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Discussion Draft

Conservation program goals and objectives

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Discussion Draft

Conservation Program Goals and Objectives

I. Introduction/Overview

This is the first of a series of “Discussion Papers” intended to present key issues and frame up a number of critical decisions regarding various aspects of Maine’s new statewide electric energy conservation program. These conservation programs are to be developed by the State Planning Office pursuant to “An Act to Secure the Environmental and Economic Benefits from Electric Utility Restructuring”, enacted by the Legislature in 1999.

The topic of this first Discussion Paper is “Conservation Program Goals and Objectives”. In this paper we discuss a set of key public objectives for a Statewide Electric Energy Conservation Program (hereinafter the “Statewide Conservation Program”) that is funded by a System Benefits Charge included in customer rates, as provided by the Electric Industry Restructuring Act (MRSA 35-A § 3201-3217). The principle program goals are expressed in the statute itself, as well as a number of program objectives. Other possible program goals and objectives derive from an examination of similar programs in other jurisdictions around the region and the country.

In terms of process, the SPO encourages comments from any party on the issues addressed in this initial paper. Commenters are further encouraged to raise additional issues not addressed in this paper, provided that they are germane to the specific topic at hand. Issues raised in this context will be examined by the SPO and incorporated into a final statement of program goals and objectives.

This paper will serve as one of several building blocks for creating a statewide conservation program plan, which the SPO will issue to “guide the development of statewide conservation programs to be implemented by transmission and distribution utilities...” The next Discussion Paper will focus on the subject of “Assessing and Selecting Conservation Opportunities”. The program goals and objectives that the SPO sets in place in this document, and subsequent modifications to it, will provide the foundation to the assessment/selection process.

As a beginning point it should be noted that the development of this new statewide conservation program is founded on long standing state energy policy that supports energy conservation as a viable alternative to new generation capacity and transmission line expansion. Further, as an overarching energy goal, it has been Maine’s consistent public policy to “meet the State’s energy needs with a diversity of reliable energy supplies at the lowest possible cost, while at the same time ensuring that energy production and use is consistent with Maine’s environmental and economic objectives.” (“State of Maine Energy Action Plan”, Maine State Planning Office, August 1999) In passing the Electric Restructuring Act (MRSA 35-A § 3201-3217) the Legislature reaffirmed certain public policy preferences by enacting both a resource portfolio requirement to support

indigenous renewable energy resources and by directing that energy conservation programs continue to be delivered to electricity customers on a statewide basis.

Also, it should be noted that legislative directives proceed from a shared perception, in this state and around our region, that cost effective energy conservation has salutary societal benefits beyond and in addition to the expected reductions in the need for expansion of electric generation, transmission, and distribution facilities.

A review of the policy objectives of the System Benefits Funds of other states shows a remarkable convergence on these shared values. For example, Connecticut lists the following goals in their 2002-2003 program planning document:

- Increase measurable energy efficiency to strongly position Connecticut businesses and organizations for success in the global economy;
- Provide a high quality program that meets customers' needs and that addresses market barriers to energy efficiency, especially for special needs groups;
- Allocate C&LM resources in an equitable manner across all customer sectors;
- Pursue uniform statewide programs;
- Pursue increased use of third party planning and delivery of programs;
- Demonstrate measurable success of achieving efficiency goals, in terms of environmental and economic betterment. ("Goal,, Objectives and Strategies for 2001-2002 Plan, as Modified at March ECMB Meeting)

The Massachusetts Division of Energy Resources has established that the goals for the System Benefits Fund programs in that state are to:

- Reduce the use of electricity cost-effectively;
- Provide funding for energy efficiency services for low-income ratepayers at the levels directed by the Act;
- Ensure that energy efficiency funds are allocated equitably among customer classes;
- Ensure that there is adequate support for capturing "lost opportunities";
- Give due emphasis to statewide and regional market transformation;
- Utilize competitive procurement processes in the delivery of program services to the fullest extent practicable;
- Facilitate the widespread development of a competitive market for energy efficiency products and services;
- Reduce customer energy costs by balancing short- and long-run savings from energy efficiency programs; and
- Optimize cost-effectiveness. (Massachusetts Division of Energy Resources)

