PUB/GAC 1 Reference: Access to Information

a) Please file copies of the non-disclosure agreements which Mr. Chernick has signed for other utility related assignments during the last 5-years.

b) Please advise which of the other utilities (in (a)) are electric utilities that engage in competitive energy sales.

c) Please describe the instances of alleged breaches of the non-disclosure agreements and how any such breaches were resolved.

Response:

a) Attachments PUB/GAC 1.1–1.18 are confidentiality, non-disclosure or protective orders and agreements, along with examples of the justification for designating specific materials as confidential (SWEPCo before the Arkansas PSC) and explaining the redactions in the spreadsheets filed as workpapers for COSS and rate design (Austin Energy). See also the confidentiality rules for the British Columbia Utility Commission at

http://www.bcuc.com/Documents/Guidelines/2010/DOC_25709_Confidential_Filings_Practice_Directive.pdf

and for the Utah PSC at

http://www.rules.utah.gov/publicat/code/r746/r746-100.htm#T16

The attachments also include non-disclosure agreements with:

- independent power producers who sell into the competitive markets, either long- or short-term,
- Independent System Operator New England and New York ISO, and
- SAIC, which developed Austin Energy's COSS model .

This set of documents does not include all the confidentiality documents that Mr. Chernick has signed in the last five years. He has signed multiple essentially-identical confidentiality documents for some utilities and jurisdictions in this period (for which only a representative version is attached), and he has probably not identified all the documents he has signed in this period.

b) The following is a partial list of the utilities for whom confidentiality agreements are included in response to part (a), and the nature of their energy sales and purchases:

- PacifiCorp is a major participant in the competitive wholesale sales and purchase markets throughout the western interconnection.
- Southwest Electric Power Company (SWEPCo) purchases and sells power in the competitive wholesale markets.
- Public Service of Oklahoma (PSO) purchases and sells power in the competitive wholesale markets.
- United Illuminating purchases power in the competitive wholesale markets; monitoring and review of the prudence of those purchases are the purposes of some of the dockets in which Mr. Chernick signed the confidentiality agreements.
- Connecticut Light and Power purchases power in the competitive wholesale markets; monitoring and review of the prudence of those purchases are the purposes of some dockets in which Mr. Chernick signed the confidentiality agreements.
- Entergy New Orleans and Entergy Arkansas purchase and sell power in the competitive wholesale markets.
- Nova Scotia Power purchases renewable energy under competitive long-term contracts and purchases and sells power in competitive wholesale markets.
- Nevada Power purchases and to a lesser extent sells power in competitive wholesale markets.
- Austin Energy sells all of its power plants' output into the competitive ERCOT market and purchases all of its customers' requirements from those markets.
- NStar purchases power in the competitive wholesale markets.
- Ontario Power Generation sells power at regulated and competitive rates.
- British Columbia Hydro purchases and sells power in the competitive markets.
- The power-supply bidders in the Connecticut proceedings sell power entirely in the short- and long-term competitive markets.

It is important to recognize that Hydro claims confidentiality for many documents (such as its COSS and Proof of Revenue spreadsheets) unrelated to wholesale power transactions.

c) Alleged breaches of non-disclosure agreements are very rare. Mr. Chernick recalls only two such examples in his thirty-four years in utility regulatory proceedings.

- In Ontario Energy Board EB-2010-0008, in which Mr. Chernick represented the Green Energy Coalition, the School Energy Coalition (SEC) included in its non-confidential discovery requests a couple of actual values for confidential Ontario Power Authority estimates of the costs of returning mothballed nuclear plants to service. Those requests were intended to be in a separate confidential list of confidential requests. The questions were recalled by the Board and the SEC within a few hours of the infraction, the Board required all parties to document destruction of the offending documents (although most of those parties had access to the original estimates and other confidential materials) and the SEC's attorney was fined $10,000. The Board order in that matter, which discusses one other disclosure, is attached as Attachment PUB/GAC-2.

- In Massachusetts DPU 10-54, in which Mr. Chernick represented Natural Resources Defense Council and Conservation Law Foundation, the Alliance to Protect Nantucket Sound (an ad hoc group formed for the sole purpose of opposing the Cape Wind offshore wind farm, and with no other prospect of appearing before the DPU) allegedly released some confidential Cape Wind cost estimates to the press. While Mr. Chernick was not directly involved in the sanctioning of the Alliance, it is his recollection that the Alliance was barred from any further access to confidential information, including testimony, discovery and exhibits.

PUB/GAC 2 Reference: Page 12 & 13

Please comment on the use of a levelized cost of 7.11 ¢/kWh in defining marginal cost of generation and explain how that relates to the export value of energy.

Response:

Mr. Chernick's ability to comment on this value is limited by Hydro's refusal to provide the derivation of the value (GAC/MH II-25a, II-25d). In addition, it is not clear whether and how Hydro uses the 7.11¢/kWh value, as opposed to values reflecting time of use and class-specific losses.

PUB/GAC 3 Reference: Page 16 &17, Footnote 3.

a) Please indicate the source of MH's 6.2 ¢/kWh marginal cost of generation.

b) Discuss how this relates to the in-service cost of new generation and transmission for:

- Wuskwatim
- Keeyask
- Conawapa

c) Please indicate whether incremental Bipole III related additional costs are reflected in Table 2. Please provide details.

d) Please provide supporting calculations for the avoided costs referenced in footnote 3.

Response:

a) Hydro's 7.11 ¢/kWh marginal cost of generation includes the average T&D system energy losses of 14%. Mr. Chernick derived the 6.2 ¢/kWh marginal cost *at the generation level* by removing the 14% loss factor: 7.11¢/kWh ÷ 1.14 = 6.2¢/kWh. (GAC/MH II-4a, CAC-GAC/MH I-4b).

b) Mr. Chernick cannot provide these comparisons, because Hydro has refused to provide the derivation of the marginal cost and the costs of new projects (GAC/MH II-25a, GAC/MH I-2e).

c) See (b).

d) 0.69¢/kWh ÷ 0.62 = 1.11¢/kWh and 0.73¢/kWh ÷ 0.62 = 1.18¢/kWh, where 0.62 is the average MH system load factor.

PUB/GAC 4 Reference: Page 16, Marginal Costs

Please indicate the implications of applying your estimate of marginal costs on screening of DSM programs versus the marginal cost value employed by MH.

Response:

Mr. Chernick did not derive an independent estimate of marginal cost. Instead, for rate-design comparison purposes, he modified the marginal cost values (excluding losses) that MH developed for screening DSM. He adjusted for the following: (1) the effect of the customers' voltage levels of service on peak and energy loss factors, (2) the effect of the rate class customers' voltage level of service on the use of distribution system, and (3) a typical retail load factor. These marginal cost values by rate class should not be used in screening DSM, for two reasons: (1) they include only costs to the meter, while avoided costs for DSM should include costs to the end use (as explained in footnote 8 on page 17); and (2) the avoided costs for DSM should reflect the load shape of the end use or measure being screened.

Since MH has not documented its use of marginal cost in screening DSM, Mr. Chernick cannot evaluate how any change in marginal cost would affect MH's screening results.

PUB/GAC 5 Reference: Page 17, Marginal Cost by Rate Schedule, Footnote 8

a) Please explain and discuss how the marginal cost by Rate Class would change if based on a typical retail load shape.

b) Please provide Mr. Chernick's understanding of MH's retail load shape.

c) Please provide an example of how end use losses are derived.

d) Please explain how the system wide avoided costs related to losses to the end use would be measured.

e) To what extent is avoided costs and losses to the end use measured in other jurisdictions?

Response:

a) For the effect on T&D marginal cost, see page 12, footnote 3 of Mr. Chernick's testimony and GAC's response to PUB/GAC 3(d). Since Hydro did not provide its derivation of marginal generation costs, it is not possible to estimate how the marginal cost by rate class would change if based on a typical retail load shape.

b) See Hydro Appendix 8.1, Tables 22, 24, 27 and 28 for data on monthly energy and peak load, including forecasts. Hourly load for the demand-metered classes is provided in GAC-MH I-8F-Attachment. Mr. Chernick is not aware of any hourly load data in the current record. Some data on peak, shoulder and off-peak load are available from Appendix 38, Attachment 4 in the previous GRA, attached as Attachment PUB/GAC-5.

c) In principal, losses to the end use could be computed from estimates of the length and nature of the internal wiring from the meter to the end use and the distribution of loads within the building. Practically speaking, the easiest customer-side losses to estimate are those for customers metered at primary or transmission voltage, who generally have transformers and internal distribution on the customer side of the meter similar to the utility distribution system for customers served at secondary. Hence, it is reasonable to assume that losses to the end use for all classes are comparable to the utility's losses to the meter for customers served at secondary. This assumption would understate total line losses, by excluding losses from the secondary meter (or equivalent) to the end use.

d) See (c).

e) Mr. Chernick has not conducted a recent survey.

PUB/GAC 6 Reference: Page 18, Cap & Trade Internalized Costs

a) Please describe the cap & trade system for pollutants that is in place in the MISO region.

b) In particular, please describe how this cap and trade system pertains to Minnesota and Wisconsin and explain how this results in an internalized cost.

c) Please explain how those internalized costs are directly applicable to MH's domestic consumption of electricity.

Response:

a) There is no cap & trade system for greenhouse gases in place in the MISO region. The cap & trade system for SO_2 that was instituted in the 1990 Clean Air Act Amendments is effectively defunct, since scrubbing and other controls required under other programs have created a surplus of allowances. While SO_2 allowances once traded in the hundreds of dollars per ton, they are now priced under $1/ton. Allowances for NOx emissions under the Clean Air Interstate Rule (CAIR) are trading in the $25–$50/ton range. Allowances for both SO_2 and NOx under the Cross-State Air Pollution Rule (CSAPR, which would have replaced CAIR) traded in the range of several hundred dollars per ton in late 2011, but have plunged to essentially no value since a Federal court vacated the rule.

b) Depending on when a particular contract was or will be negotiated, it may reflect some expectation that CSAPR would be in place (perhaps reinstated or redesigned, depending on the outcome of the EPA's appeal) and/or that some greenhouse-gas cap or tax will be enacted. It is not clear that the environmental value of reduced emissions resulting from Hydro's sales are fully included in any current or pending contract price.

c) Electric energy not used in Manitoba will, for the most part, be sold to Minnesota and Wisconsin, or to a lesser extent Saskatchewan or Ontario, backing down primarily coal and gas-fired plants and reducing emissions of greenhouse gases and conventional pollutants. To the extent that those environmental effects are not included in the contract prices, they are not internalized and must be added to the benefits of energy efficiency and the costs of energy consumption (which prevents the beneficial exports).

PUB/GAC 7 Reference: Page 18 , Total Societal Cost

a) Please provide Mr. Chernick's estimate of the Societal Cost and its composition.

b) Please indicate to which extent Societal Costs are measured and employed in Minnesota and Wisconsin.

c) Please indicate to what extent carbon market abatement costs are included in MH's export prices in MISO.

d) Please indicate what level of GHG costs should be included in determining the total Societal Cost.

Response:

a) Mr. Chernick has not developed an estimate of societal marginal costs for rate design or DSM valuation. If the Board indicates that it wishes Hydro to use the Societal Test, or even to consider and report it seriously, Mr. Chernick would be happy to work with Hydro in developing such an estimate. To date, Hydro has refused to provide the derivation of its marginal costs or provide the data from which Mr. Chernick could compute marginal costs.

b) Minnesota has established externality values, but it is not clear that externalities result in any decisions changing. Minnesota also passed a Next Generation Energy Act in 2007 that sets statewide greenhouse emission caps, but other than standards for renewables and efficiency, it is not clear what actions will be required for electric utilities. The Minnesota Climate Change Advisory Group Final Report does not recommend any requirements for electric utilities, beyond currently mandated efficiency and renewable-energy targets, T&D upgrades, and a small amount of distributed renewables.

c) No carbon market abatement costs are included in short-term sales. Mr. Chernick does not know what carbon price, if any, the MISO utilities anticipated at the time they negotiated long-term contracts with Hydro.

d) While Mr. Chernick has not personally reviewed the literature on carbon pricing, it is likely that the social cost of carbon is at least on the order of the $80/ton estimated by Synapse Energy Economics in Attachment PUB/GAC-7.

PUB/GAC 8 Reference: Page 19 & 20, Valuing Environmental Attributes

a) Please provide your understanding of MH's value of reduced GHG in the MISO market.

b) Please indicate your understanding of whether there is any explicit pricing for environmental attributes in MH's contracts or in the MISO Day Ahead and Real Time markets.

c) Please explain how Mr. Chernick would value environmental attributes in the fuel switching analysis.

Response:

a) Mr. Chernick does not understand the reference to "MH's value of reduced GHG in the MISO market." Hydro has not provided any projection of the future prices of

greenhouse gases in MISO or otherwise, other than an estimate of market prices in an earlier version of the Western Climate Initiative.

b) Hydro has refused to provide its export contracts or details on their contents, so Mr. Chernick does not know "whether there is any explicit pricing for environmental attributes in MH's contracts." The only "explicit pricing for environmental attributes...in the MISO Day Ahead and Real Time markets" would be for the market value of NOx and SO_2 allowances, which are currently quite low.

c) It is not clear that environmental attributes would be particularly critical in the fuel-switching analysis, since Hydro has estimated that the use of electricity for space and water heating fails even a narrowly-construed TRC test, without externalities. In general, Mr. Chernick would add to the direct avoided costs the non-internalized costs of uncontrolled pollutants. Assuming that the marginal sources displaced are primarily in the US and that a cap-and-trade system is in place for SO_2 and NOx, the residual environmental costs avoided by Hydro exports would be from particulates, mercury (and to a limited extent, other toxics) and greenhouse gases (mostly CO_2, and potentially methane emissions from the production and transportation of natural gas and coal). As a practical matter, Mr. Chernick generally relies on the control costs required to meet current and anticipated emission limits. In some cases, directly estimating the damages due to incremental emission is possible, but the estimation and discounting of damages is contentious and uncertain. Where environmental regulators have established a shadow price for controls in dollars per tonne, utility regulators are often well-advised to rely on that value rather than attempt to conduct a parallel analysis with less expertise. In some cases, the shadow price is the benefit of reduced emissions from fuel-switching, energy-efficiency or other measures, since total emissions will be controlled by a cap and the cost avoided will be the cost of controls on some marginal source.

PUB/GAC 9 Reference: Page 20, Emissions Displacement

a) Please discuss how and to what extent MH exports into MISO have resulted, or will result, in coal generation retirements.

b) Is there a possibility that supplementing an existing coal based portfolio with clean MH electricity may extend the life of some coal plants?

Response:

a) It is not generally possible to determine the reasons for the retirement of any particular coal unit. Most retirements are driven by a combination of requirements for

environmental retrofits and low market energy prices (resulting in low utilization for some coal plants), both current and projected. The low market energy prices are due to the recession, low natural-gas prices, MISO wind development for renewable energy standards, energy-efficiency programs, and Hydro exports, among other factors. See Attachment PUB/GAC-9 for a list of the coal-plant retirements announced in and around MISO. Some statements by coal-plant owners attribute the retirements, in part, to low market prices and the availability of cheaper alternatives. With respect to Silver Lake, "Rochester's city utility decided it would be cheaper to buy electricity than to upgrade its decades-old generating station....'This is clearly an economic decision,' Jerry Williams, president of the city-owned utility's board, said of the vote to decommission the plant in 2015. 'Basically, we can go out on the open market and purchase electricity...at a lot less cost.'" (http://www.startribune.com/business/165367786.html)

b) Mr. Chernick does not see any way that increased exports from MH to MISO would be likely to extend the life of coal plants. With a purchase from MH, or lower market prices due to additional Hydro energy being available in the MISO markets, operating the coal plants would be less economic than with less energy from Hydro. It is conceivable that a purchase of X GWh from Hydro would allow a utility to meet some future greenhouse-gas requirement while retiring less coal capacity than would be retired if the same emissions reduction were met with increased generation from gas-fired combined-cycle plants, which would require about 2×X GWh of gas generation.

PUB/GAC 10 Reference: Page 23 Economic Screening Tests

To supplement the information provided on why the LUC should not be used, please identify and describe more fully which of the other screening tests employed by MH are considered irrelevant and why.

Response:

The Marginal Resource Cost ("MRC") test is not intended to be a definitive cost-effectiveness test. If the marginal costs and participant costs and benefits are properly stated, the MRC is a reasonable approximation of the Total Resource Cost test, for initial measure screening. It is not a substitute for the TRC test.

The Rate Impact Measure ("RIM") test has no place in screening DSM programs, measures or enhancement. Attachment PUB/GAC-10 presents Mr. Chernick's discussion of the problems with this computation in detail.

Mr. Chernick's testimony describes the problems with the Levelized Utility Cost ("LUC") test.

The Simple Customer Payback calculation is not useful as a screening test. Payback is often a useful indicator of customer acceptance, but whether customers accept a measure is often

more a function of program design (e.g., information, technical assistance, direct installation, contractor arranging, direction of incentives to the appropriate parties) than simple payback.

PUB/GAC 11 Reference: Page 24 Screening of DSM

Please elaborate on why benefits to the Province should be a consideration for DSM screening.

Response:

Mr. Chernick's references to "the Province" on page 24 of his direct testimony refer to the sum of benefits and/or costs to Hydro, Centra, and consumers of Manitoba electric, gas, and water consumers. While the Board might draw the lines differently, Mr. Chernick expects that it would view direct financial costs and benefits to utility customers within Manitoba to be relevant to utility decisionmaking.

PUB/GAC 12 Reference: Page 25 Ln 6-8

a) Please elaborate on how changes to the Marginal Cost estimate and using Total Resource Cost to screen DSM will lead to greater savings and lower total ratepayer costs.

b) Please comment on the impact on DSM savings and ratepayer costs, by continued low export prices.

Response:

a) The cited testimony states that "planning DSM based on minimizing total costs and using full marginal costs would almost certainly produce much greater savings and lower total costs to Manitoba power consumers." As explained in Mr. Chernick's testimony, Hydro appears to have rejected DSM options that would pass the TRC test, even with Hydro's current estimate of marginal costs. By definition, a measure that passes the TRC is expected to reduce total costs. Implementing additional cost-effective energy-efficiency would result in additional energy savings and reductions in total costs borne by ratepayers. As for the marginal costs, Mr. Chernick cannot determine whether Hydro has used appropriate estimates for full marginal costs, due to Hydro's refusal to provide the derivation of its estimates or data that would allow the testing of those estimates.

b) All else equal, lower export prices will reduce the marginal generation costs used in screening DSM and hence the number of measures that pass the TRC screen and the resulting energy savings. Since Hydro's screening of DSM remains mysterious, it is not clear how much DSM savings would change in response to a change in Hydro's marginal-cost estimates. Low export prices will tend to reduce Hydro's profits from exports, reducing the credit to domestic classes.

PUB/GAC 13 Reference: Pages 18 & 30 Inverted Rates / Electric Heat

a) Please indicate how any inverted rate regime should address MH customers in communities that do not have access to natural gas heating and rely on electricity for space heat.

b) Provide examples of how this (your response in (a)) has been addressed by MH and other jurisdictions.

c) Please provide your suggestion for implementation of an inverted block rate design for residential customers, including changes to demand and customer charges, based on information currently available on marginal costs.

Response:

a) There are at least five options for implementing inclining-block rates while protecting electric-heating customers in communities that do not have access to natural gas. (Referring to such rates as "inverted" blocks improperly suggests that declining blocks are normal or natural and that inclining blocks turn rate design on its head.) First, while inclining blocks are instituted for non-heating customers, the existing space-heating customers could be moved to a separate tariff with winter rates closer to the average residential energy rate. Second, new customers without access to natural gas could be allowed onto the grandfathered tariff, or onto a tariff that allows a specific number of kWh per month at the discounted heating rate, based on the building's climate zone. The effective geographic distinctions within rates and in eligibility for the heating rate might require legislative changes. Third, rather than discount rates for new electric-heating customers, Hydro could implement a PowerSmart program to ensure that new electrically-heated homes are super-insulated and use the most efficient applicable heat pumps, dramatically reducing heating costs. Fourth, participation in the superinsulation program could be a condition for new customers to be eligible for the discounted heating tariff. Fifth, Hydro could also use an aggressively marketed high-incentive PowerSmart program to retrofit superinsulation, envelope sealing and heat pumps for the existing heating customers, allowing the heating rate to be phased out.

b) Hydro has not implemented inclining rates, so Hydro has not addressed the issue of protecting customers without other options. Some jurisdictions have grandfathered electric-heating tariff that are closed to new customers, or offered such tariffs over a significant transition program. In many jurisdictions, energy-efficiency programs are pursued particularly vigorously for electric-heating customers.

c) Residential rates have no demand charges and should not have any. Customer charges can be reduced, and probably should be reduced, to allow for higher tail-block rates. The rate for the initial block can be reduced, as well. However, since the initial block is the marginal block for some customers (especially as the breakpoint between blocks increases), the initial block should not be reduced too far. Setting the inclining block rate design requires looking at the bill effect for various size bills, by season (reflecting any protection for space-heating customers), as well as the sales-weighted average marginal prices faced by customers. An inclining block rate can be implemented gradually, with the size of the blocks and the level of the tail blocks set to limit disruptive bill impacts. Mr. Chernick expects to explore these issues with Hydro in the consultation process leading up to consideration of changes in rate design in a proceeding in the spring on COSS and rate design. He has thus not prepared a specific proposal for a residential inclining block rate. The spring rate-design process would benefit if Hydro provides more data and information, including:

- Hydro's estimates of the long-term marginal generation cost by season and time of day, and the derivation of those values,
- separate bill frequency tables for the winter and summer seasons,
- seasonal bill frequency tables for low-income residential customers only,
- winter bill frequency tables for all residential electric-space-heating customers, and
- winter bill frequency tables for low-income residential electric-space-heating customers.

ATT PUB/GAC - 1

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF PUBLIC UTILITIES
ENERGY FACILITIES SITING BOARD

NSTAR Electric Company	)	EFSB 10-2/D.P.U. 10-131/D.P.U. 10-132

NSTAR ELECTRIC COMPANY MOTION FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION RESPONSIVE TO INFORMATION REQUESTS EFSB-N-20 and SAN-NSTAR-2-7

I. INTRODUCTION

Now comes NSTAR Electric Company ("NSTAR Electric" or the "Company") and hereby requests that the Energy Facilities Siting Board (the "Siting Board") grant protection from public disclosure of certain confidential, sensitive and proprietary information submitted in this proceeding in accordance with G.L. c. 25, § 5D and 980 CMR § 4.01(1). Specifically, the Company requests that the Siting Board protect from public disclosure: (1) customer names and contact information provided in Attachments SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b); and (b) the names and contact information of the vendors that responded to the Company's request for proposals ("RFP") for dynamic reactive devices for the Barnstable Switching Station provided in Attachments EFSB-N-20(a) and EFSB-N-20(b), together, the "Confidential Attachments."

Pursuant to Siting Board and Department of Public Utilities (the "Department") precedent, customer-specific information is proprietary to the customer and only that customer has the right to indicate whether his or her information should be available to anyone else (i.e., a competitive supplier or marketer) or to the public in general.

Therefore, the Company seeks protection for the customer names and addresses listed in Confidential Attachments SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b).

The Siting Board and the Department have protected bids from public disclosure historically, because the public release of bid information such as vendor name discloses the very type of information that the Department and the Siting Board have previously and consistently held to be confidential. Therefore, the Company seeks protection for the names of the vendors that responded to the Company's bid for equipment for the Barnstable Switching Station provided in Attachments EFSB-N-20(a) and EFSB-N-20(b).

As discussed in detail below, the information contained in these documents is highly confidential, competitively sensitive and proprietary information, the public disclosure of which could harm the customers and vendors involved, as well as the Company in acting on behalf of its customers in providing efficient, safe and reliable service. The Company will provide the Confidential Attachments to those parties who have or will execute the Nondisclosure Agreement governing confidential and proprietary information in this proceeding. The Confidential Attachments are being provided to the Siting Board under seal (and subject to this motion), as stated in the responses.

II. LEGAL STANDARD

Confidential information may be protected from public disclosure in accordance with G.L. c. 25, § 5D, which states that "the [D]epartment [of Public Utilities] may protect from public disclosure, trade secrets, confidential, competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter." In interpreting the statute, the Department has held that "[t]he burden on the

company is to establish the need for protection of the information cited by the company." The Berkshire Electric Company et al., D.P.U. 93-187/188/189/190, at 16 (1994) as cited in Hearing Officers Ruling On the Motion of Boston Electric Company for Confidentiality, D.P.U. 96-50, at 4 (1996).

A party seeking protection from public disclosure must demonstrate that: (1) the information for which protection is sought constitutes trade secrets, confidential, competitively sensitive or other proprietary information; and (2) there is a need to ensure nondisclosure of the information. The Berkshire Gas Company, D.T.E. 01-41, at 16 (2001). Where a party proves such a need, the Department will protect only so much of the information as is necessary to meet the need for nondisclosure and may limit the length of time that such protection is in effect. Id.; Western Massachusetts Elec. Co., D.T.E. 99-56 (1999). This legal standard governs the instant proceeding before the Siting Board, the Department's sister agency.

III. BASIS FOR CONFIDENTIALITY

The Confidential Attachments to the response to Information Request SAN-NSTAR-2-7 provide detailed information including confidential customer-specific information such as names and addresses that are treated as confidential within the Company and are not disseminated outside the Company. Moreover, the Department has recognized each customer's right to control dissemination of his or her account information, address, load and demand information and payment records. Such customer-specific information is proprietary to the customer and only the customer has the right to indicate whether such information should be available in the public domain. See Bay State Gas Company, D.P.U. 06-36, at 5. Consistent with this precedent, the

Company seeks protection for certain customer-specific information that is confidential, commercially sensitive, and proprietary from public disclosure.

