Staff Discussion Paper

Regulatory Options for Setting Payments for the Output from OPG's Prescribed Generation Assets

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1.0 Introduction

Under section 78.1 of the *Ontario Energy Board Act, 1998* (the "Act"), the Board will determine the payments to be made to Ontario Power Generation Inc. ("OPG") with respect to the output of certain of OPG's generation facilities (the "prescribed assets") that currently receive payments set by regulation. The *Payments Under Section 78.1 of the Act Regulation*, O. Reg. 53/05 ("Regulation 53/05") establishes April 1, 2008 as the date on which the Board's authority to determine those payments commences. Section 78.1 of the Act and Regulation 53/05 are reproduced as Appendix A to this Discussion Paper.

On March 21, 2006, the Board issued a letter to all interested parties setting out the process to be followed for establishing the methodology by which payments in relation to the prescribed assets would be determined by the Board.

This Discussion Paper has been prepared by Board staff as an initial step in that process. It describes different regulatory options that could be used to set payments for the prescribed assets, as well as advantages and drawbacks of each. The paper includes a staff recommendation for the methodology to be used for the Board's initial setting of payments for the output from OPG's prescribed assets.

2.0 Background

2.1 Electricity Conservation and Supply Task Force

In January 2004, the Electricity Conservation and Supply Task Force ("ECSTF") delivered its final report to the Minister of Energy. One of the recommendations in the report was to replace the "Market Power Mitigation Agreement (MPMA)"[1] with a simpler arrangement based on "heritage (power) contracts". "Heritage power" is defined in the report as:

> "Power provided from existing Government-owned assets which is sold to ratepayers at a price that reflects the historical costs of the associated assets."

The provinces of British Columbia and Quebec have heritage contract arrangements for selling most of the power generated from provincially-owned hydroelectric facilities. These contracts with government-owned distributors set prices paid for energy and may specify the volume of energy that must be delivered to the distributors (Quebec). In the case of British Columbia, contract delivery volumes are not specified but any shortfalls are made up through market-priced purchases. Surpluses are exported at market prices.

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[1] The MPMA was a negotiated agreement between OPG and the Market Design Committee that set revenue rebates from OPG to consumers based on floor prices for energy and specific decontrol targets for OPG's "price setting" and total generation capacity. This agreement was implemented by means of conditions in the licence of OPG and other entities.

Discussion at the ECSTF focussed on the specific assets of OPG that would best fit a "heritage power" designation. OPG's nuclear and hydroelectric assets were commonly thought to be the most likely facilities to be designated as "heritage" and, as noted below, these are the assets that have now been prescribed by the Government.

2.2 The Prescribed Assets

The prescribed assets are the nuclear facilities operated by OPG (Pickering A and B nuclear generating stations ("N.G.S.") and Darlington N.G.S.) and OPG's base load hydroelectric facilities (Sir Adam Beck I, II and pumped storage, De Cew Falls I and II, and the R.H. Saunders generating station on the St. Lawrence River).

2.3 Prescribed Asset Payments

Regulation 53/05 prescribes the payments that are made for output from OPG's prescribed assets and states that these apply for the period from April 1, 2005 until March 31, 2008 or the day before the effective date of the Board's first order under section 78.1 of the Act in relation to OPG's prescribed assets. The nuclear facilities receive $49.50 per megawatt hour. The payment amount for energy produced by the prescribed hydroelectric facilities is $33.00 per megawatt hour for the first 1900 megawatt hours of output in any hour. Output greater than 1900 megawatt hours in any hour receives the market price. This financial incentive encourages OPG to maximize output from the prescribed hydroelectric facilities and to produce power when it is most needed, i.e., during periods of high prices.

These payments are settled in a manner similar to a two-way contract for differences, and are in essence a price guarantee for OPG's prescribed asset output. OPG offers the energy into the market and is compensated through the wholesale settlement system of the Independent Electricity System Operator (the "IESO"). When average market clearing prices (Hourly Ontario Energy Price or "HOEP") are higher or lower than the prescribed asset payments, the difference is incorporated into the global adjustment that is credited or charged to market participants through the IESO.

2.4 Rules for the Board's Determination of Payments

Regulation 53/05 requires OPG to establish a variance account and a deferral account, and contains certain rules that must be followed by the Board when it determines the payments to be made for output from OPG's prescribed assets. The rules refer to how amounts recorded in the deferral and variance accounts will be recovered, the source of certain financial values for the first payment determination by the Board and the specific recovery of costs from the nuclear waste disposal agreement with the Province and the lease of the Bruce nuclear station.

Regulation 53/05 identifies a significant proportion of the costs that the Board must include as a revenue requirement for the prescribed assets. However, the costs identified in Regulation 53/05 are not exhaustive. The Board may consider other costs in its determination of the payments for the prescribed assets.

2.4.1 Recovery of Costs Recorded in Variance and Deferral Accounts

OPG must establish a variance account that records costs incurred on or after April 1, 2005 in relation to a variety of matters, and must establish a deferral account to record non-capital costs incurred on or after January 1, 2005 that are associated with the return to service of units at the Pickering A nuclear generating station. The Board must ensure that OPG recovers any balance recorded in the variance account over a period not to exceed three years to the extent that the Board is satisfied that the costs recorded in the account were prudently incurred and accurately recorded. The Board must also ensure that OPG recovers any balance recorded in the deferral account on a straight line basis over a period not to exceed 15 years.

2.4.2 Recovery of Other Costs

Regulation 53/05 also deals with the recovery by OPG of the following other costs:

Investments to increase output of, refurbish or add capacity to the prescribed assets: if the Board confirms that these costs or firm financial commitments are within the project budgets approved by OPG's board of directors before the making of the Board's first order under section 78.1 of the Act or the Board is satisfied that they were prudently incurred, then the Board must ensure that OPG recovers these costs or firm financial commitments.

Nuclear waste: the Board must ensure that OPG recovers all the costs it incurs in connection with the Ontario Nuclear Funds Agreement.

Bruce N.G.S.: the Board must ensure that OPG recovers all costs it incurs with respect to the Bruce N.G.S. (both A and B).

2.4.3 Other Rules

Regulation 53/05 contains the following additional rules relating to the determination by the Board of payment amounts for OPG's prescribed assets:

Acceptance of values from OPG's financial statements: for its first payment order, the Board must accept the values in OPG's most recently approved and audited financial statements for the following measures: assets and liabilities; earnings from any lease of the Bruce N.G.S.; and costs with respect to the Bruce N.G.S. This specifically includes values relating to the deferral account for Pickering A non-capital costs; capital cost allowances; the revenue requirement impact of accounting and tax policy decisions; and investments to increase the output of, refurbish or add operating capacity to the prescribed assets.

Lease earnings: if OPG's earnings from the lease of the Bruce N.G.S. exceed the costs incurred for the Bruce stations, the excess is to be applied to reduce the payments with respect to the output of the prescribed nuclear assets.

3.0 Objectives of the Board's Proceedings

The determination of the appropriate approach to setting payments for the prescribed assets is driven by the substantive objectives of the Board, as well as the Board's responsibility to provide an effective, fair and transparent process.

The two objectives in the *Ontario Energy Board Act, 1998* with respect to electricity are:

- to protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electric service; and,
- 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.

Both of these objectives are fundamentally important to the Board's setting of payments for the output from OPG's prescribed assets.

