



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

MEETING MINUTES

Thursday, November 13, 2014

3:30 - 5:30 PM

Conference Room B
Department of Administration
One Capitol Hill, Providence, RI

- Members Present:** Abigail Anthony, Joe Cirillo, Marsha Garcia, Marion Gold, Jennifer Hutchinson, Michael McAteer, Joe Newsome, Paul Ryan
- Members Absent:** Julie Gill, Dan Justynski, Chris Powell
- Consultants Present:** Mike Guerard, Scudder Parker
- OER Staff Present:** Sue AnderBois, Chris Kearns, Rachel Sholly
- Others Present:** Karen Bradbury, Nick Corsetti, Craig Johnson, David McLellan, Ben Rivers, Laura Rodormer, Brigid Ryan, Rob Sherwood, Belinda Wong, Chon Wong

1. Call to Order

Chairman Paul Ryan called the meeting to order at 3:32 PM.

2. Approval of October Meeting Minutes

Joe Newsome made a motion to approve the October meeting minutes as submitted. Joe Cirillo seconded and all approved.

3. Executive Director Report

Commissioner Marion Gold reported that a letter of support for the 2015 Energy Efficiency Program Plan (EPPP) was received from the International Brotherhood of Electrical Workers and will be passed along to the Public Utilities Commission (PUC). The Rhode Island State Energy Plan (RISEP) was given tentative approval by the 20-member State Planning Advisory Committee and will now move on to the State Planning Technical Committee and State Planning Board for approval.

A number of working groups have been hard at work to implement recommendations that have emerged from the RISEP. One of them is the System Integration Working Group, which is a subcommittee of the EERMC and the Demand Collaborative. It has been working very closely with National Grid, the New England Clean Energy Council, representatives from the EERMC to think about how to better integrate energy efficiency and renewable energy and aligning those programs with the incentives that utilities receives. The Delivered Fuels Working Group, led by the Consultant Team and Danny Musher from the OER, has been determining the potential of efficiency savings from the delivered fuel community and at the costs and benefits of having incentive programs for those sectors. A presentation on this work will be added to the December Council agenda. New legislation may be necessary, but it may be a good time due to decreasing heating oil prices.

The OER had a good call this morning with Dunsky, the consultants working on the finance study funded by the Council. The next workshop is scheduled for next Friday. Dunsky has been talking with various end-users and finance community, and will present some preliminary results of this work.

Abigail Anthony made a motion to move agenda item #7 to #6. Joe Cirillo seconded and the motion passed.

4. Executive Committee Report

Vote on Legal Counsel Request for Proposals

Chairman Ryan asked Council members for feedback on the request for proposals (RFP). There were none at the time and it was decided that, since further edits may be made by the OER, the vote on the RFP will be put on a later agenda with proper notice. Chairman Ryan felt that the energy-related technical terms, such as Least Cost Procurement, may not be understood by all legal firms. He suggested using more general language.

Vote on Consultant Team Negotiated Contract

Ms. Anthony reported that the Executive Committee recommends that the Council approve the VEIC/Optimal proposal at a 10% reduction from the initial proposal. The Executive Committee asked the Consultant Team to revise proposal with three factors in mind: 1) increasing expertise in the commercial and industrial (C&I) sector; 2) increasing local presence; and 3) reducing cost. Budget reductions were achieved by reducing overall rates, putting some restrictions on travel, and taking production of annual report out of budget. The also added a new employee, Jen Chiodo, who specializes in large C&I commissioning.

Ms. Anthony made a motion to approve the VEIC/Optimal proposal at a 10% reduction from the initial proposal and retain an additional \$80,000 for special projects as needed identified and approved by the Council. Joe Newsome seconded and the motion passed.

Review of Draft EERMC Rules of Procedure

The Executive Committee discussed the need for more simple bylaws as opposed to extensive rules of procedure. The OER is editing the document down and will present it at the next meeting.

5. Policy/Planning Issues

Vote on Consultant Team's "Cost-Effectiveness Report on National Grid's 2015 Energy Efficiency Program Plan and System Reliability Procurement Report"

Scudder Parker of VEIC reminded the Council that Rhode Island law requires that the Consultant Team submit to the PUC a memo assessing the cost-effectiveness of the Plans within two weeks of submission. Although the language has not changed much over the past seven plans, the work behind it is substantial. They found both the Energy Efficiency Program Plan (gas and electric) and the System Reliability Procurement Report to be cost effective and presented the highlights of their memo (*see attached*).

Ms. Anthony made a motion to authorize the Consultant Team to finalize the cost-effectiveness memo and file it with the PUC tomorrow through legal counsel Dan Prentiss. Mr. Cirillo seconded and the motion passed.

6. General Updates on Energy Efficiency Programs and System Reliability Procurement

National Grid Quarter 3 Results

Michael McAteer and Nick Corsetti of National Grid presented the third quarter program results (*see attached*). Ben Rivers reported that the Regional Greenhouse Gas Initiative (RGGI) funds allocated to community buildings and non-profits are on track to be spent. A significant number of projects have been completed, mostly through the small business program.

National Grid is looking at launching energy reports for the small business sector, similar to home energy reports. These would also be offered by Opower, but would have different information. National Grid is also looking at using a vendor that has worked in the residential sector to work in the business sector on a web-based service that would help with discovery and getting businesses headed in the right direction before they contact RISE.