The Confidential Attachments to the Response to Information Request EFSB-N-20 provide detailed information about the proposals that the Company received in response to its RFP for bids for certain equipment for the Barnstable Switching Station. The Department has recognized that release of bid information would seriously undermine a company's negotiating position in the market and, thus, jeopardize the ability of that company to ensure that customers are being served by the lowest cost option. See, e.g., Western Massachusetts Electric Company, D.T.E. 99-101, at 3 (2002). Competitors may well find the public disclosure of the identity of their competition sufficient to signal whether and how they might adjust their bids. The Company solicited and received bids in confidence. It would be harmful and prejudicial to the process to allow public dissemination of the identity of the bidders and their pricing information. Disclosure could dissuade potential suppliers of goods and services, who must protect their competitive position in the national market, from marketing goods and services in Massachusetts. Consistent with precedent, the Company seeks protection for the identity of the vendors that is confidential, commercially sensitive, and proprietary from public disclosure.

Finally, except for the discovery sought in this proceeding, the Company has no obligation in any other forum to disclose the customer and vendor information. The Company would not ordinarily release the information in a public forum because of the detrimental impact that such a release could have on the interest of the vendors and the customers. In response to Information Request EFSB-N-20 and SAN-NSTAR-2-7, the

Company has agreed to provide Attachments EFSB-N-20(a), EFSB-N-20(b), SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b) to the Siting Board, and to any party that executes the Nondisclosure Agreement governing such documents in this proceeding.

IV. CONCLUSION

For all of the foregoing reasons, NSTAR Electric requests that the Siting Board rule that good cause exists to protect the disclosure of the Confidential Attachments EFSB-N-20(a), EFSB-N-20(b), SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b).

Respectfully Submitted,

NSTAR ELECTRIC COMPANY

By its Attorneys,

David S. Rosenzweig, Esq.
Erika J. Hafner, Esq.
Keegan Werlin LLP
265 Franklin Street
Boston, Massachusetts 02110
(617) 951-1400

Date: March 9, 2011

AH PUB/BAC - 1.02

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

RE: DPUC REVIEW OF PEAKING GENERATION PROJECTS	:	**DOCKET NO. 08-01-01**
	:	
	:	
	:	**April 21, 2008**

PROTECTIVE ORDER CONCERNING THE PROSECUTORIAL UNIT OF THE DEPARTMENT OF PUBLIC UTILITY CONTROL'S PROVISION OF CONFIDENTIAL COMMERCIAL INFORMATION

WHEREAS, The Prosecutorial Unit (Prosecutorial) of the Department of Public Utility Control (Department) has filed with the Department interrogatory responses in Docket No. 08-01-01, DPUC Review of Peaking Generation Projects.

WHEREAS, disclosure of certain information contained in the interrogatory responses would result in the disclosure of proprietary and confidential information of Levitan & Associates, Inc. (LAI), a consultancy which has been retained to assist Prosecutorial to evaluate and submit recommendations regarding peaking projects submitted in this docket. Disclosure of said interrogatory responses would result in the disclosure of commercially valuable, confidential and proprietary information that is given in confidence and not required by statute, and which constitutes a trade secret, both within the meaning of General Statutes of Connecticut §1-210(b)(5);

NOW, THEREFORE, it is hereby ordered, by the Department that the following procedure is adopted for the protection of the information provided by

Prosecutorial in its interrogatory responses submitted by Prosecutorial on April 21, 2008:

1. This Protective Order shall govern the following interrogatory responses submitted by Prosecutorial on April 21, 2008: Attachment OCC-95a, and, by reference to the response to Attachment OCC-95a, the responses to OCC-97d, OCC-98b and OCC-99b (the "Confidential Information").

2. All Confidential Information made available pursuant to this Order shall be used by any person receiving such information solely for the purposes of participating in the conduct of this contested proceeding (08-01-01) in which the Department will review peaking generation proposals submitted to it pursuant to Section 50 of Public Act 07-242, An Act Concerning Electricity and Energy Efficiency.

3. The Confidential Information made available in this docket shall be given solely to Commissioners, staff and consultants of the Department who are bound by the terms of this Protective Order. The Confidential Information may also be provided to the Office of Consumer Counsel (OCC), its staff and its consultants and the Attorney General (AG), its staff and its consultants, all of whom shall execute the attached Nondisclosure Agreement and be bound by the terms of this Protective Order.

4. All persons granted access to the Confidential Information pursuant to Paragraph 3 shall take all reasonable precautions to keep this information secure in accordance with the purpose and intent of this Protective Order.

5. Two (2) copies of the Confidential Information shall be marked "Confidential" and shall be delivered in sealed envelopes marked "Confidential" with the following language: "This envelope is not to be opened nor the contents displayed or revealed except pursuant to the pertinent Protective Order issued in Docket No. 08-01-01" with one such copy delivered to the Department and one copy delivered to the Office of Consumer Counsel.

6. The Confidential Information shall be part of the record in this docket subject to the conditions stated in Paragraphs 8 and 9.

7. Nothing herein shall be construed as a final determination that any of the Confidential Information will be admissible as substantive evidence in this proceeding or future proceeding, or at any hearing or trial. Moreover, nothing herein shall be considered a waiver of a party's right to assert at a later date that the material is or is not proprietary or privileged. A party seeking to change the terms of this Protective Order shall by motion give every other party ten (10) Department business days prior written notice. No information protected by this Protective Order shall be made public until the Department rules on any such motion to change the terms of the Protective Order.

8. If the Confidential Information is used in any manner in any letter, brief, petition, interrogatory or other writing ("Document"), the confidentiality of the Confidential Information shall be preserved by either (i) prominently labeling the Document "Confidential Information" and limiting the recipients of such Document to Commissioners, staff and consultants of the Department and if each of those persons has executed a Nondisclosure Agreement, to the OCC

and its consultants, and the AG or (ii) referring to the Confidential Information in the Document solely by title or exhibit reference in a manner reasonably calculated not to disclose the Confidential Information.

9. If the Confidential Information is used in any manner in any proceeding or hearing before the Department or the Commissioners, such proceeding or hearing shall not be held before, nor any record of it be made available to any person or entity not affiliated with the Department, and presence at such proceeding or hearing shall be limited to the Commissioners, staff, and consultants of the Department. Provided that each person has executed a Nondisclosure Agreement, the reviewing representatives of the OCC and its consultants and the AG may also be present at, or receive a record of, any proceeding conducted with respect to the proposal.

10. If the Confidential Information is disclosed to any person other than in the manner authorized by this Protective Order, the party responsible for such disclosure shall immediately upon learning of such disclosure inform Prosecutorial of all pertinent facts relating to such disclosure and shall make every effort to prevent disclosure by each unauthorized recipient of such information.

11. The Confidential Information made a part of the record in this proceeding shall remain in the possession of the Department. All other copies of the Confidential Information shall be returned to Prosecutorial or destroyed the sooner of within thirty (30) days after (i) the time for appeals from the Department's final decision in this proceeding shall have elapsed without an

appeal being taken, or (ii) the Department's final decision in this proceeding is subject to no further appeal. No digital copies of any form may be made of trade secret financial or economic models set forth in the Confidential Information, except that values-only model results may be copied and transferred to another electronic file for the express purpose of summarizing and evaluating model solutions, and such electronic files of model results shall be also considered Confidential Information.

DEPARTMENT OF PUBLIC UTILITY CONTROL

By_____
Commissioner

Dated:_____

REVIEWED AND ACKNOWLEDGED:

The undersigned hereby acknowledges that he or she has reviewed this Protective Order, and hereby agrees to abide by the terms, thereof, in exchange for receipt of the Confidential Information from the Prosecutorial Unit of the Department of Public Utility Control.

RECIPIENT: _____

REPRESENTING: Resource Insight, Inc.

DATE: _____

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING GENERATION PROJECTS

DOCKET NO. 08-01-01

FEBRUARY 5, 2008

MOTION OF BRIDGEPORT PEAKING POWER LLC FOR A PROTECTIVE ORDER

Bridgeport Peaking Power LLC ("BP3") hereby moves that the Department of Public Utility Control (the "Department") enter into a protective order in this docket to ensure that confidential information provided to the Department in this docket is not subject to public disclosure. As set forth in the Department's letter ruling issued in this proceeding on January 29, 2008, while the entirety of BP3's Qualification Submission filed on this date with the Department is to be protected as confidential until the close of business on March 3, 2008, BP3 respectfully requests that certain portions of its Qualification Submission continue to receive confidential treatment beyond such date. As further stated in the letter ruling, on or before March 3, 2008, BP3 will file a redacted hard copy of the Qualification Submission that may be made public on March 4, 2008.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING GENERATION

DOCKET NO. 08-01-01
FEBRUARY 5, 2008

PROTECTIVE ORDER CONCERNING BRIDGEPORT PEAKING POWER'S PROVISION OF CONFIDENTIAL AND PROPRIETARY INFORMATION

WHEREAS, Bridgeport Peaking Power LLC ("BP3") has filed with the Department of Public Utility Control (the "Department") on February 1, 2008, a Qualification Submission ("QS") in connection with this proceeding, Docket No. 08-01-01, DPUC Review of Peaking Generation Projects.

WHEREAS, disclosure of all of the information contained in the QS would result in the disclosure of proprietary, commercial information of BP3, undermine the competitive positions of BP3, and compromise BP3's ability to negotiate favorable contracts with engineers and construction contractors and fuel suppliers, gain site control, and accomplish other tasks necessary to achieve timely commercial operation, in the event that its bid is selected by the Department.

NOW, THEREFORE, IT IS HEREBY ORDERED by the Department that the following procedures are adopted for the protection of all information provided by BP3 to the Department in connection with its QS:

1. This Protective Order shall govern all materials submitted by the bidder as part of the QS (the "Protected Materials").

2. All such Protected Materials made available pursuant to this Protective Order shall be used by any person receiving such information solely for the purposes of participating in this docket (08-01-01) and, if BP3's bid is selected, in the contested case proceeding pursuant to Section 50 of Public Act 07-242 in which the Department will review proposals to build new Connecticut peaking generation units and for no other purpose whatsoever.

3. The Protected Materials made available in this docket shall be given solely to Commissioners, staff and consultants of the Department and the Office of Consumer Counsel who are bound by the terms of this Protective Order; provided, however the Protected Materials may, upon completion of the bid selection process and after the electric distribution companies that will serve as the counterparties to the contracts (the "EDC Counterparties or EDC Counterparty") have submitted to the Department all of the contracts for all selected bidders, in the contested case proceeding pursuant to Section 50 of Public Act 07-242, ~~be made available to the reviewing parties of the Office of Consumer Counsel (OCC) and its consultants~~, The Attorney General's Office (AG), and the one EDC Counterparty for BP3's contract, all of whom shall execute the attached Nondisclosure Agreement and be bound by the terms of this Protective Order.

4. All persons granted access to the Protected Materials pursuant to Paragraph 3 shall take all reasonable precautions to keep this information secure in accordance with the purposes and intent of this Protective Order.

5. Two (2) copies of the Protected Materials shall be marked "Confidential" by BP3 and shall be delivered in sealed envelopes marked "Confidential" with the following language "This envelope is not to be opened nor the contents to be displayed or revealed except pursuant to the pertinent Protective Order issued in Docket No. 08-01-01".

6. The Protected Materials shall be part of the record in this docket, and, if BP3's bid is selected, in the contested case proceeding required by Section 50 of Public Act 07-242, subject to any conditions set forth in Paragraphs 8 and 9 hereto.

7. Nothing herein shall be construed as a final determination that any of the Confidential Information will be admissible as substantive evidence in this proceeding or future proceedings, or at any hearing or trial. Moreover, nothing herein shall be considered a waiver of any party's right to assert at a later date that the material is or is not proprietary or privileged. A party seeking to change the terms of the Protective Order shall by motion give every other party ten (10) Department business day's prior written notice. No information protected by the Order shall be made public until the Department rules on any such motion to change the terms of the Order.

8. If the Protected Materials are used in any manner in any letter, brief, petition, interrogatory or other writing ("Document"), the confidentiality of the Protected Materials shall be preserved by either: (i) prominently labeling the Document "Confidential Information" and limiting the recipients of such Document to Commissioners, staff and consultants of the Department, and if each of these persons has executed a Nondisclosure Agreements, to the OCC and its consultants, the AG, to the EDC Counterparty upon completion of the bid selection process and after the electric distribution companies that will serve as the counterparties to the contract (the "EDC

Counterparties or EDC Counterparty") has submitted to the Department all of the contracts for all selected bidders; or (ii) referring to the Protected Materials in the Document solely by title or exhibit reference in a manner reasonably calculated not to disclose the confidential information set forth in the Protected Materials.

9. If the Protected Materials are used in any manner in any proceeding or hearing before the Department or the Commissioners, such proceeding or hearing shall not be held before, nor any record of it made available to any person or entity not affiliated with the Department, and presence at such proceeding or hearing shall be limited to the Commissioners, staff and consultants of the Department. Provided each person has executed a Nondisclosure Agreement, the reviewing representatives of OCC and its consultants, the AG, and the EDC Counterparty may also be present at, or receive a record of, any proceeding conducted with respect to the bid or resulting contract after completion of the bid selection process.

10. If the Protected Materials are disclosed to any person other than in the manner authorized by this Protective Order, the party responsible for such disclosure shall immediately upon learning of such disclosure inform BP3 of all pertinent facts relating to such disclosure and shall make every effort to prevent disclosure by each unauthorized recipient of such information.

11. The Protected Materials made a part of the record in this proceeding and in the contested case proceeding required by Section 50 of Public Act 07-242 shall remain in the possession of the Department. All other copies of the Protected Materials shall be returned to BP3 or destroyed the sooner of within thirty (30) days after (i) the time for appeals from the Department final decision in the contested case proceeding required by

Section 50 of Public Act 07-242 shall have elapsed without an appeal being taken, or (ii) the Department's final decision in the contested case proceeding required by Section 50 of Public Act 07-242 is subject to no further appeal.

DEPARTMENT OF PUBLIC UTILITY CONTROL

By: _____
Commissioner

Dated: _____, 2008

NONDISCLOSURE AGREEMENT
AND AGREEMENT TO BE BOUND
BY THE TERMS OF THE PROTECTIVE ORDER

The undersigned hereby acknowledges that he or she has received and read the Protective Order filed in Docket No. 08-01-01, DPUC Review of Peaking Generation Projects, and hereby agrees to abide by the terms thereof, in exchange for receipt of the Confidential Information from Bridgeport Peaking Power LLC.

Name and Title:

_____
(Print)

_____
(Signature)

Date: _____

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING	DOCKET NO. 08-01-01
GENERATION PROJECTS	FEBRUARY 5, 2008

AFFIDAVIT OF TED VERRILL

STATE OF CONNECTICUT)
: ss: Fairfield February 5, 2008
COUNTY OF NEW HAVEN)

Ted Verrill, being duly sworn, states:

1. I am Managing Member of Bridgeport Peaking Power LLC ("BP3"), 75 Sasco River Lane, Southport, CT 06890. I am over the age of eighteen years and understand the obligations of making statements under oath.

2. I am familiar with Docket No. 08-01-01, DPUC Review of Peaking Generation Projects.

3. I submit this affidavit in support of the Motion of BP3 for a Protective Order filed contemporaneously herewith requesting a ruling from the Department of Public Utility Control (the "Department") that all of the information contained in BP3's Qualification Submission filing made in connection with this proceeding constitutes "Confidential Information."

4. All of the information contained in the Qualification Submission relates to project plan details, project parties, business strategies and models that, if subject to public disclosure at this time, could irreparably harm the competitive position of BP3 and the ability of the parties related thereto to consummate a transaction under this Docket. Moreover, disclosure of such information would undermine the ability of the project described in the Qualification Submission to conduct competitive negotiations with potential parties involved with this project.

5. BP3 has used its best efforts to keep and maintain all such information secret. To the best of my knowledge, such information has not been disclosed or released

to the public and is generally covered by confidentiality agreements required by BP3 from its vendors or other parties involved in the project.

Ted W. Verrill
Managing Member

Subscribed and sworn to before me
this 5th day of February, 2008

Robina Chaudhry
Notary Public
My Commission Expires: 1/31/2012

Attachment PUB/GAC-1.04

Joseph A. Rosenthal
Direct Dial (860) 827-2904
Email: joseph.rosenthal@ct.gov

February 8, 2008

Louise E. Rickard
Acting Executive Secretary
Department of Public Utility Control
Ten Franklin Square
New Britain, CT 06051

Re: DPUC Review of Peaking Generation Projects
Docket No. 08-01-01
Bridgeport Peaking Power LLC's Motion for Protective Order

Dear Ms. Rickard:

The Office of Consumer Counsel ("OCC") is a party to the above-captioned docket, and has retained consultants in connection with its participation therein.

OCC had concerns with the above-referenced Motion for Protective Order, in that as written it would have delayed OCC's review of Bridgeport Peaking Power's submission. OCC worked out minor revisions with Bridgeport Peaking Power and signed the Non-Disclosure Agreement, as shown in the attached document. The revisions are intended to allow present review by OCC of Bridgeport Peaking Power's submission.

Very truly yours,

MARY J. HEALEY
CONSUMER COUNSEL

By: _____
Joseph A. Rosenthal
Principal Attorney

Enc.
cc: Service List

C:\Documents and Settings\bgange\Local Settings\Temporary Internet Files\Content.Outlook\61XB6K30\Att PUB GAC-1 04 Let re BPP_Prot_Order.doc

Attachment PUB/GAC-1.05

Writer's Direct:
(860) 827-2922
victoria.hackett@ct.gov

February 13, 2007

Louise E. Rickard,
Acting Executive Secretary
Department of Public Utility Control
Ten Franklin Square
New Britain, CT 06051

RE: DPUC Investigation of Measures to Reduce Federally Mandated Congestion Charges (Long Term Measures)
Docket No. 05-07-14PH02

Dear Ms. Rickard:

The Office of Consumer Counsel ("OCC") hereby responds to a letter from the Department of Public Utility Control (the "Department") dated February 7, 2007 (the "Letter"), which Letter addresses OCC's motion to amend the protective order issued by the Department (the "Protective Order") to protect bidders and their confidential information in this docket. By said motion, OCC has asked the Department to amend the Protective Order to allow OCC and its consultants access to all protected materials related to the financial bids ("Protected Materials"). OCC has requested access at this time so that it may begin to prepare for the upcoming contested docket.

In the Letter, the Department asks OCC to draft a revised protective order and to comply with certain conditions (the "Conditions") prior to being granted access to the Protected Materials. Attached hereto is a revised Protective Order in both redlined and final format. OCC's response to the Conditions is outlined below.

The first Condition is that the OCC not communicate with any bidders or ask bidders any questions about their bids, either publicly or confidentially. OCC has no objection to such condition so long as, consistent with the format developed by the Department for the RFP process, any questions OCC may have with respect to bids will be shepherded through the RFP Coordinator and answered in accord with that process.

The second Condition is that OCC is not allowed to ask the Department or its consultants any questions about the bids until after winning bids have been announced. OCC understands that this Condition is being imposed due to time constraints faced by the Department and its consultants in preparing their analysis of the bids. OCC therefore does not object to this Condition so long as OCC is provided with both the public and non-public versions of the Department's consultants' reports when winning bidders are announced as outlined in the Letter.

The Third Condition does not merit substantive discussion, as it merely requires OCC to comply with the Protective Order, an obligation to which OCC will already be subject upon execution of the Nondisclosure Agreements. Assuredly, the OCC takes seriously its obligations in that regard, as we trust all others with access to the Protected Materials will do.

The last of the aforesaid Conditions is the creation of a written plan to ensure that OCC complies with the Protective Order, as amended. Although the creation of a written plan for compliance with a Protective Order is certainly unusual (as OCC frequently deals with protected materials), in this case OCC has no objection to providing such a plan given the sensitive nature of the Protected Materials and the RFP process. This plan is outlined below.

OCC will create a team of individuals who are assigned to the above-captioned docket and who will have access to the Protected Materials. At this point, the members of this team are as follows: Mary Healey, Consumer Counsel; Bruce Johnson, Principal Attorney; Victoria Hackett, Staff Attorney; Peter Shanley, Utilities Finance Specialist; Sharon Johnson, Administrative Hearings Specialist; Kathleen Bartley, Secretary; and Melody Mendez, Secretary (collectively, "Team Members"). Executed Nondisclosure Agreements for all Team Members are submitted herewith. Should it become necessary to add additional staff to the team at any point in time, OCC will notify the Department prior to said additional staff being assigned and will submit additional executed Nondisclosure Agreements as required.

Further, OCC anticipates hiring an outside consultant and will provide the Department with notice thereof and an executed Nondisclosure Agreement upon execution of a contract with said Consultant. OCC asks the Department to forward copies of the Protected Materials to our Consultant upon receipt of the Consultant's executed Nondisclosure Agreement and written plan for compliance with the Protective Order.

OCC will maintain the confidentiality of the Protected Materials internally by keeping said Protected Materials in a locked file cabinet when they are not being reviewed. Team Members will sign a log when checking out and checking in the Protected Materials. Team Members will not discuss the content of the Protected Materials with any other staff at OCC, or with anyone outside of OCC, other than signatories to the Nondisclosure Agreement. OCC will comply in all further respects with the terms of the Protective Order, as amended.

OCC appreciates the Department's time and attention in addressing this matter.

Respectfully submitted,

MARY J. HEALEY
CONSUMER COUNSEL

By: _____
Victoria P. Hackett
Staff Attorney

Encs.
cc: service list

CONFIDENTIALITY AND NONDISCLOSURE AGREEMENT

Massachusetts Electric Compan and Nantucket Electric Company
both d/b/a/ National Grid
D.P.U. 10-54

This Confidentiality and Nondisclosure Agreement (the "Agreement") is made this 19th day of July 2010 ("Effective Date") by and among Massachusetts Electric Company and Nantucket Electric Company both d/b/a/ National Grid (the "Company") and the following entities, referred to collectively as the "Counterparties" and individually as a "Counterparty": Clean Power Now, Inc.; Conservation Law Foundation; Natural Resources Defense Council; the Union of Concerned Scientists; and Resource Insight Inc.

1. The Company shall provide confidential information and documentation ("Confidential Material") to the one named counsel and one named consultant identified below for each Counterparty that have executed this Agreement. The Confidential Materials shall be delivered on behalf of the Company in a sealed envelope, clearly identified with the words "CONFIDENTIAL" on the outside of the envelope as well as on each page. Any copies, notes, memoranda, summaries, abstracts, studies, computer software, software documents or other information derived from such Confidential Materials or portions thereof, prepared by a Counterparty shall be similarly marked as "CONFIDENTIAL" and shall also be considered Confidential Materials under this Agreement.

2. Each Counterparty agrees to use the Confidential Materials only for purposes of preparation of and participation in work product for purposes of this DPU 10-54 proceeding, or any continuation of this proceeding through recalculation, reconsideration, appeal, remand, or otherwise (such proceedings, appeals, etc. hereinafter referred to as the "Proceeding"), in a manner consistent with the provisions of this Agreement. Each Counterparty shall hold any and all Confidential Materials in the strictest of confidence and shall not make use of the Confidential Materials for any purpose other than this Proceeding. Notwithstanding anything herein to the contrary, "Confidential Material" shall not include information or material that: (a) becomes generally known by or available to the public, other than through breach of this Confidentiality Agreement; (b) is independently developed by an outside counsel or outside expert to Counterparties without the use of Confidential Material; (c) is communicated by the Company to an unrelated third party without any obligation of confidentiality imposed on such third party recipient; or (d) the Counterparties thereof rightfully receive from a third party not then under any duty of confidentiality with respect to such information or material.

3. Each Counterparty further agrees that no disclosure of the Confidential Material shall be made to any person that is not a signatory to this Agreement, other than the Company, the Department, and the Massachusetts Office of Attorney General designated or eligible to receive Confidential Materials in the Proceeding, provided that:

(a) Notwithstanding the provisions of Sections 2 and 3, the following Counterparties shall be authorized to designate one or more their staff as of the Effective Date that will actively assist with preparation of and participation in work product used in this Proceeding: Clean Power Now, Inc.; Conservation Law Foundation; Natural Resources

Defense Council; the Union of Concerned Scientists; and Resource Insight Inc. Such staff persons shall be informed prior to disclosure of the confidential and proprietary nature of the Confidential Material and they shall agree in a written certification prior to such disclosure to be bound by the terms of this Agreement. Copies of each executed certification shall be provided to the Company promptly following execution. This designated staff shall not be authorized to duplicate, whether by hard copy or electronic means, the Confidential Materials. If any person to whom disclosure of Confidential Materials has made hereunder ceases to be engaged in this proceeding, access to such materials by such person shall be terminated. Photocopying of the Confidential Materials for purposes of making a confidential filing with the Department, the Company and the Attorney General shall be performed by a Counterparty, and only as needed to properly serve the Department and those parties.

(b) The Counterparties may consult with their clients prior to viewing the Confidential Materials for strategic direction. The Counterparties shall be allowed to rely generally on examination of the Confidential Materials to provide strategic guidance to their Clients regarding the D.P.U. 10-54 Proceeding, provided however, that in rendering such guidance, advice and otherwise communicating with the Clients, the Counterparties shall not disclose any Confidential Material to the Client. If a Counterparty intends to rely on the Confidential Materials in submitting filings or making arguments before the Department in D.P.U. 10-54, the Counterparty shall follow the Department's procedures to submit redacted copies for the public record and shall provide confidential copies only to the Department, the Attorney General, and the Company.

4. The Counterparties acknowledge that the Confidential Materials are afforded counsel-only and outside consultant-only status, consistent with Department precedent, and that they should not cause the information contained therein to be released intentionally or inadvertently onto the public record. If one or more of the Counterparties is determined by the Department or a reviewing court to have released or caused to be disclosed information on the public record in violation of this Agreement, such Counterparties or Counterparty causing such release may be subject to penalties or remedies authorized under the Department's regulations, Massachusetts statutory and common law or other sources of law.

5. Any Confidential Material released into the custody of the Counterparties shall remain the property of the Company and shall be returned to Company or destroyed, if requested by the Company, within 72 hours of notice being received that return of such Confidential Material is requested following the conclusion of the Proceeding. If the Confidential Material is destroyed by a Counterparty rather than returned, the Counterparty shall provide the Company written confirmation of that destruction within that 72 hours. If not requested during said period following conclusion of the Proceeding, the Counterparties shall destroy the Confidential Material. Under this Agreement, the Counterparties have not received and shall not receive any rights or claims with respect to the Confidential Material. Also, the Counterparties shall not make any photocopies or reproductions, whether by hard copy or electronic means of any Confidential Materials except in accordance with this Agreement. The Counterparties shall exercise best efforts to safeguard the Confidential Material against loss, theft or other inadvertent disclosure, and agree to take such steps as are reasonably necessary to ensure that confidentiality is maintained.

