1.0 PURPOSE

The purpose of this evidence is to describe corporate support and centrally held costs assigned and allocated to the nuclear and the regulated hydroelectric businesses and the underpinning allocation methodology.

2.0 OVERVIEW

OPG’s corporate support groups provide services and incur costs in support of the nuclear and regulated hydroelectric businesses. These groups provide services that are necessary to run the business, meet statutory reporting and other requirements, and ensure the operation of the production facilities in a safe, effective, and efficient manner that complies with regulatory requirements. Corporate support groups include the Chief Information Office (“CIO”), Finance, Human Resources, Corporate Affairs, Energy Markets, Real Estate, Executive Office, Corporate Secretary, and Law. In addition, OPG centrally holds certain costs for the regulated facilities such as certain pension and other post employment benefits (“OPEB”) costs, insurance costs, and performance incentive plan costs.

Corporate support and centrally held costs are either directly assigned or allocated to the regulated businesses using OPG’s established methodology as outlined in section 5.0. Approximately 70 percent of OPG’s total corporate function and centrally held costs are either directly assigned or allocated to regulated operations. OPG directly assigns costs that are directly related to a business. For example, corporate support employees working at, and solely in support of, a generating facility would be directly assigned to that facility. Direct assignment of costs accounts for approximately 45 to 50 percent of the corporate support and centrally held costs charged to the regulated facilities. Allocated costs are those costs that are used by more than one business unit. These costs are allocated based on appropriate cost drivers, which reflect cost causation or benefits received by the facility. OPG’s costs allocation methodology has been reviewed and endorsed by independent cost allocation experts, R.J. Rudden Associates. The R.J. Rudden study is presented in Ex. F4-
T1-S1. The percentages above represent assignment of costs as presented in the R.J. Rudden report.

In addition to considering the allocation methodology for assigning and allocating corporate support and centrally held costs, R.J. Rudden also reviewed and endorsed OPG’s methodology for allocating common hydroelectric business unit costs between regulated and unregulated hydroelectric facilities. These costs are described in Ex. F1-T2-S1.

2.1 Rationale for Corporate Structure

OPG has chosen to provide certain services centrally to ensure efficient and effective use of common shared services and systems. Centralization has resulted in lower costs through improved reporting to support better decision making, and common use of specialized resources in providing support to all production facilities. The benefits for this centralized service model are as follows:

- Use of common information systems reduces the total number of systems required to support the production facilities and thereby reduces costs.
- Centralizing support functions reduces staff levels while allowing business units access to specialized expert resources (e.g., commodity tax).
- Policies and procedures are standardized resulting in a consistent policy and governance framework.
- Common services and systems simplify and improve the accessibility of information for decision making (e.g., general ledger and data warehouse).
- Economies of scale are achieved through the use of common processes (e.g., payroll, accounts payable, and procurement) which reduce the costs of systems and resources.
- Centralization allows outsourcing opportunities where costs savings can be achieved as demonstrated through the outsourcing of IT systems and services to New Horizon System Services.

2.2 Corporate Initiatives

In 2002, OPG initiated a corporate structure review to improve the cost competitiveness of its business and included a restructuring plan to reduce staff. As a result of this initiative, OPG
reduced staff by 1,450 employees including reductions to corporate support staff of approximately 400 staff. OPG also completed the outsourcing of certain non-core activities, improved centralized processes, and reorganized corporate support services. The outsourcing of non-core activities included the outsourcing of information technology services, pension administration, management of pension and nuclear liability funds, sale of nuclear safety analysis and assessment services, and certain research and development activities.

During the five years since the corporate structure review, OPG’s annual business planning process has included a rigorous review of all business units’ OM&A costs with additional focus on spending by the corporate support groups. The corporate support groups are challenged by the generation business leaders to rationalize their costs and justify the level of support provided to the production units. The direct assignment and allocation of corporate support costs was formalized and is the basis for OPG’s internal management and external reporting. External reporting requirements include reporting segment information in OPG’s quarterly and annual audited financial statements and management’s discussion and analysis.

Given that it has been five years since the previous large scale formal cost review process, OPG decided that it was appropriate to initiate a support function review in conjunction with the 2008 business planning process. The support function review focuses on the support functions across the company. This strategic initiative was launched by the President in 2007 and is led by the Chief Operating Officer and a team of senior executives who are tasked with reviewing the cost structure and work processes of the support functions. The objective of the review is to focus on how OPG can be more effective and efficient, especially in supporting its work priorities.

The support function review is being conducted in two phases. The first phase, which was completed in 2007, consisted of a review of both corporate and business unit support groups’ cost structures and work programs. This phase focused on the identification of cost saving opportunities, an identification of risks, and an assessment of the difficulty of implementation
of identified opportunities. Certain of these cost saving opportunities have been incorporated into OPG’s business plan 2008 - 2010 business plan for 2008 and subsequent years. These opportunities are expected to continue to yield cost saving benefits to OPG on an ongoing basis in the future.

Specifically, nuclear incorporated approximately $23M in total cost savings over the period 2008 - 2009, as discussed in Ex. F2-T2-S1. Corporate support groups’ budgets incorporated approximately $14M in total cost savings associated with the regulated operations over the period 2008 - 2009, as discussed below.¹ Total hydroelectric cost savings are expected to be less than $1M over the period 2008 - 2009.

