

Ontario Power Generation (OPG)
2017-2021 Payment Amounts Application
AMPCO Interrogatories on Exhibit M1
Darlington Refurbishment Project Report

AMPCO #1

Reference: Exhibit M1 page 5

Preamble: On page 5, the Report describes the independent assessments undertaken by Schiff related to DRP risks and the contract strategy, and reference is made to industry best practices.

- a) Please provide a summary of the references/documents that Schiff is relying on to assess the DRP risks and contract strategy against industry best practices.

AMPCO #2

Reference: Exhibit M1 page 7

Preamble: On page 7, the Report summarizes the findings of Schiff related to DRP risks and risk assessment, planned project controls, program and project management staffing plans, and contracting strategy and indicates they are consistent with industry standards.

- a) Please provide a summary of the specific industry standards that Schiff is relying on to make the determination that the above components of the DRP are consistent with industry standards.

AMPCO #3

Reference: Exhibit M1 page 11

Preamble: Schiff references the regulatory prudence standard.

- a) Is there a document that describes the regulatory prudence standard? If so, please provide.

AMPCO #4

Reference: Exhibit M1 page 12

- a) When a risk register is developed, is it an industry standard to include all the risks identified in the project contingency?
- b) Schiff does not have an opinion regarding the content or completeness of the risk registry or whether OPG's assessment of the likelihood of all risks or any particular risk will prove to be accurate.

Please explain why an opinion was not provided.

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AMPCO #5

Reference: Exhibit M1 page 13

- a) Please comment on the completeness of OPG's assessment of lessons learned.
- b) Has OPG adequately incorporated lessons learned in its risk assessment?

AMPCO #6

Reference: Exhibit M1 Page 14

- a) Please provide the document that describes the prudent management decision making framework.

AMPCO #7

Reference: Exhibit M1 Page 15

Preamble: Schiff indicates that the OPG evidence does not contain enough information to determine whether OPG followed the prudent management decision-making framework regarding the cost increase to the Heavy Water Facility.

- a) What additional information is needed to make that determination?

AMPCO #8

Reference: Exhibit M1 Page 15

Preamble: The Report indicates OPG's successful risk management will depend on (a) sufficient staff to adhere to DRP process and procedures of construction industry best practices."

- a) Does OPG's DRP plan include sufficient staff to manage the risk management of the DRP?

AMPCO #9

Reference: Exhibit M1 Page 19

- a) Recognizing Schiff did not independently review the appropriateness, sufficiency or correctness of the DRP RQE cost estimate, is Schiff able to comment on the reasonableness of OPG's total project management and contingency costs as a percentage of the RQE estimate, compared to other projects reviewed by Schiff or industry standards.

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- b) Please provide an assessment of whether a P50 versus a P90 contingency or another contingency probability is the industry standard.

AMPCO #10

Reference: Exhibit M1 page 23

Preamble: The Report indicates that during the Execution Phase, it is critical that the key metrics are provided regularly to OPG's leadership.

- a) Does OPG's DRP strategy include the right metrics? If not please provide additional key metrics that should be provided to OPG leadership.
- b) How often should these metrics be provided to OPG leadership?

AMPCO #11

Reference: Exhibit M1 Page 24

Preamble: The Report indicates that currently OPG has only completed the detailed schedule for Unit 2 and detailed schedules for Units 1, 3 and 4 do not yet exist and challenges to this approach are described.

- a) What is the industry best practice regarding the appropriate timing to complete detailed schedules for refurbishment of more than one nuclear unit at a nuclear plant?
- b) Would it be a better approach to have the detailed schedules for all units completed at the same time?

AMPCO #12

Reference: Exhibit M1 Page 28

Preamble: Based on the information provided by OPG, OPG is behind in achieving the planned staffing levels.

- a) For which nuclear projects with cost and schedule overruns reviewed by Schiff was a delay in meeting early staffing levels an issue?