



Professional Engineers Ontario

August 25, 2003

The Honourable Ernie Eves
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Dear Premier Eves:

Re: Power Outage Emergency

Professional Engineers Ontario (PEO) administers the *Professional Engineers Act* under authority delegated by the Ministry of the Attorney General. Accordingly, your government appoints 12 of PEO's 29 Council members, up to five of whom are members of the public. PEO sets standards for and licenses Ontario's 65,000 professional engineers "in order that the public interest may be served and protected".

Because preventing another power outage emergency is so clearly in the public interest, I am writing to you on behalf of PEO President Ken McMartin, P.Eng., to offer PEO's support in whatever proactive steps your government might take to address this event. PEO sees two possible avenues of assistance:

1. PEO's job is to regulate the engineering practice of members of the profession. This includes the practice of engineers involved in power systems, including power generation, transmission and distribution, and systems operations, protection and maintenance. If during the course of the government's investigation it appears there might have been professional misconduct by a PEO licence holder, PEO would need to investigate the facts in accordance with our normal complaints and discipline procedures. PEO investigators have background in power systems, and in power generation, transmission and distribution, which would enable them to determine the root causes of whatever engineering problem there might be and make recommendations to improve engineering practice in these areas.
2. PEO has been developing a concept of "engineering governance". The inability to restore the power system in Ontario in a timely manner suggests the possibility of a policy failure traceable to a lack of engineering governance within the entities responsible for delivering a reliable electricity supply. In an investigation of engineering governance within these entities, PEO would look at such issues as whether:
 - ◆ there is a person at the board level responsible for engineering-related issues;
 - ◆ the board understands the engineering challenges and roles facing the entity;
 - ◆ directors are required to "balance the books" in terms of engineering impacts on stakeholders;
 - ◆ an annual engineering audit is performed and reported to stakeholders;
 - ◆ there are systems in place to ensure that engineering is managed properly;
 - ◆ the board knows when engineering is being properly managed;
 - ◆ engineering performance is monitored;

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- ◆ the entity's engineering strategies align with its business strategies;
- ◆ management systems are in place to encourage, monitor, and reward engineering excellence;
- ◆ the entity's culture encourages or discourages engineering excellence; and
- ◆ there are policies in place to protect engineers who exercise their duty to report and whistleblowers generally.

Hydro One, Ontario Power Generation, the Independent Electricity Market Operator, and municipal electric utilities all have responsibilities directed toward their own financial goals, and the focus of the electrical industry's restructuring to date has been on the cost side. While we agree these cost factors are important, reliability must also be a factor in the industry's governance. Whatever governance model is employed must adequately align public policy issues with technical realities. With their long-term focus, engineering solutions typically have a higher capital cost, but a lower operating cost, and built-in safeguards to enable systems to recover from failure. Unfortunately, in many organizations, particularly when under financial stress, a short-term focus is adopted, leading to poor capital investment decisions whose consequences are felt far into the future.

In keeping with its legislated mandate, PEO has resisted the temptation to speak publicly on the power outage. However, we are prepared, should you consider it useful, to assemble an independent, expert working group from among our licence holders and members of the learned societies, to examine either the technical issues related to power generation, or transmission system reliability. In addition, PEO could assemble a similar independent working group to examine the adequacy of engineering governance within the major entities responsible for delivering a reliable power supply to all Ontarians. In any such examination, PEO would strive to put forward a considered and measured response that would address the root causes of the electricity supply failure and offer practical and reasoned solutions supportive of the government's public policy goals.

Please have your staff contact me at 416-224-9528, ext. 426, or kallen@peo.on.ca, should you wish to discuss further how PEO might be of assistance to you.

Yours truly,



Kim Allen, P.Eng.
CEO/Registrar

cc. Hon. John Baird, Minister of Energy, Ontario Ministry of Energy
Hon. Norm Sterling, P.Eng., LL.B., Attorney General and Minister of Native Affairs
Mr. Glen Wright, Chair-Premier's Task Force on the Blackout
Members of PEO Council