For corporate support groups, approximately $4M and $10M of cost reductions are incorporated in OPG’s 2008 and 2009 budgets, respectively.¹ Some of the major contributors to the savings in corporate support groups are: increased standardization of information technology systems and a move towards more standard vendor-supported products by the CIO in order to minimize the cost of maintaining systems, and increased leverage of contracts for telecommunications, hardware purchases, and software and hardware maintenance provided by third parties. Within the Finance function, savings are expected to be achieved through the implementation of enhanced automation, increased standardization, and system and process improvements to increase efficiency and improve workflow.

Phase two of the review will focus on assessing the remaining saving opportunities. These opportunities generally carry a higher risk, are more difficult to achieve and/or require a longer-term implementation approach.

### 3.0 CORPORATE COSTS – TOTAL OM&A

Exhibit F3-T1-S1 Table 1 summarizes OPG’s total corporate support and centrally held OM&A before direct assignment and allocation to nuclear and regulated hydroelectric. Fluctuations in these costs over the 2005 - 2009 period, many of which also contribute to

¹ Amount of corporate support groups’ cost savings related to regulated operations is estimated based on an overall allocation percentage of each groups’ costs determined according to OPG’s cost allocation methodology.
fluctuations in costs directly assigned and allocated to nuclear and regulated hydroelectric, are discussed in this section.

Corporate support groups and centrally held costs increased over the 2005 - 2007 period mainly due to increases in centrally held costs relating to pension and OPEB over the entire period and higher CIO costs in 2007. The fiscal calendar adjustment in 2006 was lower than in 2005 and 2007, and partially offset the trend of increasing costs. (The fiscal calendar adjustment is described in section 3.8.)

The increase in the centrally held pension and OPEB costs during 2005-2007 was mainly due to changes in assumptions, such as the discount and inflation rates, updated membership and claims data, and changes in pension fund asset values, partially offset by higher amounts of pension and OPEB costs charged via payroll burden (refer to Ex. F3-T4-S1 for a discussion of accounting for pension and OPEB plans and associated costs). OM&A costs in the CIO group increased in 2007 due to an increase in the materiality threshold for capitalization of certain expenditures to $25,000, starting in 2007, for items such as low-value computer and other IT equipment (refer to Ex. A2-T2-S1 for further discussion), higher project costs, and additional IT support as a result of business unit requirements for data storage and telecommunication growth. The change in policy to expense low value computer and other IT equipment was made to ensure OPG’s policy is consistent with industry practice.

Finance and Human Resources costs also increased slightly over the 2005-2007 period. Finance costs increased due to additional costs related to the establishment of a dedicated controllership group to support the increasing demands of the hydroelectric business unit, internal audit and internal control programs, and tax advisory services. Human Resources costs increased slightly due to the implementation of leadership development initiatives across OPG as well as additional expenditures on health and safety initiatives. Real Estate costs decreased slightly over the 2005 - 2007 period mainly due to the reassignment of a portion of Real Estate costs related to centrally-held assets, beginning in 2006, as a component of asset service fees charged to business units (discussed in Ex. F3-T3-S1).
Costs during 2008 and 2009 increase as compared to 2007 mainly due to higher costs in the CIO and Corporate Affairs groups as well as higher IESO non-energy charges, which are partially offset by lower centrally held pension and OPEB costs. The higher CIO costs are mainly due to a series of special initiatives, such as the relocation of multiple data centres, annual cost escalation based on a Cost-of-Living Adjustment and the Consumer Price Index pursuant to the New Horizon System Solutions (“NHSS”) outsourcing agreement (discussed in section 3.3 and Appendix A), increased business demand for IT services including ongoing support for new systems, and a non-recurring reduction in 2007 costs as a result of credits received from NHSS related to prior years. Corporate Affairs costs increase in 2008 - 2009 mainly due to activities associated with the OEB payments amount hearing, community engagement initiatives, and initiatives related to water safety, community and sponsorship advertising.

Finance costs associated with the support of hydroelectric projects and programs, nuclear refurbishment and new nuclear development initiatives, and internal audit and internal control programs are also forecast to increase.

Pension and OPEB expenses decrease in 2008 and 2009 as compared to the 2005 - 2007 period mainly due to the net impact of changes in assumptions for discount and inflation rates, and net changes in the long term growth rate in the pension fund asset value being higher than the growth in the pension obligation, partially offset by 2007 year-end pension fund value being lower than expected.

The forecast of IESO non-energy charges increases in 2008 and 2009 mainly due to the inclusion of the Global Adjustment and the OPG Rebate, which were not included in the 2005 - 2007 budgets for centrally held costs and which are not presented as part 2005-2007 actual costs.
OPG’s total other centrally held costs increase in 2008 and 2009 primarily as a result of higher costs which are directly assigned to unregulated operations and do no impact OPG’s proposed revenue requirement.

3.1 Description of Corporate Costs and Allocation of Costs

Exhibit F3-T1-S1 Tables 2 and 3 present the corporate support and centrally held costs allocated to nuclear and regulated hydroelectric over the historic, bridge, and test years. Costs allocated to nuclear include costs related to Bruce facilities.