6. This Agreement shall in no way be deemed to constitute any waiver of the rights of any Party to this Docket to at any time contest any assertion or to appeal any finding that specific information is or should be confidential information or that it should or should not be subject to the protective requirements of this Agreement.

7. This Agreement shall not obligate the Company to disclose any particular information or documents not specified in this Agreement.

8. In the event that the Counterparties should be legally compelled (by oral questions, interrogatories, requests for information or documents subpoena, Civil Investigative Demand or similar process) to disclose any Confidential Materials, they shall provide the Company with prompt written notice of any such request, so that Company may seek an appropriate protective order, and/or take whatever other action that the Company deems appropriate. It is further agreed that a Counterparty shall not disclose any Confidential Material pursuant to any such request if the Company has secured a ruling that disclosure is not legally required or that disclosure is not required until such time as rulings are made on the requests for protective order or other action by the Company.

9. The term of this Agreement shall commence on the Effective Date and continue until the Confidential Materials are returned to the Company or destroyed.

10. This Agreement shall be binding upon the parties hereto and all staff persons of the Counterparties who have executed a written certificate in accordance with Section 3(a) above of this Agreement, and shall not be assigned by any recipient of Confidential Materials hereunder.

11. The Counterparties and the Company acknowledge and agree that this Agreement constitutes the entire agreement among the parties with respect to the subject matter hereof, and supersedes any and all previous agreements between or among the parties hereto related to the same. No provision of this Agreement may be waived except by a writing executed by the Company. The failure of the Company to enforce any provision of this Agreement shall neither be construed as a waiver of the provision nor prevent the Company from enforcing any other provision of this Agreement. No provision of this Agreement may be amended or otherwise modified except by a writing signed by the parties to this Agreement.

12. If a court of competent jurisdiction determines any provision of this Agreement to be wholly or partially unenforceable for any reason, such unenforceability shall not affect the enforceability of the balance of this Agreement, and all provisions of this Agreement are, if alternative interpretations are applicable, to be construed so as to preserve the Agreement's enforceability.

13. This Agreement shall be governed by and construed in accordance with the law of the Commonwealth of Massachusetts.

14. This Agreement may be executed in counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement. This Agreement may be delivered by facsimile transmission, and facsimile copies of executed signature pages shall be binding as originals.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement by their duly authorized representatives, as of the day and year above written.

Massachusetts Electric Company and Nantucket Electric Company both d/b/a/ National Grid

By:_____
Print Name: David T. Doot
Day Pitney LLP
242 Trumbull Street
Hartford, CT 06103-1212

Title: Its Counsel

CLEAN POWER NOW, INC.

By:_____
Print Name: Matthew F. Pawa, Esq.
Law Offices Of Matthew F. Pawa, P.C.
1280 Centre Street, Suite 230
Newton Centre, MA 02459

Title: Its Counsel

Conservation Law Foundation and Union of Concerned Scientists

By:_____
Print Name: Susan M. Reid
Conservation Law Foundation
62 Summer Street
Boston, MA 02110

Title: Their Counsel

Natural Resources Defense Council

By:_____
Print Name: Katherine Kennedy, Esq.

By:_____
Print Name: Brandi Colander, Esq.
Natural Resources Defense Council
40 West 20th Street, 11th Floor
New York, NY 10011

Title: Its Counsel

Resource Insight Inc

By:_____
Print Name: Paul L. Chernick
Resource Insight, Inc.
5 Water Street
Arlington, Massachusetts 02476

Title: President

NONDSCLOSURE AGREEMENT AND AGREEMENT TO BE BOUND BY THE TERMS OF THE PROTECTIVE ORDER

The undersigned hereby acknowledges that he or she has received and read a copy of the Protective Order granted by the Department of Public Utility Control (the "Department") in connection with the Financial Bids filed by all bidders in response to the Request for Proposals issued by the Department in Docket No. 05-07-14PH02, and hereby agrees to abide by the terms thereof in exchange for being given access to the confidential information from all bidders that is protected from disclosure under the terms of the Protective Order.

Name and Title:

Resource Insight, Inc.

_____

(Signature)

Date: February 23, 2007

NONDSCLOSURE AGREEMENT AND AGREEMENT TO BE BOUND BY THE TERMS OF THE PROTECTIVE ORDER

The undersigned hereby acknowledges that he or she has received and read a copy of the Protective Order granted by the Department of Public Utility Control (the "Department") in connection with the Financial Bids filed by all bidders in response to the Request for Proposals issued by the Department in Docket No. 05-07-14PH02, and hereby agrees to abide by the terms thereof in exchange for being given access to the confidential information from all bidders that is protected from disclosure under the terms of the Protective Order.

Name and Title:

Resource Insight, Inc.

_____

(Signature)

Date: February 23, 2007

NONDSCLOSURE AGREEMENT AND AGREEMENT TO BE BOUND BY THE TERMS OF THE PROTECTIVE ORDER

The undersigned hereby acknowledges that he or she has received and read a copy of the Protective Order granted by the Department of Public Utility Control (the "Department") in connection with the Financial Bids filed by all bidders in response to the Request for Proposals issued by the Department in Docket No. 05-07-14PH02, and hereby agrees to abide by the terms thereof in exchange for being given access to the confidential information from all bidders that is protected from disclosure under the terms of the Protective Order.

Name and Title:

Resource Insight, Inc.

_____

(Signature)

Date: February 23, 2007

ATTACHMENT C

Form of Declaration and Undertaking

EB-2010-0008

IN THE MATTER OF the Ontario Energy Board Act, 1998;

AND IN THE MATTER OF an Application by Ontario Power Generation Inc. for an order or orders approving payment amounts for prescribed generating facilities commencing March 1, 2011

DECLARATION AND UNDERTAKING

I, Paul Chernick, am a consultant for The Green Energy Coalition.

DECLARATION

I declare that:

1. I have read the *Rules of Practice and Procedure* of the Ontario Energy Board (the "Board") and all Orders of the Board that relate to this proceeding.

2. I am not a director or employee of a party to this proceeding for which I act or of any other person known by me to be a party in this proceeding.

3. I understand that this Declaration and Undertaking applies to all information that I receive in this proceeding and that has been designated by the Board as confidential and to all documents that contain or refer to that confidential information ("Confidential Information").

4. I understand that this Declaration and Undertaking is a condition of an Order of the Board, that the Board may apply to the Superior Court of Justice to enforce it.

UNDERTAKING

I undertake that:

1. I will use Confidential Information exclusively for duties performed in respect of this proceeding.

2. I will not divulge Confidential Information except to a person granted access to such Confidential Information or to the Board.

3. I will not reproduce, in any manner, Confidential Information without the prior written approval of the Board. For this purpose, reproducing Confidential Information includes scanning paper copies of Confidential Information, copying the Confidential Information onto a diskette or other machine-readable media and saving the Confidential Information on to a computer system.

4. I will protect Confidential Information from unauthorized access.

5. I will, promptly following the end of this proceeding or within 10 days after the end of my participation in this proceeding:

   (a) return to the Board Secretary, under the direction of the Board Secretary, all documents and materials in all media containing Confidential Information, including notes, charts, memoranda, transcripts and submissions based on such Confidential Information; or

   (b) destroy such documents and materials and file with the Board Secretary a certification of destruction in the form prescribed by the Board pertaining to the destroyed documents and materials.

   For this purpose, the end of this proceeding is the date on which the period for filing a review or appeal of the Board's final order in this proceeding expires, or, if a review or appeal is filed, upon issuance of a final decision on the review or appeal from which no further review or appeal can or has been taken.

6. I will inform the Board Secretary immediately of any changes in the facts referred to in this Declaration and Undertaking.

Dated at Arlington, MA this 6th day of July, 2010

Signature:

Name: Paul Chernick
Company/Firm: Resource Insight, Inc.
Address: 5 Water Street, Arlington MA 02476
Telephone: 781-646-1505 x207
Fax: 781-646-1506
E-mail: pchernick@resourceinsight.com

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the matter of the 2010 Long-Term Forecast Report of the Duke Energy Ohio, Inc.	)))	Case No. 10-503-EL-FOR

PROTECTIVE AGREEMENT

This Protective Agreement ("Agreement") is entered into by and between Duke Energy Ohio ("Duke" or "Company") and the Office of the Ohio Consumers' Counsel ("OCC") (collectively, the "Parties"). This Agreement is designed to facilitate and expedite the exchange with OCC of information in the discovery process in this proceeding, as this "Proceeding" is defined herein. It reflects agreement between Duke and OCC as to the manner in which "Protected Materials," as defined herein, are to be treated. This Agreement is not intended to constitute any resolution of the merits concerning the confidentiality of any of the Protected Materials.

1. The purpose of this Agreement is to permit prompt access to and review of such Protected Materials in a controlled manner that will allow their use for the purposes of this Proceeding while protecting such data from disclosure to non-participants, without a prior ruling by an administrative agency or court of competent jurisdiction regarding whether the information deserves protection.

2. "Proceeding" as used throughout this document shall mean the above-captioned case, including any appeals therefrom and remands.

3. "Protected Materials" means documents and information furnished subject to the terms of this Agreement and so designated by the Company by conspicuously

marking each document or written response as confidential. Protected Materials do not include any information or documents contained in the public files of any state or federal administrative agency or court and do not include documents or information which at, or prior to, commencement of this Proceeding, is or was otherwise in the public domain, or which enters into the public domain as a result of publication by the Company.

4. Protected Materials provided in the context of this Proceeding will be provided to OCC or, upon mutual agreement of the Parties, reasonable access to the Protected Materials may be provided to OCC for use by OCC in conjunction with this Proceeding. Nothing in this Agreement precludes the use of any portion of the Protected Materials that properly becomes part of the public record or enters into the public domain. Nothing in this Agreement precludes OCC in this proceeding from filing Protected Materials under seal or otherwise using Protected Materials in ways, such as *in camera* proceedings, that do not disclose Protected Materials.

5. As used in this Agreement, the term "Authorized Representative" includes OCC's counsel of record in this Proceeding and other attorneys, paralegals, economists, statisticians, accountants, consultants, or other persons employed or retained by OCC and engaged in this Proceeding.

6. Access to Protected Materials is permitted to OCC's Authorized Representatives who are either a signatory to this Agreement or who have executed a Non-Disclosure Certificate in the form attached hereto as Exhibit A prior to any access. OCC must treat all Protected Materials, copies thereof, information contained therein, and writings made therefrom as proprietary and confidential, and will safeguard such Protected Materials, copies thereof, information contained therein, and writings made

therefrom so as to prevent voluntary disclosure to any persons other than OCC's Authorized Representatives.

7. If any OCC Authorized Representative ceases to be engaged in this Proceeding, access to any Protected Materials by such person will be terminated immediately and such person must promptly return Protected Materials in his or her possession to another Authorized Representative of OCC and if there is no such Authorized Representative, such person must treat such Protected Materials in the manner set forth in paragraph 16 hereof as if this Proceeding herein had been concluded. Any person who has signed the Non-Disclosure Certificate will continue to be bound by the provisions of this Agreement even if no longer so engaged.

8. In this Proceeding, OCC may disclose Protected Materials or OCC writings regarding their contents to any individual or entity that is in possession of said Protected Materials and is bound by a protective order or a similar protective agreement with the Company with respect to the Protected Materials that may be disclosed by OCC. OCC may also disclose Protected Materials to employees or persons working for or representing the Public Utilities Commission of Ohio in connection with this Proceeding.

9. If OCC desires to include, utilize, refer, or copy any Protected Materials in such a manner, other than in a manner provided for herein, that might require disclosure of such material, then OCC must first give notice (as provided in Paragraph 15) to the Company, specifically identifying each of the Protected Materials that could be disclosed in the public domain. The Company will have five business days after service of OCC's notice to file with an administrative agency or court of competent jurisdiction, a motion and affidavits with respect to each of the identified Protected Materials demonstrating the

reasons for maintaining the confidentiality of the Protected Materials. The affidavits for the motion must set forth facts delineating that the documents or information designated as Protected Materials have been maintained in a confidential manner and the precise nature and justification for the injury that would result from the disclosure of such information. If the Company does not file such a motion within five business days of OCC's service of the notice, then the Protected Materials will be deemed non-confidential and not subject to this Agreement. The Parties agree to seek *in camera* proceedings by the administrative agency or court of competent jurisdiction for the portion of arguments that would disclose Protected Materials. Such *in camera* proceedings will be open only to the Parties, their counsel, other OCC Authorized Representatives, and others authorized by the administrative agency or court of competent jurisdiction to be present; however, characterizations of the Protected Materials that do not disclose the Protected Materials may be used in public. Until the administrative agency or court of competent jurisdiction decides on the proposed use of the Protected Materials, that portion of the hearing transcript that contains Protected Materials will be sealed and will itself be subject to this Agreement.

10. Any portion of the Protected Materials that the administrative agency or court of competent jurisdiction has deemed to be protected and that is filed in this Proceeding will be filed in sealed confidential envelopes or other appropriate containers sealed from the public record. If OCC's utilization of the Protected Materials does not provide the Company the requisite five business days advance notice, OCC must file such Protected Materials under seal for consideration by the administrative agency or court of competent jurisdiction until the Parties or the administrative agency or court of competent

jurisdiction decides otherwise. OCC may file Protected Materials under seal in this proceeding whether or not OCC seeks a ruling that the Protected Materials should be in the public domain.

11. The Parties agree to seek *in camera* examination of a witness for the portion of the examination that would disclose Protected Materials that the administrative agency or court of competent jurisdiction has deemed to be protected. Such *in camera* examination will be open only to counsel for the Parties, other Authorized Representatives of OCC, and others authorized by the administrative agency or court of competent jurisdiction to be present. Transcripts of the closed hearing will be stored in sealed envelopes or other appropriate containers sealed pursuant to the order of the administrative agency or court of competent jurisdiction.

12. It is expressly understood that upon a filing made in accordance with paragraph 9 or paragraph 13 of this Agreement, the burden will be upon the Company to show that any materials labeled as Protected Materials pursuant to this Agreement are confidential and deserving of protection from disclosure.

13. OCC will promptly give the Company notice (as provided in Paragraph 15) if OCC receives a public records request for Protected Materials. The Company will have five business days after service of OCC's notice to file a pleading before a court of competent jurisdiction to prevent disclosure of the Protected Materials in question. If the Company files such a pleading, OCC will continue to protect the Protected Materials as required by this agreement pending an order of the court. If the Company does not file at a court of competent jurisdiction within five business days of service of OCC's notice, then such Protected Materials can be deemed by OCC to be non-confidential and not

subject to this Agreement. Alternatively, the Company may provide notice to OCC that the Protected Materials may be disclosed in response to the public records request.

14. If, under Ohio's Public Records Law, a court awards a relator or person or party attorney's fees or statutory damages in connection with OCC's non-disclosure or delayed disclosure of Protected Materials, then the Company will pay such awarded fees and/or statutory damages to the relator or person or party so that the State of Ohio, OCC and OCC's employees and officials are held harmless.

15. All notices required by paragraphs 9 and 13 must be served by the Parties on each other by one of the following methods: (1) sending the notice to such counsel of record herein via e-mail; (2) hand-delivering the notice to such counsel in person at any location; or (3) sending the notice by an overnight delivery service to such counsel.

16. Once OCC has complied with its records retention schedule(s) pertaining to the retention of the Protected Materials and OCC determines that it has no further legal obligation to retain the Protected Materials and this Proceeding (including all appeals and remands) is concluded, OCC must return or securely dispose of (e.g., by shredding) all copies of the Protected Materials unless the Protected Materials have been released into the public domain or filed with an administrative agency or Court under seal. OCC may keep one copy of each document designated as Protected Material that was filed under seal and one copy of all testimony, cross-examination, transcripts, briefs and work product pertaining to such information and shall safeguard that copy as provided in this Agreement.

17. By entering into this Protective Agreement, OCC does not waive any right that it may have to dispute the Company's determination regarding any material

identified as confidential by the Company and to pursue those remedies that may be available to OCC before an administrative agency or court of competent jurisdiction.

18. By entering into this Protective Agreement, the Company does not waive any right it may have to object to the discovery of confidential material on grounds other than confidentiality and to pursue those remedies that may be available to the Company before an administrative agency or court of competent jurisdiction.

19. This Agreement represents the entire understanding of the parties with respect to Protected Materials and supersedes all other understandings, written or oral, with respect to the Protected Materials. No amendment, modification, or waiver of any provision of this Agreement is valid, unless in writing signed by both parties. Nothing in this Agreement will be construed as a waiver of sovereign immunity by OCC.

20. This Agreement will be governed by and construed in accordance with the laws of the State of Ohio.

Duke Energy Ohio

BY: Elizabeth H Watts

Counsel

Date 6-17-10

Office of the Ohio Consumers' Counsel

BY: Jeffrey L. Small

Counsel

Date 6-15-10

Exhibit A

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the matter of the 2010 Long-Term Forecast Report of the Duke Energy Ohio, Inc.	)))	Case No. 10-503-EL-FOR

I certify my understanding that protected materials may be provided to me, but only pursuant to the terms and restrictions of the Protective Agreement, last executed June _____2010, and certify that I have been given a copy of and have read the Protective Agreement, and that I agree to be bound by it. I understand that the contents of Protected Materials, and any writings, memoranda, or any other form of information regarding or derived from Protected Materials shall not be voluntarily disclosed to anyone other than in accordance with the Protective Agreement and shall be used only for the purposes of this Proceeding as defined in paragraph two of the Protective Agreement.

Name: _____

Company: _____

Address: _____

Telephone: _____

Date: _____

ST ATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC INVESTIGATION OF MEASURES TO REDUCE FEDERALL Y MANDATED CONGESTION CHARGES (LONG-TERM MEASURES)

Docket No. 05-07-14PH02

February 13, 2007

PROTECTIVE ORDER

WHEREAS, various bidders ("Bidders") have filed with the Department of Public Utility Control (the "Department") on December 13, 2006, Financial Bids for their projects ("Financial Bids") pursuant to the Department's Request for Proposals ("RFP") in the above-referenced docket.

WHEREAS, disclosure of all of the information contained in the Financial Bids would result in the disclosure of proprietary, commercial information of Bidders, undermine the competitive positions of Bidders, and compromise Bidders' ability to negotiate favorable contracts with engineers and construction contractors and fuel suppliers, gain site control, and accomplish other tasks necessary to achieve timely commercial operation, in the case of any bid selected by the Department.

NOW, THEREFORE, IT IS HEREBY ORDERED by the Department of Public Utility Control (Department) that the following procedures are adopted for the protection of certain information provided by Bidders in connection with their Financial Bids:

1. This Protective Order shall govern any and all materials granted protected treatment by the Department ("Protected Materials"), including but not limited to Financial Bids, the Financial Bid template (Appendix J), Bid Qualifications, Bidder responses to follow-up questions and any revisions or updates to Appendices F, H, and I that any Bidder may submit as part of their Financial Bid.

2. All such Protected Materials made available pursuant to this Protective Order shall be used by any person receiving such information solely for the purposes of participating in this docket (05-07-14PH02) and in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i) in which the Department will review contracts and for no other purpose whatsoever.

3. The Protected Materials made available in this docket shall be given solely to Commissioners, staff and consultants of the Department, as well as the Office of Consumer Counsel (OCC) and its consultants who have executed Nondisclosure Agreements and who are bound by the terms of this Protective Order. Each member of the OCC having access to such Protected Materials, and any OCC consultant having access to the Protected Materials, shall individually execute the attached Nondisclosure Agreement prior to being provided with the Protected Materials.

4. All persons granted access to the Protected Materials pursuant to Paragraph 3 shall take all reasonable precautions to keep this information secure in accordance with the purposes and intent of this Protective Order. In furtherance of this requirement, the Office of Consumer Counsel (OCC) and its consultant shall separately submit to the Department a written plan outlining how they will each

ensure the confidentiality of the data in accordance with this Protective Order and identifying the persons who will have access to the data, said Plan to be submitted contemporaneously with the executed nondisclosure agreements.

5. Two (2) copies of the Protected Materials shall be marked "Confidential" by Bidders and shall be delivered in sealed envelopes marked "Confidential" with the following language "This envelope is not to be opened nor the contents to be displayed or revealed except pursuant to the pertinent Protective Order issued in Docket No. 05-07-14PH02" to the Department's consultant and RFP Coordinator, RFP Coordinator, London Economics International LLC, 717 Atlantic Ave, Suite 1A, Boston, MA 02111 (London Economics). London Economics will deliver one copy of the Financial Bid package to the DPUC at a later date under seal. The Department shall deliver copies of the Financial Bid packages for each bidder to the OCC and its consultant upon receipt of signed Nondisclosure Agreements and written plans for maintaining the confidentiality of the Protected Materials.

6. The Protected Materials shall be part of the record in this docket and in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i), subject to the conditions stated in Paragraphs 8 and 9 and the conditions set forth in Section 3.3 of the RFP.

7. Nothing herein shall be construed as a final determination that any of the Confidential Information will be admissible as substantive evidence in this proceeding or future proceedings, or at any hearing or trial. Moreover, nothing herein shall be considered a waiver of any party's right to assert at a later date that the material is or is not proprietary or privileged. A party seeking to change the

terms of the Order shall by motion give every other party Ten (10) Department business days prior written notice. No information protected by the Order shall be made public until the Department rules on any such motion to change the terms of the Order.

8. If the Protected Materials are used in any manner in any letter, brief, petition, interrogatory or other writing ("Document"), the confidentiality of the Protected Materials shall be preserved by either: (i) prominently labeling the Document "Confidential Information" and limiting the recipients of such Document to Commissioners, staff and consultants of the Department, and if each of these persons has executed a Nondisclosure Agreements, to the OCC and its consultants, the AG, to the EDC Counterparty upon completion of the bid selection process and after the electric distribution companies that will serve as the counterparties to the contract (the "EDC Counterparties or EDC Counterparty") has submitted to the Department all of the contracts for all selected bidders; or (ii) referring to the Protected Materials in the Document solely by title or exhibit reference in a manner reasonably calculated not to disclose the confidential information set forth in the Protected Materials.

9. If the Protected Materials are used in any manner in any proceeding or hearing before the Department or the Commissioners, such proceeding or hearing shall not be held before, nor any record of it made available to any person or entity not affiliated with the Department or members of the OCC and its consultant, Attorney General's Office or an EDC Counterparty who have executed a Nondisclosure Agreement, and presence at such proceeding or hearing shall be

limited to the Commissioners, staff and consultants of the Department. Provided each person has executed a Nondisclosure Agreement, the reviewing representatives of OCC and its consultants, the AG, and the EDC Counterparty may also be present at, or receive a record of, any proceeding conducted with respect to the bid or resulting contract.

10. If the Protected Materials are disclosed to any person other than in the manner authorized by this Protective Order, the party responsible for such disclosure shall immediately upon learning of such disclosure inform the affected Bidder(s) of all pertinent facts relating to such disclosure and shall make every effort to prevent disclosure by each unauthorized recipient of such information.

11. In the event that a Bidder's bid is selected by the Department, the Department shall release a redacted summary description of the Bidder's project upon completion of the bid selection process.

12. For entities making Financial Bids that are selected, information in Appendix J and information in Part 1 of Appendix H shall remain protected by this Order for six months after the Department's final decision in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i). This is without prejudice to Bidders to seek protection of certain Protected Materials for a longer period of time and the Department to grant such protected treatment. For entities making Financial Bids that are selected, information in the remaining section of Appendix H, and Appendix F and Appendix I, shall be protected in perpetuity, if a Bidder seeks protective treatment for such. For entities making Financial Bids that

are not selected, the Protected Material shall be protected in perpetuity, if a Bidder seeks protective treatment for such.

13. The Protected Materials made a part of the record in this proceeding and in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i) shall remain in the possession of the Department. All other copies of the Protected Materials, including those in the possession of OCC and/or its consultant, shall be returned to the respective Bidders or destroyed the sooner of within thirty (30) days after (i) the time for appeals from the Department final decision in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i) shall have elapsed without an appeal being taken, or (ii) the Department's final decision in the contested case proceeding required by General Statutes of Connecticut § 16-244m(i) is subject to no further appeal.

DEPARTMENT OF PUBLIC UTILITY CONTROL

By: _____
Commissioner

Dated: _____

Resource Insight
FIVE WATER STREET • ARLINGTON, MA 02476 • (781) 646-1505 • resourceinsight.com Fax 646-1506

February 23, 2007

Louise E. Rickard,
Acting Executive Secretary
Department of Public Utility Control
Ten Franklin Square
New Britain, CT 06051

RE: DPUC Investigation of Measures to Reduce Federally Mandated Congestion Charges (Long Term Measures)
Docket No. 05-07-14PH02

Dear Ms. Rickard:

Resource Insight, Inc. is the consultant to the Office of Consumer Counsel ("OCC") in Docket No. 05-07-14PH02.

I have reviewed the Protective Order plan in the OCC's letter to the Department dated February 13, 2007. Resource Insight agrees to abide by the terms of that plan.

The Resource Insight project team will include: Paul Chernick, President; Jonathan Wallach, Vice-President; Susan Geller, Senior Associate; Edward Toussieh, Research Assistant; and Adam Auster, Research Assistant.

Sincerely,

Paul Chernick
President

CONFIDENTIALITY AGREEMENT

This Confidentiality Agreement ("Agreement") is made as of July 17, 2007, by and between Northeast Utilities Service Company ("NUSCO"), acting as agent for The Connecticut Light and Power Company ("CL&P), and Resource Insight, Inc. ("Counterparty"), either or both of which may also hereinafter be separately referred to as a "Party" or together as the "Parties".

