

5th Annual

MANAGING RISK IN CONSTRUCTION CONTRACTS & PROJECTS



DARLINGTON REFURBISHMENT CASE STUDY

July 17, 2020



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Speakers

Carla Carmichael – VP
Nuclear Decommissioning Strategy, OPG

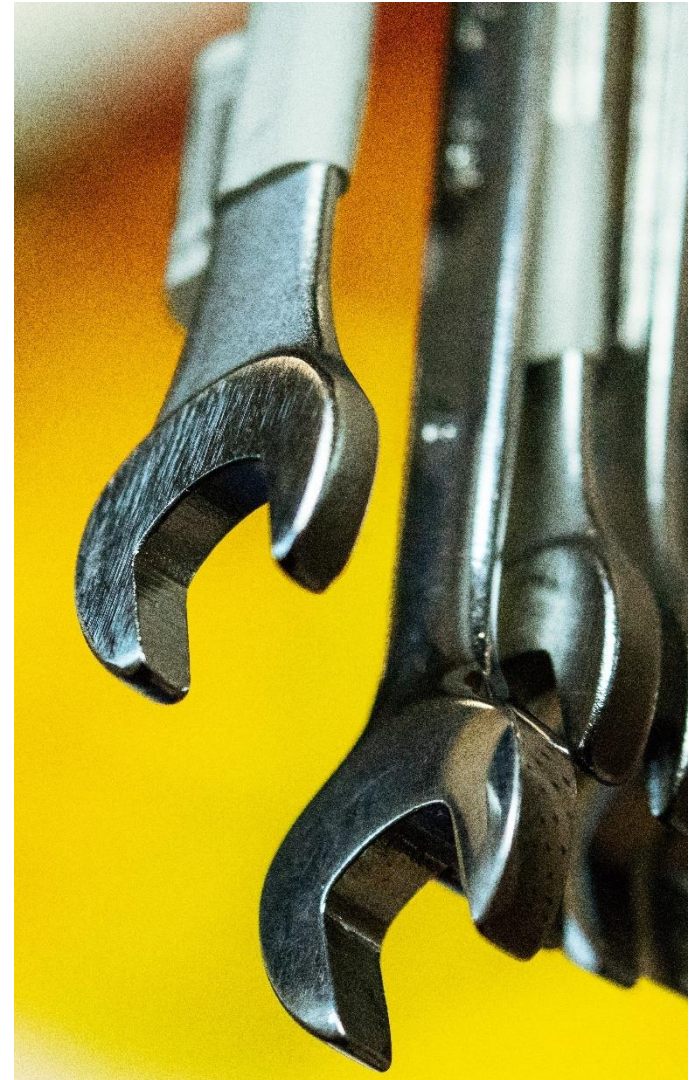


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Eric Gould – Partner, Modus Strategic
Solutions

