Ontario Energy Association

Goals for the Electricity System in Ontario

Submission to the Ministry of Energy
Long-Term Energy Plan Consultation
September 29, 2010

1. After several years of stable rates, electricity prices for Ontarians are increasing now due to investments in infrastructure and new generation. How should increased costs to Ontarians be weighed against other goals in power system planning like modernizing infrastructure, building new generation and increasing renewable energy production while phasing out dirty coal generation?

The Ontario Energy Association is concerned about the issue of rising electricity prices for several reasons. We believe that electricity consumers would be more accepting of price increases if there were clear benchmarks, objectives and priorities. For example, how can ratepayers be assured about government's objectives for the supply mix when the amount of renewables capacity being procured though the Feed in Tariff (FIT) program is open-ended, and when there is still no clear direction on nuclear?

Ratepayers need to know that they are getting value for their money.

We are also concerned that ratepayers are not fully informed or aware of the reasons for and benefits of the higher prices they are paying for power. Some of our members – particularly energy distribution members, who are at the interface between electricity consumers and the power system – are in the position of defending cost increases which are largely a consequence of changing government policy and for which they in the main have little direct responsibility.

- The government should set out the benchmarks, objectives and priorities for the electricity system, and stick to them.

- The government should better explain to consumers that the cost of electricity is rising as Ontario replaces relatively inexpensive coal-generated power with more costly – but more environmentally friendly – renewable, natural gas-fired, and other forms of power; to pay for conservation and demand management programs; and to refurbish and expand our aging delivery system.

Second, because of the large and growing component of the electricity commodity price that is accounted for by the Global Adjustment (GA), prices can be inefficient and lead to a misallocation of resources.

- In general, we support increased reliance on price signals to drive consumption, conservation and, ultimately, investment.

- We support as moving in the right direction the plan to reallocate GA costs via the "coincident peak" methodology.

- We suggest, however, that this be viewed as only a first transitional step towards a more comprehensive review of electricity pricing, the objectives of which should be to: i) ensure clarity and transparency about the GA and all components of electricity costs to consumers, ii) ensure equitable recovery of costs across all ratepayer classes, and iii) improve the price signal by transitioning as many components of the GA as possible into the Hourly Ontario Electricity Price.

Finally, rising electricity costs risk discouraging industrial activity in Ontario.

- We recommend that increased costs be weighed not only against other goals in power system planning, but also against the potential impact on Ontario's industrial competitiveness and against electricity costs in neighbouring jurisdictions.

- We also recommend that ratepayers not be asked to bear the burden of funding broader non-energy related policy objectives, such as economic or regional development, or the subsidization of the energy costs of certain groups of ratepayers.

2. How do you think the electricity demands of families and businesses will change over the next 20 years in Ontario?

At a macro level, we expect that annual demand will continue to grow at a slower pace than in the first half of the decade, partly as a result of structural change, and partly the result of increased conservation and energy efficiency.

- The electricity demand of the major industrial sectors – steel, automotive, pulp and paper – is likely to continue to trend downward as the Ontario economy undergoes structural change.

- Household demand is likely to increase with the continuing penetration of electronics and appliances.

- There is also likely to be a flattening of demand as time of use rates and the reallocation of the GA come into effect and as the implementation of the smart grid allows increased use of home energy management systems (HEMS).

Despite these moderating influences, overall energy demand will grow as the population grows, particularly in the Greater Toronto Area (GTA) and the Golden Horseshoe. In this regard, the OEA has often noted the lack of integration between energy system planning and regional growth, environmental and economic planning.

We recognize that such broader integrated planning is beyond the scope of the OPA and that responsibility ultimately rests at the provincial level. We continue to urge to the province to take that responsibility. To take just one example, *Places to Grow*, the province's growth plan for the Greater Golden Horseshoe region – and which addresses planning issues such as water, roads, community centres and schools – does not directly address or integrate energy considerations.

- We believe that a more integrated and holistic approach at the provincial level could help avoid delays in energy investment arising from regulatory inefficiencies and NIMBYism, and could contribute overall to a more positive investments and business climate, not only for the energy sector, but for the Ontario economy as a whole.

3. What role should renewable forms of energy like hydro, solar, wind and biomass play in Ontario's future supply mix*?*

We expect that hydro should and will continue to supply about 20 percent of Ontario's electricity.

- However the potential for large scale hydro contributions to future capacity will likely be relatively small, with the greatest long tem development potential in northern Ontario which will require significant transmission and infrastructure upgrades, and in many cases require consultations with First Nations.

- Also, in terms of its status and availability to the system, hydroelectric production both coincident with the system peak and overall has been trending down, with changing weather and water levels (as noted in recent IESO operations reports).

Other forms of new renewable energy, mainly wind, will supply up to about 5 percent of total energy.

- Because of its intermittent, non-dispatchable nature, and the consequent impact on the dispatch flexibility of the system and the operational efficiency of other generation, the total installed capacity of wind will likely need to be fixed (as it apparently is not under the current Feed in Tariff program) unless the technical issues around storage can be cost-effectively resolved.

- Future investments in green energy should be balanced against the impact on costs, and how those costs will be allocated across all ratepayers.

- The reason for supporting renewable forms of energy need to be carefully articulated. The basis for the particular procurement approach – whether competitive RFPs, standard offer, or feed-in tariff – and how it relates to Ontario's greenhouse gas (GHG) emissions cap and trade regime, which is to come into force on January 1, 2012, also need to be explained.

- Increasing renewable capacity will mean a greater role for gas-fired generation for reliability and flexibility. Because of its key role in enabling the integration of renewables, gas should not be penalized with additional carbon costs.