These objectives also demonstrate the need to both protect the interests of consumers and ensure the financial viability of the electricity industry. This is reflected in the Board's Key Business Objective from its 2006-2009 Business Plan: "To provide sound economic regulation that balances the interests of consumers with the need for a financially viable energy sector." This balancing is primarily concerned with trade-offs between the interests of consumers in obtaining reliable service at a low cost, and the interests of the regulated company and its shareholder in receiving sufficient revenues. This is not to suggest that regulated companies and their customers are inherently adverse in interest. They have many common interests, such as price stability, and reliability and quality of service. In a market environment, these interests are reflected in the intersection of supply and demand. In a regulated environment, these interests are reflected by the regulator's balancing of interests.

In addition to this balancing requirement, the Board also has the objective of achieving efficient and cost effective outcomes. Efficiency can be defined in a number of ways. The Board's key focus in this regard is to encourage productivity gains that are enduring and for the benefit of both the regulated company and the consumer. This means that regulated companies have incentives to manage costs while maintaining or improving their service levels. This objective is less about balancing than about identifying incentives that provide both consumer benefits and opportunities for the regulated company.

In addition to its substantive objectives, the Board must also ensure that it makes decisions through regulatory processes that are effective, fair and transparent. This requirement is also reflected in the Board's 2006-2009 Business Plan. The Board's concern with regulatory process is driven by both its statutory obligations and by the Board's belief that an open debate over the issues before it will lead to better decisions.

There are many ways to address the value of openness in decision making. Sometimes, this involves the adjudicative process. However, the Board has a number of regulatory instruments at its disposal. The challenge is often in finding the best instrument to suit the underlying purpose of the regulation. For example, where specific and detailed factual findings are required to support a decision, the adjudicative process provides a level of scrutiny that will allow this. On the other hand, where the Board is seeking to provide clear guidance, rules, codes and guidelines are more effective. In either case, the important point is that the Board has the opportunity to hear from stakeholders to assist in its decisions.

The goals of balancing interests, achieving efficiencies and ensuring an open process are not conflicting, but they may lead in different directions. They therefore constrain each other. In the end, the Board's approach to setting payments for output from generation assets, like its responsibilities more generally, will require an application of its judgment and expertise in these areas.

4.0 Regulatory Models

Setting payments for generation will be a new activity for the Board. In principle, it could be considered analogous to setting transmission and distribution rates for electricity. In both instances similar issues arise about determining the appropriate capital structure and cost of capital, examining operating costs and capital expenditure budgets for need and benefit, and assessing the appropriate sharing of risks and benefits that arise from normal operations.

Although there are similarities between these two payment setting exercises there is a very significant, and fundamental, difference between the types of entities that are being regulated. There are numerous precedents for regulatory control and rate regulation for natural monopoly enterprises such as pipelines and electricity transportation systems. Generation is not a natural monopoly and securing the benefits of competition has been an often cited reason for competitive restructuring of the electricity sector in a number of jurisdictions. There are few, if any, examples of regulators setting payments for generation alone (rate setting for vertically integrated utilities that include generation, transmission and distribution is commonplace).[2]

The regulatory models presented in this paper are derived from standard regulatory procedures for traditionally regulated industries as well as from some approaches that may not typically be used by an economic regulator.

[2] Research commissioned by the Board found no examples of rate or payment regulation for stand-alone generation through a regulatory proceeding. Precedents may exist but they are either not documented or subordinated in reports of other proceedings.

4.1 Cost of Service

Cost of service ("CoS") ratemaking is the "standard" regulatory model used for decades by regulators in numerous jurisdictions.

CoS usually begins with a monopoly service provider applying to the regulator for a change in its compensation levels. In its application, the applicant will make a case, supported by financial and cost information, that a change in compensation is justified for specific reasons. These reasons can be numerous and varied but are usually the result of increased real costs in providing and maintaining service levels, the need for new capital investment, inadequate returns to shareholders or a change in capital structure.

The regulator examines the evidence submitted and based on its assessment of need and the applicant's filed information makes a determination of whether the applied for change in compensation is justified. The regulator may grant the request as filed, grant a different change in the level of compensation based on (among other things) determinations regarding the evidence submitted, or, reject the application altogether.

CoS proceedings can be lengthy, focussing on a detailed evidentiary record and occasionally on some of the less commonplace financial accounting questions. In a complicated rate case, or an initial filing where the issues and controversial elements are not well defined, a CoS proceeding can be very costly to the regulator, the applicant and intervenors. Generally, CoS proceedings set rates (or payments) for a specific period of time (in many cases, one year) and require another filing to change the level of compensation. On the positive side, CoS proceedings lead to certain outcomes for the applicant, resulting in financial certainty and a clear delineation of how risks are allocated. CoS proceedings can, in the absence of resource limitations, allow for a very rigourous examination of specific cost accounts and the identification of efficiency opportunities.

If a full CoS model were to be used, OPG's financial and cost accounts would have to be segmented by production technology, i.e., nuclear and hydro-electric. Questions would arise about accounting methods, allocation of corporate overhead costs, appropriate capital structures and rates of return on equity.

To avoid some of the complexities and related costs associated with a full CoS proceeding, the Board could consider a modified CoS process. Specifically, the Board could accept the existing payments prescribed in Regulation 53/05 as a "base payment", and then focus on establishing the changes that should be made to the base payment. These payments were established by the Government and are based on forecast production volumes and total operating costs, including the cost of capital and assuming an average five percent return on equity.

Over several years the Board could examine all major issues by addressing single topics, or a roster of topics, annually. In the case of the prescribed assets, mature production facilities with well-known operating costs and budgeted capital expenditures for maintenance and renewal, a partial CoS proceeding spread over several years may be appropriate. A modified CoS process would likely reduce costs for the Board and for intervenors but would still require considerable effort by OPG to provide evidence. Another advantage of a modified CoS process would be the ability of the Board and intervenors to concentrate their resources on specific segments of OPG's costs in a single proceeding instead of spreading resources widely to examine the entire range of costs in one proceeding.

One major disadvantage of a CoS-type process, whether full or modified, is that it provides little incentive for the rate regulated entity to improve efficiency and reduce costs. The outcome of a CoS proceeding allows the regulated entity to recover a specific level of costs with a high degree of certainty. Once awarded a specific payment to recover approved costs, the regulated entity is unlikely to undertake to reduce these costs, knowing that future proceedings will re-examine them. All other things being equal, lower costs in the future will result in decreased revenue requirements and reduced payments.

The lack of efficiency incentives in CoS-type decisions is one factor that has led to the development of alternative regulatory methods and processes. These alternatives substitute regulatory incentives for the discipline of the market to reduce costs and improve operational efficiency.

4.2 Incentive Regulation

Incentive regulation ("IR"), also referred to as Performance Based Regulation, has become a popular method of reducing the regulatory costs associated with rate setting proceedings while securing productivity savings for consumers. The Board is currently developing IR regimes for the gas and electricity distribution sectors.

An incentive regulation approach to the Board setting payments for OPG's prescribed assets could begin in two ways; one based on cost of service and the other based on existing payment amounts.

The first method itself has two options. First, the Board could require OPG to submit cost information similar to what is required for a full CoS proceeding. The Board would, following a comprehensive cost review, determine an appropriate initial base payment amount that would be in effect for a specific time, e.g., five years. This would be similar to a full CoS proceeding. Second, the Board could set base payments based on a partial cost examination, in which case the base payments would be in effect for a shorter time. This would be similar to a modified CoS process. In this case, the Board would initially examine only certain aspects of OPG's cost structure, e.g., OM&A costs, return on equity and capital structure. In selecting the items to be considered, the Board could consider factors such as the views of interested parties as to the items that are of greatest importance or the proportion of total costs represented by specific items. In subsequent proceedings, the Board would examine different cost accounts and make changes to the base payment as required to reflect its findings. Ultimately, all of OPG's costs would be subject to an in-depth examination conducted over a longer period of time and through several proceedings. This would reduce OPG's annual compliance costs and intervenors' participation costs compared to full CoS or IR proceedings.

