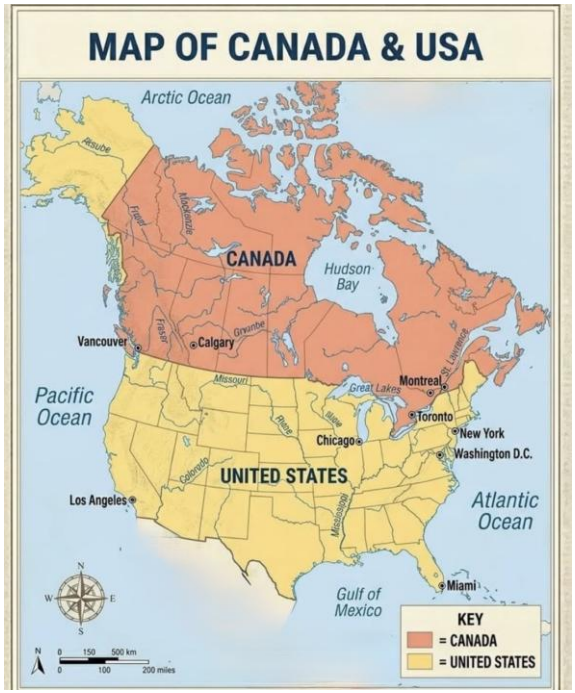
The Contribution of the Canadian Nuclear Society to Climate and Energy Security







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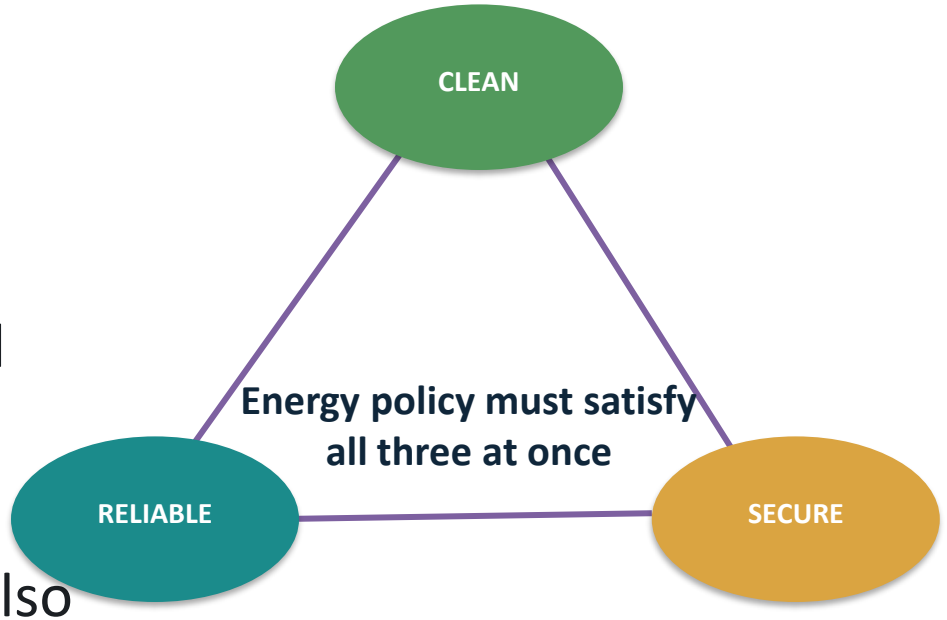
The strategic problem has changed

Decarbonization is no longer the only test.

- Canada expects electricity demand to rise sharply as transport, buildings, industry and data infrastructure electrify.

- The grid must be clean — but also reliable, affordable, resilient and increasingly sovereign.

- That puts firm, domestic, low-carbon energy back at the centre of strategy.



Canada's Systemic Advantage

Canada begins from a position of unusual strength

81.6 TWh
Nuclear generation in Canada, 2025

13.0%
Share of Canadian electricity, 2025

24%
Share of global uranium output, 2024

A full-value-chain advantage



Canada is one of the few countries with strengths across the nuclear value chain — a strategic asset for both domestic resilience and allied energy security.

But a nuclear advantage is not self-sustaining

Knowledge can fragment

Long project cycles and retirements can separate operating experience from the next generation.