The variance explanations as discussed in section 3.0 for total OPG costs are also applicable for the year-over-year variances in Ex. F3-T1-S1 Tables 2 and 3 for nuclear and regulated hydroelectric costs. In addition to the total OPG costs explanations, the CIO costs increase in 2007 due to higher project costs relating to the project management system project to improve resource management and costs. As well, the overall allocation of OPG’s other costs to nuclear in 2006 is lower when compared to 2005 and future years due to higher costs incurred related to OPG’s unregulated business. The variance explanations as discussed in section 3.0 for total OPG costs are also applicable for the year-over-year variances in Ex. F3-T1-S1 Table 3 for regulated hydroelectric costs. Also contributing to the higher costs for corporate support in 2006 and 2007 is a higher cost allocation due to increase capital spending by regulated hydroelectric on the Niagara Tunnel project and higher Finance costs. The higher Finance costs result from a new-dedicated controllership group to support the hydroelectric business which includes the completion of the Niagara Tunnel project, and First Nations negotiations. As well, Real Estate costs directly assigned and allocated to regulated hydroelectric increase slightly in 2008 mainly as a result of hydroelectric property rights and boundaries project in support of programs for public and dam safety programs.

3.2 Finance

Finance provides strategic advice, services, and support in the areas of controllership, financial services, treasury, insurance, risk services, financial planning, and asset planning. On behalf of the company, it prepares financial statements and maintains accounting policies
and procedures in accordance with Canadian Generally Accepted Accounting Principles. OPG is a reporting issuer under the Securities Act, and is subject to continuous disclosure provisions of the Securities Act, which includes the requirement to file annual and interim financial statements and certifications on internal control over financial reporting with the securities regulator.

Financial Services perform external reporting, accounting, corporate procurement services, income and commodity tax services, and financial processing services such as accounts receivable, accounts payable, and fixed assets transactions management. Corporate procurement/supply chain procures materials and services for head office/support groups and assists the business unit’s supply chain organizations, and provides corporate governance related to procurement.

Risk Services includes internal audit, operational risk management, market risk management, and credit risk management. The services performed by these groups include: assessing the effectiveness of OPG's network of risk management, control, and governance processes; providing risk management consulting services to the businesses; providing independent assurance that market risk exposures are managed within a framework of policies and procedures that clarify accountabilities, approved market risk related activities and risk tolerances; and assuring that OPG's counterparty's creditworthiness is assessed, transactions/contracts are structured to appropriately manage credit risk, and that there is ongoing monitoring and reporting of credit risk on a daily basis.

Controllership provides accounting, reporting, budgeting, and internal controls policies to the business units. There are specific departments dedicated to nuclear and hydroelectric stations and their costs are directly assigned to these business units. As well, other controllership departments provide support to all OPG business units and their costs are allocated based on OPG’s allocation model.

Financial Planning provides corporate level business planning, financial planning, forecasting and reporting, financial strategy and performance management, and property tax services.
Treasury is responsible for the management of cash, financial exposure, capital structure, Ontario Nuclear Funds Agreement funds, and insurance premiums.

Asset Planning performs financial evaluations of major investment initiatives and provides the corporation with tools and programs to assist business units in their own assessments and preparation of business cases.

Exhibit F3-T1-S1 Tables 4 and 5 summarize Finance costs allocated to nuclear and regulated hydroelectric over the historic, bridge and test years.

A high percentage of finance costs are directly assigned for controllership (44 percent), risk services (51 percent), and supply chain (58 percent). Allocations of the remaining costs are determined based on the appropriate costs drivers as defined by OPG’s cost allocation methodology. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

3.3 Corporate Affairs

Corporate Affairs is responsible for managing a number of key functions essential to OPG’s operations, specifically, Regulatory Affairs and Corporate Strategy, Public Affairs, and CIO.

Regulatory Affairs and Corporate Strategy

Regulatory Affairs and Corporate Strategy division guides OPG’s interactions with economic regulators. These include the OEB, IESO, the National Energy Board and other Canadian and U.S. regulators that play an important role in OPG’s operations. Regulatory Affairs provides regulatory intelligence, strategy, and advice and also manages regulatory interactions to obtain approvals and outcomes that allow OPG to accomplish its business goals.

Specific activities include:
- Leading OPG’s preparation of the OEB payment amount application.
• Managing OPG’s participation in regulatory proceedings and consultations in Ontario and other Canadian and U.S. jurisdictions.

• Co-ordinating the development of OPG positions on market issues and advancing these issues through the IESO’s stakeholding processes.

• Providing regulatory and strategic support, research, and advice within OPG to facilitate OPG’s participation in the electricity industry and to support strategic decisions.

• Obtaining and maintaining all necessary regulatory approvals for OPG to participate in the Ontario electricity market and other markets as required.

Regulatory Affairs and Corporate Strategy costs are applied to the business units using direct assignment (38 percent), which represents specific costs and estimates for the use of services and allocations (62 percent), which are based on a blend of costs at the regulated facilities for OM&A and capital expenditures. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

Public Affairs

Public Affairs is responsible for internal and external communications. At the corporate level this includes media relations, internet communications, publications, and speeches. At the site/community level there are community outreach programs which include meetings and events with local community groups, communications about station operations and performance, and participation in community events. Also at the site/community level, particularly for the hydroelectric facilities, there are extensive public water safety awareness programs which are geared to educate a broad range of audiences about the importance of public water safety in the vicinity of the hydroelectric facilities. Internal communications ensure that OPG employees are aware of the company's major goals and objectives, as well as performance.

Public Affairs costs are applied to the business units using direct assignment (65 percent) which represents specific costs and estimates for the use of services and allocations (35
percent), which are based on a blend of costs at the regulated facilities for OM&A and capital expenditures. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

Chief Information Office

The CIO oversees OPG’s information management and information technology needs. It is specifically accountable for the strategic planning, management and operations of all information systems, programs, initiatives, and resources across OPG. The CIO also administers, on behalf of OPG, the Freedom of Information office and OPG’s governing documents framework.

