



## CONSERVATION LAW FOUNDATION

Via Hand-Delivery and E-mail (Commission) and First Class Mail and E-mail (Parties)

April 11, 2009

Debra A. Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 South Fruit Street, Suite Ten  
Concord, New Hampshire 03301-7319



**Re: DE 07-064 - Investigation into Energy Efficiency Rate Mechanisms**

Dear Director Howland:

Intervenors Conservation Law Foundation (“CLF”) and Campaign for Ratepayers Rights appreciate the opportunity to offer these comments in response to the March 13, 2008, request for comments issued by the Public Utilities Commission (the “Commission”) in the above-captioned proceeding, and commends the Commission for its efforts in this important matter.

**I. Question One: Whether existing rate treatment poses an obstacle to investment in energy efficiency.**

The existing rate treatment poses an obstacle to investment in energy efficiency because it couples utilities’ revenue to the volume of electricity and gas sold. That rate treatment provides utilities with a strong incentive to increase sales in order to maximize revenues and profit (often referred to as a “throughput incentive”)—and an equally strong disincentive to promote energy efficiency or other measures that reduce the volume of electricity and / or gas sales. Given this disincentive, it is rarely in a utility’s financial best interest to implement measures that reduce demand, even though such reductions would result in fewer greenhouse gas and other air pollutant emissions, and cost less than building or buying more capacity to meet demand.

As long as utility profits are linked to sales volume, New Hampshire is unlikely to realize the urgently needed investment in energy efficiency and other demand-side management measures necessary to avoid the most harmful impacts of global warming, or the economic and other environmental benefits of demand reduction.

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Indeed, the rise in electricity prices in recent years, the challenges of maintaining a stable and reliable power grid, and the imperative to address adverse environmental impacts of energy production—particularly those related to air quality and greenhouse gas emissions that contribute to global warming—all call for strong, decisive, effective and timely action that will allow a much greater reliance on cost-effective energy efficiency and conservation.

Energy efficiency is the least expensive resource available to help meet power demand. A 2005 report by Northeast Energy Efficiency Partnerships, Inc. (“NEEP”) found that, in 2005, energy efficiency was 67 percent cheaper than the cost of electric power—at approximately 3.1 cents per kilowatt hour (as of 2005).<sup>1</sup> Data from New Hampshire utilities in 2007 show that energy efficiency is even less expensive now.<sup>2</sup>

NEEP’s report also shows that implementing the economically achievable energy efficiency potential in New England would have resulted in energy savings of 17,103 gigawatt-hours and peak demand savings of 4,317 megawatts by 2008.<sup>3</sup> Perhaps even more impressively, NEEP estimated that in just five years from 2008, the electricity needs of all households in New Hampshire, as well as Connecticut, could be met by the amount of energy savings and demand reduction that could be achieved.<sup>4</sup> Moreover, NEEP anticipated that large scale energy efficiency investments could provide a net benefit of 13 to 23.7 billion dollars to New England’s economy.<sup>5</sup>

CLF and CRR commend the Commission for its action in February to begin the formal process of assessing available cost-effective energy efficiency potential in New Hampshire. Urgently needed efforts to increase substantially reliance on energy efficiency and conservation to meet power demand would mean that, under the current regulatory system, utilities could expect to experience declining sales attributable to energy conservation, energy efficiency and demand-response programs.<sup>6</sup> New utility regulation, however, can help meet these challenges by more closely aligning utility interests with the public’s interest in lower cost, cleaner and more reliable power. Decoupling is a necessary measure to remove obstacles to the large scale investment in energy efficiency needed now.

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<sup>1</sup> “Economically Achievable Energy Efficiency Potential in New England (May 2005),” available at [http://www.neep.org/files/Updated\\_Achievable\\_Potential\\_2005.pdf](http://www.neep.org/files/Updated_Achievable_Potential_2005.pdf), at 9.

<sup>2</sup> NH Saves, “Core Programs Savings Summary” (average cost of energy efficiency 1.85 cents per kilowatt hour); <http://www.nh.gov/oep/index.htm> (cost of electricity approximately 14 cents per kilowatt hour).

<sup>3</sup> *Id.*, at 4.

<sup>4</sup> *Id.*, at 4-5.

<sup>5</sup> *Id.*, at 12.

<sup>6</sup> Demand-side management (“DSM”) traditionally has been understood to include two categories, energy efficiency (“EE”) and load management (“LM”). Because LM primarily included deployment of devices that shut off certain end uses at peak hours, it became common to refer to demand response (“DR”) when a broader range of options for reducing peak load became available, such as paying customers to reduce load on request. As that usage became more common, the separate concept of distributed resources—meaning utility planning that included any geographically targeted activity that reduces load on strained transmission and distribution equipment—began to receive attention. This concept was also abbreviated “DR” but included EE, LM, and the broader demand resource category, as well as distributed generation (“DG”) and combined heat and power (“CHP”). In this docket, the Commission appears to use DR to mean demand response, so these comments do the same and use DG, instead of distributed resources, for the generation options.

