net benefits’ test will balance regulatory interests while protecting customers and increasing competition in the wholesale energy market.

²¹ ISO-NE 2009 at 40.

²² ISO-NE 2009 at 41.

²³ SNO PR at P 8.

²⁴ NECPUC Comments at 3-4.

A. The Need for a Net Benefits Test

In our original comments, using the actual supply curve from a summer peak day in 2008, NECPUC provided a few anecdotal examples of the effects demand response would have had, if it had been dispatched in certain hours on that day.²⁵ One of these examples, clearly showed that in some hours the costs of procuring demand response would have exceeded the savings from any reduction in energy price.²⁶ Although, this was only an anecdotal example, it showed that such an effect was indeed possible. Subsequent studies have reinforced this finding. In addition, economists worry that providing too generous an incentive to conserve may distort the market, and a policy that enables availability ‘in all hours’ needlessly exacerbates this risk.

A recent study performed by the PJM Interconnection, LLC (“PJM”), *Analysis of Load Payments and Expenditures under Different Demand Response Compensation Schemes* (“PJM 2010 Study”),²⁷ demonstrates the need for a net benefits test. The PJM 2010 Study found that benefits in “the highest priced 100 hours are [] positive,” but when considering all hours in the year, the benefits are negative.²⁸ The results of this study further show that there are times when costs exceed benefits and, thus, the Commission’s proposal to pay full LMP in all hours would increase prices in some hours of the year.

Another study performed for PJM and the Mid-Atlantic Demand Response Initiative in 2007 by the Brattle Group, *Quantifying Demand Response Benefits in PJM* (“Brattle 2007

²⁵ NECPUC Comments at 12-15.

²⁶ NECPUC Comments at 15.

²⁷ *Analysis of Load Payments and Expenditures under Different Demand Response Compensation Schemes*, PJM Interconnection, May 12, 2010 (“PJM 2010 Study”), available at: <http://www.pjm.com/markets-and-operations/demand-response/~ /media/markets-ops/dsr/analysis-of-load-payments-and-expenditures.ashx> .

²⁸ PJM 2010 at P 8.

Study”),²⁹ found “an energy benefit from curtailing load of much lesser value than the price of energy on the spot market. These benefits were estimated to be \$85 to \$234 per megawatt-hour or \$9 to \$26 million per year based on the results of the Dayzer simulations and some simplifying assumptions on the economic value customers placed on their curtailable load. Without making those assumptions, the range of benefits widens \$1 to \$36 million.” In addition to energy market savings, capacity savings were approximated at “\$73 million per year for a curtailment of 3% of load in the five zones” in PJM. While the Brattle 2007 Study did not “quantify several additional categories of benefits” or “several secondary effects that could offset the benefits to non-curtailed loads,”³⁰ considered together, the results of these two studies suggest the existence of a threshold below which prices increase as additional levels of demand response are dispatched and above which prices decrease providing benefits to customers.

Dr. Alfred Kahn has endorsed compensating demand response at full LMP, recently stating “[t]he design in the NOPR can tend only to offset or circumvent the barriers [of costs and lack of consumer expertise] by offering the middlemen the incentive and wherewithal to secure the voluntary participation of customers by helping them to offset these barriers to efficient choices with technical and financial assistance.”³¹ NECPUC agrees with Dr. Kahn’s assessment but it does not share his disinterest in a ‘net benefits’ test.³² A ‘net benefits test’ protects customers, hedges against market design inefficiency, and provides policymakers the

²⁹ *Quantifying Demand Response Benefits in PJM*, The Brattle Group (January 29, 2007), available at: <http://pjm.com/documents/~ /media/documents/reports/brattle-report-quantifying-demand-response-benefits-pjm.ashx>

³⁰ Brattle 2007 Study at P 3.

³¹ Reply Comments of the Demand Response Supporters (August 30, 2010), Kahn Reply Affidavit at 14-15.

³² “So long as those ‘bribes’ do not exceed the LMP saved by the voluntary participations of consumers and third-party facilitators, no additional ‘net benefits test’ ... is required.” Comments of the Demand Response Supporters, Kahn Reply Affidavit at 14-15.

ability to adjust the efficacy of the market reform. It enables a dynamic balancing of interests commensurate with current conditions in the market.

