The objective of this SMR Roadmap Project is to develop a roadmap which will identify the opportunities for on and off-grid applications of Small Modular Reactors (SMRs) in Canada. SMRs are at an early stage of development in Canada. This project will take on a pan-Canadian approach towards nuclear energy, which may help to guide important decisions on existing and emerging nuclear energy technologies.

The roadmap will be led by a stakeholder group consisting experts from the provinces, territories and energy utilities in Canada. Stakeholders and partners in the project will provide input and insight during application-focused workshops, guide and contribute to analysis undertaken by working groups, and provide feedback on the SMR Roadmap draft document.
Dr. Shannon Quinn VP, Science, Technology and Commercial Oversight
Atomic Energy of Canada

**AECL on SMR**

*Canada’s Nuclear Advantage in Nuclear Science & Technologies, Prospect of SMR Collaborations*

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**Peter Elder**
VP, Chief Science Officer

- Current regulatory framework adequate for licensing of projects using advanced technologies
  - provides flexibility to adapt to new types of reactors
  - needs solid management system processes and capable workforce
- Publication of a strategy to explain the CNSC’s approach and prioritize efforts will help provide regulatory clarity
- CNSC senior management are providing leadership to set the foundation for the regulation of SMRs
- Regulatory objectives to deal with disruptive technologies

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*Source: Readiness For Regulating SMRs*

**Canadian Nuclear Safety Commission**
**SMR Vendor Design Reviews, Licencing Framework for SMR Deployment**
Interest in SMR technology continues to grow worldwide, with Canada gaining international attention for its pursuit of this clean, safe technology. As one of seven strategic initiatives identified by CNL in the organization’s Long Term Plan, SMRs hold great promise in solving many major environmental and energy challenges.

“Our vision is twofold. First, we intend to be a world-leader in SMR research and technology; and second, we plan to have at least one demonstration unit built on a CNL site by 2026,” commented Dr. Corey McDaniel, Vice-President of Business Development at CNL.

Dr. Kathryn McCarthy, Vice-President of Research and Development added that “with a domestic need for this technology, mature and robust regulatory programs, and fully-equipped laboratories to support such a project, CNL is uniquely positioned to support an SMR industry, from concept to deployment.”
COG Small and Medium Sized Reactor Technology Forum

The CANDU Owners Group established the SMR Technology Forum (SMRTF) in 2017 with the mandate to identify key issues and to promote harmonized policies. This includes developing technical positions on the regulatory framework, fuel cycle, siting and supply chain for deployment of SMRs for both on and off-grid applications. This plenary presentation will provide an overview of the CANDU Owners Group as well as discuss the value of SMRs to Canada and the benefits of taking a harmonized approach, both domestically and internationally, to SMR deployment. It will cover the current SMRTF activities and list some of the feedback received from the vendor community on potential regulatory issues. The path forward and collaboration with the SMR Roadmap will be discussed.

Chair, Small Modular Reactors Technology Forum (SMRTF)

Fred Dermarkar
President & CEO

CANDU Owners Group (COG)
COG Small and Medium Sized Reactor Technology Forum

Dr. Stephen Bushby, Senior Director,
Science & Technology at AECL
PLENARY SESSION #1 CHAIR
The invited distinguished speakers for Plenary Session #1 will talk about the respective keynote topics on **Canada’s Nuclear Advantage in Deploying Gen IV & SMRs, International Collaborations**, guided by the Session Chair.

The background context of these topics can be found from the respective web links shown above.

For good informational background on the Pan Canadian SMR Roadmap and SMRs Demonstrations at CNL, please view the video at the CNA 2018 Panel: Small Modular Reactors: Versatility for a Clean-Energy Future

https://www.youtube.com/watch?v=rCXCT23mJgw

The Plenary Session #1 for G4SR-1 International Conference will provide the most up-to-date and timely information on potential SMRs demonstration in Canada, please do not hesitate to register for this important conference, to get the information you need, and to gain the networking opportunities with the distinguished speakers.

Please visit the **Conference website** for updates and to arrange your visit.

Revisions will be made available as further details are finalized.

**Organizing Committee for 1st International Conference on Generation IV and Small Reactors (G4SR-1)**

G4SR-1 [www.g4sr.org](http://www.g4sr.org)