Under the second method, the Board could in setting the initial base payment accept the payments in Regulation 53/05 assuming that these payments result in revenues sufficient to meet OPG's costs and provide a return on equity. This method would reduce the initial costs of all participants in the proceeding. In addition, this method would in the short term likely result in lower payments than might be expected under a CoS process. There is a risk, however, that these initial payments may not provide sufficient revenue to enable OPG to recover all of its future costs, which could in turn result in short-term cost cutting in order to maintain returns on equity.

After the initial base payment has been set using either of these approaches, the process associated with an incentive regulation regime would be the same.

The most common example of incentive regulation applies a cost inflation and productivity factor formula to a base payment, e.g. Payment Level = (Base Payment) x (Inflation Index – Productivity Index). The inflation index accounts for expected cost increases for OPG's factor inputs (capital, labour, materials) while productivity indices are usually developed from a historical analysis of productivity trends. An inflation index can be relatively simple – a projection of widely reported indices such as the CPI or industrial input costs – or complex – a weighted average of projected cost increases for specific inputs for OPG's facilities.

Developing productivity indices is a complex process and could entail the Board commissioning a study of OPG's historical cost data to derive a suitable index. Questions about the adequacy and accuracy of data would be an issue. In addition, OPG has significant assets, costs and revenues associated with "non-prescribed" generation facilities. These facilities operate in a different pricing environment from the prescribed assets but can share administrative, maintenance and other costs with the prescribed assets. The limited ability of OPG to identify and allocate costs to the prescribed assets on a historical basis would therefore also be an issue, and there may be a need to rely on allocation assumptions or rules of thumb.

However, these complications are offset by advantages of the longer-term approach of incentive regulation – once set, the payment level adjusts according to the formula for a period of years and requires only minimal regulatory attention to address extraordinary circumstances. Even if the Board were to choose a partial cost examination approach that results in base payment changes, the cost escalation and productivity formulae would remain. As a result, regulatory costs for non-OPG participants are reduced significantly compared to other regulatory methods such as CoS that require more frequent proceedings, although OPG may incur compliance costs similar to a CoS process because of the initial filing to support a productivity analysis. This, together with the issues associated with using historical OPG data identified above could, however, be avoided or minimized if the Board were able to rely instead on examples and practices from other jurisdictions. While perhaps not fully reflective of OPG's particular circumstances, i.e., generation only, these examples and practices could be sufficiently similar to support a productivity analysis.

The Board would also have to ensure that OPG does not increase its net returns by cutting costs inappropriately. One method of doing this would be to set the payment as a unit payment based on projections of OPG's output from the prescribed assets over the period during which the IR mechanism is in effect. OPG would have an incentive to maintain its facilities and increase production because higher output would result in higher gross revenues. The Board could also establish a revenue sharing factor for output above the projected level to ensure that consumers, as well as OPG, benefit from productivity increases beyond expectations that are reflected in the formula.

Another issue that the Board could address with incentive regulation is ensuring that OPG's prescribed generation output is available to the Ontario market when it is most valuable to consumers, i.e., during peak demand periods. The Board could consider a "two-part payment", combining incentive-based unit payments that compensate for variable costs and "sculpted, capacity payments" that compensate for fixed costs and give OPG an incentive to make generation available. "Sculpted payments" could vary seasonally (summer and winter peak payments greater than off-peak payments) or even daily (higher peak hour payments vs. off-peak hour payments). The Board could selectively apply these capacity-like payments to the most appropriate facilities, i.e., pump storage or dam-based hydroelectric may be most appropriate for daily sculpting while nuclear and "run-of-the-river" hydroelectric may be more suited to seasonal payments.

These capacity payments need not be "all or nothing" payments but could also be bifurcated with a base payment and premiums for production during peak periods. For example, a base payment could ensure a flow of revenues whether the facilities are on-line or not and could generate revenues adequate to keep facilities well maintained. The premium payment could represent the return on capital or equity and would only be made when the facility was on-line and delivering electricity to the grid.

The prescribed facilities are primarily base load generating units[3] and would not generally be considered candidates for "gaming" of capacity payments, i.e., declaring a facility to be on-line and available when the grid is congested to secure a capacity payment while avoiding the variable costs of operation. However, the Board may want to thoroughly examine the potential for gaming related to capacity payments before establishing similar payments for these generation units.

Incentive regulation uses regulatory incentives to substitute for market signals to influence operating decisions. On a going forward basis, the Board would need to

[3] The Niagara pump storage facilities appear to be an exception to the base load category. As indicated below, Board staff are suggesting that the Board may want to consider treating these facilities differently than the remainder of the prescribed hydroelectric assets because of their peak load serving potential.

monitor any incentive regulation regime to ensure that the intended behaviours are being encouraged and to make adjustments if needed.

4.3 Regulatory Contracts

Currently, the output from new generation facilities that are being built in Ontario are subject to long-term supply contracts between the Ontario Power Authority and prospective generators. These contracts generally have compensation provisions that guarantee cost recovery and a specific return on invested capital. A portion of the contractual revenues are recovered from selling the generator's output into the market and the remainder, if needed, is collected through a "top up" payment that is recovered from market participants through the global adjustment. In the event that market prices result in revenues in excess of the contracted levels, the IESO retains the over payment as a credit to market participants also in the global adjustment. In effect, these contracts are long-term, two-way "contracts for differences" with gross revenue limits in place of a "strike price".

Conceptually, OPG's prescribed assets could also be compensated through a similar set of contractual arrangements. This could be done by means of a formal contract or contracts with a suitable counterparty or counterparties, or by means of a "regulatory contract" mechanism consisting of a regulatory accounting process developed by the Board and subject to Board oversight. Several contracts could be struck, based on the type of generation with different revenue requirements for hydroelectric and nuclear facilities. These contracts could be for any length of time up to the remaining accounting life of the individual generating assets. However, this option has significant complexities to overcome in developing the contract terms, determining a suitable counterparty or counterparties (if a formal contract mechanism is used) and addressing settlement issues.

This option would require OPG to separate its cost accounts by generation type – something that OPG may have to do for either a CoS or an initial incentive type regulatory regime. Therefore, the regulatory costs for OPG under a contractual approach may be no different than for the other regulatory alternatives. Again, as with the other regulatory options, the Board could choose to accept the payments set out in Regulation 53/05, and the associated costs that were used to determine those payments, as a starting point for setting revenue requirements for the contracts.

A bifurcated payment mechanism could be used to bring market forces into the contractual arrangements to encourage efficient operation of the assets. OPG's total compensation would be comprised of two separate payments:

- a minimum fixed kilowatt-hour payment by generation type that guarantees recovery of OPG's verified unit costs (operating, capital and depreciation); and,
- a variable payment, linked to the market price, would constitute a return on equity. The variable payment would be linked to the HOEP through a proportional

formula based on the historical average percentage of the price represented by OPG’s actual return on equity since market opening.

Any excess resulting from the difference between HOEP and the sum of the fixed and variable payment amounts would be rebated to the market.

In addition, similar to the incentive regulation productivity arrangements, an I-X productivity formula could be added to the fixed payment to drive cost efficiencies to reduce unit operating costs. The Board could also impose an “excess earnings sharing mechanism” when OPG’s return on equity exceeds a threshold level in a particular year because of higher than expected market prices or revenues earned from other sources such as sales of ancillary services.