B. Objectives of a Net Benefits Test

Although, NECPUC does not recommend that the Commission require a specific net benefits test, NECPUC does recommend that the Commission provide specific guidance on the regulatory objectives that should inform the implementation of a ‘net benefits’ test. Some objectives previously suggested by NECPUC include:

- Provide all market customers with net benefits;
- Mitigate price formation concerns;
- Protect the integrity of baselines and other methods of measuring and verifying load curtailment; and
- Maintain an appropriate balance between wholesale and retail demand response.³³

The second principle, mitigation of price formation concerns, is focused on risk of improper price signals, but also includes concerns regarding maximization of economic social welfare, as defined by the sum of the producer surplus and the consumer surplus. In addition, the fourth principle should be interpreted to consider the penetration of dynamic pricing policies and technological infrastructure and the persistence of barriers to participation.

Some concerns raised at the Technical Conference on demand response compensation³⁴ suggest that a few additional principles should also be considered. These are:

- Consider the relationship between the energy and capacity markets,³⁵ and

³³ NECPUC Comments at 3-4.

³⁴ *Supplemental Notice of Proposed Rulemaking and Notice of Technical Conference (Supplemental Notice)*, 75 Fed. Reg. 47,499, 132 FERC ¶ 61,094 (issued August 2, 2010) as supplemented by Supplemental Notice of Technical Conference and Notice of Comment Date (issued August 27, 2010).

- Consider load shifting that increases economic efficiency.³⁶

Through consideration of these enhanced and additional principles, local stakeholders can establish a ‘net benefits’ test that satisfies both the market-centric and economic social welfare maximization principles.³⁷

C. Defining Appropriate Costs and Benefits to be Considered

Many have argued that economic theory dictates that compensating demand response at full market price will provide an incentive for such resources to engage in consumption activities that are economically inefficient.³⁸ However, as we noted in our original comments, such concerns about price formation are based upon an incomplete analysis that selectively examines some societal impacts and not others – i.e., that improperly defines the costs and benefits to be considered.³⁹

As we explained in our original comments:

These concerns regarding price formation originate from the perspective that a demand response resource provider receives a double payment. The first payment would accrue from compensation from the marketplace for providing demand response (i.e., the LMP payment from the wholesale energy market). The second alleged payment arises from the savings that a demand response provider realizes on their [retail] energy bill. This second alleged payment, though, considers a societal impact, i.e., a customer’s [retail] bill savings, outside of the [wholesale] marketplace. Notably absent from these same analyses are other societal impacts, such as [avoided or] deferred transmission and distribution expenses, benefits from increased reliability, mitigation of market power, and environmental benefits.

³⁵ ISO-NE Presentation at slide 5; Monitoring Analytics, *2009 State of the Market Report for PJM*, at 111 (March 11, 2010) available at: <http://pjm.com/documents/reports/state-of-market-reports/~ /media/documents/reports/state-of-market/2009/2009-som-pjm-volume2-sec2.ashx> .

³⁶ The social welfare maximization objective of increasing consumption during times when the value of consumption exceeds production cost may be supported by targeted load shifting. *See* ISO-NE 2009, Section 3.6.

³⁷ ISO-NE Presentation at slide 4.

³⁸ See e.g., Comments of ISO New England

³⁹ NECPUC Comments at 7.

An economic analysis for achieving optimal levels of resource procurement (whether demand-side or supply-side) should either consider all societal impacts or none, in order to be internally consistent. Societal impacts are not currently a factor in determining the dispatch of generation resources in wholesale energy markets. If an economic analysis is not internally consistent, then it is not possible to say whether any one resource is economically efficient, or economically inefficient.⁴⁰

Calculating societal costs would require quantifying a number of costs and benefits, such as environmental impacts, that could be difficult to quantify and unnecessarily contentious. Accordingly, NECPUC does not recommend including societal costs when considering the appropriate level of demand resources in the wholesale energy market. Rather, demand resources should be economically justified from the perspective of the wholesale energy market, without concern for “societal impacts” such as retail customer bill savings of demand response providers. Therefore, NECPUC recommends that the Commission define ‘costs and benefits’ as only those costs and benefits derived from the wholesale energy market.

