

**Power Workers' Union Comments on
Draft Report on OPA's Integrated Power System Plan and
Procurement Processes – EB-2006-0207**

The Power Workers' Union's ("PWU") objective in participating in the Ontario Energy Board's ("OEB") proceedings pertaining to the Ontario Power Authority's ("OPA") Integrated Power System Plan ("IPSP") is to provide input that contributes to the development of a pragmatic, robust and sustainable IPSP that ensures Ontario will have adequate, reliable, safe and reasonably priced electricity supply for the long term. Such a plan is essential for the continued economic and social welfare of the people of Ontario and is consistent with the PWU's energy policy statement:

Reliable, secure, safe and reasonably priced electricity supply and service, supported by a financially viable industry, and a skilled labour force, is essential for the continued prosperity and social welfare of the people of Ontario. In minimizing environmental impact, due consideration must be given to economic impacts, and the efficiency and sustainability of all energy sources and existing assets. A stable environment and predictable and fair regulatory framework will promote investment in technical innovation that results in efficiency gains.

The PWU's reference to safety is similar to that set out in the September 8, 2006 OEB Staff Discussion Paper on the Review of the Ontario Power Authority's Integrated Power System Plan and Procurement Processes where safety:

Refers to the safety of workers and members of the public through compliance with all applicable Ontario and federal laws and regulations pertaining to the construction and operation of facilities identified in the IPSP, including regulations and requirements of the Electricity Safety Authority and of the Canadian Nuclear Safety Commission.

The PWU's energy policy is reflected in our Better Energy Plan, set out below, which will shield homeowners and small businesses from price shocks, keep our economy growing and save jobs:

- Retrofit coal plants with clean coal technologies.
- Strengthen with energy diversity.
- Invest in green power.
- Maximize our hydroelectric potential.
- Promote energy efficiency.
- Keep nuclear in the mix.

- Review natural gas.
- Invest in transmission.

On September 8, 2006 the Ontario Energy Board (OEB or the Board) issued a Staff Discussion Paper on the Review of the Ontario Power Authority's (OPA) Integrated Power System Plan (IPSP) and Procurement Process (PP).

On November 16, 2006 the Board issued a Draft Report on the review of the OPA's IPSP and PP. The Board has invited written comment on the Draft Report, as well as, requested comments on the treatment of environmental externalities.

Given, as the Board has noted, both the review of the IPSP and the Procurement Processes are new activities for the Board and the OPA, the Board should allow some flexibility for Stakeholder submissions as it is unlikely that the OPA or the OEB can fully contemplate how these issues will evolve or what issues Stakeholders may need to raise as the OPA develops the IPSP and PP and in the OEB's reviews of the IPSP/PP. The overall objective is to develop an approved IPSP in a manner that minimizes risk in the best interest of Ontario. To the extent that it is necessary, the Board should allow Stakeholders to make submissions that bring greater planning confidence, reduces risk and increases clarity of the proposed plan and processes.

Given the importance and potential impact of the OEB's review and approval on Ontario's energy market, stakeholders and consumers, it is essential that the Board manage this review in a manner that:

- Ensures comprehensive analysis of the scenarios
- Provides parties adequate time to consider the submissions of the OPA and other parties
- Provides parties sufficient time to prepare detailed expert reply submissions

Given the manner and timing of the development of the IPSP (i.e. parties are being provided 8 sections over the IPSP stakeholder consultation period followed by a review of the consolidated plan) it is likely that parties will develop a better understanding of some of the key issues and sensitivities of the IPSP as the OPA develops it. As a consequence, the fact that a party has made submissions to the OPA should not prejudice the ability of that party to make further submissions on those issues to the OEB.

The Power Workers' Union (PWU) makes the following submissions to assist the Board in developing a fair and balanced review of the IPSP and PP such that it results in a plan that ensures Ontario has adequate, reliable, safe and reasonably priced electricity supply.