One attractive feature of the regulatory contract option is that the Board need not have the annual, or periodic, review process that is required in a CoS process. Also, the Board would not have to conduct a productivity study to determine “X factors” as in the incentive regime unless it were to add the I-X productivity formula referred to above. Compared to the other regulatory models, the regulatory contract option is more complicated because of the complexity in determining the contract terms and in relation to implementation issues such as settlement. However, the IESO has considerable experience in conducting complicated settlements (such as those associated with the OPG rebate, the global adjustment and OPA procurement contracts).

5.0 The Regulatory Models – Board Staff Evaluation

In this section, Board staff sets out its evaluation of each of the different regulatory options described above. That evaluation has been informed by the oral and written comments of interested parties on the first and second drafts of this Discussion Paper. It has also been informed by Board staff’s view of where the prescribed assets “fit into” the Ontario energy sector and by Board staff’s assessment of how each regulatory option fares against certain regulatory criteria.

5.1 Context

The Board is not setting payment amounts for the prescribed assets in a policy vacuum. Asking *why* OPG’s prescribed assets are rate regulated (and the associated question of why the Board has been asked to assume that responsibility) is relevant when considering *how* those assets should be rate regulated by the Board. As such, it is instructive to consider the rationale(s) that underlie(s) the decision by the Government of Ontario to subject the prescribed assets to longer-term rate regulation.

When the initial payment amounts for the prescribed assets were announced in February, 2005, the Government noted that regulating the price of the prescribed assets would “reduce price volatility and have a stabilizing effect on electricity prices, which will be of benefit to all consumers”, and that the initial payment amounts would provide an incentive for OPG to contain costs and maximize efficiencies. Board staff also notes that the report of the OPG Review Committee – “Transforming Ontario’s Power Generation Company” (commonly referred to as the Manley Report) had previously recommended that performance-based rate making ultimately be used to “drive better performance at OPG”. It was also noted that the five per cent return on equity that is currently built in to the payment amounts for the prescribed assets would “generate revenue to service the OPG debt held by the Ontario Electricity Financial Corporation, while putting significant discipline on OPG to contain costs and improve overall operating efficiencies”. [4]

The restructuring of the electricity sector that occurred in 2005 did leave a wholesale electricity market in place and functioning. The fact that the prescribed assets are under rate regulation in and of itself is indicative of a move away from market pricing as the primary basis for the remuneration of their output. If market-based pricing was the intended outcome, there would be little need for (or value in) regulatory review of the payment amounts.

Rate regulation of OPG’s prescribed assets is also intended to guard against OPG profiting from its market power. The ECSTF cited market power concerns as one reason for adopting “heritage contract”-type compensation for a portion of OPG’s production in order to remove it from unfair competition with private power.

Regulation 53/05 is another element of the context in which the Board is being asked to determine payment amounts for the prescribed assets. Provisions of that Regulation both mandate the recovery of certain costs by OPG, and dictate the source of some of the cost (and other) information, at least insofar as the Board’s first order is concerned. Board staff notes that OM&A costs, which can be responsive to productivity or efficiency incentives, are not the subject of prescriptive requirements in Regulation 53/05 even in relation to the Board’s first order.

5.2 The Value of the Regulatory Process and Board Staff’s Regulatory Criteria

Within the above context, Board staff has also asked why the Government has assigned responsibility for the payment determination task to the Board rather than simply continuing to set the payment amounts by regulation. The Government’s approach is consistent with its “commitment to ensure politics are taken out of electricity pricing in the province”.[5] The approach also inherently recognizes the value associated with the Board’s expertise and with Board proceedings generally. Board staff is of the view that, in endowing the Board with this new responsibility, one of the key objectives is to bring the Board’s expertise to bear in a fair, open, efficient and transparent process in which interested parties would have an opportunity to express their perspective.

With that in mind, Board staff has articulated certain regulatory criteria against which to consider each of the options of a process perspective:

[4] Ontario Ministry of Energy Backgrounder: “Ontario Government Announces Prices on Electricity from Ontario Power Generation”, February 21, 2005.
[5] *Ibid.*

- transparency: comments received to date reveal that transparency – in the sense of access to, and an opportunity to examine, information – is of paramount importance to a large number of interested parties.

- fairness: interested parties should have a fair opportunity to explore relevant issues with sufficient rigour and depth.

- regulatory efficiency: some regulatory processes are more resource- and time-intensive than others. The fact that a process is lengthy and/or requires significant Board and participant resources does not necessarily make it inappropriate. It is important, however, that the time and resource costs associated with a particular option not exceed the benefits that can be expected to be achieved through that option.

- consistency: there is value in the certainty achieved by taking a longer-term perspective and applying a consistent regulatory approach over a number of years.

5.3 Board Staff's Evaluation

Based on the above and consideration of the Board's statutory objectives, Board staff believes that the task before the Board is to determine payment amounts that can continue to limit exposure to price volatility, provide price stability for consumers and contribute to the mitigation of OPG's market power while maintaining OPG's financial integrity and maximizing opportunities for efficiencies and cost containment in OPG's operations.

Board staff is of the view that the legal framework associated with its mandate in relation to the prescribed assets does not dictate the selection of any particular methodology, nor does it necessarily favour the selection of one methodology over another. Thus, selection should be determined by identifying the methodology that is best suited to meeting the above objectives on a sufficiently timely basis with the greatest degree of transparency, fairness, regulatory efficiency and consistency. The sections that follow evaluate each regulatory option using the above as an evaluative framework.

Salient comments received from interested parties are included in the discussion of each option below. By way of summary, one form of another of each of the regulatory options was cited as the preferred approach by different interested parties. Those that preferred CoS highlighted that a full CoS approach can provide the greatest opportunity to bring OPG's costs under close scrutiny. Others expressed concern about the time, cost and resources required under that approach. Those that favoured incentive regulation noted the importance of achieving efficiency gains in OPG's operations. Others voiced the view that productivity incentives would be ineffective for a company in

OPG's situation. Those that preferred the regulatory contracts model stressed its more "market friendly" nature. Others indicated that "market friendliness" is not the issue and that any benefits of the model may be outweighed by the complexities involved.

5.3.1 Cost of Service

Interested parties that expressed a preference for a CoS-type proceeding did so predominantly because it provides an opportunity for an in-depth examination of OPG's costs. Some of these same parties, as well as others, expressed reservations about the time and resources required to complete a CoS proceeding. Some interested parties expressed concern that current Board resources would be insufficient to support a CoS proceeding of this magnitude, with the result that there would be significant delays in the timing of the Board's decision and additional costs. Other interested parties stated that a single, full CoS proceeding that examined all of OPG's prescribed asset cost accounts could yield no better than a superficial, incomplete and possibly inadequate evaluation of OPG's filing because of limited intervenor and Board resources.   The option of a series of annual partial CoS proceedings that examines a portion of OPG's costs was seen as a way to address concerns over Board and intervenor resource issues.

Full cost of service proceedings on an annual basis are particularly resource-intensive and are not likely to result in economically efficient responses from the regulated party. In fact, efficiency incentives may be reversed. One interested party told Board staff that "cost of service regulation means that the more you spend, the more you earn." Although this may be an overstatement of one of the principal deficiencies of CoS, it is recognized that a CoS does not inherently promote economic efficiency and productivity improvement.   A partial CoS proceeding reduces the resources required for any given proceeding but it does not address this principal deficiency.

