ONTARIO POWER GENERATION

Internal Audit

IT Projects Portfolio Management

September 18, 2020

Report Rating: **Generally Effective**

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1.0 EXECUTIVE SUMMARY

1.1 Report Rating and Summary of Findings

Report Rating: **Generally Effective**

No.	Finding	Risk Type	Risk Rating[1]		
			High	Moderate	Low
1	Post Implementation Reviews ("PIRs") were not always completed within six months of the project's in-service date.	Operational		X	
2	Documentation inconsistencies were noted in some completed PIRs.	Operational			X
Total		**2**	**-**	**1**	**1**

1.2 Background

IT Projects Portfolio Management centralizes the management of IT projects in support of OPG's strategic objectives. The function also serves to improve IT's project portfolio performance by balancing risks and return. The primary goals of IT Project Portfolio Management within OPG are to identify and prioritize the right projects that provide the most benefits, and to improve engagement among stakeholders to ensure organizational needs are met.

The IT Enterprise Strategy & Architecture ("ES&A") group is responsible for strategic portfolio planning. Recently, ES&A formalized the IT projects portfolio management practices and developed a new project intake process which involves the review, challenge and approval of project investment options. This also includes the evaluation of the timing of such options. The primary output of this new project intake process is an approved list of projects that are aligned with the organization's strategic imperatives.

In 2020, the IT projects portfolio consisted of 104 projects totaling $106.9M and divided across Nuclear ($35M), Renewable Generation ($11.6M), Corporate ($27.9M), IT Infrastructure ($26.4M), and Cyber Security ($6M).

To ensure that benefits identified during strategic portfolio planning and project initiation are realized at project close, a Post-Implementation Review ("PIR") is performed. PIR is a continuous improvement process designed to ensure that the benefits of investments are achieved, and lessons learnt are captured for application to future projects. It is the final measure intended to answer questions such as whether the project was successful and beneficial as expected, and whether the project was on budget and on time. The IT Projects group has oversight over the completion of PIRs for all IT projects. The PIR process is guided by the Post Implementation Review Procedure (OPG-PROC-0056).

This audit was a risk-based audit identified in the Internal Audit's ("IA") Strategic Audit Plan, given the importance of IT in supporting the business, the significant budget that is allocated to IT projects on an annual basis, and the recent changes in the project identification and selection process.

[1] Please refer to Appendix A for risk rating definitions

1.3 Objective & Scope

The objectives of this audit were to assess (1) whether the IT portfolio management processes would facilitate alignment of project investments with enterprise strategic objectives, and (2) that PIRs were performed when required to determine whether expected project benefits were realized.

In order to achieve the audit objectives, we reviewed the process and tested, on a sample basis, whether:

A. Portfolio Planning
• Processes were in place to guide the evaluation and prioritization of IT projects; • Projects intake process was appropriately designed and aligned with leading project portfolio management practices and enterprise guidelines; • Employees and key stakeholders were trained to use the IT projects intake process; • Key stakeholders were consulted during the selection and prioritization of projects to ensure that selected projects were aligned with enterprise strategic objectives and were expected to provide maximum benefits to OPG; • Projects selection and prioritization decisions were documented; • The IT projects budget was centrally monitored to ensure that resources and budget constraints were considered before new projects were approved; • IT project inventory was documented and centrally monitored to ensure a holistic view and easy identification of synergies; and • Requests for additions to and deletion of projects from the approved portfolio were assessed by key stakeholders for potential business and funding impacts.
B. Post Implementation Review ("PIR")
• Baseline performance metrics were clearly established and defined at the beginning of the project to enable a more effective post-implementation review; • PIRs were completed timely and independently reviewed; • PIRs were conducted by independent and competent individuals or teams; • Lessons learnt were identified, and corrective action plans were put in place as applicable; • Changes to the PIR plan were authorized; • PIR results and lessons learnt for IT projects were centrally monitored to identify trends and lessons learnt that could apply to other IT projects; and • Completion of PIRs for IT projects was tracked and monitored.
C. Fraud Considerations
• Projects' benefits achieved were not intentionally overstated to enable a favorable PIR result.
D. Opportunities for Improvement
• There were potential opportunities for cost recoveries and savings related to the efficiency of processes and documentation (e.g. automation, duplication of activities).

