

2011 Least Cost Procurement Standards with Proposed 2014 Revisions

CHAPTER 1 – Energy Efficiency Procurement

1. Section 1.1 Plan Filing Dates

- A.** The Utility Energy Efficiency Procurement Plan (“The EE Procurement Plan”) submitted on September 1, 2008 and triennially thereafter on September 1, shall propose overall budgets and efficiency targets for the three years of implementation beginning with January 1 of the following year.
- B.** The Utility shall prepare and file a supplemental filing containing details of implementation plans by program for the next program year (“The EE Program Plan”). Beginning in 2014, the EE Program Plan shall be filed on October 15 except in years in which an EE Procurement Plan is filed; in those years, the EE Program Plan filing shall be made on November 1. The EE Program Plan filings shall also provide for adjustment, as necessary, to the remaining years of the EE Procurement Plan based on experience, ramp-up, and increased assessment of the resource levels available.

2. Section 1.2 EE Procurement Plan Components

- A.** The EE Procurement Plan shall identify the strategies and an approach to planning and implementation of programs that will secure all cost-effective energy efficiency resources that are lower cost than supply and are prudent and reliable.
 - i.** Strategies and approaches to planning:
 - a.** The Utility shall use the Council’s Opportunity Report as issued on July 15, 2008 (and as it may be subsequently supplemented or updated to identify the cost effective energy efficiency potential and opportunities) as one resource among others in developing its EE Procurement Plan. The Utility may include in its Plans an outline of proposed strategies to supplement and build upon the initial Opportunity Report.
 - b.** The EE Procurement Plan shall describe the recent energy efficiency programs offered by the Utility and highlight how the EE Procurement Plan supplements and expands upon these offerings, including but not limited to new measures, implementation strategies, measures specifically intended for demand management, new strategies to make capital available to effectively overcome market barriers, and new programs as appropriate.
 - c.** The EE Procurement Plan shall include a section describing a proposal to investigate new strategies to make available the capital needed to implement projects in addition to the incentives provided. Such proposed strategies shall move beyond traditional financing strategies and shall

include new capital availability strategies that effectively overcome market barriers in each market segment in which it is feasible to do so.

- d. The EE Procurement Plan shall address how the utility plans to integrate gas and electric energy efficiency programs to optimize customer energy efficiency.
- e. The EE Procurement Plan should address new and emerging issues as they relate to least cost procurement (CHP, strategic electrification, integration of grid modernization, gas service expansion, etc.), as appropriate, including how they may provide system, customer, environmental, and societal benefits.

ii. Cost-effectiveness

- a. The Utility shall assess measure, program and portfolio cost-effectiveness according to the Total Resource Cost test (“TRC”)¹ The Utility shall, after consultation with the Council, propose the specific benefits and costs to be reported and factors to be included in the Rhode Island TRC test and include them in the EE Procurement Plan. These benefits may include resource impacts and non-energy impacts. The accrual of non-energy impacts to only specific programs or technologies, such as income-eligible programs or combined heat and power, may be considered.
- b. That test shall include the costs of CO2 mitigation as they are imposed and are projected to be imposed by the Regional Greenhouse Gas Initiative. The test shall also include any other utility system costs associated with reasonably anticipated future greenhouse gas reduction requirements at the state, regional, or federal level for both electric and gas programs. A comparable benefit for greenhouse gas reduction resulting from natural gas or delivered fuel energy efficiency or displacement may be considered.
- c. Benefits and costs that are projected to occur over the term of each EE Program Plan shall be stated in present value terms in the TRC test calculation, using a discount rate that appropriately reflects the risks of the investment of customer funds in energy efficiency; in other words, a low-risk discount rate which would indicate that energy efficiency is a low-risk resource in terms of cost of capital risk, project risk, and portfolio risk. The discount rate shall be reviewed and updated for each EE Program Plan, as appropriate, to ensure that the applied discount rate is based on the most recent information available.
- d. The utility shall provide a discussion of the carbon impacts efficiency and reliability investment plans will create.

