

Ontario Power Generation Inc.

2017 audit plan

31 December 2017



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The Audit and Risk Committee of the Board of Directors
Ontario Power Generation Inc.

2 August 2017

Dear Members of the Audit and Risk Committee,

We look forward to discussing the current year audit plan for Ontario Power Generation Inc. ("OPG" or "the Company") on 9 August 2017. At that time, we will outline the scope and terms of our services, identify the EY team that will perform the audit, and present the key considerations that will affect the 2017 audit. We are providing the enclosed materials so you can familiarize yourselves with them prior to our meeting.

The audit is designed to express an opinion on the 2017 consolidated financial statements. We are currently completing the planning phase of our audit, and have aligned our procedures to consider OPG's current and emerging business risks and evaluate those risks that could materially affect the financial statements.

We appreciate that OPG selected EY to perform its 2017 audit and are committed to executing a quality audit that embraces the responsibility of serving the Audit and Risk Committee, public interest and capital markets.

Very truly yours,

[EY signature]

Tracy Brennan, CPA, CA Sam Whittaker, CPA, CA



Contents

3	Executive summary
4	Revenue recognition – update
5	Planning materiality
	Our audit plan
6	▶ Audit approach
8	▶ Areas of audit emphasis
16	▶ Involvement of others
18	Inquiries relating to matters relevant to the audit
19	Preapproval of EY services
	Appendices
20	▶ Appendix A - 2017 EY services
22	▶ Appendix B - Timing of required communications with audit committees
25	▶ Appendix C - Client service team
27	▶ Appendix D - Financial Reporting Developments
32	▶ Appendix E - EY critical insights - Audit analytics

Executive summary

Audit timeline

- ▶ We will perform our interim procedures during the months of July through December and our year end procedures during the months of January through March and plan to report to you on 8 March 2018.

Audit strategy, including significant risks identified

- ▶ Our audit strategy, including significant risks identified, for the 2017 audit is outlined in the "Areas of audit emphasis" section on pages 8 to 15.
- ▶ Our commentary highlights areas that, in our view, are subject to significant judgment and complexity, thereby requiring heightened professional skepticism as we complete our audit procedures.
- ▶ Planning materiality for 2017 is established at \$75 million.
- ▶ Given changes impacting OPG from year to year, significant accounts are re-evaluated each year. All accounts for 2016 which were considered significant continue to be significant in 2017, except other long-term assets. In addition, a new account was identified as significant in 2017, which is 'Intangibles'.

Involvement of others

- ▶ We plan to use the work of external specialists in selected areas of our 2017 audit. The following areas include:
 - Internal control over financial reporting
 - Pension and post-employment benefit plans ("OPEB")
 - Fixed asset removal and nuclear waste management liabilities ("Asset retirement obligations" or "ARO")

More detail is included on page 16.

Accounting developments affecting OPG in 2017

- ▶ Refer to Appendix D for additional details.

Significant 2017 considerations

- ▶ During the course of the year, we identify and discuss with management significant considerations and transactions impacting the 2017 consolidated financial statements.

Areas of audit emphasis

- ▶ Asset retirement obligations
- ▶ Pension and OPEB liabilities
- ▶ Ontario Fair Hydro plan
- ▶ Nuclear asset removal and nuclear waste management funds ("Nuclear Segregated Funds")
- ▶ Rate regulated revenue, assets and liabilities
- ▶ Independent Electricity System Operator ("IESO") Generation Revenue
- ▶ Income Tax
- ▶ Legal and environmental provisions

Revenue recognition - update

Status of management's implementation

Topic summary

The revenue standard will change the way many companies measure and recognize revenue and will expand the disclosure requirements for all companies. More judgments and estimates may be required across multiple business functions than in the past. Companies should be timely executing on a well-developed plan to implement the standard.

Status of management's implementation	Summary of planned audit procedures over implementation
➤ OPG has developed and commenced its project plan and the scoping of revenue streams, which include: – Energy Supply Agreements; – Certain variance and deferral accounts that are recorded in revenue, including the nuclear rate smoothing account; – The revenue components of the Bruce Power Lease Agreement, which includes supplementary rent, fees for nuclear waste management other than used fuel; and – Fees for certain other services and existing contracts to determine the impacts of this new revenue standard on its financial reporting and disclosures. ➤ OPG is currently in the process of reviewing contracts and developing a preliminary accounting policy. ➤ On 1 March 2017, the AICPA's Power & Utilities Industry Task Force issued a publication on implementation issues related to accounting for tariff sales to regulated customers, which is currently out for comment. The recommendations within the draft are in-line with management's expectations and implementation analysis. OPG will continue to monitor continued interpretations and the impact on its preliminary assessments as the effective date nears. ➤ OPG has yet to conclude on whether the full retrospective or modified retrospective application approach will be used. Regardless of the approach used, OPG's impact analysis, technical accounting position papers and conclusions, as well as any process and system changes required to capture data for reporting under the new revenue recognition standard, are expected to be largely completed in advance of the effective date.	➤ Gather evidence to support the company's training program related to the new standard, understanding and obtaining evidence of the company's revised risk assessments, including reassessing any fraud risks in the revenue process and the planned modifications to controls that are necessary to address these new risks. ➤ Obtain and document our understanding of the entity's process for implementing Accounting Standards Codification ("ASC") 606, including: the entity's governance structure; project plan, including timeline; plan for revenue stream identification and scoping and contract reviews; review and approval plan for the entity's final accounting policy and the entity's plan for computing the transition-related adjustments. ➤ Identify and assess risks of material misstatement related to adoption, if any. ➤ Perform substantive testing related to the amounts disclosed, including estimated cumulative catch-up, anticipated retrospective revisions and/or expected prospective accounting changes. ➤ Perform substantive testing over the entity's contract reviews and perform some independent testing. ➤ Read management's new accounting policy and determine if it appropriately meets the requirements of the standard. ➤ Review draft disclosures made by the entity on the impact of the adoption of the new standard.

Detailed discussion of management's status compared to expectations

- We evaluate the status of each of our clients compared to their competitors and the benchmark timeline expected for effective implementation of the new revenue standard. OPG's progress is in line with the majority of its peers, however, this is behind the benchmark timeline. We understand management has implemented a plan that will allow them to meet their original timeline, which is aligned with the benchmark.
- The project is reaching a critical stage, therefore conclusions on accounting implications and the transition method need to be made in the coming months.
- Within the Power & Utilities industry, many companies have indicated that they will be at the stage to disclose quantitative impact of the adoption of the new revenue standard in Q3 2017, and the majority are planning on adopting the modified retrospective approach.

Planning materiality

- » At the conclusion of the audit, we formulate our opinion on the consolidated financial statements of OPG as to their fair presentation in all material respects in accordance with United States generally accepted accounting principles (US GAAP).
- » Our estimation of planning materiality requires professional judgment and necessarily takes into account qualitative as well as quantitative considerations.
- » Based on the 2017 forecast and OPG's 30 June 2017 results, we estimate the materiality for the audit of the 2017 consolidated financial statements to be \$75 million, which represents 4% of projected earnings before interest, tax, depreciation, and amortization (EBITDA) for the year ended 31 December 2017 adjusted for earnings and accretion relating to the nuclear segregated funds and one-time gain on sale of head office premises. This percentage falls within the range of 3-5% of EBITDA that we have assessed as appropriate for OPG.
- » The 2017 preliminary materiality level will be reviewed on an ongoing basis throughout our 2017 audit. Should actual results vary significantly from those forecast, the materiality level may be adjusted in order to recognize this change in circumstances.

