ONTARIO SOCIETY OF PROFESSIONAL ENGINEERS

The Voice of Ontario's Engineers

Nuclear Energy

OSPE recognizes that Ontario must have a mix of energy generation sources, as outlined in our policy statement of December 2008. Base load nuclear generation is an important component of this energy mix and can be paired with elements of the *Green Energy Act*. When procuring energy infrastructure, OSPE encourages the use of Canadian technology and local intellectual property to spur employment and economic prosperity for Ontario.

Greening Ontario's Energy Mix

The Ontario Power Authority has indicated that it will submit a revised Integrated Power System Plan (IPSP) to the Minister of Energy & Infrastructure in 2009 to adjust energy planning in light of the *Green Energy Act*.[1] In addition, the Government of Ontario has committed to phasing out coal-fired generation plants by 2014. OSPE will monitor the release of the IPSP to support long-term goals that lead to an increased use of clean, renewable energy sources; the development of conservation programs; and the retention of nuclear generating plants as a vital energy supply.

Recognizing Nuclear:

OSPE recognizes the important role nuclear energy plays, and must continue to play, in Ontario's energy supply mix.[2]

Nuclear power has contributed to Ontario's power supply since 1968, with the construction of Douglas Point generating station on Lake Huron. Currently, over 50% of Ontario's power, or 11,000 MW of base load generation, is supplied by 16 operating CANDU reactors as outlined in the table on the right. The previous IPSP called for a maximum of 14,000 MW of nuclear capacity achieved by refurbishment and/or new build.[3]

Nuclear Generating Station	Output
Pickering A and B	3,100 MW
Darlington	3,524 MW
Bruce A and B	4,700 MW

A clean energy source, nuclear generation provides low-cost and dependable power. With new steam bypass technology, nuclear power plants can feasibly counterbalance large and intermittent wind and solar power output. Nuclear base load energy is all the more important as renewable energy takes on a larger share of the energy supply mix. Adding sustainable sources of energy to the electricity supply is a priority of the government, as evidenced in the *Green Energy Act* passed in May 2009. Nuclear both complements and stabilizes the overall base load supply energy, thereby enabling the elimination of coal and minimizing the need for natural gas fired plants.

Procuring Nuclear Facilities:

On June 29, 2009 the Minister of Energy & Infrastructure suspended the competitive Request for Proposal (RFP) process for a new nuclear power generating facility at Darlington. Of the three bids received, only the submission from Atomic Energy of Canada Ltd. (AECL), the Minister noted, "was compliant with the

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[1] For OSPE's position on the Green Energy Act, please visit: http://www.ospe.on.ca/gr_issues_ENERGY.html

[2] OSPE's policy statement on Ontario's energy supply mix can be found at: http://www.ospe.on.ca/gr_issues_ENERGY.html

[3] Data referenced is up-to-date as of June, 2009

terms of the RFP and objectives of the government."[4] With AECL's ownership in doubt, however, the Minister concluded that it was not a "suitable option at this time."[5] OSPE continues to support government efforts to procure Canadian technology for new nuclear builds and for other major public works projects. Support for domestic intellectual property will spur research and development amongst commercial and academic institutions and expand the existing supply chain, adding thousands of long-term jobs in engineering and the skilled trades. When the bidding process for Darlington resumes, OSPE strongly encourages Infrastructure Ontario to favour submissions that will generate business over the entire nuclear life cycle.

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[4] Ontario Ministry of Energy & Infrastructure, "Ontario Suspends Nuclear Procurement," Press Release, June 29, 2009, <http://www.mei.gov.on.ca.wsd6.korax.net/english/news/?page=news-releases&body=yes&news_id=53> (accessed July 7, 2009)
[5] Ibid