The Rhode Island Energy Efficiency and Resource Management Council

June 20, 2018

VIA ELECTRONIC AND FIRST-CLASS MAIL

Luly E. Massaro
Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket #4684
EERMC Response to PUC First Set of Data Requests

Dear Luly,

The Rhode Island Energy Efficiency and Resource Management Council ("EERMC") is pleased to submit this cover letter and attached responses to the Public Utilities Commission's ("PUC") first set of data requests, issued on June 5, 2018, for the PUC's review and consideration.

Enclosed please find ten (10) copies of EERMC's responses, which are being submitted by the required June 20, 2018 deadline.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to contact me at (401) 477-0023.

Respectfully submitted
Rhode Island Energy Efficiency
Resource Management Council
By its Attorney,

Marisa Desautel, Esq.
Desautel Law
55 Pine Street, 4th Floor
Providence, RI 02903
Tel: (401) 477-0023

CERTIFICATION

I hereby certify that I filed ten (10) copies of the within responses and a true copy, via electronic mail, on this 20th day of June 2018, to the below updated Service List for Docket #4684, as per below:

VIA FIRST CLASS MAIL:

Luly.massaro@puc.ri.gov
Luly E. Massaro, Commission Clerk
Public Utilities Commission
89 Jefferson Blvd.
Warwick, RI 02888

VIA ELECTRONIC MAIL:

Docket No. 4684 – RI Energy Efficiency Resource Mgmt. Council (EERMC) Energy Efficiency Savings Targets, 2018-2020

Service list updated 6/6/18

Name/Address	E-mail Distribution List	Phone
Marisa Desautel, Esq. **(EERMC)** Law Office of Marisa Desautel, LLC 55 Pine St. Providence, RI 02903	marisa@desautelesq.com;	401-477-0023
Mike Guerard, Optimal Energy	guerard@optenergy.com;	
Jon Hagopian, Esq. **Division of Public Utilities and Carriers**	Jon.hagopian@dpuc.ri.gov;	401-784-4775
	Al.contente@dpuc.ri.gov;	
	Macky.McCleary@dpuc.ri.gov;	
	Jonathan.Schrag@dpuc.ri.gov;	
	John.bell@dpuc.ri.gov;	
Acadia Center Erika Niedowski	ENiedowski@acadiacenter.org;	
Tim Woof Jennifer Kallay Synapse Energy Economics	twoolf@synapse-energy.com; jkallay@synapse-energy.com;	
Raquel Webster, Esq. **National Grid** 280 Melrose St. Providence, RI 02907	Raquel.webster@nationalgrid.com;	781-907-2121
	Joanne.scanlon@nationalgrid.com;	
	Celia.obrien@nationalgrid.com;	
Carol Grant, Commissioner **Office of Energy Resources (OER)**	Carol.grant@energy.ri.gov;	
	Christopher.Kearns@energy.ri.gov;	
	Danny.Musher@energy.ri.gov;	
	Nicholas.Ucci@energy.ri.gov ;	

	Carrie.Gill@energy.ri.gov; Becca.Trietch@energy.ri.gov;	
Andrew Marcaccio, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4th Floor Providence, RI 02908	Andrew.Marcaccio@doa.ri.gov;	401-222-8880
Original & 9 copies file w/: Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov; Linda.George@puc.ri.gov; Cynthia.WilsonFrias@puc.ri.gov; Alan.nault@puc.ri.gov; Todd.bianco@puc.ri.gov;	401-780-2107

Jumarie Reynolds

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: ENERGY EFFICIENCY RESOURCE MANAGEMENT COUNCIL'S PROPOSED REVISIONS TO LEASTCOST PROCUREMENT STANDARDS	:	**DOCKET NO. 4684**

RHODE ISLAND ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL'S RESPONSE TO COMMISSION'S FIRST SET OF DATA REQUESTS
(Issued June 5, 2018)
(Responses filed June 20, 2018)

Request 1.1:
Referencing page 4, Section C.ii of the proposed Least Cost Procurement (LCP) Standards revision, please provide a justification for excluding participant costs from the levelized cost of the efficiency portfolio.

Response 1.1:
The comparison being described in Section C.ii of the proposed Least Cost Procurement (LCP) Standards is between the cost of energy efficiency and the cost of energy supply. The comparison is made from the perspective of the utility, because it is the utility that acquires resources to serve customer load, whether through traditional generation or through "negawatts" of energy efficiency. Participant costs are those costs that customers pay other than their utility bills. In the case of energy efficiency, this is the net cost of an efficiency investment after receiving a utility rebate or incentive payment. From the utility's perspective, which is the appropriate perspective to use for this comparison, utility-acquired supply-side resources have no participant costs. Therefore, including participant costs in the cost of efficiency would be inconsistent with an accurate comparison with the cost of supply.

Request 1.2:
Referencing page 4, Section C.iii, please confirm the word "efficiency" in the first sentence is a typographical error.

