

Transmission Policy in Planning Ontario's Power System

Speech by Jan Carr, CEO, Ontario Power Authority to the Ontario Energy Association, September 14, 2005

Thank you. This afternoon, I would like to outline some thoughts on how we will do the long term planning for Ontario's electricity system. Specifically, I will zero in on the issue of transmission policy. As you will see, this is not policy in the government sense but rather a premise that will guide the development of Ontario's bulk power supply system.

The Electricity Act 2004 which put the OPA in place, gave us the hybrid electricity structure. It defined long-range investment planning as part of the mandate of the Ontario Power Authority. This is a new function that did not exist before. It is also one of the distinguishing features that makes the structure we now have a hybrid structure because in a purely competitive system you don't plan generation since market forces guide what is built. However, we are going to plan generation because the Ontario Power Authority is responsible for ensuring that there are adequate levels of investment in generation and we therefore need a roadmap so that we know where we are.

A traditional electricity system planning process begins with a forecast of what customers need. The forecast factors in the contribution that conservation will make, it then proceeds to determine what generation is needed to meet the forecast and concludes by determining what transmission is needed to connect the planned generation to the forecast loads. It is obviously not quite as simple as I've described because generation decisions affect transmission costs and transmission costs affect generation decisions. However, that is the general process that we will be following in preparing what the Act calls the Integrated Power System Plan or IPSP for short.

I'd like to underline a couple of features of the planning process. The first is that the Act requires that the IPSP also include three other things which aren't typical of long-range power system plans:

- 1) innovative strategies to accelerate the implementation of conservation, energy efficiency and demand management measures;
- 2) innovative strategies to encourage and facilitate competitive market based responses and options for meeting overall system needs, and
- 3) measures that will reduce reliance on support payments for generation.

The IPSP, therefore, includes provisions for planning the demise of the need to plan generation.

Another important factor in the planning process that we are charged in doing is that the supply mix may be prescribed by government policy. The supply mix, as you perhaps know, is the portfolio of different types of generation installed on the system. As you also may know, the OPA has been asked by the Government to advise them what the supply mix should be.

Notice the difference between the advice we are giving the Government on supply mix and the Integrated Power System Plan. The supply mix is advice to government while the IPSP is a submission to the Ontario Energy Board. In both cases a decision will be made on the basis of our work. In the case of the supply mix, the decision will be made within a political framework while in the case of the IPSP, the decision will be made in an adjudicative process which has predefined boundaries.

Specifically, the Ontario Energy Board will be reviewing the IPSP only for economic prudence and cost effectiveness. It may either approve or refer it back to the Ontario Power Authority. It may not reject it or modify it.

Let me now focus on one issue related to the IPSP which is the transmission policy. I want to outline the value of having a well-defined transmission policy. We need one and we don't have one.

With the supply mix established in government policy, and practical limitations limiting alternatives in the type, timing and location of major generation, the decision before the OEB when it considers the IPSP will be dominated by transmission aspects. That is, the most difficult task the OEB will face in considering the IPSP will be judging the economic prudence and cost-effectiveness of the transmission proposals.

This would be more straightforward if we had a clear objective of what role transmission was playing. If the purpose of transmission is to be an open access highway intended to facilitate competition among generators, you will get a different view of what is prudent and cost-effective than if transmission capacity is to be a market good in itself, bought and sold by those who have it and those who want it. The former puts transmission as a public good, just like the public highway system, while the latter makes it the subject of market forces. In the former, issues such as flexibility in system operation, which ultimately underlies supply reliability, are considered legitimate drivers for investment in transmission. In the latter, the considerations are dominated by congestion and its relief.

We came from a centrally planned world which means that the system we have was planned to have flexibility so that reliability targets could be met. There is some doubt in my mind that a more limited planning target of reduced congestion costs would have resulted in the system we have today. I think we would have had far more investment in generation and less in transmission. In essence, we would have had a system that relied for reliability on the presence of excess generation capacity rather than the flexibility of transmission configuration.