In establishing a new statewide electric energy conservation program the Legislature intended to maintain the existence and delivery of energy conservation programs in order to realize energy, environmental, and economic benefits. In the restructured environment the same values and benefits of conservation that accrued to the fully integrated utility continue to be created, but the distribution and importance of these benefits have been shifted from the narrower interests of the utility system to the greater interests of society. Thus one has to consider how this change should be reflected in the emphasis and priorities of the goals and objectives used to guide the selection and delivery of new conservation programs. It is SPO's position that, in addition to satisfying the statutory requirements for the attributes of an Electric Energy Efficiency Program Plan, we should attempt to assure that program offerings are developed to address societal benefits of efficiency as well.

II. Conservation Program Goals

A. Statutorily Expressed Goals:

The statute itself establishes two fundamental goals for a statewide conservation program.

1. Achieve Electric Savings:

In enacting this law, the Legislature clearly indicated its desire that the utilities, electric customers, and society as a whole continue to gain from the benefits that flow from energy conservation programs. The goal of creating statewide conservation programs, combined with the fact that system benefits collections derive from electric rate payers, makes it clear that the new portfolio of programs must be designed to address *electric* energy savings. It is SPO's position that: (1) these savings must derive primarily from energy efficiency measures, and design practices or operational procedures that reduce electricity use; and (2) savings must be quantifiable. Furthermore, all things being equal, program activities and/or measures and practices that save additional resources (such as oil, gas or water) or reduce waste will be viewed more favorably, but *only* once they screen for cost-effectiveness on electric savings.

2. Realize Environmental and Economic Benefits:

Secondarily, programs must be targeted to the goal of "securing the environmental and economic benefits of electric industry restructuring...". This means that programs should promote the most environmentally favorable conservation alternatives (where these can be distinguished) and to give particular attention to the end uses that have the highest economic impact, commensurate with additional requirements for geographic balance of services and equity to all citizens.

This goal also requires that programs be sensitive to markets and sub markets that may not yet be receiving the full cost savings or energy service benefits of electric industry competition. While there was a hope that restructuring would result in a flourishing energy services market, anecdotal evidence, supported by the opinions of most industry experts, is that this has not yet been the case except for all but the most sophisticated, largest, or most organized customer groups. Thus, it will be the task of the SPO to determine (a) which markets may not yet be experiencing the full economic benefits of restructuring and (b) how to deploy programs to both address these market inequities and encourage the private market to supplement the public investments and, eventually supplant them. (This task will be considered in the next Discussion Paper, "Assessing and Selecting Conservation Opportunities.")

B Statutorily Implied Goals:

In addition to the primary goals expressed above, the statute includes language that suggest a number of secondary objectives to encourage certain program delivery attributes or outcomes. For example, programs should "pursue ...market-based approaches" (§3.D.), be coordinated

“with similar efforts in and among states in the northeast region that are designed to achieve the same goals” (§3.A.), and provide services “in all regions of the State on an equitable basis and to citizens at all income levels” (§3.E.). In order to achieve these outcomes, certain program objectives are implied. It is the SPO view that the following objectives – or “program attributes” - complement the primary goals and assure that the delivery attributes directed by the statute are achieved as well.

1. Pursue Market-Based Approaches:

Market based programs should pursue two complimentary objectives. First, they should work within existing markets to secure “lost opportunity” or “market-based” savings opportunities and, second, they should strive to “transform markets” from a less efficient level of performance to a higher standard of efficiency.

