

EB-2006-0064

Ontario Energy Board

Setting Payment Amounts for Output from Ontario Power Generation's Prescribed Generation Assets

September 7, 2006

Electricity Market Investment Group Presentation Materials

**Robert G. Power
Blake, Cassels & Graydon LLP
199 Bay Street, Suite 2800
Toronto, Ontario
M5L 1A9**

**E: robert.power@blakes.com
T: 416.863.2434
F: 416.863.2653**

TABLE OF CONTENTS

| | Page |
|--|-------------|
| 1.0 OVERVIEW | 1 |
| 2.0 ONTARIO’S HYBRID MODEL IN TRANSITION..... | 1 |
| 3.0 ROLE OF THE OPG PRESCRIBED ASSETS IN ONTARIO’S HYBRID ELECTRICITY MARKET..... | 2 |
| 4.0 THE BOARD’S OBLIGATION TO WEIGH HYBRID MARKET POLICY OBJECTIVES..... | 5 |
| 5.0 PREFERRED METHODOLOGY FOR THE OPG PRESCRIBED ASSETS | 5 |
| 6.0 CONCLUDING COMMENTS | 7 |
| 7.0 RESPONSES TO BOARD QUESTIONS REGARDING REGULATORY CONTRACTS..... | 7 |
| 8.0 GENERAL QUESTIONS TO BE ADDRESSED BY ALL PRESENTERS: | 9 |

1.0 Overview

The Electricity Market Investment Group (“EMIG”) appreciates the opportunity to participate in the debate and decision before the Ontario Energy Board (“OEB”, or the “Board”), regarding the payment amounts for the prescribed generating assets (the “Prescribed Assets”) of Ontario Power Generation Inc. (“OPG”). The issues are complex and important, as the Board’s decision will be made within the very early stages of the evolution of the hybrid market and will have significant long-term implications.

EMIG submits that the Board has the jurisdiction and the obligation to consider the implications of any payment methodology for the Prescribed Assets on Ontario’s hybrid electricity model as a whole. The role and operation of OPG’s Prescribed Assets is critical to the success of the hybrid electricity market, which requires a strong symbiotic relationship between the regulated and competitive generation assets. OPG controls approximately 70% of the power available in Ontario. The non-prescribed assets account for 33%, and are composed of both relatively small seasonally influenced hydroelectric facilities and coal fired peaking facilities, both of which are limited in their ability to provide reliable long term power. The remaining 40% is large, reliable hydroelectric and nuclear base load power. OPG’s Prescribed Asset power is the dominant, most reliable volume available for long-term forward contracting in Ontario for years to come. This volume of power is the cornerstone for achieving the legislative and policy objectives of Ontario’s hybrid generation model. In a regulated contract model, this output is available for forward contracting.

Given the size and market significance of the Prescribed Assets output, the Board has an obligation to ensure that the payment methodology selected for these assets will not thwart the objectives of the hybrid model, including wholesale and retail competition, and the fostering of market-based generation investment (rather than OPA procured and ratepayer guaranteed). EMIG submits that the regulatory contract methodology best meets these objectives, as well as the additional legislative and policy objectives which apply.

2.0 Ontario’s Hybrid Model in Transition

EMIG understands that the Board will have read its submissions (of July 26, 2006), made earlier in this process and as such will highlight a few key elements here as context for the remainder of this submission.

EMIG supported the creation of the Ontario Power Authority (“OPA”) as a necessary vehicle to act as a creditworthy counterparty to contract with private sector generators and to reduce the role of OPG in meeting Ontario’s electricity needs. However, the transition of the Ontario hybrid market must now evolve to include:

- moving from the historic monopoly generation development model (which includes non-utility generation contracts with the monopoly), whereby customers or taxpayers assume all of the risk, to a greater role for the private sector in meeting customer energy needs while assuming associated risk;
- the development of generation competition, as multiple generation facilities produce and compete against each other on price and products;

- fostering a market which is open to all customers in Ontario, whereby multiple suppliers and electricity offerings are available to meet a wide range of customer needs, whether short, intermediate, or long term; and
- as the market fundamentals for private investment and meeting customer needs mature, the reduction of the OPA to a procurement agency of truly last resort, and a concurrent reduction in generation risk assumption by customers and taxpayers.

All of these objectives have been set out in the speeches of the Ontario Minister of Energy, and are embodied in the legislative framework.