WHEREAS, NUSCO, on behalf of CL&P, expects to issue through the end of 2007 one or more Request(s) for Proposals ("RFP(s)") to supply a portion of the full requirements service to CL&P's customers on Standard Service and Supplier of Last Resort Service (the "Procurement(s)"); and

WHEREAS, the RFP(s) includes a provision stating that CL&P agrees to treat certain information it receives from those responding to the RFP(s) ("Bidders") and any guarantor of a Bidder in a confidential manner and will use reasonable efforts, except as required by law or regulatory authority, not to disclose such information to any third party or use such information for any purpose other than in connection with its evaluation of Bidder's participation in the Procurement(s); and

WHEREAS, Counterparty will participate in the Procurement(s) and NUSCO expects to hold joint meetings with Counterparty throughout the RFP process(es); and

WHEREAS, in order for Counterparty to participate in the Procurement(s) and in the joint meetings, NUSCO shall (i) provide to Counterparty, in connection with the Procurement(s), written, oral, or electronic technical information, schedules, commercial, financial and other business information submitted by Bidders that is confidential, proprietary and/or a trade secret of a commercially valuable and sensitive nature ("Bidder Confidential Information"), (ii) include Counterparty in meetings and discussions throughout the Procurement(s) at which it may provide Counterparty with written, oral and/or electronic information of NUSCO or CL&P that is confidential and of a sensitive nature ("NUSCO Confidential Information"), and (iii) provide Counterparty with other written, oral and/or electronic Procurement(s) related information ("Other Confidential Information"); and

WHEREAS, Counterparty may provide written, oral and/or electronic information to NUSCO throughout the Procurement(s) that is confidential and of a sensitive nature ("Counterparty Confidential Information"); and

WHEREAS, the Parties acknowledge that the release or use of such Bidder Confidential Information, NUSCO Confidential Information, Other Confidential Information ,and/or Counterparty Confidential Information (collectively, the "Confidential Information") outside of the Procurement(s) would compromise the integrity of the Procurement(s), potentially resulting in higher prices to customers, and otherwise would compromise the Parties' ability to participate in the Procurement(s); and

WHEREAS, the Parties acknowledge that, except for this Agreement, they would not be provided direct and full access to the Confidential Information.

NOW, THEREFORE, in consideration of the mutual agreements contained herein, the Parties agree as follows:

1. Confidential Information.

a. Under the terms of this Agreement, Confidential Information may be disclosed by either Party (the "Disclosing Party") to the other Party (the "Receiving Party") and to its agents, employees, and representatives to aid in its review of the Procurement(s) on a need to know basis. Such Confidential Information shall be kept confidential by the Receiving Party and its agents, employees, and representatives.

b. Each Party shall use the Confidential Information solely in order to participate in the Procurement(s), and each Party shall not use the Confidential Information in any manner whatsoever outside of the Procurement(s) or discussions thereon.

c. The Receiving Party may disclose the Confidential Information without the Disclosing Party's prior written consent only to the extent such information is:

(i) already known to the Receiving Party as of the date of disclosure hereunder;

(ii) already in possession of the public or becomes available to the public other than through the act or omission of the Receiving Party in breach hereof;

(iii) required to be disclosed under applicable law or a governmental order, decree, regulation or rule and the Receiving Party shall follow the procedures described in Paragraph 1.e of this Agreement;

(iv) acquired by it from a third party which is not under an obligation of confidence with respect to such information;

(v) disclosed to representatives of Levitan & Associates, Inc. ("LAI"), the Office of Consumer Counsel ("OCC"), and/or the Office of the Attorney General for the State of Connecticut ("AG") who are participating in the Procurement(s), subject to execution by LAI, OCC and/or AG of this Agreement or substantially similar confidentiality agreements (in the absence of such executed confidentiality agreements no disclosures may be made pursuant to this subsection 1.c.v); or

(iv) independently developed by the Receiving Party without reliance on the Confidential Information disclosed by the Disclosing Party.

d. The Receiving Party understands and acknowledges that the Disclosing Party will suffer immediate and irreparable harm in the event that the Receiving Party fails to comply with the terms of this Agreement, and that monetary damages alone may be inadequate to compensate the Receiving Party and provide a remedy for a breach of this Agreement. Accordingly, the Receiving Party agrees that the Disclosing Party will be entitled to equitable and injunctive relief to prevent the unauthorized use or disclosure of any Confidential Information and such damages as are occasioned by such unauthorized use or disclosure.

e. If any Party becomes legally compelled to disclose any of the Confidential Information to a federal or state governmental agency, such Party shall inform the other Party of such disclosure so that the other Party may seek a protective order or other appropriate remedy. If such protective order or other remedy is not obtained, such Party shall furnish only that portion of the Confidential Information which is legally required and such Party shall cooperate with the other Party's counsel to enable the other Party to obtain a protective order or other reliable assurance of confidential treatment.

f. In connection with the DPUC proceeding to evaluate the Procurement(s) results, if Counterparty wishes to reference in its report commenting on the Procurement(s) or introduce into evidence any of the Confidential Information that it has received, Counterparty shall provide to NUSCO a written request for permission prior to referring to or introducing such Confidential Information, and shall state the reasons why the Confidential Information is pertinent to such proceeding. Such permission shall not unreasonably be withheld by NUSCO provided that the request is conditioned upon a protective order being entered in advance by the DPUC. In the event that within five (5) business days after receipt of such request NUSCO does not consent to such Confidential Information being referred to or introduced into evidence, Counterparty may request, in a confidential filing, that the DPUC rule on whether the Confidential Information can be introduced into evidence in the proceeding and whether the information shall be protected from public disclosure. Counterparty shall not refer to or introduce such Confidential Information in the proceeding until the DPUC determines whether reference or introduction of such Confidential Information is to be permitted and the method and extent of such reference and/or introduction.

g. Each Party, its directors, officers, employees, agents and representatives, will not disclose any Confidential Information, or the terms of this Agreement, to any third party, except as may be mutually agreed upon in writing by the Parties and, if so agreed, by the execution of a mutually acceptable nondisclosure agreement.

2. **Term.** This Agreement shall be effective as of the date set forth above, and shall terminate twelve (12) months from its effective date, but may be terminated earlier by either Party by its giving thirty (30) days prior written notice to the other Party. Termination shall not, however, affect the rights and obligations arising under this Agreement with respect to Confidential Information disclosed hereunder.

3. **Termination of Confidentiality Obligations.** The confidentiality obligations set forth in this Agreement shall terminate two (2) years from the date of this Agreement.

4. **No Obligation to Disclose.** Neither Party has an obligation to disclose Confidential Information hereunder.

5. **Disclaimer of Warranties.** The Disclosing Party makes no representations or warranties, express or implied, as to the quality, accuracy and completeness of the Confidential Information disclosed hereunder. The Disclosing Party and, as applicable, its affiliates, and their officers, directors and employees or agents, shall have no liability whatsoever with respect to the use of or reliance upon the Confidential Information by the Receiving Party.

6. **License.** Neither the execution of this Agreement, nor the disclosure of any Confidential Information by a Party hereunder, shall be construed as granting to the other Party either a license (expressly, by implication, estoppel, or otherwise) under, or any right of ownership in, such Confidential Information or in any invention, patent or patent application, or copyright now or hereafter owned or controlled by the Disclosing Party.

7. **Amendment.** This Agreement may not be changed, modified, released, discharged, abandoned, or assigned (in whole or in part) except by an instrument in writing signed by an authorized representative of each Party hereto.

8. **Other Agreements.** Unless expressly agreed otherwise in an instrument in writing signed by an authorized representative of each Party hereto, nothing in this Agreement shall supersede or in any way modify any of the terms and conditions, or the rights and obligations of the Parties, included in any other agreements, including any purchase agreement(s), between the Parties.

9. **Governing Law.** This Agreement shall be governed by and interpreted in accordance with the laws of the State of Connecticut, notwithstanding conflicts of law provisions, rules or principles to the contrary.

10. **Merger and Severability.** This Agreement constitutes the entire understanding and agreement between the Parties relating to the subject matter hereof. If any of the provisions of this Agreement are determined to be invalid under applicable law, they are, to that extent, deemed omitted. The invalidity of any portion of this Agreement shall not render any other portion invalid.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives. This Agreement may be executed in counterpart.

NORTHEAST UTILITIES SERVICE COMPANY	**RESOURCE INSIGHT, INC.**
By _____	By _____
Typed _____	Typed Paul Chernick
Title _____	Title President

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING	:	DOCKET NO. 08-01-01
	:	
GENERATION PROJECTS	:	FEBRUARY 1, 2008

MOTION OF THE UNITED ILLUMINATING COMPANY FOR A PROTECTIVE ORDER

The United Illuminating Company ("UI" or "Company") hereby moves that the Department of Public Utility Control ("Department") enter a protective order in this docket to ensure that confidential information provided to the Department in this docket is not subject to public disclosure. As set forth in the Department's letter ruling issued in this proceeding on January 29, 2008, while the entirety of the Company's Qualification Submission filed on this day with the Department is to be protected as confidential until the close of business on March 3, 2008, UI respectfully requests that certain portions of its Qualification Submission continue to receive confidential treatment beyond such date. As further stated in the letter ruling, on or before March 3, 2008, UI will file a redacted hard copy of the Qualification Submission that may be made public on March 4, 2008.

For the reasons set forth in the Affidavit of Anthony Marone dated February 1, 2008 and filed this day with the Department, UI asks that the protective order specifically include the information contained in the following Appendices to the Company's Qualification Submission filing made in connection with this proceeding: Appendix 6 (ISO-NE Interconnect), Appendix 9 (COD Gantt Charts), Appendix 10 (ISO-NE FCM Forms), and Appendix 11 (Fuel Supply Capacity). UI asks the Department to find that the information contained in such Appendices comprises "Confidential Information" as defined in UI's proposed Protective Order.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING	:	DOCKET NO. 08-01-01
	:	
GENERATION PROJECTS	:	FEBRUARY 1, 2008

AFFIDAVIT OF ANTHONY MARONE

STATE OF CONNECTICUT	)		
	: ss:	New Haven	February 1, 2008
COUNTY OF NEW HAVEN	)		

Anthony Marone, being duly sworn, states:

1. I am the Vice President, Client Services for The United Illuminating Company ("UI" or the "Company"), 157 Church Street, New Haven, Connecticut. I am over the age of eighteen years and understand the obligations of making statements under oath.

2. I am familiar with Docket No. 08-01-01, DPUC Review of Peaking Generation Projects.

3. I submit this affidavit in support of the Motion of The United Illuminating Company for a Protective Order filed contemporaneously herewith requesting a ruling from the Department of Public Utility Control (the "Department") that all of the information contained in Appendices 6, 9, 10 and 11 to UI's Qualification Submission filing made in connection with this proceeding constitutes "Confidential Information."

4. All of the information contained in Appendices 6, 9, 10 and 11 relates to very specific project plan details outlined in the Qualification Submission. These details reflect and reveal business strategies and models that, if subject to public disclosure, could irreparably

harm the competitive positions of UI and NRG Energy, Inc., respectively. Moreover, disclosure of such information would undermine the ability of the projects described in the Qualification Submission to be fulfilled at the lowest reasonable costs and in the manner contemplated in the submission by severely jeopardizing the ability to conduct competitive negotiations with entities that may be required to complete the projects (e.g., equipment vendors, construction contractors).

5. The Company has used its best efforts to keep and maintain all such information secret. To the best of my knowledge, such information has not been disclosed or released to the public.

Anthony Marone
Vice President, Client Services

Subscribed and sworn to before
me this 1st day of February, 2008

Notary Public
My Commission Expires: 2/28/09

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC REVIEW OF PEAKING	:	DOCKET NO. 08-01-01
	:	
GENERATION PROJECTS	:	FEBRUARY 1, 2008

PROTECTIVE ORDER CONCERNING THE UNITED ILLUMINATING COMPANY'S PROVISION OF CONFIDENTIAL AND PROPRIETARY INFORMATION

WHEREAS, The United Illuminating Company ("UI" or "Company") has filed with the Department of Public Utility Control ("Department") a Qualification Submission in connection with this proceeding, Docket No. 08-01-01, DPUC Review of Peaking Generation Projects.

WHEREAS, disclosure of certain information contained in the Qualification Submission would result in the disclosure of proprietary and confidential information of UI and NRG Energy, Inc. ("NRG"), undermine the competitive positions of UI and NRG, and compromise the ability of the projects described in the Qualification Submission to be fulfilled in the manner contemplated, including severely jeopardizing the ability to, among other things, negotiate favorable contracts with engineers and construction contractors and fuel suppliers and accomplish other tasks necessary to achieve lowest reasonable costs and timely operation in the event that the plan set forth in the Qualification Submission is approved by the Department.

NOW, THEREFORE, IT IS HEREBY ORDERED, by the Department that the following procedures are adopted for the protection of certain information contained in the Qualification Submission:

1. This Protective Order shall govern the following Appendices to the Qualification Submission and any revisions or updates to the same: Appendix 6, Appendix 9, Appendix, 10 and Appendix 11, (together the "Protected Materials").

2. All such Protected Materials made available pursuant to this Protective Order shall be used by any person receiving such information solely for purposes of participating in the conduct of this contested proceeding (08-01-01) in which the Department will review peaking generation proposals submitted to it pursuant to Section 50 of Public Act 07-242.

3. The Protected Materials made available in this docket shall be given solely to Commissioners, staff and consultants to the Department who are bound by the terms of this Protective Order. The Protected Materials may also be provided to the Office of Consumer Counsel and its consultants and the Attorney General's office, all of whom shall execute the attached Nondisclosure Agreement and be bound by the terms of this Protective Order.

4. All persons granted access to the Protected Materials pursuant to Paragraph 3 shall take all reasonable precautions to keep this information secure in accordance with the purpose and intent of this Protective Order.

5. Two (2) copies of the Protected Materials shall be marked "Confidential" and shall be delivered in sealed envelopes marked "Confidential" with the following language: "This envelope is not to be opened nor the contents displayed or revealed except pursuant to the pertinent Protective Order issued in Docket No. 08-01-01" with one such copy delivered to the Department and one copy to the Prosecutorial Unit's consultant, Dr. Ellen Cool of Levitan & Associates, Inc.

6. The Protected Material shall be part of the record in this docket subject to the conditions stated in Paragraphs 8 and 9.

7. Nothing herein shall be construed as a final determination that any of the Protected Materials will be admissible as substantive evidence in this proceeding or future proceeding, or at any hearing or trial. Moreover, nothing herein shall be considered a waiver of a party's right to assert at a later date that the material is or is not proprietary or privileged. A party seeking to change the terms of this Protective Order shall by motion give every other party ten (10) Department business days prior written notice. No information protected by this Protective Order shall be made public until the Department rules on any such motion to change the terms of the Protective Order.

8. If the Protected Materials are used in any manner in any letter, brief, petition, interrogatory or other writing ("Document"), the confidentiality of the Protected Materials shall be preserved by either (i) prominently labeling the Document "Confidential Information" and limiting the recipients of such Document to Commissioners, staff and consultants of the Department and if each of those persons has executed a Nondisclosure Agreement, to the OCC and its consultants, and the AG or (ii) referring to the Protected Materials in the Document solely by title or exhibit reference in a manner reasonably calculated not to disclose the confidential information set forth in the Protected Materials.

9. If the Protected Materials are used in any manner in any proceeding or hearing before the Department or the Commissioners, such proceeding or hearing shall not be held before, nor any record of it made available to any person or entity not affiliated with the Department, and presence at such proceeding or hearing shall be limited to the Commissioners, staff, and consultants of the Department. Provided that each person has executed a Nondisclosure Agreement, the reviewing representatives of the OCC and its consultants and the AG may also be present at, or receive a record of, any proceeding conducted with respect to the proposal.

10. If the Protected Materials are disclosed to any person other than in the manner authorized by this Protective Order, the party responsible for such disclosure shall immediately upon learning of such disclosure inform UI of all pertinent facts relating to such disclosure and shall make every effort to prevent disclosure by each unauthorized recipient of such information.

11. The Protected Materials made a part of the record in this proceeding shall remain in possession of the Department. All other copies of Protected Materials shall be returned to UI or destroyed the sooner of within thirty (30) days after (i) the time for appeals from the Department's final decision in this proceeding shall have elapsed without an appeal being taken, or (ii) the Department's final decision in this proceeding is subject to no further appeal.

DEPARTMENT OF PUBLIC UTILITY CONTROL

Dated: _____, 2008

By _____
Commissioner

Exhibit 1

ACKNOWLEDGEMENT AND AGREEMENT
TO BE BOUND BY THE TERMS OF THE PROTECTIVE ORDER

The undersigned hereby acknowledges review of the Protective Order filed, February 1, 2008 in Docket No. 08-01-01, DPUC Review of Peaking Generation Projects, and hereby agrees to abide by the terms thereof, in exchange for receipt of the Confidential Information from The United Illuminating Company.

Recipient: _____

Date: _____

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

DOCKET NO. UD-08-02

NON-DISCLOSURE CERTIFICATE

I certify my understanding that the Protected Materials are provided to me pursuant to the terms and restrictions of the Protective Order in Council Docket No. UD-08-02, and that I have been given a copy of it and have read the Protective Order and agree to be bound by it. I understand that the contents of the Protected Materials, and any notes, memoranda, or any other form of information regarding or derived from the Protected Materials, shall not be disclosed to anyone other than in accordance with the Official Protective Order of the City Council and shall be used only for the purpose of the proceedings in City Council Docket No. UD-08-02. Provided, however, if the information contained in the Protected Materials is publicly available or is obtained from independent sources, the understanding stated herein shall not apply.

Date: January 4, 2012

By: _____
Paul Chernick

Company: Resource Insight, Inc.

Representing: Alliance for Affordable Energy

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

OFFICIAL PROTECTIVE ORDER

DOCKET NO. UD-08-02

This Protective Order shall govern the provision and use of all information deemed confidential by a party responding to discovery requests or other requests for information in proceedings before the City Council. This Official Protective Order is a device to facilitate and expedite the handling of discovery and subsequent procedures in all dockets of the City Council, and in all other matters requiring the exchange of "Protected Materials" as the term is defined herein. This Protective Order is not intended to constitute a final resolution of the merits concerning the confidentiality of any of the Protected Material nor of any objection to the propriety or scope of a discovery request. This Protective Order does not change any burden of proof under applicable law in determining whether any of the Protected Materials or information derived therefrom are entitled to confidential treatment. Notwithstanding anything herein to the contrary, nothing herein shall prevent the Reviewing Representatives of the technical and legal advisors to the City Council from sharing with City Council Members, acting in their capacity as utility regulators, information that may have been obtained or derived from Protective Materials provided that the appropriate protections of this Order are employed to insure that the Protective Materials do not enter the public domain.

1. Any party or person producing or filing a document, including but not limited to records stored or encoded on a computer disk or other similar electronic storage medium, in these proceedings may designate that document or any portion of it as confidential pursuant to this Protective Order by typing or stamping on every page the party desires to designate as Protected Materials of the document "PROTECTED MATERIALS PURSUANT TO THE OFFICIAL PROTECTIVE ORDER OF THE COUNCIL OF THE CITY OF NEW ORLEANS IN DOCKET NO. UD-08-02" or words of similar import (hereinafter referred to as "Protected Materials").

2. Protected Materials shall not include any information or document contained in the public files of the City Council or any other local, state or federal agency, or any federal or state court (if not subject to a protective order or confidentiality agreement), or any information or document presently in the possession of a reviewing party which has not previously been identified as protected or which becomes public knowledge as a result of publication or disclosure by the party furnishing the information, other than through disclosure in violation of this Protective Order, or information which is in the public domain. Nothing in this Protective Order shall be construed as precluding any participant from objecting to the use of Protected Materials on any legal grounds.

3. A "Reviewing Party" is a party to an applicable Council Docket to the extent that such party receives or is provided access to material pursuant to this Official Protective Order.

4. (a) Except as otherwise provided in this paragraph, a Reviewing Party shall be permitted access to Protected Materials only through its authorized "Reviewing Representatives." "Reviewing Representatives" of a Reviewing Party may include its counsel of record in this proceeding and associated attorneys, paralegals, economists, statisticians, accountants, engineers, consultants, or other persons employed or retained by the Reviewing Party and directly engaged in these proceedings.

(b) The term "Highly Sensitive Protected Materials" is a subset of Protected Materials and refers to material that a responding party claims is of such a highly sensitive nature that making copies of such material or providing access to such material to a party or the employees of the Reviewing Party would expose the responding party, or a person or entity to which the responding party owes a duty to protect the confidentiality of such materials, to an unreasonable risk of harm. Documents, and every page thereof, so classified by a producing party shall bear the designation "HIGHLY SENSITIVE PROTECTED MATERIALS PROVIDED PURSUANT TO THE OFFICIAL PROTECTIVE ORDER IN DOCKET NO. UD-08-02."

4. (c) Except as provided for in Paragraph 4 (d) below, no copies shall be made of any "Highly Sensitive Protected Materials" and they shall be made available only for inspection by the Reviewing Representatives of the Reviewing Parties. Reviewing Representatives for the purposes of access to "Highly Sensitive Protected Materials" must be persons who are either (a) counsel for the Reviewing Party or (b) outside consultants for the Reviewing Party working under the direction of the Reviewing Party's consultants, and who are unaffiliated experts (or employees thereof), not directly involved in, or having direct or supervisory responsibilities over, the purchase, sale, or marketing of electricity (including transmission service) at retail or wholesale, the negotiation or development of participation or cost-sharing arrangements for transmission or generation facilities, or other activities or transactions of a type with respect to which the disclosure of Highly Sensitive Protected Materials may present an unreasonable risk of harm.

If the party asserting confidentiality believes that further protections should be afforded with respect to the manner in which, or the Reviewing Representatives to which, such materials are disclosed, such materials shall be made available for inspection by counsel for the Reviewing Party only, pending a determination of the manner in which, and the Reviewing Representatives to which, such materials will be disclosed pursuant to this Protective Order, which determination shall be made on a case by case basis, depending on the level of protection that may be necessary to protect the responding party, and any other person or entity to which the responding party owes a duty to protect the confidentiality of such materials, from any unreasonable risk of harm that may result

from disclosure of such information. In the event that the parties are unable to agree on the manner in which, and the Reviewing Representatives to which, such materials will be disclosed, the party asserting confidentiality reserves its right to seek from the City Council, and from the courts as may be necessary, an order providing the level of protection for the Highly Sensitive Protected Materials that the party asserting confidentiality believes is required.

(d) Notwithstanding the provisions of Paragraph 4 (c), 6, 7 and 15 of this Protective Order, a copy of Highly Sensitive Protected Materials and voluminous materials will be provided, upon request, to the Reviewing Representatives of the technical and legal advisors of the City Council who may retain Protected Materials, including Highly Sensitive Protected Materials, and analyses derived therefrom, in their files for a reasonable period of time (not to exceed five years) following the termination of the applicable docket, or such other matter, of the City Council for the purpose of meeting their professional obligations and responsibilities, with respect to such proceeding(s) and any appeals therefrom, provided that such materials shall not be disclosed to anyone other than in accordance with terms of this Protective Order, and shall be subject to all protections and requirements set forth in this Official Protective Order.

5. Each person who inspects the Protected Materials shall, before such inspection, agree in writing to the following certification, and shall provide a copy of a signed certification in the form of that attached to this Official Protective Order (the "Non-Disclosure Certificate") to counsel for the party asserting confidentiality:

> "I certify my understanding that the Protected Materials are provided to me pursuant to the terms and restrictions of the Official Protective Order of the City Council in Council Docket No. UD-08-02, and that I have been given a copy of it and have read the Protective Order and agree to be bound by it. I understand that the contents of the Protected Materials, and any notes, memoranda, or any other form of information regarding or derived from the Protected Materials, shall not be disclosed to anyone other than in accordance with the Protective Order and shall be used only for the purpose of the proceedings in Council Docket No. UD-08-02. Provided, however, if the information contained in the Protected Materials is publicly available, or is obtained from independent sources, the understanding stated herein shall not apply."

Provided, however, with respect to Protective Materials of any utility providing services in the City of New Orleans, the Reviewing Representatives of the technical and legal advisors of the City Council shall only be required to execute one Official Protective Order Non-Disclosure Certificate in favor of said utility, as follows:

"I certify my understanding that the Protected Materials are provided to me pursuant to the terms and restrictions of the Official Protective Order of the City Council in proceedings before it, and that I have been given a copy of it and have read the Official Protective Order and agree to be bound by it. I understand that the contents of the Protected Materials, and any notes, memoranda, or any other form of information regarding or derived from the Protected Materials, shall not be disclosed to anyone other than in accordance with the Official Protective Order. Provided, however, if the information contained in the Protected Materials is publicly available, or is obtained from independent sources, the understanding stated herein shall not apply."

Thereafter, the said representatives of the Council's legal and technical advisors shall be bound by the provisions of the Council's Official Protective Order in all matters or proceedings involving said utility before the City Council.

Any Reviewing Representative may disclose materials to any other person who is qualified to be a Reviewing Representative, provided that, if the person to whom disclosure is to be made has not executed a Non-Disclosure Certificate and provided the signed certification to counsel for the party asserting confidentiality, that certification shall be executed and provided prior to any disclosure. In the event that any Reviewing Representative to whom such Protected Materials are disclosed ceases to be engaged in this proceeding, access to such materials by such person shall be terminated. Any person who has agreed to the foregoing certification shall continue to be bound by the provisions of this Official Protective Order, even if no longer so engaged. And Reviewing Representatives, other than representatives of the Council's legal and technical advisors, shall not use Protected Materials in a proceeding other than the proceeding in which the Protected Materials were produced.

6. Except for Highly Sensitive Protected Materials that cannot be copied and Protected Materials that are voluminous, the party asserting confidentiality shall provide a Reviewing Party one copy of the Protected Materials. The parties agree to make a good faith effort to limit the number of copies of Protected Materials and agree to distribute copies of Protected Materials only to Reviewing Representatives.

7. (a) Materials that are deemed "voluminous," which may include materials in excess of five hundred (500) pages in length, and Highly Sensitive Protected Materials shall be made available for inspection by Reviewing Representatives at a location in New Orleans, Louisiana specified by the party declaring such materials to be voluminous between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday (except holidays). The Protected Materials may be reviewed only during the "reviewing period," which period shall commence upon the execution of the appropriate Non-Disclosure Certificate, and continue until conclusion of the proceeding(s) in the applicable Council Docket. As

used in this paragraph, "conclusion of these proceedings" refers to the exhaustion of available appeals, or the running of the time for the making of such appeals, as provided by applicable law.