National Grid is still getting positive customer and vendor feedback on the recent energy efficiency summit and will be doing it again next year. Grid will be issuing an RFP for its upstream lighting program to deliver the same core duties that the current vendor does, but also adding some innovative ideas. Grid is also working on automated benchmarking services with Portfolio Manager, which will help the state and utility get out in front of potential data reporting requirements that may be coming down the pike.

7. Deeper Update on Energy Efficiency Program

Income Eligible and Multifamily

Mr. Guerard introduced the presentation noting that significant progress has been made on both income eligible and multifamily programs. Nick Corsetti presented an update on the multifamily program (*see attached*). Commissioner Gold expressed interest in more detail on the "Efficiency for All" work. Mr. Corsetti replied that it is currently underway and they could provide a more detailed update

at a later meeting. Mr. Guerard noted that a survey will go out to collect feedback. Rhode Island Housing is a big supporter of this effort.

Commissioner Gold asked if WegoWise was being used as a screening tool. Mr. Corsetti confirmed that it was. Additionally, National Grid's data analytics group is working with the National Renewable Energy Laboratory (NREL) to develop a tool internal to National Grid that would help build on its data analytic capability. Mr. Newsome asked how EPA ENERGYSTAR Portfolio Manager compares to WegoWise. Mr. Guerard said determining that is part of the process and the multifamily sector is new for Portfolio Manager. Portfolio Manager is a good foundation from which to build because it is free and easy to connect with and integrates with most other tools.

Mr. Guerard noted that multifamily is much more prominent in the new Three-Year Plan than in past plans, which could not have done without the program being ramped up the way it has.

Laura Rodormer of National Grid presented on the income eligible program (*see attached*). A question was raised about the current state of the Community Action Program Providence (CAPP). Ms. Rodormer replied that while there is always room for improvement, CAPP has made fantastic improvements over the past year, thanks in large part to the new team. It has the same problems as the other agencies, such as consistency and training challenges, but there are no significant issues that have been brought to National Grid's attention. Grid's team meets with them regularly to understand how things are going and what improvements can be made.

National Grid and the OER continue to leverage federal and state funds administered through the Department of Human Services (DHS), bringing together different agencies and organizations to figure out how to best use available funds and overcome roadblocks. Commissioner Gold said that it has not been easy and there are unspent funds, but DHS is committed to working with the group to get the funds out.

Mr. Newsome asked if there is an opportunity for a pilot to look at what difference upgrades have made on bills. Mr. Corsetti said that home energy reports do this to some extent, and Grid will be launching new tools to do this.

Ms. Anthony asked if building energy labeling has been considered. Sue AnderBois from the OER replied that a separate group is exploring this within the OER.

David McLellan of CLEAResult, National Grid's income eligible program vendor, felt confident that it would be easier to spend the federal funds going forward because the CAP agencies better understand the overarching goals in terms of budget and mission. Mr. Parker commented that these programs have come so far in the last 7-8 years because of trust, better communication and new social innovations. Mr. Newsome commended Mr. McAteer, CLEAResult and the whole team on transforming the numbers and relationships.

Ms. Anthony asked what was being learned about tenant issues and barriers. Mr. Corsetti replied that many of the things Grid be doing on the multifamily side will start addressing this question and it ties into the larger discussion about participation and equity. There is still a lack of incentive on the landlord side. Mr. McAteer added that split incentives will have to be addressed if the necessary program scale is to be achieved.

8. Other Business

Mr. Cirillo suggested that the Council look at assisting with getting Providence's "superman" building occupied.

Mr. McAteer announced that the state has moved from #6 to #3 for energy efficiency programs and policies according to the American Council for an Energy Efficiency Economy. Additionally, National Grid received an award for achieving the most energy efficiency savings as function of MWH sales. He thanked everyone for their collective efforts.

9. Public Comment

There was no public comment.

10. Adjournment

Chairman Ryan adjourned the meeting at 5:10 PM.

Next Meeting: Thursday, December 11th; 3:30-5:30 PM; Conference Room B



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

Request for Proposal: Legal Services

Submission Deadline: December 1, 2014, 4:00 PM (Eastern Time)

Questions concerning this solicitation must be received by the EERMC at eermc.rfp@gmail.com no later than 4:00 PM on November 25, 2014.

All questions received will be responded to within forty-eight (48) hours of receipt.

Responses will be posted on the EERMC website at: _____.

All questions must be submitted in writing.

Proposals must be submitted via e-mail to eermc.rfp@gmail.com.

Proposals must be received at the email address above by 4:00 PM on December 1, 2014.



STATE OF RHODE ISLAND
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RESOURCE MANAGEMENT COUNCIL**

INTRODUCTION

The Rhode Island Energy Efficiency and Resource Management Council (“EERMC”) is seeking interested firms/individuals (“Applicant”) to provide legal services beginning **MONTH DAY, 2015**. The EERMC provides oversight of the energy efficiency and system reliability programs and initiatives which are proposed and administered by the electric and gas utility distribution company as required by R.I.G.L. § 39-1-27.7.

BACKGROUND

The EERMC, a thirteen-member council appointed by the Governor with advice and consent of the Senate, includes nine voting representatives from large and small commercial and industrial customers, residential customers, low income customers, environmental interests, energy design and codes, energy law and policy, energy efficiency education and employment tracking and municipal energy users. The four non-voting members include representatives from the electric and gas utilities, home heating oil industry, and the Commissioner of the Office of Energy Resources (“OER”).