In this context, the role of OPG's generation assets, both prescribed and non-prescribed, are critical to the overall success of the Ontario's hybrid market. Unless the output from OPG's assets are available for forward contracting, a forward market will not develop, and the private sector will not be willing to assume the risks associated with investing and financing in new generation capacity.

3.0 Role of the OPG Prescribed Assets in Ontario's Hybrid Electricity Market

The *Electricity Restructuring Act, 2004* instituted the hybrid model for Ontario's electricity sector. As noted in the Ministry of Energy paper, "*Electricity Transmission and Distribution in Ontario – A Look Ahead*" (December 21, 2004):

This legislation takes a balanced approach to energy policy ***by combining features of a regulated industry with those of a competitive electricity sector.*** (at p. 2). [emphasis added]

In this hybrid model, OPG occupies a critical, delicate, and complex position. The Ontario Government has determined that the retention of public ownership and regulated control of certain generation assets is in the public interest; however, the Government has also acknowledged that the market dominance of OPG can inhibit competitive forces in Ontario's electricity sector at a time when private investment is needed to ensure reliability and sufficiency of supply. Dwight Duncan, Minister of Energy described the hybrid model, its objectives, and the importance of limiting OPG's potentially detrimental influence on the market in his speech to the Independent Power Producers Society of Alberta on March 14, 2005¹ as follows:

That's why we're allowing the market to evolve by bringing Ontario's electricity sector to a point between these two extremes...

By combining regulated heritage generation facilities that provide continuous power, with other facilities that compete in the market.

And we believe that as we move forward in our transition, our market will grow stronger and more robust.

¹ Dwight Duncan, "Notes for remarks By The Honourable Dwight Duncan, Minister of Energy to the Independent Power Producers Society of Alberta 2005 Conference" (March 14, 2005) online: Ministry of Energy (Ontario) <<http://www.energy.gov.on.ca/index.cfm?fuseaction=media.speeches&speech=14032005>>.

Our objective is to create a stable, reliable and sustainable energy supply, while creating an investment climate that welcomes the private sector despite years of instability and uncertainty.

To provide a higher level of discipline on all electricity suppliers, and reduce the risks borne by Ontario ratepayers.

And to address the need for prices to reflect the true cost of power while balancing the need for fair and competitive electricity costs to support the sustainability of our economy.

In describing the government's hybrid model, he stated:

It was also designed to continue to limit OPG's market power as we move toward a more vibrant and competitive market.

This is a point that some have overlooked. We have regulated approximately 40 per cent of the output of the province, and about eight per cent is accounted for by long-term non-utility generation contracts dating back to the early 1990's. This leaves about half of the output unregulated and in the market.

But, of this 50 per cent, OPG owns and operates almost two-thirds. In addition, many of OPG's facilities are price-setters. We recognize the serious competition issues that this represents.

As OPG controls, by the Minister of Energy's accounting, approximately 73% of the power generation in the province, it is obvious that markets will not work for consumers without significant OPG power being actively put into the forward market. The majority of the output from the non-prescribed assets simply is not available most of the time. The majority is from relatively small hydroelectric plants lacking storage capability. Due to seasonal and yearly variability, these stations cannot reliably produce significant power consistently over the long term. The other non-prescribed generation, being coal based, is peaking only. As the Province has committed to closing the coal stations, this commitment creates significant uncertainty as to the forward availability of coal power.

EMIG supports the governments' stated objectives for the hybrid market particularly as it relates to customers and the reduction of generation risk for customers. The Minister's description of OPG's dominance and the need "to limit OPG's market power as we move towards a more vibrant and competitive market" is a critical issue. OPG can negatively influence the market through its effective control of the largest volume of power in the market, or through being ineffectively regulated. Ineffective regulation includes inhibiting directly or indirectly the availability of OPG power to the market. Either outcome – too much market power or market inhibiting regulation – will severely limit or potentially kill private sector investment risk assumption for new generation.

The means by which to incent OPG to operate, serve customers, and participate in the regulated aspect of the hybrid market has been one of the most important questions in the Ontario electricity market. Since the MacDonald Commission and the Market Design Committee, several

task forces and committees have recognized the critical importance of the relationship between incentives and OPG's behaviour and the sensitivity of the competitive component of the hybrid market to OPG's market power.

The extent of the deliberations on this issue provides a strong indication that any decision which affects or directs OPG's behaviour or output must be considered carefully, within the larger context – and complications – of the hybrid market.