1. The Board's discussion paper does not provide a description of the process that the OEB intends to follow with respect to the Board's review of the IPSP/PP. As a consequence it is not possible for stakeholders to reasonably anticipate how they should proceed and what work they will need to complete and on what timeline. It would be helpful to stakeholders to know, as soon as practical, how the Board plans to deal with these issues in parallel with the development of the requirements that the OEB is establishing for the OPA. This will allow parties to determine if they have issues with the scope and process, as well as, determine how best to plan for both the remainder of the OPA consultation process and the OEB processes. Without knowing how and when the Board will be dealing with the 3 primary issues (IPSP, PP and facilities/contract approvals) it is difficult to determine whether the information in the Draft Report is sufficient. Stakeholders would benefit if the Board more clearly defined what information will be dealt with, when and what criteria the Board may be using to measure the OPA's recommended options.
2. The Board has chosen to include the approval of new facilities and contracts as part of the IPSP process. In addition, the Board has indicated that it intends to assess potential competing transmission alternatives for transmission facilities brought before it during the IPSP. Stakeholders would benefit from knowing whether there will be a preliminary finding by the Board on the IPSP prior to the review of the individual proposed facilities and contracts. Therefore, it would be preferred if the IPSP process was completed with an interim decision followed by a short break to allow for facilities, contract and transmission applications to be filed, reviewed and commented on.
3. There is no mention in the Draft Report of an assessment of the impact of assumptions regarding congestion pricing and the possible introduction of a Day Ahead Market. The Board should direct the OPA to provide the underlying assumptions for both these issues and the potential significant impacts that these could have on the merits of the each OPA reviewed scenario.
4. Ontario's electricity system is not a system unto its own but is part of a larger system and market. The Board therefore should direct the OPA to consider reliability and market impact in the context of the Northeast system and market (i.e. Northeastern U.S and Canada).
5. In Section D and in other sections of the Draft Report the Board uses the term "economically prudent and cost effective". It would be helpful if the Board or the OPA proposed a set of principles that more clearly define "economic prudent" and "cost effective" and how the OPA would be expected to demonstrate and satisfy these criteria. The information in the Board's Draft Report is unclear as to how the Board would measure and weigh each of the criteria.

6. On page 3 of the Draft Report the Board states that the Supply Mix Directive specifies a mandatory portfolio of supply and conservation resources mix. In the PWU's view the Directive sets out goals and targets for renewables and may place a cap on installed nuclear capacity. It does not state how the ramp up to the targets should occur. The Directive does not preclude the use of coal generation sites for clean coal projects. Nor does the Directive state when or how the coal phase-out should occur. Although the PWU understands that the Board does not intend to solicit views of stakeholders on the goals of the Directives this should not prevent Stakeholders from assisting the OPA and the OEB by submitting alternative analysis if the Directives increase the risk of detrimental consequences to the electricity consumers in Ontario.
7. On page 4 the Draft Report states that "the Supply Mix Directive is the minimum that must be achieved". This is a target and there is no assurance that the target can be achieved and as such the Board should contemplate a mechanism that would be used to deal with the circumstance where it becomes evident (through the planned OPA updates to the Board) that it is not practical or economically prudent to be able to achieve the target. If this occurs, not only should the OPA be required to update the Board, but it should also propose revised targets and options to remediate the shortfall. Stakeholders should be provided appropriate opportunity to make substantive submissions on the revised plans.
8. On page 5 the Draft Report states that "the Supply Mix Directive are the minimum that must be achieved". This wording throughout the document should be changed to "planned to be achieved"
9. On page 5 the Draft Report states that the "OPA will need to address how the IPSP allows for the use of natural gas capacity at peak times... in an economically prudent manner". The Draft Report has removed the requirement on the part of the OPA to provide a gas price forecast. The Board should direct the OPA to provide a gas price forecast along with the basis and assumptions underpinning such forecast. Absent a rigorous forecast the OPA will not be able to demonstrate the economic prudence of the use of natural gas.
10. On page 5 the Draft Report refers to cleaner sources. The PWU submits that the definition of cleaner sources should include clean coal technologies. The Board and OPA should define the reference point for the evaluation of cleaner sources as today's emission levels on a plant by plant basis that future projects will be measured against.
11. On page 6 the Draft Report, notes that the "Directive states that the IPSP must strengthen the transmission system to: enable the achievement of the supply mix goals set out above; facilitate the development and use of renewable energy resources such as wind power, hydroelectric power and biomass in parts of the province where the most significant development opportunities exist; and promote system efficiency and congestion reduction and facilitates the integration

of new supply in a manner consistent with the need to cost effectively maintain system reliability." The OEB should make it clear that this should not be done at the expense of, or to the disadvantage of other resources without the economics and other factors being fairly weighed.