At a more detailed level, the CIO is involved in the planning and budgeting of IT activities at all production sites, oversight of OPG’s IT vendors and outsourced service providers, delivery of IT projects and on-going IT services, information technology security, customer relationship management, and establishing information technology strategies and architectures. The systems utilized by corporate support groups provide support for business processes at all OPG locations. These costs include operating, maintaining and upgrading financial, human resources, real estate, energy markets, and other corporate systems.

Services are provided using a combination of internal staff and an outsourcing contract. In 2001, OPG outsourced its information technology services to New Horizon System Solutions through a competitive bidding process. New Horizon System Solutions provides application management and infrastructure management services. The infrastructure management services include desk-side support, helpdesk/call centre, e-mail, Internet, remote access, disaster recovery, and data centre operations. New Horizon System Solutions manages third party contracts on OPG’s behalf including software licenses, hardware maintenance, and telecommunication services. A summary of the outsourcing agreement between OPG and New Horizon System Solutions is included in Appendix A.

Exhibit F3-T1-S1 Tables 6 and 7 present the CIO costs allocated to nuclear and regulated hydroelectric over the historic, bridge, and test years.
CIO costs are allocated to business units using direct assignment (37 percent) which represents specific costs and estimates for the use of services and allocations (63 percent) which are based on various cost drivers (i.e., full time equivalents, LAN ID’s, expenditures planned at OPG’s production facilities). These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

3.4 Corporate Centre

The corporate centre includes the Executive Office (Chairman, President and CEO offices), the Corporate Secretary function, and Law. The Executive Office is responsible for the overall management and strategy for the company. The Corporate Secretary function supports the Board of Directors and the Executive Offices, and interfaces between the Board, management and OPG’s shareholder.

Law provides legal advice and legal services that encompass a wide range of areas so as to effectively and efficiently support all business units across OPG. Law provides key service as follows:

- Support for procurement activities for materials, fuel, equipment and services, CIO activities, corporate governance, and finance.
- Support for all corporate and commercial matters related to all business units and advice related to OPG’s pension and nuclear funds.
- Provides advice on real estate, energy markets, Bruce lease and related agreements, and water resources.
- Provides advice on energy regulatory matters, including OEB payment amount application, environmental approvals and compliance, nuclear licensing, litigation, municipal approvals and land use planning, First Nations issues, freedom of information request, and occupational health and safety compliance.
- Advice and services in the areas of labour, employment and privacy law.
The costs of the Executive Office and Corporate Secretary are allocated to the production facilities by applying the appropriate cost drivers. All Executive Office and Corporate Secretary costs are allocated based on a blend of costs at the regulated facilities for OM&A and capital expenditures. Law costs are directly assigned to the production facilities they support through estimates of percentage of time spent in support of these facilities.

### 3.5 Energy Markets, Including Sustainable Development

Energy Markets coordinates the offering of OPG’s regulated facilities into the IESO market. This includes outage planning and strategies to optimize production based on market price signals, and to manage generation risks. Energy Markets is also responsible for providing advice and analysis on regulatory issues, responding to proposed market rule changes, compliance and market monitoring, energy revenue planning and forecasting, and emergency preparedness.

The Sustainable Development group supports OPG’s compliance with existing environmental laws, and helps ensure that the corporation is strategically aligned to address short-term and long-term environmental risks and opportunities. The Sustainable Development group also reports environmental performance and regulatory developments to the OPG Board and senior management to assist them in discharging their due diligence obligations. The Sustainable Development group develops the environmental policy direction for the company, supports the businesses in implementing environmental policies and programs and is responsible for the corporate environmental management system.

The regulated facilities benefit from these two groups as their services are necessary to offer energy into the IESO market, to meet regulatory and operating limits, to meet reporting commitments, and to arrange confirmation of timing of planned outages with the IESO, while operating efficiently and effectively.

Energy Markets costs are applied to the business units using direct assignment (82 percent) which represents specific costs and estimates for the use of services and allocations (18
percent) which are allocated based on the appropriate cost drivers. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

3.6 Human Resources

Human Resources provides payroll services, recruitment, labour relations, employee safety, security and wellness, compensation and benefits, ethics and code of business conduct, human resource planning and reporting and generalist human resources services in the field. There are generalist human resources departments dedicated to nuclear, fossil, hydroelectric and corporate business units, as well as specialist human resources departments that serve all of OPG.

Compensation and Benefits provides comprehensive compensation services including compensation system design, management and administration, pension and benefits administration, and payroll processing. It also provides the employee wellness strategy and services including: employee family assistance program, nursing services, the chief physician’s office, and the disability management program.

Site (nuclear and regulated hydroelectric) Human Resources and Employee Safety is provided directly at the production facilities. Site Human Resources provides human resources and employee safety strategy, services, programming, and governance in support of the business units. Support is provided in areas such as resource management, employee wellness, and human resources administration. The employee safety function assists the corporation in fulfilling their requirements as outlined in the Occupational Health and Safety Act of Ontario. Specifically they:

- Ensure health and safety policies are developed and maintained as per regulatory requirements.
- Help to develop and maintain a health and safety program, as required by the Occupational Health and Safety Act, as well as to manage and mitigate health and safety risks to employees, contractors, and members of the public.
• Develop and maintain the necessary standards and procedures to ensure that work is carried out safely (e.g., contractor management programs and musculoskeletal disorder prevention programs).

