

Fuel Switching Guideline

1. Purpose of this guideline

The purpose of this guideline is to outline how fuel switching measures may be integrated into conservation programs designed by local distribution companies (LDCs) in the 2015-2020 CDM Framework.

2. Context

The Minister's Direction of March 31, 2014 directed the OPA (now IESO) to:

“consider CDM to be inclusive of activities aimed at reducing electricity consumption and reducing the draw from the electricity grid, such as geothermal heating and cooling, solar heating and small scale (i.e. <10 MW) behind the meter customer generation. However, CDM should be considered to exclude those activities and programs related to a Distributor's investment in new infrastructure or replacement of existing infrastructure, any measures a Distributor uses to maximize the efficiency of its new or existing infrastructure, activities promoted through a different program or initiative undertaken by the Government of Ontario or the OPA such as the OPA Feed-in Tariff (FIT) Program and micro-FIT Program and activities related to the price of electricity or general economic activity.” (s.7.1)

3. Fuel Switching

3.1 Definition and Scope

The United States Energy Information Administration (EIA) defines fuel switching in the context of demand-side management (DSM) program assistance as “DSM program assistance where the sponsor encourages consumers to change from one fuel to another for a particular end-use service. For example, utilities might encourage consumers to replace electric water heaters with gas units or encourage industrial consumers to use electric microwave heaters instead of natural gas heaters.¹”

This Guideline only applies to situations where there is a change from use of electricity to another fuel for a specific end use. This Guideline does not apply to the replacement of purchased electricity with other generated electricity, including, electricity self-generated or otherwise at or near the consumer's site.

¹ U.S. Energy Information Administration, Independent Statistics & Analysis, <http://www.eia.gov/tools/glossary/index.cfm?id=F> . The definition has been provided in its entirety, however, the examples are not adopted as part of this Guideline.

3.2 Fuel Sources not allowed

Fuel switching from electricity to coal or diesel is not allowed under any circumstances.

3.3 Electricity to Renewable Energy Sources

Fuel switching from electricity to alternative renewable energy sources may be permitted under the Conservation First Framework. For example, this may involve incentives for installation of solar thermal water heating or use of biomass fuel for boilers.

3.4 Electricity to Natural Gas

Fuel switching projects that involve switching from electricity to natural gas will typically not be permitted. Exceptions to this rule may be made for targeted programs that will benefit low income or First Nations customers. These programs will need to be approved on a case by case basis. Any fuel switching programs should still pursue an overall energy efficiency gain and all available technologies should be considered for suitability, not just the fuel switching option.

3.5 Behind the meter CHP

Behind the meter load displacement generation projects that include waste energy recovery from the customer's process may be eligible projects. In addition, load displacement combined heat and power (CHP) projects that are accompanied by a thermal load at the customer's site and that use most or all of the heat output from the generator may also be suitable conservation projects. The BMG Rules require overall system efficiency on an HHV basis of 65% for behind the meter CHP projects. At this level of efficiency the project will be more efficient than the alternative of system generated electricity plus locally generated thermal energy (assuming the system has gas generation at the margin). These projects have large energy savings potential and are consistent with the desire to mitigate electricity pricing for large users.