SUMMARY OF APPLICATION

OVERVIEW
This is an application for an order of the Ontario Energy Board approving payment amounts for OPG’s prescribed hydroelectric and nuclear generating facilities effective March 1, 2011 based on a January 1, 2011 – December 31, 2012 test period. The revenue requirement requested in this application is based on forecast costs from January 1, 2011 through December 31, 2012. However, OPG is not requesting to make the new payment amounts effective until March 1, 2011 because of the timing of the application. As a result, OPG is foregoing recovery of the forecast increase in costs for January and February of 2011. The basis for the application can be found in Ontario Regulation 53/05 and section 78.1 of the Ontario Energy Board Act, 1998 (the “Act”)

OPG’s prescribed generating facilities consist of five hydroelectric generating stations and three nuclear generating stations. These stations offer their output into the IESO administered electricity market in accordance with the Ontario Market Rules. Further detail on the prescribed facilities is provided in Ex. A1-T4-S2 and Ex. A1-T4-S3. In 2009, approximately 29 per cent of the output from the prescribed facilities was produced by hydroelectric generation and 71 per cent by nuclear generation. Together, the output from prescribed hydroelectric and nuclear facilities equalled approximately 48 per cent of Ontario primary demand in 2009.

OPG is subject to a Memorandum of Agreement with its shareholder, the Province of Ontario, as well as directives from its shareholder which substantially influence the nature and manner of OPG’s operation of the prescribed facilities. Information with respect to the Memorandum of Agreement is found at Ex. A1-T4-S1. OPG is mandated by the Memorandum of Agreement to operate as a commercial enterprise in accordance with the highest corporate standards, including corporate governance, social responsibility, and corporate citizenship, as well as environmental stewardship.
Cost control is a major feature of OPG’s business planning and of this application. OPG’s evidence demonstrates the significant cost control initiatives that the company has successfully undertaken over the past few years. Through the use of benchmarking, OPG has initiated activities to continue controlling cost and improving performance at its nuclear facilities in the test period and beyond as discussed in Ex. F2-T1-S1. OPG’s hydroelectric facilities already benchmark well overall on both cost and performance as discussed in Ex. F1-T1-S1. OPG proposes to continue the reinvestment and OM&A expenditures necessary to maintain performance and maximize the production from the prescribed hydroelectric facilities.

OPG also presents several new initiatives in this application to ensure that the prescribed facilities continue to supply reliable and affordable power into the future. Commencing the definition phase of the Darlington refurbishment will allow OPG to develop release-quality estimates of the cost and scope of activities necessary to allow Darlington to operate for an additional 30 years as discussed in Ex. D2-T2-S1. Continuing to operate Pickering B for an additional four years beyond its nominal end of life will provide additional base load generation during a period of intensive nuclear refurbishment at a cost lower than other generation sources as discussed in Ex. F2-T2-S3.

A third major element of the application is the disposition of the balances accumulated in the variance and deferral accounts, several of which were established to complete the transition from provincially established payment amounts to regulation by the OEB. The accounts with the largest balances are the Tax Loss Variance Account and the Bruce Lease Net Revenues Variance Account. Both of these accounts were necessitated by the differences between the regulatory approaches approved by the OEB and those which underpinned the provincially established payment amounts. As discussed in Ex. H1-T2-S1, OPG proposes to clear forecast deferral and variance account balances as of December 31, 2010.

PROPOSED PAYMENT AMOUNTS AND RIDERS
OPG is requesting that the OEB establish payment amounts of $37.38 per MWh for the regulated hydroelectric generation facilities and $55.34 per MWh for the nuclear generation
facilities effective March 1, 2011. In addition, OPG is requesting test period payment riders
for regulated hydroelectric and nuclear production to be derived as described in Ex. H1-T2-
S1, to amortize audited deferral and variance account balances as of December 31, 2010 as
described in Ex. H1-T1-S2. The forecast combined effect of the new payment amounts and
the payment riders is an average increase of 6.2 per cent from current payment amounts and
riders which represents an increase of approximately 1.7 per cent on the typical residential
customer’s bill.

The requested payment amounts and riders are necessary for OPG to continue operating the
prescribed assets safely, reliably, efficiently and in an environmentally responsive manner for
the benefit of the people of Ontario. The summary that follows highlights some of the key
aspects of this Application, in particular:

- the payment amounts, the associated impacts and the cost drivers arising from the
ordinary course business operation of OPG’s regulated hydroelectric and nuclear
facilities;
- the variance and deferral account balances giving rise to the payment riders; and
- an overview of OPG’s initiatives to continue operations at the Pickering B Generating
Station for an additional four years and the plans to refurbish Darlington Generating
Station, together with the associated rate and regulatory treatments.

