July 31, 2026

The Honourable Tim Hodgson
Minister of Energy and Natural Resources

Natural Resources Canada

Sent via email: electricity-electricite@nrcan-rncan.gc.ca.

RE: Powering Canada Strong: Funding and Financing for Electricity Infrastructure

Electro-Federation Canada (EFC) welcomes the opportunity to provide input on the Government of Canada's discussion paper on funding and financing for electricity infrastructure.

EFC represents more than 230 member companies that manufacture, distribute, market, sell and maintain the electrical and automation technologies that power Canada's homes, businesses, industries and critical infrastructure. Our members manufacture and supply transformers, switchgear, wire and cable, protection equipment, automation systems, digital grid technologies, electric vehicle charging infrastructure, building-electrification technologies, motors, controls and energy-management solutions.

Canada's National Electricity Strategy recognizes that the country will need to approximately double its electricity infrastructure by 2050, requiring significant expansion of generation, transmission and distribution systems, alongside investments in energy efficiency and demand-side management. The Government estimates that achieving this transformation could require up to $1 trillion in investment through mid-century.

EFC agrees that federal financing has an important role in mobilizing investment while protecting affordability. However, the challenge is broader than access to capital for individual electricity projects. Canada must also ensure that the equipment, technologies, manufacturing capacity and supply chains required to build those projects can expand at the same pace.

Canada has invested heavily in creating demand for electrification. It must now invest in the capacity to deliver it.

Grid equipment and electrification manufacturers produce the technologies that connect electricity to homes, businesses, EV charging, data centres and industry. Federal financing policy should therefore support not only the construction of electricity infrastructure, but also the industrial and technology ecosystem required to supply, modernize and optimize that infrastructure.

Executive Summary

EFC believes federal electricity financing should be guided by four principles.

First, **supply chain constraints are increasingly an affordability and financing issue.** Long equipment lead times, shortages and escalating input costs directly increase project costs and delay the deployment of capital. EFC's analysis identifies transformers, switchgear, conductors, semiconductors and other components as areas of particular supply chain pressure.

Second, **investment tax credits should play a larger role in strengthening manufacturing capacity and accelerating grid modernization.** ITCs provide predictable, scalable support and enable companies to deploy their own capital based on market demand rather than competing for discretionary project funding. Strategic funding should remain available for exceptionally large, capital-intensive investments, but it should complement, not substitute for broadly accessible tax incentives.

Third, **federal financing should recognize digitalization, distribution modernization and demand-side resources as infrastructure investments.** These technologies can improve utilization of existing assets, reduce peak demand and defer or avoid more expensive generation, transmission and distribution investments.

Finally, **federal policy should reward Canadian production without restricting access to the integrated supply chains required to build projects affordably**. EFC supports a domestic-content incentive or bonus rather than a mandatory requirement that could jeopardize project economics when Canadian supply is unavailable or insufficient.

1. Supply Chain Constraints are a Financing and Affordability Challenge

The Government's discussion paper appropriately identifies the scale of investment, affordability and utility balance-sheet constraints as significant challenges. EFC encourages the Government to consider another closely related financial constraint: the cost and availability of the equipment required to deploy that investment.

According to the findings of EFC's and Dunsky Energy recent report, *Building Canada's Future Electricity Grid*, Supply chain disruption has become a systemic risk to electricity infrastructure development.

Dunsky's analysis indicates that Canada relies heavily on imports for core electricity equipment and components. Annual imports of transformers, wire and cable, switchgear, semiconductors and related products are approaching $37 billion. Since 2020, equipment prices have increased substantially, while lead times for some critical grid technologies have extended from months to multiple years.

These pressures have direct financial implications. Higher equipment costs increase project capital requirements. Long lead times can delay construction and revenue generation. Equipment shortages can increase financing carrying costs and create greater uncertainty for utilities and developers.

Supply chain resilience should therefore be viewed as part of the affordability solution. EFC strongly supports the National Electricity Strategy commitment to undertake a comprehensive analysis of Canada's electricity component supply chain. Federal financing and industrial policy should use this analysis to identify priority bottlenecks, critical manufacturing inputs, domestic production opportunities and areas where diversified international supply will remain necessary.

Particular attention should be paid to critical manufacturing inputs such as grain-oriented electrical steel, copper, semiconductors, transformer components and other specialized materials essential to electricity equipment manufacturing.

2. Expand Investment Tax Credits for Grid and Electrification Technologies

The existing federal financing toolkit includes targeted programs such as Smart Renewables and Electrification Pathway Program, strategic financing through institutions including the Canada Infrastructure Bank and Canada Growth Fund, Strategic Response Fund and significant support through Clean Economy Investment Tax Credits.