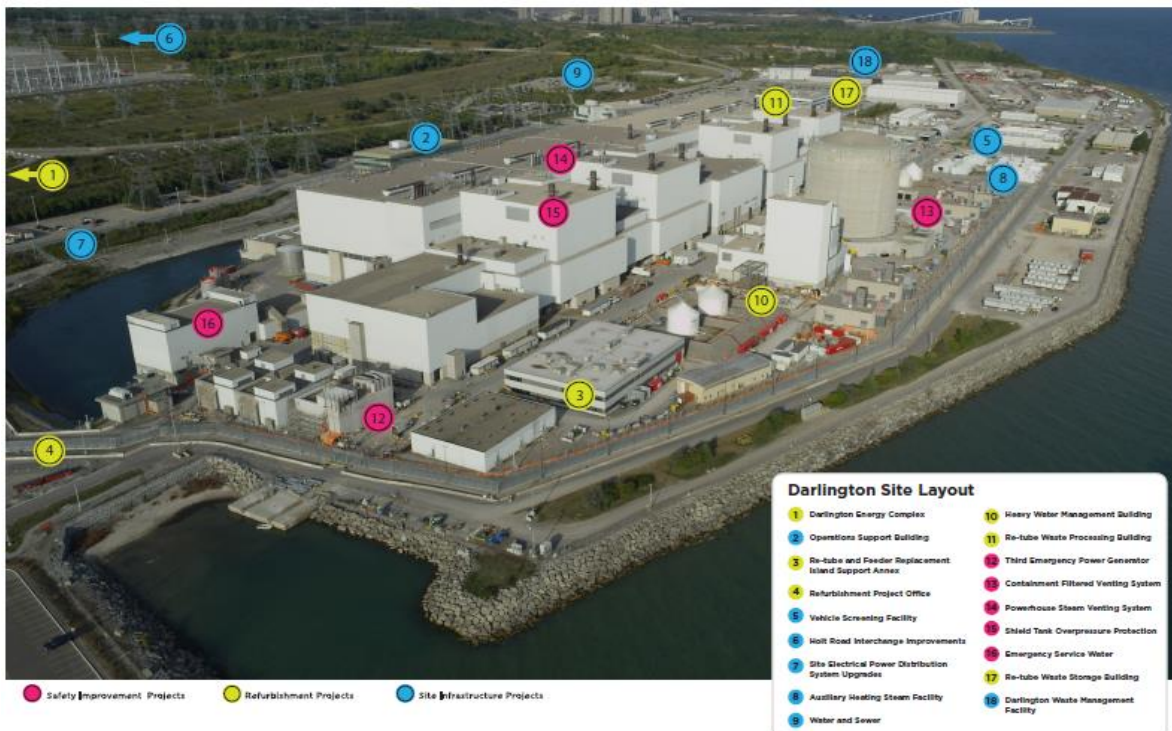
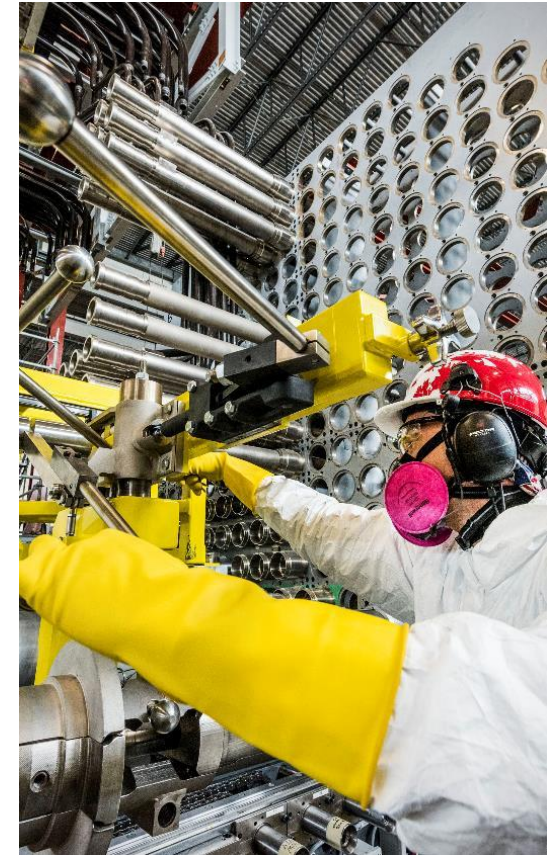


Milt Caplan – President
MZConsulting



The Darlington Nuclear Station Refurbishment Project

- \$12.8B investment decision by Province for 8.2c energy
- \$2B investment before 1st reactor execution work began
- Highly technical, complex many first of a kind scopes
- Lack of successful mega nuclear projects
- Comprehensive oversight model one of keys to success

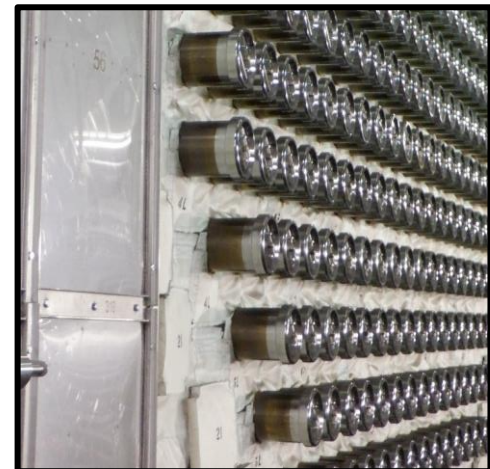
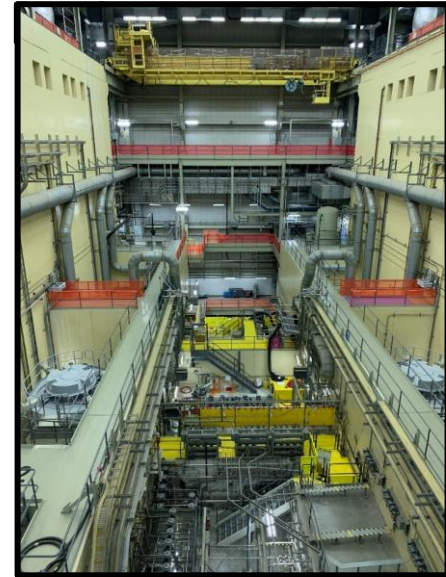