- Most importantly, the targets that the government sets for new renewables (wind, solar, biogas) should be supported by transparent empirical research; they should be cost effective, i.e., sustainable economically, not just environmentally; and the processes for achieving them should be applied consistently and predictably.

In general, the OEA supports the policy emphasis on increased renewable generation – but not at any cost, and not at the expense of system reliability.

4. What type of generation should replace dirty coal in Ontario's supply mix?

- Nuclear and hydro should replace baseload coal; natural gas should replace intermediate and peaking coal.

Our understanding is that supply for the near term (up to 2015) is already under procurement or development, limiting the new planning for the period that can be done at this point.

5. What role should natural gas play in Ontario's future energy supply?

The outlook for natural gas has changed dramatically with the advent of new North American shale supply.

- Natural gas will therefore continue to play a central role in supplying energy for Ontario industries and as the fuel of choice for household heating, cooking and hot water.

- On the electricity side, because of its flexible dispatch characteristics, natural gas will be essential to integrating intermittent, non-dispatchable resources into the system, and will replace the coal-fired generating stations when they are eventually shut down.

- High efficiency combined cycle gas will replace coal in intermediate supply and single-cycle plants will replace coal as peak electricity generators.

- Because of the robust supply situation in North America, natural gas can also have a moderating impact on the long term price of electricity.

- Natural gas also has a role to play in conservation through fuel-switching; the building code and planning policy should accordingly provide for natural gas as an option to electricity in future development.

6. What role should nuclear power play in Ontario's future supply mix?

The OEA supports a diversified supply mix based on a balance among economic, environmental and system impacts, and on the characteristics and relative costs of the different technologies. In the regard we support the approach of the previous supply mix directive, which was to keep nuclear capacity at 14,000 MW.

- Nuclear power should continue to be the backbone of Ontario’s baseload generation capacity.

- Nuclear power is a clean technology that will contribute to the government’s efforts to reduce greenhouse gas (GHG) and other emissions.

- We are concerned about the continuing uncertainty around the nuclear decision, given the known long timeliness required for planning, permitting and approvals for nuclear, and given the history of delays and cost overruns with nuclear projects in Ontario and in other jurisdictions. The decision to move forward on nuclear cannot be delayed further as it puts reliability at risk.

- Ontario and Canada have demonstrated nuclear expertise and experience which risks being eroded and even dissipated with the continuing delay of the nuclear decision.

7. What is the appropriate and cost effective level of investment in transmission and distribution - the infrastructure that carries power from stations and delivers it to our homes and businesses - to target in our future power grid? How should we balance the needs of cost-effectiveness with ensuring appropriate build-out?

Electric and natural gas utilities are a key part of Ontario's infrastructure, essential for economic growth and our quality of life. With technological advance and population growth, their role will become even more important.

- It is essential that energy distribution companies be able to attract the capital they need to maintain and upgrade their systems and to invest in the expansion that will be necessary to accommodate new green sources of supply, more distributed generation, population growth, and the new two-way interactive digital and communications technologies that are characteristic of the Smart Grid.

Transmission planning must be integrated with planning for electricity supply.

- As noted above, we recommend that transmission planning and planning for energy as a whole be more effectively integrated with broader economic and development planning for Ontario.

We understand that with the changing nature of our electricity system – with more participation by consumers, more distributed generation, more sustainability, and more conservation – the role of long-distance, high voltage transmission grid will change.

- Nevertheless, there will continue to be a need to connect large-scale nuclear baseload and renewables with distant population centres.

- To ensure cost-effectiveness, there will likely need to be more reliance on competitive processes.

8. Are Conservation and Demand Management (CDM) programs, that provide tools to help manage bills and avoid new system costs, important to Ontario's energy future? Are there ways to enhance them?

Conservation and Demand Management Programs are now an integral part of Ontario's supply mix. But providing conservation largely though OPA marketing programs need not be the only approach to CDM. Consumers need to be provided with the knowledge, means and motivation to conserve energy.

- Smart meters and time-of-use pricing, combined with outreach and education programs, are providing consumers with knowledge about their energy usage.

- With the smart grid and home energy management systems (HEMS), consumers will have the means to conserve.

- Providing stronger price signals would motivate conservation.

- Gas and electricity LDCs, marketers and retailers, and other organizations can all have a role in delivering cost-effective CDM.

Consumers need to be better informed not only about conservation and energy efficiency *per se*, but about the key policy choices facing the electricity system.

9. What key elements do you think should be considered to ensure that Ontario's energy system remains reliable, sustainable, clean and cost-effective for our children and grandchildren?

Overall, OEA members feel that the government's energy policy fundamentals are headed in the right direction. Their main concerns are with government interference in the operation of the system, with decisions that often appear to be made based on short-term objectives rather than solid research and long-term plans, and with the absence of clearly articulated benchmarks, objectives and priorities. It is important that Ontario create an energy policy environment that supports private sector investment in the province. We recommend that the following principles be adopted in planning Ontario's energy system:

- *Stable*: Long-term energy policy certainty and predictability, to create a positive business and investment environment for energy in Ontario, with minimal political interference in the day-to-day operations of our energy system.

- *Transparent*: A framework for Ontario's energy sector that relies as much as possible on clear long-term objectives and on market approaches and price signals rather than on mix of mechanisms and directives.

- *Integrated*: An energy system that is based on regulatory streamlining and sound long-term planning, and that integrates high-level planning for energy with planning for the economy and the environment.

- *Consistent and predictable processes:* It is essential for sustainability that government adheres to consistent and predictable applications of processes and programs.