• Review performance internally and benchmark externally and provide advice and assistance to OPG on emerging health and safety risks, trends, and regulatory issues.

• Work with other partners such as safety associations, unions, and regulators to continually improve health and safety performance.

Labour Relations provides labour relations services to OPG regarding strategy, negotiations, governance oversight, and programming and support. Human Resources Strategy and Support provides workforce planning and human resources project management support.

The Senior Vice President’s office holds the budget for all human resources consultants and purchased services requirements.

Exhibit F3-T1-S1 Tables 8 and 9 summarize human resources costs allocated to nuclear and regulated hydroelectric over the historic, bridge, and test years.

Human Resources has a high level of direct assignment of costs (61 percent). The remainder (39 percent) is allocated based on appropriate costs drivers as defined by OPG’s cost methodology. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

3.7 Real Estate

The Real Estate group manages OPG’s real estate assets. It maintains property records, buys/sells/leases land and buildings, pays rent, provides corporate-wide administrative and office services, as well as fleet administration – buying, selling, licensing and insurance. There are four departments within Real Estate: Facility Services, Business Services, Real Estate Services, and Fleet Services.
Facility Services manages furniture, office moves, employee relocations, office ergonomics, office renovations, space planning, janitorial and recycling services, and 24 hour emergency services. Business Services provides services such as document processing, controlled documents, records management, clerical relief, training coordination and office equipment, library services, mail, courier, printing imaging, and graphics services. Real Estate Services manages all OPG real estate assets, maintains property records (maps, surveys, and documents), rationalizes and develops portfolio strategies, surveys properties, acquires land or buildings and dispose of surplus properties. Fleet Services provides fleet administration, technical advice, license and insurance renewals, and fleet acquisition.

In addition to the OM&A costs to support these services, OM&A costs of managing real estate assets held centrally (e.g., OPG Head Office) are held within Real Estate. Generation business units are charged an asset service fee related to the use of these centrally held assets (Ex. F3-T3-S1).

Exhibit F3-T1-S1 Tables 10 and 11 summarizes Real Estate costs allocated to nuclear and regulated hydroelectric over the historic, bridge, and test years.

Real estate has a high level of costs directly assigned to the production facilities for facility services (87 percent) and business services (48 percent). The remaining departments, Fleet Services, and the Vice President’s office are allocated based on the appropriate cost drivers. These percentages represent assignments and allocations as presented in the Summary of Distributions found in the R.J. Rudden report (Ex. F4-T1-S1).

3.8 Centrally Held Costs

The centrally held costs are directly assigned or allocated to the regulated facilities.

Centrally held costs include the following:

- Certain pension and OPEB costs such as interest on the obligations, the expected return on pension plan assets, amortization of past service costs, amortization of actuarial gains and losses, and variances to current service costs. The costs are directly assigned and
allocated based on the proportion of current service costs associated with the production facilities. For a further discussion of pension and OPEB refer to Ex. F3-T4-S1.

- OPG’s insurance program, which includes commercial general liability, all risk property, boiler and machinery breakdown, including statutory boiler and pressure vessel inspections, and business interruption. OPG also maintains property insurance for damage to the nuclear portions of its generating stations which complements the conventional property insurance program.

- Performance incentives for management, goalsharing for Society of Energy Professionals (“Society”) and Power Workers’ Union (“PWU”) members and performance recognition for Society employees. A description of incentive plans is provided in Ex. F3-T4-S1 Sections 6.2 and 6.4.

- IESO non-energy charges are charges applied to the withdrawals of energy by OPG generation facilities from the IESO controlled grid. The charges include such discrete elements as the debt retirement charges, the rural or remote electricity rate protection charge, charges associated with IESO administration fees, transmission fees, Ontario Power Authority uplift fees, the Global Adjustment, the OPG Rebate, etc. These charges are not discretionary and apply to all withdrawals from the IESO controlled grid. These charges are directly assigned to the specific regulated facilities.

- The fiscal calendar adjustment is a wage adjustment that reflects the difference in the number of days between the 52-week fiscal calendar used for payroll accounting and OPG’s financial year ending on December 31. The adjustment is temporary by its nature.

- Other costs included in the centrally held costs are the ONFA guarantee fee (payable to the Province of Ontario to guarantee the unfunded nuclear liabilities as discussed in Ex. H1-T1-S1), vacation accruals for current year benefit increases and certain provincial sales tax costs as discussed in Ex. F3-T1-S1.

Exhibit F3-T1-S1 Tables 12 and 13 summarize the centrally held costs allocated to nuclear and regulated hydroelectric over the historic, bridge, and test years.

4.0 COST ALLOCATION METHODOLOGY REVIEW
OPG retained R.J. Rudden Associates ("Rudden") in 2006 to evaluate whether the methodology used to assign and allocate common costs to nuclear and regulated hydroelectric meets current best practices and is consistent with precedents on cost allocation established by the OEB. Rudden made recommendations to OPG for changes to address any perceived gaps. Rudden also reviewed the methodology used by OPG to derive the asset service fees charged for the use of certain assets held centrally to both the regulated and unregulated business units. Asset service fees are considered in Ex. F3-T3-S1.