The Darlington Nuclear Station Refurbishment

Unit 2 synchronized to the electricity grid on May 13th

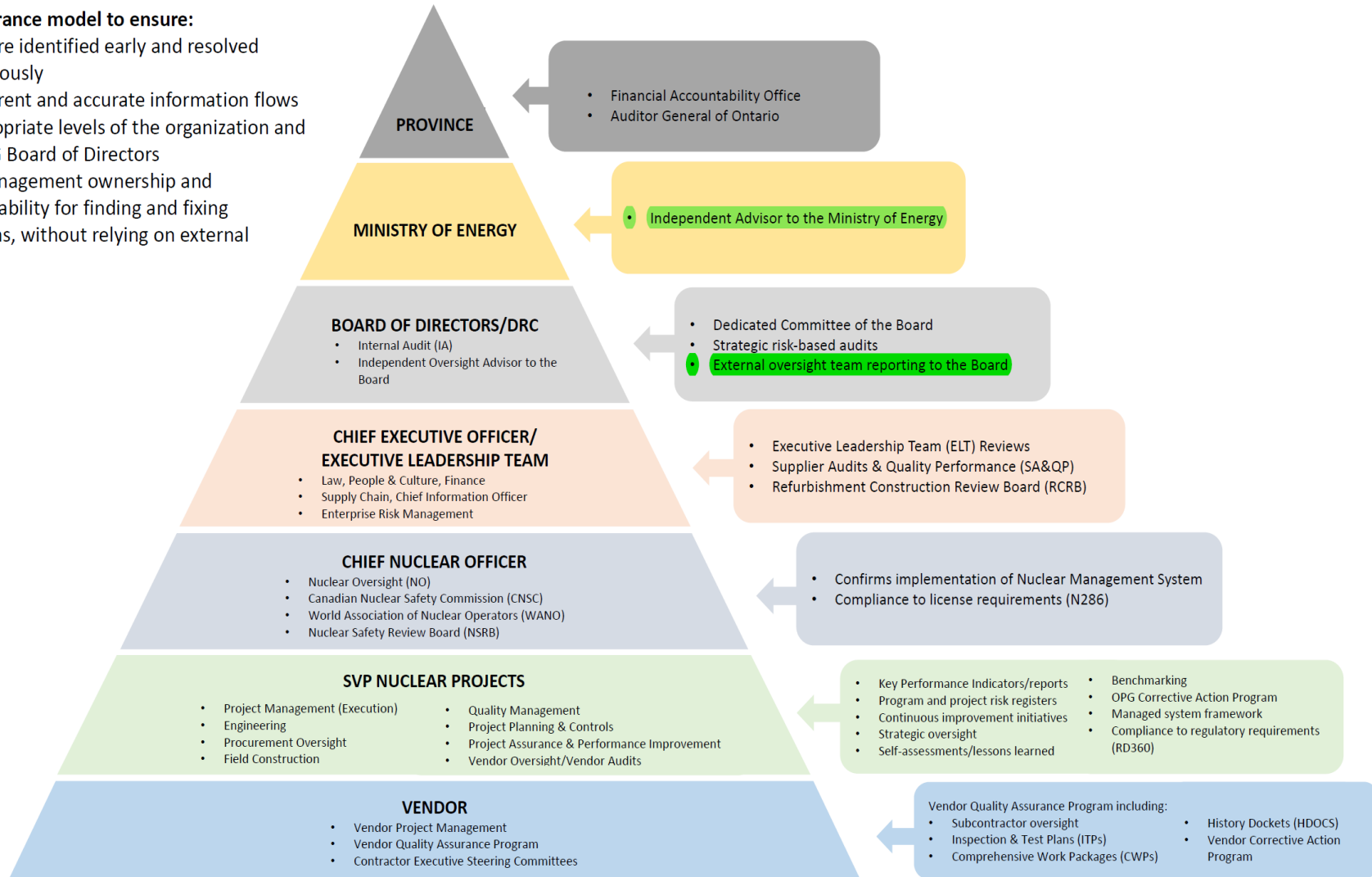
- 24 Million hours of work – 1 LTA
- Quality of work has been excellent
 - exceeded past refurbishments
- Completed safely with COVID restrictions
- Four Unit Refurbishment remains on budget and on time
- ONE TEAM SUCCESS!
 - Staff
 - Project Partner Vendors
 - contractors/skilled trades
 - manufactures
 - government/ community
- Building OPG/Community reputation: World Class