The EERMC works closely with the OER and its staff; issues reports on its work to the state General Assembly; and appears before the Public Utilities Commission (“PUC”) on various regulatory matters. The EERMC also engages a Policy & Program Planning Consultant (“Consultant”) in order to achieve its statutory objectives as defined in R.I.G.L. § 42-140.1-3, including:

- A. Evaluate and make recommendations including, but not limited to, the development and implementation of utility plans and programs for the least cost procurement of energy efficiency and system reliability resources that are cost-effective compared to traditional supply options; and
- B. Provide consistent, comprehensive, informed, and publicly accountable stakeholder involvement in energy efficiency and system reliability resources; and
- C. Monitor and evaluate the effectiveness of programs to achieve the procurement of and investment in energy efficiency and system reliability resources; and
- D. Promote public understanding of energy issues and of ways in which energy efficiency and system reliability resource procurement and investments can be effectuated.

SCOPE OF SERVICES



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Scope of legal services to be provided by the Applicant shall include, but are not limited to, the following:

- A. Represent and advise the EERMC on all legal matters pertaining to its statutory obligations where appropriate and necessary.
- B. Prepare and provide legal interpretations on all legislative mandates including, but not limited to, energy efficiency, renewable energy and distributed generation, upon request.
- C. As directed by the EERMC, review policies developed by the EERMC and/or its Consultant on a range of issues germane to the EERMC's statutory authority including, but not limited to, triennial and annual energy efficiency and system reliability plan development and implementation; efficiency and system reliability standards development; energy efficiency savings targets; program budget and financing; cost-effectiveness; evaluation, monitoring, and verification; financing; and performance incentives, as needed.
- D. Provide written responses to any information requests from third parties upon request of the EERMC.
- E. Upon request by the EERMC, attend EERMC meetings, Executive Committee meetings, Demand Collaborative Subcommittee meetings, System Reliability Subcommittee meetings and other ad hoc committees that may be formed, as necessary.
- F. Represent the EERMC at all relevant regulatory proceedings conducted by the PUC including, but not limited to, evidentiary hearings, technical sessions, and open meetings, as needed.
- G. Assist in the preparation, development, and delivery of testimony, data requests, and other regulatory support materials necessitated by relevant PUC proceedings, as needed.
- H. Provide legal support and representation with respect to relevant state and regional entities, as requested by the EERMC.
- I. Represent the EERMC on all other matters necessary to advance the statutory responsibilities of the EERMC, as directed.
- J. Provide other legal services on an as needed basis.

TERM OF CONTRACT

The term of a contract signed pursuant to the terms of this Request for Proposals will be twelve (12) months from the date of contract signature. Upon satisfactory performance and availability of funds, the contract may be extended, under the same terms and conditions, by the EERMC for not more than two (2) additional twelve (12) month periods, without re-bidding, and upon mutual agreement in writing.



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TERMINATION

The EERMC reserves the right to terminate the services of the Applicant for any cause by giving at least thirty (30) days written notice of the fact of such termination. In such event, all finished or unfinished work products prepared by the Applicant shall become the property of the EERMC, and the Applicant shall be entitled to compensation for satisfactory work under this agreement.

BILLING

The EERMC requires monthly invoicing of itemizing services rendered in the previous calendar month. Invoices shall be submitted by the tenth (10th) day of each month to the EERMC Executive Committee or its authorized designee. If no legal services were provided in the previous month, the Applicant shall submit an invoice stating such.

Invoices shall be reviewed within thirty (30) days of receipt by the EERMC Executive Committee or its authorized designee. Following review, the EERMC Executive Committee or its authorized designee shall notify National Grid to issue payment to the Applicant.

PROPOSAL REQUIREMENTS

A. Scope of Services

The Applicant shall provide a clear, concise response to the Scope of Services set forth above. Include a statement of your understanding of the work to be performed. Please limit your response to this section to ten (10) pages.

B. Qualifications

The Applicant shall identify the individual(s) and other key personnel that will be involved in providing the Services. Provide a brief resume for each person listed which details their specific qualifications, education, position in the organization/firm, and total years of experience. Please detail any specific energy- or regulatory-related experience.

Provide information on the organization's/firm's background and experience. Discuss its familiarity with Rhode Island, the EERMC, and state energy policy objectives and goals.



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Detail any demonstrated knowledge and understanding of clean energy matters including, but not limited to, energy efficiency, system reliability, and renewable energy programs.

Please discuss your general availability to provide services in Rhode Island. Include the location(s) of your offices.

C. References

Provide the name, address and telephone number of not less than three (3) clients for whom services similar to those described in this Request for Proposal have been performed.

D. Potential Conflicts of Interest

Detail any potential for personal or professional conflicts of interest – both real and perceived – as it relates to past or present legal or other work conducted on behalf of clients engaged in delivering energy services/products within the State of Rhode Island. This includes, but is not limited to, past and present work conducted on behalf of an electric and/or natural gas utility company, energy project developer, and/or energy services provider.

E. Fee Schedule

Please discuss the terms for compensation related to work conducted under the terms of this Request for Proposals.

Provide a chart detailing the hourly or other billing rates of each attorney or other staff expected to work under the terms of this Request for Proposals.

List and explain all other charges related to your proposal, such as retainer fees, travel expenses, office and other administrative costs, etc.

The EERMC reserves the right to negotiate with preferred Applicant(s) on the structure and amount associated with all proposed fees and costs.

The EERMC reserves the right, at its sole discretion, to reject any or all proposals submitted pursuant to this Request for proposals; to waive any minor irregularities or informalities in a proposal; and to enter into any agreement deemed by EERMC to be in the best interest of the



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ratepayers of the State of Rhode Island. Selected applicants will report directly and solely to the EERMC. The EERMC reserves the right to discuss with the selected applicant(s) any terms and conditions associated with this Request for Proposals or responses received pursuant to it.