Response 1.2:
This is not a typographical error, but perhaps was not worded clearly. Section C.iii describes the way the cost of supply will be calculated for comparison with the cost of efficiency. The first two sentences in this paragraph refer to the calculation of cost of supply for comparison with the electric efficiency portfolio. The second two sentences refer to the calculation of cost of supply for comparison with the gas efficiency portfolio.

Request 1.3:
The underlying contracts for Standard Offer Service typically change price every month. Additionally, 10% of Commercial and Residential rates are based on actual spot market purchases. Further, usage varies across service class and from month to month. Referencing page 4, Section C.iii, do the proposed LCP Standards revision intend that the average of Standard Offer Service rates will be weighted by actual consumption patterns and actual costs of contracts and spot market purchases? If not, why not?

Response 1.3:
The SOS price reflects the average cost incurred by National Gird to acquire the energy delivered to SOS customers. As such, it implicitly includes all of the effects noted in the question: expected usage patterns by service class, the changing prices and composition of the sum total of supply contracts, spot market purchases, and changes in consumption over time.

Request 1.4:
Will the average of Standard Offer Service rates include the actual marginal RES cost for that compliance year, the actual approved RES rate for that compliance year, some other RES cost value, or none of these?

Response 1.4 (prepared with the assistance of Courtney Lane of National Grid):
The Standard Offer Service (SOS) rates will include the PUC-approved Renewable Energy Standard charges effective for the SOS pricing periods.

Request 1.5:
Referencing page 4, Section C.iii, what is the basis for relying on actual (or projected, depending on the EERMC's response above) Standard Offer Service rates for electric energy cost but not for gas energy costs?

Response 1.5:
In general, gas supply contracts and gas spot market prices are far more volatile than in the electric sector. As such, the SOS for gas changes monthly, sometimes by a substantial amount. Tying the "less than cost of supply" test to a volatile metric risks creating a "moving target" for EE programs. Because the energy savings from efficiency programs last for many years, a more reasonable comparison for the cost of gas efficiency is a near-term projection of average gas supply costs. This is readily available in the Avoided Energy Supply Component (AESC) Study recently completed by Synapse Energy Economics on behalf of the utilities and program administrators in New England.

Request 1.6:
Did the EERMC consider including energy costs supplied by non-regulated power producers and gas marketers? If not, why not?

Response 1.6:
The meaning of this question is unclear as to where the referenced energy costs would be "included." To the extent that the question is asking whether these costs are included in National Grid's SOS rates, then no, the SOS rates do not include these costs, nor should they. The comparison being made is between the utility's cost to procure energy efficiency versus supply. The cost of energy supplied by parties other than National Grid is irrelevant to this comparison, because National Grid has no control over those costs.

Request 1.7:
Referencing the study cited in Docket 4755, the Annual Energy Efficiency Plan for 2018 at Bates 5, footnote 12, *The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs*, accessed at http://utilityscalesolar.lbl.gov/sites/all/files/lbnl-6595e.pdf, specifically page ix of the Executive summary, the text in the inset includes the following excerpt regarding the Cost of Saved Energy (CSE): "The CSE is comparable to the levelized cost of energy (LCOE), which represents the per kilowatt hour cost (in real dollars) of building and operating a generating plant over an assumed financial life and duty cycle." Does the EERMC agree with this statement? If so, does the EERMC believe that the average of Standard Offer Service rates is representative to the LCOE of a power plant?

Response 1.7:
Yes, the EERMC agrees with the statement that the CSE is comparable to the LCOE, assuming the CSE is calculated as proposed in the revised Standards. With respect to the average SOS rate, as a general concept, the EERMC does agree that the SOS rate is representative of the LCOE of a power plant. The SOS rates are representative of the average market clearing price for commodity electric energy supply in New England, and therefore the average cost to National Grid to acquire this supply for its customers. Economic theory suggests that the average market clearing price for commodity electric energy should represent to a large extent the cost of producing this energy, which in turn is representative of some average LCOE across all of the generators supplying energy to the market. Therefore, the average SOS rate is unlikely to equal the LCOE of any specific power plant. Rather, it should be representative of the average LCOE of the relevant electric system.

Request 1-8(a):
Referencing Docket No. 4755, the Annual Energy Efficiency Plan for 2018, Bates 5, footnote 12, which provides that the "methodology for comparing costs was updated in the Plan to reflect industry best practices," please provide:
a. Reports, studies, or other documentation that support this statement.

Response 1-8(a):
Industry best practices are often difficult to define on the basis of a small number of published documents. Rather, they are the result of many practitioners' approaches in many varied contexts. For example, one type of study in which the cost of efficiency is compared to the cost of supply is an Integrated Resource Plans (IRP). For information on these studies, refer *to Best Practices in Electric Utility Integrated Resource Planning*, published the Regulatory Assistance Project.[1] This document describes, as one example, how integrated resource planning conducted by PacifiCorp models "specific quantities of energy efficiency at given costs." A related document notes that to do so, PacifiCorp must estimate "the amount of achievable energy efficiency in its service territory and how much it will cost to acquire that energy efficiency."[2] The EERMC believes that is it clear that this refers to the cost to acquire the efficiency for the utility, as the objective of the IRP process is to determine how the utility can meet its load requirements at the least cost (subject to reliability, safety, and other constraints).