EFC believes these tools serve different purposes and should be complementary.
For manufacturers, investment tax credits offer several advantages. They are predictable, scalable, flexible and generally available to all firms that meet established eligibility requirements. They allow the flexibility to small and large businesses to make investment decisions based on market demand and provide greater certainty when companies compare competing jurisdictions for new manufacturing investments.

Direct government funding through programs such as the Strategic Response Fund remains important where projects are exceptionally capital intensive by reducing upfront cash and finance costs. However, many critical supply chain expansions may not be eligible or meet the minimum 20-million-dollar investment. EFC's supporting material notes that some meaningful manufacturing projects can fall below the eligibility thresholds of programs designed around very large investments. For example, Eaton Industries recently invested in building capacity in switchgear, a critical and supply constrained equipment, but fell just under the 20-million-dollar minimum investment.

The federal toolkit should therefore include both direct government funding and Manufacturing ITC.

EFC recommends expanding the Clean Technology Manufacturing Investment Tax Credit to include the manufacturing equipment required to produce strategic grid and electrification technologies.

Eligibility for ITC should include technologies associated with:

- Critical grid equipment such as transformers, switchgear, breakers, and conductors.
- distribution-system modernization;
- automation and advanced controls;
- digital grid technologies;
- demand flexibility and energy-management solutions; and
- other strategic grid and building-electrification technologies.

The principle is straightforward: If a technology is essential to delivering Canada's electricity and electrification objectives, the manufacturing equipment used to produce it should be eligible for comparable investment tax treatment.

Expanding ITC eligibility would leverage private capital rather than requiring government to fund the full investment. It would also enable investments of varying sizes, including manufacturing expansions that may be economically significant but fall below the minimum thresholds of large discretionary funding programs.

3. Use Domestic Content Incentives to Strengthen Canadian Supply

Federal electricity investment should create greater economic value within Canada wherever possible. EFC supports measures that create stronger demand for Canadian-manufactured electrical equipment, particularly in product categories where significant domestic capacity already exists. Domestic Content Incentives or Adder should be harmonized across the country and maintain a country wide approach rather than a patchwork approach with each province and utility implementing customized programs. A domestic content adder would reward organizations making investments here in Canada while acknowledging that Canada

does not currently manufacture every component required for electricity projects, nor does it manufacture all products at the scale required to meet rapidly growing demand. A rigid domestic-content requirement could therefore increase project costs, delay construction or put access to the underlying ITC at risk.

EFC recommends a domestic-content bonus or adder rather than a mandatory requirement.

Such an approach would:

- reward projects that procure Canadian-manufactured equipment;
- create a stronger demand signal for companies considering manufacturing investments in Canada;
- encourage developers to shift procurement toward Canadian suppliers
- support domestic manufacturers particularly hard hit by tariffs.
- preserve the base financing support needed for projects that must continue sourcing some components internationally.

This approach appropriately balances two objectives: strengthening Canadian manufacturing while ensuring electricity infrastructure continues to be built at the pace and cost required.

4. Finance Grid Modernization and Digitalization as Capacity Investments

The financing challenge cannot be addressed solely by funding more physical infrastructure. Digitalization should be recognized as an investment in grid capacity and productivity, rather than simply an information technology expenditure.

Smart grids, advanced automation, real-time network monitoring, predictive asset management, automated fault detection and restoration, digital substations, advanced distribution-management systems and other digital technologies allow utilities to extract greater value from existing infrastructure. They can improve reliability, integrate distributed resources and reduce or defer the need for more expensive physical system expansion.

Federal financing tools should therefore recognize grid digitalization, automation and optimization technologies as eligible electricity infrastructure investments.
This should include both utility investments and the technologies required to enable modern distribution systems, including two-way power flows, advanced metering, protection and control systems, communications infrastructure and distributed energy-resource integration.
Government should also continue supporting demonstration and early deployment where Canadian operating evidence is necessary to overcome utility risk aversion and regulatory barriers.

5. Ensure Distribution Infrastructure Can Access Federal Support

Doubling Canada's electricity system requires investment across generation, transmission and distribution.

Every new housing development, commercial facility, industrial plant, data centre, EV charger, heat pump and distributed energy resource ultimately depends on electricity distribution infrastructure capable of reliably delivering power to the customer.

Distribution systems are also changing fundamentally. They must increasingly accommodate two-way power flows, distributed resources, storage, demand response and sophisticated energy-management systems.

Federal financing programs and investment tax credits should therefore include modern distribution technologies and enabling infrastructure where appropriate.