R.J. Rudden, a unit of Enterprise Management Solutions, Black & Veatch Corporation, is a strategic, economic, and management consulting firm specializing in energy matters. Rudden provides assistance in areas such as economic analysis, strategy development, operational assessments, industry restructuring support, litigation and regulatory support, and technical analysis. Rudden has over 24 years of experience and has assisted dozens of electric, gas, water, and telecommunications clients. Rudden has completed cost of service and cost allocation studies for wires-only utilities, integrated utilities and Independent System Operators in many jurisdictions in Canada and the U.S.

R.J. Rudden's findings on OPG's cost allocation methodology as identified in its report are as follows:

- OPG's cost allocation process has the support of senior levels of management.
- OPG's cost allocation process uses the principles of direct assignment and cost drivers that are key components of current best practices and OEB precedents.
- OPG's process relies on the judgement of departmental managers and business units to support specific identification and time estimates. These are the people in the best position to determine how resources are used.
- Supporting analyses were prepared by many of the central support and administrative costs groups and departments, including detailed analyses of activities, identification of specific resources, interviews to determine time estimates and reviews of invoices to determine historical usage.
• The business units to which the central support and administrative costs are distributed are familiar with the cost allocation process, confirmed where appropriate that specific resources are used by them and confirmed that the functions and services for which they are allocated costs are actually being received by them.

Summary of Conclusions by R.J. Rudden

• The overall approach is appropriate for the business organization of OPG.
• Direct assignment of costs by specific identification and by estimation is based on sufficient information reasonably applied.
• Direct assignments are used wherever possible.
• The costs drivers selected by OPG for those instances where not all costs are directly assigned are appropriate.
• The methodology used by OPG to distribute the corporate and centrally held costs separates the costs between regulated and unregulated business units in a manner that meets current best practices and is consistent with cost allocation precedents established by the OEB.

4.1 OPG’s Response to R.J. Rudden Report Recommendations

As part of the cost allocation review, R.J. Rudden made the following recommendations with respect to OPG’s process:

1. OPG should consider a formal quarterly review process, which includes a review of results of allocations, a review of departmental resource distributions based on time estimates, a review of direct assignments and allocators, and a review of allocator values.

In response to this recommendation, OPG instituted a formal quarterly review process in 2006, in which the results of allocations are formally reviewed by the Corporate Controller and Business Unit Controllers. The review incorporates all of the items highlighted by R.J. Rudden.
2. Documentation of the methodology should be improved and the CIO allocation model should be made consistent with the general cost allocation model used throughout the company.

OPG has improved its documentation based on R.J. Rudden’s recommendations. The documentation incorporates the purposes and principles underlying the methodology, as well as responsibilities and time schedules for preparing and reviewing allocations. In addition, templates were created that are used to document specific services provided by each corporate support group. OPG has not developed templates to document time estimates, as recommended by R.J. Rudden, but it is something we may consider in the future. The CIO model has been made consistent with the general cost model by focusing on cost causality.

3. Cost driver selection should be standardized.

OPG has implemented this recommendation by focusing on cost causality and ensuring the consistent cost drivers are used throughout the company for similar activities. For example, Finance activities that are not directly assigned are allocated based on financial cost drivers such as OM&A and capital expenditures of the business units. This cost driver is appropriate for Finance since the support provided to business units is related to business unit budgets and complexity.

A copy of the R.J. Rudden Report is provided in Ex. F4-T1-S1.

5.0 METHODS OF ALLOCATION

There are two methods to distribute shared costs among the business units – direct assignment and allocation.

Direct Assignment

Direct assignment is used when specific resources, both individual employees and specific cost items, used by a particular business unit can be reasonably established. There is
specific identification of resources where there is a direct relationship between the costs incurred and the business unit that causes the costs. Estimation of the resources used by the business unit may be based on current time estimates or historical activity.

Allocation

Allocations are used when more than one business unit uses a resource, but the portions of the resource that each uses cannot be directly established. In these cases, a cost driver is assigned to allocate the costs of the resource. A cost driver is a formula for sharing the cost of a resource among those who caused the cost to be incurred. There are two types of cost drivers - external and internal drivers. External drivers are based on data that are external to the allocation process. For example, the Accounts Payable Department’s costs are allocated to business units based on the number of transactions processed for each group. Internal drivers are based on values computed as part of the cost allocation process. For example, a supervisor’s salary may be allocated in proportion to the salaries of the people being supervised.

OPG used three steps when allocating a department’s costs:

Step One – Specific Identification of Resources

The costs of resources specifically identified to a business unit are assigned to it.

- Labour: Identifying individuals who support only one business unit.
- Non-labour: Identifying costs directly caused by one business unit.

Step Two – Estimation of Resources

The next step is to identify the resources in each department that directly support one or more business units and to estimate the resources attributable to each business unit. The costs of these resources are directly assigned to each business unit in proportion to the estimated time required by that business unit.

Step Three – Assign Cost Drivers
Where no direct relationship exists, a cost driver is assigned to each type of expense. Similar activities have similar or standardized cost drivers. Rudden has recommended standardized cost drivers and OPG has adopted these changes. A list of cost drivers used by business unit is provided in Exhibit B of the Rudden report (see Ex. F4-T1-S1).