Market driven opportunities to achieve energy efficiency and transform design and equipment specification practices at minimal cost occur when new buildings are designed and constructed, when existing ones are renovated or expanded, or when old equipment fails and is replaced. Market based programs contrast with traditional retrofit programs in that they work with market forces to influence “first time” equipment selections or building designs decisions. (Retrofit programs, in contrast, attempt to undo past market decisions by paying the full measure and installation costs to replace functioning, but inefficient, equipment with more efficient counterparts.) Market based programs often use product information, technical assistance and demonstrations to influence market decisions. Incentives, when applied, need only buy the incremental cost between conventional equipment and the efficient alternative. For these reasons, market driven programs are not only far cheaper to deliver than retrofit-style programs, but they tend to produce more sustained and replicated results as well, because they focus on changing behavior and decisions, rather than just the equipment.

Market transformation initiatives are “strategic efforts by utilities and other organizations to induce lasting changes in the structure, function, or behavior of the market that result in increases in the adoption of energy efficient products, services, and/or practices.” (Definition adopted from Stipulation of the Parties, In Re: Narragansett Electric Company 19976 Conservation and Load Management Adjustment Provisions, State of Rhode Island and Providence Plantations Public Utilities Commission, Docket No. 1939, Attachment 11, pp. 3-4; and from definitions developed by Jeff Schlegel and Ken Keating.) “Often these initiatives are intended to overcome or eliminate market barriers and failures to energy efficiency in a lasting manner, to the point where public intervention in the market is no longer justified, or the nature or level of intervention can be changed. (Using Performance Incentives to Encourage Distribution Utility Support of Market Transformation Initiatives, Jeff Schlegel and Fred Gordon, Proceedings of the ACEEE 1996 Summer Study on Energy Efficiency in Buildings, 1996, p. 7.167)” Market transformation programs attempt to build both demand for energy efficient products (by education, technical assistance and, when necessary, through incentives) as well as supply by working with manufacturers and distributors to place more efficient products in the market at competitive prices. Market transformation programs are evaluated less on the immediate savings impacts of efficient products purchased than on long term “market effects” of the stimulus of the program. Programs should be judged based on the “... market effects that are outside the program, effects beyond the individual act of participation by the customer. These effects could include changes

in dealer stocking practices of the measure promoted and changes in manufacturing practices in response to increased demand for the measures; they could also include additional energy-efficiency measures or practices adopted by the participating customer. These effects are ... indicate there have been lasting changes in the market.”(From “Market Barriers, Market Effects, and Market Transformation”, unpublished draft paper by Jeff Schlegel) Thus, market-based programs will be somewhat different in both design and execution than Maine utilities have offered or customers have experienced in recent years.

2. Coordinate with the Efforts of Other States:

There is one very good reasons why Maine should coordinate its programmatic efforts with those of other states in the region and other regional and national organizations. Maine is but a small part of a larger regional market. The active participants in our local market – manufacturers, equipment vendors and installers, developers, design engineers, architects, and the like – do business in this larger market as well as here. (For many, that market is at least New England and often includes the entire Northeast.) To the extent that our efforts mirror and support those already underway the larger Southern New England market (and under development in our neighboring jurisdictions of New Hampshire and Vermont), our smaller investment in SBC-funded programs is leveraged by the much larger commitments in other jurisdictions – and the critical actors who we all wish to influence see the same programs and program rules from Maine to New Jersey.

3. Coordinate with Other Regional Efforts:

The rationale here is similar to that for coordination with other state efforts, as detailed above. In the Northeast there is an organization whose mission is to aid states, utilities and other market actors in the development and delivery of region wide programs to influence market patterns with regard to energy efficiency: the Northeast Energy Efficiency Partnerships (or “NEEP”). NEEP’s mission is to “increase energy efficiency in homes, buildings and industries in the Northeast region (New England, New York and the Mid-Atlantic states).” To date, NEEP has developed ten regional initiatives in seven in Northeast states. These initiatives are designed to increase the demand for and availability of quality, energy efficient products and services and change the market for these products in a sustained way. These programs include a portfolio of US EPA-supported ENERGY STAR programs (residential appliances, residential HVAC equipment & installations, customer-side transformers), as well as a Premium Efficiency Motors Initiative, a High-Efficiency Commercial Unitary HVAC Program and the Design Lights Consortium. These programs have been developed jointly by their participating members (usually, but not always, electric utilities) and are funded through an assessment formula that is linked to the size of each participating utility’s electric sales. Program delivery and administration is usually provided through a central contract managed and funded by participating entities.