Audit approach

Our planned audit approach	
For purposes of the audit of the financial statements, our audit scope is developed after considering the inherent and control risks and the effectiveness of the Company's internal controls. A variety of factors are considered when establishing the audit scope including size, specific risks, the volumes and types of transactions processed, changes in the business environment, and other factors. We distinguish between the following strategies: » Identify and evaluate controls (controls strategy); and » Do not identify and evaluate controls (substantive strategy).	All accounts of OPG were determined to be significant based on preliminary materiality determinations except the following: » Common shares; » Retained earnings; » Equity attributable to non-controlling interest; » Other long-term assets; » Investments subject to significant influence; and » Property taxes. Using our cumulative knowledge of the OPG's business, including the results of audit procedures in prior years and the knowledge gained from the current year's procedures that have been completed, we established a preliminary strategy for placing reliance on controls related to the flows of transactions and/ or significant processes. Our intention based on our planning, is to test and rely on controls over the following significant accounts, in order to increase overall efficiency of the audit by reducing the nature, timing and/or extent of substantive procedures: » Cash and cash equivalents; » Fuel inventory; » Materials and supplies; » Property, plant and equipment; » Accounts payable and accrued charges; » Debt; » Generation revenue; » Fuel expense; » Operations, maintenance and administration ("OM&A"), excluding pension and OPEB; » Depreciation expense; » Net interest expense. Should the execution of our tests of controls result in exceptions, this may affect our planned reliance on such controls in conducting our year-end procedures. We will communicate to you any changes to our audit approach.

Our audit plan

Audit approach

Our planned audit approach (continued)	For the remaining significant accounts, we will take a substantive approach, as we believe that this will result in a more efficient audit of these accounts based on their nature. ▶ Available-for-sale securities ▶ Receivables ▶ Other current assets ▶ Nuclear fixed asset removal and nuclear waste management funds and related income statement accounts ▶ Materials and supplies - obsolescence ▶ Regulatory assets and liabilities ▶ Intangibles ▶ Deferred revenue ▶ ARO and related income statement accounts ▶ Pension and OPEB liabilities and related income statement accounts ▶ Income taxes payable/receivable and related income statement accounts ▶ Deferred income taxes and related income statement accounts ▶ Non-energy revenue, including trading revenue ▶ Other gains/losses ▶ Accumulated other comprehensive income/loss ▶ Financial statements and disclosures

Our audit plan

Areas of audit emphasis

Our audit procedures emphasize testing those accounts, contracts, or transactions where we believe there is the greatest risk of material misstatement to the consolidated financial statements, whether due to error or fraud, including disclosure items. We consider the effects of current market risk factors on OPG, the areas where potential for management bias may exist, and also place emphasis on those areas requiring difficult, subjective, or complex determinations by management with heightened professional skepticism. We will reassess our risk assessment and other internal and external factors influencing the Company throughout our audit, and communicate to the Audit and Risk committee any changes to our initial plan, as necessary. Our areas of audit emphasis, including areas with identified significant risks, are as follows.

▸ Asset retirement obligations

▸ Pension and OPEB liabilities

▸ Ontario Fair Hydro Plan

▸ Nuclear Segregated Funds

▸ Rate regulated revenue, assets and liabilities

▸ IESO generation revenue

▸ Income tax

▸ Legal and environmental provisions

Shaded areas indicate accounts or transactions identified as having significant risks, which are risks with both a higher likelihood of occurrence and a higher magnitude of effect that require special audit considerations.

Areas of audit emphasis

Asset Retirement Obligations

Area of emphasis

OPG is responsible for the ongoing long-term management and disposal of radioactive waste materials, including used fuel resulting from its nuclear operations and the future decommissioning costs of its nuclear and thermal generating stations. OPG has no legal obligation associated with the decommissioning of its hydroelectric generating facilities.

OPG estimates both the amount and timing of future cash expenditures based on current plans for fixed asset removal and nuclear waste management.

The fair value of ARO is calculated using an expected present value technique which reflects assumptions, such as costs and inflation, decommissioning and waste management strategy and waste volumes. Cost estimates are provided by external experts such as Nuclear Waste Management Organization ("NWMO") and third party decommissioning studies.

The determination of the accrual for fixed asset removal and nuclear waste management costs requires significant assumptions since these programs run for many years. As part of the Ontario Nuclear Funds Agreement ("ONFA"), OPG is required to re-evaluate the funding requirements for these nuclear obligations at least once every 5 years. The most recent comprehensive assessment of the inputs and assumptions for the nuclear waste management and decommissioning liabilities was performed as at 31 December 2016, as part of the approved 2017-2021 ONFA Reference Plan update process.

Summary of planned audit procedures

- » Significant Risk: Assumptions used, such as estimated timing of the programs, station end of life dates, financial indicators, evolving technology and discount rates, may have a significant impact on the value of the ARO. Inappropriate or unsupportable assumptions used may result in a material misstatement in the consolidated financial statements and disclosure and is susceptible to earnings management.
- » Every five years, in line with the ONFA Reference Plan update process, EY performs an in-depth analysis to assess the appropriateness of the inputs and key assumptions underlying the calculations of the nuclear ARO. In addition, examination of supporting documentation and review of any correspondence received from the province and inquiries made with internal and external experts will be performed. These procedures were last performed in the year ending 31 December 2016 as part of the 2017-2021 ONFA Reference Plan update process. Although comprehensive reassessment of all inputs and assumptions relating to the nuclear ARO is typically performed every five years in conjunction with the ONFA update process, EY will assess whether there are any significant events during the year that would give rise to a change in the key assumptions used in the calculation of ARO and would require a more detailed review.
- » For thermal generating stations expected to be decommissioned in the near term, we will obtain available proposals and executed contracts and compare them to the cost estimates used in management's estimate of the thermal ARO and investigate any material differences.
- » EY will also perform the following procedures:
 - » Test the nature and occurrence of a representative sample of costs applied against the provision;
 - » Perform a reasonability on accretion expense and recalculation of provision expense of each program;
 - » Perform an assessment of inputs and assumptions relating to the ARO, including involvement of internal specialists where applicable, and review correspondence and supporting documentation from management experts;
 - » Evaluate the competence, capabilities, objectivity and work of management experts;
 - » Assess appropriateness of accounting and disclosures.

Areas of audit emphasis

Pension and OPEB liabilities

Area of emphasis

The fundamental objective of pension and OPEB accounting is to recognize the compensation cost of, and obligation for, an employee's pension benefits (including prior service cost) or expected post retirement benefit obligation over that employee's approximate service period.

The pension and OPEB obligations are impacted by factors including discount rates, adjustments arising from plan amendments, changes in demographic assumptions, experience gains or losses, salary levels, inflation, and cost escalation.