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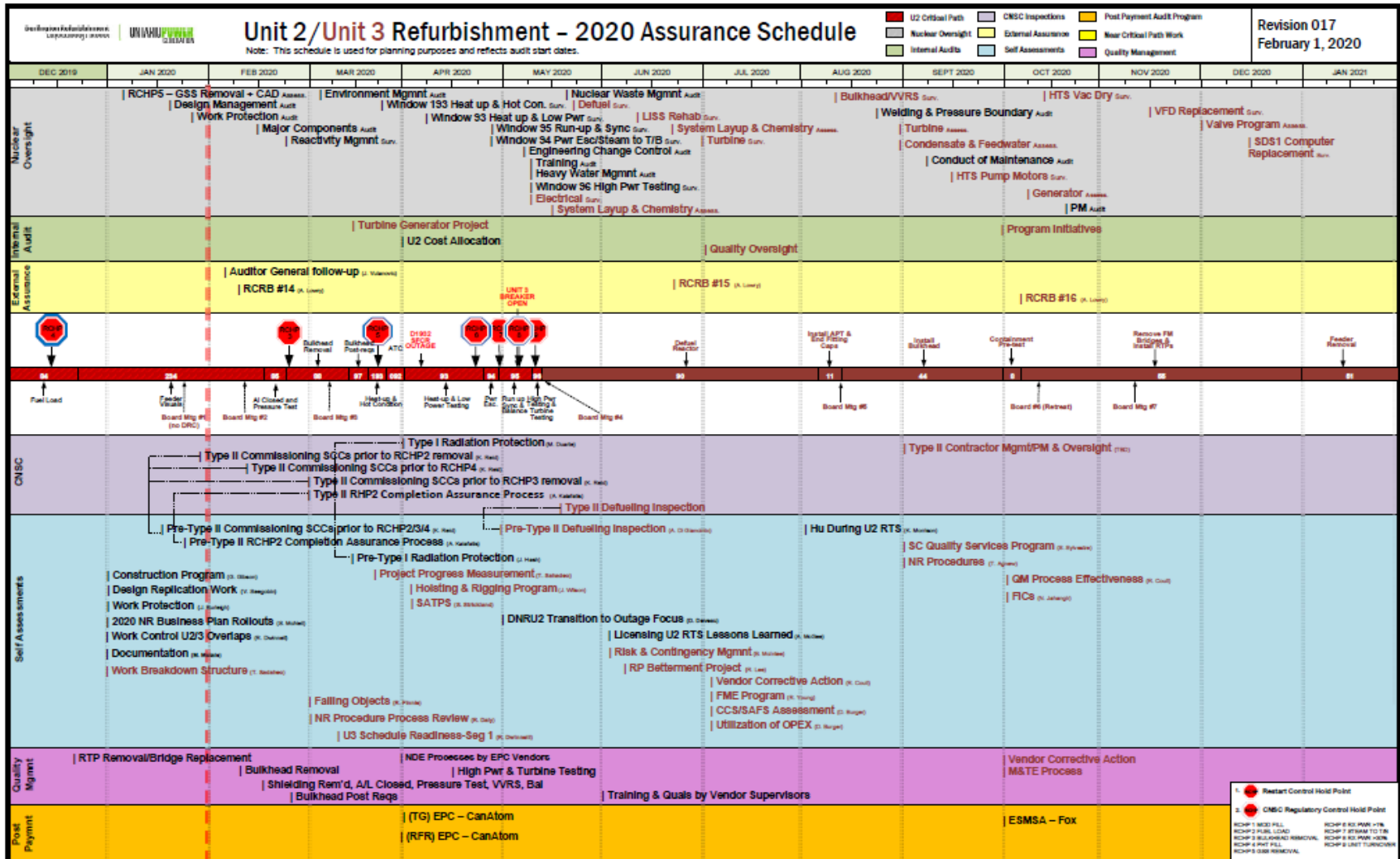
Layered assurance model to ensure:

- Issues are identified early and resolved expeditiously
- Transparent and accurate information flows to appropriate levels of the organization and the OPG Board of Directors
- Line management ownership and accountability for finding and fixing problems, without relying on external parties.