IMPACTS ARISING FROM BUSINESS OPERATION

This section discusses the impact on payment amounts for regulated hydroelectric
generation and nuclear generation in the ordinary course and excluding the impact of OPG’s
proposed recovery of variance and deferral accounts. Relative to the payment amounts
approved in EB-2007-0905, the proposed test period payment amount of $37.38 per MWh
for regulated hydroelectric generation represents an increase of 2.0 per cent and the
proposed test period payment amount of $55.34 per MWh for nuclear generation represents
an increase of 4.5 per cent. These increases arise from total test period deficiencies of
$27.7M and $233.1M for the regulated hydroelectric generation facilities and nuclear
generation facilities, respectively. Given that the current payment amounts will have been in
effect for almost three years, the proposed increases are quite small. This is indicative of OPG’s efforts since the last payments proceeding to engage in a continuing process to control operating expenses.

Operating Expense

OPG’s evidence on operating expenses illustrates its progress in cost control. For example, for regulated hydroelectric, a comparison between the OM&A costs requested in this Application and those approved in the last application shows an increase of approximately 4.5 per cent over a three-year period from the end of 2009 to the end of 2012 (see Ex. I1-T1-S1 Table 2). Considering that labour costs, the major component of OM&A costs, reflect general wage increases of between 2 and 3 per cent per year over this same period, the test period OM&A request embodies substantial cost savings.

In Nuclear, an extensive benchmarking effort led to the development of challenging five-year operational and financial performance targets as explained in Ex. F2-T1-S1. To help meet these targets, nuclear has developed seven key initiatives as part of the 2010 - 2014 Nuclear Business Plan (Ex. F2-T1-S1, Attachment 1). Based on these initiatives and other cost control measures explained in Ex. F2-T1-S1, OPG’s 2010 - 2014 Nuclear Business Plan shows more than $200M in OM&A cost savings in the test period.

Corporate groups have also embarked on significant cost savings initiatives. Corporate group costs increase by approximately 5 per cent over the 2007 - 2012 period and incorporate savings in the test period based on the 2010 - 2014 Business Plan. Specific cost savings initiatives by the corporate groups are discussed in Ex. F3-T1-S1.

Of the total corporate group costs, 68 per cent are attributable to the prescribed facilities, which compares favourably to the 72 per cent of OPG’s generation that is produced by the prescribed facilities. OPG is using essentially the same cost allocation methodology employed in EB-2007-0905. OPG’s corporate cost allocation has been reviewed and endorsed by independent cost allocation experts, Black and Veatch Corporation (“Black and Veatch”). The Black and Veatch study is presented in Ex. F5-T2-S1.
The strides that OPG has made in cost control are particularly significant because the nuclear industry stands apart from most other regulated businesses due to the complexity of the technology, the overarching importance of safety and the extent of regulation. All of OPG’s nuclear operations are comprehensively regulated by the Canadian Nuclear Safety Commission (“CNSC”). A discussion of CNSC regulation and other nuclear regulatory requirements is found at Ex. A1-T6-S1, section 8.

**Rate Base and Cost of Capital**

Regulated hydroelectric rate base decreases by a small amount each year over the 2007 - 2012 period largely because depreciation and amortization of in-service fixed and intangible assets exceed additions of new in-service fixed and intangible assets. The total decrease in 2012 as compared to 2007 is $123.7M, averaging approximately $25M per year over the five-year period.

The rate base for the nuclear facilities remains largely stable over the 2007 - 2009 period. Net plant decreased by relatively small amounts over the period mainly as a result of the net impact of continued depreciation and amortization of in-service fixed and intangible assets and additions of new in-service fixed and intangible assets, while fuel and materials and supplies both increased.

The rate base for nuclear facilities is expected to increase by $490.6M (14.3 per cent) in 2010 compared to 2009 primarily as a result of the impact of the net increase to the asset retirement costs (“ARC”) recorded on January 1, 2010. This change results from OPG’s decision to proceed with the definition phase of the Darlington Refurbishment project. There are a number of impacts arising from the decision on Darlington Refurbishment, including a reduction in depreciation expense, the net effect of these various impacts is a reduction in revenue requirement over the test period of approximately $200M.

The rate base for nuclear facilities is expected to remain largely stable over the 2010 - 2012 period. The decrease in the rate base resulting from excess of depreciation and amortization...
of in-service over additions of fixed and intangible assets is generally offset by the expected growth of the Construction Work in Progress ("CWIP") balance for the Darlington refurbishment due to continued expenditures on the project. OPG proposes to include Darlington Refurbishment CWIP in rate base as discussed in Ex. D2-T2-S2.

Additional details on in-service additions for the regulated hydroelectric and nuclear facilities, and corporate capital projects impacting rate base are provided in Exhibits D1, D2 and D3, respectively. Additional detail on depreciation and amortization expense is provided in Ex. F4-T1-S1 and Ex.F4-T1-S2.

In accordance with the Memorandum of Agreement from its shareholder, OPG is required to operate as a financially sustainable and commercial enterprise. OPG requires significant financial resources to fund required capital projects and related maintenance programs at the prescribed facilities. OPG, therefore, requires a fair rate of return on the prescribed assets. OPG has calculated its requested return on equity using the formula approved in the OEB's Report in EB-2009-0084.

**Revenue Requirement**

OPG’s revenue requirement is $3,401.6M for 2011 and $3,508.1M for 2012 compared to the previously approved test period revenue requirement, excluding amortization of variance and deferral accounts, of $3,417.9M (on an annual basis). OPG’s proposed revenue requirement for the test period is set out in Ex. I1-T1-S1 Table 1.