DRAFT

**Energy Efficiency and Resource Management Council
Legal Consultant Proposal Scoring Sheet**

Bidder Name: _____

1. Overall quality of response (20%) 2 4 6 8 10

Comment:

2. Experience of firm (20%) 2 4 6 8 10

Comment:

3. Qualifications (20%) 2 4 6 8 10

Comment:

4. Demonstrated understanding of the scope of work (20%) 2 4 6 8 10

Comment:

5. Pricing/Fees (20%) 2 4 6 8 10

Comment:

TOTAL SCORE _____ **/50**

Cost-Effectiveness Report On National Grid's 2015 Energy Efficiency Program Plan and System Reliability Procurement Report

**An Assessment and Report by
The VEIC/Optimal Energy Consultant Team**



Working on Behalf of the



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

**Submitted to the Rhode Island
Public Utilities Commission
On November 14, 2014**

Energy Efficiency and Resource Management Council Consultant Team Findings

The Energy Efficiency and Resource Management Council (EERMC or “the Council”) Consultant Team finds that the *2015 Energy Efficiency Program Plan (Docket 4527) and System Reliability Procurement Report (Docket 4528)* filed on October 31, 2014 by National Grid, are cost-effective according to the Total Resource Cost (TRC) test. We also find that the implementation strategies outlined in the Plan will support a reasonable and credible sustained implementation and moderate ramp-up of National Grid’s energy efficiency implementation efforts, and align with the savings targets proposed by the EERMC in its September 1, 2013 filing and approved by the Rhode Island Public Utilities Commission (“the Commission”) at its Open Meeting held on March 29, 2014. These savings targets were then reflected in the 2015-2017 Energy Efficiency and System Reliability Procurement Plan filed by National Grid on September 2, 2014 and approved by the Commission October 30, 2014.

Overall, we conclude that the programs and portfolio meet the cost-effectiveness requirements of Rhode Island General Laws § 39-1-27.7 (c)(5) and therefore a fully reconciling funding mechanism sufficient to fund the proposed budget should be approved by the Commission within 60 days as required by that section.

These findings and the remainder of this report were presented to the EERMC by the EERMC Consultant Team at its November 13, 2014 meeting, and were approved and adopted in a vote of the EERMC.

I: Introduction

Since 2010, the EERMC has met its requirement in R.I.G.L. § 39-1-27.7(c)(5) to review and approve the cost-effectiveness of National Grid's 3-year procurement plan and any related annual energy efficiency plans:

The Commission shall issue an order approving all energy efficiency measures that are cost effective and lower cost than acquisition of additional supply, with regard to the plan from the electrical and natural gas distribution company, and reviewed and approved by the energy efficiency and resources management council, and any related annual plans, and shall approve a fully reconciling funding mechanism to fund investments in all efficiency measures that are cost effective and lower cost than acquisition of additional supply, not greater than sixty (60) days after it is filed with the commission.

To comply with this requirement for National Grid's proposed *2015 Energy Efficiency Program Plan and System Reliability Procurement Report* ("the Plan"), the EERMC directed its Consultant Team to produce this report. The Plan was presented to the Council at its October 16, 2014 meeting where the Council voted to endorse the Plan and formalized the request for cost-effectiveness review.

This report describes that review, including the finding that the Plan is cost-effective, and submits it as evidence to the Commission. It also describes the nature and process of the review, and documents the professional experience and qualifications of the Consultant Team to fulfill this task.

II. The Rhode Island Legal and Regulatory Framework

Rhode Island's Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006 ("2006 Comprehensive Energy Act") established a comprehensive energy policy that explicitly and systematically requires maximization of ratepayers' economic savings through investments in all cost-effective energy efficiency. By means of this requirement on the distribution utility to procure all cost-effective energy efficiency, Rhode Island ratepayers have saved and will continue to save hundreds of millions of dollars in energy bills over the next decade.

The primary guidelines informing the planning process to achieve this objective are the Standards for energy efficiency and conservation procurement and system reliability ("the Standards"), required in the 2006 legislation. The EERMC proposed the initial Standards in June, 2008, and a subsequent revision was approved by the Commission in July, 2008. Updates to the Standards were proposed by the EERMC in 2011 under Docket #4202, and again in 2014 under Docket

#4443, which were both approved by the Commission. The purpose of these Standards is to provide sufficient direction to guide National Grid in its 3-year and annual Plans.

The Standards ordered by the Commission identify the TRC test as the methodology to use in determining whether the measures, programs, and the portfolio of energy efficiency services are cost-effective.

The same TRC methodology (adjusted appropriately for gas measures and programs) has been applied to the evaluation of cost-effectiveness for natural gas energy efficiency since natural gas was added to the Least Cost Procurement mandates in 2010.

III. Summary of EERMC Consultant Team's Qualifications

The EERMC Consultant Team is composed of Vermont Energy Investment Corporation ("VEIC") serving as the lead contractor, Optimal Energy Inc. ("OEI"), Energy Futures Group, and Prahll Consultant. The Consultant Team is led by Scudder Parker and Mike Guerard. Key skills and expertise are provided by Sam Huntington on data and analytical issues; Sean Bleything, Richard Faesy and Glenn Reed on the Residential market sector; George Lawrence and Phil Mosenthal on the Commercial / Industrial (C&I) sector; and Ralph Prahll on evaluation, measurement, and verification (EM&V) activity. An additional layer of supporting staff is also in place, as well as a full range of industry experts available on an as-needed basis.