So it seems to me we are in a fork in the road. We either carry on with the de facto transmission policy we have — essentially that being the public good — or we change and accept the consequences. These consequences will include a much simpler regulatory review process but a significant shift in value as existing transmission assets become stranded and the size of new investment required in generation balloons.

I am biased toward the latter scenario where transmission is treated as a public good, open access highway. But we won't get there with planning decisions that are driven by a limited focus on congestion costs. Even though, in principle at least, congestion costs are easy to measure, calculate and pass judgment on. If our transmission system is expected to serve a broader purpose we have to establish a transmission policy that says clearly what that purpose is since otherwise we will not be able to gauge success.

We have never really had that debate in Ontario. We have debated locational marginal pricing, which gets us into the same neighbourhood of public good versus market good, but my assessment is that that debate was

adjourned rather than concluded. In my view, we need a clear, unambiguous transmission policy along the lines of what was adopted by Alberta some two or three years ago.

Alberta's transmission policy provides that the transmission system will be such that all in-merit transactions can proceed under normal circumstances. This is combined, very importantly, with a policy that generators do not receive constrained off payments. The overall effect is a transmission system that is built before the generation that it supports exists. Think of the enormous difference in the evidence that can be presented to the OEB for a plan where transmission leads generation compared to one where it lags.

It appears, that by default, we will be establishing a new transmission policy as part of our power system planning process. Although there are good reasons for attempting to do so ahead of and separate from that process, there are limits to how many issues the electricity industry can tackle at one time. I will be interested in hearing from any of you who have an interest in moving transmission policy ahead in the priority list. We all have a lot of things underway and here is one more thing that we could do.

Incidentally, our preliminary thinking is that Alberta's transmission policy will need some considerable modification before it can be applied in Ontario. Our system is much larger, our interconnections to neighbours far more complex, the resulting internal power flows far less predictable, our supply mix more diverse and our indigenous energy resources more limited. We are, however, in a very good position to build on the Alberta experience since two of the senior planning staff at the Ontario Power Authority have been recruited from the Alberta Electric System Operator.

Let me conclude by laying out for you the schedules and major steps in the supply mix advice and the IPSP activities. The supply mix advice consultation process was initiated in July with a request for written proposals. We have received in excess of 170 to date. The deadline for written submissions has passed but we are flexible and would appreciate hearing from you if you haven't written to us yet.

We have engaged consultants to assist with several aspects including the analytical evaluation models, conservation targets, supply technologies and environmental impacts. Their work along with the information and views

contributed by stakeholders will be factored into our considerations as we prepare the advice.

We are organizing a number of consultation sessions focussed on various topics and these will be beginning within the next couple of weeks. The report will be assembled and submitted to the Minister December 1, 2005. We understand the report will be public, but the details of how it becomes public, have not yet been established.

The early IPSP work will commence during this process, but consultation will not begin until the New Year. We can go a long way toward completing certain aspects of the plan without Government's decision on supply mix, but we obviously can't go too far so the completion schedule for the IPSP is uncertain. Assuming that the Government direction to OPA on supply mix arrives no later than Spring 2006, we should be able to complete the planning process and file the IPSP with the OEB in Summer 2006. I expect the OEB process will be quite time consuming. There is a lot riding on this plan and it is the first one the province has seen in 15 years. We hope to have approval sometime in early 2007.

An official, fully approved Integrated Power System Plan will focus our conservation efforts, permit procurement of recommended generation and establish the need and justification for transmission projects. As I said before, the plan will be based on developing options that provide system operational flexibility and reliability insurance for Ontario electricity customers.

So in summary, we have two major planning exercises underway, the supply mix and the Integrated Power System Plan. The supply mix informs the integrated power system plan, which leaves transmission as the most challenging aspect. Regulatory consideration of transmission will be immeasurably helped if we had a transmission policy. That policy can be set either in advance of the IPSP or as part of the regulatory process for the IPSP. The latter will result in a longer regulatory process, but the former requires adding to an already large and immediate workload.

Attention to the details of public accountability is very important in the context of the massive capital investments we have to make in Ontario's electricity infrastructure. This means that deciding on the appropriate

approvals process is also important and, as I say, establishing a transmission policy will be very helpful in that regard.

Thank you.