Request 1-8(b):
Referencing Docket No. 4755, the Annual Energy Efficiency Plan for 2018, Bates 5, footnote 12, which provides that the "methodology for comparing costs was updated in the Plan to reflect industry best practices," please provide:
b. Please identify other jurisdictions and/or program administrators that have adopted the proposed methodology.

Response 1-8(b):
We are not aware of any jurisdictions that explicitly use or define a "less than the cost of supply" criterion or associated methodology. Nevertheless, the proposed methodology represents the utility perspective, and as such, is equivalent from a policy perspective to the Utility Cost Test UCT. Several jurisdictions assess efficiency program cost-effectiveness using the UCT (e.g., New Mexico, Texas) or using the UCT in combination with other tests (e.g., Connecticut, Ohio, Oregon).[3]

[1] http://www.raponline.org/wp-content/uploads/2016/05/rapsynapse-wilsonbiewald-bestpracticesinirp-2013-jun-21.pdf
[2] *The Treatment of Energy Efficiency in Integrated Resource Plans.* Lamont and Gerhard. https://www.raponline.org/wp-content/uploads/2016/05/rap-lamont-gerhard-treatementofeeinirp-2013-jan-28.pdf
[3] https://database.aceee.org/aceee_state_download.csv

Request 1-9:
Referencing the study cited in data request 1-7, *The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs*, please comment on the following:
a. "We collected data on net savings and costs incurred by program participants. However, there were insufficient data on participant cost contributions, and uncertainty and variability in the ways in which net savings were reported and defined across states (and program administrators). As a result, they were not used extensively in this report." (Page x).

Response 1-9(a):
Although we are unsure as to what aspect of the quoted statement the Commission is seeking comment on, EERMC believes that whether or not sufficient data on participant costs were available to the authors of the referenced study is immaterial to the proper analytical foundation of the proposed methodology.

Request 1-9(c):
"Although we focus on program administrator costs in this report, it is important to note that these metrics do not reflect a total cost perspective since program administrators infrequently report participant costs." (Page xv).

Response 1-9(c):
Although we are unsure as to what aspect of the quoted statement the Commission is seeking comment on, EERMC does not disagree that the program administrator perspective (and by extension, the proposed LCP methodology) does not reflect a total cost perspective. Indeed, the total cost perspective is provided by the Rhode Island Test, which also must indicate that proposed efficiency programs are cost-effective when participant costs ARE included.

Request 1-9(d):
d. "Second, when comparing efficiency with supply side resources, some consider that the proper metric is the money paid to obtain the resource by the program administrator as supply-side resources do not consider, or have, participant costs." (Page 2).

- Please specifically address whether National Grid's electrical supply-side resource does not consider, or have, participant costs, given that almost half the load in National Grid's Rhode Island territory is served by competitive energy suppliers.

Response:
National Grid's supply-side resource, as measured by the SOS price, does not have participant costs, nor does it have any connection with the load served by competitive energy suppliers, because National Grid is not supplying energy to those customers.

- Please also specifically address whether this assumption holds given that National Grid procures Standard Offer Service through load following contracts, that expenses for these contracts are only incurred if customers actually use energy, and that such expenses are fully recovered by National Grid from customers based on each individual customer's actual energy consumption.

Response:
Yes, the EERMC believes that the proper metric for comparing efficiency with supply-side resources is the program administrator cost to acquire the efficiency savings regardless of the issues listed. The SOS price is the cost to Grid to supply energy to their customers who are purchasing it. Those costs are a combination of advance contracts, hedges, spot purchases, etc. In total, these are the costs of providing energy to customers taking service under the Standard Offer and as such are recovered from those customers. The EERMC notes that the costs of energy "supplied" by energy efficiency are also fully recovered from National Grid's customer base in an amount equal to the actual spending on those programs. This is accomplished by the annual reconciliation of program spending and collections.

- Please further address whether all electrical energy procured in National Grid's Rhode Island territory, except for certain amounts of self-supply energy, is procured through participant costs rather than through program administrator costs.

Response:
National Grid procures energy for Rhode Island and in doing so incurs costs. Unlike for energy efficiency investments, neither program participants nor any other customers pay any additional amounts for this energy.

Request 1-9(e):
e. "The next level of reporting (teal background) provides critical information for calculating the CSE, assessing program efficacy and market penetration, and ensuring savings are attributable to program activities." (Page 56). Please note this excerpt is discussing Figure 5-1, and that the "critical information for calculating the CSE" found in the "teal background" section of Figure 5-1 includes among its listed items "Participant costs or total resource costs & benefits."

Response:
Although we are unsure as to what aspect of the quoted statement the Commission is seeking comment on, we note that the referenced figure presents components of a suggested hierarchy of ***reporting requirements*** for energy efficiency programs. We do not interpret the quoted text and figure to mean that participant costs are ***required*** components of the cost of saved energy itself. On the other hand, net-to-gross ratios, which are also listed in the "teal" box to which the question refers, are critical to the calculation of the cost of saved energy.