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Integrated Assurance Schedule – Key Risk Coverage/Alignment





Independent Board Oversight

- Scope
 - Independent Oversight provides verification of status, analysis of key project risks and identification of potential future rocks in the road
 - Provide perspective comparing lessons learned and Best Practices
- Key Deliverables
 - Provide succinct summary of observations based on critical observations
 - Analyze performance metrics (key project indicators or KPIs) that summarize trends, velocity of change and summarize progress
 - Ensure that information is flowing from management to BOD to properly inform and support prudent decision-making
 - Verify accuracy of management's reporting to BOD
 - Identify whether management is actively managing risks (performance, commercial, technical, etc.)



Government Independent Oversight - Mandate

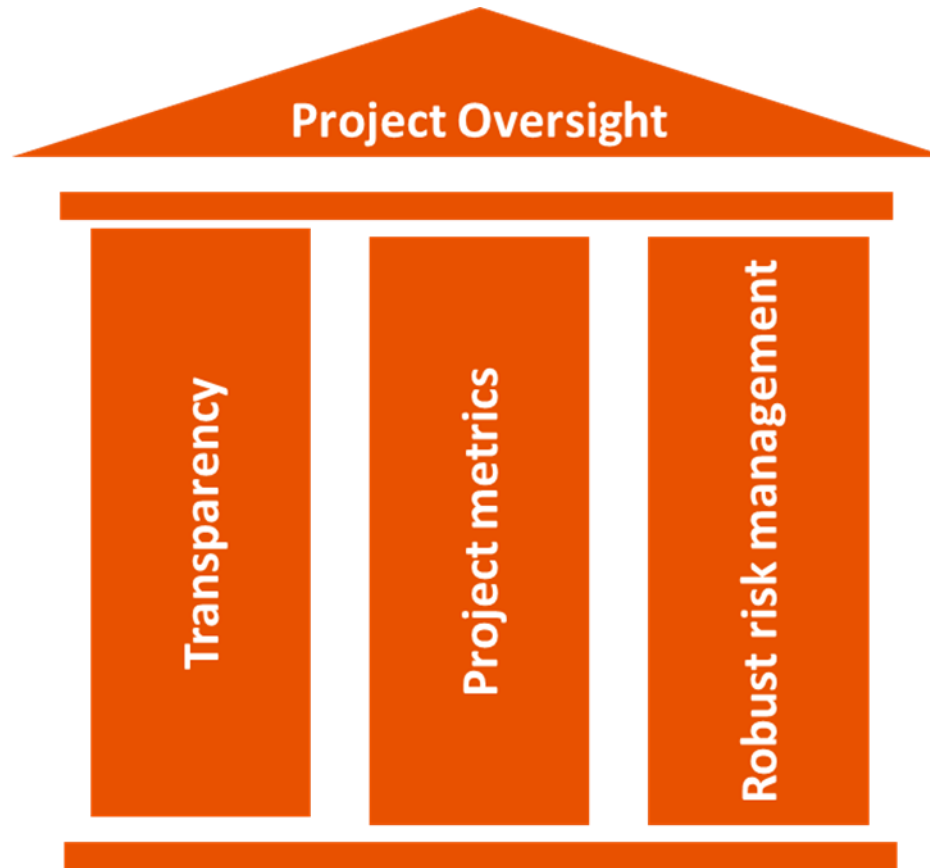
- The Advisor will sit on the Darlington Refurbishment Committee (DRC) of the OPG Board and provide advice to the Ministry of Energy, Northern Development and Mines.
- The Advisor will report to the Minister/Deputy Minister of Energy on the following:
 - Progress of the refurbishment project against established targets and milestones, including project cost and baseline schedule;
 - Review of overall project management processes;
 - Evaluation of OPG' s risk management strategy with respect to emerging project risks; and
 - Review of processes and ongoing progress on coordination of work between the Darlington and Bruce refurbishment projects.
- The objective of the oversight is to support project success, not search for failure

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Three pillars of effective Oversight





Recommendations

- Oversight/Assurance provides an essential, independent verification for useful information
 - Megaprojects like Darlington Refurbishment produce massive amounts of raw data
 - Oversight/Assurance should verify and interpret data to separate the signal from the noise
- Oversight should focus on what is best for the Project, not its participants
 - Management is accountable for the Project – Oversight provides perspective and assurance but has no stake in the outcome
- Oversight cannot over-burden the Project
 - Oversight should mesh with the other assurance providers to reduce “audit fatigue”
 - Assurance providers should be complementary (and not competitive) in focus – no “battle of the experts”

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