
CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW & POLICY

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Conservation utilities needed for sustainable development
by Jack O. Gibbons¹

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Prior to Bob Rae's election victory, the fundamental goal of Ontario energy policy was to promote ever increasing energy consumption. The former Liberal government was also committed to sustainable development. However these two goals were inconsistent. For increased energy consumption means more global warming, more acid rain, more toxic air pollution and more radioactive nuclear wastes.

In November Ontario's new Minister of Energy, Jenny Carter, announced a revolutionary new energy policy for Ontario. The principal components of the NDP energy policy are a nuclear moratorium and an overriding commitment to energy efficiency. An energy policy whose fundamental goal is energy efficiency - doing more with less - is consistent with sustainable development.

The NDP's energy policy implies the need for conservation utilities - utilities that will aggressively promote energy efficiency and conservation.

A simple and quick way to create hundreds of reputable, well managed and financially strong conservation utilities would be to

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expand the mandates of Ontario Hydro, our municipal electric and natural gas utilities to include the aggressive promotion of energy conservation. However, can utilities that have historically promoted energy consumption be transformed into utilities that will aggressively promote conservation?

In the past utilities have promoted energy consumption because it was in their corporate self-interest to do so. In the future they will promote conservation if such actions are in their self-interest. The key question is how can we ensure that conservation is in the self-interest of our gas and electric utilities?)

Ontario's gas utilities (Centra Gas, Consumers' Gas, Union Gas) are regulated by the Ontario Energy Board (OEB). As a result of the OEB's rate making principles the profits of the gas utilities are directly linked to the quantity of gas consumed. In short, the greater Ontario's gas consumption, the higher their profits and vice versa. Consequently conservation is never in their financial self-interest. However, conservation would be profitable for the gas utilities if the OEB adopted the following regulatory reforms. First, the establishment of rate making mechanisms that do not penalize the gas utilities when they promote conservation. Second, the creation of financial bonuses for utilities that cost-effectively reduce their customers' energy consumption. If the OEB were to institute these reforms the gas utilities would quickly transform themselves into aggressive conservation utilities.)

The municipal electric utilities (e.g., Toronto Hydro) are

publicly-owned, not-for-profit electricity retailers. [They purchase electricity from Ontario Hydro and distribute it to over two and a half million residential, commercial and industrial customers.] They are the appropriate utilities to promote electricity conservation at the customer level.

However, due to economies of scale in distribution, the more electricity a municipal utility sells the lower are its average unit costs and hence rates. Thus, if a municipal utility successfully promotes electricity conservation its rates will rise. Furthermore, the rates of a municipal utility that aggressively promotes conservation will rise faster than the rates of a utility that does not promote conservation. As a consequence utility bureaucrats will strongly resist such programmes. For they fear that the resulting rate increases will antagonize their ratepayers and the municipal councils to whom they are ultimately accountable. In addition, they fear that their Boards of Commissioners will attempt to control politically unacceptable rate increases by putting a lid on their salaries and fringe benefits.

[However,] electricity conservation would be in the self-interest of the municipal utilities if Ontario Hydro were to offer them a cash payment for every kilowatt-hour (kwh) of electricity they save. The cash payment would ensure that a municipal utility's rates will not rise when it promotes conservation. Furthermore, the municipal utilities which most aggressively and cost-effectively save electricity will make the biggest "profit" from conservation. That is, the rates of these utilities will rise

less than the rates of the utilities that do not aggressively or cost-effectively promote conservation. ✓

Unfortunately purchasing electricity savings from the municipal utilities is not consistent with Ontario Hydro's institutional imperative. For Ontario Hydro is first and foremost a producer and transmitter of electricity. As such it will resist pursuing actions that will reduce its size and importance. For example, despite immense public and political pressure to aggressively promote conservation, Ontario Hydro's annual capital expenditures for conservation are only \$48 million; whereas its annual capital expenditures for electricity supply are \$3.3 billion.²

Simply put, there is a fundamental conflict between Ontario Hydro and the energy policy goals of the Government of Ontario. This conflict will only be overcome if Ontario Hydro ceases to be a supplier of new electricity. That is, the Government must impose a permanent ban on the construction of new electrical generating stations by Ontario Hydro. Furthermore, responsibility for maintaining Ontario Hydro's transmission system must be given to a new crown corporation, say, Ontario Transmission.

Under this scenario, Ontario Hydro's role would be limited to operating its existing hydraulic, coal and nuclear generating stations and balancing Ontario's supply and demand for electricity. As a consequence the aggressive promotion of conservation would no

². Ontario Energy Board, H.R. 19: Interim Report Of The Board, p. 187.

longer be contrary to its institutional self-interest.

If Ontario Hydro is prohibited from building new generating stations, it will have two options to balance Ontario's supply and demand for electricity. Namely, purchase electricity conservation from the municipal utilities and electricity supply from independent power producers. [At the present Ontario Hydro is purchasing hydraulic and natural gas-fired electricity from over 30 independent power producers (e.g., Centra Gas, Northland Power).

The cost of conservation is often less than the cost of new energy supply. For example, according to Ontario Hydro, conservation can cost-effectively reduce the heating needs of existing electrically-heated homes by 50%.³ Moreover, Amory Lovins has estimated that energy efficiency investments can save the world up to a trillion dollars per year - as much as the global military budget.⁴ In short, utility conservation programmes can protect the environment and reduce the consumer's energy bill.

Historically our energy utilities have aggressively and successfully promoted energy consumption. If the Government of Ontario implements appropriate institutional and regulatory reforms they will aggressively and successfully promote energy conservation. ✓

³. Ontario Hydro, The Energy Efficiency Potential Of The Existing Electrically-Heated Housing Stock In Ontario: Final Report (June, 1990), p. 45.

⁴. Amory Lovins, "Abating Global Warming - At A Profit", Rocky Mountain Institute Newsletter, Vol. V, No. 3, (Fall 1989).