The Electricity Conservation and Supply Task Force (the "ECSTF") in its January 2004 report highlighted this concern:

The position of OPG in the Ontario market represents a serious barrier to investment and effective competition, because of both dominant market position and its Government ownership.

The Government has signalled its intent to promote and significantly rely on private sector investment and market-based risk assumption in Ontario's electricity sector in the *Integrated Power System Plan Regulation* (O. Reg. 424/04). This regulation requires that the OPA reduce its generation procurement role over time through the creation of conditions advantageous to, and facilitative of, market-based investment.

The Ontario Government realizes that a healthy forward electricity market is key to the success of Ontario's hybrid model and will benefit consumers. The Ontario Government has further signalled its desire for private investment and participation in the Ontario electricity sector through its support for a forward contracting market, which is key not only to investment, but also to consumer needs:

Another aspect of the market that is currently underdeveloped is forward contracting. In many jurisdictions, large consumers and retailers are able to buy one, three or five year contracts for electricity deliveries from generators. In Ontario, when the previous government imposed a price cap on electricity shortly after market opening, they effectively killed the forward contracting market. Industrial consumers were basically left to the volatility of the spot market, with very little ability to hedge their risks at reasonable prices. ***Making the markets work for all consumers requires the availability of a variety of flexible products and service.*** (Ontario Energy Minister Dwight Duncan, Canada-Europe Roundtable for Business, The Ontario Club; May 31, 2005) [emphasis added]

As the Minister states, forward markets are good for consumers because it enables consumers, through a variety of products, to hedge their electricity pricing risks at a reasonable cost.

Thus, the large base-load hydroelectric and nuclear power which makes up the Prescribed Asset output is the key to the success of Ontario's forward market, and concurrent customer and investor needs.

4.0 The Board’s Obligation to Weigh Hybrid Market Policy Objectives

EMIG submits that the Board is obliged to consider the hybrid model structure and policy framework of the Government of Ontario in respect of the province’s electricity sector, and should endeavour to select the methodology for determining payments for output from the OPG Prescribed Assets which is consistent with the objectives of the hybrid market.

Section 1(1) of the *Ontario Energy Board Act, 1998* provides that the Board’s legislated objectives in respect of electricity are:

- To protect the interests of consumers with respect to prices and the adequacy, reliability, and quality of electricity service.
- To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale, and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry.

These objectives reflect government policy, the hybrid model and its balancing act: the interests of consumers; economic efficiency and cost effectiveness in generation; and the facilitation and the maintenance of a financially viable electricity industry.

The legislation is, to a large degree, not prescriptive. The government has wisely refrained from being overly prescriptive because the regulation of these objectives is complex, and is ever evolving. The transition of Ontario’s electricity sector from a government owned monopoly to a competitive investment market, while reliably supplying customers, is a continuous balancing act.

This proceeding, in accordance with *Payments Under Section 78.1 of the Act Regulation* (O. Reg. 53/05) is equally wise in its direction to the Board – while the regulation requires the Board to follow certain rules regarding some elements of the payments to be made, “form, methodology, assumptions and calculations used in making” a payment order is at the Board’s discretion, within the overall legislative framework.

Another legislative objective is that the OPA become the procurer of last resort. We note that this objective is enshrined in Regulation 424/04, whereby the OPA is required, in developing an integrated power system plan, to identify measurers “that will reduce reliance on procurement” for new generation. Forward power sales and meaningful price signals are the first steps towards this objective. At over 40% of Ontario’s supply, and the most reliable power supply, the OPG Prescribed Assets are key to this evolution to market-based signals and related investment. Only significant market-based investment will enable the OPA to reduce its role as desired by the Government, the OPA, and many stakeholders. The model for setting payments chosen by the OEB must be sensitive to the need for market-based investment to grow over time. If not, this legislated objective for the OPA and market-based investment will not be met.

5.0 Preferred Methodology for the OPG Prescribed Assets

In addition to the objectives set out in the Board Staff Discussion Paper, EMIG submits that any payment methodology must incent OPG to participate competitively in a forward market, so as

to foster a healthy market to support new generation investment. Without a forward market, private sector investors will have insufficient incentive to invest in the new generation capacity that Ontario requires to meet its looming supply crisis.