iii. Prudency and Reliability

- a. In the initial three-year EE Procurement Plan, a ramp-up to achieve all cost-effective efficiency lower cost than supply shall be proposed by the Utility that is both aggressive in securing energy, capacity, and system

¹ Since the focus of the Rhode Island legislation is on securing customer benefits, not just Utility benefits from energy efficiency procurement, the TRC test is recommended.

cost savings and is also designed to ensure the programs will be delivered successfully and cost-effectively over the long term². The proposed ramp-up will appropriately balance the significant cost saving efficiency investment opportunity that is identified and the near-term capacity and staffing issues within the utility and vendor community with an emphasis on ensuring an aggressive and sustainable ramp-up of program investments over time.

- b. Subsequent Least Cost Procurement Plans shall be developed to propose strategies to achieve the energy efficiency savings targets that shall be approved by the Commission for that three year period. Such strategies shall continue to secure energy, capacity, and system benefits and also be designed to ensure the programs will be delivered successfully and cost-effectively over the long term. In addition to satisfying other provisions of these Standards, the EE Procurement Plan shall continue to contribute to a sustainable energy efficiency economy in Rhode Island, respond to and transform evolving market conditions, strive to increase participation, and provide widespread consumer benefits.
 - c. EE Procurement Plan efficiency investments shall be made on behalf of all customers. This will ensure consistency with existing program structure under which all customers pay for and benefit from today's efficiency programs.
 - d. The EE Procurement Plan should describe how it interacts with the System Reliability Procurement Plan.
- iv. Funding Plan and Initial Goals
- a. The Utility shall develop a funding plan using, as necessary, the following sources of funding to meet the budget requirement of the EE Procurement Plan and fulfill the statutory mandate of Least Cost Procurement. The Utility shall utilize as necessary, the following sources of funding for the efficiency program investments:
 - (1) the existing System Benefits Charge ("SBC");
 - (2) revenues resulting from the participation of energy efficiency resources in ISO-New England's forward capacity market ("FCM").
 - (3) proceeds from the auction of Regional Greenhouse Gas Initiative (RGGI) allowances pursuant to § 23-82.6 of the General Laws;

² The Utility may propose a study or studies to investigate and document current energy efficiency program infrastructure in Rhode Island; to assess the ability of the infrastructure to meet increased demand for energy efficiency services; and to make recommendations for increasing capacity if needed. Any such report should address: staffing levels and ability to expand staffing; training and experience of staff; current workloads; interest in working with utility program sponsors; statewide coverage of services; and other relevant factors. Where appropriate, the Utility may partner with research efforts of this sort that are regional in nature or in other jurisdictions, so long as they provide pertinent information for building the Rhode Island infrastructure. The costs of these plans and the actions to implement them may be included as program costs.

- (4) funds from any state, federal, or international climate or cap and trade legislation or regulation including but not limited to revenue or allowances allocated to expand energy efficiency programs;
 - (5) a fully reconciling funding mechanism, pursuant to R.I.G.L. § 39-1-27.7, which is a funding mechanism to be relied upon after the other sources as needed to fully fund cost-effective electric and gas energy efficiency programs to ensure the legislative mandate to procure all cost effective efficiency that is lower cost than supply is met.
 - (6) other sources as may be identified by the EERMC and the Utility.
- b. The Utility shall include a preliminary budget for the EE Procurement Plan covering the three-year period that identifies the projected costs, benefits, and initial energy saving goals of the portfolio for each year. The budget shall identify at the portfolio level, the projected cost of efficiency resources in cents/ lifetime kWh. The preliminary budget and initial energy saving goals may be updated in the Utility's EE Program Plan.