## **II. Question Two: Whether different rate treatment would promote such investment.**

Decoupling paired with aggressive policies to promote demand-side management would result in increased investment in energy efficiency. Decoupling is a rate treatment that removes the disincentive for utility investment in energy efficiency by breaking the link between utility revenue and energy sales. Decoupling makes utilities economically neutral to reducing energy demand by allowing utilities to recover from rates predetermined reasonable costs.

Under decoupling, regulators determine, in advance, a utility's fixed and variable costs and set rates to produce revenue to cover those costs. If efficiency programs lead to reduced electricity sales, periodic "true-ups" ensure that utilities will recover fixed costs regardless of sales volume, decoupling utility revenues from the volume of energy sold. Conversely, if the true-up shows an amount in excess of fixed costs paid by ratepayers, a refund is issued to consumers. For this reason, decoupling can significantly facilitate investment in energy efficiency.

Decoupling alone, however, does not affirmatively promote increased investment by utilities in energy efficiency or other demand-side management measures. To promote energy efficiency and conservation, decoupling should be paired with mechanisms to advance electric and gas demand-side management. The following are among such mechanisms that should be considered for implementation along with decoupling.<sup>7</sup>

### **A. Strong DSM targets with enhanced performance incentives.**

The Commission could promote energy efficiency by combining strong energy efficiency targets with a reformed incentive structure. This approach builds on the well-established principle that achievement of business objectives is enhanced by a system of precisely targeted rewards and incentives.

The Commission should set aggressive targets for energy efficiency that reflect the expectation that utilities will acquire all technically feasible and cost-effective demand-side management ("DSM") in a timely manner.<sup>8</sup> Targets must be reinforced by more precisely targeted shareholder incentives that are weighted towards high performance, and that impose material penalties for underperformance. Enhanced incentives should include improved metrics, strong incentives for superior performance, modest incentives for meeting targets, and penalties for failure to meet targets.

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<sup>7</sup> Distributed generation may well require different or additional rate mechanisms than decoupling for demand-side management programs.

<sup>8</sup> As used here, the term "technically feasible" means achievable as a result of combining the most efficient commercially available technologies with best practices in program design, program implementation, installation, and commissioning. Commercially available technologies are those that can be provided by manufacturers, even if those items are not routinely available at retail now.

Targets and incentive rules should prioritize lost opportunity savings—seeking essentially 100 percent capture of the available resource each year, while programming coverage of existing retrofit opportunities for acquisition in a reasonable time frame.<sup>9</sup>

**B. Utility funding of additional DSM recovered through rates.**

The System Benefit Charge (“SBC”) has the special advantage of minimizing the “finance charges” (cost of capital for funds used on DSM, including return on equity and taxes on that return) for DSM program delivery. While an appropriate first step in increasing energy efficiency in New Hampshire, sole reliance on the SBC program has at least two shortcomings.

First, as a result of the manner in which the SBC is set, there are inherent difficulties in increasing the SBC. Second, the level of need and the opportunities available vary from year to year, from utility to utility, and between electric and natural gas utilities.

The Commission should examine the option of requiring utilities to devote the full level of funding needed each year to meet aggressive DSM targets, regardless of the amount of SBC funding available in a given year. The Commission should authorize utilities (under suitable guidelines and oversight) to book and defer those outlays for later recovery in base rates as a regulatory asset, typically over a few years (but no longer than the life of the installed measures). This approach has the added benefit of making a portion of DSM program delivery a source of profit for the utility.

CLF and CRR recognize that New Hampshire revenues from the auction of Regional Greenhouse Gas Initiative (“RGGI”) allowances will increase the amount of funding available for investment in energy efficiency and other DSM. Nevertheless, given the essential importance of full and immediate investment in DSM, CLF and CRR encourages the Commission to consider this option, at least until a point at which any applicable RGGI auction funds exhaust the available cost-effective potential.

**C. Establishment of a preferred “loading order” for new resources to meet New Hampshire’s needs.**

Given the rising cost of new energy supply and the substantial financial risks imposed by current environmental and regulatory uncertainties, the Commission should seek to ensure that consumers’ needs are met with the least-cost energy and capacity resources available, and that the least-cost determination includes environmental damage and regulatory risk.

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<sup>9</sup> A “lost opportunity” resource in DSM means an improvement in energy efficiency that is available and cost effective at a certain point in time, but would not be available at a later time or would become non-cost effective if not captured at the opportune time. One example is in the field of new construction. If a building is constructed with walls of a certain insulation level, it may be physically impossible to later increase the wall insulation level, *e.g.*, due to the width of the joists used. In the same building, if medium efficiency windows are installed, it will remain physically possible to replace them with high efficiency windows, but it might not be cost effective to do so because of the cost of removing the original windows. Similar situations arise during renovations, at the time appliances fail and need to be replaced, and at point of sale for some items.