Neither full nor partial CoS is the most efficient model in the sense that both require considerable time and resources. Both variations of CoS have the potential to be the most transparent (in the sense of access to and examination of information) of the options considered, and a well-managed CoS proceeding can provide valuable information to the Board and intervenors.   That said, the regulated entity may be suspected by parties of having an incentive to overstate costs and to select and interpret information in a manner that supports its particular objectives. As a result, considerable time and resources can be expected to be spent in verifying the accuracy and appropriateness of the information filed by the regulated entity.

Critics of CoS often cite "information asymmetries", e.g., the regulated entity's disproportionate access to information and resources relative to that of intervenors, as a serious deficiency. These perceived asymmetries make it more difficult to ensure that CoS proceedings are, and appear to be, fair to all participants. Asymmetries can be addressed in part, but not completely, by instruments such as procedural orders and filing guidelines that ensure greater information disclosure.

A CoS methodology can result in a consistent and well understood regulatory process that can be supported well into the future. The longevity of CoS processes in other jurisdictions, and other industries, attests to this consistency.

5.3.2 Incentive Regulation

Incentive regulation (IR) is the Board's preferred methodology for setting future gas and electricity distribution rates. Some interested parties noted this Board preference and felt that IR could be applied to OPG's prescribed assets. Other interested parties thought that IR was inappropriate and would be ineffective in encouraging cost efficiencies in a Crown-owned generator with corporate objectives and priorities that differ from those of an investor-owned utility.

IR proceedings usually start from a CoS-type basis – a determination of an applicant's revenue requirement based on rigourous examination of a cost and other information filing. However, IR departs from the CoS-type proceeding by what it does with the revenue requirement and cost and other data.

One of the regulatory efficiency advantages of IR is the ability to set a payment level and then have it automatically adjust over a period of years based on cost inflation and productivity factors. Developing the cost inflation and productivity factors typically calls for an analysis of an applicant's historical costs and performance. This analysis can be quite dense, using various econometric and statistical techniques that require expert assistance. However, if applicant data is insufficient to support a productivity analysis, then other methods such as "benchmarking" can be used to set a productivity factor. Similarly, instead of using actual cost data from an applicant, widely collected statistical indices can be used as cost inflation factors or can be used to construct an "applicant specific cost inflation factor". In either case, the results of these analyses are straightforward although the statistical techniques used to develop these indices can be complex. Once data is collected and the cost and productivity factor analysis prepared, an IR process can proceed in a timely and efficient manner.

Compared to CoS, IR's data requirements are no more onerous. Similar to a CoS approach, a traditional IR treatment for OPG's prescribed assets would require the calculation of a revenue requirement and a forecast of output to set a base payment amount. Also, similar to a "modified" CoS approach, an IR proceeding may require multiple proceedings before a base payment for the IR formula can be determined. However, once the base payment and adjustment factors have been determined, an IR regime does not require annual proceedings to reset payments like a CoS approach.

Board staff notes that IR regimes have become a preferred regulatory methodology in response to the perceived deficiencies of CoS, although some CoS-type determinations can formulate a portion of an IR approach. Board staff concludes that IR methodologies can be as transparent as CoS proceedings, although the focus of the proceeding and associated issues may be narrower. Board staff also believes that IR processes can be more efficient than CoS proceedings because of the longer-term application of an IR formula once it has been developed. In terms of resources, an IR processes' potentially narrower focus compared to CoS reduces the likelihood of the information asymmetries referred to above. Board staff also notes that regulatory consistency is supported through the longer-term focus of an IR formula. The basic formulaic approach suggests that fundamental issues and concerns are not of a transient nature and can be best addressed through longer-term evolutionary changes in the regulated entity's operating practices.

5.3.3 Regulatory Contracts

Some interested parties noted that the regulatory contract option is the most "market friendly" of the proposed models and would offer the best opportunity to introduce market incentives into OPG's management and operations of the prescribed assets. Another advantage of a contract approach that was cited by some interested parties was the potential for these contracts to be traded on an exchange with the benefit of increasing wholesale market liquidity and controlling OPG's ability to exercise market power. Some interested parties expressed the view that the Board should not be concerned with the issue of market orientation and should be concerned solely with choosing the best methodology to support the Board's objectives and regulatory criteria.

However, Board staff does not believe that the choice of regulatory methodology should be based on a preferred view of the future end state for Ontario's electricity industry without specific policy direction that defines that end state. Even interested parties that support this model have conceded that there is little indication of whether and when Ontario's electricity sector may return to a more market-based orientation. Absent specific policy direction in this regard, Board staff advocate that the choice of methodology should be "policy neutral" in the sense of allowing the Board sufficient flexibility to adjust the methodology to respond to specific market policy direction in the future. Regulatory contracts depend on fairly specific policy goals and institutional and sector stability to negotiate contract terms and conditions. If the basic business environment changes as a result of policy changes or one of the contracting parties no longer exists, then the status of an existing regulatory contract would become uncertain.

Board staff notes that the regulatory contract model can, depending on how it is implemented, provide interested parties with the least amount of disclosure regarding OPG's cost information and may provide less of an opportunity for involvement by interested parties. Although Board staff expect that the Board would, through a public proceeding, provide significant direction on the broad concepts and terms and conditions that would form the basis of a regulatory contract, it is likely that the negotiating parties will raise additional issues and details during the negotiations.

The Board has been entrusted with the statutory responsibility of determining payment amounts for the prescribed assets. Board staff does not believe that the Board can cede that responsibility to the negotiating parties. Accordingly, Board staff contemplate that the negotiated contract terms and conditions would then be subject to regulatory review in a public proceeding. To the extent that the negotiated terms and conditions are not suitable, the Board would be faced with the difficult decision of requiring the negotiating parties to start anew (which could engender delays) or of imposing different terms and conditions based on the results of the regulatory review. This potential outcome raises questions about the regulatory efficiency and consistency of the regulatory contract methodology.

6.0 Generic Issues and Recommendations for Addressing Them

A number of issues raised by interested parties are "generic" in the sense that they may need to be addressed regardless of the methodology by which payment amounts are determined.

6.1 Rates of Return

As noted earlier, in setting the current payment amounts a return on equity ("ROE") of 5 percent was used. Specifically, it was noted by OPG's shareholder, the Government of Ontario, that "[W]hile the standard ROE for North American utilities is ten per cent, a five percent ROE will generate revenue to service the OPG debt held by the Ontario Electricity Financial Corporation, while putting significant discipline on OPG to contain costs and improve overall operating efficiencies".[6] A market-based rate of return was therefore not considered to be required in relation to the prescribed assets, at least within the context of the period for which the initial payments were set and the conditions associated with those initial payments.

Interested parties raised this issue and the related issue of OPG's capital structure on more than one occasion in discussions with Board staff.

Board staff notes that the evaluation and determination of rates of return is an issue that is routinely addressed in cost of service and IR proceedings in setting the rate base. However, Board staff proposes that the Board not address the issue of rates of return in its first proceeding. Examination of appropriate rates of return will be better informed after the Board and intervenors have access to the financial and other data that Board staff is recommending the Board require OPG to file quarterly (see section 7.0.2.b). This information will help the Board to determine better the operational and cost context of the prescribed assets that the RoEs will apply to and the appropriate comparators for these assets.

6.2 Payment Structures

Earlier in this Discussion Paper, Board staff identified that structured ("sculpted") payments may be an appropriate means of encouraging the efficient operation of OPG's prescribed assets and/or a way to match payment methods with cost characteristics, i.e., fixed costs are matched to fixed payments. Board staff notes that this issue did not generate a lot of discussion among the interested parties with the exception of OPG.