EMIG agrees with the conclusions of the London Economics report to the Board Staff dated May 19, 2006. EMIG supports the regulated contract approach as the best option for payments for output from the OPG Prescribed Assets. This model received the least consideration in the Board's Discussion Paper, yet it is successfully employed elsewhere (including in many important respects in Ontario right now such as the Bruce Nuclear Refurbishment Agreement, the Early Mover Agreements, Clean Energy Supply Agreements, etc). In contrast, the incentive regulation mechanism proposed by Board Staff has apparently not been utilized elsewhere in respect of a larger generating company, much less within a complex hybrid setting. Stakeholders therefore have a natural anxiety regarding the proposal advanced in the Board Staff's Discussion Paper, whether it will work and what the consequences will be.

We note that the ECSTF report specifically suggested (at p. 16, 68) "long-term regulated contracts" for heritage power capacity (i.e. the power from the OPG Prescribed Assets). The ECSTF also recognized that OPG heritage power would continue to have significant implications for generation competition and private supply, and that such implications must be effectively addressed if the Ontario hybrid model is to develop.

As stated above, EMIG believes that the mechanism for incenting OPG through prescribed asset payments can support the Government's objectives for competitive market-based generation. If OPG is incented through the payment mechanism to sell its power in the forward market, this can only stimulate market based investment, and a reduction in the OPA's procurement role.

Fostering competitive, open-market policies has a proven track record of promoting private sector investment in new generation capacity. For example, since the market opened, Alberta's competitive power producers have added almost 4000 MW of new supply, or approximately \$4 billion worth of new generation investment. Alberta's power supply has grown from 7570 MW in 1996² to 11400 MW in 2006³. In other words, non-regulated generation has increased the province's installed capacity by 50% within ten years. Additionally, all of the output from the legacy stations, with the exception of one legacy station, has since been sold in the wholesale market.

Regulated contracts also provide a comparable payment mechanism and potential level playing field with other generation investors in Ontario, thereby bringing transparency to the generation investment sector overall and increasing investor confidence.

In this proceeding, the OPA has advised the OEB, through its submission, that the adoption of the incentive regulation methodology could hinder private sector investment necessary to secure adequate electricity supplies in Ontario. Given the OPA's responsibility to devise the IPSP and to advise as to the medium and long term needs of the electricity sector, the OEB should accord appropriate weight to the opinions rendered by the OPA, in fulfilment of its planning and advisory responsibilities.

² Canadian Energy Research Institute (CERI), "The Alberta Electricity Market: analysis and price forecast" (June 2000) at 3.

³ Alberta Electric System Operator (AESO), "Current Supply and Demand" online: <www.aeso.ca>.

The OPA has significant experience in designing and negotiating regulatory contracts (“RCs”). The submission of the OPA as to the ability to design and negotiate RCs for OPG’s Prescribed Assets is persuasive and should be carefully considered by the Board.

Interestingly, the Board already has some experience in reviewing regulated generation contracts and asset payment principles. The Board’s decision with respect to the Lennox Generating Station “must-run” contract considered a number of the contract elements which would likely be considered in a regulated contract for OPG’s Prescribed Assets. The OPA has extensive experience in these matters, as does the Ministry of Energy.

EMIG also submits that there is merit in setting payments for OPG’s Prescribed Assets within the context of the IPSP, which will significantly inform stakeholders regarding the future of many of the elements of the hybrid model, and OPG’s role within the next evolution of the hybrid model.

6.0 Concluding Comments

EMIG strongly encourages the Board, for the reasons set out above, to adopt the regulated contract approach. This methodology is the best option for setting payments from the OPG Prescribed Assets. It has been successfully implemented both in the province and in other jurisdictions, and has the support of the OPA, which has oversight of Ontario’s medium and long term electricity needs. More fundamentally, a regulated contract approach is methodology most likely to encourage private sector investment and participation in Ontario’s energy sector, and thereby promote the interests of consumers and the province’s economy.

7.0 Responses to Board Questions Regarding Regulatory Contracts

1. *How would payment amounts under the regulatory contracts be determined? Would all of the output of OPG’s prescribed assets be covered by the regulatory contracts? If not, how would payment amounts for the remainder of the output be determined?*

Payment amounts under RCs could be determined through Board-approved mechanisms. The payment mechanisms could be similar to how the Ontario Ministry of Energy or the OPA payment mechanisms work in those contracts. In essence, the Board will consider the type of operating asset (nuclear, hydro electric) and would form a view regarding the appropriate elements of the payment mechanism. This has been done for a wide range of facilities, including large cogeneration plants (e.g. Trans-Alta Energy Corporation’s Sarnia plant), large combined cycle gas plants (e.g. Sither’s Goreway Station plant), and even complex nuclear facilities (e.g. the Bruce Nuclear Refurbishment Agreement). The Bruce Nuclear Refurbishment Agreement was negotiated by the Ontario Ministry of Energy, and involved the Ministry setting a floor and a ceiling for the payment amount to Bruce Power, to refurbish, restart, operate and maintain the Bruce A nuclear facility at an estimated capital cost of \$4.25 billion. Such a contract involves a wide range of factors which can be considered in determining the payment mechanism.