This would improve the effectiveness of federal investment throughout the electricity system. Financing new generation without ensuring that electricity can be efficiently delivered and managed at the distribution level risks creating bottlenecks elsewhere in the system.

6. Demand-Side Management is an Affordability Tool

The discussion paper asks how Canada can balance the cost of generational electricity investments between taxpayers and ratepayers.
One of the most effective ways to protect both is to reduce the amount of infrastructure that needs to be built.

Energy efficiency, demand management, building energy-management systems, intelligent controls, distributed resources and demand flexibility can reduce peak load, increase utilization of existing infrastructure and defer or avoid more expensive system investments. Federal financing should continue supporting demand-side measures and should treat them as part of the electricity infrastructure solution—not as a separate or secondary energy-efficiency policy.

Where a lower-cost demand-side or digital solution can provide capacity equivalent to a traditional infrastructure investment, federal program design should allow both options to compete on their system value.

Responses to the Discussion Questions

The Discussion Guide asks eight specific questions regarding constraints, the effectiveness of existing tools, gaps in federal support, scale, intergenerational costs and where federal intervention can provide the greatest value.

1. What are the most significant financial constraints to doubling the grid?

From EFC's perspective, rising equipment costs, supply chain shortages, long lead times and regulatory frameworks that do not consistently value digital and demand-side alternatives are significant contributors to system costs. Protecting affordability requires addressing these constraints alongside traditional access-to-capital challenges.

2. To what degree are financing constraints limiting buildout?

The issue varies by investment type. Large infrastructure projects may face balance-sheet or

capital-access constraints. Manufacturers face a different challenge: substantial upfront investment is required to expand production before long-term demand is fully certain. Stable ITCs, transparent electricity planning and predictable procurement signals can reduce this risk.

3. Which existing federal tools are most effective?

EFC views investment tax credits as particularly valuable for broad-based private-sector investment because they are predictable, scalable and allow qualifying companies to deploy their own capital. Strategic funds remain important for exceptionally large investments where direct government participation is warranted.

4. What gaps do current tools not address?

Key gaps include insufficient ITC coverage for strategic grid and electrification manufacturing, digital grid technologies, distribution modernization and demand-side technologies. Federal programs should also better recognize supply chain resilience and manufacturing capacity as integral to financing the electricity build.

5. Are federal programs appropriately scaled and designed?

The overall toolkit is substantial, but eligibility matters as much as funding levels. Programs designed primarily around large generation or transmission projects may not adequately support smaller manufacturing expansions, grid modernization investments or distribution technologies that collectively have significant system value.

6. Should financing account for intergenerational costs?

Yes. Electricity infrastructure and manufacturing capacity create benefits over decades. Long-lived infrastructure should be financed in ways that avoid concentrating costs on today's customers where future customers will also benefit. At the same time, investments in efficiency, flexibility and digitalization can reduce the total costs passed to both current and future ratepayers.

7. Where can federal tools add the greatest value?

The federal government is particularly well positioned to address issues that extend across provincial boundaries or require national scale: investment tax policy, supply chain resilience, domestic manufacturing competitiveness, trade, national standards and interoperability, strategic infrastructure financing, and demonstration of emerging grid technologies.

8. Which projects require supplemental support?

Supplemental support is most justified where investments deliver broad public or system benefits that cannot be fully monetized by individual investors; where critical manufacturing capacity requires significant upfront capital; or where distribution, digitalization and demand-side investments can lower overall system costs but face regulatory or financing barriers.

Conclusion

Canada faces a historic electricity investment challenge. The federal government estimates that approximately $1 trillion may be required through 2050, with the pace of investment needing to roughly double from recent historical levels.

Meeting that challenge affordably requires more than finding sufficient capital.

Canada must also reduce the cost of the build, strengthen the supply chains that support it, expand domestic manufacturing capacity and ensure federal tools recognize technologies that allow the electricity system to operate more efficiently.

EFC encourages the Government to focus federal support where it can leverage private investment and address market gaps: expand investment tax credits for grid and electrification manufacturing; support strategic projects where direct funding is justified; create stronger demand for Canadian-made equipment through domestic-content incentives; ensure distribution and digital-grid technologies are eligible for support; and continue investing in demand-side measures that reduce overall system costs.

Financing the build should ultimately mean financing the most affordable electricity system, not simply financing more infrastructure.

EFC and its members look forward to working with the Government of Canada, provinces, utilities, regulators and industry partners to ensure federal financing helps Canada build a reliable, affordable and resilient electricity system while strengthening the industrial capacity required to deliver it.

Sincerely,

Cherith Sinasac
Director of Government Affairs
Electro Federation Canada
www.electrofed.com