OPG department managers and the business units were consulted and supporting analyses were prepared to support the specific identification/direct assignment, and in selecting cost drivers which improves the quality of the cost allocation process. The department managers are in the best position to determine how resources are used.
### 6.0 SUMMARY OF COST DRIVERS USED IN COST ALLOCATION PROCESS

<table>
<thead>
<tr>
<th>Detail Listing OPG Cost Drivers</th>
<th>Directly Assigned</th>
<th>Allocated</th>
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<tr>
<td>Regulatory Affairs</td>
<td>Specific &amp; estimates</td>
<td>Capital &amp; OM&amp;A</td>
</tr>
<tr>
<td>Corporate Strategy</td>
<td>Specific &amp; estimates</td>
<td>Capital &amp; OM&amp;A</td>
</tr>
<tr>
<td>Public Affairs</td>
<td>Specific &amp; estimates</td>
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<tr>
<td>CIO</td>
<td>Specific &amp; estimates</td>
<td>Various</td>
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<tr>
<td>Corporate Centre</td>
<td>Time estimates</td>
<td>Capital &amp; OM&amp;A</td>
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<td>Specific assignment</td>
<td>Capital &amp; OM&amp;A</td>
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<td>Time estimates</td>
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<tr>
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<td>Direct</td>
<td>Capital &amp; OM&amp;A</td>
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<tr>
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<tr>
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<td>Assigned FTE's</td>
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<td>Real Estate</td>
<td>Specific &amp; estimates</td>
<td>FTE's</td>
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<td>Centrally Held Costs</td>
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<td>Pension/OPEB</td>
<td>Direct</td>
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<td>Technology by insurer</td>
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<td>Performance Incentives</td>
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<td>IESO Non-Energy Charges</td>
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</tr>
<tr>
<td>Other</td>
<td>Direct</td>
<td>Various</td>
</tr>
</tbody>
</table>
LIST OF ATTACHMENTS

3 Appendix A: Summary of NHSS Outsourcing Agreement
APPENDIX A

Summary of New Horizon System Solutions Outsourcing Agreement

Information Technology Outsourcing Service Summary

1.0 PURPOSE
The purpose of the summary is to provide an overview of the structure and the key components of the New Horizon System Solutions outsourcing agreement.

2.0 BACKGROUND
OPG was formed in 1999. Since then a number of initiatives have been implemented to drive efficiencies, reduce long term costs, and allow OPG to focus on its core business of generating electricity. These initiatives included the outsourcing of certain non-core activities including information technology services.

Although the initiative to outsource information technology services was implemented in the early years of OPG’s existence and partially stemmed from the anticipated decontrol of Ontario’s electricity marketplace, this initiative continues to yield benefits to OPG and the ratepayers in the current environment.

Following a competitive bidding process, OPG entered into a joint venture agreement with Business Transformation Services, a wholly owned subsidiary of Cap Gemini Ernst & Young ("CGEY") on November 21, 2000 to outsource OPG’s information technology services.

The joint venture known as New Horizon System Solutions ("NHSS"), an Ontario limited partnership, entered into the Information Technology Services Agreement ("ITSA") on February 1, 2001 with OPG, and OPG transferred approximately 450 employees to the partnership. The ten year term of the ITSA expires on January 31, 2011.
On March 28, 2002, in accordance with the terms of the ITSA, CGEY purchased OPG’s interest in the NHSS joint venture and an amended and restated ITSA was executed to reflect the change in ownership and revised structure of NHSS.

In July 2003, OPG executed the Energy Market Services Information Technology Services Agreement (“EMS ITSA”) with NHSS with an effective date of August 1, 2003. The term of the EMS ITSA expires coterminous with the ITSA.

3.0 SUMMARY OF SIGNIFICANT FEATURES OF THE CONTRACT

3.1 Service Components

The information technology services provided by NHSS consist of OM&A Services and Project Services.

**OM&A Services**

The categories of OM&A Services are:

- Base Services
- Enhancement Hours
- Variable Demand

- Base Services consists of internal and external labour costs, third party contracts, and some consumables incurred by NHSS in providing the OM&A services.

The types of Base Services provided are described as follows:

- Systems Management consisting of backup recovery, IT infrastructure support, operations and data management, production scheduling and systems software management.
- IT Security Management including general IT security, access control, virus control, firewall, data encryption, user administration, IT security reporting and incident response.
o Business Application Management including the support, maintenance and enhancement of IT applications, provision of associated documentation and training, and management of web content.

o Telecommunication and Network Services including power system services, business voice and data services, mail/file and print services, and internet services.

o Desktop Services including help desk, desktop break/fix, desktop software support, desktop hardware and software upgrades and desktop technical education.

o General Management consisting of IT strategy and architecture management, IT quality assurance service management, IT problem management, contract management, asset management, and change management.

- Enhancement Hours are labour services used to make minor modifications to existing infrastructure and software applications in addition to the support services delivered as part of Base Services. The Enhancement Hours are divided into pools based on application and infrastructure type. The number of hours required by OPG for each pool is assessed and confirmed with NHSS annually prior to the commencement of each calendar year.

- Variable Demand primarily consists of telecommunication (voice and data) charges from third parties.

**Project Services** Project Services consists of IT application development or infrastructure improvement projects. Project services may include the management and delivery responsibility for project services provided by of third parties.

OPG is committed to purchase a specified minimum amount of Project Services in each contract year. If OPG does not purchase the required Project Services annual commitment, NHSS has the right to bill OPG as if the Project Services had been delivered. Historically, OPG has either met or exceeded the minimum Project Services commitment and plans to continue utilizing the Project Services in excess of the minimum requirements.
3.2 PRICING

Pricing Structure
In the amended and restated ITSA, pricing was structured in the following three-phased approach:

- **Shadow Joint Venture Phase (January 31, 2002 – December 31, 2002)**
  Total costs in the Shadow Joint Venture Phase consisted of OM&A Services, Project Services and Overhead Fees. OM&A Services were comprised of Base Services, Enhancement Hours and Variable Demand.