[6] *Ibid.*

Board staff recommend that the Board examine the appropriateness of applying differential payment structures by cost category and generation type as a method of encouraging OPG to make energy available when it is most needed and to drive cost efficiencies.

6.3 "Z" Factors and "Off Ramps"

"Z" factors and "off ramps" are used in multi-year IR formulations to address the impact of unforeseen events that affect costs or revenues in the payment/rate setting formula. Board staff notes that OPG has created deferral and variance accounts as required by Regulation 53/05 in order to record certain costs associated with specific deviations in production relative to the forecast conditions and assumptions used in setting the initial payment amounts.

Board staff recommends that, if the Board chooses to adopt IR as the payment-setting methodology, then within the context of the provisions of Regulation 53/05 the Board examine the need for mechanisms to account for unanticipated events and conditions that could have a material impact on OPG's payments and/or cost recovery in the first proceeding for possible application as an adjustment to the base payments in the first order or for application to the results of future proceedings. Only events and conditions that are beyond OPG's control should be considered as suitable for "Z" factors or "off ramps".

6.4 Service Quality Indices

"Service quality indices" (SQIs) are frequently associated with IR formulations. However, SQIs could be included in CoS regimes and regulatory contracts as well.

SQIs allow for quantitative verification that the regulated entity is maintaining service levels as a condition for receiving full, or enhanced, compensation from the IR formula. SQIs are therefore intended to prevent entities regulated under an IR methodology from increasing net revenues by cutting costs through service reductions.

Board staff recommends that the Board consider the inclusion of SQI's as one method (payment structures are another method) to encourage OPG to maintain service levels and/or the performance metrics of its prescribed assets. These SQI formulations might include capacity factor or output targets based on specific asset capabilities.

7.0 Recommendations as to Payment-Setting Methodology

7.1 Overview

Based on the evaluation set out above, Board staff believes that IR is the methodology that is best suited to the fulfilment of the Board's task as described in the opening paragraph of section 5.3 and does so with the requisite degree of transparency, fairness, regulatory efficiency and consistency. The basic IR formula would be as follows (and could be enhanced by “Z-factors” and “off-ramps”):

a) Payment $^{t+1}{}_{n,h}$ = Base Payment$^{t}{}_{n,h}$ x (Inflation Factor$^{t+1}{}_{n,h}$ – Productivity Factor$^{t+1}{}_{n,h}$);

b) Base Payment$^{t}{}_{n}$ is the payment for output from the prescribed nuclear facilities in year t;

c) Base Payment$^{t}{}_{h}$ is the payment for output from the prescribed hydroelectric facilities in year t;

d) Inflation Factor $^{t+1}{}_{n,h}$ is a specific input cost inflation factor by output type for year t+1;

e) Productivity Factor$^{t+1}{}_{n,h}$ is a specific productivity factor by output type for year t+1.

The more difficult question is the basis on which the elements of an IR formula (base payment, cost inflation index and productivity factor) should be determined.

Board staff has struggled, and expects that the Board will struggle, with this question in light of the unique issues and challenges associated with setting payments for OPG’s prescribed assets. On this issue, Board staff believes that the special nature of the task calls for a long-term vision and a short-term practical approach to realize that vision.

Board staff understands the importance that interested parties have placed on being given an opportunity to closely examine the costs associated with OPG’s prescribed assets. Clearly, a CoS approach would provide that opportunity. A CoS proceeding is, indeed, the traditional method of determining whether a regulated entity’s costs – and therefore its earnings - are reasonable. Board staff is of the view that, were CoS to be the preferred means of determining the base payment, the resource and timing concerns expressed by a number of interested parties could be overcome and some of the deficiencies of CoS (notably information asymmetries) could be adequately addressed.

Board staff believes, however, that in this particular case a CoS proceeding will not at this time answer the question of whether OPG’s prescribed asset costs and earnings are reasonable, nor will a proceeding that examines OPG’s historical costs and output necessarily provide a better basis for determining an appropriate inflation index and productivity factor than would existing statistical indices or benchmarking studies, respectively. There are no prior Board-approved figures to use for trend analysis purposes. Until OPG’s cost and other financial information is better understood, it is difficult to identify whether any potential comparators or cohorts can be used for reliable base payment comparator analysis purposes. In addition, as noted earlier there are significant challenges in relation to the allocation of OPG’s total costs as between the prescribed assets and OPG’s other assets. Board staff has therefore concluded that the benefits of a CoS approach for purposes of setting the base payment of the IR formula are not, at this time, commensurate with the time, complexities, resources and costs associated with a CoS proceeding. Board staff believes, however, that OPG's filing to the Board may be useful in informing the determination of the productivity factor portion of the IR formula.

Board staff has also taken into consideration the objectives of reducing price volatility and increasing electricity price stability. A full CoS proceeding may result in payments that are quite different (and presumably higher) than current payments.

Board staff also believes that the Board should move towards ultimately being able to answer the two following questions. First, what *does* OPG earn on the prescribed assets? Second, what *should* OPG earn on the prescribed assets? To that end, the Board should commence an examination of OPG's historical cost and other financial information. That examination should commence concurrently with the first proceeding to determine payments for OPG's prescribed assets, as the information may have relevance to the determination of the productivity factor to be applied. The examination would enable the Board to determine an appropriate accounting and reporting framework for the prescribed assets. OPG would then be required to make quarterly informational filings on its costs and financial data over several years. The information could be the subject of periodic examination and scrutiny by the Board and interested parties.

Board staff therefore generally recommends that the Board initially use the existing payment levels as the base payment, and that it apply cost input inflation and productivity factors to these payment levels to establish a first set of new payment amounts. Details of how this recommendation would apply to each of the prescribed assets, as well as suggested alternative treatments for certain assets, is set out below. GDPPI or another suitable cost index should be used as the cost input inflation factor. Unless OPG's filing to the Board provides a basis for determining otherwise, benchmarking studies should be used as a basis for determining a suitable productivity factor. Determination of the cost index and productivity factor would be the subject of a hearing before the Board. The Board will also need to ensure that this approach allows for the recovery of the variance and deferral account balances as required by Regulation 53/05.

In summary, Board staff recommends an initial incentive regulation formula be applied to the existing base payments while at the same time, laying the foundation to permit a full cost-of-service review in the future. Laying the foundation entails OPG filing quarterly financial and cost information, which may or may not, allow for the adjustment of prices in the interim period until a full cost-of-service review is completed.

7.2 Specific Recommendations (see Appendix A for proposed timeline)

a.) Board staff recommends that OPG be required to file certain cost and other financial information relating to the prescribed assets in advance of the hearing to determine the payment amounts for those assets. That information would be used to enable the Board to establish an appropriate accounting and reporting framework for the prescribed assets, and may also be useful in determining an appropriate productivity factor. Board staff recommends that the Board establish filling requirements for OPG's initial filing following consultation with interested parties, and that the going forward accounting and reporting framework be established in a hearing before the Board.

b.) Board staff recommends that OPG be required to make quarterly informational filings of its costs and other financial information relating to the prescribed assets in accordance with the accounting and reporting framework referred to in paragraph (a). That information could then be used by the Board:

i.) as appropriate to re-set the base payment, the input cost inflation index and/or the productivity factor in later years;

ii.) to establish a future regulatory framework for OPG's prescribed assets which may include, among other things, an analysis of OPG's financial performance and capital structure to determine the actual RoE that has been earned by these assets; and;

iii.) to assess the impacts of the deferral and variance accounts on OPG's financial performance.

c.) Board staff recommends that, for the prescribed nuclear assets, the Board initially use the existing payment level of $49.50/MWh as the base payment. That base payment should be adjusted by input cost inflation and productivity factors, both of which should be established in a hearing before the Board.