Pension and OPEB costs and obligations are determined annually by independent actuaries using management's best estimate assumptions.

Effective 1 January 2017, OPG adopted a full yield curve approach to the estimation of the interest cost and current service cost component of pension and OPEB costs, by applying the specific spot rates along the yield curve used in the determination of the projected benefit obligations to the relevant projected cash flows. Under the previous method, these components of pension and OPEB costs were calculated using the same single weighted-average discount rates as reflected in the calculation of the benefit obligations. This change in the method was accounted for prospectively, as a change in estimate, which is consistent with other entities adopting the full yield curve approach. The change resulted in a reduction in pension and OPEB costs of approximately \$70 million in the second quarter of 2017. Approximately 90 percent of this reduction in pension and OPEB costs was attributed to the Company's regulated operations and therefore was offset by the impact of OEB-authorized variance and deferral accounts.

Summary of planned audit procedures

- Significant Risk: Assumptions used have a significant impact on the valuation of the pension and OPEB liabilities. Inappropriate or unsupported assumptions used may result in a material misstatement in the consolidated financial statements and disclosure given the complexity and judgment involved.
- EY will review the reports issued by the actuaries.
- EY will test participant data which is provided to the actuaries for the purpose of the valuation.
- EY will test the valuation of a sample of pension investment assets using independent pricing sources (i.e. Reuters, Bloomberg).
- EY will recalculate the variance between the planned amounts submitted to the Ontario Energy Board ("OEB") and actual amounts to corroborate the balances in the Pension and OPEB related variance and deferral accounts.
- EY will engage EY actuarial specialists to assist in reviewing the actuarial assumptions and the accounting mechanics used in the actuarial reports as at 31 December 2017 and to compare the assumptions used against what we believe to be acceptable ranges based on industry and other knowledge and assess appropriateness of accounting disclosures.
- EY actuarial specialists will perform obligation testing by reproducing valuation results for the plans on an aggregate basis, using valuation software to determine accurate application of the indicated methodology, plan provisions, and assumptions.
- EY concurs with management that the prospective adoption of the full yield curve approach will result in a change in estimate that will improve the correlation between projected benefit cash flows and the corresponding yield curve spot rates, and provide a more precise measurement of service and interest costs.
- EY actuarial specialists:
 - Reviewed the appropriateness of assumptions used in the full yield curve approach calculations under US GAAP (ASC 715); and
 - Reviewed the disclosure of the change in estimate in the consolidated financial statements.
- EY actuarial specialists will evaluate the appropriateness of the pension and OPEB expense recorded as at 31 December 2017; and any changes to the assumptions or methodology as applicable.

Areas of audit emphasis

Ontario Fair Hydro Plan

Area of emphasis

On 2 March 2017, the Province announced Ontario's Fair Hydro Plan (the Plan) aimed at reducing electricity bills by 25 percent, on average, for all residential consumers in the Province (inclusive of an 8% reduction implemented earlier in 2017 through a rebate of the provincial portion of HST on electricity bills). As part of the Plan, the Province has proposed refinancing a portion of the Global Adjustment costs over a longer time period for Regulated Price Plan eligible customers.

On 1 June 2017, the Province enacted the Ontario Fair Hydro Plan Act, 2017 and made certain amendments to other electricity legislation, which will enable the IESO and OPG to work together to implement this financing as requested by the Province.

In June 2017, the Province finalised certain regulations that will govern the operation of the Fair Hydro Plan. The regulations clarify aspects of the structure and programs that are required for OPG to refinance a portion of the Global Adjustment through a Trust. The Company's credit rating and reputation could potentially be impacted by consolidation of the Fair Hydro Plan financial results and position into OPG's financial statements.

OPG's Board of Directors, which has established a Special Committee to provide oversight on behalf of the Board of Directors, has conditionally approved OPG's involvement with the Plan. Agreements that would establish the financing entity, specific operating protocol between the IESO, OPG and the financing entity, and requirements for financing the Plan are being negotiated. OPG continues to work with legal counsel, financial advisors and credit rating agencies to prepare for financing activities of the financing entity that are expected to commence in the second half of 2017.

The cost of refinancing would be recovered through a Clean Energy Adjustment to consumer hydro bills - anticipated to begin occurring in the mid-to-late 2020. Rate increases for four years would be held to the rate of inflation. OPG will establish a Special Purpose Vehicle / Trust to finance and administer the Global Adjustment costs through a mixture of external financing and an equity injection from the Ontario Financing Authority. It is expected that OPG will control the Trust for accounting purposes and that it will be consolidated with OPG's consolidated financial statements. OPG is estimated to derive financial benefit from its debt investment in the Trust to be established.

Summary of planned audit procedures

- » EY continues to review the legislation, regulations and related agreements to evaluate the ability of OPG to consolidate the Trust entity under IFRS.
- » EY reviewed management's accounting memo which summarizes their preliminary views on the accounting impacts of the Ontario Fair Hydro Plan on OPG's accounting under IFRS.
- » As additional documentation and agreements are finalised between the relevant parties and management completes their accounting analysis under US GAAP, EY will review the related documentation in order to evaluate the accounting implications of the Fair Hydro Plan on the OPG consolidated financial statements on an ongoing basis.
- » As a result of the procedures performed to date, we are not aware of any adjustments required to the accounting or disclosures as at 30 June 2017.
- » EY will continue to work closely with management and the Special Committee on this matter.

Areas of audit emphasis

Nuclear Segregated Funds

Area of emphasis

In accordance with the ONFA, OPG sets aside and invests funds that are held in segregated custodian and trustee accounts specifically for discharging its obligation for nuclear asset removal and nuclear waste management. The ONFA outlines the roles and responsibilities of the Province and OPG concerning the establishment of the following investment funds:

- » The Used Fuel Segregated Fund to cover eligible costs for the long-term nuclear used fuel waste management; and
- » The Decommissioning Segregated Fund to cover eligible costs for the nuclear fixed asset removal and long-term low and intermediate level nuclear waste management

OPG is required to classify their investments according to the fair value hierarchy, unless the investments are measured using Net Asset Value as a practical expedient for determining their fair value. The practical expedient is used primarily for pooled money institutional investments in infrastructure, agriculture, and real estate, which are subject to complex estimation.

Summary of planned audit procedures

- » EY will perform audit procedures over the existence and valuation of the investments, including third party confirmations, analytical procedures, review of valuation reports by internal specialists and agreeing a sample of real estate investment properties to their appraisals.
- » EY will express a separate opinion on, and report to appropriate members of management and/or the Audit and Risk Committee on the results of our audit over the annual financial statements of the Nuclear Segregated Funds.

Areas of audit emphasis

Rate regulated revenue, assets and liabilities

Area of emphasis

OPG's accounting policies recognize the financial effects of the rate-making and accounting practices and policies imposed by the OEB which has jurisdiction over OPG's prescribed generating assets.

OPG records regulatory assets when there is sufficient assurance that incurred costs will be recovered in the future. Regulatory liabilities are recorded when OPG is required to refund amounts to ratepayers in the future. Disallowed balances, including associated interest, are charged to operations in the period that the OEB's decision is issued.