The OEB Staff Discussion Paper raises concerns regarding the possible difficulty of negotiating a RC. The Bruce Nuclear Refurbishment Agreement demonstrates that RCs can

be structured for very complex generation stations with long-term refurbishment and operating requirements.

It is proposed that all of OPG's Prescribed Assets would be covered by contracts. OPG would have the option of selling power into the spot, day-ahead, and forward markets.

2. *Is it contemplated that the financial benefits of the contract would all flow to OPG, or is it contemplated that (or should) only some pre-defined, capped portion of the contract amount would be paid to OPG as an "incentive" to make this energy available?*

It is contemplated that only some pre-defined capped portion of the contract amount would be paid to OPG as an "incentive". The OEB would set the return on investment which is appropriate for OPG's Prescribed Assets, which would determine the cap.

3. *What would be the basis for determining the quantity and level of incentive available to OPG to sell some of the output from the prescribed assets in the forward market?*

Regarding the quantity of output, this would be determined by the commercial principles other generators apply. Generators generally utilize a portfolio approach, whereby some power is sold into the spot market, while other power is sold forward. This is a commercial approach, which balances risk and reward.

Regarding the level of incentive, while OPG could sell its power at market rates, its revenues and therefore profits would be limited in accordance with Answer 2, above.

The OEB could establish the level of incentives for OPG to sell forward, and any forward contract meeting this criteria would be sold forward.

4. *How would risk to ratepayers and OPG differ under an RC methodology compared to CoS or IR?*

It will take years to determine the appropriate Cost of Service or Incentive Regulation methodology, and even then, there is little certainty that these methodologies will work for competitive generating assets. It is likely that customers will have to absorb OPG's operating risk and cost overrun risk, as under a Cost of Service or Incentive Regulation mechanism, such costs would likely accrue to the customer unless the costs were found to be imprudent.

An RC for OPG can, based upon the Bruce Power Refurbishment precedent, be negotiated within a year. RCs impose strong barriers to "cost creep", subject to clearly defined exclusions for appropriate costs. Customers will therefore have longer term price certainty, and a strong business discipline will be imposed on OPG.

5. *What would the Board be required to approve? If both prices and terms and conditions of the contracts are to be approved, what other information would need to be filed?*

Contract elements for approval may include:

- ♦ a revenue cap

- ♦ a floor price
- ♦ the legislatively prescribed payments for certain costs
- ♦ volume of power to be sold forward.

6. *What are the efficiency advantages of the RC methodology for OPG? How would consumers gain from increases in efficiency?*

OPG could earn significantly more by selling forward. At a minimum, this will create efficiencies by causing OPG to focus on cost containment through locking in future revenues. This is an important advantage, as a weakness in the cost of service and the incentive regulation methodologies is that they tend to be dominated by cost-based objectives and by cost-based incentives. Consumers would gain through a variety of additional products and short, medium, and long-term prices to meet their needs. Wholesalers and retailers in turn will be incented to compete, and drive down prices over time, as in other markets.

7. *What duration(s) for the contracts should be considered?*

Contracts would be for terms of 1, 3, or 5 years, or longer as may be found appropriate.

8.0 General questions to be addressed by all presenters:

1. *How will recovery of the amounts in the variance and deferral accounts as contemplated in Regulation 53/05 be addressed when using the methodology that you are proposing?*

The Board would authorize as appropriate.

2. *Comment on the type/detail of information that would need to be filed to support the methodology that you are proposing.*

Much of this can be identified in the Bruce Power Refurbishment agreement and in the OPA contracts for new generation.

3. *Suggest a preliminary list of issues that would need to be addressed in the first proceeding.*

- ♦ Floor price and revenue cap
- ♦ Calculation of deferral and variance accounts
- ♦ Principles of the market power mitigation and appropriate consumer rebates, if any.