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PUBLIC UTILITIES COMMISSION

December 3, 2010

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

Re: RI Energy Efficiency and Resource Management Council ("EERMC") –Energy Efficiency Targets-Docket No. 4202

Dear Ms. Massaro,

Enclosed for filing with the Commission are an original and nine (9) copies of the comments of the Division of Public Utilities and Carriers (the "Division") for consideration by the Commission in the above matter.

Thank you for your attention to this matter.

Very truly yours,

Jon G. Hagopian
Special Assistant Attorney General

cc: Service List (e-mail only)

**EERMC 9/1/2010 Energy Efficiency Savings Targets, RI PUC Docket No. 4202
Comments of the RI Division of Public Utilities and Carriers**

Prepared by Bob Fagan, Synapse Energy Economics

December 3, 2010

On September 1, 2010, the Rhode Island Energy Efficiency and Resource Management Council (EERMC) submitted its energy efficiency savings targets for National Grid’s electric and gas efficiency procurement. It also submitted an accompanying detailed technical report on electric energy efficiency potential in Rhode Island, “The Opportunity for Energy Efficiency that is Cheaper than Supply in Rhode Island - Phase II Report” (“KEMA Report”) and associated appendices A through H, prepared by KEMA, Inc. These comments address the technical substance of the EERMC savings targets and the KEMA report.

EERMC Savings Targets

Tables 1 and 2 below contain the electricity and gas savings targets from EERMC’s filing, and illustrate the levels of savings achieved by National Grid’s programs over the past few years.

Table 1. Actual, Estimated, and Targeted Electric Savings from National Grid EE Programs, 2007-2014

ProgYr:	Actual and 2010 Estimated Energy Savings – MWh and MW				Targets - From EERMC Attachment A – MWh and MW			
	2007	2008	2009	2010*	2011	2012	2013	2014
MWh	64,995	60,053	81,543	89,637	102,566	128,570	158,820	189,068
Summer MW	10.3	10.2	17.0	17.7	18.5	23.2	28.7	32.8
Winter MW					17.2	21.6	26.6	30.4
MWh as % of '09 Sales					1.36%	1.7%	2.1%	2.5%

Sources: National Grid Year End Reports – 2007, 2008, and 2009. Energy Efficiency Plan for 2010, 11/2/2009. EERMC 9/1/2010 filing, Attachment A. * - estimated based on 2010 Plan filing.

Table 2. Actual, Estimated, and Targeted Gas Savings from National Grid EE Programs, 2008-2014

ProgYr:	Actual and Estimated Energy Savings –MMBtu				Targets - From EERMC Attachment A – MMBtu			
	2007*	2008	2009	2010**	2011	2012	2013	2014
MMBtu	198,908	216,512	195,200	121,147	138,514	263,738	338,120	427,100
MMBtu as % of '09 Sales					0.5%	0.75%	1.0%	1.2%

Sources: National Grid Year End Reports –2008, and 2009. Energy Efficiency Plan for 2010, 11/2/2009. EERMC 9/1/2010 filing, Attachment A. * - estimated based on 2007 Settlement of the Parties gas filing. ** - estimated based on 2010 Plan filing.

The electric targets were based upon ramping up the level of EE implementation to nearly reach the KEMA Report estimate of “achievable program potential”. Achievable program potential is a subset of both “technical potential” and “economic potential” and reflects an estimate of energy and demand savings based on 1) increased participation in existing National Grid programs, and 2) increased savings from new technologies and programs, including new “behavioral” programs that include customer response to energy price signals.

The gas savings targets are stated by EERMC to be based on tripling the 2010 gas program savings. The KEMA Report did not address gas efficiency potential.

The EERMC electricity targets are very aggressive, particularly for years beyond the three-year planning period of 2012-2014 (for which a 3-year plan is to be filed by National Grid in 2011). However, the targets, especially for the early years, are not overly aggressive (based on the findings of the KEMA Report) and will help to set a performance benchmark for National Grid to attain. In the past, National Grid incentives for delivering energy efficiency have been based in part on meeting minimum threshold levels of savings. From that perspective, it is very much in the ratepayers’ interest to set aggressive, though technically attainable, targets. The EERMC electric targets for 2012-2014 appear to do just that.

The gas targets are somewhat lower than electric targets and appear reasonable.¹ Historical program savings have been even higher than that proposed for 2011, though there may be programmatic definition details that make it difficult to use the gas numbers in Table 2 for an apples-to-apples comparison. For example, the impacts of combined heat and power (CHP) programs may show up as electric program savings in the future, rather than gas savings based on reduced primary fuel use for electricity generation displaced by the CHP infrastructure (as has been the case in the past).