The recognition and measurement of regulatory balances is subject to certain estimates and assumptions, including those made in the interpretation of OEB decisions.

In May 2016, OPG filed a 5-year rate application with the OEB for new regulated prices for production from its regulated hydroelectric and nuclear facilities, with a proposed effective date of 1 January 2017. In March 2017, OPG submitted a modified nuclear rate smoothing proposal to the OEB to reflect amendments to *Ontario Regulation 53/05*.

In March 2017, the OEB approved a settlement agreement reached by OPG and intervenors on a limited set of issues in OPG's application. The OEB continued to conduct public oral hearings on the unsettled issues in OPG's application. Final arguments on the application were filed in June 2017. The OEB's decision on the application, including the effective date of new regulated prices, is expected later in 2017.

In May 2017, the OEB issued a report on the regulatory treatment of pension and OPEB costs incurred by rate-regulated Ontario energy utilities and appropriate regulatory mechanisms for cost recovery. It established the use of the accrual accounting method as the method of determining pension and OPEB amounts for rate-setting purposes, unless the OEB finds that this method does not result in just and reasonable rates in circumstances of a particular utility. It also established a variance account to track the difference between the forecasted accrual amount in rates and actual cash payments made, with an asymmetric carrying charge in favour of ratepayers applied to the differential. The report requires utilities such as OPG that have been previously directed to record differences between pension and OPEB accrual costs and cash payments in a separate, previously established variance account to continue to defer such differences in that account, until such time as the OEB approves the utility to resume the accrual basis of recovery. The future recovery of amounts recorded in the existing account will be subject to this approval. OPG does not expect it would be subject to the carrying charges on differences between pension and OPEB accrual costs and cash payments until either it begins to recover, through rate riders, amounts deferred in the Pension & OPEB Cash Versus Accrual Differential Deferral Account, or the OEB establishes OPG's base regulated prices to reflect pension and OPEB amounts on an accrual basis. As such, Management is of the view issuance of the report did not impact OPG's financial results for the three and six month periods ended June 30, 2017.

Summary of planned audit procedures

- » EY will assess the accounting impact of the OEB's decision on OPG's 2017-2021 rate application.
- » EY will assess the accounting impact of the OEB's decision with respect to OPG's rate smoothing proposal.
- » EY will assess the implications of the OEB report on the regulatory treatment of pension and OPEB costs and the recoverability of existing deferral and variance account balances.
- » EY will review relevant decisions made by the OEB to determine if the changes in the various variance and deferral accounts are appropriate and in accordance with the OEB's decisions and directives. As management's judgments and interpretations are applied in some cases when analyzing relevant decisions and recording costs within the variance and deferral accounts, EY will apply a heightened degree of professional skepticism to address these areas that may be subjective in nature and ensure that the accounting treatment applied is in accordance with the requirements of ASC Topic 980, *Regulated Operations*.
- » EY will analyze the change in accumulated deferred costs and revenue that comprise the regulated assets and liabilities.
- » EY will also examine any new variance and deferral accounts established in 2017, to determine recognition of related balances, if any, in accordance with the OEB decisions and directives.
- » For those regulatory assets and liabilities that comprise variance and deferral account balances approved by the OEB for inclusion in regulated prices, EY will examine if the balances are amortized based on approved recovery periods.
- » EY will review the accounting impact of any changes to the recovery methodologies for reasonability.

Areas of audit emphasis

IESO generation revenue

Area of emphasis

OPG generates in excess of 90% of its revenue from the production of electricity from its nuclear, hydroelectric and thermal generation stations. Revenue is recognized as electricity is generated and metered to the IESO.

Energy revenue from OPG's regulated facilities is based on regulated prices determined by the OEB. Most of the remaining unregulated facilities are subject to an energy supply agreement with the IESO.

Summary of planned audit procedures

- » EY will update our understanding and walkthrough the IESO generation revenue process and perform specific test of controls in this area over various inputs (i.e. meter read data) and outputs to determine if IESO transactions are appropriately confirmed, monitored, reconciled, and billed.
- » EY will perform test of details including obtaining all monthly IESO invoices for the year, confirming all details directly with the IESO, and reconciling the invoices to the general ledger, including a comparison between December accrual and actual invoiced amounts.

Income Tax

Area of emphasis

OPG follows the liability method of tax accounting for both its regulated and unregulated operations. OPG recognizes deferred income taxes associated with its rate regulated operations and records an offsetting regulatory asset or liability for the deferred income taxes that are expected to be recovered or refunded through future regulated prices charged to customers.

OPG has a reserve for uncertain tax positions to cover possible exposures that may arise as a result of an income tax audit. This reserve is based on management's assessment of the exposures related to specific items in open years.

Summary of planned audit procedures

- » The determination of taxable income in its jurisdictions requires interpretation of the related tax laws (The Electricity Act, 1998, The Income Tax Act and Ontario Taxation Act, 2007) and the estimation of tax contingencies involves interpretation of complex tax laws as well as judgment in determining the amounts.
- » EY will recalculate the calculation of the current year tax provision, as well as the deferred tax balances.
- » EY will review and assess the adequacy of the accrual for uncertain tax exposures.
- » EY will review the tax implications of significant business and capital transactions and the presentation of current and deferred taxes for appropriate disclosure in the consolidated financial statements.
- » EY will verify the calculation of deferred income tax liabilities and corresponding regulatory assets to determine if it is appropriate.
- » EY will review the basis of any reversals of the reserve for uncertain tax positions as a result of the outcomes of the income tax audits.

Areas of audit emphasis

Legal and environmental provisions

Area of emphasis

OPG records provisions for estimates of costs for future and ongoing remediation, litigation and administrative costs when legal and environmental claims are deemed probable by OPG's legal counsel and subject to reasonable estimation.

Provisions are recorded for regulatory and legal proceedings that arise in the ordinary course of business when probable and subject to reasonable estimation. Many factors are considered in making an assessment of a contingency, including history and stage of litigation. Estimates are based upon consultation of legal counsel (in-house and/or external). Legal fees are generally expensed as incurred.

Summary of planned audit procedures

- ✧ In order to assess the adequacy and completeness of the legal and environmental provisions and related disclosures, we will:
 - ✧ Understand the process for establishing provisions and disclosures;
 - ✧ Obtain updates on the status of certain projects and any changes to laws and regulations impacting OPG;
 - ✧ Review the legal summaries prepared by internal legal counsel and have discussions on case updates and monetary ranges of exposure;
 - ✧ Obtain supporting documentation for significant draw-downs, payouts, and reversals of provisions;
 - ✧ Circulate audit inquiry letters to OPG's external and internal legal counsel, where applicable; and
 - ✧ Evaluate the completeness of provisions and related disclosures based on status of claims, projects, and responses to our audit inquiry letters.

Our audit plan

Involvement of others

As part of our 2017 audit, we will consider whether and to the extent, we can use the work of others. The table below presents those areas where we plan to perform the audit work independently and other areas where we plan to use others in the 2017 audit.