**RECOVERY OF VARIANCE AND DEFERRAL ACCOUNT BALANCES**

As noted above, OPG is requesting test period payment riders for regulated hydroelectric and nuclear production to amortize audited deferral and variance account balances as of December 31, 2010 as described in Ex. H1-T1-S2. These riders will reflect disposition for the period March 1, 2011 to December 31, 2012 of a portion of total deferral and variance account balances for regulated hydroelectric and nuclear production, and will be calculated as described in Ex. H1-T2-S1. OPG proposes to recover the balances in all variance and deferral accounts except for the Tax Loss Variance Account over the period from March 1,
2011 to December 31, 2012. To reduce the consumer impact of recovery of the large balance in the Tax Loss Variance Accounts, OPG proposes to recover the balance in this account over the 46 month period from March 1, 2011 to December 31, 2014.

Of the nuclear balance of $692.5M as filed on May 26, 2010, $412.8M is attributable to the Tax Loss Variance Account. The OEB ordered the establishment of a Tax Loss Variance Account effective as of April 1, 2008. This account records any variance between the tax loss amount that underpins the EB-2007-0905 Order and the tax loss amount resulting from the re-analysis of prior period tax returns based upon the OEB’s directions in the EB-2009-0038 Decision. Summaries of the account balances for 2008 and 2009 and the projected balance for 2010 are found at Ex. H1-T1-S1, Table 1. The derivation of the Tax Loss Variance Account balance is shown in Ex. H1-T1-S1, Table 4. Details regarding the calculation of tax losses for these years are presented in Ex. F4-T2-S1, Table 7.

The Bruce Lease Net Revenue Variance Account was established by the OEB in EB-2007-0905 and became effective April 1, 2008. This account captures the differences between the forecast costs and revenues related to the Bruce Lease that were factored into the 2008 and 2009 nuclear revenue requirement and OPG’s actual revenues and costs from the Bruce facilities. The projected balance for recovery in 2010 as filed on May 26, 2010 is $315.3M. This balance is calculated in a manner that is consistent with EB-2009-0174 Decision. Details regarding actual Bruce revenues and costs for 2008, 2009 and the projected amount for 2010 are set out at Ex. G2-T2-S1. Exhibit H1-T1-S1 Table 1 summarizes the variance account balances for 2008 and 2009 and the projected balance for 2010. Derivation of the account balance is shown in Ex. H1-T1-S1 Table 10.
NEW INITIATIVES

In June 2006, the Ontario government directed OPG to undertake feasibility studies on refurbishing its existing nuclear units. In November 2009, the OPG Board of Directors (“the OPG Board”) approved proceeding to the definition phase of the Darlington Refurbishment project. This project is aimed at extending the life of the Darlington station by an additional 30 years. This Province of Ontario concurred with this decision on February 4, 2010. For definition phase activities in the test period, OPG is projecting capital costs of $105.2M and $255.8M in 2011 and 2012, respectively and OM&A costs of $5.9M and $4.5M in 2011 and 2012, respectively.

The Darlington Refurbishment project will require significant capital expenditures, estimated at between $6B and $10B (2009 dollars) over the life of the project. This range reflects the uncertainties associated with major nuclear refurbishments and also the early stage of scope, schedule, and cost estimate development for this project. OPG’s current best estimates, based on preliminary planning and a review of experience in the industry, of the cost and schedule indicate a high confidence Levelized Unit Energy Cost (“LUEC”) for refurbishment of Darlington and post refurbishment operation of the units for an additional 30 years to be less than 8¢/kWh (2009 dollars). This is considered to be an upper bound case.

In its January 2010 report on the regulatory treatment of infrastructure investment (EB-2009-0152), the OEB indicated that it will consider applications to include an allowance for CWIP in rate base on a case-by-case basis. OPG is proposing that the CWIP related to Darlington Refurbishment be included in rate base beginning in 2011. This proposal is presented in Ex. D2-T2-S2.

The OPG Board of Directors also approved an initiative to examine options regarding the economic and technical feasibility of extending the operating life of the Pickering B units by four years, from their current nominal end of life in 2014 - 2016 to 2018 - 2020. This initiative was also endorsed by the Province on February 4, 2010.
With respect to new nuclear build, in June 2009, the Province suspended the Request for Proposal ("RFP") process to procure two new nuclear reactors planned for OPG’s Darlington site. As a result, OPG began winding down most activities associated with developing new nuclear generation. However, in 2010 OPG is continuing with two initiatives that were already underway – the site licensing and environmental assessment processes. While OPG expects new nuclear development activities to resume, it has not included any costs (capital or operating) for new nuclear development in its test period revenue requirement request.

CONCLUSION

OPG’s evidence in this application is focused on three components: (1) revenue requirement and deficiency in the ordinary course; (2) recovery of variance and deferral account balances through payment riders; and (3) new investment initiatives. The payment amounts and riders resulting from these components are necessary for OPG to meet its obligation to operate the prescribed assets safely, reliably and efficiently for the benefit of the people of Ontario.