

STATE OF RHODE ISLAND – PUBLIC UTILITIES COMMISSION

NARRAGANSETT ELECTRIC d/b/a)
NATIONAL GRID APPLICATION FOR) DOCKET NO. 4065
APPROVAL OF A CHANGE IN ELECTRIC)
BASE DISTRIBUTION RATES)

BRIEF OF THE ENERGY EFFICIENCY AND RESOURCES MANAGEMENT COUNCIL

The Energy Efficiency and Resource Management Council (“EERMC”) submits this post-hearing brief to describe to the Public Utilities Commission (“PUC,” or “Commission”) the discussions and considerations most important to the Council and urges the PUC to adopt a revenue true up in this proceeding, which is distinct from the full four part Revenue Decoupling Ratemaking Plan (“RDR Plan”), for application in the schedule of rates to be implemented by the Narragansett Electric Company d/b/a National Grid (“Narragansett,” or the “Company”).

As further background, the EERMC was created by the General Assembly as part of the Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006 (“Act”). *See* R. I. Gen. Laws, ch. 42-140.1. Among the legislative purposes behind the Act was “to provide Rhode Island residents, institutions and businesses the benefit of stability through diversification of energy resources, energy conservation, efficiency, demand management and prudent procurement.” Pub. Laws of R. I., 2006, ch. 06-236, Sec. 1. Among the duties of the EERMC are to “evaluate and make recommendations, including, but not limited to, plans and programs, with regard to the optimization of energy efficiency, energy conservation, energy resource development; and the development of a plan of least-cost procurement for Rhode Island; and [] provide consistent, comprehensive, informed and publicly accountable stakeholder involvement

in energy efficiency, energy conservation, and energy resource management.” R.I. Gen. Laws § 42-140.1-3(b).

Energy efficiency is the generic term used to describe the modification of consumer conduct and usage patterns, and investment in infrastructure and alternative energy sources, which will result in decreased consumption of energy and decreased demand for power. Energy efficiency measures cover a broad spectrum, from encouragement of energy efficient appliances and removal/decommissioning of outdated ones, weatherization of buildings, replacement of lighting fixtures, demand management, and customer-sited distributed generation, among others. Energy efficiency is paired in the Act with least cost procurement. This pairing reflects the direct effect of energy efficiency on the ultimate cost of energy to consumers. One of the realities underpinning the Act is that the cost of electricity supply and addition of new electrical capacity, including transmission and distribution capacity, is currently much greater on an equivalent unit basis than the cost of the investment necessary for the reduction of demand and consumption of electrical energy. Energy efficiency is a tool for reducing the cost of electricity to all consumers.

Moreover, the United States electric system “is one of the largest sources of greenhouse gases and other airborne pollutants in the world.” Direct Testimony of Mark Newton Lowry, Ph.D. (“Lowry Direct”) 8:14-15. Energy efficiency, by definition, is a weapon against the threat of greenhouse gases and their effect on climate change and air quality.

Promotion of energy efficiency is state and national policy. Utilities such as Narragansett have a statutory duty to adopt and implement programs that will help increase the efficiency of energy use and consumption in this State. R.I. Gen. Laws § 39-1-27.7(c) (4). This Commission has reviewed and approved such plans in other dockets. One question before the Commission in

this docket is whether adoption of a revenue decoupling true up is reasonably necessary to further the acknowledged (and uncontested) state and national economic, security, and environmental interest in promotion of energy efficiency. The EERMC submits that the record requires the conclusion that it is.

The EERMC has held lengthy work sessions and debates solely to discuss the details of the Narragansett's RDR Plan. These work sessions have included a presentation by, and discussion with, three experts, Tom Teehan of National Grid, John Farley of TEC-RI and Jeremy McDiarmid of Environment Northeast. At the conclusion of the meeting, the Council determined that it did not have enough information about how exactly the Company's proposal would benefit the ratepayers of Rhode Island and decided to ask the Company a series of questions, the answers to which would inform the Council of the benefits or harm caused to ratepayers by Narragansett's RDR Plan. The Council posed the following questions to the Company:

- (1) If adopted, what will the revenue decoupling proposal allow the Company to do that would provide enhanced benefit for ratepayers of each class?
- (2) Would the company be able to remove the backup rates associated with distributed and customer-sited generation to support system reliability?
- (3) What are the proposals for cost savings for the distribution system that customers can expect?
- (4) How would adoption of the proposal affect the next 3-year Least Cost Procurement Plan (2012-2014) and the benefits that accrue to customers?
- (5) How would it affect the Company's ability to exceed savings for the planned budget for the 2010 EE Program Plan? Or the planning and implementation of the 2011 EE Program Plan?
- (6) What percent of the variation from expected sales do you believe will be from energy efficiency versus from all other sources?