This team brings an impressive understanding of, and experience with, energy efficiency policy, regulatory practice, program design, cost-effectiveness analysis, measure characterization, assessment of potential savings, and evaluation, measurement and verification. Many of the individual consultants included on the Consultant Team have 15-25 years of direct experience in energy efficiency and broader regulatory policy. All participants also practice in jurisdictions outside of Rhode Island (many of those in New England) and their experience in those settings provides an important context and perspective to inform the EERMC in its oversight role.

Over the last seven years in its role as the EERMC's technical consultant, the Consultant Team has developed strong familiarity with Rhode Island's policy, planning, implementation, and evaluation experience provides a high level of assurance that practices in Rhode Island are consistent with regional and national best practices in Energy Efficiency Least Cost Procurement.

IV. Consultant Findings

The EERMC Consultant Team finds that both the individual programs and in combination, the portfolio of programs presented in the 2015 Energy Efficiency Program Plan (EEPP) filing by National Grid are cost-effective according to the TRC. We also find that the System Reliability Procurement (SRP) Report is cost-effective, and that with the recommended adjustments to the

TRC as required by Rhode Island law, the combined heat and power (CHP) portion of the plan is cost-effective. We also find that the programs and portfolio proposed represent a reasonable, prudent and reliable ramp-up of National Grid's implementation efforts to secure cost-effective savings for both electric and natural gas customers. We conclude that these programs meet the cost-effective requirements of R.I.G.L. § 39-1-27.7 (c)(5) and therefore a fully reconciling funding mechanisms sufficient to pay for the proposed budget should be approved by the Commission within 60 days as required by that section.

The review conducted by the Consultant Team to reach these conclusions is described in detail in the following sections:

- Section V: Ongoing Oversight by the EERMC and its Consultant Team
- Sections VI: Cost-Effectiveness Overview
- Section VII: Review of Evaluation, Measurement and Verification (EM&V)
- Section VIII: Cost Effectiveness Review and Findings

V. Ongoing Oversight by the EERMC and its Consultant Team

The EERMC, consistent with its statutory obligations under the 2006 Comprehensive Energy Act, continues to play an involved and active role with National Grid to guide, facilitate, and support public and independent expert participation in the review, oversight, and evolution of utility energy efficiency procurement and program implementation. The EERMC believes this input is critical to having the energy efficiency programs and new cost saving mechanisms evolve into resource acquisition tools that can effectively implement the Rhode Island law to procure all cost-effective natural gas and electric energy efficiency.

The updated Standards in Docket No. 4443 require a consistent and effective process to guide the development and submission of National Grid's 2015 EEPP to the Commission.

The EERMC has met its review and input requirements both at its regularly scheduled meeting with National Grid sector strategy and through the more frequently scheduled EERMC Collaborative Subcommittee meetings and phone calls. The EERMC Collaborative Subcommittee is comprised of EERMC members, the EERMC Consultant Team, the Acadia Center (f/k/a Environment Northeast), the Division of Public Utilities and Carriers with representation from the Attorney General's Office, People's Power and Light, TEC-RI, all interacting with National Grid's energy efficiency and system reliability teams. The EERMC Consultant Team has had repeated direct contact with National Grid staff before, during, and after the Collaborative Subcommittee meetings in order to provide consistent oversight and input.

For the 2015 EEPP, the following process was followed:

August:

- 8/8 – Technical Reference Manual for Estimating Savings from Energy Efficiency Measures (TRM) status review conference call with National Grid
- 8/12 – Meeting with National Grid’s C&I Strategy Group to review elements of C&I plan
- Ongoing Consultant Team review, discussions and exchange of comments with National Grid on the TRM.

September:

- 9/2 & 9/30 – Meetings with National Grid’s Residential Strategy Group to review elements of residential plan
- 9/5 & 9/19 – First two drafts of the 2015 EEPP, as well as Benefit Cost Models (B/C Model), were submitted to the Collaborative and EERMC by National Grid and reviewed by the Consultant Team. Comments and proposed enhancements submitted to National Grid within 10 days of receiving each draft.
- 9/10 – Meeting with National Grid’s C&I Strategy Group to review elements of C&I plan
- 9/11 & 9/22– Collaborative meetings at National Grid to review Plan direction, content and timeline
- 9/12 – First draft of SRP received and reviewed
- 9/16 & 9/25 – Conference calls with National Grid to review BC Model inputs and values
- 9/19 – Conference call with National Grid and Collaborative on SRP first draft
- Ongoing Consultant Team review, discussions and exchange of comments with National Grid on the TRM and BC Models.

October:

- 10/1 & 10/10 – Second and third drafts of SRP received and reviewed.
- 10/9 – Third draft of the 2015 EEPP and BC Model received from National Grid; Comments and proposed enhancements submitted to National Grid within 7 days of receiving draft.
- Ongoing Consultant Team review, discussions and exchange of comments with National Grid on the TRM and BC Models.
- 10/14 – Collaborative Subcommittee conference call to review final draft of Plan
- 10/16 - EERMC meeting for final review and vote to approve the 2015 EEPP and SRP provisionally, pending any minor adjustments approved by the Council’s Executive Committee.
- 10/20 -- Collaborative Subcommittee conference call for final sign off and process review leading to filing.
- 10/31 -- Submittal of 2015 EEPP and SRP by National Grid to the Commission for approval.