Scope Period: The audit covered portfolio planning activities from January 2020 to July 2020, and PIRs for projects where the review was expected to occur between January 2019 and July 2020.

1.4 Conclusion

The IT portfolio management processes are generally effective and would facilitate alignment of project investments with enterprise strategic objectives. IA identified several instances where PIRs were not yet completed even though the projects had went into service for over 34 months, and some documentation errors were noted in the PIRs reviewed.

Positive Observations

- The new IT projects intake process was designed to ensure that OPG realizes the maximum benefits from its investment, by aligning the IT project portfolio with OPG's strategic objectives and business priorities;

- Key stakeholders from Nuclear, Renewable Generation, Finance, and Corporate groups were engaged and consulted in the selection and prioritization of projects that were added to the IT projects portfolio. Key stakeholders were actively involved in ranking projects based on business benefits and available resources;

- The IT projects inventory and budget was centrally monitored to ensure a holistic view and identification of synergies, and to ensure that resources and budget constraints were considered before new projects are approved; and

- Baseline performance metrics were established and defined at the beginning of the project to enable a more effective post-implementation review.

Findings & Recommendations

- Five of the twenty projects sampled had PIRs that were either overdue pending completion or not performed in a timely manner, with two of the projects where PIRs were overdue by more than 34 months. Management should ensure PIRs are conducted by project sponsors (i.e. line of business owners of the IT project) in a timely manner and their completion status is tracked; and

- Some documentation inconsistencies were noted within the PIRs, including an instance where a simplified PIR was completed in place of a comprehensive PIR, and five instances where the in-service dates documented in the PIRs were different from the Project Closure Reports ("PCR"). Management should reinforce with staff on the need to pay attention to detail when preparing and reviewing reports.

The findings noted in this report have been reviewed with management and they have committed to specific action plans. Please refer to Section 2.0 for specific details of the above findings along with the associated risk impacts, audit recommendations, and management action plans.

2.0 DETAILED AUDIT FINDINGS

Internal Audit identified the following detailed findings which have been risk rated based on the definitions outlined in Appendix A.

1. PIRs were not always completed within six months of the projects' in-service date.	**Moderate**

The PIR procedure (OPG-PROC-0056) section 1.4.2 states that the simplified PIR should be completed within six months of the project's in-service date.

IA reviewed the documentation for a sample of 20 projects that went into service between January 2018 and July 2020, and noted the following:

- PIRs were not conducted for three of the projects sampled. The PIRs for two of the three projects were overdue by more than 34 months, while the remaining one was overdue by approximately seven months; and

- For one of the three projects, Management indicated that the implementation review was completed as part of the PCR. However, IA noted that the benefits expected to be achieved by the project, totalling $7.58M as documented in the BCS, were not assessed in the completed PCR.

IA noted an additional two projects where the completed PIRs were not prepared within six months of the projects' in-service date; the PIRs were four to nine months overdue.

Potential Cause & Impact

Potential Cause:

- There was no tracking to ensure PIRs are prepared for completed projects.

Potential Impact:

- Inability to determine whether expected financial benefits were achieved, and whether the project investment was worthwhile; and
- Lessons learnt were not identified in a timely manner for the benefit of future projects.

Recommendation

Management should ensure PIRs are conducted by project sponsors in a timely manner, and their completion status is tracked.

Management Action Plan

The IT Projects Office will work in conjunction with the Enterprise Projects Management Office ("EPMO") to put in place a process to track PIR completion.

Action Owner: Leila Nadimi, Senior Information Systems Specialist
Target Completion Date: June 30, 2021

2. Documentation inconsistencies were noted in some completed PIRs.	**Low**

The Post Implementation Review Procedure (OPG-PROC-0056) section 4.1 classifies PIRs and PCRs as official records, and are to be retained for over 20 years.