(b) Reviewing Representatives may take handwritten notes regarding the information contained in voluminous Protected Materials made available for inspection pursuant to paragraph 7(a), and, after such inspection, may designate materials to be copied. Only one copy of the materials designated shall be reproduced by the party making such materials available for inspection. Reviewing Parties shall make a diligent, good-faith effort to limit the amount of photographic or mechanical copying requested to only that which is essential for purposes of these proceedings. The parties agree to make a good faith effort to limit the number of copies of Protected Materials and agree to distribute copies of Protected Materials only to Reviewing Representatives. Reviewing Representatives may take minimal handwritten notes regarding the information contained in Highly Sensitive Protected Materials, although no copies shall be made of Highly Sensitive Protected Materials and handwritten notes shall not be used to circumvent this protection against duplication of Highly Sensitive Protected Materials.

8. The Protected Materials, as well as the Reviewing Party's notes, memoranda, or other information regarding, or derived from the Protected Materials, are to be treated confidentially by the Reviewing Party and shall not be disclosed or used by the Reviewing Party except as permitted and provided in this Protective Order. Information derived from or describing the Protected Materials shall not be placed in the public or general files of the Reviewing Party except in accordance with provisions of this Protective Order. A Reviewing Party must take all reasonable precautions to ensure that Protected Materials, including handwritten notes and analyses made from Protected Materials, are not viewed or taken by any person other than a Reviewing Representative of the party.

9. (a) If a party tenders for filing any written testimony, exhibit, brief, or other submission that quotes the Protected Materials or discloses the confidential content of Protected Materials, the confidential portion of such testimony, exhibit, brief or other submission shall be filed and served in sealed envelopes or other appropriate containers endorsed to the effect that they are sealed pursuant to this Protective Order. Such documents shall be marked "PROTECTED MATERIALS PURSUANT TO OFFICIAL PROTECTIVE ORDER IN COUNCIL DOCKET NO. UD-08-02" and shall be filed under seal with the Council's designated Hearing Officer and served under seal to the counsel of record for the Reviewing Parties. If testimony that quotes from Protected Materials or discloses the confidential content of Protected Materials is offered by a Reviewing Representative on behalf of a Reviewing Party in this proceeding, the Reviewing Party shall advise the City Council's designated Hearing Officer of such fact. The City Council may subsequently, on its own motion or on motion of a party, issue a ruling respecting whether or not the inclusion, incorporation, or reference to Protected Materials is such that the written testimony, exhibit, brief, or other submission, or transcript of testimony, should remain under seal.

(b) Any party or person giving testimony in a proceeding(s) before the City Council may designate as Protected Materials that portion of his/her testimony deemed to be confidential materials in accordance with paragraph 1 of the City Council's Official Protective Order by advising the City Council's designated Hearing Officer of such fact.

(c) All Protected Materials filed with the City Council, or any other judicial or administrative body in support of or as part of a motion, other pleading, brief, or other document, shall be filed and served in sealed envelopes or other appropriate containers.

(d) Each party shall have the right to seek changes in the City Council's Official Protective Order, as appropriate, from the City Council, or the courts.

10. A Reviewing Party may release confidential information pursuant to a final order of a local, state, or federal government agency or authority or judicial body requiring the Reviewing Party to produce such confidential information; provided, however, the Reviewing Party agrees that prior to such release it shall promptly notify the party asserting confidentiality, or its counsel of record, of the order and of the intention to comply with the order and allow such party reasonable time, as is practicable and under the disclosing party's control given the facts and circumstances of the release, to contest any release of the confidential information. In addition, should an attempt be made to require the Reviewing Party to disclose such confidential information in a proceeding other than an applicable Docket of the City Council (where a party asserting confidentiality may not be a party), then the Reviewing Party shall promptly inform the party asserting confidentiality of such attempt to require the Reviewing Party to produce confidential information.

11. In the event the City Council, on its own motion or the motion or request of a person not a party to this docket, considers: 1) the disclosure of Protected Material to any person to whom disclosure is not authorized by this Official Protective Order, or 2) a change in the designation of certain information or material, then the parties to the applicable docket of the City Council shall request that the City Council enter an order that the same procedures and time limits set forth in Section 12 below shall control such motion or request, and in any City Council proceeding and order resulting therefrom.

12. During the pendency of the applicable docket at the City Council, in the event that a Reviewing Party wishes to disclose Protected Material to any person to whom disclosure may not be authorized by this Protective Order, or wishes to have changed the designation of certain information or material as protected by alleging, for example, that such information or material has entered the public domain, such Reviewing Party shall first file and serve on all parties written notice of such proposed disclosure or request for change in designation, identifying with particularity each of the Protected Materials with respect to which such a disclosure or change in designation is proposed, the nature of such proposed disclosure or change in designation, and the basis therefor. In the event

that the party asserting confidentiality wishes to contest such proposed disclosure or request for change in designation, that party shall file with the Hearing Examiner its objection to such proposal, with supporting sworn affidavits, if any, and a request for a hearing within five working days after receiving such notice of proposed disclosure or request for change in designation. Responses to such an objection, with supporting affidavits, if any, shall be filed by the Reviewing Party within five working days after receipt of the objection. (Either the party seeking disclosure or the party seeking to prevent disclosure may request that the materials in question be inspected in camera, provided, however, such request shall be made not later than five working days after the filing of an objection to the proposed disclosure or change in designation.) The burden is on the party asserting confidentiality to show that such proposed disclosure or change in designation should not be made. If the Hearing Officer determines that such proposed disclosure or change in designation should be made, the parties shall not disclose any materials affected by the determination until after the expiration of 10 days from the date the Hearing Officer's decision, during which delay a party may file an appeal of the Hearing Officer's decision with the City Council. In the event of a timely filed appeal to the City Council, the proposed disclosure or change in designation shall not then become effective until the City Council's determination is made. No party waives any right to seek additional administrative or judicial remedies concerning such finding of the City Council.

Any party electing to challenge, in courts of this State, a City Council determination allowing disclosure or a change in designation, or denying same, shall have a period of ten (10) days from the date of the City Council's determination in which to file a petition seeking a favorable ruling in the appropriate Louisiana District Court. The effect of an order requiring disclosure or a change in designation shall be stayed pending a decision on a request for a preliminary injunction. Any party challenging a State District Court determination allowing disclosure or a change in designation, or a denial of same, shall have a period of fifteen (15) days from the date of the District Court's ruling to file a petition seeking a favorable ruling from the appropriate appellate court.

13. Nothing in this Official Protective Order shall be construed as precluding a party asserting confidentiality from objecting to the use of Protected Materials on grounds other than confidentiality. Nothing in this Official Protective Order shall be construed as an agreement by any party or the City Council that materials designated as Protected Materials are entitled to confidential treatment.

14. All notices, applications, responses or other correspondence shall be made in a manner that protects the Protected Materials at issue from unauthorized disclosure.

15. Following the conclusion of the applicable City Council proceedings, Reviewing Parties and their Reviewing Representatives, upon request by a party asserting confidentiality, shall return or destroy all copies of the Protected Materials made available by such party. Further, all notes or other documents derived from or revealing the confidential content of such Protected Materials shall, upon request, be redacted to remove permanently any

confidential information, including information from which confidential information can be derived. As used in this paragraph, "conclusion of these proceedings" refers to the exhaustion of available appeals, or the running of the time for the making of such appeals, as provided by applicable law.

16. In the event of a breach of the provisions of this Official Protective Order, the party asserting confidentiality will not have an adequate remedy in money or damages, and accordingly, shall, in addition to any other available legal or equitable remedies, be entitled to an injunction against such breach without any requirement to post bond as a condition of such relief.

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

DOCKET NO. UD-08-02

NON-DISCLOSURE CERTIFICATE

I certify my understanding that the Protected Materials are provided to me pursuant to the terms and restrictions of the Protective Order in Council Docket No. UD-08-02, and that I have been given a copy of it and have read the Protective Order and agree to be bound by it. I understand that the contents of the Protected Materials, and any notes, memoranda, or any other form of information regarding or derived from the Protected Materials, shall not be disclosed to anyone other than in accordance with the Official Protective Order of the City Council and shall be used only for the purpose of the proceedings in City Council Docket No. UD-08-02. Provided, however, if the information contained in the Protected Materials is publicly available or is obtained from independent sources, the understanding stated herein shall not apply.

Date:_____

By:_____

Company:_____

Representing:_____

NONDISCLOSURE AGREEMENT

THIS NONDISCLOSURE AGREEMENT (this "***Agreement***") dated as of ____9/17/2012_____, is entered into by and between Audubon Arkansas ("Audubon") and Entergy Arkansas, Inc. ("EAI").

1. ***Confidential Information***. For their mutual benefit, the parties intend to discuss and disclose certain information regarding EAI's 2012 Integrated Resource Plan ("2012 IRP"). Both parties acknowledge that certain information disclosed by a disclosing party (the "***Discloser***") may be confidential and/or highly sensitive and, if so, must be protected by the receiving party (the "***Recipient***"). "***Confidential Information***," as used herein, shall include Highly Sensitive Protected Information, and shall mean any information disclosed by the Discloser to the Recipient including, without limitation, any business plans, business opportunities, marketing plans, corporate information, lists of names or classes of customers or employees, financial data, strategic planning, lists of suppliers, any inventions, disclosures, processes, systems, methods, formulae, devices, patents, patent applications, trademarks, intellectual properties, instruments, materials, products, patterns, compilations, programs, techniques, sequences, designs, research or development activities and plans, specifications, computer programs, source codes, mask works, costs of production, prices or financial statements that: (a) derive independent economic value, actual or potential, for not being generally known to the public or to other persons including employees of Discloser or (b) is otherwise maintained by Discloser as confidential, proprietary or trade secret information. However, Confidential Information shall not include information that: (i) is now or subsequently becomes generally available to the public through no wrongful act or omission of the Recipient or anyone to whom the Recipient disclosed such information; (ii) the Recipient can demonstrate by its written records to have had rightfully in its possession prior to disclosure to the Recipient by the Discloser; (iii) can be demonstrated by the Recipient's written records to have been independently developed by the Recipient without use, directly or indirectly, of any Confidential Information; or (iv) the Recipient rightfully obtains from a third party who has the right to transfer or disclose it. The Discloser shall designate Confidential Information as such prior to, during or immediately after disclosure. The Discloser shall mark the material manifestations of its Confidential Information as being confidential and proprietary and/or Highly Sensitive Protected Information (sometimes referred to as "HSPI"), so that the Recipient is aware that its receipt is governed by the terms of this Agreement. The foregoing notwithstanding, the terms of this Agreement also pertain to information not so marked if the Discloser informs the Recipient of their confidential nature or if the Recipient otherwise knows or should reasonably be expected to know of their confidential nature.

2. ***Nondisclosure***. With the exception that as may be specifically authorized by the Discloser in writing, the Recipient shall not discuss, reproduce, use, distribute, disclose or otherwise disseminate the Confidential Information and shall not take any action causing, or fail to take any reasonable action necessary to prevent any Confidential Information disclosed to the Recipient to lose its character as Confidential Information. The Recipient shall use the Confidential Information solely for the purpose of evaluating the EAI's 2012 IRP as a member of the Stakeholder Committee formed in connection with EAI's 2012 IRP process. The Recipient

shall not remove Confidential Information from the Discloser or the location(s) designated by the Discloser except as expressly permitted in writing by the Discloser. Upon request by the Discloser, the Recipient shall promptly deliver to the Discloser all Confidential Information and all embodiments thereof then in its custody, control or possession and shall deliver within five days after such termination or request a written statement to the Discloser certifying to such action. In addition, if the Recipient has prepared analyses, compilations, studies or other documents containing Confidential Information, then such analyses, compilations, studies or other documents shall be owned solely by the Discloser and treated as the Confidential Information of the Discloser hereunder.

3. ***Ownership.*** All Confidential Information and derivations thereof shall remain the sole and exclusive property of the Discloser and no license or other right to such Confidential Information is granted or implied hereby. The Recipient acknowledges that neither the Discloser nor any of the Discloser's affiliates makes or has made any express or implied representation or warranty as to the accuracy or completeness of the Confidential Information, and the Discloser hereby expressly disclaims any and all liability that may be based on the Confidential Information, errors therein or omissions therefrom. The Recipient agrees and acknowledges that any Confidential Information that Recipient utilizing in preparing any materials for the EAI 2012 IRP process will not disclose specific Confidential Information in any manner inconsistent with the terms of this agreement. Recipient further agrees to return all such documents and information immediately upon request by Discloser.

4. ***Duties of the Recipient.*** Except as provided in paragraph 2 above, the Recipient shall limit access to Confidential Information to those employees or other authorized representatives of the Recipient who (a) need to know such Confidential Information for the purpose of evaluating the Proposed Project for possible economic development incentive proposals and (b) have been advised of the provisions of this Agreement obligating them to maintain the Confidential Information under terms and conditions provided for herein and executed an agreement in writing that they agree to be bound by the terms of this Agreement. The Recipient shall inform such employees or clients or authorized representatives of the confidential nature of Confidential Information and shall take all necessary steps to ensure that the terms of this Agreement are not violated by such persons.

5. ***Equitable Relief.*** Both parties acknowledge that unauthorized disclosure or use of Confidential Information could cause great or irreparable injury to the Discloser and that pecuniary compensation would not afford adequate relief or it would be extremely difficult to ascertain the amount of compensation which would afford adequate relief. Therefore, both parties agree that, in the event of such unauthorized disclosure or use of Confidential Information, the Discloser will have the right to seek and to obtain injunctive relief without the necessity to post bond in addition to any other rights and remedies it may have.

6. ***No Export.*** The parties acknowledge that Confidential Information or other information disclosed in connection with the matters set forth herein may be considered technical data that is subject to compliance with the export control laws and regulations of the United States or other countries. Both parties hereby agree to comply with such laws.

7. ***Term.*** The Recipient's duty to protect the Discloser's Confidential Information pursuant to this Agreement expires five years from the date of disclosure of the Confidential Information.

8. ***Agency.*** The parties do not intend that any agency or partnership relationship be created between them by this Agreement.

9. ***Assignment.*** Neither party shall assign this Agreement, except to a party it controls, is controlled by, or with which it is under common control, including such parties or relationships that occur subsequent to the date of this Agreement, without the prior written consent of the other party.

10. ***Modification.*** This Agreement may be amended or modified only in writing signed by both parties.

11. ***Governing Law; Consent to Jurisdiction.*** This Agreement shall be governed by and construed in accordance with the laws of the State of Arkansas.

12. ***Notices.*** Any notice required or permitted hereunder shall be in writing and shall be deemed effectively given upon personal delivery, three days after deposit in the United States mail, by certified mail, postage prepaid, return receipt requested, or the day after delivery to a recognized overnight courier, to the address set forth below the name of such party on the signature page hereof.

13. ***Entire Agreement.*** This Agreement constitutes the entire agreement between the parties regarding the subject matters set forth herein and supersedes any and all prior and contemporaneous agreements, representations, and understandings of the parties, whether written or oral, regarding such matters.

IN WITNESS WHEREOF, the parties hereto have executed this Mutual Nondisclosure Agreement as of the date and the year first above written.

AUDUBON ARKANSAS

By: _____

Name: Ellen M. Fennell

Title: Vice President and State Executive Director

Address: 4500 Springer Blvd
Little Rock, AR 72206

RESOURCE INSIGHT, INC.

By: _____

Name: Paul Chernick

Title: Consultant to Audubon Arkansas

Address: 5 Water Street
Arlington MA 02476

ENTERGY ARKANSAS, INC.

By: _____

Name: Matthew R. Suffern

Title: Assistant General Counsel
Entergy Services, Inc.

Address: 425 W. Capitol Avenue
P. O. Box 551
Little Rock, Arkansas 72203

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF PUBLIC UTILITIES
ENERGY FACILITIES SITING BOARD

NSTAR Electric Company	)	EFSB 10-2/D.P.U. 10-131/D.P.U. 10-132

NSTAR ELECTRIC COMPANY MOTION FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION RESPONSIVE TO INFORMATION REQUESTS EFSB-N-20 and SAN-NSTAR-2-7

I. INTRODUCTION

Now comes NSTAR Electric Company ("NSTAR Electric" or the "Company") and hereby requests that the Energy Facilities Siting Board (the "Siting Board") grant protection from public disclosure of certain confidential, sensitive and proprietary information submitted in this proceeding in accordance with G.L. c. 25, § 5D and 980 CMR § 4.01(1). Specifically, the Company requests that the Siting Board protect from public disclosure: (1) customer names and contact information provided in Attachments SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b); and (b) the names and contact information of the vendors that responded to the Company's request for proposals ("RFP") for dynamic reactive devices for the Barnstable Switching Station provided in Attachments EFSB-N-20(a) and EFSB-N-20(b), together, the "Confidential Attachments."

Pursuant to Siting Board and Department of Public Utilities (the "Department") precedent, customer-specific information is proprietary to the customer and only that customer has the right to indicate whether his or her information should be available to anyone else (i.e., a competitive supplier or marketer) or to the public in general.

Therefore, the Company seeks protection for the customer names and addresses listed in Confidential Attachments SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b).

The Siting Board and the Department have protected bids from public disclosure historically, because the public release of bid information such as vendor name discloses the very type of information that the Department and the Siting Board have previously and consistently held to be confidential. Therefore, the Company seeks protection for the names of the vendors that responded to the Company's bid for equipment for the Barnstable Switching Station provided in Attachments EFSB-N-20(a) and EFSB-N-20(b).

As discussed in detail below, the information contained in these documents is highly confidential, competitively sensitive and proprietary information, the public disclosure of which could harm the customers and vendors involved, as well as the Company in acting on behalf of its customers in providing efficient, safe and reliable service. The Company will provide the Confidential Attachments to those parties who have or will execute the Nondisclosure Agreement governing confidential and proprietary information in this proceeding. The Confidential Attachments are being provided to the Siting Board under seal (and subject to this motion), as stated in the responses.

II. LEGAL STANDARD

Confidential information may be protected from public disclosure in accordance with G.L. c. 25, § 5D, which states that "the [D]epartment [of Public Utilities] may protect from public disclosure, trade secrets, confidential, competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter." In interpreting the statute, the Department has held that "[t]he burden on the

company is to establish the need for protection of the information cited by the company." The Berkshire Electric Company et al., D.P.U. 93-187/188/189/190, at 16 (1994) as cited in Hearing Officers Ruling On the Motion of Boston Electric Company for Confidentiality, D.P.U. 96-50, at 4 (1996).

A party seeking protection from public disclosure must demonstrate that: (1) the information for which protection is sought constitutes trade secrets, confidential, competitively sensitive or other proprietary information; and (2) there is a need to ensure nondisclosure of the information. The Berkshire Gas Company, D.T.E. 01-41, at 16 (2001). Where a party proves such a need, the Department will protect only so much of the information as is necessary to meet the need for nondisclosure and may limit the length of time that such protection is in effect. Id.; Western Massachusetts Elec. Co., D.T.E. 99-56 (1999). This legal standard governs the instant proceeding before the Siting Board, the Department's sister agency.

III. BASIS FOR CONFIDENTIALITY

The Confidential Attachments to the response to Information Request SAN-NSTAR-2-7 provide detailed information including confidential customer-specific information such as names and addresses that are treated as confidential within the Company and are not disseminated outside the Company. Moreover, the Department has recognized each customer's right to control dissemination of his or her account information, address, load and demand information and payment records. Such customer-specific information is proprietary to the customer and only the customer has the right to indicate whether such information should be available in the public domain. See Bay State Gas Company, D.P.U. 06-36, at 5. Consistent with this precedent, the

Company seeks protection for certain customer-specific information that is confidential, commercially sensitive, and proprietary from public disclosure.

The Confidential Attachments to the Response to Information Request EFSB-N-20 provide detailed information about the proposals that the Company received in response to its RFP for bids for certain equipment for the Barnstable Switching Station. The Department has recognized that release of bid information would seriously undermine a company's negotiating position in the market and, thus, jeopardize the ability of that company to ensure that customers are being served by the lowest cost option. See, e.g., Western Massachusetts Electric Company, D.T.E. 99-101, at 3 (2002). Competitors may well find the public disclosure of the identity of their competition sufficient to signal whether and how they might adjust their bids. The Company solicited and received bids in confidence. It would be harmful and prejudicial to the process to allow public dissemination of the identity of the bidders and their pricing information. Disclosure could dissuade potential suppliers of goods and services, who must protect their competitive position in the national market, from marketing goods and services in Massachusetts. Consistent with precedent, the Company seeks protection for the identity of the vendors that is confidential, commercially sensitive, and proprietary from public disclosure.

Finally, except for the discovery sought in this proceeding, the Company has no obligation in any other forum to disclose the customer and vendor information. The Company would not ordinarily release the information in a public forum because of the detrimental impact that such a release could have on the interest of the vendors and the customers. In response to Information Request EFSB-N-20 and SAN-NSTAR-2-7, the

Company has agreed to provide Attachments EFSB-N-20(a), EFSB-N-20(b), SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b) to the Siting Board, and to any party that executes the Nondisclosure Agreement governing such documents in this proceeding.

IV. CONCLUSION

For all of the foregoing reasons, NSTAR Electric requests that the Siting Board rule that good cause exists to protect the disclosure of the Confidential Attachments EFSB-N-20(a), EFSB-N-20(b), SAN-NSTAR-2-7(a) and SAN-NSTAR-2-7(b).

Respectfully Submitted,

NSTAR ELECTRIC COMPANY

By its Attorneys,

David S. Rosenzweig, Esq.
Erika J. Hafner, Esq.
Keegan Werlin LLP
265 Franklin Street
Boston, Massachusetts 02110
(617) 951-1400

Date: March 9, 2011

To: Rusty Maenius

From: Grant Rabon

Cc: Joe Mancinelli

Subject: **Identification of Confidential Information Contained in the Austin Energy Cost of Service and Rate Design Models**

Date: April 8, 2012

This memorandum identifies the confidential information contained in the Austin Energy Cost of Service and Rate Design models developed for Austin Energy by SAIC Energy, Environment Infrastructure, LLC (SAIC).

Cost of Service Model

The Austin Energy Cost of Service (COS) model was used as the basis for Appendix D in the Austin Energy Rate Analysis and Recommendations Report dated December 19, 2011. Although some unused (or blank) rows or columns of data were hidden in the development of Appendix D, the appendix is essentially a printout of the worksheets contained in the Microsoft Excel COS model. The only other meaningful modifications made to the data contained in Appendix D was to redact (or obscure) data determined by Austin Energy to be confidential. The data contained in the COS model that was (or should have been) redacted from Appendix D is as follows:

- **WP 12.2** – Test Year unit level generation (MWh) on Excel rows 14 and 15 (not redacted in Appendix D)
- **WP 13** – FY 2009 and Test Year unit level generation (MWh) on Excel rows 14 and 15 (not redacted in Appendix D)
- **WP 41** – Unit level heat rates on Excel column J
- **WP 44** – FY 2009 and Test Year unit level generation (MWh) and fuel costs on Excel rows 12, 13, 20, 21, 28, 29, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 62 and 63
- **WP 44** – It was not an option shown in Appendix D, but presumably the capacity and energy associated with biomass, as shown on Excel rows 88, 89, 163 and 164, is confidential and would have been redacted if it had been included in the appendix

Rate Design Model

There was no confidential information contained in the Austin Energy Rate Design model that went directly into the Austin Energy Rate Analysis and Recommendations Report and, thus, no data needed to be redacted. However, Austin Energy would likely consider the energy and demand data for several of the larger commercial or industrial customer billing codes (e.g., LIR2), which is contained in the Rate Design model, to be confidential. Some of these customer billing codes are reflective of so few customers that the data could be highly suggestive of individual customer data. This type of data is shown throughout the Rate Design model for each of the various customer billing codes and, specifically, on the following worksheets:

- Bill Frequency
- RES1
- RES2

- SmS1
- SmS2
- MdS1
- MdS2
- LgS1
- LgS2
- P1
- P2
- LP1
- LP2
- VLP1
- VLP2
- TRANS1
- TRANS2
- LIGHTING

However, it is likely only the largest primary voltage and transmission voltage customer billing codes that would be considered to be highly suggestive of individual customer data and, therefore, confidential.

ATT POB/GAC - 2

Ontario Energy Board

Commission de l'énergie de l'Ontario

Ontario

EB-2010-0008

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S. O. 1998, c. 15, Schedule B;

AND IN THE MATTER OF an application by Ontario Power Generation Inc. pursuant to section 78.1 of the *Ontario Energy Board Act, 1998* for an order or orders determining payment amounts for the output of certain of its generating facilities.

PROCEDURAL ORDER NO. 5

Ontario Power Generation Inc. ("OPG") filed an application, dated May 26, 2010, with the Ontario Energy Board under section 78.1 of the *Ontario Energy Board Act,1998,* S.O. 1998, c.15, Schedule B (the "Act") seeking approval for increases in payment amounts for the output of certain of its generating facilities, to be effective March 1, 2011.

On June 29, 2010, the Board issued Procedural Order No. 1 which stated that counsel and consultants for intervenors would have the opportunity to execute and submit a Declaration and Undertaking (the "Undertaking") to review unredacted versions of documents for which OPG had requested confidential treatment. The procedural order also set out a schedule for the proceeding. On July 21, 2010, the Board issued Decisions and Orders on Confidential Filings and Issues List.

Breach of Declaration and Undertaking respecting confidentiality

On July 30, 2010, School Energy Coalition ("SEC") filed its interrogatories with the Board and sent electronic copies of these interrogatories to OPG and the other intervenors. One of the interrogatories disclosed information that the Board had declared to be confidential. OPG alerted the Board to this issue shortly after the interrogatories were filed, and the materials were immediately removed from the public record. The Board also sent an email to the parties that had been copied with the

interrogatories, instructing them to delete the file and destroy any copies that had been made.