B. Efficiency Performance Incentive Plan

- i. Pursuant to R.I.G.L. § 39-1-27.7(e) and § 39-1-27.7.1, the Utility shall have an opportunity to earn a shareholder incentive that is dependent on its performance in implementing the approved EE Procurement Plan
 - a. The Utility, in consultation with the Council, will propose in its EE Procurement Plan a Performance Incentive (PI) proposal that is designed to promote superior Utility performance in cost-effectively and efficiently securing for customers all efficiency resources lower cost than supply.
 - b. The Performance Incentive should be structured to reward program performance that makes significant progress in securing all cost-effective efficiency resources that are lower cost than supply while at the same time ensuring that those resources are secured as efficiently as possible.
 - c. The Utility PI model currently in place in RI should be reviewed by the Utility and the Council. The Utility and Council shall also review incentive programs and designs in other jurisdictions including those with penalties and increasing levels of incentives based on higher levels of performance.
 - d. The PI may provide incentives for other objectives that are consistent with the goals including but not limited to comprehensiveness, customer equity, increased customer access to capital, and market transformation.
 - e. The PI should be sufficient to provide a high level of motivation for excellent Utility performance annually and over the three year period of the EE Procurement Plan, but modest enough to ensure that customers receive most of the benefit from energy efficiency implementation.

3. **Section 1.3 EE Program Plan Components**

A. Principles of Program Design

- i. The EE Program Plan shall identify the specific energy efficiency programs proposed for implementation by the Utility, pursuant to the EE Procurement Plan.
- ii. The Utility should consistently design programs and strategies to ensure that all customers have an opportunity to benefit comprehensively, where appropriate, from expanded investments in this low-cost resource and the programs should be designed and implemented in a coordinated fashion by the utility, in active and ongoing consultation with the Council.
- iii. The Utility shall propose a portfolio of programs in the EE Program Plan that is cost-effective. Any program with a benefit cost ratio greater than 1.0 (i.e., where benefits are greater than costs), should be considered cost-effective. The portfolio must be cost-effective and programs should be cost-effective, except as noted below.
 - a. The Utility shall be allowed to direct a portion of proposed funding to conduct research and development and pilot program initiatives. These efforts will not be subject to cost-effectiveness considerations. However, the costs of these initiatives shall be included in the assessment of portfolio level cost-effectiveness.
 - b. The Utility shall allocate funds to the Energy Efficiency and Resource Management Council and Office of Energy Resources as specified in R.I.G.L. § 39-2-1.2. These allocations will not be subject to cost-effectiveness considerations. However, these costs shall be included in the assessment of portfolio level cost-effectiveness.
- iv. All efforts to establish and maintain program capability as identified in Section 1.2 A iii shall be done in a manner that ensures quality delivery and is economical and efficient. The utility shall include wherever possible and practical partnerships with existing educational and job training entities.
- v. The portfolio of programs proposed by the Utility should be designed to ensure that different sectors and all customers receive opportunities to secure efficiency resources lower cost than the cost of supply.
- vi. While it is anticipated that rough parity among sectors can be maintained, as the limits of what is cost-effective are identified, there may be more efficiency opportunities identified in one sector than another. The Utility should design programs to capture all resources that are cost-effective and lower cost than supply. The Utility should consult with the Council to address ongoing issues of Parity.
- vii. The Utility shall explore as part of its plan, new strategies to make available the capital needed to effectively overcome market barriers and implement projects that moves beyond traditional financing strategies.

B. Final Funding Plan and Budget Amounts, Cost-Effectiveness and Goals

- i. The Utility shall include a detailed budget for the EE Program Plan covering the annual period beginning the following January 1, that identifies the

projected costs, benefits, and energy saving goals of the portfolio and of each program. The budget shall identify at the portfolio level the projected total resource cost of efficiency resources in cents/ lifetime kWh.

- ii. The EE Program plans filed November 1 will reflect program implementation experience and anticipated changes, shifts in customer demand, changing market costs, and other factors, as noted in Section 1 above. The annual detailed budget update shall include the projected costs, benefits, and energy saving goals of each program as well as the total resource cost of efficiency resources in cents/ lifetime kWh.
- iii. The EE Program Plan shall identify the energy cost savings and typical bill impacts that RI ratepayers will realize through its implementation.
- iv. In order to assess the potential effect of greenhouse gas reduction costs, the Utility, upon consultation with the Council, may conduct and report in the EE Program Plan filing a sensitivity analysis of the cost-effectiveness of the proposed portfolio of programs that includes a “potential” avoided cost for CO2 mitigation that is agreed upon among the parties.