One policy that would be consistent with those goals would be to update the “loading order” provisions of RSA 278:39, adopted in 1990 and last amended in 1994. For example, an updated policy might replace the requirement for Commission “consideration” of the prescribed loading order with a requirement that utilities meet customer needs first by implementing all available and cost-effective DSM, then by developing or purchasing all available renewables, and finally by developing or purchasing only clean fossil fuel generation. Of course, there will necessarily be variation on this theme for gas utilities. It may be that the Commission can go beyond the mandate of the cited statute under its existing authority. If so, it should do so by rule or order. If not, the Commission should recommend legislative action.

**D. Inverted block rates for some or all customer classes.**

The Commission may recall a period in the 1950s when it appeared to some that the best way to bring down the cost of electricity to society and consumers was to *expand* the size of generating plants and the transmission grid. Without going into the many reasons why that turned out to be short sighted, promotional rates were identified at the time as an effective means towards that end. A favored (and effective) type of promotional rate was the declining block tariff. In a declining block tariff, each unit of service after a certain initial block is priced at a lower rate than the initial block. In the residential sector, this was often implemented by offering a lower rate for electric water heaters, electric space heating or, sometimes, “all electric” or so-called “Gold Medallion” homes. For commercial and industrial customers, discounted demand charges, energy charges, or both, were available for one or more tail blocks.

Today, we have an urgent need to encourage increased efficiency in electric and gas use. One tool for doing so would be to institute the opposite of promotional rates, for example so-called inverted block rates.<sup>10</sup> In a tariff of this type, energy consumed after an initial low-cost block would be priced at a *higher* rate, closer to the full long-run marginal cost to society of new generation.

Customers would have stronger incentives to reduce their energy use *at the margin*. In addition, DSM programs would become more cost effective, because customers would see greater immediate savings on their bills and, therefore, require lower incentives to ensure participation. Similarly, lost opportunity programs would become cheaper and more effective, as the cost of using inefficient equipment and structures rose.

**E. Update and strengthen LCIP requirements**

The underlying purpose for considering decoupling in this proceeding is to enhance the acquisition of cost-effective DSM resources by New Hampshire's electric and gas distribution companies. A key aspect of that acquisition can and should be sound up-to-date least cost integrated planning (“LCIP”).

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<sup>10</sup> In the past, declining block rates were sometimes seen as the “norm” and were sometimes referred to simply as “block rates.” As a result, increasing block rates were seen as the “opposite” approach and came to be commonly called “inverted block rates.”

New Hampshire's requirements for electric LCIP are embodied in RSA 378:38 and, by reference, in RSA 378:37; the Commission's evaluation of plans is subject to RSA 378:39. These provisions initially were adopted in 1990 and 1991, and last amended in 1994, and do not apply to natural gas utilities. One option for supplementing the proposed decoupling of electric and gas ratemaking would be to update the LCIP provisions to reflect significant changes in the planning environment that have occurred in the past decade and a half.

The Commission should determine what enhancements and updates are appropriate and seek to implement them via rule or order where authorized and via legislative recommendations where needed. One example of an appropriate update would be to revisit the list of environmental laws that must be reflected in LCIPs, adding as necessary or generalizing the language of the requirement so as to make it self-updating. A more substantive change would be to require natural gas utilities to comply with LCIP requirements. Broader enhancements to the LCIP requirements could include refinement of requirements to include risk analyses, life cycle economic and environmental costs, participation in regional programs, and the like.

**III. Question 3: The procedural question of whether these issues should be pursued further in this docket, through utility-specific rate cases, as part of a rulemaking, or through some other means.**

In the interests of administrative economy and regulatory consistency, CLF and CRR recommend that the Commission pursue these issues through this docket to a resolution of the policy questions, with adoption of orders or rules as necessary. The structure for decoupling, and likely the implementation of some of the other resulting policies, would be best handled as a compliance filing in this docket. Although a separate proceeding may be required for the implementation of other resulting policies, that procedural question can best be addressed when the final policy outcome of this docket is determined.

**IV. Question 4: Whether decoupling could constitute an alternative form of regulation under RSA 374:3-a.**

Decoupling could, but need not, constitute an alternative form of regulation pursuant to RSA 374:3-a; that determination would depend on the manner in which it is implemented. In any event, regardless of the Commission's authority under RSA 374:3-a, CLF and CRR believe that the Commission, pursuant to its ordinary powers as an expert tribunal, likely would have the necessary authority to implement decoupling.

We thank the Commission for the opportunity to provide these comments, and look forward to our continued participation in this docket.

Sincerely,

Melissa A. Hoffer / K2K, as authorized

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