12. On page 6 (and elsewhere in the Draft Report) the Board has directed the OPA to demonstrate that the IPSP ensures adequate system reliability. The Board should direct the OPA as part of the reliability requirement, not only for the coal replacement components, but for all aspects of the IPSP, demonstrate how each contributes to system reliability including provision of load following capabilities.
13. On page 6 it is not clear what the Board intends when it quotes the Directive "earliest practical time and adequate generating capacity and reliability". It is not clear how this would be assessed. It would be helpful if the OPA or the Board provided some guidance on how this will be determined and measured.
14. On page 7 the Board has directed the OPA to demonstrate that the IPSP is sufficiently resilient to ensure that the plan's goals can be achieved. However, the Board has not provided any framework or test for resilience.
15. On page 7 the Board asks the OPA to describe the basis on which it chose a solution that is not the least cost option. Absent a reference point for least cost it will not be clear what trade off will be used by the OPA in selecting a plan that is not least cost. The Board should direct the OPA to submit a least cost reference plan that is not constrained by the Directives. In this manner the Board and stakeholders will then be able to determine the true tradeoffs between a least cost plan and the proposed OPA plan.
16. On page 8 the Board states that "it is expected that the OPA will use its consultation process to foster a greater and more widespread understanding" of the regulatory streamlining. It is not clear when this ought to be done. In the current OPA stakeholdering process there is no provision for this task. The Board should be clear as to their expectations as to what, when and how this will be done.
17. On page 9 where the Board requests periodic updates the Board should include the points raised under item 7 above.
18. On page 11 the Board directs the OPA to provide load reduction from natural conservation. The OPA should be directed to provide historical data and analysis that demonstrates the basis for determining its natural conservation assumption as well as the forecasted natural conservation along with all key assumptions used.
19. On page 12 the Board directs the OPA to identify the load growth or decline associated with electricity commodity prices. The Board should clarify that it

intends the OPA to provide some sensitivity analysis based on price and or price ranges.

20. On page 12 the Board directs the OPA to provide weather corrected data. This should apply for both the forecast as well as historical data. For historical data variances from forecast both actual and weather corrected should be provided.
21. On page 13 item (iv) the Board should require the OPA to include in their reliability assessment the ability to load follow.
22. On page 14 the Board outlines 6 activities for the OPA related to the IPSP. A seventh activity "Risk Assessment" should be added. In all sections of the plan (near, medium and long term) the OPA should be directed to identify the key risks to achieving the proposed plan, the potential impacts if those risks materialize, how the OPA would propose to deal with those risks should they emerge, and/or the steps that the OPA would propose to take to reduce the likelihood of the risk materializing. These risks should also be incorporated in the measures proposed on page 23 of the Draft Report.
23. In Section II the Board describes how it intends to address the Procurement Process. The PWU recommends that the Board include in this review of the PP the major processes related to the OPA selling electricity. Given that the OEB is dealing with the PP this is an appropriate time to deal with any proposed sale of electricity by the OPA as there are similar issues that should be assessed together, especially given that such activities could be taken to facilitate market evolution as outlined in the OPA's IPSP planning documents
24. Given that the Board has chosen not to review the Pre-IPSP Projects the OPA should be directed to include sufficient information in the IPSP plans for stakeholders to examine and determine the impact that these projects may have on an optimal IPSP and the sensitivity that various load factor utilization of the Pre-IPSP projects could have in future years.
25. It would be helpful to stakeholders if the OPA and the OEB defined projects will be ranked (i.e. the criteria that they will consider and use the input submitted by stakeholders).
26. To facilitate the transparency of the consideration and ranking of stakeholder proposed analysis, the Board should direct the OPA to develop and provide stakeholders assumptions regarding exchange rates, discount rates, interest rates etc for the various scenarios. The OPA should provide these to stakeholder in the consultation phase and be required to identify any changes to these assumptions at the time that the OPA files their plan with the Board.
27. On page 13 the Board states that "the OPA will have identified resources based on a consideration of alternatives ...and present the smallest number...". This

consideration should include a reasonable assessment of each option available based on commonly accepted evaluation and ranking methodologies. Therefore, the PWU recommends that:

- i. The OEB should direct the OPA to define and must demonstrate how good planning practices and principles and commercial practices have been used in arriving at the IPSP
- ii. Where the Board directs the OPA ((3 a) General) to identify the criteria that the OPA will use in evaluating, selecting and prioritizing the generation resource the Board should direct that those criteria should also include the OPA's rationale for the weighting of the criteria..
- iii. As part of its review and assessment of Conservation Resources the Board should direct the OPA to assess and quantify the risks associated with all proposed activities

28. Page 19 The Board should add as part of "e) Generation resources outside Ontario" that the OPA must provide the estimated delivered cost of power and the risks associated with these projects and the mechanisms that will be required to underwrite the projects along with any Federal or Provincial approvals and special tax requirements.