Throughout this process, the objectives of the Standards were followed to ensure that program designs and the resulting implementation secure cost-effective energy efficiency resources that are lower than the cost of supply, are prudent and reliable, and deliver hundreds of millions of dollars in bill savings to Rhode Island customers.

VI. Cost-Effectiveness Overview

Cost-effectiveness tests compare the net present value of a stream of benefits over the net present value of a corresponding stream of costs, whether they occur at the time of purchase or over several years. The TRC has been widely accepted and used by regulators and policy-makers to evaluate demand-side management programs. The TRC test indicates that an efficiency measure or program is cost-effective if the benefits outweigh the costs for Rhode Island consumers.

The TRC test compares the value of avoided energy costs and other resource costs to the full incremental cost of efficiency measures plus program administration costs. The TRC test was formally adopted as the best practice for evaluating the cost-effectiveness of energy efficiency measures and programs in 1983 when it was codified in the Standard Practice for Cost-Benefit Analysis of Conservation and Load Management Programs, published by the California Energy Commission. The “Standard Practice” manual has been revised several times since and has served as the *de facto* basis for determining efficiency cost-effectiveness by the majority of electric and gas utility efficiency programs. The manual is regarded as well-grounded in best-practices for cost-benefit analysis.

As noted above, the Commission ordered the TRC test for use in Rhode Island in Docket No. 3931, and ensuing updates in No. 4202 and 4443. Subsequently, National Grid proposed the specific costs and benefits to be included in the Rhode Island TRC test in its Least Cost Procurement Plan (September 2008) with support and input from the EERMC, which the Commission approved and ordered into effect. The Consultant Team reviewed National Grid’s application of the TRC test in the 2015 EEPP methodology and found it to be consistent with standard practice and the Standards. The methodology was also effectively documented in Attachment 4 of the Plan filing. The Rhode Island TRC test includes the following benefits and costs:

- The benefits in the TRC include the discounted, monetized value of reduced energy (MWh), reduced capacity needs (MW, avoids the costs of providing both peak demand, and the transmission and distribution system), reduced fossil fuel use (or increased use as a negative benefit), reduced water and sewer use, non-energy impacts (generally due to decreased operation and maintenance costs), and Demand Reduction Induced Price Effect (DRIPE, as included in the avoided costs of electricity). For the CHP program, an economic development and environmental adder are also included in the total benefits, and the assessment of

distribution benefits is appropriately modified. The benefits for reduced electric energy (MWh and MW) and other resources are monetized based on avoided costs.

- The costs in the TRC are all costs incurred by the utility and program participants as a whole to acquire the efficiency resources in the plan. They include the incremental cost of the efficiency measure(s),¹ and the non-incentive costs required to deliver the program. Incremental cost is composed of incentives and customer contributions, while non-incentive costs are composed of program planning and administration, marketing, evaluation, shareholder incentive and related implementation costs,² customer contribution, program evaluation, and shareholder incentive costs, as shown in Tables E-2 and E-5, and G-2 and G-5, of the National Grid's 2015 EEPP.³

The costs and benefits of an efficiency program, which can occur over many years, are discounted to present-value using a real discount rate in order to discount the future value of money (i.e., money today is considered more valuable than the same amount of money in the future). A program is considered to be cost-effective if the present value of benefits exceeds the present value of costs, that is, when the TRC benefit-cost ratio (BCR) is greater than 1.0.

VII. Review of Evaluation, Measurement and Verification (EM&V)

Evaluation, Measurement and Verification (EM&V) refers to the systematic collection and analysis of information to document the impacts of energy efficiency programs and improve the effectiveness of these programs. Impact evaluation, a specific type of EM&V activity, refers specifically to efforts to document program impacts. From the perspective of this review of the cost-effectiveness of National Grid's programs and 2015 EEPP, the relevance of National Grid's EM&V process is that this process is responsible for confirming and/or refining over time the values of many of the parameter assumptions that go into National Grid's cost-effectiveness analyses, particularly those pertaining to program benefits.

EM&V activities in Rhode Island have generally been managed by the evaluation department of National Grid, with input from the Rhode Island Collaborative Subcommittee and (more recently) the EERMC, following high-level regulatory direction set by the Commission, Division, and the Office of Energy Resources. National Grid owns utilities in Massachusetts, Rhode Island, and New York, and National Grid's evaluation department has EM&V-related responsibilities in all of these

¹ Incremental cost depends on the market opportunity. In a market-driven situation (when a customer is buying a new piece of equipment or replacing a broken one), it is the difference in cost between the baseline technology and the efficient technology. In a retrofit situation, the incremental cost is the full cost of the project, including equipment and installation (since the baseline condition would be continuing with the existing equipment).

² Cross-program costs (e.g., comprehensive marketing not specific to a single program) are allocated at the sector or portfolio level.