d.) Board staff recommends that, for the prescribed hydroelectric assets:

i. the Board consider in its first proceeding the impact of capital expenditures for the Beck tunnel expansion on OPG's costs and revenue requirement;

ii. the Board initially retain the existing payment structure whereby some of the output of the hydroelectric facilities receives the market price, but recommends that the Board consider whether the existing threshold of 1900 MWh should be changed to encourage more efficient use of these assets;

iii. the Board examine a market-based price, i.e., HOEP or some other price, for setting payments for output from the Beck pump generation facility with the objective of maximizing the efficient utilization of this asset; and

iiiv. for the facilities and output that do not receive the market price, that the existing payment level of $33/MWh be used as a base payment. That base payment should be adjusted by an input cost inflation factor and by a productivity factor, both of which should be established in a hearing before the Board.

e.) Board staff recommends that the Board examine incentives for OPG to maximize the efficient use of the prescribed nuclear assets, i.e., maximizing availability in peak demand periods. This may include "sculpted" payments (see i.), below), but may take other forms.

f.) Board staff recommends that the Board set an input cost inflation factor to be applied to the base payments by using a suitable, established statistical index such as GDPPI.

g.) Board staff recommends that, unless OPG's filing to the Board provides a basis for determining otherwise, the productivity factor to be applied to the base payment be established on the basis of benchmarking studies, and that the Board commission its own study for that purpose.

h.) Board staff recommends that the Board examine the need for "Z" factors and "off-ramps" as additional components of the basic IR formula to account for unanticipated events and conditions that are outside of OPG's control and that could have a material impact on OPG's payments and/or cost recovery.

i.) Board staff recommends that the Board consider the appropriateness and effectiveness of including provisions for payment structures in the future specifications of the IR formula with the objective of improving OPG's operating efficiencies.

j.) Board staff recommends that the Board consider the appropriateness and effectiveness of including provisions for SQIs in future specifications of the IR formula with the objective of ensuring that OPG maintains appropriate service levels in a multi-year IR regime.

k.) Board staff recommends that the first order be in effect for no less than one year. Ideally, the first order could be a multi-year order. The actual duration of the first order will be set after review of OPG's financial and cost information and a determination of the suitability of continuing to use the existing base payments in the incentive regulation regime.

In addition, the Board's first order will need to ensure recovery of the variance and deferral account balances as required by Regulation 53/05, as well as the recovery of the other costs referred to in that Regulation.

8.0 Conclusion

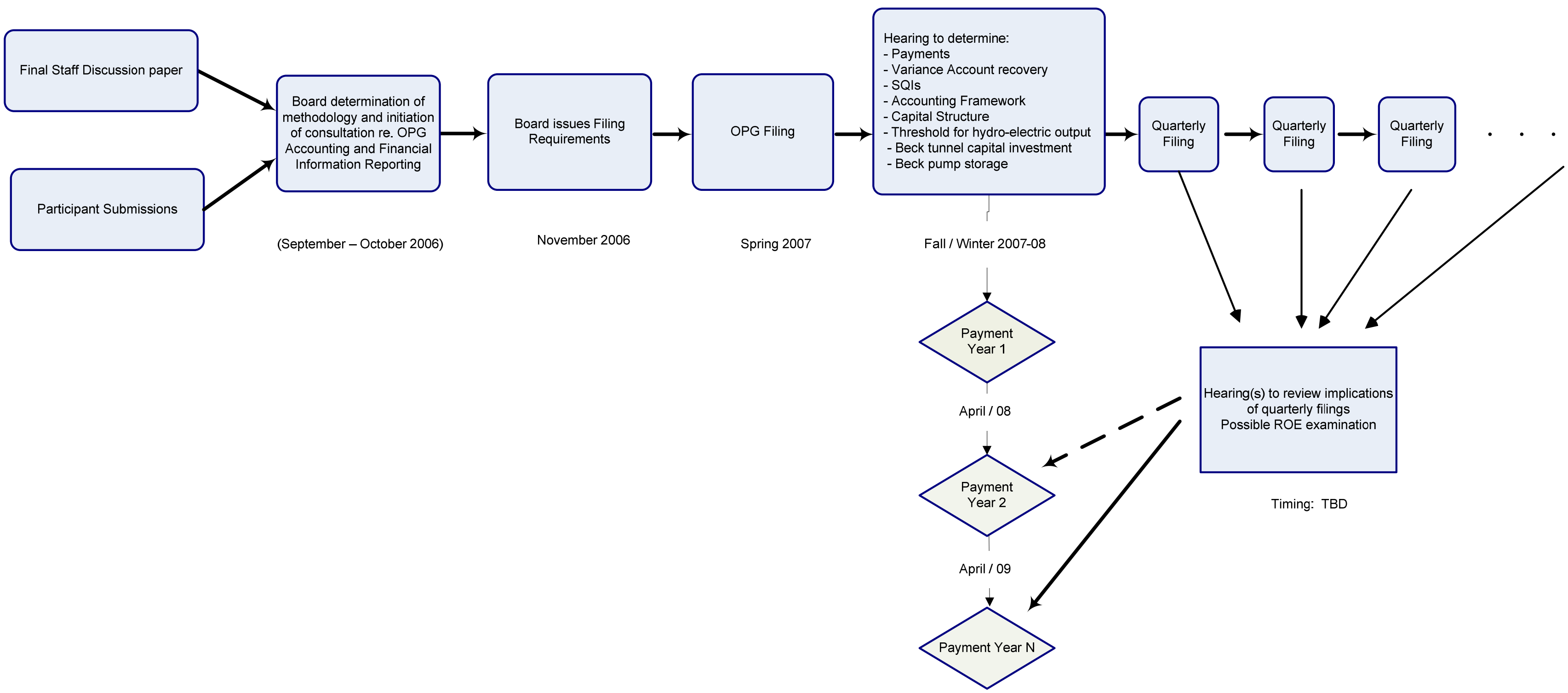
The purpose of this staff Discussion Paper is to generate discussion by interested parties about different approaches that the Board could use in determining payments for OPG's prescribed assets. The basic regulatory models, and their variations, presented are not an exhaustive listing of alternatives that could be considered by the Board.

Board staff's recommendations on the regulatory methodology reflects consideration of comments from interested parties and Board staff's evaluation of the relative ability of each methodology to satisfy the objectives and regulatory criteria referred to above.

Stakeholder comments on this draft of the Discussion Paper will be carefully considered and will help shape the next draft that will contain a final Board staff proposal to the Board on the methodology to be used to determine payments for the output from OPG's prescribed assets.

Appendix A

Setting Payments for OPG's Prescribed Assets: Timelines



Appendix B

Statutory References

A. Section 78.1 of the *Ontario Energy Board Act, 1998*

Payments to prescribed generator

78.1(1) The IESO shall make payments to a generator prescribed by the regulations, or to the OPA on behalf of a generator prescribed by the regulations, with respect to output that is generated by a unit at a generation facility prescribed by the regulations.

Payment amount

(2) Each payment referred to in subsection (1) shall be the amount determined,

(a) in accordance with the regulations to the extent the payment relates to a period that is on or after the day this section comes into force and before the later of,

(i) the day prescribed for the purposes of this subsection, and
(ii) the effective date of the Board's first order in respect of the generator; and

(b) in accordance with the order of the Board then in effect to the extent the payment relates to a period that is on or after the later of,

(i) the day prescribed for the purposes of this subsection, and
(ii) the effective date of the Board's first order under this section in respect of the generator.

