

March 10, 2009

The Hon. George Smitherman, MPP
Minister of Energy and Infrastructure
900 Bay Street, 4th Floor, Hearst Block
Toronto, Ontario M7A 2E1

Dear Minister Smitherman:

I am writing to you in my capacity as Chair of the Canadian District Energy Association (CDEA) to provide additional comment in support of your government's Green Energy Act (GEA), recently tabled as Bill 150.

This letter will focus on three important areas (1) the role of district energy combined heat and power (CHP) to support the GEA (2) an opportunity to deliver specific objectives of GEA using the Clean Energy Standard Offer Program and (3) the contribution to the GEA's "green" jobs initiative.

District Energy Combined Heat & Power (CHP)

We have heard some criticism that Bill 150 does not adequately include references to "clean" natural gas CHP. The CDEA's view is that the Bill can be used to support CHP as written.

The CDEA believes that future regulation under Bill 150 should support CHP plants that are integrated into community or district energy systems that are providing system benefits that respond to many priorities outlined in the Bill.

1. **Efficiency & Emission Reductions:** CHP plants provide heat to buildings that would be otherwise fuelled by natural gas. Greenhouse gas emissions are reduced by as much as 50% when supplied by district energy CHP plants.
2. **Reduction in Electricity Demand:** CHP plants connected to district cooling systems can dramatically reduce the peak demand from individual building cooling systems.
3. **Important Bridge to Renewable Fuels:** As evidenced in many European countries, communities that are connected "thermally" provides an opportunity to transition to renewable fuels such as solar thermal or biomass.
4. **Reduction in Electricity Demand:** District cooling systems allow for the creation of utility scale thermal storage which allows the system to produce chilled water at night and discharge during peak hours.

We understand the desire to move away from natural gas and other fossil fuels. However, in the medium term most buildings utilize natural gas for heating. Therefore, maximizing fuel efficiency to provide the same heating energy is essential. Denmark determined this as a



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national priority in 1980 and legislated the development of district energy systems supported by CHP.

Quoting Schedule C of the Ministry of Energy Act:

“Schedule C amends the Ministry of Energy Act...also amends the objectives of the Ministry to include references to infrastructure, growth planning, renewable energy and energy conservation.”

District energy complements another key initiative of the government with respect to promoting compact urban form and encouraging a critical mass of mixed use development that supports land use goals set out in Places to Grow. As noted above, district energy systems provide a natural bridge to renewable fuels as well as delivering on significant conservation targets today.

Clean Energy Standard Offer Program (CESOP)

Your predecessor, the Hon. Dwight Duncan, made an historic announcement at the CDEA's Annual Conference in Toronto in June 2007. At that time Minister Duncan announced the Clean Energy Standard Offer Program (CESOP) aimed at reducing barriers to small generators who generate power using clean fossil fuels or under-utilized energy streams. The original Minister's Directive to create CESOP dates back to August 2005.

A first in North America, CESOP is designed for high efficiency CHP applications less than 10 MW. Most, if not all, district energy CHP will be in the less than 10 MW category and will use CESOP as its contract preference.

The OPA has spent nearly four (4) years developing the CESOP architecture. With natural gas as the fuel source, this category of projects would not readily use the feed-in tariff approach. Rather, CESOP, as currently designed, will provide developers with a capacity payment to build & operate the facility with a deemed operations formula to ensure the plants run when it is economically viable for the Ontario ratepayer.

The CDEA believes that with a few minor final changes to the program, and a capacity rate that reflects actual costs, CESOP can be released to the market immediately.

Job Creation

In your launch of the GEA, it states that *“the landmark Green Energy Act (GEA) which would boost investment in renewable energy projects and increase conservation, creating green jobs and economic growth to Ontario.”*

More specifically, *“the GEA will create 50,000 jobs for Ontarians in its first three years.”* While the CDEA cannot comment on the job creation potential in the wind or solar sectors, we can provide an educated response to the job creation potential in the under 10 MW CHP category.



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The Ontario Power Authority recently completed a survey to gauge the potential of CESOP projects in the Province. Survey respondents reported 47 current projects representing 165 MW of installed capacity (or approx. 3.5 MW per project). The CDEA believes that this project list is a fraction of the potential. If we assume that survey results represented only 50% of the current potential in the Province, a well designed CESOP program could create as many as 100 projects located across numerous Ontario communities over the next 3 years; serving campuses, hospitals, residential projects, and urban centres.

Based on member input on projects recently constructed, the CDEA has determined the potential for each 3.5 MW project results in approximately 25 jobs (engineering, construction, operations) or a total of **2,500** green energy jobs in its first three years.

Recommendation: Stimulate job creation *immediately*, even before Bill 150 becomes law, by instructing the Ontario Power Authority to release the CESOP program.

Finally, when we met briefly following your Board of Trade presentation on Friday February 20th, you asked your staff to arrange a visit to our district energy (and CHP) facility in Markham. To date this has not been arranged.

Therefore, the CDEA (and Markham District Energy) would like to re-affirm our invitation so we can have an opportunity to expand on some of the points in this letter and proudly show you the contribution and potential of modern, community based district energy systems utilizing combined heat and power.

We will follow-up with your staff on the timing for a tour and meeting. My direct line is (905) 513-4165.

Sincerely,

Bruce Ander, P.Eng.
Chair
Canadian District Energy Association
President & CEO
Markham District Energy Inc.