Notably, the electric targets do push the limit as to achieving energy efficiency penetration levels, as a percentage of retail sales. For example, based on the most recent ACEEE “State Efficiency Scorecard”², the best program in the nation for achieving energy savings (as a percentage of retail sales) was Vermont (for 2008, the latest year with comprehensive data) with a 2.69% achievement. Following Vermont, most other utility programs in 2008 achieved no greater than about 1.1% (of retail sales) savings. Rhode Island’s ranking in that table was high, placing eighth in the nation with an electric energy efficiency savings of 0.77% of retail sales in 2008. However, there has been considerably increased activity lately, as both Connecticut and Massachusetts, for example, have been ramping up energy efficiency provision under state

¹ Significant gas efficiency savings can accrue from program utilization by large users or users with large numbers of accounts. Historically, there have been caps on the use of funds by any single customer; with greater funding availability, and the elimination or raising of such caps, incremental savings to meet more aggressive targets becomes more feasible.

² American Council for an Energy Efficient Economy (ACEEE), “The 2010 State Energy Efficiency Scorecard”, Table 8, “Incremental Electricity Savings by States”, page 15. ACEEE Report No. E107, released October 2010, available at www.aceee.org.

mandates akin to Rhode Island's Least Cost Procurement law.³ As such activity continues, there is likely to be an increase in savings towards Vermont's higher value.

KEMA Report

The KEMA Report presents the results of KEMA's analysis of the potential for energy efficiency in Rhode Island. The results are based on a spreadsheet model that uses Rhode Island building characteristics, energy efficiency measure information, and RI survey findings to ascertain technical and economic potential for energy efficiency improvement. A third measure of energy efficiency potential, "achievable potential", is developed based on an estimate by KEMA of how the existence of the National Grid programs will help accelerate consumer choices to adopt energy efficiency measures upon "burnout" of equipment, as a stand-alone retrofit choice, or during new construction activity. The achievable potential level also includes the effect of new programs, new technologies and price-responsive behavior by consumers.

Most of the near-term achievable potential is from existing programs, presuming increased participation rates based on program ramp-up with additional funding. The summary information presented both in section 5 of the main report ("Achievable (Program) Potential") and Appendix H ("Achievable Potential") is somewhat confusing on the extent to which "new technologies" are included as part of the measure mixes for existing programs, and on the overall accounting of different categories of energy efficiency savings.⁴ We do note that later-year savings are increasingly seen in the new "price response" and "behavioral" categories.

Section 4 of the KEMA Report presents detailed findings on the sector and measure-specific savings opportunities. A few items are notable. First, for both residential and commercial sectors, compact fluorescent lamps (CFL) continue to provide much of the savings opportunity (see, for example, Table 4-5 – Residential top twenty measures by economic potential (page 4-14), and Table 4-8, Commercial top twenty measures by economic potential, page 4-20). This implies that careful oversight of CFL-related programs is required, to ensure program effectiveness as the lighting market continues to transform and CFLs dominate this part of the lighting market. Second, the commercial sector measure "PC Network Power Management Enabling" is the second listed measure for economic potential, and boasts a TRC (total resource cost test, or measure of cost-effectiveness) of 23.23. National Grid programs should account for this measure and focus efforts to capture this opportunity. Third, commercially-mature cooling and well-understood lighting technologies continue to provide significant economic potential for energy and demand savings. While new technologies and programs are often seen as required in order to ramp up savings achievements, increasing the participation level for tried-and-true measures remains critically important.

³ Both Connecticut and Massachusetts now have in place laws or regulations that require the purchase of all cost-effective energy efficiency.

⁴ Synapse will spend more time analyzing this information, and obtain background documentation from KEMA, prior to the March 2011 technical conference.

The summary information presented in the KEMA Report supports the EERMC targets since the overall achievable energy available in the near-term from an expansion of existing programs is slightly greater than the 2014 target value. However, the continued ramp-up of National Grid's programs must be done in a deliberate and efficient manner in order to actually achieve the "achievable" potential indicated by KEMA. Also, any future reliance for savings on price-responsive and/or behavioral-based EE programs or mechanisms must be carefully considered. Until such programs develop a track record – as the existing programs have – including these amounts of savings in EE program plans may be premature.

Concluding Thoughts

A notable finding from the KEMA report and the EERMC targets is that Rhode Island overall electricity consumption and peak demand is likely to remain flat or trend downward in the years to come, even if the efficiency programs perform at levels somewhat less than those suggested by the targets. This could have implications for National Grid planning at the transmission and distribution level, and rate implications given that sales and revenues are subject to the new decoupling law. It suggests that the historical paradigm of some level of energy and demand growth every year may be changing to one where flat or declining annual electricity volumes become the norm.