IA reviewed the PIR documentation for a sample of 20 projects that went into service between January 2018 and July 2020, and noted some documentation inconsistencies within the reports, including:

- One instance where a simplified PIR was completed in place of a Comprehensive PIR ("C-PIR"). The requirement for the C-PIR was documented in the PIR plan which was created at the onset of the project and approved with the BCS. Management indicated the C-PIR requirement was documented in the PIR plan in error, as the plan was prepared by a new employee;

- Two instances where a PCR was used in place of a PIR, although the relevant sections of the PCR was not completed to indicate the PCR will be used to replace the PIR; and

- Five instances where the in-service date documented in the PIR is inconsistent with the date recorded in the PCR.

Potential Cause & Impact

Potential Causes:
- Documentation were not reviewed in detail for accuracy due to other competing priorities; and
- PIRs and PCRs were completed in a rush to meet deadlines, leading to errors.

Potential Impact:
- Documentation inconsistencies may confuse readers when used for reference in the future.

Recommendation

Reinforce the requirements to pay attention to detail when preparing and reviewing reports.

Management Action Plan

Management will reinforce with project managers the requirements to pay attention to detail when preparing and reviewing reports. However, it is recognized that since this is corporate governance (OPG-PROC-0056), line of business sponsors are responsible for ensuring they update and approve documentation appropriately, in accordance with the governance.

Action Owner: Leila Nadimi, Senior Information Systems Specialist
Target Completion Date: March 31, 2021

APPENDIX A – RATING DEFINITIONS FOR AUDIT REPORTS

Finding: *Noted deficiency with potential impacts to the achievement of business unit/process area objectives, assessed using the following criteria:*

	High Risk	Moderate Risk	Low Risk
Safety & Social License	• Potential regulatory non-compliance. • Deficiencies that could result in: ○ Fatality, permanent disability, or lost time injury; ○ Data loss or unavailability of critical systems; ○ Security is compromised in sensitive / multiple areas; ○ Fraud / theft; or ○ Negative media coverage resulting in reputational damage	• Insufficient evidence to support regulatory compliance. • Deficiencies that could result in: ○ Minor injury with no lost time; ○ Temporary data loss or unavailability of non-critical systems; ○ Security is compromised; ○ Fraud / theft with some mitigating controls; or ○ Public escalating concerns to OPG Management or local media.	• Documentation improvements to support regulatory compliance. • Deficiencies that could result in incidents that do not require medical treatment. • Deficiencies that do not result in any media attention negatively impacting OPG's reputation.
Financial	• Potential loss or financial impact =>5% of the sample population's value, or the department's OM&A budget if the former is unavailable.	• Potential loss or financial impact >=2% and <5% of the sample population's value, or department's OM&A budget if the former is unavailable.	• Potential loss or financial impact <2% of the sample population's value, or department's OM&A budget if the former is unavailable.
Operational Excellence	• Governance non-compliance or lack of/inadequate controls that may impact achievement of business or project objectives. • Errors in or insufficient internal reporting that drives senior management decision making. • Test results where =>25% of the sample had deficiencies in the execution of a key control.	• Governance non-compliance or lack of/inadequate controls with alternate controls in place to mitigate the impact to business or project objectives. • Errors in or insufficient internal reporting that could affect management decision. • Test results where >=10% and <25% of the sample had deficiencies in the execution of a key control.	• Governance compliance with procedural concerns or documentation issues which could impact OPG's ability to demonstrate appropriate due diligence. • Errors in or insufficient internal reporting that has minimal decision making impact. • Test results where <10% of the sample had deficiencies in the execution of a key control.

Opportunity for improvement: *Observation with no risk impact that is provided to management for consideration to improve efficiency of processes and documentation (e.g. automation, duplication of activities).*

OVERALL REPORT RATING SCALE

An overall audit rating is assigned based on the number of observations identified for the audit and their assigned risk rating:

	Number of Findings			
Finding Risk Rating	**1**	**2**	**3 - 4**	**=> 5**
High	Requires Improvement	Not Effective	Not Effective	Not Effective
Moderate	Generally Effective	Generally Effective	Requires Improvement	Not Effective
Low	Effective	Effective	Generally Effective	Requires Improvement

APPENDIX B – PROCESS OWNER & DISTRIBUTION LIST

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