OPA may act as settlement agent

(3) The OPA may act as a settlement agent to settle amounts payable to a generator under this section.

Board orders

(4) The Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Fixing other prices

(5) The Board may fix such other payment amounts as it finds to be just and reasonable,

(a) on an application for an order under this section, if the Board is not satisfied that the amount applied for is just and reasonable; or

(b) at any other time, if the Board is not satisfied that the current payment amount is just and reasonable.

Burden of proof

(6) Subject to subsection (7), the burden of proof is on the applicant in an application made under this section.

Order

(7) If the Board on its own motion or at the request of the Minister commences a proceeding to determine whether an amount that the Board may approve or fix under this section is just and reasonable,

(a) the burden of establishing that the amount is just and reasonable is on the generator; and

(b) the Board shall make an order approving or fixing an amount that is just and reasonable.

Application

(8) Subsections (4), (5) and (7) apply only on and after the day prescribed by the regulations for the purposes of subsection (2).

B. *Payments Under Section 78.1 of the Act Regulation* (Regulation 53/05)

Prescribed generator

1. Ontario Power Generation Inc. is prescribed as a generator for the purposes of section 78.1 of the Act.

Prescribed generation facilities

2. The following generation facilities of Ontario Power Generation Inc. are prescribed for the purposes of section 78.1 of the Act:

1. The following hydroelectric generating stations located in The Regional Municipality of Niagara:

   i. Sir Adam Beck I.
   ii. Sir Adam Beck II.
   iii. Sir Adam Beck Pumped Generating Station.
   iv. De Cew Falls I.
   v. De Cew Falls II.

2. The R. H. Saunders hydroelectric generating station on the St. Lawrence River.

3. Pickering A Nuclear Generating Station.

4. Pickering B Nuclear Generating Station.

5. Darlington Nuclear Generating Station.

Prescribed date for s. 78.1 (2) of the Act

3. April 1, 2008 is prescribed for the purposes of subsection 78.1 (2) of the Act.

Payment amounts under s. 78.1 (2) (a) of the Act

4.(1) For the purpose of clause 78.1 (2) (a) of the Act, the amount of a payment that the IESO is required to make with respect to a unit at a generation facility prescribed under section 2 is,

(a) for the hydroelectric generation facilities prescribed in paragraphs 1 and 2 of section 2, $33.00 per megawatt hour with respect to output that is generated during the period from April 1, 2005 to the later of,

(i) March 31, 2008, and

(ii) the day before the effective date of the Board's first order in respect of Ontario Power Generation Inc.; and

(b) for the nuclear generation facilities prescribed in paragraphs 3, 4 and 5 of section 2, $49.50 per megawatt hour with respect to output that is generated during the period from April 1, 2005 to the later of,

(i) March 31, 2008, and

(ii) the day before the effective date of the Board's first order in respect of Ontario Power Generation Inc.

(2) Despite subsection (1), for the purpose of clause 78.1 (2) (a) of the Act, if the total combined output of the hydroelectric generation facilities prescribed under paragraphs 1 and 2 of section 2 exceeds 1,900 megawatt hours in any hour, the total amount of the payment that the IESO is required to make with respect to the units at those generation facilities is, for that hour, the sum of the following amounts:

1. The total amount determined for those facilities under clause (1) (a), for the first 1,900 megawatt hours of output.

2. The product obtained by multiplying the market price determined under the market rules by the number of megawatt hours of output in excess of 1,900 megawatt hours.

(2.1) The total amount of the payment under subsection (2) shall be allocated to the hydroelectric generation facilities prescribed under paragraphs 1 and 2 of section 2 on a proportionate basis equal to each facility's percentage share of the total combined output in that hour for those facilities.

(2.2) Subsection (2.1) applies in respect of amounts payable on and after April 1, 2005.

(3) For the purpose of this section, the output of a generation facility shall be measured at the facility's delivery points, as determined in accordance with the market rules.

Deferral and variance accounts

5. (1) Ontario Power Generation Inc. shall establish a variance account in connection with section 78.1 of the Act that records costs incurred on or after April 1, 2005 that are associated with,

(a) differences in hydroelectric electricity production due to differences between forecast and actual water conditions;

(b) changes in nuclear electricity production due to unforeseen changes to the law or to unforeseen technological changes;

(c) changes to revenues assumed for ancillary services from the generation facilities prescribed under section 2;

(d) Acts of God, including severe weather events; and

(e) transmission outages and transmission restrictions.

(2) Ontario Power Generation Inc. shall establish a deferral account in connection with section 78.1 of the Act that records non-capital costs incurred on or after January 1, 2005 that are associated with the return to service of units at the Pickering A Nuclear Generating Station.

Rules governing determination of payment amounts by Board

6.(1) Subject to subsection (2), the Board may establish the form, methodology, assumptions and calculations used in making an order that determines payment amounts for the purpose of section 78.1 of the Act.

(2) The following rules apply to the making of an order by the Board that determines payment amounts for the purpose of section 78.1 of the Act:

1. The Board shall ensure that Ontario Power Generation Inc. recovers any balance recorded in the variance account established under subsection 5 (1) over a period not to exceed three years, to the extent that the Board is satisfied that the costs recorded in the account were prudently incurred and are accurately recorded in the account.

2. The Board shall ensure that Ontario Power Generation Inc. recovers any balance recorded in the deferral account established under subsection 5 (2) on a straight line basis over a period not to exceed 15 years.

3. The Board shall ensure that Ontario Power Generation Inc. recovers costs and firm financial commitments incurred for investments to increase the output of, refurbish or add operating capacity to a generation facility referred to in section 2, if,

    i. the costs and financial commitments were within the project budgets approved for that purpose by the board of directors of Ontario Power Generation Inc. before the making of the Board's first order under section 78.1 of the Act in respect of Ontario Power Generation Inc., or

    ii. the Board is satisfied that the costs and financial commitments were prudently incurred.

4. In making its first order under section 78.1 of the Act in respect of Ontario Power Generation Inc., the Board shall accept the values for the following matters that are set out in Ontario Power Generation Inc.'s most recently audited financial statements that were approved by the board of directors of Ontario Power Generation Inc. before the making of that order:

    i. Ontario Power Generation Inc.'s assets and liabilities.

    ii. Ontario Power Generation Inc.'s earnings with respect to any lease of the Bruce Nuclear Generating Stations.

    iii. Ontario Power Generation Inc.'s costs with respect to the Bruce Nuclear Generating Stations.

5. Without limiting the generality of paragraph 4, that paragraph applies to values relating to,

    i. the deferral account established under subsection 5 (2),

    ii. capital cost allowances,

    iii. the revenue requirement impact of accounting and tax policy decisions, and

iv. investments to increase the output of, refurbish or add operating capacity to a generation facility referred to in section 2.

6. The Board shall ensure that Ontario Power Generation Inc. recovers all the costs it incurs in connection with the Ontario Nuclear Funds Agreement entered into between Her Majesty the Queen in right of Ontario, Ontario Power Generation Inc. and certain subsidiaries of Ontario Power Generation Inc. as of April 1, 1999, including any amendments to that agreement.

7. The Board shall ensure that Ontario Power Generation Inc. recovers all the costs it incurs with respect to the Bruce Nuclear Generating Stations.

8. If Ontario Power Generation Inc.'s earnings with respect to any lease of the Bruce Nuclear Generating Stations exceed the costs Ontario Power Generation Inc. incurs with respect to those Stations, the excess shall be applied to reduce the amount of the payments required under subsection 78.1 (1) of the Act with respect to output from the nuclear generating facilities referred to in paragraphs 3, 4 and 5 of section 2.