The various NEEP initiatives present a series of very attractive program options for Maine, particularly in the early years of our SBF: They are up and running. They often provide turnkey delivery. They reach a huge market stretching (currently) from New Jersey through New

Hampshire and Vermont. (In fact, Maine is the only state on the East Coast north of Maryland not currently participating in at least one NEEP initiative.) These programs also provide at least some efficiency options for every significant customer group – residential, commercial and industrial. And, perhaps most valuable of all, because funding commitment is proportionate to utility size, Maine’s utilities can participate fully in a very large enterprise for a very modest investment. (For illustrative purposes, form an overall budget of about \$260,000 for the NEEP Premium Efficiency Motors Program, the State of Vermont pays about \$20,000 for full participation in the program, based on their status as representing about 8% of the overall regional commercial and industrial electric load.)

Additionally, NEEP draws support for many of its initiatives from a variety of other sources, such as US EPA and the US Department of Energy. This not only reduces participant utility costs, but it also addresses another objective of the Maine statute: to use federal and other funds to supplement rate payer support where possible.

4. Coordinate with Federal Efforts:

There are a variety of other regional and national programs that could provide either technical or funding support to Maine’s Electric Energy Efficiency Program as well. In recent years Federal funding for efficiency programs has grown geometrically (largely in response to concerns about climate change). Often DOE’s funding can effectively match or supplement rate payer funding to advance programmatic activity. Also, the DOE-supported Federal laboratory system can sometime provide technical or research support for state-based activities.

Historically, Maine has applied for and received a disproportionately small share of the US Department of Energy funds available to all states on a competitive basis to support energy efficiency activities. Similarly, the US EPA has developed a portfolio of highly successful efficiency programs under the “ENERGY STAR” banner that have been under used in Maine. These programs are supported by national, regional, and local media public awareness campaigns that would available in Maine if the state provided a local linkage to the national efforts.

Maine should be more aggressive in the pursuit of Federal and other funding that supports our program objectives. This not only makes good financial sense, but it also addresses the law’s requirement that the SPO apply for grants when receipt of such funding is consistent with the purposes of the law.

5. Implement Programs Statewide:

The statute directs that a statewide conservation program strive to deliver programs “...in all regions of the State on an equitable basis”. The SPO believes that this statement requires a preference for statewide consistency in delivery and application of programs. If programs are to work successfully *within* existing and ongoing markets for building design, equipment replacement, and construction and renovation, they must send clear and consistent signals (and apply consistent participation criteria and rules) across the entire market in question. A market-based program must take the market as it exists, not force the market into the artificial construct of distribution utility company service territories. A program that assists with efficient residential design must be the same for builders and architects whether their project is in Kittery or Caribou, or points in between. This is not to say that there might be unique programs for niche markets in certain regions of the state or different marketing approaches or emphasizes for

the same program depending on regional variations in construction activity or development patterns.

The objective should be to develop a portfolio of statewide programs that are consistent in design, in participation criteria, in services and in incentives (if any are present). This would apply to any programs that are developed uniquely in and for Maine, as well as any regional or other state programs that Maine chooses to join. Marketing approaches might well vary by region or by the preferences of individual utilities, so long as the marketing strategy is developed on a constant statewide basis and the unique subparts are integrated in a thoughtful and supportive manner.

In addition, there may well be a case that under the overall statewide suite of offerings, individual utilities should have the option to offer local and unique services to their customers, or to pilot new program or technology ideas in a smaller scale, localized way. The SPO would see such enterprises as not inconsistent with the objective of statewide consistency if such local efforts might offer “test beds” for ideas that might have statewide potential, or if local utilities could make a compelling case for the uniqueness of their circumstances.