D. Methods for Implementing a Net Benefits Test

NECPUC is aware of three mechanisms for implementing a ‘net benefits’ test: (1) a static mechanism such as a minimum offer price or a specified number of hours, (2) a dynamic mechanism such as a price threshold based on a preset heat rate and fuel price, or (3) an enhanced dispatch algorithm.

A static minimum offer price model has been utilized in multiple organized energy markets. The minimum offer price mechanism provides market participants a means of advance notice of the likelihood of dispatch. However, a static minimum offer price cannot

⁴⁰ NECPUC Comments at 7.

easily adjust with changing energy market prices which may result in inefficient dispatch of demand resources. In addition under certain conditions such a mechanism can be subject to gaming, as was experienced in New England's Day Ahead Load Response Program ("DALRP").⁴¹ Accordingly, NECPUC does not recommend use of a static mechanism.

An enhanced dispatch algorithm has been conceptually designed,⁴² but not yet tested in a live market environment. Further investigation of such a mechanism is necessary to ensure that use of the algorithm would achieve its intended objective. More importantly for NECPUC, however, is that such a mechanism risks allowing demand response to dispatch in too many hours of the year, and therefore may not adequately address legitimate concerns over price formation, the integrity of baselines, the balance between wholesale and retail demand response. Accordingly, NECPUC does not recommend use of an enhanced dispatch algorithm without further investigation.⁴³

New England has experience utilizing a minimum offer price mechanism, an automatically-adjusted, dynamic threshold reflective of current market conditions. The DALRP in New England establishes a minimum offer price by approximating the variable cost component, i.e., fuel cost, of a hypothetical peaking unit sufficiently high enough in the supply stack to ensure net benefits. On a monthly basis, this minimum offer price is reset to reflect the product of an appropriate fuel price index and a proxy heat rate.⁴⁴ This dynamic mechanism allows the minimum offer price mechanism to fluctuate with seasonal and systemic

⁴¹ See *ISO New England Inc.*, 123 FERC ¶ 61,266 (2008).

⁴² See CDRI comments at Attachment B.

⁴³ Although not recommended for use in dispatch, an algorithm such as that developed by CDRI may still be useful in settlement, and NECPUC recommends further investigation into whether use of such an algorithm could address some of the challenges in settlement created by dispatching demand response as supply.

⁴⁴ Some stakeholders have expressed concern that a monthly adjustment is too infrequent and creates an inefficient lag in the dynamic price adjustment. NECPUC acknowledges this concern and look forward to further discussions on what the appropriate frequency for price adjustment should be.

fluctuations in the energy market price. Furthermore, the heat rate of the hypothetical, proxy marginal unit provides a policy lever that stakeholders may adjust to tailor the ‘net benefits’ threshold in accord with the objectives of the demand response program. Accordingly, NECPUC recommends use of a dynamic mechanism such as a price threshold based on a preset heat rate and fuel price, like that currently used in New England’s DALRP, for the ISO-NE control area.

A ‘net benefits’ test enables compensation adequate to surmount barriers to entry while protecting consumers and mitigating concerns about economic efficiency. The balancing of interests inherent to regulating a competitive wholesale energy market can be achieved through the periodic adjustment of the ‘net benefits’ threshold. With the clear guidance from the Commission, local implementation of the ‘net benefits’ test will accommodate the characteristics of the various markets and provide an opportunity to tailor demand response resource compensation policy over time.

E. The Commission Should Not Require a Standard Test Across Regions

As Mr. Keene noted in his comments at the Sept. 13 Technical Conference, the Commission need not and should not prescribe a specific net benefits test for all ISO/RTOs in this proceeding.⁴⁵ The NECPUC recommended mechanism establishes a proxy for the marginal unit, and accordingly, may be able to be adapted to circumstances in other regions. Even so, the Commission can and should allow each region to develop its own mechanism for determining net benefits and require each region to submit their respective mechanisms in a compliance filing. While the dynamic minimum offer price mechanism used in New England’s DALRP may be an appropriate mechanism for New England, other regions have different supply mixes and may have

⁴⁵ Keene Comments at 2-3.

different resource types on the margin and thus may call for a different threshold mechanism or even a different type of ‘net benefits’ test.