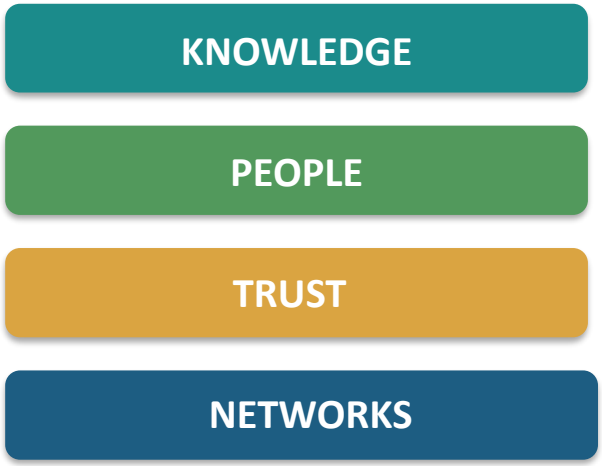
Skills can become bottlenecks

Refurbishments, SMRs and potential new builds compete for scarce technical and leadership capability.

Trust must be continually earned

New communities and new technologies require credible, transparent, technically grounded dialogue.

CNS is part of the connective tissue



The CNS's impact is indirect — but strategically consequential.

Four ways CNS converts professional activity into public value

1 **CONVENE**

Technical conferences and specialist communities (Divisions & Branches) connect utilities, suppliers, researchers, regulators, students and peers.

2 **DEVELOP**

Professional exchange, volunteering and student engagement build capability and transfer experience across generations.

3 **INFORM**

Education and communication make technically grounded nuclear information more accessible to members and the public.

4 **CONNECT**

International society-to-society links (through MoUs and INSC) accelerate learning and position Canadian experience within global practice.

CNS contribution can be traced to climate and security outcomes

ACTIVITY	SYSTEM EFFECT	ENERGY OUTCOME	PUBLIC VALUE
technical exchange	better decisions	safer delivery	lower emissions
student programs	deeper skills	fleet reliability	reliable power
public education	higher literacy	new-build readiness	energy sovereignty
international links	faster learning	supply-chain resilience	export capability

The key claim:
Professional institutions improve the probability of successful nuclear outcomes.

The next decade raises the value of that role

More projects + more jurisdictions + new technologies = greater need for shared learning.



For CNS, the strategic opportunity is to scale the professional infrastructure at the same pace as the physical infrastructure.

A practical agenda for CNS — and for the INSC network

Workforce passport

Create stronger pathways linking students, young professionals and experienced practitioners across societies.

Lessons without borders

Share structured lessons from refurbishments, first-of-a-kind SMRs, licensing and supply-chain development.

Public-information toolkit

Exchange evidence-based approaches for explaining reliability, waste, safety, cost and climate trade-offs.

Common professional forums

Use INSC to convene technical communities on issues that no single national society can solve alone.

International cooperation is not an accessory to energy security; it is one of the ways nuclear nations build it.

ANS: a complementary model of professional-society impact

The American Nuclear Society operates at greater scale, but through many of the same levers.

TECHNICAL AUTHORITY

Standards, peer-reviewed publications, conferences and technical divisions sustain a trusted professional knowledge base.

WORKFORCE

Its 2025–2035 strategy makes education, training, mentoring, student sections and professional credentials a core priority.

POLICY INFORMATION

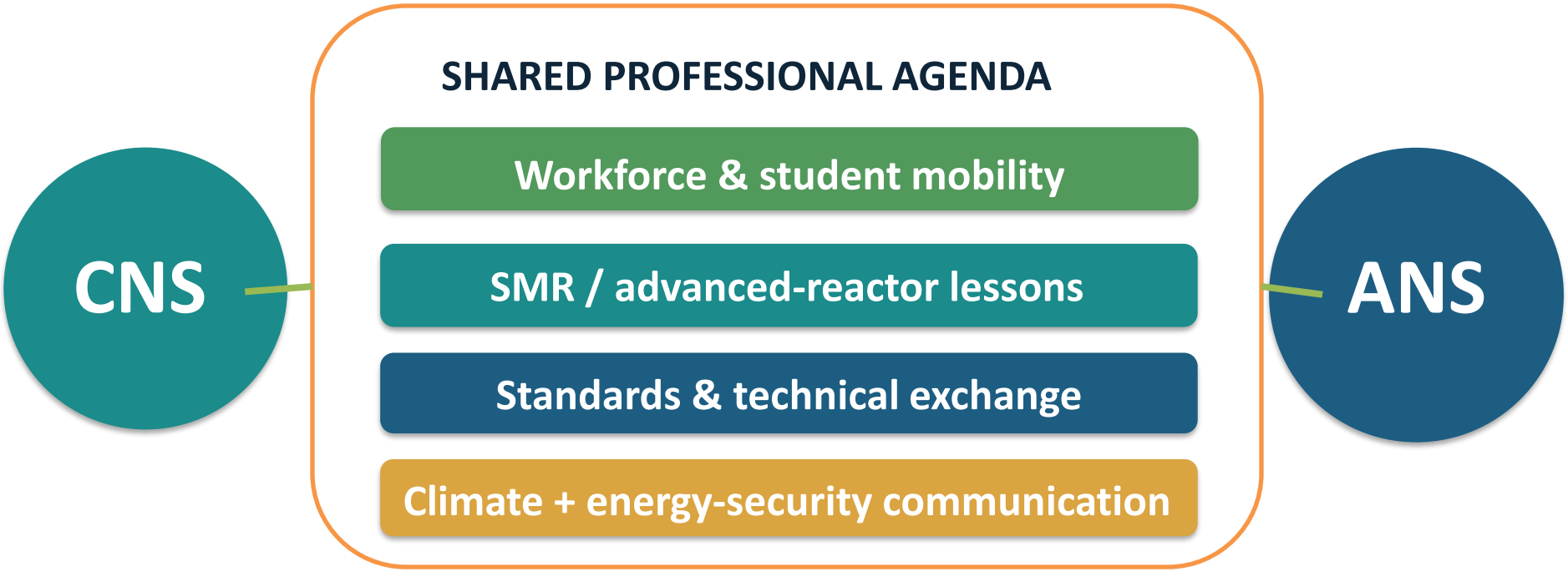
ANS position statements and engagement give decision-makers technically grounded context without defining the Society as a lobbying organization.