In addition, the Council asked the Company the following questions with a broader context:

- A. What are the opportunities that the proposal would provide to adopt more productive rate designs, including time of use pricing, inverted block rates and related modifications?
- B. What new things will the company do for ratepayer if the proposals are adopted and what is a rough estimate of the range of such benefits?
- C. In what ways would National grid reduce costs to electricity consumer in Rhode Island, separate from energy efficiency?
- D. Please provide any other information that explains how customers will benefit if the decoupling proposal is adopted.

The Company responded to the questions in a way which contained many answers that weren't entirely understood by the Council. While the EERMC appreciates that the Company did provide a lengthy and timely response many of the answers were difficult to parse. In addition, the Council expert Mr. Lowry responded that he thought that a minority of the percent variation from expected sales would be from energy efficiency versus from all other sources. Upon further reflection the EERMC is not convinced the RDR Plan as proposed by National Grid necessarily optimizes benefits for Rhode Island ratepayers. The crux of the issue is that the EERMC is charged with the following purposes:

- “(1) Evaluate and make recommendations, including, but not limited to, plans and programs, with regard to the optimization of energy efficiency, energy conservation, energy resource development; and the development of a plan for least-cost procurement for Rhode Island; and
- (2) Provide consistent, comprehensive, informed and publicly accountable stake-holder involvement in energy efficiency, energy conservation, and energy resource management; and
- (3) Monitor and evaluate the effectiveness of programs to achieve energy efficiency, energy conservation, and diversification of energy resources; and

(4) Promote public understanding of energy issues and of ways in which energy efficiency, energy conservation, and energy resource diversification and management can be effectuated.

See R. I. Gen. Laws, ch. 42-140.1-3(b).

To that end, the EERMC focuses its efforts on achieving economic benefits resulting from greater investments in energy efficiency and distributed generation in the state. While the Council sees merit in the true-up portion of the RDR Plan (just one of four elements), as removing a disincentive to greater efficiency investments and distributed generation, including providing yet another even more compelling reason to eliminate backup rates, it is less clear that the Company's RDR Plan as a whole maximized consumer benefit because it is overbroad.

The need for a revenue decoupling true up itself (just one of four elements) is rooted in the legacy principles of public utility rate making. Stability of a public utility's rates was traditionally the product of reliably expanding demand for and consumption of energy. For decades, ending in the mid-1970s, consumption of electricity grew steadily with the introduction of new electrical appliances, products, and conveniences, in an environment of stable prices for fossil fuels. The steady growth of sales more than accounted for the increasing costs of providing utility services. "The earnings of energy utilities depend primarily on the difference between the costs of capital and other non-energy inputs that they use and the revenues generated from the 'base' rates that are designed to recover these costs. While the cost of base rate inputs is substantially fixed in the short run with respect to system use, a large share of this cost is nonetheless typically recovered through usage charges." Lowry Direct, 7:22-8:5. Both the utility and the consumer gained from expanding energy sales. Growth in sales yielded both increased utility earnings and stable rates for consumers. Utilities' promotion of expanding energy consumption was encouraged.

The world of energy consumption has changed radically since the 1970s. State and national policy now mandate pursuit of reduction in energy consumption, the exact opposite of the policies of two or three decades ago. The legacy principles of rate making now work in reverse. A large share of the utility's fixed cost of rendering service is still recovered through usage charges; declining consumption results in declining revenues without corresponding decline in utility costs. "Reductions in system use therefore reduce utility earnings between rate cases." *Id.*, 8:5-6.

The end result of a utility general rate case is a finding by the Commission that the utility is entitled to earn a specified return on its rate base investment. The utility's rates are set based on a revenue requirement that incorporates the allowed return, divided by the expected billing units to be sold. Adoption of policies encouraging decreased energy use works at cross-purposes to the Commission's determination of revenue requirement. A PUC mandate that the utility adopt rate design plans or other programs that will reduce energy consumption is in conflict with its finding as to the level of the utility's permitted earnings.

