

ELECTRICITY MANDATE – DEMAND SIDE MANAGEMENT (ENERGY EFFICIENCY)

What is Demand Side Management (DSM)?

DSM refers to activities and programs designed to reduce overall consumer demand for power, or to shift the demand to occur at “off-peak” times such as nights and weekends. It is intended to reduce the amount spent on building new power networks and plants to satisfy peak demands for power. It is also intended to reduce energy consumption, thereby reducing air emissions.

Why is DSM important?

Generally, Energy consumption has been growing over the years. By reducing power consumption, particularly when demand is highest, there is less need to spend money to build new power plants and networks. The theory is that the cheapest kilowatt of power is the one you do not have to generate.

If DSM is working why are we still building power plants?

There are a number of reasons that it is necessary to continue to invest in power plants. For example, some plants simply wear out and need to be replaced to meet the existing and expected demands for power, even with effective DSM programs.

Are there limits to how much power can be reduced by DSM programs?

Simply put, yes. It is important to get the mix of generation and conservation right. Utilities are permitted, under legislation, to recover their prudently incurred costs through power rates. When demand for power is falling, as opposed to growing at a smaller rate, the cost of the plants and networks has to be spread over fewer hours of power sold. That can actually increase the hourly rate for power. Of course, if you are using less power you can still save overall. To ensure DSM programs are applied correctly they are considered a significant element of the Integrated Resource Plans (see separate FAQ) and carefully monitored.

Is DSM new?

No, the term DSM has been around since the 1970’s and in some form exists in most regions. It has existed in Nova Scotia for a number of years.

What types of things does DSM include?

The term DSM can be applied to any program designed to reduce power consumption by consumers or to shift consumption to “off-peak” times. That can include things like:

- Education programs for consumers on how to reduce consumption or move consumption to a time of day with lower demand on the system (“off peak” periods).

- Subsidizing the purchase of home appliances that use less power or even turn themselves on during off-peak times. That can include appliances such as stoves, washers, dryers and water heaters.
- Subsidizing the introduction of thermal storage devices for home heating. These devices heat up during off-peak times and then release the heat when energy demand is high.
- Promoting energy audits of homes and providing financial assistance to upgrade things like insulation, windows and doors
- Introduction of “smart grid” technology that allows consumers to see the cost of using their appliances during peak times and make better choices about when to use power.

What were the legislative changes?

In 2014, the Government of Nova Scotia passed the *Electricity Efficiency & Conservation Restructuring Act*. As a result, the efficiency and conservation services related to DSM are to be treated as a competitive supply and purchased by NSPI (Nova Scotia Power Inc.) to offset required generation.

How does this all work in Nova Scotia?

In our province DSM is now administered by the holder of an “Efficiency Nova Scotia franchise”. For 2015, the DSM charge was removed from customer bills. Spending on DSM programs did not subsidize, however. Instead, legislation required that costs for 2015 DSM programs be brought into rates in future years starting in 2016.

How does the franchise work?

A not for profit organization called EfficiencyOne was created and granted the Efficiency Nova Scotia “franchise” as an “electricity efficiency utility”, the first of its kind in Canada. This franchise gives them the exclusive right to develop and deliver electricity programs within Nova Scotia for ten years, effective January 1, 2015. They develop a three year plan that must demonstrate the costs and benefits to the province, the utility and its ratepayers. A contract is then negotiated with NSPI and an application is made to the Board for approval. Under the new legislation, both EfficiencyOne and NSPI are considered to be co-applicants.

Who pays for these DSM services?

Programs and services of EfficiencyOne related to electricity conservation are paid for by NSPI. NSPI, in turn, recovers the cost from ratepayers.

Efficiency Nova Scotia also delivers non-electricity efficiency programs and conservation services through a contract with the Province of Nova Scotia. Costs relating to non-electricity programs are paid for by the Province or users of those services, not electricity ratepayers. Additional information on EfficiencyOne and Efficiency Nova Scotia is available on the Internet at: www.encyone.ca and www.encyone.novascotia.ca