- **Gain-Sharing Phase (January 1, 2003 – December 31, 2004)**
  Total costs in the Gain-Sharing Phase consisted of OM&A Services, Project Services and Overhead Fees. The Gain-Sharing Phase was designed to reduce costs prior to transitioning to a Fixed Price Phase.

- **Fixed Price Phase (January 1, 2005 – January 31, 2011)**
  Total costs in the Fixed Price Phase consist of OM&A Services, Project Services and Overhead Fees. The price for the Base Services portion of OM&A Services was set on January 1, 2005 and is reduced by Infrastructure cost savings as described in 5.0. New, decommissioned, upgraded software applications or changes in volumes may result in incremental/decremental changes to the fixed price. Project Services and OM&A Services other than Base Services continue to be priced on a cost-plus basis.

In addition to the OM&A Services and Project Services, OPG pays NHSS in respect of overhead costs incurred by NHSS in providing the services (the “Overhead Fees”). Overhead Fees include indirect costs for NHSS support functions including Human Resources, Finance and office space such as rent and utilities costs. The Overhead Fees are fixed for each contract year as set out in ITSA

Inflation Adjustments
All labour related costs and overhead are adjusted annually according to the Toronto Consumer Price Index (commencing on January 1, 2003).

4.0 BENEFITS OF OUTSOURCING

The successful implementation of the outsourcing agreement has provided significant benefits to OPG as listed below:

- Allows OPG to focus on core business which is the safe, efficient production of electricity in the Province of Ontario.
- OPG benefits from economies of scale achieved and maintained by NHSS such as purchasing power for IT related products and services.
- The leasing of the Bruce Generating Stations to a third party reduced OPG’s IT requirements. The outsourcing arrangement allowed the lessee to contract IT services directly with NHSS for the use of OPG’s excess capacity, saving OPG $8 million in IT costs annually.
- Continues to drive efficiencies in the form of a contracted 5% reduction in the cost of Base Services effective January 1, 2003 resulting in annual savings of $3 million, gain share savings of $4 million annually, and potential infrastructure cost savings of $1 million per year as discussed in 5.0.
- Transfers service delivery risk to NHSS, with financial penalties if specified service levels are not met.
- NHSS is responsible for all aspects of labour management, including collective bargaining and staff training.
- The outsourcing arrangement provides a ready source of highly trained staff with technical expertise.
- NHSS is able to manage and allocate the work force where needed.

5.0 COST SAVING INITIATIVES

Reliable and cost effective information technology services are critical to safe and efficient operation of OPG’s generation facilities. The amended and restated ITSA contained a number of cost reduction which benefited OPG.
Guaranteed Price Reduction

Effective January 1, 2003, the price to OPG for the initial set of Base Services was reduced
to a level below OPG’s original cost for those same services. This price reduction was
 guaranteed to OPG and was implemented whether or not NHSS had found the required cost
 savings.


The Gain-Sharing Phase period was designed to reduce costs associated with the provision
of the Base Services under the outsourcing arrangement. The initiative was structured to
benefit both OPG and NHSS by sharing cost reductions achieved by NHSS during this
period, although OPG’s share of the reductions was significantly larger than NHSS’ share.
Gain Sharing savings resulted in a reduction of the price for Base Services of approximately
$4 million annually, which continue to the end of the contract term.

Infrastructure Cost Savings (January 1, 2005 – End of Contract)

Infrastructure cost savings are based on the cost of third party contracts and materials,
calculated annually, and shared on a 50/50 basis between OPG and NHSS during the
remainder of the term of ITSA. The cost savings have been approximately $1M annually.

6.0 PERFORMANCE STANDARDS

Throughout the ten year term of the ITSA, NHSS is responsible for providing IT services to
OPG in accordance with specified performance standards. NHSS is required to monitor,
analyze and report to OPG the service levels achieved.

Three types of performance standards are specified within the agreement. They are:

- Availability Performance Standard - This is the percentage of time that a service element
  (e.g., an application) is available to the end user which is tracked and reported either on a
  24/7 or prime time basis.

- Response Time Performance Standard - This is the time that it takes for an application to
  carry out a transaction.
1. Problem Resolution Time - This is the time that it takes for NHSS to respond to and resolve an outage or satisfy a request which is traced and reported either on a 24/7 or prime time basis.

If service levels fall below the specified performance standards, OPG is entitled to a performance credit. NHSS is incented to earn back 50% of the credit by meeting or exceeding the applicable incentive performance standards for four consecutive months immediately following the month in which the service level failure occurred.

7.0 PERFORMANCE MONITORING

As operational efficiencies are integral to the success of OPG, OPG requires NHSS to keep complete and accurate logs of all service failures in accordance with a mutually agreed upon methodology.

- Each business day during the term, NHSS provides a report to OPG detailing the status of all existing service failures.
- On a weekly basis, NHSS provides to OPG a report detailing OPG’s capacity utilization relating to computing and data storage requirements for essential service elements and network circuit utilization.
- On a monthly basis, NHSS provides OPG with a dashboard report detailing the performance of each service element, total outage time for each planned and unplanned outage, actual resolution time, total number of transactions, response time, call percentage and call resolution rate for Help Desk and others. OPG also reviews the status of all existing service failures and other operational issues with NHSS.