In capsule summary, a revenue decoupling true-up "is a form of regulation in which the special link that has traditionally existed between a utility's earnings and the usage of its system is broken." *Id.*, 6:3-4; *cf.* Tr. 11/4/09, 86:22-25 (Tierney). By disconnecting the utility's revenues from the level of its sales, a revenue decoupling true-up renders the utility's investors agnostic regarding programs to reduce energy use. This is a desirable outcome. Utility investors have a vested interest in the maintenance and growth of the utility's earnings. It makes no sense to work under a regulatory regime which sets the investors' economic interest against the vital national policy of energy efficiency, when there is such a readily available mechanism that can neutralize that economic disincentive.

In practice, a revenue decoupling true-up mechanism is a process by which the utility's rates are periodically adjusted to account for fluctuations of energy usage, so that, all other things being equal, the utility's revenues are unaffected by usage changes. A revenue decoupling true-up element is achieved through a two-step process: (1) an allowed (target) revenue requirement is determined for a period of time; and (2) at the end of that period, actual revenues are reconciled to the allowed requirement. Lowry Direct 6:9-17; see also Direct Testimony of Susan F. Tierney, Ph.D. ("Tierney Direct") at 4:9-12. The process begins with the revenue requirement found by the Commission in the general rate case, and the rates derived from that revenue requirement. Narragansett refers to the revenues that will be collected by these rates on rate year billing units as the Annual Target Revenue ("ATR"). Tierney Direct at 75:20-23. At the end of each year, actual revenues are compared to the ATR. A revenue decoupling mechanism then adjusts, or "true-up" rates to account for any difference between the actual revenues and the allowed target level. At the time that the rate adjustments are made to account for actual usage, a determination is made whether the utility over- or under-collected its ATR over the previous period. The rate adjustment for the ensuing period is intended to refund/collect the over- or under-collection, with interest. Lowry Direct 6:9-17. The net effect is that the utility's rates are periodically adjusted so that the utility's revenues are unaffected by the usage changes. The utility receives neither a reduction in earnings by successful energy efficiency programs, nor a windfall if usage is increased by other exogenous factors.

Revenue decoupling is now in place in some form in 22 states, including very recently Massachusetts and Minnesota. Tr. 12/2/09 184:6-14 (Lowry). The ten states ranked highest for energy efficiency programs by the American Council for an Energy-Efficient Economy ("ACEEE") have enacted revenue decoupling. *Id.* 184:19-185:3. Of the top 13, all but one,

Rhode Island, ranked at number 13, have implemented revenue decoupling. *Id.* 185:4-8. There is a clear link between revenue decoupling and energy efficiency. “The most widely advanced rationale for revenue decoupling for electric utilities is its ability to facilitate greater efficiency in the use of the central generation, transmission, and distribution system.” Lowry Direct 7:20-22. “[S]tates that make large expenditures on EE [energy efficiency] increasingly view decoupling as a necessary part of the regulatory system.” *Id.* 23:27-28.

One significant means by which energy efficiency can be realized is customer-sited distributed generation. One of the largest disincentives to customer investment in distributed generation is the utility’s standby or backup charges imposed on that customer for standby access to the system. “A high fixed charge or standby charge designed to ensure recovery of system cost from a DG [distributed generation] customer irrespective of system use can discourage efficient DG.” Lowry Direct, 28:10-12. Standby charges should be seen as a poor substitute for revenue decoupling. The purpose of a standby charge is the same as revenue decoupling, which is to insulate the utility’s earnings from revenue losses due to reduced usage. Narragansett acknowledged at least the conceptual equivalence of purpose of the two devices. Tr. 11/4/09 92:11-94:1 (Tierney). Standby charges, however, are particularly crude in that they cause such an individualized disincentive/penalty on the customer who desires to reduce system usage through investment in distributed generation, while making no provision to disconnect utility revenues from usage patterns. Under the standby charge regime, the utility increases revenues when the customer which invested in distributed generation is required to draw from the system. Adoption of revenue decoupling with true-up will render standby rates unnecessary and the Council strongly advocates for their timely removal.

Another means for achieving energy efficiency is through innovative rate design. Rates should be set to provide customers with an economic incentive to reduce usage. “Customers are not encouraged to make efficient use of the electric system unless usage charges reflect the full long run marginal cost to society of system use.” Lowry Direct 24:9-10.

Rate design has a critically important impact on customer incentives to reduce power purchases because it affects the payback period on investments needed to reduce purchases. [Energy efficiency] and customer-sited [distributed generation] are encouraged by high volumetric charges. Time of use ... and other forms of peak load pricing—for energy charges and base rates alike—tend to discourage peak system use and encourage development of customer-sited solar resources.

Id. 24:2-7. Under current rate structure, innovative rate design that tends to reduce usage conflicts the economic interests of the utility’s investors. A revenue decoupling true-up removes that conflict.