6. Provide Program Offerings for All Customers:

The statute directs that programs seek to deliver services “...to citizens at all income levels”. The SPO interprets this phrase to mean that programs should be available to all *customers* of electric utilities subject to the collection of the SBC in their rates. Thus, in the program development phase of this process we will be considering options for commercial, industrial and institutional customers, as well as individual homeowners and tenants. As an objective, all customer classes should have the opportunity to participate in one or more program offerings in return for their contribution to the fund. However, the overarching test of program ideas should be what actions will best direct the forces of the private market towards investments in technologies and design practices that are efficient in terms of their consumption of electricity. Programs should not support measures or services that customers in the various categories would invest in on their own, but it should seek out sub markets where under investment in efficiency is chronic or systemic and where the private energy services market has not yet met market needs. Potential candidate markets for extra attention might include: low-income homeowners and tenants, small businesses, and institutional, nonprofit and governmental entities.

C Additional Goals:

In addition to the goals and objectives expressed or implied in the statute, there are other objectives that should be considered for inclusion either because law is silent on a point that will be crucial to the successful development and delivery of programs, or are new and emerging values and justifications for conservation programs developed in other New England states.

1. Build in Capacity for Flexibility in Program Design and Implementation:

As the SPO has stated in past testimony on the subject of publicly-funded conservation programs, “What is clear from the early experiences of other jurisdictions is that it will be absolutely critical for public benefits programs to retain the ability to be flexible and adaptable

for some time to come, as more is learned about what markets need and what demands can be served by private energy service providers. Public programs should not be found in markets where the private sector can provide, nor should markets that the private sector can not serve be left without options. The configuration of these markets around these two issues will undoubtedly change in ways that we can not now predict, and programs need the flexibility to adjust accordingly.”(Testimony of Laurie Lachance, submitted to the Maine Public Utilities Commission for its consideration in Docket 97-591 “Rulemaking: Continued Implementation and Operation of Energy Conservation Programs in a Restructured Electricity Industry”, August 25, 1998)

Thus, choices about program delivery and administration are inseparable from those of program design. The Statute provides a preference for using competitively selected providers to provide the end energy services to consumers. In fact, this is the model that Maine utilities and most others in the region have long used, and continue to use for delivery of market-based programs. That is, utilities provide the program management function, market the program, solicit customer participation, and coordinate and oversee the delivery of efficiency services and/or the installation of measures by private contractors who have been selected competitively by the utility.

2. Contribute to System Reliability:

In a competitive market for the production and sale of electricity, the transmission and distribution entity remains as a regulated utility, responsible for selecting the lowest cost options to maintain its system reliability. Because conservation programs tend to level off and reduce demand they clearly provide some margin of capacity that is needed to maintain system reliability, especially during periods of peak loads. In a new study (Report of the US Department of Energy’s Power Outage Study Team, Findings and Recommendations to Enhance Reliability from the Summer of 1999. March 2000), the US Department of Energy includes energy efficiency as one means to enhance electricity reliability. Where possible, the SPO will encourage system benefits programs and expenditures which complement utility investments in measures that improve system reliability. That said, the primary responsibility for this investment lies with the utility, commensurate with its obligations to its rate payers to select the lost-cost options for any expenditure.

3. Assure Access to a Broad Set of Values of Efficiency:

As noted in the introduction to this paper, Maine and many other states have accepted that a broader set of values than just reduction in electric demand and avoidance of future investment in generation and distribution investment can flow from efficiency programs. To the extent feasible, and when consistent with primary statutory obligations, the SPO will attempt to design programs that address these broader public benefits.

4. Build in Exit Strategies:

Lastly, it is the SPO’s position that an exit strategy be developed for those areas where public intervention may be required only through the transition period to a fully restructured market for efficiency services or where the goal is to transition a public initiative to the private market. Often in the past utility or public program intervention has changed common building practice or equipment specifications to favor the more efficient product. Public programs can demonstrate

(and sometimes guarantee) new technologies and create demand for new products (thereby stimulating increased production and lowering retail costs). Programs should have their own “end games” built into their design so that when they succeed in their objectives public dollars can be moved to new objectives.