

**Summary Status Table in Response to the
Report of the Standing Committee on Public Accounts on
Darlington Nuclear Generating Station Refurbishment Project (Section 3.02, 2018 Annual Report of the Office of
the Auditor General of Ontario)
Ontario Power Generation**

Committee Recommendation	Completed undertaking	Outstanding undertaking (including timeline)
1. Ontario Power Generation should periodically update its forecast of the future supply of skilled trades identified as being at risk of shortage over the lifetime of the Project.	• Early in the Project, OPG identified a number of risks that are beyond the ability of the Project itself to fully mitigate; the risk associated with the availability of skilled trades falls within this category. OPG and its contractors are managing the aspects of this risk which are within their control. Notwithstanding these efforts, this is a risk which OPG can only help to mitigate. Given the number of infrastructure projects ongoing in both Canada and globally, the availability of skilled trades is a societal risk which requires mitigation efforts beyond OPG's, including by other industries, and the Provincial and Federal Governments. • To maximize OPG's efforts aimed at attempting to reduce the potential impact of this risk to future units, the Project has developed a three-pronged initiative which includes the following: 1. Developing supply and demand data on skilled trades. 2. Optimizing the current supply of trades. 3. Building up new sources of trades via outreach activities. • As identified by our supply and demand data, Boilermakers' supply continues to forecast as the most significant skilled trades gap. This updated modelling and forecasting includes more detailed inputs from Bruce Power and other non-Nuclear industries in Ontario.	The Project will continue to implement its Trades Capacity Initiative, including forecasting of supply and demand data, for the duration of the Project.

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2. Ontario Power Generation should continue to leverage industry best practices to ensure appropriate succession planning programs are in place over the duration of the Project.	• OPG acknowledges the importance of succession planning to successful project execution. The attrition rates at OPG are well understood and managed by the company. Planning and external recruitment ensure quality staff are in role to support the project. • The nature of the nuclear business requires a highly skilled work force and a highly skilled management and executive management team. OPG has developed and implemented rigorous enterprise-wide succession planning and development programs to continue to build the skilled work force, management, and executive team to ensure successful project execution. • OPG has applied these programs to the Darlington Refurbishment Project and is integrated with the broader enterprise-wide succession planning process in order to leverage tools and expertise, and broaden the pool of potential candidates. These succession planning efforts have played an integral role in establishing a strong leadership team for Unit 3. • OPG has leveraged a variety of industry-best practice tools and technology to ensure appropriate succession planning from line management through to executive management positions. For example, the integrated platform "MyPower", adopted in 2018, provides real-time data and analytics, enabling faster and more efficient decision-making, while maintaining a single source of data.	The succession planning process will be implemented throughout the life of the Project, and will reflect changes in the organization as the project transitions from execution of the Unit 2 refurbishment to execution of future unit refurbishments.
3. Ontario Power Generation should continue to track the costs associated with the support provided to contractors and retain contractual rights to recover these amounts at a later date.	• Building long-term working relationships with vendors is integral to mega-program success. OPG is committed to optimizing interfaces between OPG and vendors through a focus on collaboration and integration. This strategy is a proactive approach to ensure project success and to optimize efficiency through Unit 2 and subsequent unit work. • OPG and its contract partners committed to cooperation and collaboration in the original refurbishment contracts. As such, there is limited support provided by OPG above what was expected in the contracts, such as OPG personnel seconded to contractors. OPG continues to track the costs associated with the support provided and retains contractual rights to recover these amounts, as deemed appropriate.	The Project continues to track the costs associated with the support provided and retains contractual rights to recover these amounts, as deemed appropriate.

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4. Ontario Power Generation should continue to monitor and analyze safety events in order to identify common causes, better respond to emerging trends, assess the effectiveness of corrective actions, apply lessons learned over the duration of the Project, and introduce new safety indicators if needed.	• OPG continues to have a healthy reporting culture, with low-level events being consistently identified, reported, and trended. OPG uses a self-critical, proactive leading indicator (referred to by the AG as “near misses”) in order to evaluate and assess precursors of possible safety incidents. OPG’s practice of proactively tracking such events exceeds the standards of other industries and companies, where “near miss” events are not similarly tracked. • The Project continues to have a safety record almost ten times better than the construction industry. Additionally, the Project’s High Maximum Reasonable Potential for Harm (MRPH) rate has continued to drop since 2017, despite the increased number of hours worked. OPG also received the Canadian Electricity Association (CEA) President’s Award of Excellence for Employee Safety in Generation in 2018. This is OPG’s second year in a row winning this award, and fourth out of the past five. CNSC has awarded the Darlington Nuclear Generating Station the highest possible conventional safety performance rating for the last nine consecutive years in publicly released safety assessments. • OPG’s processes for investigating safety incidents and implementing corrective actions remain aligned with industry-best practices, including assessments for common causes. The Project, supported by OPG’s Corporate Safety Group, engages industry experts to ensure that its processes to investigate safety incidents remain aligned with industry-best practices. • As part of this alignment with industry-best practices, the Project (in conjunction with the Nuclear fleet) implemented the use of Learning Focus Groups to analyze events by focusing on the context of an event to discover organizational, process, and human performance learning.	The Project will continue to analyze past performance and develop new initiatives to improve safety performance for the duration of the Project.
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5. Ontario Power Generation should provide vendors with regular updates about safety standards and industry best practices to remind all vendor staff of the importance of good safety practices.	• The Project continues to collaborate with its vendor partners to continually reinforce safety standards and best practices. As part of these initiatives, the Project has implemented an enhanced approach to safety, following safety data analysis and engagement with industry-leading experts. • This enhanced approach uses past project data and lessons learned to proactively assess an upcoming window of work to identify areas of higher risk and develop targeted initiatives and “stand-ups” aimed at preventing events. • These proactive “stand-ups” have been embedded into the execution schedule to align all staff around important safety messages and reinforce a safety mindset in advance of higher-risk evolutions. • The Project has also engaged an industry-leading expert to assist in our efforts to continuously engage staff and reinforce the importance of safety. • This approach was implemented prior to the New Fuel Load evolution which included the manual loading of over 6000 fuel bundles. This complex evolution was completed safely and on schedule.	The Project will continue to work collaboratively with its vendor partners to ensure industry-best safety practices are incorporated into the planning and execution of work.
6. Ontario Power Generation should periodically review its evaluation scorecards as part of its procedure for procurement activities and adjust the weightings applied to technical criteria and bid price as necessary.	• The Refurbishment Project critically assesses the complexity of any new work to be contracted and ensures evaluation criteria are weighted accordingly. • In response to feedback received from the Auditor General’s review, OPG revised and issued its procedure for procurement activities.	OPG will continue to periodically review its procedure for procurement activities, and make changes as necessary.