PUBLIC UNDERSTANDING

Educator resources and programs such as Navigating Nuclear extend nuclear literacy into schools and the wider public.

The lesson for CNS is not to copy ANS scale — but to recognize how a strong professional society can influence the enabling environment for nuclear.

CNS + ANS: bilateral cooperation has been strengthening continental energy security



North American nuclear security is interconnected:
fuel and supply chains, professional talent, reactor innovation, standards, safety culture and public confidence cross the Canada–U.S. boundary.

Three messages to leave with the INSC

1. **Canada's nuclear capability is simultaneously a climate asset, an energy-security asset and an economic-security asset.**

2. **CNS strengthens the knowledge, people, trust and networks that help sustain that capability.**

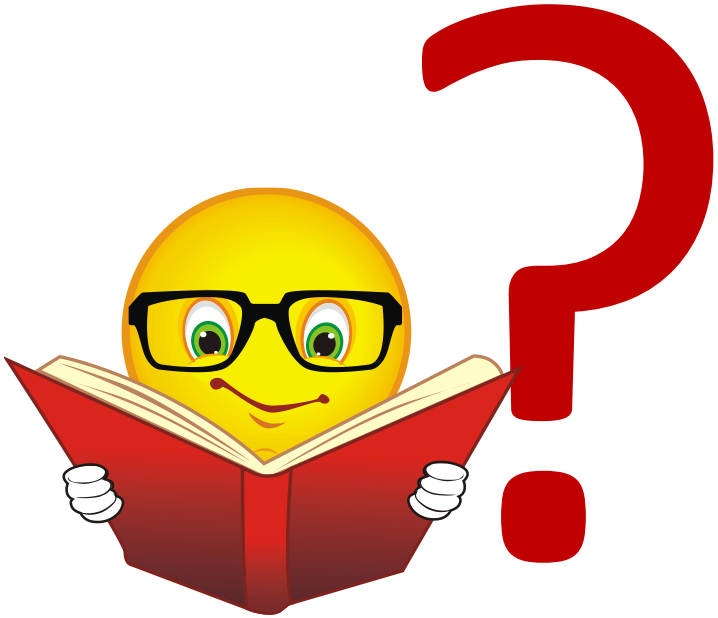
3. **The INSC network can multiply this contribution by moving lessons and talent across borders faster.**

Closing thought:

the durability of nuclear energy does not depend only on technology,
but on institutions that preserve competence and confidence across generations.

Selected sources

- Government of Canada / Natural Resources Canada — Nuclear Energy Strategy for Canada, launched 22 June 2026.
- Prime Minister of Canada — National Electricity Strategy announcement, 14 May 2026.
- Statistics Canada — Electricity year in review 2025: nuclear generation 81.6 TWh / 13.0% of national generation.
- Canadian Nuclear Society — About CNS: objectives and mandate.
- CNS Annual Conference 2026 — “The New Nuclear – Pathways to securing a clean energy future.”
- Reuters — Ontario spearheads Canada’s nuclear renaissance, 27 August 2026.





QUESTIONS COMMENTS