For internal controls over financial reporting, EY independently performs walkthroughs for all significant class of transactions. Where assessed as appropriate, we use the work of OPG's Internal Controls Group, PwC and Internal Audit for test of controls, and assess it by re-performing it on a sample basis.

Areas where EY plans to primarily use the work of others for test of controls:

- Payroll
- Fixed Assets
- Inventory
- Purchases and Payables
- Receivables and Receipts
- Budgeting
- Treasury
- Financial Statement Close
- Energy markets - IESO Settlements
- IT General Controls

Areas where EY plans to test independently for test of controls:

- Entity Level Controls

Other areas/significant class of transactions where EY is planning to use the work of others:

External specialists

Entity

- | | |
|---|-------------------------------------|
| ▸ Actuarial valuation of OPG's pension and OPEB plans | ▸ AON Hewitt |
| ▸ Pension and OPEB accounting and disclosures | ▸ AON Hewitt |
| ▸ Assistance in the assessment of ARO | ▸ NWMO and other management experts |

IT Environment

Planned IT scope

EY plans to use the work of OPG's Internal Audit group to test the IT general controls over change management, logical access and IT operations controls, and assess it by re-performing it on a sample basis, for the following IT applications:

- SAP
- AS7
- Ariba
- STAR
- iSTAR
- ERIS
- Aligne
- Tempus
- Oncore
- Quantum

Inquiries relating to matters relevant to the audit

We perform inquiries related to fraud and other matters to help inform our audit strategy and execution of our audit procedures. As a part of our upcoming meeting, we would like to discuss the following topics with you in order to understand any matters of which you believe we should be aware, including, but not limited to:

- » Your views about the risks of material misstatements due to fraud, including the risks of management override of controls;
- » Your knowledge of any actual, alleged or suspected fraud;
- » Your awareness of tips or complaints regarding OPG's financial reporting (including those received through the audit committee's own "whistleblower" program, if any) and your response to such tips or complaints;
- » How you exercise oversight over OPG's assessment of fraud risks and the establishment of controls to address these risks;
- » Your awareness of other matters relevant to the audit including, but not limited to, violations or possible violations of laws or regulations;
- » Your understanding of OPG's relationships and transactions with related parties that are significant to OPG;
- » Whether any member of the Audit and Risk committee has concerns regarding relationships or transactions

with related parties and, if so, the substance of those concerns; and

- » Whether OPG has entered into any significant unusual transactions

When we identify a fraud risk, including a fraud risk that arises through or is associated with the risk of management override of controls, we perform audit procedures to address those risks. In addition to any specific responses related to the fraud risk, we also examine journal entries, review accounting estimates for management bias and evaluate the business rationale of significant unusual transactions as required by our professional standards.

Various fraud risk factors including cost recognition relating to procurement, improper revenue recognition, as well as cost recognition and recovery of variance and deferral accounts were analyzed and discussed amongst the executive team. Upon the thorough analysis of the opportunities, incentives and rationalization for each of the areas identified above, EY did not consider any of these to result in fraud risk factors. EY will continue to assess various areas of the audit for any new information obtained and determine whether a fraud risk factor is identified. Any significant changes with respect to our assessment of fraud risk factors will be communicated to management and the Audit and Risk Committee.

Preapproval of EY services

Fair and transparent fees

- » Please refer to the management's fee schedule in the Board materials.



Appendix A

2017 EY services

Services and deliverables

Audit and audit-related services

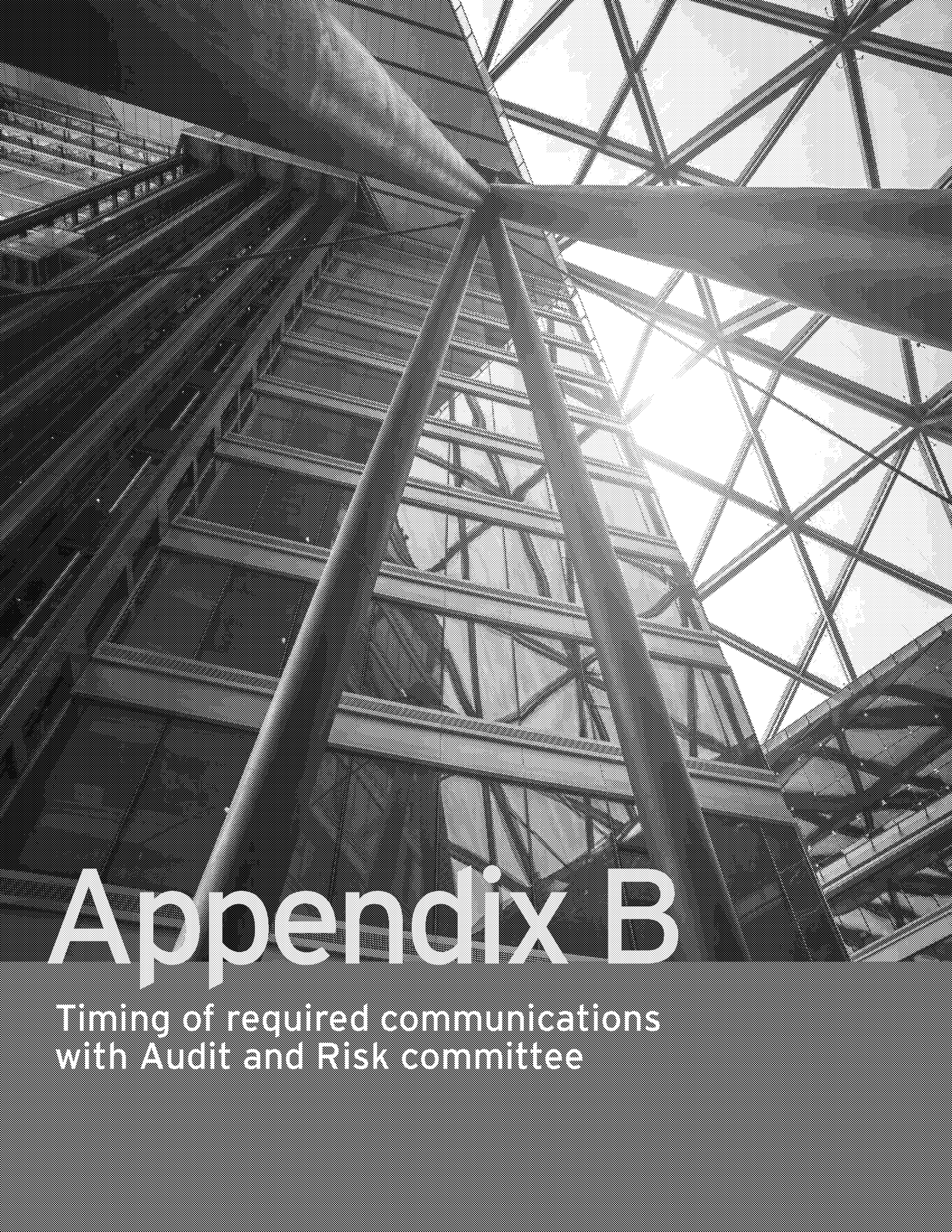
- Issue a written consent for the use of our auditors' report in a continuous disclosure document, as required, and in accordance with the terms of our engagement agreement.
- Express opinions on, and report to appropriate members of management [or the Audit and Risk Committee, when required] on the results of our audits over the annual financial statements of: OPG Nuclear Segregated Funds, UMH Energy Partnership, Lower Mattagami Energy Limited Partnership, Lower Mattagami Limited Partnership, Lac Seul LP, PSS Generating Station LP, OPG Employees' and Pensioners' Charity Trust and OPG Pension Fund.
- Express opinions on the schedule of regulatory variance and deferral account balances of OPG and the financial statements of the Prescribed Facilities of OPG, as needed.
- Express an opinion relating to the verification of OPG's 2016 greenhouse gas emissions reporting pursuant to O.Reg.452/09.
- Issue a report on agreed-upon procedures with respect to OPG's Royal Trust Securitization Program.
- Issue a review report on the financial statements of OEFC Private Equity Holdco Inc., and OEFC Realty Holdco Inc.
- Issue a report based on agreed-upon procedures with respect to IFRS conversion for the purpose of the Province's financial reporting requirements.
- Issue a written communication to:
 - Management and the Audit and Risk Committee describing significant deficiencies identified during our audit, if any;
 - Management describing other deficiencies in internal control identified during the audit that in our professional judgment, are of sufficient importance to merit their attention, if any;
 - The Audit and Risk Committee about independence matters in accordance with Canadian professional standards;
 - Review quarterly results on a timely basis in accordance with professional standards, and report to the Audit and Risk Committee on the results of these quarterly reviews;
 - Issue a management letter including recommendations for improvements in controls and procedures , should any matters be noted; and
 - French translation services for public filing documents.