In correspondence dated July 30, 2010, OPG suggested that the Board should be guided by the remedy it imposed in a recent Hydro One Networks Inc. case (EB-2009-0096), where a similar disclosure of confidential materials had occurred. In that case, the Board determined that the appropriate remedy was to revoke the Undertaking pertaining to confidential materials that had been signed by the individual in question. OPG also requested that the Board order all parties who had received the confidential information to destroy any written and electronic copies and to file a certificate of destruction with the Board.

Counsel for SEC (Mr. Shepherd) wrote to the Board on August 3, 2010 to apologize for the inadvertent disclosure of the confidential information. He asked that the Board not impose the same sanction it imposed in the Hydro One case as the error was a mechanical error, and that as SEC has only one counsel, revoking Mr. Shepherd's permission to access confidential materials would deprive SEC of its ability to be represented with respect to issues related to those materials.

On August 6, 2010, the Board wrote to all parties stating that it was considering what sanction, if any, was appropriate for this breach of the Undertaking. The Board made provisions for submissions on the matter from Board staff, OPG and SEC.

Submissions

Board staff identified two possibilities for the Board to consider: to revoke the Undertaking thereby rescinding Mr. Shepherd's right to have access to or make reference to confidential materials in the proceeding, or to impose a costs remedy. Staff submitted that the Board could either require Mr. Shepherd to pay a portion of OPG's costs (presumably its costs relating to the breach of the Undertaking), or reduce the level of Mr. Shepherd's cost recovery in this proceeding on account of the breach.

OPG accepted as sincere Mr. Shepherd's explanation for the breach of the Undertaking. OPG noted that the use of technology and associated software in dealing with confidential information has raised the standard of vigilance. OPG submitted that a sanction of SEC counsel is appropriate. OPG considered it appropriate that the sanction be personal to Mr. Shepherd, and not apply to SEC, as the breach was solely Mr. Shepherd's. OPG submitted that the Board should order Mr. Shepherd to pay $5,000 towards the Board's costs in this proceeding. Further, OPG submitted that Mr.

Shepherd should not be permitted to make any request for costs relating to this particular matter. OPG noted that it had discussed the matter with Mr. Shepherd and that he was in agreement.

OPG also requested that the Board issue an order requesting that all persons who received the confidential information in question and who have not executed an Undertaking, destroy all copies of that information, be prohibited from publishing and disseminating the information, be prohibited from using the information for any purpose and deliver a certificate to the Board certifying destruction of the information.

On August 11, 2010, Mr. Shepherd filed a letter in his individual capacity and as counsel to SEC identifying three principles that he urged the Board to confirm as the appropriate principles upon which to base a sanction. The principles are:

1. Release of confidential information, however inadvertent, is a very serious matter. The Board's actions in response must be a strong signal, not only to Mr. Shepherd and his client, but also to other parties and other stakeholders within the industry, that the Board has no tolerance for any failure to protect confidential information.
2. Any sanction should not be structured to give a benefit to the Applicant, or provide some tactical advantage. The point of the sanction is to reflect the seriousness of the confidentiality obligation, not to change the dynamics of the underlying proceeding.
3. The person who should be sanctioned is the individual, in this case Mr. Shepherd, who personally accepted the obligation to keep certain information confidential. The sanction should not be directed at the person's client, in this case SEC, since it is not its undertaking.

Mr. Shepherd agreed with the personal payment of $5,000 towards the Board's costs, as proposed by OPG. He also agreed that the time spent on this matter is not eligible for cost awards.

Board Findings

The Board accepts that the disclosure of the confidential information was inadvertent, and that Mr. Shepherd genuinely regrets that it occurred. However, the disclosure of confidential materials is a very serious matter, and on this point the Board concurs with Mr. Shepherd's first principle. The Board also concurs with OPG that the use of technology and associated software in dealing with confidential information has raised the standard of vigilance required to ensure that inadvertent disclosure does not occur.

To continue to allow electronic dissemination of confidential material in it proceedings, the Board and parties who file confidential material must be able to rely on all parties to meet this standard. The Board has concluded that a sanction is warranted in the circumstances.

OPG has proposed that the Board order Mr. Shepherd to personally pay $5,000 towards the Board's costs in this proceeding and that SEC not claim costs associated with any aspect of this matter. Mr. Shepherd accepts this proposal. The Board expects breaches of confidentiality to be rare and therefore concludes that each case must be considered on the individual circumstances. The Board is prepared to accept this approach of an order of costs against Mr. Shepherd in the particular circumstances of this case and because this is acceptable to OPG. However, the Board has determined that the level of costs to be paid by Mr. Shepherd shall be $10,000. The Board concludes that this level of assessment is required to signal to Mr. Shepherd, and all parties, the seriousness with which the Board views such breaches, however inadvertent.

The Board notes that 17 persons who have not signed an Undertaking received the confidential information. The Board's correspondence of July 30 instructed all parties who received the confidential information in error to delete the document and destroy hard copies, but did not require the filing of certificates of destruction. The Board accepts OPG's original request of July 30, that it would be appropriate for all persons who received the confidential information to file certificates of destruction, and will so order. Parties will use the Form of Certificate and Destruction which can be found at Appendix E of the Board's *Practice Direction on Confidential Filings*.

THE BOARD ORDERS THAT:

1. Mr. Shepherd shall make a personal payment of $10,000 towards the Board's costs in this proceeding. That payment shall be made by August 30, 2010.

2. All persons who received the confidential information on July 30, 2010, shall destroy any electronic and hard copies of the document containing the confidential information and file a certificate of destruction by August 20, 2010.

All filings to the Board must quote file number EB-2010-0008, be made through the Board's web portal at www.errr.oeb.gov.on.ca, and consist of two paper copies and one

electronic copy in searchable / unrestricted PDF format. Filings must clearly state the sender's name, postal address and telephone number, fax number and e-mail address. Parties shall use the document naming conventions and document submission standards outlined in the RESS Document Guideline found at www.oeb.gov.on.ca. If the web portal is not available, parties may email their documents to the address below. Those who do not have internet access are required to submit all filings on a CD in PDF format, along with two paper copies. Those who do not have computer access are required to file 7 paper copies.

All communications should be directed to the attention of the Board Secretary at the address below, and be received no later than 4:45 p.m. on the required date.

ADDRESS

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4
Attention: Board Secretary

E-mail: Boardsec@oeb.gov.on.ca
Tel: 1-888-632-6273 (toll free)
Fax: 416-440-7656

ISSUED at Toronto, August 16, 2010

ONTARIO ENERGY BOARD

Original signed by

Kirsten Walli
Board Secretary

ATT PUB/GAC - 5

ATT. PUB/GAC - 5
RCM/TREE/MH I-3(e)(iii)
Attachment 4
Page 1 of 1

2010 Prospective Cost of Service Study
Prospective Peak Load Responsibility Report

Energy (MW.h) Weighted by Marginal Cost (Hydraulic for Domestic and Export Classes)

	2009/10 Forecast		Spring			Summer			Fall			Winter				Weighted
			Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Total	Energy/1000
Residential	7,831,948,530	Residential	252,136,339	479,694,560	307,643,591	485,872,434	908,179,538	460,964,880	332,979,991	604,043,107	377,993,173	888,009,681	1,627,361,716	1,107,069,520	7,831,948,530	19,536,101
Res FRWH	19,891,874	Residential FRWH	804,167	1,529,944	981,202	1,736,716	3,246,223	1,647,686	839,482	1,522,864	952,966	1,625,440	2,978,772	2,026,413	19,891,874	48,423
Res Seasonal	83,957,616	Residential Seasonal	3,854,883	7,333,995	4,703,527	9,320,219	17,421,100	8,842,431	3,062,230	5,555,045	3,476,191	4,997,938	9,159,194	6,230,861	83,957,616	201,202
GS Small Non Demand	1,699,975,517	GS Small Non-Demand	63,169,675	113,139,517	65,546,470	146,108,969	213,161,587	119,242,216	74,882,670	129,202,012	77,800,874	178,737,740	315,750,229	203,233,558	1,699,975,517	4,247,235
GSS FRWH	6,304,394	GS Small Non-Demand FRWH	274,438	491,530	284,764	641,661	936,133	523,671	279,126	481,602	290,004	538,339	951,007	612,118	6,304,394	15,525
GSS Seasonal	5,382,794	GS Small Non-Demand Seasonal	303,111	542,885	314,516	869,542	1,268,594	709,649	168,356	290,480	174,917	189,759	335,220	215,765	5,382,794	12,839
GS Small Demand	2,281,353,953	GS Small Demand	83,696,379	146,991,056	89,302,491	178,266,239	291,346,879	169,911,019	102,245,928	175,932,915	109,787,832	237,144,144	419,771,724	276,957,347	2,281,353,953	5,655,564
GS Medium	3,476,648,890	GS Medium	134,938,050	236,401,141	144,503,448	299,209,167	488,425,641	290,457,394	151,794,756	261,316,524	161,893,687	335,856,518	588,768,733	383,083,834	3,476,648,890	8,566,269
GS Large <30KV	1,743,068,864	GS Large 750-30kV	72,793,420	121,835,898	79,369,038	158,098,820	250,217,035	163,029,274	77,257,665	127,092,422	84,510,777	160,622,548	267,725,792	180,516,176	1,743,068,864	4,256,626
GS Large 30-100kV	1,030,440,052	GS Large 30-100kV	36,014,278	70,371,417	54,785,569	72,849,372	137,393,514	107,295,480	40,343,284	76,440,296	60,481,821	85,437,291	162,800,908	126,226,822	1,030,440,052	2,437,875
GS Large 30-100kV Curtail	242,666,448	GS Large 30-100kV Curtailable	8,832,789	17,502,414	13,231,349	17,677,043	34,343,935	26,157,653	9,245,286	18,009,863	13,671,209	18,916,414	36,979,088	28,099,404	242,666,448	572,157
GS Large > 100kV	3,136,017,512	GS Large > 100kV	120,097,255	230,388,001	179,079,534	218,539,949	408,120,391	319,486,835	128,161,343	233,179,627	181,811,562	256,720,419	487,396,415	378,036,182	3,136,017,512	7,412,217
GS Large > 100kV Curtail	2,991,082,697	GS >100kV Curtailable	108,157,981	211,855,092	162,298,696	217,935,677	427,598,356	329,943,486	112,870,159	218,683,496	167,898,520	232,764,416	453,985,199	347,091,620	2,991,082,697	7,042,243
Streetlights	115,848,424	Street Lights	-	4,402,240	10,831,828	463,394	8,225,238	21,721,579	3,359,604	6,603,360	13,206,720	7,877,693	13,264,645	25,892,123	115,848,424	232,378
Total	24,664,587,563	Totals	885,072,765	1,642,479,689	1,112,876,023	1,807,589,201	3,189,884,162	2,019,933,252	1,032,489,881	1,858,353,614	1,253,950,253	2,409,458,340	4,287,228,642	3,065,291,741	24,664,587,563	60,236,653
Exports	6,424,000,000	Exports	374,082,464	599,973,034	266,694,981	821,308,537	1,336,495,478	648,409,340	247,670,381	422,821,900	231,537,059	416,739,624	697,752,991	360,514,212	6,424,000,000	15,786,874
		Weighting Factor	2.712	2.344	1.380	3.435	2.484	1.000	2.793	2.305	1.440	3.845	2.652	2.096		

Energy (MW.h) Weighted by Marginal Cost (Thermal for Domestic Classes)

			Spring			Summer			Fall			Winter				Weighted
Thermal Generation	2009/10 Forecast		Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Total	Energy/1000
Residential	50,171,034	Residential	1,615,172	3,072,897	1,970,748	3,112,472	5,817,748	2,952,916	2,133,052	3,869,467	2,421,404	5,688,541	10,424,790	7,091,827	50,171,034	125,147
Res FRWH	127,426	Residential FRWH	5,151	9,801	6,286	11,125	20,795	10,555	5,378	9,755	6,105	10,412	19,082	12,981	127,426	310
Res Seasonal	537,828	Residential Seasonal	24,694	46,981	30,131	59,705	111,599	56,644	19,616	35,585	22,268	32,017	58,673	39,915	537,828	1,289
GS Small Non Demand	10,889,950	GS Small Non-Demand	404,661	724,766	419,887	935,966	1,365,501	763,859	479,694	827,661	498,388	1,144,984	2,022,679	1,301,903	10,889,950	27,208
GSS FRWH	40,386	GS Small Non-Demand FRWH	1,758	3,149	1,824	4,110	5,997	3,355	1,788	3,085	1,858	3,449	6,092	3,921	40,386	99
GSS Seasonal	34,482	GS Small Non-Demand Seasonal	1,942	3,478	2,015	5,570	8,127	4,546	1,078	1,861	1,121	1,216	2,147	1,382	34,482	82
GS Small Demand	14,614,229	GS Small Demand	536,154	941,617	572,067	1,141,964	1,866,352	1,088,441	654,982	1,127,017	703,295	1,519,132	2,689,035	1,774,174	14,614,229	36,229
GS Medium	22,271,223	GS Medium	864,406	1,514,373	925,681	1,916,718	3,128,828	1,860,654	972,389	1,673,979	1,037,082	2,151,478	3,771,620	2,454,014	22,271,223	54,875
GS Large <30KV	11,166,004	GS Large 750-30kV	466,311	780,474	508,434	1,012,772	1,602,877	1,044,357	494,908	814,147	541,371	1,028,939	1,715,037	1,156,377	11,166,004	27,268
GS Large 30-100kV	6,600,943	GS Large 30-100kV	230,705	450,795	350,953	466,669	880,135	687,329	258,437	489,672	387,443	547,307	1,042,894	808,602	6,600,943	15,617
GS Large 30-100kV Curtail	1,554,508	GS Large 30-100kV Curtailable	56,582	112,120	84,759	113,238	220,005	167,564	59,225	115,370	87,577	121,178	236,886	180,003	1,554,508	3,665
GS Large > 100kV	20,089,157	GS Large > 100kV	769,336	1,475,853	1,147,174	1,399,955	2,614,397	2,046,615	788,965	1,493,736	1,164,675	1,644,537	3,122,235	2,421,679	20,089,157	47,482
GS Large > 100kV Curtail	19,160,712	GS >100kV Curtailable	692,854	1,357,132	1,039,677	1,396,084	2,739,172	2,113,600	723,040	1,400,875	1,075,549	1,491,076	2,908,204	2,223,450	19,160,712	45,112
Streetlights	742,119	Street Lights	-	28,201	69,388	2,968	52,690	139,147	21,521	42,301	84,602	50,464	84,973	165,864	742,119	1,489
Thermal Generation	158,000,000	Totals	5,669,728	10,521,635	7,129,023	11,579,318	20,434,224	12,939,582	6,614,074	11,904,512	8,032,737	15,434,730	28,104,347	19,636,091	158,000,000	385,873
Exports	-	Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Weighting Factor	2.712	2.344	1.380	3.435	2.484	1.000	2.793	2.305	1.440	3.845	2.652	2.096		

Definition of Periods
Spring (April 1 to May 31)
Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
Off-Peak = 11:00 pm to 7:00 am everyday

Summer (June 1 to Sept 30)
Peak = 12:00 noon to 8:00 pm weekdays
Shoulder = 7:00 am to 12:00 noon weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
Off-Peak = 11:00 pm to 7:00 am everyday

Fall (Oct 1 to Nov 30)
Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
Off-Peak = 11:00 pm to 7:00 am everyday

Winter (December 1 to March 31)
Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
Off-Peak = 11:00 pm to 7:00 am everyday

Where:

i = year

n = RPS classes

$P_{n,i}$ = projected price of RECs for RPS class n in year i,

$R_{n,i}$ = RPS requirement for RPS class n in year i, from Exhibit 3-9 in Deliverable 3-1.

l = losses from ISO wholesale load accounts to retail meters

For example, in a year in which REC prices are \$30/MWh and the RPS percentage is 10%, the avoided RPS cost to a retail customer would be \$30 × 10% = \$3/MWh. Detailed results from Appendix C are incorporated into the Appendix B Avoided Cost Worksheets by costing period. The year-by-year RPS percentages for each RPS tier are shown in Appendix C.

The levelized RPS price impact for the 2012 to 2026 period, in 2011\$ per MWh of load, is shown below:

Exhibit 6-50: Levelized RPS Price Impact (2012-2026)

Avoided RPS Cost by Class ($/MWh of Load) Levelized Price Impact 2012 – 2026 (2011$)						
	CT	ME	MA	NH	RI	VT
Class I	$1.77	$0.87	$1.74	$1.31	$1.41	$0.50
All Other Classes	$0.40	$0.05	$3.24	$0.99	$0.01	$0.00
Total	**$2.17**	**$0.92**	**$4.98**	**$2.30**	**$1.43**	**$0.50**

6.6. Externalities

Externalities are impacts from the production of a good or service that **are not** reflected in price of that good or service, and that are **not** considered in the decision to provide that good or service.[174] Air pollution is a classic example of an externality, as pollutants released from a facility impose health impacts on a population, cause damage to the environment, or both. The costs of those health impacts and ecosystem damages are not reflected in the price of the product and are generally not borne by the owner of the pollutant source. These costs are thus external to the financial decisions pertaining to the source of the pollutant. Therefore, externalities equal the total value of the adverse impacts minus the value of those impacts reflected in market prices.

In Chapter 2, we identify the impacts of pollutants that **are** reflected in market

[174] In economics, an externality can be positive or negative; in this discussion we are focusing on negative externalities.

prices in New England. There are many significant air pollutants associated with electric generation, but NO_x, SO_x, and CO_2 are the three primary pollutants that are currently subject to federal and/or state or regional regulation. Our electric market simulation model incorporates assumptions regarding compliance costs for those emissions as part of its estimation of the market price of electricity. The simulation model includes these costs when calculating bid prices and making commitment and dispatch decisions.

The Scope of Work for AESC 2011 asks for the heat rates, fuel sources, and emissions of NO_x, and CO_2 of the marginal units during each of the energy and capacity costing periods in the 2011 base year. It also asks for the quantity of environmental benefits that would correspond to energy efficiency and demand reductions, in pounds per MWh, respectively, during each costing period.

Exhibit 6-51 and Exhibit 6-52 summarizes the marginal heat rate and marginal fuel characteristics from the model results. The results of the two exhibits are based on the marginal unit in each hour in each transmission area, as reported by the model. Once the marginal units are identified, we extracted the heat rates, fuel sources, and emission rates for the key pollutants from the database of input assumptions used in our Market Analytics simulation of the New England wholesale electricity market.

Exhibit 6-51: 2011 New England Marginal Heat Rate by Pricing Period (Btu per kWh)

	Season and Period				
	Summer		**Winter**		**Grand Total**
	Off Peak	On Peak	Off Peak	On Peak	
Average Heat Rate (BTU/kWh)	9,543	10,188	9,161	8,494	**9,183**

Exhibit 6-52: 2011 New England Marginal Fuel Type

	Season and Period				
	Summer		Winter		
Fuel Type	Off Peak	On Peak	Off Peak	On Peak	**Grand Total**
Natural gas	70%	68%	64%	83%	**71%**
Oil	0%	1%	1%	1%	**1%**
Coal	24%	29%	24%	15%	**22%**
Nuclear	5%	1%	11%	1%	**5%**
Biomass	1%	1%	0%	0%	**0%**
Other	0%	0%	0%	0%	**0%**
Renewable	0%	0%	0%	0%	**0%**
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**

Our discussion of the methodology that we employ is discussed below:

We calculate the physical environmental benefits from energy efficiency and demand reductions by calculating the emissions of each of those marginal units in terms of pounds per MWh. We do this by multiplying the quantity of fuel burned by each marginal unit by the corresponding emission rate for each pollutant for that type of unit and fuel.

The calculations for each pollutant in each hour are as follows:

$$\text{Marginal Emissions} = [\text{Fuel Burned}_{MU}\ (\text{MMBtu}) \times \text{Emission Rate}_{MU}\ (\text{lbs/MMBtu}) \times 1\ \text{ton}/2000\ \text{lbs}]/\text{Generation}_{MU}\ (\text{MWh})$$

Where:

$Fuel\ Burned_{MU}$ = the fuel burned by the marginal unit in the hour in which that unit is on the margin,

$Emission\ Rate_{MU}$ = the emission rate for the marginal unit, and

$Generation_{MU}$ = generation by the marginal unit in the hour in which that unit is on the margin.

The avoided emissions values shown in the exhibits below represent the averages for each pollutant over each costing period for all of New England in pounds per MWh. The emission rates are presented by modeling zone, however differences between zones tend to be relatively insignificant.

Exhibit 6-53: 2011 New England Avoided CO_2 Emissions by Modeling Zone and Pricing Period (lbs/MWh)

CO2 (lbs/MWh)	Summer		Winter		
Transarea	Off Peak	On Peak	Off Peak	On Peak	**Grand Total**
NE - Boston	1,211	1,330	1,140	1,079	**1,163**
NE - CT Central-Northeast	1,240	1,346	1,146	1,090	**1,176**
NE - CT Norwalk	1,240	1,347	1,148	1,090	**1,177**
NE - Northeast MA	1,240	1,347	1,148	1,090	**1,177**
NE - New Hampshire	1,225	1,341	1,136	1,082	**1,167**
NE - Rhode Island	1,230	1,354	1,148	1,070	**1,170**
NE - Southeast MA	1,216	1,336	1,130	1,072	**1,159**
NE - Vermont	1,216	1,335	1,131	1,072	**1,159**
NE - West Central MA	1,230	1,347	1,143	1,086	**1,172**
NE - CT Southwest	1,229	1,350	1,143	1,090	**1,174**
NE - Maine	1,201	1,306	1,133	1,005	**1,132**
Average	**1,225**	**1,340**	**1,140**	**1,075**	**1,166**

Exhibit 6-54: 2011 New England Avoided NOx Emissions by Modeling Zone and Pricing Period (lbs/MWh)

NOx (lbs/MWh)	Summer		Winter		
Transarea	Off Peak	On Peak	Off Peak	On Peak	Grand Total
NE - Boston	0.646	1.076	0.635	0.477	**0.708**
NE - CT Central-Northeast	0.762	1.081	0.656	0.513	**0.753**
NE - CT Norwalk	0.757	1.084	0.656	0.514	**0.753**
NE - Northeast MA	0.708	1.094	0.640	0.491	**0.733**
NE - New Hampshire	0.698	1.100	0.647	0.452	**0.724**
NE - Rhode Island	0.664	1.083	0.634	0.461	**0.711**
NE - Southeast MA	0.664	1.083	0.634	0.461	**0.711**
NE - Vermont	0.716	1.092	0.654	0.495	**0.739**
NE - West Central MA	0.729	1.101	0.654	0.506	**0.747**
NE - CT Southwest	0.757	1.084	0.656	0.514	**0.753**
NE - Maine	0.663	1.041	0.727	0.429	**0.715**
Average	**0.706**	**1.084**	**0.654**	**0.483**	**0.732**

In this 2011 AESC report, we find that CO_2 has the most significant externality. We also conclude that the long-run marginal abatement cost of CO_2 is a practical and conservative measure of the full cost of carbon. In updating our recommendation from the 2009 AESC report, we review current literature on emissions reductions necessary to avoid the most dangerous impacts of climate change, as well as analyses of technologies available to achieve those emission reductions. We recommend that the Study Group uses a marginal abatement cost value which is based on the cost of controlling emissions.[175]

For AESC 2011, we recommend using a long-run marginal abatement cost (2011$) of $80 per short ton of CO_2. This is effectively a slight reduction in real dollars from our recommendation in AESC 2009 of $80 per short ton in 2009$ ($81.52 in 2011$). This estimate is still one-third higher than the value of $63 (2011$) per short ton recommended in AESC 2007. In 2011 approximately two percent of the $80 per ton is internalized in the market price of electricity, through RGGI, and 98 percent is an externality. By 2026, we estimate that approximately 49 percent of that amount will be internalized.

[175] This is an alternative to setting value based on monetized estimates of damages.

6.6.1. History of Environmental Externalities: Policies in New England

In the 1990's several New England states had proceedings dealing with externalities that influence current utility planning and decision-making.[176] In Massachusetts, dockets DPU 89-239 and 91-131 served as models for other states. Docket DPU 89-239 was opened to develop "Rules to Implement Integrated Resource Planning" and included consideration of many aspects of IRP including determination and application of environmental externalities values. This docket adopted a set of dollar values for air emissions, including a CO_2 value of $22 per ton of CO_2 (in 1989 dollars) (Exhibit DOER-3, Exhibit. BB-2, p. 26). Docket DPU 91-131 examined environmental externalities to develop recommendations of various approaches for quantifying the CO_2 externality value. The Department's Order in Docket DPU 91-131 was noteworthy for its foresight regarding climate change, albeit optimistic about the timing of recognition of climate change into policies and regulation in the United States.[177] Based on information in the record, the Department reaffirmed the CO_2 value it had adopted in the previous case, $22 per ton (in 1989 dollars).

6.6.2. Carbon Dioxide

Externalities associated with electricity production and uses include a wide variety of air pollutants, water pollutants, and land use impacts. The list of externalities from energy production and use is quite long, and includes the following:

- Air emissions (including SO_2, NO_x and ozone, particulates, mercury, lead, other toxins, and greenhouse gases) and the associated health and ecological damages;
- Fuel cycle impacts associated with "front end" activities such as mining and transportation, and waste disposal;
- Water use and pollution;
- Land use;
- Aesthetic impacts of power plants and related facilities;
- Radiological exposures related to nuclear power plant fuel supply and operation (routine and accident scenarios);

---

[176] A more detailed description of the history of electricity generation environmental externalities and policies in New England may be found in AESC 2007 (p. 7-6–7-8).

[177] AESC 2009 provides more detail about the Massachusetts DPU Order in Docket DPU 91-131.

- Other non-environmental externalities such as economic impacts (generally focused on employment), energy security, and others.

