VEIC Study Review Synthesis
Chapter 3 – Utility EE Programs – Portfolio Level Review and Assessment
July 5, 2012

Summary of Chapter Intent

Chapter 3 presents a high level overview and assessment of the electric and gas efficiency programs offered by the state's utilities. The focus is on funding of the programs, the energy savings achieved, and an examination of how New Hampshire compares to its New England neighbors and other efficiency programs across the country. The Chapter also includes recommendations on program evaluation, monitoring of results, and consistency of reporting.

Key VEIC recommendations from this chapter included: increasing the funding for electric efficiency programs; implementing an efficiency charge for unregulated heating fuels (e.g. oil, propane, kerosene, etc.); adopting an Energy Efficiency Resource Standard (EERS); conducting a portfolio level review of energy efficiency activities in New Hampshire; and applying consistent statewide standards for monitoring and verification (M&V) of programs and results. While challenging to implement, increasing and expanding sources for program funding are readily understood. The EERS may need additional clarification. The EERS establishes the state's policy on energy efficiency and creates a framework for setting savings goals. Nationwide 26 states have such standards as do four of the other New England states. For example, Massachusetts has an annual goal to save 2.5% of their annual electric energy sales. And finally, the recommendations related to consistent M&V standards can help ensure that program results are reported consistently and independently reviewed to assure regulators and stakeholders of their accuracy.

Chapter Team Findings

Top Priority For Early Action

The VEIC Study calls for the implementation of an Energy Efficiency Resource Standard (EERS). The EERS is the policy framework which sets the tone and provides the overall guidance for energy efficiency efforts in the state. As such, the review team believes this needs to be on the EESE Board's short list of critical near term initiatives. The EERS will require action on the part of both the legislature and the NH Public Utilities Commission and will likely take more than two years to accomplish. However, inasmuch as an effective EERS would provide the overall policy guidance for efficiency in the state, the team is recommending that the EESE Board take the first steps and formulate its recommendations as to what should be included in New Hampshire's EERS.

In addition the team recognizes that state's Office of Energy and Planning has received a federal grant to hire a consultant to assess "…the economic feasibility of increasing investment in energy efficiency through the adoption of an Energy Efficiency Resource Standard…" The EESE Board should collaborate with OEP and its consultant to support mutual interests in adoption of an EERS and associated policy mechanisms to achieve the EERS goals.

Top Priority For Medium-Term Action

Once the Energy Efficiency Resource Standard (EERS)

is established, increased funding should be considered as there will be a clearer idea of what the resources are required. This discussion should include consideration of:

3.1.1 - Increase the SBC charge to allow increased investment in energy efficiency which will provide net benefits which far exceed the upfront dollar investment; and

3.1.2 - Extend the SBC mechanism to also cover natural gas, thereby systematizing funding for the natural gas efficiency programs.

Top Priority For Longer-Term Action

Once the Energy Efficiency Resource Standard (EERS) is established and the appropriate resources are identified and established the EERS should be implemented.

Background

Four regulated utilities serve more than 98% of New Hampshire's 690,000 electric customers: National Grid (6%), the New Hampshire Electric Cooperative (11%), Public Service of New Hampshire (70%), and Unitil Energy Services (11%). Since 2002 these utilities have offered a common portfolio of energy efficiency (EE) programs called the CORE Programs. The programs provide information, incentives, and financing to assist business, residential, and low-income customers improve energy efficiency in new and existing homes, commercial & industrial equipment, lighting, appliances, and a variety of training and educational programs. Five municipal utilities provide electric service to just under 2% of the state, and currently they are not offering efficiency programs.

Two utilities provide natural gas service to 120,000 customers or approximately 18% of the state. Gas service is essentially limited to the I-93 corridor from the Massachusetts border to Laconia and along the state's eastern border/seacoast communities from the Massachusetts line to Rochester. National Grid services the I-93 corridor and Unitil serves the seacoast area. The gas efficiency programs are designed to help business, residential, and low-income customers save gas in new or existing facilities and when purchasing new equipment or upgrading existing equipment.

While originally conceived as separate electric and gas programs, over the past several years, the programs have been increasingly coordinated to provide customers with comprehensive electric and gas efficiency services. In addition, there are now several pilot programs designed to extend services to all customers regardless of the type of fuel used. These programs are now annually saving between 0.6 and 0.8% of annual sales for both electricity and natural gas. Annual electric energy savings are approximately 70,000 MWhs or 800 million kWhs over the lifetime of the efficiency measures installed each year. The annual savings are equivalent to powering all of Concord's homes and businesses for 8 weeks. Annual gas savings range between 1 to 2 million Therms or 16 to 26 million Therms over the lifetime of the measures installed each year. These annual savings are equivalent to the seasonal heating needs of more than 2,900 homes.

The primary source of funding for NH's current EE programs comes from a charge on electric and gas utility bills. Electric customers pay a System Benefits Charge (SBC) which raised $19.0 million in 2010 or $14.47 per capita based on NH's population of 1.3 million. Gas customers pay an energy efficiency charge included in the Local Delivery Adjustment Charge

(LDAC) which generated $5.6 million. On a per capita basis, funding for electric efficiency programs in the six New England states averaged $31.13 and ranged between $10.78 and $54.81 – with four other states at higher funding levels than New Hampshire. On the gas side, funding averaged $4.50 and ranged between $0.32 and $11.50 with New Hampshire having the third highest funding level.

One measure of the effectiveness of an efficiency program is the cost per unit of energy saved. For the CORE Programs, energy savings cost approximately 2.3 cents per lifetime kWh. This compares to the current average price of 13.2 cents to purchase a kWh[1]. For the gas programs, the average cost to save a lifetime therm was 21 cents in 2010 as compared to the current average price of natural gas of $1.05 per therm.

[1] Fuel price information from http://www.nh.gov/oep/