



Nuclear Regulatory Efficiency in Canada

A Strategic Inflection Point

Canada's nuclear industry is resurgent. As part of a declaration at COP28, Canada committed to advancing the global goal of tripling nuclear energy capacity by 2050. Amid the rhetoric of a grand and speedy nuclear resurgence, it's important to examine the reality of Canada's nuclear regulatory timelines and how they compare with peer countries—namely, the United States and France.

While the *Building Canada Act* is a pathway to regulatory efficiency, not all nuclear energy projects will qualify under its provisions. Comprehensive, sector-specific reforms will be required to deliver the scale and speed of deployment needed for Canada's net-zero future.

In May 2026, the Federal government called for a review of legislative and regulatory frameworks for nuclear energy to identify opportunities to streamline processes and reduce decision timelines. This offers an important window to deliver regulatory efficiency reforms without compromising safety, engagement, or independence.

Unpacking regulatory efficiency for nuclear

We examine nuclear energy regulatory efficiency by focusing on the time required for the regulatory licensing process. The time expended is the elapsed period between the submission of an application by the project proponent and the decision by the responsible regulatory authority.

Canada's dual-authority regulatory model involves the Impact Assessment Agency of Canada (IAAC) and the Canadian Nuclear Safety Commission (CNSC) being responsible for impact assessment and regulatory licensing, respectively. This contrasts with the U.S. and France.

In the U.S., the Nuclear Regulatory Commission (NRC) retains responsibility for both environmental assessments and licensing decisions. In France, while the Minister for Nuclear Safety holds final decision-making authority, this is based on expert input from the French nuclear safety regulator.

Peer comparisons

Based on historical data, despite differences in regulatory structure, the expended times for nuclear licensing in the U.S. and Canada have been broadly comparable, while France remains at an elevated standard. Although France exhibits exceptional regulatory efficiency, Canada and its regulator retain one of the highest standards for safety and is ranked third globally for the protection of nuclear power plants and facilities.

Without being shortlisted as a project of national interest in the *Building Canada Act*, an impact assessment along with a construction and operating license for a new nuclear power plant in Canada is expected to take 7.7 years to complete. In the U.S. and France this timeframe has been approximately 8 years and 4 years respectively. Recent regulatory efficiency measures and proposals may reduce these timelines in future.

Regulatory innovations

The Government of Canada has proposed measures that will make the CNSC the singular authority for conducting impact assessments for designated nuclear projects. Depending on whether these reforms are enacted, the timelines for impact assessments, including the issuance of a site license, could be reduced materially from the current timeframe of 3 years.

Along with recent executive orders, the *Fiscal Responsibility Act* and the *Accelerating Deployment of Versatile Advanced Nuclear for Clean Energy (ADVANCE) Act* in the U.S. include transformative provisions expected to generate substantive gains in regulatory efficiency, potentially reducing licensing timelines well below historical averages for securing construction and operating licenses. Executive order 14300 (i.e., Ordering the Reform of the Nuclear Regulatory Commission) is particularly consequential. Among several provisions, this executive order stipulates a timeline of 18 months for regulatory decisions on construction and operating licenses. Other reforms from the executive branch, such as reconsidering the linear no-threshold model for radiation exposure, risk compromising compliance with international standards, as well as public trust.

In France, the *Acceleration of New Nuclear Facilities Act* is expected to yield material efficiencies. For instance, in Article 9 of the law, developments, installations, and works related to nuclear reactor construction are exempt from all formalities under a town planning code. The French Energy Transition Ministry expects construction times to be reduced by at least 2 years because of the law.

Recommendations

We recommend the following measures to bolster nuclear regulatory efficiency in Canada:

- Canada can adopt a single life cycle regulator model and extend the regulatory leadership of the CNSC to include impact assessments.
- In anticipation of substantial growth in nuclear capacity, Canada needs a talent development plan for nuclear regulation, with an emphasis on addressing supply-side talent bottlenecks—including the number of engineering graduates.
- Canada can adopt digital tools to streamline regulatory reviews and improve coordination and collaboration between regulatory agencies relevant to nuclear licensing. The cybersecurity of these digital technologies will need to be managed carefully.
- Deployment strategies for nuclear have consequences for regulatory efficiency. While the fleet deployment of conventional and standardized designs would realize efficiencies in the near term, innovation and the exploration of advanced reactor designs will be crucial to Canada's long-term competitiveness.

For the full research, see our impact paper [*Time to Build: Nuclear Energy Regulatory Efficiency in Canada, United States, and France.*](#)