Many of these externalities have been reduced over time, as regulations limiting emission levels have forced suppliers and buyers to consider at least a portion of those costs in their production and use decisions, thereby "internalizing" a portion of those costs.[178]

We anticipate that the "carbon externality" will continue to be the dominant externality associated with marginal electricity generation in New England. This is the case for two main reasons. First, regulations to address the greenhouse gas emissions responsible for global climate change have yet to be adopted with sufficient stringency to link scientific research and evidence with long-term policy that would enable carbon-free resources to replace fossil-based generation lag, particularly in the United States.[179] The damages from the EPA's Criteria air pollutants are relatively bounded, and to a great extent "internalized," as a result of existing regulations. In contrast, global climate change is a problem on an unprecedented scale with far-reaching and potentially catastrophic implications.

Second, New England avoided electric energy costs over the study period are likely to be dominated by natural gas-fired generation, which has minimal SO_2, mercury, and particulate emissions, as well as relatively low NO_x emissions.

Based on knowledge of the electric system and review of model runs, it is believed that the dominant environmental externality in New England over the study period will be the un-internalized cost of carbon dioxide emissions. The current RGGI

---

[178] For example, the Clean Air Transport Rule, while currently in draft form, is expected to adjust the SO_2 and NO_x emissions caps downward with an ultimate effect of reducing SO_2 emissions approximately 73 percent from 2003 levels. Under the draft rule, annual emissions of SO_2 are required to decline from 4.7 million tons in 2009 to 3.9 million tons by 2012, and then to 2.5 million tons by 2014, for a cumulative reduction of 47 percent over the five-year compliance period. Annual NO_x emissions are capped at 1.4 million tons. As a result, while there will be some "external costs" associated with the residual SO_2 and NO_x pollution, these externalities are now relatively small. The EPA's proposed Air Toxics Rule governing electric utilities under section 112(d) of the Clean Air Act would do the same for emissions of mercury and other air toxics, while the proposed rule under section 316(b) of the Clean Water Act would minimize the externalities associated with the impingement and entrainment of aquatic organisms from power plant cooling water intake systems.

[179] On April 17, 2009; EPA issued a proposed finding that concluded that greenhouse gases posed an endangerment to public health and welfare under the Clean Air Act ("Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act" 74 Fed. Register 78: 18886–18910). This proposed finding initiates the process of potentially regulating greenhouse gases as an air pollutant. http://epa.gov/climatechange/endangerment.html

auctions and any federal CO_2 regulations only internalize a portion of the "greenhouse gas externality," particularly in the near term. Values were developed for the one major emission associated with avoided electricity costs for which the near-term internalized cost most significantly understates the value supported by current science.

6.6.3. General Approaches to Monetizing Environmental Externalities

There are various methods available for monetizing environmental externalities such as air pollution from power plants. These include various "damage costing" approaches that seek to value the damages associated with a particular externality, and various "control cost" approaches that seek to quantify the marginal cost of controlling a particular pollutant (thus internalizing a portion or all of the externality).

The "damage costing" methods generally rely on travel costs, hedonic pricing, and contingent valuation in the absence of market prices. These are forms of "implied" valuation, asking complex and hypothetical survey questions, or extrapolating from observed behavior. For example, data on how much people will spend on travel, subsistence, and equipment, can be used to measure the value of those fish, or more accurately the value of *not* killing fish via air or water pollution. Human lives are sometimes valued based upon wage differentials for jobs that expose workers to different risks of mortality. In other words, comparing two jobs – one with higher hourly pay rate and higher risk than the other – can serve as a measure of the compensation that someone is "willing to accept" in order to be exposed to the risk.

There are myriad problems with these approaches, two of which will be discussed here. The damage costing approaches are, in the case of global climate change, simply subject to too many problematic assumptions. We do not subscribe to the view that a reasonable economic estimate of the "damages" around the world can be developed and used as a figure for the externalities associated with carbon dioxide emissions. In other words, estimating damage is a moving target–it depends upon what concentrations we ultimately reach (or what concentrations we reach and then reduce). This is exacerbated by the fact that we do not fully understand what changes in the earth's climate might occur assuming carbon dioxide concentrations continue to increase past the current 380 parts per million, toward a projected 450 parts per million (or even higher) climate change, and cannot project with certainty the levels at which certain impacts will occur.

A further complicating factor is that different emissions concentrations create different damages for different regions and different groups of people. Estimating damages is fraught with difficulties including: (a) identifying the categories of changes to ecosystems and societies around the planet; (b) estimating magnitudes

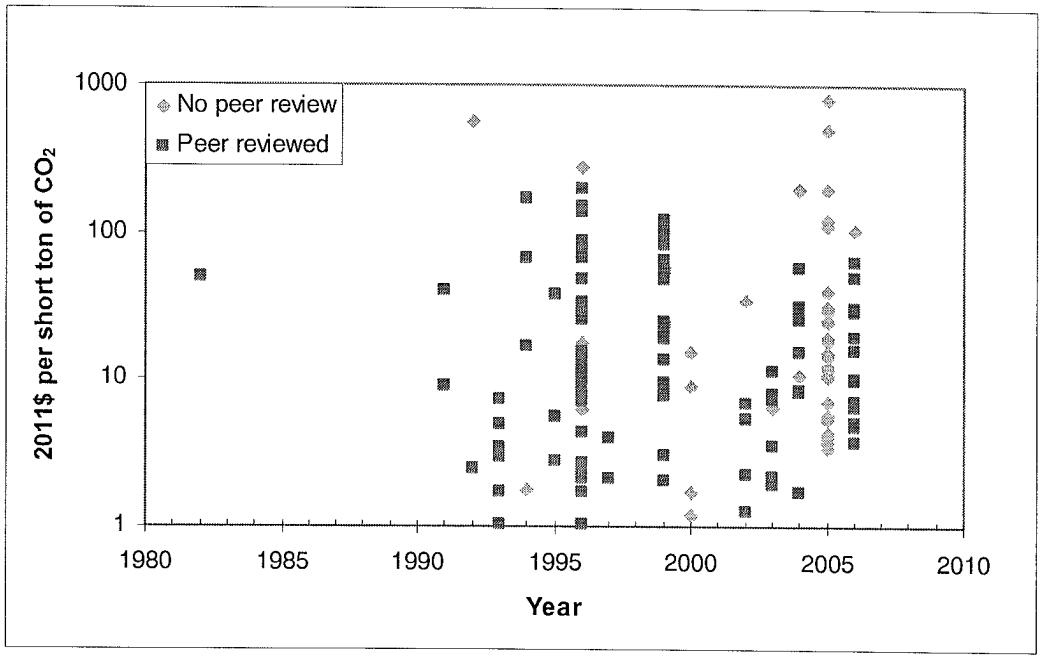
of impacts; (c) valuing those impacts in economic terms; (d) aggregating those values across countries with different currency exchange rates and different cultures; (e) addressing the non-linear and catastrophic aspects of the climate change damage; and (f) dealing with the paradoxes and conundrums involved in applying financial discount rates to effects stretching over centuries.

These difficulties are evident when examining various existing damage estimates. A meta-study from 2008 by author Richard Tol compares 211 estimates of this "social cost of carbon," which represents the economic costs of the damages from climate change aggregated across the globe and discounted to the present.[180] These estimates come from 47 studies done between 1982 and 2006.[181] The figure below shows a scatter plot of these estimates over time. The social cost of carbon is shown on the vertical axis, expressed in 2011 dollars per short ton of CO_2. Due to the wide range of the distribution, this value is expressed in log terms. The year of the study is shown on the horizontal axis. These studies use different methodologies, discount rates, damage functions, physical impacts of climate change, and equity weightings across individuals in different parts of the world, all of which are reflected in the resulting damage cost estimates. Hence, estimates vary across time and no particular pattern emerges when examined together.

[180] Tol, Richard S.J. *The Social cost of Carbon: Trends, Outliers and* Catastrophes. Economics E-Journal. Vol 2, 2008-25. August 12, 2008.

[181] It should be noted that many of the studies included in the meta-analysis were authored or co-authored by Richard Tol.

Exhibit 6-55: Scatter Plot of Converted Values of Tol 2009 Societal Cost of Carbon



Conversely, the "control cost" methods generally look at the *marginal* cost of control. That is, the cost of control valuations look at the last (or most expensive) unit of emissions reduction required to comply with regulations. The cost of control approach can be based upon a "regulators' revealed preference" concept. That is, if "air regulators" are requiring a particular technology with a cost per ton of $X to be installed at power plants, then this can be taken as an indication that the value of those reductions is perceived to be at or above the cost of the controls. The fact that the "regulators' revealed preferences" approach is unavailable, as regulators have not established relevant reference points, complicates the task of determining a carbon externality cost. The cost of control approach can also be based upon a "sustainability target" concept. With the sustainability target, we start with a level of damage or risk that is considered to be acceptable, and then estimate the marginal cost of achieving that target. It is important to note that, at this stage in our collective understanding of the science of climate change, as well as its social, economic, and physical impacts, the notion of a "sustainability target" is a construct useful for discussion, but not yet firmly established.

The "sustainability target" approach relies on the assumption that the nations of the world will not tolerate unlimited damages. It also relies partly on an expectation that policy leaders will realize that it is cheaper to reduce emissions now and achieve a sustainability target than it is not to address climate change. It is worth noting that a cost estimate based on a sustainability target will be a bit

lower than a damage cost estimate because the "sustainability target" is going to be a calculus of what climate change the planet is already committed to, and what additional change we are willing to live with (again complicated by the fact that different regions will see different impacts, and have different ideas about what is dangerous and what is sustainable).

6.6.4. Estimation of CO_2 Environmental Costs

Based upon our review of the merits of those various approaches, we selected an approach that estimates the cost of controlling, or stabilizing, global carbon emissions at a "sustainable level" or sustainability target. To develop that estimate, the most recent science regarding the level of emissions that would be sustainable was reviewed, as well as the literature on costs of controlling emissions at that level.

The conceptual and practical challenges for estimating a carbon externality price include the following:

- The damages are very widely distributed in time (over many decades or even centuries) and space (across the globe);
- The "physical damages" include some impacts that are very difficult to quantify and value, such as flooding large land areas; changes to local climates; species range migration; increased risk of flood and drought; changes in the amount, intensity, frequency, and type of precipitation; changes in the type, frequency, and intensity of extreme weather events (such as hurricanes, heat waves, and heavy precipitation);
- This list of "physical damages" includes some that are extremely difficult, perhaps impossible, to reasonably express in monetary terms;
- The scientific understanding of the climate change process and climate change impacts is evolving rapidly;
- There may well be reasons (not considered here) that the environmental cost value could have a shape that starts lower and increases faster, or vice versa, having to do with periods in which rates of change are most problematic;
- The scale of the impact on the world economies associated with the impacts of climate change and/or associated with the transformations of economies to reduce greenhouse gas emissions are so large that using terms and concepts such as "marginal" can be problematic; and

The impacts of climate change are non-linear and non-continuous, including "feedback cycles" that can most reasonably be thought of in terms of thresholds

beyond which there are "run away damages" such as irreversible melting of the Greenland ice sheet and the West Antarctic ice sheet, and collapse of the Atlantic thermohaline circulation—a global ocean current system that circulates warm surface waters.

Given the daunting challenge of valuing climate damages in economic terms, we propose taking a practical approach consistent with the concepts of "sustainability" and "avoidance of undue risk." Specifically, the carbon externality can be valued by looking at the marginal costs associated with controlling total carbon emissions at, or below, the levels that avoid the major climate change risks according to current expectations.

Nonetheless, because the environmental costs of energy production and use are so significant, and because the climate change impacts associated with power plant carbon dioxide emissions are urgently important, it is worthwhile to attempt to estimate the externality price and to put it in dollar terms that can be incorporated into electric system planning.

6.6.4.1. What is Current Understanding of the Correct Level of CO_2 Emissions?

In order to determine what is currently deemed a reasonable sustainability target, we reviewed current science and predicted policy impacts that have been released since AESC 2009.

We reviewed several sources to determine reasonable assumptions about what level of concentrations are deemed likely to achieve the sustainability target and what emission reductions are necessary to reach those emissions levels. The Intergovernmental Panel on Climate Change's most recent Assessment Report (IPCC 2007a, 15) indicates that concentrations of 445 to 490 ppm CO_2 equivalent correspond to 2° to 2.4°C increases above pre-industrial levels. A comprehensive assessment of the economics of climate change, Stern (2007) proposes a long-term goal to stabilize greenhouse gases at between the equivalent of 450 and 550 ppm CO_2. Recent research indicates that achieving the 2°C goal likely requires stabilizing atmospheric concentrations of carbon dioxide and other heat-trapping gases near 400 ppm carbon dioxide equivalent (Meinshausen 2006).

The Intergovernmental Panel on Climate Change (IPCC 2007, Table SPM5) indicates that reaching concentrations of 450 to 490 ppm CO_2 equivalent requires reduction in global CO_2 emissions in 2050 of 50 to 85 percent below 2000 emissions levels. Stern (2007, xi) says that global emissions would have to be 70 percent below current levels by 2050 for stabilization at 450 ppm CO_2 equivalent. To accomplish such stabilization, the United States and other industrialized countries would have to reduce greenhouse gas emissions on the order of 80 to 90

percent below 1990 levels, and developing countries would have to achieve reductions from their baseline trajectory as soon as possible (den Elzen and Meinshausen, 2006).

In the United States, several states have adopted state greenhouse gas reduction targets of 50 percent or more reduction from a baseline of 1990 levels or then-current levels by 2050 (California, Connecticut, Illinois, Maine, New Hampshire, New Jersey, Oregon, and Vermont). The state of Massachusetts has set targets for even greater reductions of greenhouse gases. The Global Warming Solutions Act (GWSA) was signed into law by Governor Deval Patrick in August 2008. The Act calls for initial reductions in greenhouse gas emissions of between 10 percent and 25 percent below 1990 levels by 2020. In the *Massachusetts Clean Energy and Climate Plan for 2020*, released on December 29, 2010 by the Massachusetts Executive Office of Energy and Environmental Affairs, the reduction target was set at 25 percent below 1990 levels. The Global Warming Solutions Act also has emissions reduction targets for 2030 and 2040, leading to an emissions reductions target of 80 percent below 1990 levels by 2050.

6.6.4.2. Cost of Stabilizing CO_2 Emissions

There have been several efforts to estimate the costs of achieving a variety of atmospheric concentration targets. The most comprehensive effort is the work of the Intergovernmental Panel on Climate Change. The IPCC was established by the World Meteorological Organization and UNEP in 1988 to provide scientific, technical and methodological support and analysis on climate change. IPCC has issued four assessment reports on the science of climate change, climate change impacts, and on mitigation and adaptation strategies (in 1990, 1995, 2001, 2007). The IPCC's Fifth Assessment Report is due in 2014.

IPCC (2007a) indicates that reductions on the order of 34 gigatons would be necessary to achieve an 80 percent reduction below current emission levels. [182] IPCC (2007b, p. 45) estimates that up to 31 gigatons in reductions are available for $98 per short ton of CO_2 or less (Working Group III Summary for Policy Makers) in 2011 dollars.[183]

For the 2011 AESC, we have examined other more recent studies, produced since July 2009, on the costs of achieving stabilization targets that include the following, and converted the given values to 2011$ per short ton of CO_2:

---

[182] 2000 emissions levels were 43Gt CO_2-eq. IPCC (2007a).

[183] This value, expressed in Table TS.3 in 2006 dollars per metric ton, is $97 per short ton of CO_2 in 2011 dollars ($100 metric ton of CO_2 × 1.07 [2006 to 2011 GDP values] × (1 metric ton/1.102 short ton)).

- In 2010 McKinsey and Company (McKinsey 2010) released an update to its second version of the Global Greenhouse Gas Abatement Cost Curve[184] in order to examine the impacts of the global financial crisis on carbon economics and emissions reductions.[185] The analysis came to the conclusion that the global financial crisis and resulting economic downturn has had a small impact on long-term emissions, and thus the size of the required emission reductions remains essentially the same. A stabilization level of 550 ppm, consistent with a temperature increase of 3°C, would result in a marginal abatement cost of $101 per short ton of CO_2. McKinsey increased its estimate from $75 per short ton in 2009 in order to include known carbon capture and storage (CCS) controls. The amount of energy necessary to run CCS controls leads to increases in the CO_2 abatement cost. Achieving a stabilization level of 450 ppm, consistent with a temperature increase of 2°C, would result in a marginal abatement cost of $126 per short ton.[186]
- In the World Energy Outlook 2010, the International Energy Agency (IEA 2010a) has modeled the implications and results of three international policy framework scenarios: (1) the Current Policies Scenario, in which country CO_2 policies are held constant as of mid-2010; (2) the New Policies Scenario, which takes into account broad policy commitments and plans that countries have announced but not yet implemented; and (3) the 450 Scenario, which stabilizes CO_2 levels at 450 ppm to limit temperature increase to 2°C. Under the Current Policies Scenario, the IEA projects carbon prices of $46 per short ton of CO_2 in 2035, and a price of $39 per short ton under the New Policies Scenario. Prices under the 450 Scenario are projected to be $111 per short ton for OECD+ countries and $83 per short ton for Other Major Economies. [187]

---

[184] The original Global Greenhouse Gas Abatement Cost Curve was released in 2007. The second version was released in 2009. The 2010 update is known as Version 2.1 of the Global Greenhouse Gas Abatement Cost Curve.

[185] McKinsey and Company did not update technology projections, but rather focused on updating the macroeconomic effects on emissions in the business-as-usual (BAU) scenario, and the resulting impact on emission reduction economics. A small number of model upgrades and enhancements were also performed.

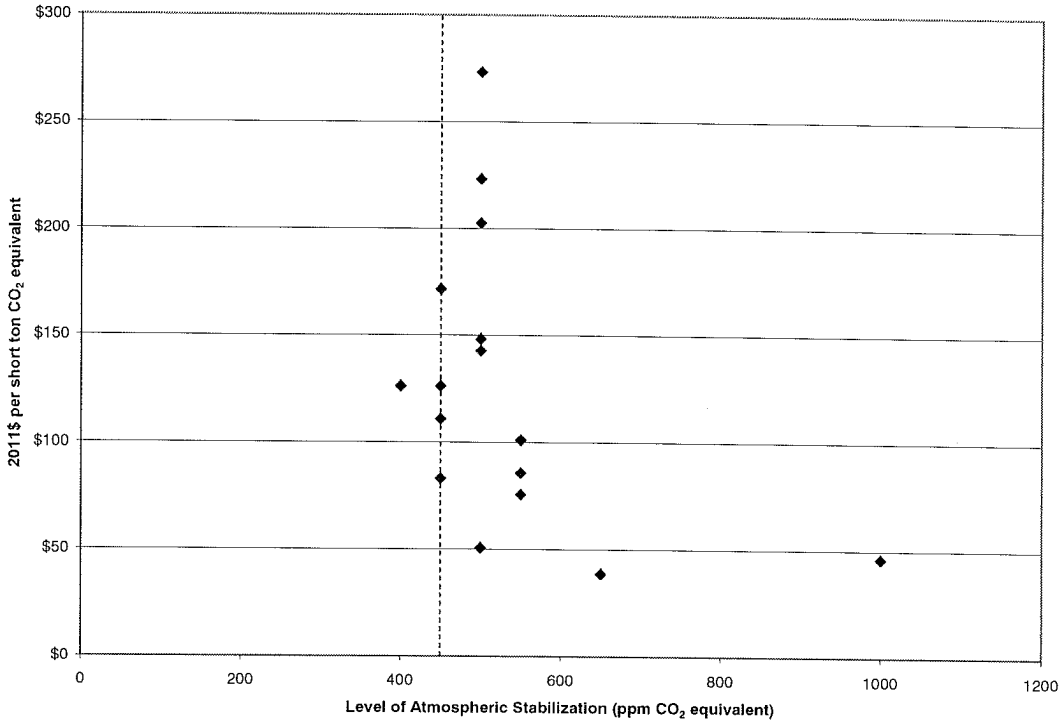
[186] The report values are expressed in 2005 Euros per metric ton of CO_2 of 80 and 100 Euros respectively.

[187] OECD+ countries include all OECD countries, as well as non-OECD countries in the European Union. Other Major Economies includes Brazil, China, the Middle East, Russia, and South Africa.

- The IEA examines four policy scenarios in its Technology Perspectives 2010, all of which reduce emissions of CO_2 by 50 percent from 2005 levels by 2050. In the Blue Map Scenario, these targets are achieved at a cost of $163 per short ton. If carbon capture and sequestration technologies are not available, the marginal cost of abatement increases to $273 per short ton. In the Blue Map case with high amounts of nuclear power, abatement cost is $148 per short ton. Finally, in the Blue Map case with high renewables, controls costs are $142 per short ton.

The results of these studies mentioned above, as well as additional studies by the same entities[188], are summarized in Exhibit 6-56. The dotted line is drawn at the value of atmospheric stabilization of 450 ppm CO_2 equivalent, which corresponds to a global temperature increase of 2°C above pre-industrial levels.

Exhibit 6-56: Summary Chart of Marginal Abatement Cost Studies



[188] These additional studies include: (1) McKinsey & Company. 2009. "Pathways to a Low-Carbon Economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve."; (2) International Energy Agency. 2008a. *World Energy Outlook 2008*. Paris: International Energy Agency.; and (3) International Energy Agency. 2008b. *Energy Technology Perspectives 2008: Scenarios and Strategies to 2050*. Paris: International Energy Agency.

We recommend that the estimated long-run marginal abatement cost be used as a practical and reasonable measure of the societal cost of carbon dioxide emissions. This can be applied to carbon dioxide emissions reductions, derived from lower electricity generation as a result of energy efficiency, in order to quantify their "full value." A portion of this value will be reflected in the allowance price for emissions, and thus internalized in the avoided costs; the balance may be referred to as an externality. Based on a review of these different sources, and our experience and judgment on the topic, we believe that it is reasonable to use an estimated long-term marginal abatement cost (LT MAC) of $80 per short tCO_2 equivalent (2011$) in evaluating the cost-effectiveness of energy efficiency measures. This estimate is essentially the same as our AESC 2009 estimate for the LT MAC of $81.52 per short tCO_2 equivalent (2011$).

Thus, states that have established targets for climate mitigation comparable to the targets discussed in this Chapter, or that are contemplating such action, could view the $80/ton long term abatement cost as a reasonable estimate of the societal cost of carbon emissions, and hence as the long-term value of reductions in carbon emissions required to achieve those targets.

Estimates of long-run marginal abatement costs include a degree of uncertainty. These reflect the underlying assumptions about a variety of effects, among them the extent of technological innovation, the selected emission reduction targets, the technical potential of certain technologies, and international and national policy initiatives, along with a variety of other influencing factors. Of course, selection of this value requires multiple assumptions and cannot be definitive given the quickly evolving combination of scientific understanding of the causes, effects and scale of climate change, international policy initiatives, and technological advances. It will be necessary to continuously review available information, and determine what value is reasonable given information available at the time of reviews. A value of $80 per short ton of CO_2 reflects our experience that actual costs tend to be lower than modeled values,[189] and is a reasonable estimate of the long-run marginal abatement costs for achieving a stabilization target that is likely to avoid temperature increases higher than 2°C above pre-industrial levels.

6.6.5. Estimating CO_2 Environmental Costs for New England

Our estimates of the "external" or additional cost associated with emissions of carbon dioxide in New England are based upon the sustainability target and the

[189] The long-run marginal abatement value of $80 per short ton CO_2 is slightly lower outside the range shown in Exhibit 6-6. The lowest value that would achieve atmospheric stabilization at 450 ppm as shown in the Exhibit is approximately $83.

forecast of carbon emission regulation in New England over the study period. The externality value for carbon dioxide in each year was calculated as the estimated long term marginal abatement cost of $80 per short ton minus the annual allowance values internalized in the projected electric energy market prices. For AESC 2011, we repeat this calculation process for the RGGI only scenario. These values are summarized in Exhibit 6-57.

Exhibit 6-57: CO_2 Externality Calculations

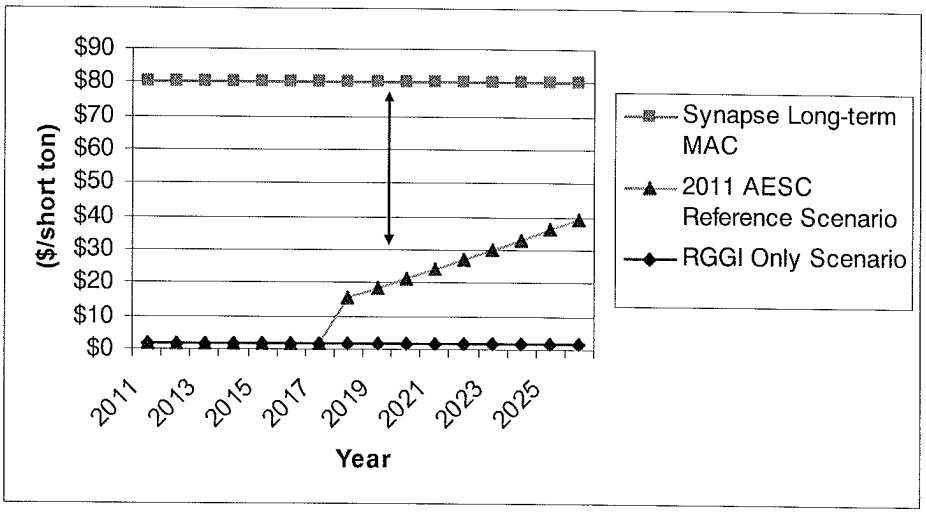
	LT MAC ($/short ton)	2011 AESC Reference Allowance Price ($/short ton)	2011 AESC Reference Externality ($/short ton)	RGGI Only Scenario Allowance Price ($/short ton)	RGGI Only Scenario Externality ($/short ton)
	a	b	c=a-b	d	e=a-d
2011	$80	$1.89	***$78.11***	$1.89	***$78.11***
2012	$80	$1.89	***$78.11***	$1.89	***$78.11***
2013	$80	$1.89	***$78.11***	$1.89	***$78.11***
2014	$80	$1.89	***$78.11***	$1.89	***$78.11***
2015	$80	$1.89	***$78.11***	$1.89	***$78.11***
2016	$80	$1.89	***$78.11***	$1.89	***$78.11***
2017	$80	$1.89	***$78.11***	$1.89	***$78.11***
2018	$80	$15.30	***$64.70***	$1.89	***$78.11***
2019	$80	$18.28	***$61.72***	$1.89	***$78.11***
2020	$80	$21.25	***$58.75***	$1.89	***$78.11***
2021	$80	$24.23	***$55.77***	$1.89	***$78.11***
2022	$80	$27.20	***$52.80***	$1.89	***$78.11***
2023	$80	$30.18	***$49.82***	$1.89	***$78.11***
2024	$80	$33.15	***$46.85***	$1.89	***$78.11***
2025	$80	$36.13	***$43.87***	$1.89	***$78.11***
2026	$80	$39.10	***$40.90***	$1.89	***$78.11***

Notes
Values expressed in 2011 Dollars
Allowance Prices from Exhibit 2-4
Inflation rate of 2%

The annual allowance values internalized in the projected electric energy market prices are shown in column b of Exhibit 6-57. The values are based upon a Synapse (Johnston 2011) forecast of the carbon trading price associated with anticipated carbon regulations starting in 2018. That carbon price was included in the dispatch model runs (in the generators' bids) and hence is embedded within the AESC 2011 avoided electricity costs. The additional value in each year is the difference between the estimate of long run marginal abatement cost ($80 per ton CO_2) and the value of the carbon trading price embedded in the projection of wholesale electric energy prices.