C. Program Descriptions

- i. Utility program development shall proceed by building upon what has been learned to date in utility program experience, systematically identifying new opportunities and pursuing comprehensiveness of measure implementation as appropriate and feasible.
- ii. The Utility shall, as part of its EE Program Plan, describe each program, how it will be implemented, and the total costs and benefits associated with the efficiency investments
- iii. The Utility plan shall describe in each appropriate program section a plan to devise new strategies to make available the capital needed in addition to the incentives provided to implement measures.
- iv. In addition to these basic requirements, the plan shall address, where appropriate, the following elements:
 - a. Comprehensiveness of opportunities addressed at customer facilities
 - b. Integration of electric and natural gas energy efficiency implementation and delivery (while still tracking the cost-effectiveness of programs by fuel); energy efficiency opportunities for delivered fuels customers should be addressed to the extent possible.
 - c. Integration of energy efficiency programs with renewables and other system reliability procurement plan elements.
 - d. Promotion of the effectiveness and efficiency levels of Codes and standards and other market transforming strategies. If the utility takes a proactive role in researching, developing and implementing such strategies, it may, after consultation with the Council, propose a mechanism to claim credit for a portion of the resulting savings.

- e. Implementation, where cost-effective, of demand response measures or other programs that are integrated into the electric and natural gas efficiency program offerings. Such measures/programs will be designed to supplement cost-effective procurement of long-term energy and capacity savings from efficiency measures.

D. Monitoring & Evaluation (M&E) Plan

- i. The Utility shall, after consultation with the Council, include a Monitoring and Evaluation (“M & E”) component in its EE Program Plan.
- ii. This M & E component shall address at least the following:
 - a. a component that addresses savings verification including, where appropriate, analysis of customer usage; such savings verification should also facilitate participation in ISO-NE’s forward capacity market;
 - b. a component that will address issues of ongoing program design and effectiveness;
 - c. any other issues, for example, efforts related to market assessment and methodologies to claim savings from market effects, among others;
 - d. a discussion of Regional and other cooperative M & E efforts the Utility is participating in or plans to participate in; and
 - e. longer term studies as appropriate, to assess programs over time.
- iii. The Utility shall include in its M & E component any changes it proposes to the frequency and level of detail of utility program plan filing and subsequent reporting of results.

E. Reporting Requirements

- i. The Utility, in consultation with the Council, will propose the content to be reported and a reporting format that is designed to communicate clearly and effectively the benefits of the efforts planned and implemented, with particular focus on energy cost savings and program participation levels across all sectors, to secure all EE resources that are lower cost than supply.

4. Section 1.4 Role of the Council

- A. The Council shall take a leadership role in ensuring that Rhode Island ratepayers receive excellent value from the EE Procurement Plan being implemented on their behalf. The Council shall do this by collaborating closely with the Utility on design and implementation of the Monitoring and Evaluation efforts presented by the Utility under the terms of Section 1.3 D, and if necessary, provide recommendations for modification that will strengthen the assessment of utility programs.
- B. As part of the Council’s April 15 annual report required by R.I.G.L. §42-140.1-5 the Council shall report on program performance and whether program costs are justified, given the intent of the enabling legislation. The Council shall also report on the effectiveness of any performance incentive approved by the PUC in achieving the objectives of efficient and cost-effective procurement of all efficiency resources