³ Benefit-cost ratio (BCR) at the sector level includes the shareholder incentive as a cost. As shareholder incentive is not calculated at a program level, it is not included in program level BCR

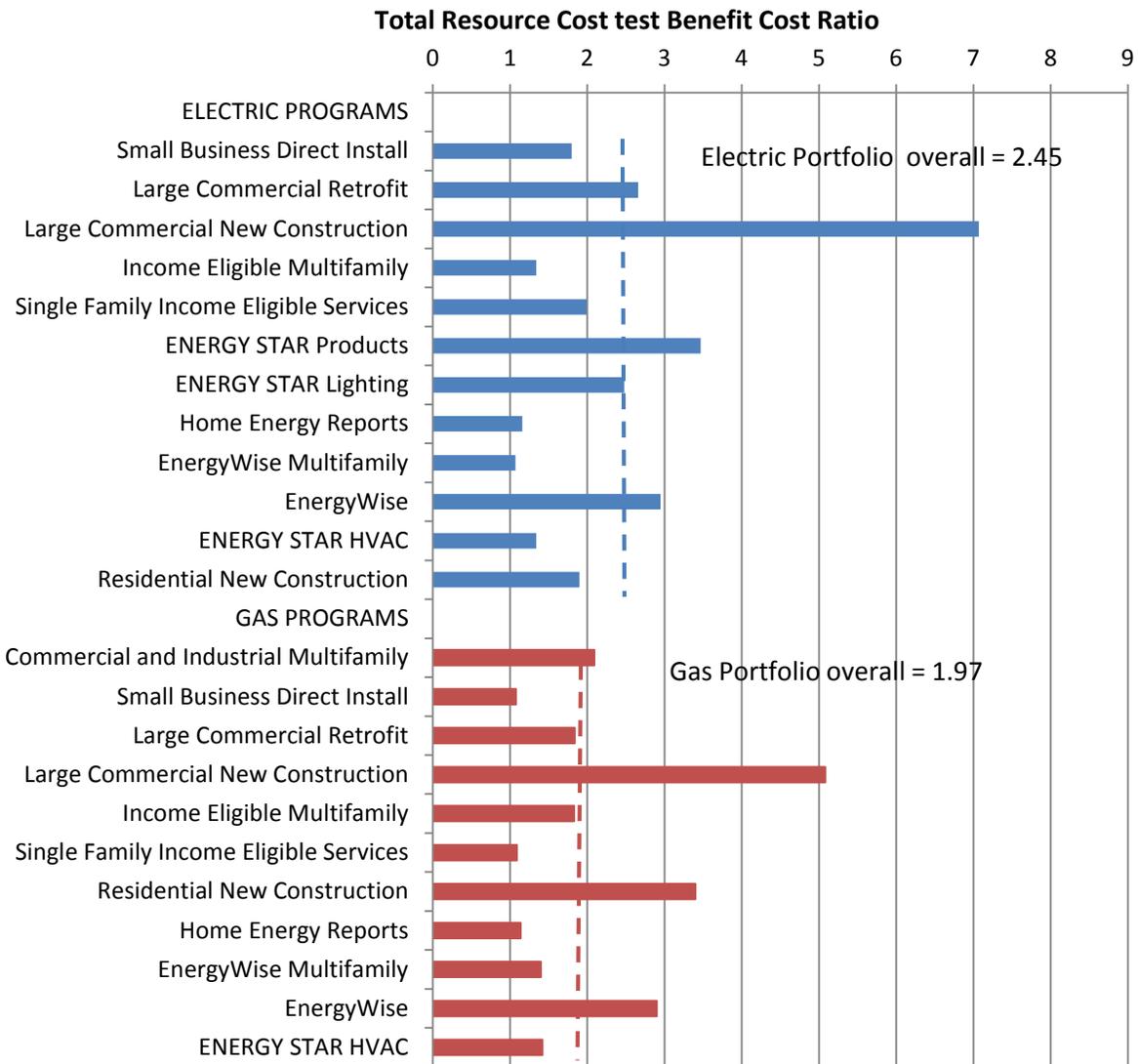
states. National Grid's evaluation department is highly experienced, and has a strong national reputation in the evaluation industry. In New England, National Grid's EM&V planning, implementation, and reporting activities have historically been tightly integrated between Massachusetts and Rhode Island. Most new EM&V studies that bear on Rhode Island's energy efficiency programs are planned, budgeted, implemented, reported, and filed in Rhode Island and Massachusetts.

In Rhode Island, the Consultant Team's work with National Grid's evaluation department to date has focused on providing input into evaluation priorities, approaches, and spending levels. We have in-depth familiarity with these methods through our work with National Grid in Massachusetts, on behalf of the Massachusetts Energy Efficiency Advisory Council. On the basis of this familiarity, we believe that National Grid's impact evaluation methods in New England have generally been consistent with prevailing industry standards. We therefore conclude that the strength of National Grid's EM&V process serves to buttress the finding that their programs and plan are cost-effective. We have worked with National Grid on behalf of the EERMC on approaches to producing more Rhode Island-specific results within current EM&V budget limitations.

VIII. Cost Effectiveness Review and Findings

This section summarizes the cost-effectiveness of programs presented in the 2015 EEPP and SRP, followed by a description of the Consultant Team's review of methodology and findings. The Standards require that all programs and the overall portfolio must be determined to be cost-effective by having a TRC benefit-cost ratio greater than 1.0. The Consultant Team's review has found that all of National Grid's proposed programs and the overall portfolio meet this standard. National Grid's program and portfolio cost-effectiveness are provided in Tables E-5 (electric) and G-5 (natural gas) of the 2015 EEPP. These tables provide supporting data on program budgets, avoided costs, and other related data. All of the electric programs are projected to be cost effective, with BCRs ranging from 1.07 (EnergyWise Multifamily) to 7.07 (Large Commercial New Construction). Likewise, the natural gas programs are all projected as cost-effective with BCRs ranging from 1.08 (Small Business Direct Install) to 5.08 (Large Commercial New Construction). The BCR for SRP is 1.74. All programs have a BCR greater than 1.0 as required by the Standards and § 39-1-27.7 (c) (5).