Other services

- Access to EY accounting database/publications and periodic accounting consultations.

Terms and conditions

- The terms of our audit on the consolidated financial statements have been summarized in our audit engagement agreement dated 10 November 2016 and included in the prior fiscal year audit results package.



Appendix B

Timing of required communications
with Audit and Risk committee

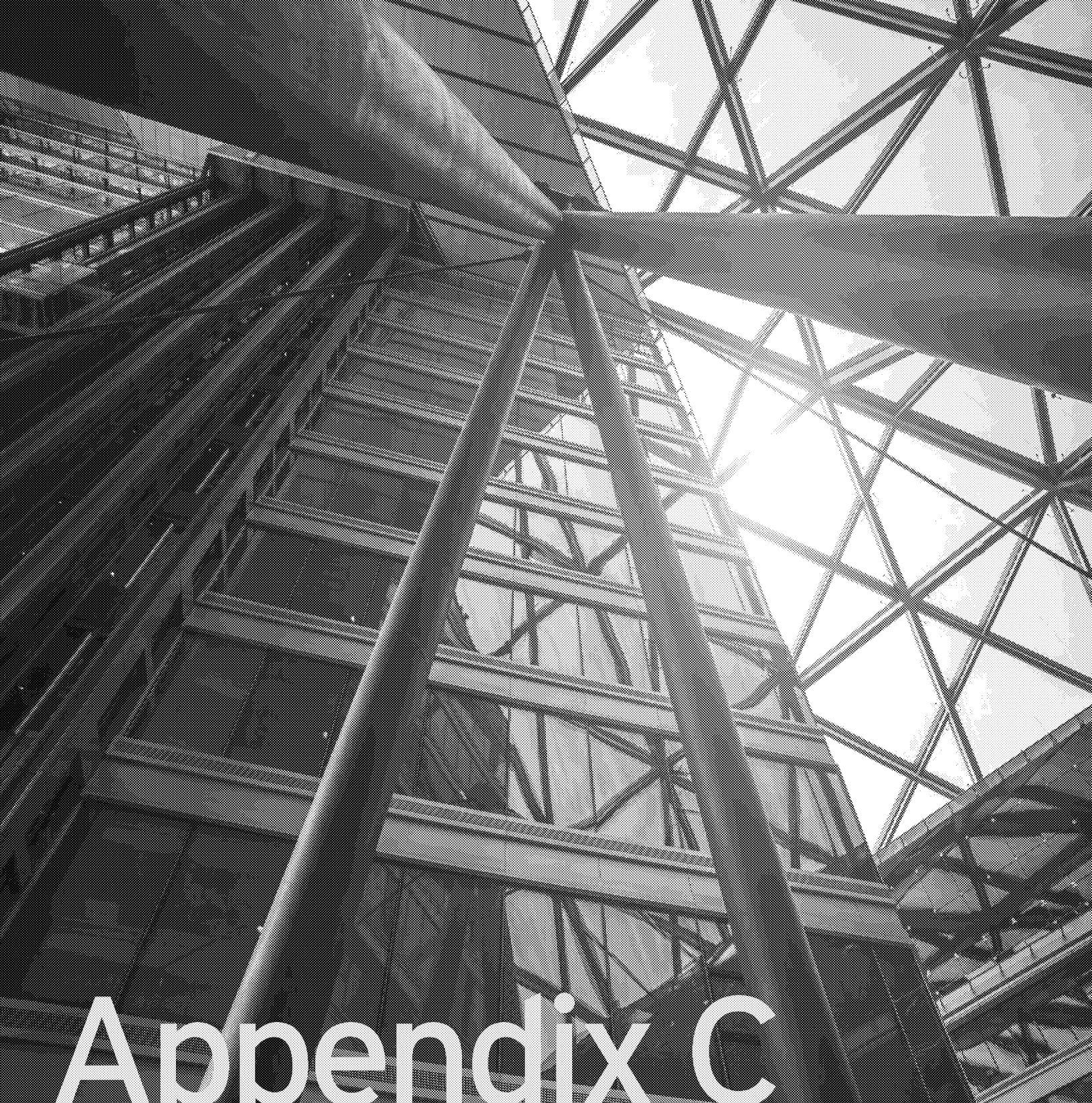
Timing of required communications

Provided below is a summary of required communications between the audit team and the audit committee as required by Canadian generally accepted auditing standards (GAAS).

	Communicate when event occurs	Communicate on a timely basis, at least annually
Our responsibility under Canadian GAAS, including discussion of the type of opinion we are issuing		X
Overview of planned scope and timing		X
Other information in documents containing audited financial statements		X
Major issues discussed with management in connection with initial or recurring retention	X	
Significant audit adjustments, including significant disclosure differences that merit the attention of those charged with governance		X
Uncorrected misstatements, including significant disclosure differences that merit the attention of those charged with governance, considered by management to be immaterial		X
Critical accounting policies and practices		X
Our judgments about the quality of OPG's accounting principles		X
The adoption of, or a change in, an accounting policy	X	
Methods of accounting for significant unusual transactions and for controversial or emerging areas	X	
Sensitive accounting estimates		X
All material alternative accounting treatments discussed with management		X
Disagreements with management	X	
Consultations with other accountants	X	
Serious difficulties encountered in dealing with management when performing the audit	X	
Fraud and non-compliance with laws and regulations (illegal acts) involving senior management that cause a material misstatement of the financial statements	X	