A further benefit of a revenue decoupling true up is that it increases regulatory efficiency. The existing and contemplated programs for promotion of energy efficiency should be expected to yield concrete results. The outlook for energy consumption is long term decline. It is not realistic to expect that a utility’s cost of providing service will similarly decline. The result will be much more frequent filings for rate relief to maintain earnings on a declining sales base. This can be reduced by a revenue decoupling mechanism that adjusts for sales volumes, but leaves other elements of the PUC’s revenue requirement determination, including cost of capital, in place. A revenue decoupling true up is not inconsistent with existing ratemaking principles. Whether in a general rate case or in periodic adjustments with a revenue decoupling true-up mechanism, the Commission is going to have to deal with declining revenues that accompany reduced energy use. Adjusting rates annually on the limited basis of sales volumes is a far more efficient, and less expensive¹, means of accomplishing this inevitable accounting than

¹ Narragansett states that the cost of this general rate case is \$1,730,000. Exh. NG-RLO-2, p. 18.

undertaking the complete investigation of the utility's revenue requirement, capital structure and cost of capital that is a general rate case. Any gain realized by customers from lack of annual rate adjustment for decreased sales volumes is temporary only, and will likely be more than offset by the ultimate rate increases that will result from the more frequent general rate proceedings that would prevail in the absence of a revenue decoupling true up mechanism.

Narragansett has proposed in this docket a Revenue Decoupling Ratemaking Plan ("RDR Plan") which includes a revenue decoupling true up as described above. However, the revenue true-up in the pure sense is but one of four separate components of Narragansett's RDR Plan. *See* Tierney Direct 6:18-19 ("The Company's RDR Plan, of which revenue decoupling is one element, ..."); Tr. 11/4/09 87:87:10-19 (only the first of the four elements of the RDR Plan is the revenue decoupling true-up). Narragansett also acknowledged that the Commission could, consistent with accepted standards of ratemaking, adopt just that element of its RDR Plan. *Id.* 87:18-25. In considering the revenue decoupling true-up the Commission is not faced with an all or nothing decision on Narragansett's RDR Plan – that is in short, the Company's proposal is overbroad with the true-up performing the crucial work to maximize ratepayer benefits from greater investments in energy efficiency and distributed generation

EERMC advocates the adoption of the revenue true-up, the first of the four elements of Narragansett's RDR Plan, in this proceeding. That is, EERMC urges the Commission to adopt the two part true-up mechanism described above under which rates are adjusted periodically to account for fluctuation in energy usage, with an associated balancing account to allow for true-up of prior under- and over-collections. The EERMC is satisfied that the revenue decoupling true-up element (alone) of Narragansett's RDR Plan is a reasonable and satisfactory revenue decoupling true-up mechanism for adoption in this case.

CONCLUSION

The Commission should adopt the revenue decoupling true-up element of Narragansett's RDR Plan. Energy efficiency is the policy of the land and is here to stay. Under the Commission's direction, Narragansett is embarking on a three-fold increase in its spending on energy efficiency programs in Rhode Island. Increasing conservation and declining energy usage are accomplished facts now, and can be expected to accelerate as the sophistication of conservation programs grows and acceptance of conservation measures increases. The revenue decoupling true up element of the RDR Plan facilitates the implementation of energy efficiency programs because it removes from the table a substantial economic disincentive for Narragansett, a very large and key stakeholder in achieving greater energy efficiency and associated customer savings. It removes this disincentive without imposing financial burden on the other stakeholders.

The periodic rate adjustment and associated balancing account to allow for true-ups should be the future of public utility ratemaking. No one can doubt or diminish the importance or economic benefits of increasing the efficiency of energy consumption. The Commission does not need to be reminded of the perilous situation of this planet resulting from mankind's historically profligate use of energy resources. Prudent reckoning of existing conditions mandates that energy use must be altered drastically, with little time to spare. There is a compelling logic that states that the revenue decoupling true up can, at little or no cost, enhance implementation of energy efficiency. There is a compelling correlation in other states between cost saving energy efficiency and a revenue decoupling true up.

Respectfully submitted,

THE RHODE ISLAND ENERGY EFFICIENCY AND
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CERTIFICATE OF SERVICE

I hereby certify that on the 22d day of January, 2010, I delivered a true copy of the foregoing document either by first class mail or by electronic mail to the Docket 4065 Service List as of January 22, 2010.

/s/ R. Daniel Prentiss

R. Daniel Prentiss