Due to characteristics unique to a region, the NECPUC recommended mechanism may not be as well suited in other regions, or another region may simply prefer an alternative method. Regional stakeholder forums are better suited for assessing, subject to review by the Commission, which mechanisms are most appropriate for each region. Accordingly, while NECPUC recommends that the Commission require a ‘net benefits’ test and establish principles for local implementation of a ‘net benefits’ test, NECPUC recommends that the Commission not prescribe a specific net benefits test in this proceeding and allow each region to develop its own mechanism in accordance with those principles to be reviewed in a compliance filing.

V. Costs Should Be Allocated to the Beneficiaries of Demand Response

As we explained in our initial comments, there are a variety of different options for allocating the costs of procuring demand response, i.e., the “missing money” associated with demand response resources. The use of a net benefits test will ensure that all customers purchasing in the hour that DR is dispatched will receive benefits in the form of reduced energy prices. Accordingly, NECPUC recommends allocating the costs of procuring demand response resources to all customers purchasing from the wholesale energy market in the hour when the demand response resource is committed or dispatched.

The rationale for this approach is that it allocates the costs of demand response resource procurement on the basis of cost causation, i.e., demand response resource costs are allocated directly to those energy market consumers who benefit from the

demand response resource service provided. In addition, this cost allocation approach is comparable to the way that the costs of supply resources are allocated. A cost allocation approach that recovers the cost of procuring demand response from its beneficiaries comports with the principle of cost causation. A properly set ‘net benefits’ threshold ensures that all energy market consumers benefit from the dispatch of demand response resources and therefore should contribute to cost recovery.

A hybrid approach to cost allocation where some costs are borne by load-serving entities and other costs by the transmission owners has been suggested as a means to “minimize cost impacts on final consumers. Under such a hybrid approach, the first component, the so-called LMP – G component, would be charged to the load-serving entity that is providing the energy to the end-use customer. The second component, the excess over the LMP – G (*i.e.*, the “G” component), would be charged to network load, which is the transmission portion of the bill.”⁴⁶ This proposal is not consistent with how the costs to procure generation are allocated, and modulates the compensation proposal. In addition, while the transmission owners may be the most expedient means to collect revenues from network load, using such a means would be unjust and unreasonable. Collecting revenues for demand response – an energy market expense – through transmission charges would be inconsistent with the principle of transparency. More importantly, allocating costs of procuring demand response to network load would likely be disproportionate from the demand in the hour the demand response was dispatched. Thus, allocating costs to network load would violate the principle of allocating costs commensurate with benefits.

⁴⁶ Comments of ISO New England, Inc. at 40.

At the very least, the way in which costs are allocated should not frustrate the objective of the compensation scheme. As discussed above in section II, a ‘buy-the-baseline’ approach would require demand response resources to pre-pay for the generation component and, in effect, counteract the Commission’s compensation proposal. In our view, requiring demand response resources to pre-pay will not achieve comparability with supply resources, improve competition, or provide compensation sufficient to overcome market barriers to price-responsive demand.

For the reasons stated herein and in our original comments, NECPUC recommends allocating the costs of procuring demand response resources to all customers purchasing from the wholesale energy market in the hour when the demand response resource is committed or dispatched.

VI. Conclusion

NECPUC supports the Commission’s efforts to improve the competitiveness of the organized wholesale energy markets and accordingly supports the Commission’s proposal to compensate demand response resources with the market price. However, compensation at market price should be limited to ensure net benefits to customers, mitigate price formation concerns, protect the integrity of customer usage baselines, and promote balance of wholesale and retail demand response resource participation. The details for implementing the limitation should be developed at the ISO/RTO level, and the costs for demand response resource participation should be allocated to its beneficiaries.

The NECPUC approach as outlined herein considers the interests of all market participants by balancing the market barriers faced by demand response resources and price formation concerns. Until a significant portion of retail customers experience dynamic rates, the approach suggested by NECPUC provides an avenue for demand response resources to meaningfully contribute to the vibrancy of the wholesale electric markets and improve reliability without unduly risking overinvestment in demand response. Accordingly, NECPUC urges the Commission to consider these comments as it determines how to proceed on these important issues and adopt an approach substantially as outlined herein.

Respectfully submitted,

THE NEW ENGLAND CONFERENCE OF
PUBLIC UTILITIES COMMISSIONERS

By its attorney,

/s/

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