Figure 1: BCR levels



The Consultant Team reviewed the benefit and cost of measures, programs, and portfolio in the TRM, benefit/cost model, and appendix tables to inform an educated review of the cost-effectiveness of programs offered by National Grid. This review, described in more details below, informed this cost-effectiveness report:

- The review of updates to the 2014 TRM allowed for an assessment of the measures and assumptions used in the calculations of the cost-effectiveness of National Grid’s energy efficiency programs. As part of the review, the Consultant Team ensured that updates from evaluations were incorporated in the 2015 TRM and that any minor issues that had not been addressed in 2014 were addressed in the 2015 TRM. Due to the similarities in geography and programs, the Consultant Team also reviewed recent evaluations for Massachusetts and incorporated their findings where they were deemed relevant.

- The savings values in the TRM are integrated into National Grid’s electric and gas benefit/cost models, which are used to calculate program savings, incentive costs, benefits, and the cost-effectiveness of programs. The Consultant Team reviewed the four drafts of the electric and gas benefit/cost model thoroughly, ensuring that updates to the TRM are reflected in the benefit/cost models, and that the quantity of measures (participation) is appropriate and reflects the program description in the EEPP. Also reviewed were the program design, cost-effectiveness projections, the mix of measures, and that net-to-gross values are appropriate and reflect values from the latest evaluations available. The 2015 electric and gas benefit/cost models were compared to the 2014 models to ensure that changes to the program measures are appropriate and reflect changes to the EEPP.

The values from the benefit/cost model, summarized at the program level, are then used to populate tables E-6 and G-6 in the appendix of the EEPP. The Consultant Team conducted an in-depth review of the appendix tables to identify trends between years and between drafts. The Consultant Team also reviewed to see that values from the benefit/cost models were correctly reflected in the appendix tables and that the values in the tables added up properly. Overall, analysis of cost-effectiveness focused on the methodology used to calculate cost effectiveness, the processes used to update the model inputs from year to year, and the general model assumptions and inputs.

Consistent and on-going oversight of National Grid energy efficiency planning and implementation activity takes place both through direct interactions with National Grid staff, and through participation in the Collaborative process (timeline documented in Section V). For program year 2015, the Consultant Team’s oversight of the planning process was comprehensive and in-depth, as illustrated below:

- The Consultant Team worked with National Grid analysts and project managers to identify, prioritize, and address pertinent issues. The scope of the issues investigated and reviewed was broad and related to both program design and cost effectiveness.
- Consultant Team analysts reviewed several drafts of the benefit/cost model associated with each of the EEPP drafts. As part of this review, several minor issues were identified in the TRM and benefit/cost model and addressed by National Grid.
- The Consultant Team found that the overwhelming majority of the modeling and cost-effectiveness assumptions reviewed were reasonable and well-supported. Any cost-effectiveness issues identified in the benefit/cost model and in the review of the EEPP were addressed at the portfolio and program level by National Grid’s analyst team. In addition, the Consultant Team’s continued deep involvement in program design review led to heightened scrutiny of cost-effectiveness metrics associated with the programs.

- Review of the cost-effectiveness of the EEPP was facilitated by the review of updates to the TRM assumptions. The TRM documents the savings algorithms and assumptions used for prescriptive efficiency measures. In 2011, members of the Consultant Team oversaw National Grid's development of the 2012 TRM. In 2012, 2013, and 2014 the Consultant Team again reviewed assumptions in the TRM and any updates resulting from recent evaluations and changes to federal standards. National Grid used new results from the evaluations that were recently completed to update multiple measure baselines, net-to-gross ratios, measure lives, and other measure assumptions.

In summary, the EERMC Consultant Team's review of the general model assumptions and inputs for measure and program costs and savings was performed via meetings with National Grid and by looking at specific measures in the TRM and cost-effectiveness benefit/cost model. The review focused on the examination of many key measure-level assumptions in the model and consistency with values in the TRM. The Consultant Team also looked for any trends and outliers that would indicate errors. The Team identified minor errors and provided feedback to National Grid to have those errors corrected in the cost-effectiveness benefit/cost model. No significant error was identified that would bring into question the projected cost-effectiveness of the programs or portfolio.

Overall, the Consultant Team found that the application of the TRC test follows standard practice, including:

- The cost and benefit components of the TRC test;
- The methodology for monetizing benefits based on avoided costs;
- Adjustments of market effects (i.e., free ridership and spillover);
- Accounting for inflation in the avoided costs and measure costs;
- Net-to-gross assumptions are adjusted following evaluations;
- Discounting the future value of money;
- Inclusion of non-program-specific costs at the sector and portfolio levels;
- Adjustment of baselines following updates to building codes and federal standards;
- Pilot programs are used appropriately to determine the cost-effectiveness and viability of new measures.

In the future, the Consultant Team will continue working with National Grid, the EERMC, and the Collaborative Subcommittee to provide informed review of the savings assumptions used in the benefit/cost model and TRM. The interaction between cost-effectiveness review and solid understanding of program design and implementation provides a high level of confidence to regulators and Rhode Island consumers that they are realizing benefits that will be reflected in their bills and the performance of their buildings and their utility systems.

In conclusion we find, based on this review that National Grid's planned programs for 2015 are cost-effective based on the TRC test, as described in the program plans.

IX. Conclusion

For the reasons stated herein, the EERMC and the EERMC's Consultant Team finds that National Grid's 2015 EEPP is cost-effective and lower cost than the acquisition of additional supply pursuant to R.I.G.L. § 39-1-27.7 (c)(5).