

SUGGESTED TERMS OF REFERENCE FOR A PUBLIC CONVERSATION / INQUIRY ON THE FUTURE ELECTRICITY SUPPLY MIX FOR ONTARIO

January 25, 2006

OVER-ARCHING QUESTIONS

- What are the public's priorities among competing supply mix options?
- What are the public's concerns with particular options?

HOW MUCH ELECTRICITY WILL WE NEED?

- What impact on the need for generation will arise from the use of recent electricity consumption data rather than assuming electricity consumption will grow twice as fast as recent experience? What impact would arise from assuming that electricity consumption will grow at a slower rate?

COMPARING ACCIDENT RISKS OF GENERATING OPTIONS

- What are other estimates of nuclear accident risks and societal costs for Ontario?
- What are other estimates of accidents risks from other forms of electricity generation and how do they compare?

COMPARING COSTS OF GENERATING OPTIONS

- What are appropriate costs of capital for comparing generation options?
- Should a social cost of capital (i.e. a cost for capital that reflects the true cost to society of the capital) be calculated for the supply mix decision as is traditionally done for public decisions?
- What are the available gas price forecasts and what is the impact of assuming forecasts other than the highest price forecasts for the available options?

COMPARING ENVIRONMENTAL IMPACTS OF GENERATING OPTIONS

- What are appropriate weighting criteria for comparing environmental impacts of various supply options?

COMPARING IMPACTS ON SMALL BUSINESS OF GENERATING OPTIONS

- What is the impact on emerging industries of the competing portfolios? For example, what is the impact on the emerging renewables industry of a small allocation in the supply mix?
- Early commitment to nuclear power through the portfolios as outlined by OPA effectively caps or limits investment in and proportion of renewables and conservation. What alternatives exist to avoid this effect?

COMPARING RELIABILITY OF GENERATING OPTIONS

- The OPA portfolios assume an 85% availability for nuclear plants; what is the actual experience for CANDU's for all years, including those where the plants were shut down for major repairs and refurbishments?
- How do the plans change for alternative costs of capital, performance and capital cost estimates when nuclear factors are based on historic performance are applied?

COMPARING THE ENVIRONMENTAL AND SOCIETAL COSTS OF SUPPLY AND DEMAND OPTIONS

- What are the full range of so-called “external” costs (i.e. those environmental and social costs not normally included in standard financial statements) for the main supply and demand options?

COMPARING HEALTH IMPACTS AND COSTS OF GENERATING OPTIONS

- What are the potential health effects and impacts of catastrophic accidents arising from the various supply technologies assumed in the portfolios?
- What are the health effects arising from routine operations from the various supply technologies assumed in the portfolios?

COMPARING SECURITY ISSUES OF GENERATING OPTIONS

- What is the risk to the public and to a secure electricity supply arising from threat of terrorism or other attacks from the various supply options?
- What is the risk to the economy of significant reliance on a large amount of any one of the electricity supply technologies should the technology or fuel become unavailable or too risky?

COMPARING IMPACTS ON LOW INCOME CONSUMERS OF GENERATING OPTIONS

- What impact on the portfolios does fuel switching (i.e. programs that switch end uses including heating and water heating from electricity to alternative fuels and technologies) provide?
- What alternatives are available for low income families to reduce electricity consumption, switch to other fuels and has OPA dealt with this question adequately?

IMPACT OF DECENTRALIZED APPROACHES ON SUPPLY MIX OPTIONS

- Should dispersed and decentralized community-based and smaller scale generation be given preference due to lower transmission costs and impacts, greater reliability and reduction in system losses? What are these decentralized generation and conservation options? What is the potential for these options?

WEIGHTING TO PROVEN TECHNOLOGIES IN SUPPLY MIX ADVICE

- To what extent should the supply plan be based on untested technologies or on currently available technologies?

LIABILITY FROM WASTE GENERATION AND PLANT DECOMMISSIONING

- What potential liability would arise in the portfolios, above and beyond the current estimates for nuclear waste management and nuclear power plant decommissioning?

LESSONS FROM OTHER JURISDICTIONS

- What have the best and most aggressive strategies and programs achieved in other jurisdictions for particular end-use efficiencies and for renewables?

COMPARING IMPACTS ON CONSERVATION AND RENEWABLES DEVELOPMENT OF GENERATING MIX OPTIONS

- Ontario Power Authority found a much larger technical potential for conservation and renewables than it used in its supply scenarios, based on a concern that conservation and renewables will not emerge sufficiently. What policy choices does government have that would create greater assurance that conservation and renewables would emerge as a major proportion of Ontario's electricity supply?
- What is the potential for electricity use reduction from government appliance and building standards?
- What is the cost of delaying commitments to nuclear power? If time is allowed for aggressive commitment to renewables and conservation, and commitment to nuclear is delayed by various numbers of years, what is the impact? What would be available as alternatives for supply and at what cost in the event that another permanent supply then needed to be developed?
- If an aggressive commitment to renewables and conservation was successful, what would be the savings to Ontario compared to a commitment to new nuclear power?

IMPACTS OF LARGE SCALE ELECTRICITY IMPORTS

- What are the environmental impacts, such as those associated with transmission facilities, from large-scale electricity imports?