- lower cost than supply and the level of its success in mitigating the cost and variability of electric service by reducing customer usage.
- C. In addition to the other roles for the Council indicated in this filing, the Utility shall seek ongoing input from, and collaboration with the Council on development of the EE Procurement and Program Plans, and on development of annual updates, if any, to the EE Procurement Plan.
 - D. The Utility and the Council shall report to the PUC a process for Council input and review of its 2008 EE Procurement Plan and EE Program Plan by July 15, 2008 and triennially thereafter.
 - E. The Council shall vote whether to endorse the EE Procurement Plan by August 15, 2008 and triennially thereafter. If the Council does not endorse the Plan then the Council shall document the reasons and submit comments on the Plan to the PUC for their consideration in final review of the Plan.
 - F. The Utility shall, in consultation with the Council, propose a process for Council input and review of its EE Procurement Plan and EE Program Plan. This process is intended to build on the mutual expertise and interests of the Council and the Utility, as well as meet the oversight responsibilities of the Council.
 - G. The Utility shall submit a draft annual EE Program Plan to the Council and the Division of Public Utilities and Carriers for their review and comment annually at least one week before the Council's scheduled meeting prior to the filing date that year.
 - H. The Council shall vote whether to endorse the annual EE Program Plan prior to the prescribed filing date, annually. If the Council does not endorse the annual EE Program Plan, the Council shall document its reasons and submit comments on the Plan to the PUC for its consideration in final review of the Plan.
 - I. The Council shall prepare memos on its assessment of the cost effectiveness of the Least Cost Procurement Plan and annual EE Program Plans, pursuant to R.I.G.L. §39-1-27.7(c)(5), and submit them to the PUC no later than two weeks following the filing of the respective Plans with the Commission.

CHAPTER 2 - System Reliability Procurement

Section 2.1 Distributed/Targeted Resources in Relation to T &D Investments

- A. The Utility System Reliability Procurement Plan ("The SRP Plan") to be submitted for the Commission's review and approval on September 1, 2011 and triennially thereafter on September 1, shall propose general planning principles and potential areas of focus that incorporate non-wires alternatives (NWA) into National Grid's ("the Company") distribution planning process for the three years of implementation beginning January 1 of the following year. The System Reliability Procurement Plan should be integrated with the Energy Efficiency Procurement Plan and designed to manage demand and optimize grid performance, using customer side resources.
- B. Non-Wires Alternatives (NWA) may include but are not limited to:
 - a. Least Cost Procurement energy efficiency baseline services;

- b. Peak demand and geographically-focused supplemental energy efficiency strategies;
 - c. Distributed generation generally, including combined heat and power and renewable energy resources (predominately wind and solar, but not constrained)³;
 - d. Demand response;
 - e. Direct load control;
 - f. Energy storage, including electric vehicles;
 - g. Alternative metering and tariff options, including time-varying rates.
- C. Investments in grid-facing technologies that further optimize grid performance may be considered and coordinated with the System Reliability Procurement Plan.⁴
- D. Identified transmission or distribution (T &D) projects with a proposed solution that meet the following criteria will be evaluated for potential NWAs that could reduce, avoid or defer the T&D wires solution over an identified time period.
- a. The need is not based on asset condition;
 - b. The wires solution, based on engineering judgment, will likely cost more than \$1 million;
 - c. If load reductions are necessary, then they are expected to be less than 20percent of the relevant peak load in the area of the defined need;
 - d. Start of wires alternative construction is at least 36 months in the future;
 - e. At its discretion the utility may consider and, if appropriate, propose a project that does not pass one or more of these criteria if it has reason to believe that a viable NWA solution exists, assuming the benefits of doing so justify the costs.

A more detailed version of these criteria may be developed by the distribution utility with input from the Council and other stakeholders.

- E. Feasible NWAs will be compared to traditional solutions based on the following:
- a. Ability to meet the identified system needs;
 - b. Anticipated reliability of the alternatives;
 - c. Risks associated with each alternative (licensing and permitting, significant risks of stranded investment, sensitivity of alternatives to differences in load forecasts, emergence of new technologies);
 - d. Potential for synergy savings based on alternatives that address multiple needs
 - e. Operational complexity and flexibility;
 - f. Implementation issues;
 - g. Customer impacts to potentially modify usage at certain times and seasons;
 - h. Other relevant factors.
- F. Financial analyses of the preferred solution(s) and alternatives will be conducted to the extent feasible. The selection of analytical model(s) will be subject to Public Utilities Commission review and approval. Alternatives may include the determination of deferred investment savings from NWA. The selection of an NWA shall be informed by the considerations approved by the Public Utilities Commission which may include, but not be limited to, those issues enumerated in(D), the deferred revenue requirement savings and an evaluation of costs and benefits according to the Total Resource Cost test

³In order to meet the statute's environmental goals, generation technologies must comply with all applicable general permitting regulations for smaller-scale electric generation facilities.