Timing of required communications

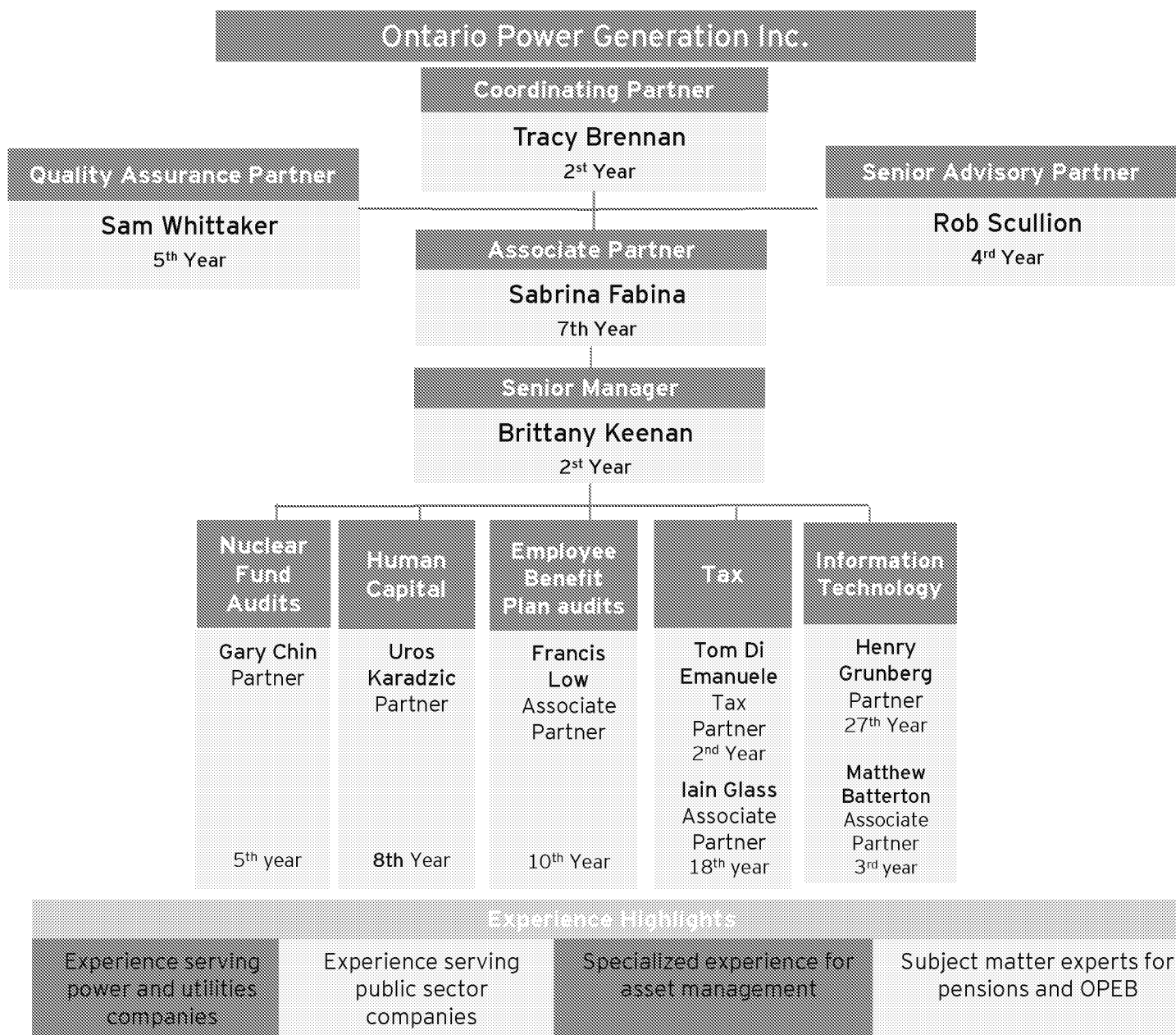
	Communicate when event occurs	Communicate on a timely basis, at least annually
Significant deficiencies in internal control over financial reporting		X
Audit committee pre-approval of services		X
Other material written communications with, and representations sought from management		X
Communication of independence matters		X
Fees and related disclosures		X
Other findings or issues regarding the oversight of the financial reporting process	X	
Subsequent events		X
Findings regarding external confirmations	X	
Related party transactions		X
Matters related to component entities of OPG		X
All relationships between auditor and OPG		X



Appendix C

Client service team

Client service team



- As required by Canadian independence rules, on audit engagements for public companies, EY will rotate the lead coordinating audit partner and the engagement quality assurance partner, no less frequently than the maximum years of service permitted by Canadian regulators. EY has a mandatory rotation policy in place which limits an engagement partner to seven consecutive years on a particular engagement. The partner rotation process renews our commitment to OPG, the Audit and Risk Committee and your stakeholders. We strive to refresh and re-challenge the critical aspects of our audit and deliver an objective, independent audit performed at the highest standards of quality and professional skepticism. EY's partner rotation process is not just about filling a key executive role with the most qualified candidate. Rather, the process is about reaffirming our commitment to OPG that we are focused on our responsibilities as auditors. Great care is taken to understand and evaluate the needs of management and the Audit and Risk Committee. Your expectations form the basis for the candidate identification.



Appendix D

Financial reporting developments

Financial reporting developments

Financial instruments – credit losses (ASU 2016-13)

What's new

- ▶ At the 12 June 2017 meeting of the FASB Transition Resource Group (TRG) for Credit Losses, members reached general agreement on three implementation issues and may revisit two others.
 - They generally agreed that entities can elect to use a discount rate adjusted for expected prepayments to determine the allowance for credit losses and can elect to maintain existing pools of purchased credit impaired assets at adoption or on an ongoing basis. They also generally agreed that entities should consider the cash flows of the assets underlying a beneficial interest, including expected prepayments, to determine whether the guidance on purchased financial assets with credit deterioration applies.
 - The TRG may revisit questions about how to determine the life of a credit card receivable and how to forecast troubled debt restructurings.
- ▶ The FASB initially worked with the IASB to develop new guidance, but the Boards ultimately were unable to reach a converged solution. The FASB's decisions on credit impairment differ significantly from the impairment model the IASB finalized as part of IFRS 9, *Financial Instruments*.

How we see it

- ▶ The model for estimating credit losses on financial instruments measured at amortized cost has fundamentally changed and will generally result in the earlier recognition of losses. When determining the loss estimate, entities will need to consider relevant information about current and future economic conditions that affect the collectibility of the reported amount of the asset.
- ▶ The new model for AFS debt securities will require entities to adjust the allowance for credit losses in each reporting period when the estimate of expected credit losses changes. Prohibiting entities from using the length of time a security's fair value is less than cost to determine whether an allowance is required may be a significant change to current practice for many entities and will likely require more analysis applied to a larger population of securities.
- ▶ Entities should begin to consider the changes in processes, systems, controls and documentation that will likely be required to comply with the new standard. They should also begin developing plans to communicate with investors and other stakeholders.