Exhibit 6-58 illustrates how the additional CO_2 cost was determined. The line for the allowance price is based on the forecast of carbon allowance costs, illustrating the notion that the United States will gradually move to incorporate the climate externality into policy. The "externality" is simply the difference between the estimate of the long-term marginal abatement cost (LT MAC) and the anticipated allowance cost; that is, the area above the line with triangles and below $80 per ton in the graph (shown between the double arrowed vertical line).

Exhibit 6-58: Determination of the Additional Cost of CO_2 Emissions



The carbon dioxide externality price forecast is presented above as a single simple price. This is for ease of application and because doing something more complex, such as varying the shape over time or developing a distribution to represent uncertainty, would go beyond the scope of this project and would stretch the available information upon which the externality price is based. We fully acknowledge the many complexities involved in estimating a carbon price, both conceptual and practical.

With regard to environmental costs, AESC 2011 focuses on the externality value of carbon dioxide for the purpose of screening DSM programs. There are, of course, many impacts of electric power production. A number of those impacts are listed above in Chapter 2. However, the bulk of displaced generation in New England will be from existing and future natural gas plants. For these, CO_2 emissions are the dominant non-internalized environmental cost.

6.6.6. Applying CO_2 Costs in Evaluations of DSM Programs

The externality values from Exhibit 6-57 above are incorporated in the avoided electricity cost workbooks and expressed as dollar per kWh based upon our

analysis of the CO_2 emissions of the marginal generating units summarized in Exhibit 6-51.

At a minimum program administrators should calculate the costs and benefits of DSM programs with and without these values in order to assess their incremental impact on the cost-effectiveness of programs. However, we recommend the program administrators include these values in their analyses of DSM, unless specifically prohibited from doing so by state or local law or regulation.

The Massachusetts Department of Public Utilities recently clarified its policies with regard to the avoided costs of energy efficiency programs. In light of the requirement of the Green Communities Act[190] to implement all cost-effective energy efficiency resources, the Department opened an investigation to update its energy efficiency guidelines, including policies regarding the types of costs and benefits that can be included in cost-effectiveness screening in Massachusetts.

The Department affirmed the use of the Total Resource Cost test, and clarified how environmental benefits could be used in evaluating cost-effectiveness. The Department cited a Supreme Judicial Court (SJC) case that addressed the circumstances under which the Department may require Program Administrators to account for environmental impacts in evaluating energy resources. The SJC found that the Department could not require Program Administrators to consider environmental externalities in evaluating energy resources, as it did not have the statutory authority to do so.[191]

However, the SJC made it clear that the Department does have the authority to require Program Administrators to include the costs of compliance with current and reasonably foreseeable future environmental regulations, as these compliance costs would be incorporated in electricity prices over which the Department has clear jurisdiction. The Department identified the Global Warming Solutions Act and federal measures to control greenhouse gas emissions as examples of existing and reasonably anticipated future environmental regulations, and made it clear that "the Department expects Program Administrators to include estimates of such compliance costs in the calculation of future avoided energy costs."[192]

---

[190] *An Act Relative to Green Communities*, Acts of 2008, Chapter 169, July 2, 2008.

[191] *Investigation by the Department of Public Utilities on its Own Motion into Updating its Energy Efficiency Guidelines Consistent with an Act Relative to Green Communities*, Order, DPU 08-50-A, March 16, 2009, pages 14 and 15.

[192] *Investigation by the Department of Public Utilities on its Own Motion into Updating its Energy Efficiency Guidelines Consistent with an Act Relative to Green Communities*, Order, DPU 08-50-A, March 16, 2009, page 17.

The next section explains why a DSM program could result in CO_2 emission reductions even under a cap and trade regulatory framework.

6.6.7. Impact of DSM on Carbon Emissions Under a Cap and Trade Regulatory Framework (RGGI)

The Regional Greenhouse Gas Initiative is a cap and trade greenhouse gas program for power plants in the northeastern United States. Participant states include Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Maryland and New Jersey.[193] Pennsylvania, the District of Columbia, the Eastern Canadian Provinces, and New Brunswick are official "observers" in the RGGI process. Eleven rounds of auctions have currently occurred.

As currently designed, the program:

- Stabilize CO_2 emissions from power plants at current levels for the period 2009-2015, followed by a 10 percent reduction below current levels by 2019;
- Allocate a minimum of 25 percent of allowances for consumer benefit and strategic energy purposes. Allowances allocated for consumer benefit will be auctioned and the proceeds of the auction used for consumer benefit and strategic energy purposes; and
- Include certain offset provisions that increase flexibility to include opportunities outside the capped electricity generation sector.

With carbon dioxide emissions regulated under a cap and trade system, as assumed in this market price analysis, it is conceivable that a load reduction from a DSM program will not lead to a reduction in the amount of total system carbon dioxide emissions. The annual total system emissions for the affected facilities in the relevant region are, after all, capped. In the analysis that was documented in this report, the relevant cap and trade regulation is the Regional Greenhouse Gas Initiative (RGGI) for the period 2011 to 2017 and an assumed national cap and trade system thereafter. However, there are a number of reasons why a DSM program could result in CO_2 emission reductions, specifically:

- Reduction in load that reduces the cost (marginal or total cost) of achieving an emissions cap can result in a tightening of the cap. This is a complex interaction between the energy system and political and economic systems,

[193] New Jersey Governor Christie has announced that New Jersey will withdraw from RGGI at the end of 2011.

and is difficult or impossible to model, but the dynamic may reasonably be assumed to exist;

- Specific provisions in RGGI provide for a tightening or loosening of the cap (via adjustments to the offset provisions that are triggered at different price levels). It is unknown at this point whether and to what extent such "automatic" adjustments might be built into the US carbon regulatory system;
- It is also possible that DSM efforts will be accompanied by specific retirements or allocations of allowances that would cause them to have an impact on the overall system level of emissions (effectively tightening the cap); and
- To the extent that the cap and trade system "leaks" because of its geographic boundaries, one would expect the benefits of a carbon emissions reduction resulting from a DSM program to similarly "leak." That is, a load reduction in New York could cause reductions in generation (and emissions) at power plants in New York, Pennsylvania, and elsewhere. Because New York is in the RGGI cap and trade system, the emissions reductions realized at New York generating units may accrue as a result of increased sales of allowances from New York to other RGGI states. However, because Pennsylvania is not in the RGGI system, the emissions reductions at Pennsylvania generating units would be true reductions attributable to the DSM program.

The first three of these points, above, would also apply to a national CO_2 cap and trade program. The fourth point, about leakage and boundaries, would apply as well, but to a lesser extent.

6.7. Social Discount Rate

The Project Team surveyed Study Group members and other sources to summarize the real discount rate used in cost-effectiveness models for energy efficiency programs in the six New England States as well as California, New York, Oregon and Washington. Appendix C summarizes results from our survey of real discount rates.

ATT PUB/GHC - 9

Coal Retirements in Mid West 2012 Onward

Source	State	NERC Region	IEA Plant Name	Operator	Unit	Summer MW	Retirement Year	Heat Rate 2008	Heat Rate 2011	Capacity Factor 2008	Capacity Factor 2009	Capacity Factor 2010	Capacity Factor 2011	Capacity Factor 2012
2011 EI.	MN	MRO	Black Dog	Xcel Energy	3	79	2016	11.11	11.09	63%	76%	55%	61%	37%
2011 EI.	MN	MRO	Black Dog	Xcel Energy	4	153	2016	10.46	10.37	77%	56%	63%	58%	36%
2011 EI.	MN	MRO	Silver Lake	Rochester Public Utilities	1	8.8	2017	17.28	-	3%	-2%	-2%	0%	0%
2011 EI.	MN	MRO	Silver Lake	Rochester Public Utilities	2	7	2017	18.30	-	35%	8%	-2%	0%	0%
2011 EI.	MN	MRO	Silver Lake	Rochester Public Utilities	3	20	2017	17.64	-	27%	1%	9%	0%	0%
2011 EI.	MN	MRO	Silver Lake	Rochester Public Utilities	4	46.4	2017	11.67	-	30%	9%	2%	0%	0%
2011 EI.	WI	MRO	Alma	Dairyland Power Coop	1	18.9	2012	16.13	-	50%	7%	3%	0%	0%
2011 EI.	WI	MRO	Alma	Dairyland Power Coop	2	18	2012	13.68	-	53%	7%	4%	0%	0%
2011 EI.	WI	MRO	Alma	Dairyland Power Coop	3	18.9	2012	13.27	-	49%	6%	5%	0%	0%
2011 EI.	WI	MRO	Edgewater	Wisconsin Power & Light Company	3	71.2	2015	10.90	11.21	60%	33%	5%	29%	0%
2011 EI.	WI	MRO	Edgewater	Wisconsin Power & Light Company	4	308.4	2018	10.03	10.23	74%	61%	67%	66%	26%
News	WI	MRO	Nelson Dewey	Wisconsin Power & Light Company	1	104.7	2015	9.11	9.36	54%	57%	67%	57%	27%
News	WI	MRO	Nelson Dewey	Wisconsin Power & Light Company	2	103.2	2015	8.95	9.10	76%	60%	64%	59%	23%
News	WI	RFC	Valley	Wisconsin Electric Power Co	1	300.1	2015	13.36	17.86	25%	21%	11%	14%	5%
News	WI	RFC	Valley	Wisconsin Electric Power Co	2	657.4	2015	11.18	18.11	15%	11%	8%	5%	3%
2011 EI.	IA	MRO	Dubuque	Interstate Power and Light (Alliant)	3	28	2015	15.01	24.11	55%	23%	24%	17%	0%
2011 EI.	IA	MRO	Dubuque	Interstate Power and Light (Alliant)	4	35.5	2015	13.89	4.71	44%	25%	30%	24%	0%
2011 EI.	IA	MRO	Sutherland	Interstate Power and Light Co	1	28.3	2015	13.44	14.72	72%	64%	63%	34%	17%
2011 EI.	IL	RFC	Crawford	Midwest Generation	7	213	2012	10.16	10.80	63%	50%	54%	55%	23%
2011 EI.	IL	RFC	Crawford	Midwest Generation	8	319	2012	10.08	10.47	46%	57%	51%	49%	24%
2011 EI.	IL	RFC	Fisk Street	Midwest Generation	19	326	2012	10.32	10.46	65%	58%	54%	56%	27%
2011 EI.	IL	SERC	Pearl Station	Prairie Power	1	22.2	2013	12.84	13.56	76%	22%	32%	25%	0%
2011 EI.	IN	RFC	Frank E Ratts	Hoosier Energy	1	118	2015	10.31	11.17	85%	72%	74%	33%	16%
ourcev	IN	RFC	Frank E Ratts	Hoosier Energy	2	122	2015	10.29	10.48	78%	78%	60%	43%	13%
ourcev	IN	RFC	R Gallagher	Duke Energy	1	140	2012	10.97	11.52	55%	29%	43%	14%	0%
2011 EI.	IN	RFC	R Gallagher	Duke Energy	3	140	2012	10.38	10.82	47%	40%	35%	18%	0%
2011 EI.	IN	RFC	State Line Energy	Dominion	3	197	Mar-12	10.15	10.41	79%	63%	77%	73%	13%
2011 EI.	IN	RFC	State Line Energy	Dominion	4	318	Mar-12	9.61	10.29	83%	60%	73%	65%	11%

News	IN	RFC	Tanners Creek	American Electric Power	1	145	2014	0.94	-	59%	8%	27%	20%	4%
News	IN	RFC	Tanners Creek	American Electric Power	2	145	2014	0.83	-	66%	25%	22%	47%	7%
Sourcev	IN	RFC	Tanners Creek	American Electric Power	3	200	2014	0.90	-	59%	47%	27%	25%	19%
Sourcev	IN	RFC	Whitewater Valley	Richmond Power & Light	1	34.7	2013	12.29	12.58	34%	13%	26%	27%	0%
Sourcev	IN	RFC	Whitewater Valley	Richmond Power & Light	2	65	2013	12.23	12.44	52%	26%	23%	26%	0%
Sourcev	MI	RFC	B C Cobb	Consumers Energy	4	156	2015	10.72	10.43	74%	65%	78%	59%	33%
Sourcev	MI	RFC	B C Cobb	Consumers Energy	5	156	2015	10.96	10.42	72%	62%	64%	51%	33%
2011 El.	MI	RFC	Dan E Karn	Consumers Energy	1A	255	2014	10.23	10.33	35%	44%	61%	54%	27%
2011 El.	MI	RFC	Dan E Karn	Consumers Energy	2A	260	2014	10.26	10.30	57%	77%	64%	64%	27%
2011 El.	MI	RFC	Harbor Beach	DTE Energy	1	95	2015	12.37	-	29%	16%	20%	0%	0%
2011 El.	MI	RFC	J R Whiting	Consumers Energy	1	97.1	2014	11.02	11.10	78%	77%	66%	48%	28%
2011 El.	MI	RFC	J R Whiting	Consumers Energy	2	101.4	2014	11.01	10.95	76%	73%	69%	62%	23%
Sourcev	MI	RFC	J R Whiting	Consumers Energy	3	124	2014	10.98	11.03	80%	38%	72%	58%	21%
Sourcev	MI	RFC	Presque Isle	Wisconsin Electric Power Co	5	88	2017	11.74	11.36	66%	55%	55%	39%	27%
Sourcev	MI	RFC	Presque Isle	Wisconsin Electric Power Co	6	88	2017	11.43	11.24	64%	60%	53%	52%	29%
Sourcev	MI	RFC	Presque Isle	Wisconsin Electric Power Co	7	77	2017	12.04	12.15	79%	78%	76%	78%	22%
Sourcev	MI	RFC	Presque Isle	Wisconsin Electric Power Co	8	77	2017	11.95	11.88	87%	79%	85%	75%	38%
2011 El.	MI	RFC	Presque Isle	Wisconsin Electric Power Co	9	77	2017	11.97	12.31	80%	85%	72%	77%	43%
2011 El.	MO	SPP	Asbury	Empire District Electric Co	2	18	2014	-	-	0%	1%	0%	69%	0%
2011 El.	MO	SPP	Montrose	Kansas City Power & Light Co	1	170	2016	10.70	11.28	69%	68%	68%	56%	33%
2011 El.	MO	SPP	Sibley	KCP&L Greater Missouri Operations Co	1	47.7	2017	11.81	12.81	89%	85%	69%	67%	19%
2011 El.	MO	SPP	Sibley	KCP&L Greater Missouri Operations Co	2	50.6	2017	12.19	12.72	80%	79%	65%	52%	18%
2011 El.	OH	RFC	Ashtabula	FirstEnergy	5	244	2015	10.55	11.01	56%	29%	41%	42%	5%
2011 El.	OH	RFC	Avon Lake	GenOn Energy	7	96	2015	15	40	20%	2%	3%	1%	1%
2011 El.	OH	RFC	Avon Lake	GenOn Energy	9	640	2015	9.77	9.61	47%	55%	50%	45%	23%
2011 El.	OH	RFC	Bay Shore	FirstEnergy	2	138	2012	10.59	10.73	71%	0%	50%	44%	1%
2011 El.	OH	RFC	Bay Shore	FirstEnergy	3	142	2012	10.61	10.77	70%	0%	60%	49%	6%
2011 El.	OH	RFC	Bay Shore	FirstEnergy	4	215	2012	10.23	10.72	72%	0%	60%	46%	8%
2011 El.	OH	RFC	Conesville	American Electric Power	3	165	2012	10.90	12.58	55%	31%	38%	14%	12%
Sourcev	OH	RFC	Eastlake	FirstEnergy	1	132	2015	15.72	10.79	64%	56%	66%	57%	35%
Sourcev	OH	RFC	Eastlake	FirstEnergy	2	132	2015	17.01	10.85	64%	30%	49%	36%	30%
Sourcev	OH	RFC	Eastlake	FirstEnergy	3	132	2015	14.53	11.10	64%	28%	43%	43%	30%
Sourcev	OH	RFC	Eastlake	FirstEnergy	4	240	2015	10.98	11.13	62%	39%	47%	45%	27%
Sourcev	OH	RFC	Eastlake	FirstEnergy	5	597	2015	6.51	9.94	80%	63%	69%	80%	43%

2011 El.	OH	RFC	Lake Shore	FirstEnergy	18	245	2015	11.47	11.78	54%	13%	36%	27%	1%
2011 El.	OH	RFC	Miami Fort	Duke Energy	6	163	2015	10.41	10.22	76%	77%	69%	86%	33%
Sourcev	OH	RFC	Muskingum River	American Electric Power	1	190	2014	10.05	10.47	73%	47%	44%	38%	5%
Sourcev	OH	RFC	Muskingum River	American Electric Power	2	190	2014	10.09	10.51	71%	41%	40%	36%	5%
Sourcev	OH	RFC	Muskingum River	American Electric Power	3	205	2014	9.57	10.94	68%	59%	51%	50%	18%
Sourcev	OH	RFC	Muskingum River	American Electric Power	4	205	2014	12.70	10.56	59%	63%	58%	49%	12%
Sourcev	OH	RFC	Niles	GenOn Energy	1	108	2015	11.27	11.31	50%	27%	22%	19%	3%
ER	OH	RFC	Niles	GenOn Energy	2	108	2015	11.35	-	43%	3%	23%	0%	0%
ER	OH	RFC	Picway	American Electric Power	5	95	2014	12.03	-	40%	15%	8%	0%	0%
ER	OH	RFC	Walter C Beckjord	Duke Energy	1	94	2015	12.02	-	36%	31%	-1%	-1%	-1%
011 El.	OH	RFC	Walter C Beckjord	Duke Energy	2	94	2015	11.63	-	26%	41%	-1%	0%	-1%
011 El.	OH	RFC	Walter C Beckjord	Duke Energy	3	128	2015	11.43	-	36%	38%	-1%	0%	8%
011 El.	OH	RFC	Walter C Beckjord	Duke Energy	4	150	2015	10.84	11.30	52%	67%	42%	24%	8%
011 El.	OH	RFC	Walter C Beckjord	Duke Energy	5	238	2015	11.45	10.28	28%	41%	57%	62%	32%
011 El.	OH	RFC	Walter C Beckjord	Duke Energy	6	414	2015	10.62	10.10	31%	64%	56%	57%	37%

ATT PUB/GAC - 10

Measuring Rate and Bill Effects

Adapted from Direct Testimony of Paul Chernick

Kansas Corporation Commission Docket No. 12-GIMX-337-GIV

Q: Is it appropriate to examine the effects of energy-efficiency programs on customer rates and bills?

A: Yes. As utilities ramp up energy-efficiency efforts to significant levels, the ratepayer impacts of the energy-efficiency portfolio should be examined carefully to flag any equity problems or disruptive rate shifts. If important inequities are identified in distribution of benefits and costs of energy-efficiency programs across classes, or among customers of varying sizes and types (e.g., space-heating versus other residential customers), the utility and the Board should correct the incidence of benefits (by emphasizing programs and delivery mechanisms that address underserved groups) and/or cost allocation (by changing the recovery of costs across classes, seasons, sales blocks, and other billing determinants).

More broadly, the equity effect of an energy-efficiency program depends on the following factors:

- whether the customer group served by the program is otherwise served more or less than other groups;
- whether the customer group served by the program is more in need of assistance to overcome the barriers to efficiency;
- whether the program is available to a large group of customers;
- whether the magnitude of the program results in a significant rate effect;
- the extent to which the program permanently transforms markets, so that higher-efficiency equipment and designs become standard practice

and even non-participants in the program wind up with better equipment and lower bills.

Energy-efficiency programs are not the only utility activities that result in rate effects. Many utility investments, including most cost-effective generation plants, raise bills in the short term and reduce bills over the longer term. Investments made to accommodate fast-growing customers and classes often increase bills to slower-growing customers. The costs of investments that reduce fuel and purchased-power costs are often allocated among customer classes very differently than the costs the investments avoid. The Commission tolerates these distributional effects to minimize costs and maximize benefits to customers as a whole over time.

Q: Is the Rate Impact Measure (RIM) a useful metric to assess the equity of the energy-efficiency portfolio?

A: No. The RIM is a very crude metric, invented in the 1970s, the very early days of utility energy-efficiency programs. The RIM has been rejected by utilities and regulators serious about promoting energy efficiency because it does a poor job of measuring rate effects (its stated purpose), and a worse job of measuring the fairness or equity of an energy-efficiency portfolio. The RIM has in the past been an excuse not to pursue energy-efficiency; whenever lost revenues exceed avoided costs, almost all efficiency efforts would fail the RIM.

The RIM is the ratio of two present values over the measure lifetime: the present value of avoided costs divided by the sum of utility costs and lost revenues. The RIM does not fulfill any of the following analyses:

- reflecting the effect of energy-efficiency programs on customer bills,
- estimating the effects on the various rate classes,

- determining whether the rate effects of particular measures or programs are increasing or decreasing the fairness of the distribution of net benefits among classes,
- estimating rate or bill effects by year.

Q: Is the RIM used in program or measure screening in any jurisdiction with significant energy-efficiency programs?

A: Not that I am aware of. So far as I can tell, even California, which originated the RIM, has never used it in any substantive manner.

Q: Does any jurisdiction use a test like the RIM to screen other activities, such as supply additions and rate design?

A: Not that I am aware of. No other utility activity is singled out for comparable treatment.

Q: What are the specific problems with the RIM test as a metric for efficiency?

A: I have identified seven distinct problems with the RIM. First, the RIM does not project percentage changes in rates and bills, or any other measure that would be useful to a decision maker concerned about rate levels. For example, in its 2005 resource plan report, British Columbia Hydro identified seven programs with RIM ratios of 0.6 or 0.7, which looks like a very serious rate effect. In fact, Hydro determined that those programs would have miniscule effects on rate, ranging from 0.0002¢/kWh to 0.0089¢/kWh.[1] According to this analysis, even the program with the

[1]Note that these rate impacts are described in cents, not dollars. Because these rate effects are much smaller than the Commission would normally see, it may be useful to restate them as $0.000002/kWh to $0.000089/kWh, or $0.002/MWh to $0.089/MWh.

largest effect on rates would increase rates less than 1/100 of a cent per kilowatt-hour. Any non-participants who chose to participate in any of Hydro's efficiency program would almost certainly save more than the miniscule costs that might be shifted to them by low-RIM programs.

Second, the RIM purports to measure the effect of a utility action on rates. Programs passing the Utility Cost Test and Total Resource Cost Test will generally reduce the present value of total revenue requirements, average utility bills, and total costs of energy services, including the costs paid directly by participants. Thus, even if rates rise, energy consumption will fall by a larger percentage, resulting in a net decrease in bills. The Commission and utilities should be striving to reduce the total dollars that customers are paying for their energy services, not necessarily the rate per kilowatt-hour. After all, consumers write checks for bills, not for rates. And reducing bills will leave customers with more income to spend on other needs, while reducing the cost of doing business and increasing the economic competitiveness of the state's industries.

Third, the RIM does not indicate how the program affects each rate class. Depending on the recovery mechanisms for energy-efficiency costs and lost revenues, and on the allocation of the avoided costs, any overall rate increase may be isolated to the rate classes using the program. If all customers in the class can participate in the programs, everyone's bills may be lower, even if their rates are higher.

Fourth, the RIM does not measure rate and bill effects well because the magnitude of the rate effects of any utility action depend on the timing and magnitude of the program, and cannot be usefully measured on a project-specific or measure-specific basis. The RIM is a rough measure of only the average effect on rates, over a long period of time.

Fifth, the non-participants in one program may be participants in other programs, and non-participants in the first year may be participants in later years. Over time, portfolios of energy-efficiency programs should be designed to offer direct benefits to as many customers as feasible. If the RIM is used to reject many programs, more customers will be non-participants and be more likely to pay more than they save from energy-efficiency programs, at least for some years. Estimates of rate, bill and equity effects are only meaningful on a portfolio basis.

Sixth, the energy-efficiency option that most conclusively fails the RIM may also increase the equity of the portfolio. For example, suppose that a program targeting refrigeration and cooking use of small restaurants has a RIM benefit/cost test of less than 1.0. For that segment of the small-commercial class, this may be the only program in which the customers can participate in a major way. Hence, even if the program increases rates for non-restaurant small-commercial customers, it would help to balance the portfolio by ensuring that all portions of the class have access to significant savings.

Finally, a serious defect of the RIM test is that it disproportionately focuses on the small near-term rate impacts of energy-efficiency programs while entirely ignoring the much larger rate impacts associated with future large capital investments in new generation assets. It is clear that that effective energy-efficiency program can minimize or defer the necessity for such large capital investments. As such, any near-term small rate impacts associated with energy-efficiency programs can be an effective tool for minimizing ratepayer (and overall macroeconomic) exposure to much-larger double-digit rate increases associated with multi-billion-dollar capital-construction projects.

Avoiding adverse effects on groups of customers is certainly an important consideration for utilities and the Commission. Those effects can be better assessed by analyses such as those performed by BC Hydro, or more detailed analyses of rates that would be charged to specific customer groups, rather than the uninformative RIM test.