Board Staff Interrogatory #179

Interrogatory

Reference:
Exhibit D3 / Tab 1 / Schedule 2 / p. 8

Preamble:

OPG identified a new capital project referred to as the "Pickering Wi-Fi Power House Unit 1-8" which would establish a broadband wireless network infrastructure within the station to "facilitate direct access to the data and applications required to perform field work." OPG also noted that the project is expected to be completed in 2023 at a cost of $18.3 million. OPG further discussed a project related to Darlington (the Darlington Wireless Program) that also involves establishing network to "facilitate direct access to data and applications required to perform field work" and it has an estimated cost of $6.4 million.

Question(s):

a) When in 2023 does OPG forecast that the Pickering Wi-Fi Power House Unit 1-8 project will be completed?

b) Please explain why the Pickering Wi-Fi Power House Unit 1-8 project is needed with Pickering NGS going out of service in 2025.

c) Would OPG's staff have access to the data and applications required to perform field work without the Pickering Wi-Fi Power House Unit 1-8 project? If not, please explain how OPG's staff are currently accessing the data and applications required without it.

d) Please explain why the cost of the wireless project at Pickering NGS is expected to be almost three-fold higher than the wireless project at Darlington NGS where both are being undertaken to achieve the same purpose.

Response

a) The Pickering Wi-Fi Power House Unit 1-8 project is a program of investments, with a forecast in-service of $9.8M in 2020,[1] $5.4M in 2021, and the remainder thereafter. The program began in early 2018, and has successfully implemented Wi-Fi in many parts of the station. OPG forecasts the Pickering Wi-Fi Power House

[1] As at December 31, 2020, $9.3M had been placed in-service.

Unit 1-8 project will be substantially completed in December 2023.

b) The Pickering Wi-Fi Power House Unit 1-8 project at the Pickering reactor buildings is required to support ongoing station operations and is an important aspect of enterprise digitization. The investment in Wi-Fi allows staff at Pickering to access the corporate network at various locations of the site and is critical for leveraging various performance-improving digitization initiatives across the organization. For example, Wi-Fi capabilities are needed for workers to utilize the operations surveillance systems, the station live feed surveillance system, the tele-dose radiation protection surveillance system, and the monitoring and diagnostics centre ("M&D Centre") innovations (see Ex. L-F2-01-SEC-019 for more information on the M&D Centre). Wireless internet is also needed for staff to have direct access to data and applications required to perform fieldwork, including the downloading of electronic work packages.

By modernizing technology, this investment has and will continue to deliver value prior to the planned shutdown of Pickering. This includes enabling operational improvements, supporting nuclear fleet initiatives and facilitating planning and execution of work, thereby enhancing safety, quality and efficiency. The installation of the Wi-Fi network will also enable remote monitoring of the Pickering units after closure.

c) Without the Pickering Wi-Fi Powerhouse Unit 1-8 project, OPG staff would have access to existing data and applications at stationary workspaces only. OPG employees would not be able to access the new IT tools that have been developed to improve productivity and efficiency. For example, employees would not be able to leverage electronic work packages deployed across the nuclear fleet as a replacement for the manual process of printing and assembling the packages. Wi-Fi capability supports the use of tablets in this process, which will lead to further efficiency gains in the field. The Wi-Fi also allows station users to communicate live within remote areas such as the containment area, something that was not previously possible.

d) The costs of the referenced projects at Pickering and Darlington cannot be directly compared because the scopes of work for the Darlington Wireless Program and the Pickering Wi-fi Power House Unit 1-8 project are different. The main reasons for the different scopes include:

- Wi-Fi had already been installed in certain parts of Darlington and in certain on-site buildings in order to support oversight of the Darlington Refurbishment Program. The current Darlington Wireless Program project expands coverage to the remainder of the station and other on-site buildings to support ongoing operations.

- Pickering has a larger footprint than Darlington (eight units versus four units; two physically separate stations) and a different containment design, requiring a larger number of access points ("APs") for the wireless network.
- Pickering has higher electro-magnetic interference sensitivity, thus requiring APs to have a strict limit on their power output. This, in turn, translates into more APs (and associated cabling and other hardware) being required to provide Wi-Fi coverage for the same square footage at Pickering as compared to Darlington.