29. With regard to the "Evolution of Preferred Plan", the PWU recommends that for any project that requires the decommissioning of existing facilities the Board should direct the OPA to provide all costs and risks associated with the decommissioning. For planned phase out of any existing generation facility the OPA should be directed to provide a cost estimate for "idling" the generation until phase out is completed or the costs and risks associated with a change in commercial practice (e.g. shorter term or spot market acquisition of coal and impact on the cost of coal)

30. On page 22 the Board states that the OPA must file both the OPA's preferred plan and the plan with the lowest identifiable cost. This should not be a choice between only two options but rather the OPA should be directed to file plans while identifying the OPA's preferred plan. The OPA should therefore be directed to file three to four plans and sensitivities along with the OPA's preference and the rationale for their preference. The remaining plans should likewise be scored to illustrate how and on what basis the OPA selected their preferred alternative.

31. On page 22 the Board describes the Evaluation of the Preferred Plan. The PWU is concerned that given the unprecedented magnitude of the changes and new undertakings that the government is contemplating for the Ontario electricity market that it may be impractical to effectively resource all the proposed projects and changes given the current and projected human resources and mix of

technical skills. The OPA should therefore be directed to assess the practical aspects of implementing the proposed plan (and alternative plans) and assessing the resource risks that each plan could face and how these resource shortfalls will be managed.

PROCUREMENT PROCESS

1. The OPA should be directed to develop practices that provide adequate planning and timing of procurement to avoid short notice and rush procurement activities.
2. The Board in accordance with the Act should direct the OPA to submit for the OEB's approval any proposed change to the approved procurement practices. Such review and approval should be under an OEB approval process that allows for public comment.

ENVIRONMENTAL EXTERNALITIES

Environmental externalities should not be considered in reviewing the IPSP. The government has issued directives to the OPA and the OEB will have instructed the OPA through the final version of this document (i.e. filing requirements). Throughout the OPA Stakeholder IPSP process the OPA has not provided adequate information to effectively assess environmental externalities. In addition, the government has already made policy choices mandating certain levels of CDM and renewables, etc. The incorporation of externalities at this point would simply repeat the process, and will likely give rise to insurmountable controversy and complication. As such it would be impractical at this point to consider Environmental Externalities.

The primary objective of the OPA and the OEB is to complete the IPSP process complete and to facilitate a timely process for approval, contracting and construction of the required resources. At the moment there is inadequate data to carry out rigorous Environmental Externalities analysis. It would be time consuming and expensive to do so in a rush to meet the timelines of the IPSP. Moreover, it is inevitable that there will be significant disputes with respect to the proper methodology and interpretation of the data. There is a serious risk that the entire process will be bogged down by this issue, and that the other important issues will not be addressed thoroughly, or in a timely way.

Moreover, the Minister's directive has rendered the issue of Environmental Externalities moot. The IPSP would need to factor in all forms of generation and CDM to properly assess Environmental Externalities. Assuming that a rigorous application of Environmental Externalities showed that a supply mix outside of the Directive was most

"cost effective" (using a Social Cost Test analysis), neither the OPA nor the OEB would appear to have the jurisdiction to do anything about it. In other words, the key parameters that might be otherwise affected by an Environmental Externalities analysis have already been determined by government policy.

The OPA's IPSP process assumes no implementation (for the entire 20 year study period) of Locational Marginal Pricing, Load Serving Entities and Day Ahead Markets. As a consequence it is impractical to fairly assess the Environmental Externalities in this context as the Directive and assumptions would not allow for the first IPSP to properly assess Environmental Externalities in any credible manner.

The current IPSP has already been extended to include facilities approval. It is critical to the electricity market and Ontario to keep the IPSP on track for OEB spring 2008 approval. Including a controversial and complex topic at this late stage could negatively impact the IPSP timing with no material change in the IPSP.