⁴ "Grid-facing" investments may include technologies that automate grid operations and allow the distribution utility to monitor and control grid conditions in near real time. (Source: MA DPU Docket 12-76-A, pg. 2)

(TRC)⁵. Consideration of the net present value of resulting revenue requirements may be used to inform the structure of utility cost recovery of NWA investments and to assess anticipated ratepayer rate and bill impacts.

- G. For each need where a NWA is the preferred solution, the distribution utility will develop an Implementation plan that includes the following:
- a. Characterization of the need
 - i. Identification of the load-based need, including the magnitude of the need, the shape of the load curve, the projected year and season by which a solution is needed, and other relevant timing issues.
 - ii. Identification and description of the T&D investment and how it would change as a result of the NWA.
 - iii. Identification of the level and duration of peak demand savings and/or other operational functionality required to avoid the need for the upgrade.
 - iv. Description of the sensitivity of the need and T&D investment to load forecast assumptions.
 - v. Ability of affected customers to participate in the proposed project
 - b. Description of the business as usual upgrade in terms of technology, net present value, costs (capital and O&M), revenue requirements, and schedule for the upgrade
 - c. Description of the NWA solution, including description of the NWA solution(s) in terms of technology, reliability, cost (capital and O&M), net present value, and timing.
 - d. Development of NWA investment scenario(s)
 - i. Specific NWA characteristics
 - ii. Development of an implementation plan, including ownership and contracting considerations or options
 - iii. Development of a detailed cost estimate (capital and O&M) and implementation schedule.

H. Funding Plan

The Utility shall develop a funding plan based on the following sources to meet the budget requirement of the system reliability procurement plan. The Utility may propose to utilize funding from the following sources for system reliability investments:

- i. Capital funds that would otherwise be applied towards traditional wires based alternatives, where the costs for the NWA are properly capitalized under generally accepted accounting principles and can be properly placed in rate base for recovery in rates along with other ordinary infrastructure investments
- ii. Existing Utility EE investments as required in Section I of these Standards and the resulting Annual Plans.
- iii. Additional energy efficiency funds to the extent that the energy efficiency-related NWA can be shown to pass the TRC test with a benefit to cost ratio of greater than 1.0 and such additional funding is approved
- iv. Utility operating expenses to the extent that recovery of such funding is explicitly allowed;

⁵The TRC test may be appropriately modified to account for the value of reliability and other site-specific and NWA-appropriate costs, benefits, and risks.

- v. Identification of significant customer contribution or third party investment that may be part of a NWA based on benefits that are expected to accrue to the specific customers or third parties.
 - vi. Any other funding that might be required and available to complete the NWA.
- I. Annual SRP Plan reports should be submitted on November 1. Such reports will include but are not limited to:
 - a. Identification of projects which passed the initial screening in section (C);
 - b. Identification of projects where NWA were selected as a preferred solution; and a summary of the comparative analysis following the criteria outlined in sections (D) and (E) above;
 - c. Implementation plan for the selected NW A projects;
 - d. Funding plan for the selected NW A projects;
 - e. Recommendations on pilot distribution and transmission project alternatives for which it will utilize selected NWA reliability and capacity strategies. These proposed pilot projects will be used to inform or revise the system reliability procurement process in subsequent plans;
 - f. Status of any previously selected and approved projects and pilots;
 - g. Identification of any methodological or analytical tools to be developed in the year;
 - h. Total SRP Plan budget, including administrative and evaluation costs.
- J. The Annual SRP Plan will be reviewed and funding approved by the Commission prior to implementation.
- K. To the extent the implementation of a NW A may contribute to an outage event that is beyond the control of the Company, the Company may apply to the Commission for an exclusion of such event in the determination of Service Quality performance.

Chapter 3: Aligning Utility Incentives & Reforming Rates

The Energy Efficiency and Resource Management Council and the Company shall review existing rates and incentive structures and, as needed, propose adjustments to align utility and consumer incentives with the objectives of Least Cost Procurement and System Reliability Procurement.