Overview and summary

- ▶ The FASB issued a new credit loss standard that changes the impairment model for most financial assets and certain other instruments. Virtually all entities will be affected.
 - For trade and other receivables, held-to-maturity debt securities, loans and certain other instruments, entities will be required to use a new forward-looking "expected loss" model that generally will result in earlier recognition of credit losses than under today's incurred loss model.
 - For available-for-sale (AFS) debt securities, entities will be required to recognize an allowance for credit losses rather than a reduction in the carrying value of the asset. Entities will no longer be permitted to consider the length of time that fair value has been less than amortized cost when evaluating when credit losses should be recognized.
 - Entities will have to disclose significantly more information, including information they use to track credit quality by year of origination for certain financing receivables.
- ▶ For public business entities that are not SEC filers, the guidance is effective for fiscal years beginning after 15 December 2020, and interim periods therein. Early adoption is allowed for fiscal years beginning after 15 December 2018.

Effect on OPG

- ▶ OPG's preliminary assessment is that the implementation of the new credit loss model will not have a significant financial impact to its operating results.
- ▶ OPG will continue to monitor developments on the associated structure of the Ontario Fair Hydro Plan and will consider any impact of the new credit loss standard once the nature of OPG's involvement with the implementation of the Ontario Fair Hydro Plan has been confirmed.

Financial reporting developments

Financial instruments – hedging

What's new

- ▶ The Board completed redeliberations and voted to proceed with issuing a final hedge accounting standard. Recent decisions made by the Board include:
 - Rescinding the proposed “market yield test” for fair value hedges of interest rate risk (which would allow entities to use benchmark rate component cash flows in determining the change in fair value of the hedged item attributable to interest rate risk even when the market yield of the hedged item is less than the benchmark interest rate)
 - Adding cross-currency basis spread to the list of components that may be excluded from the assessment of hedge effectiveness
 - Changing the base recognition model for components excluded from the assessment of hedge effectiveness for cash flow, fair value and net investment hedges to allow these amounts to be recognized in earnings through an amortization approach
 - Providing guidance to reduce the complexity associated with fair value portfolio hedges of prepayable financial instruments (such as mortgages) and allowing entities the opportunity to transfer these instruments from held-to-maturity to available-for-sale upon transition
- ▶ A final standard is expected to be issued in the third quarter of 2017.

Overview and summary

- ▶ The FASB proposed targeted amendments to its hedge accounting model that are aimed at more clearly portraying the economics of an entity's risk management activities in its financial statements. In addition, the proposal would simplify the application of hedge accounting in certain situations.
- ▶ The ability to hedge risk components would be expanded by permitting entities to designate contractually specified components as the hedged risk in cash flow hedges of variable-rate financial instruments and forecasted purchases or sales of nonfinancial assets. While component hedging of interest rate risk for fixed-rate financial instruments would continue to be limited to benchmark interest rates, the proposal would add the Securities Industry and Financial Markets Association municipal swap rate as an eligible benchmark interest rate.
- ▶ Certain issues with applying the long-haul method to fair value hedges of interest rate risk in fixed-rate financial instruments would be addressed by providing entities with additional flexibility in determining how the change in the fair value of the hedged item could be measured.
- ▶ The requirement for entities to separately measure and report hedge ineffectiveness would be eliminated. For qualifying cash flow and net investment hedges, this means that the entire change in the fair value of the hedging instrument that is included in the assessment of hedge effectiveness would be recorded in accumulated other comprehensive income and reclassified into earnings when the hedged item affects earnings.
- ▶ In addition, the entire change in the fair value of a hedging instrument would generally have to be presented in the same income statement line as the hedged item.
- ▶ Certain hedge documentation and effectiveness assessment requirements would be simplified, and practice issues associated with misapplying the shortcut method would be addressed.
- ▶ **Effective date:** The guidance will be effective for public business entities in fiscal years beginning after 15 December 2018, including interim periods within those years. Early adoption will be permitted in any interim period or fiscal year before the effective date of the standard. The amendments would be applied using a modified retrospective approach.

Financial reporting developments

Financial instruments – hedging (continued)

How we see it

- These proposed amendments would increase the number of strategies that qualify for hedge accounting and reduce some of the operational complexity in applying current strategies.
- In our comment letter, we supported addressing many of the concerns raised by preparers, users and other stakeholders about the complexity of today's hedge accounting model and the restrictions it imposes. Overall, we agree that the proposed amendments would better portray the economics of an entity's risk management activities in its financial statements and simplify the application of hedge accounting in certain situations. However, we believe the FASB should reconsider certain aspects of the proposal and provide additional guidance or clarification in some places.

Effect on OPG

- When the amendments are finalized by the FASB, OPG would need to assess the impact, if any, that the proposed changes will have on its consolidated financial statements.



Appendix E

EY critical insights - Audit analytics

Audit analytics roadmap

Topic summary

Companies are investing heavily in people, processes and technology to analyze “big data” – including vast amounts of financial data. Audit committees are expecting auditors to leverage their investment in analytics by challenging traditional audit procedures and providing more relevant business insights. The effective use of analytics can bring confidence, transparency and perspective for a higher quality audit.

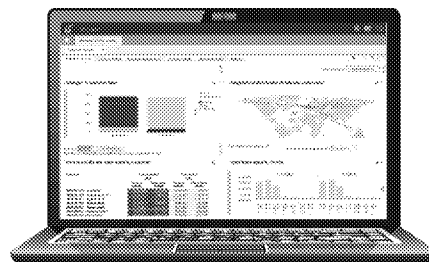
Impact of analytics on the audit

EY Helix, our suite of analytics, enables us to deliver a high quality audit by:

- Allowing us a deeper understanding of your business by analyzing larger populations of audit relevant data, to present a fuller picture of what happened and identify relevant risks.
- Identifying trends and anomalies in your processes to help direct our audit efforts in the right areas.
- Using complete data populations to obtain higher quality audit evidence within areas of higher risk.
- Delivering relevant feedback and insights during the audit, so you can optimize your business processes and controls.
- Saving the Company valuable time and effort through our repeatable data capture process using globally-integrated data extraction tools and processes.

Keys to a successful integration of analytics

- Commitment from management to support the planned data capture and analysis strategy
- Confirmation that the right people from finance and IT are available to provide approval and access rights for data extraction
- Support in creating an efficient, repeatable data capture process as quickly as possible to allow for the use of analytics throughout the audit



Comments from the team

Our use of analytics on the audit is evolving from custom JE CAATs and simple ratio analyses to include the use of visualization tools in EY Helix such as the General Ledger Analyzer^{SQL}. Based on our knowledge of your business, areas of perceived risk, organizational structure, internal processes and IT infrastructure, our preliminary plan is to expand the use of analytics to the Accounts Payable subledger to assist with our completion of substantive procedures as well as provide meaningful business insights. We are currently collaborating with management and data capture specialists to develop our Accounts Payable analytic strategy. In the future, we plan to utilize data analytics as part of our testing over payroll or other high transaction areas.

Relevant materials are available on the Center for Board Matters (www.ey.com/boardmatters)

Big data and analytics in the audit process: mitigating risk and unlocking value – In just the last few years, the terms “big data” and “analytics” have become hot topics in company boardrooms around the world. This article helps board members understand the complexities and have a grasp of the issues surrounding these technology trends.

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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