

Building Fast and Fair

How to Deliver Canada's Clean Energy Future

Prepared for:

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Executive Summary

Canada needs to build clean electricity infrastructure much faster. Electricity demand is beginning to grow after decades of relative stability, driven by electrification, population and housing growth, industrial development and emerging loads. Meeting this demand while eliminating remaining electricity-sector emissions will require substantial investment in new generation, storage and grid infrastructure. Energy efficiency, demand flexibility and distributed energy resources can reduce the scale and cost of this buildout, but are not expected to eliminate the need for significant new supply and transmission.

The challenge for Canada is not simply to approve projects faster. It is to get viable clean electricity projects planned, located, developed with affected communities and Indigenous Nations, approved, connected, financed and built – and all while maintaining affordability and reliability, respecting Indigenous rights, and minimizing ecological and social impacts.

Permitting reform is an important component. Better coordination, clearer timelines and more proportionate review requirements can help low-risk electricity projects move forward faster. At the same time, faster approvals alone will not resolve constraints related to grid capacity, market certainty, siting, community participation, Indigenous rights and ownership, financing, workforce or supply chains. The central finding of this report is therefore that **Canada needs a coordinated project-delivery agenda across the full development lifecycle**, with each actor addressing the barriers within its control.

The analysis focuses primarily on utility-scale wind, solar, energy storage and transmission infrastructure. It draws on literature, stakeholder interviews and Canadian case studies to qualitatively assess where recurring challenges occur and to address them, highlighting numerous practical approaches that are already being applied across Canada.

Where projects get stuck

Figure ES-1 summarizes the six stages of project development examined in this report and the corresponding areas for action. Barriers can emerge at any stage, and the stages are interconnected: resolving one constraint can simply shift the bottleneck elsewhere if decisions are not coordinated.

1. **Need and market signal: provide long-term certainty.**

Developers and their partners invest significant time and capital before projects reach procurement or construction. Clear long-term deployment and procurement roadmaps, stable policy signals and transparent procurement rules can reduce development risk and support investment in project pipelines, communities, supply chains and workforce capacity.

2. **Location and siting: identify viable locations earlier.**

Projects need suitable land, environmental compatibility, grid access and local support to align. Proactive spatial planning, clearer siting rules and better information on land-use and grid constraints can direct development toward lower-risk locations while protecting important environmental and agricultural values.

What is slowing clean electricity projects in Canada?

Key barriers and solutions across the project lifecycle



Figure ES-1. Key electricity project stages and relevant barriers and solutions

3. Partnerships and ownership: build projects with communities and Indigenous Nations

Projects are more durable where affected communities and Indigenous Nations can shape development and share meaningfully in project benefits. Community and Indigenous ownership, benefit-sharing, early engagement and access to capital and technical capacity can strengthen participation, while respecting Indigenous rights and governance.

4. Permitting and approvals: make review predictable, coordinated and proportionate.

Fragmented processes, overlapping requirements and limited administrative capacity can create delay and uncertainty. Better coordination, clear timelines, sufficient resources and risk-based approaches can accelerate appropriate projects while maintaining environmental safeguards, Indigenous rights and meaningful participation.

5. Grid connection: plan transmission ahead of need and improve transparency.

Transmission often takes longer to develop than generation, while developers may lack clear information on available capacity, upgrade needs and connection costs. Proactive grid

planning, better procurement alignment, transparent capacity information and more efficient interconnection processes can reduce stranded projects and connection delays.

6. **Project delivery: plan for people, capital, equipment and logistics early.**

Projects can still stall after approvals because of financing risk, workforce shortages, long-lead equipment and transportation constraints. Earlier workforce, supply-chain and logistics planning—supported by training, labour mobility and enabling infrastructure—can reduce late-stage delivery risks.

A coordinated project-delivery agenda

No single institution controls this full process. Provinces and territories largely shape electricity policy, procurement and many siting and permitting rules; utilities, system operators and regulators determine grid planning and connection processes; municipalities influence land use and local decision-making; Indigenous Nations exercise their own rights and governance and are increasingly project leaders and owners; developers shape project design and engagement; and the federal government plays important roles in financing, interprovincial infrastructure, workforce development, federal approvals and coordination.

The encouraging finding is that Canada is not starting from scratch. Promising models already exist: long-term system and procurement planning, proactive transmission development, clearer grid-capacity information, community and municipal ownership, Indigenous equity and loan guarantees, one-window permitting, predictable environmental review processes and targeted workforce initiatives. These approaches demonstrate that many of the solutions are within reach and can be adapted without reinventing the wheel.

The priority is therefore not to identify a single "silver bullet" reform that will unlock the buildout. It is to **make the full project-development system work better together**. Faster and more durable clean electricity development will require clear long-term signals, better siting and grid planning, meaningful community and Indigenous participation, efficient and credible approvals, and early planning for construction and delivery. Coordinating these actions can help Canada build the electricity infrastructure it needs while maintaining environmental safeguards, affordability, reliability and public confidence.

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1. Introduction

Canada needs to build clean electricity faster

Canada starts from a position of strength: more than 80% of its electricity already comes from non-emitting sources, placing it ahead of most G20 countries. But meeting Canada's climate and economic objectives over the next two to three decades will require a much larger electricity system. The challenge is twofold: eliminate most remaining electricity sector emissions, while expanding supply to support electrification and growing demand.[1]

This could require roughly doubling electricity generation by 2050, while maintaining reliability, affordability and grid resilience as households and businesses depend on electricity for a growing share of their energy needs. To be durable, this electricity growth must also respect Indigenous rights and minimize ecological and social impacts.

The benefits extend well beyond reducing greenhouse gas (GHG) emissions. Abundant, affordable clean electricity can support industrial competitiveness, attract investment, create jobs and reduce exposure to volatile global fossil fuel markets.[2] These objectives are becoming more important as electricity demand begins to grow after decades of relative stability. This is being driven by electrification, population and housing growth, industrial development and emerging loads such as AI data centres.

Another benefit of electrification is increased efficiency. Electrification of end uses such as transportation and heating will increase overall electricity demand, but can reduce overall energy demand even as the economy grows.[3] This is because electricity is far more efficient at converting energy into useful services than fossil fuels: electric vehicles are up to five times more efficient than internal combustion vehicles[4] and heat pumps are 2.5-3.5 times more efficient than a gas furnace.[5] Efficient electrification can also reduce household and business energy costs. [6]

Technology trends make this transition increasingly feasible. Wind, solar and battery storage costs have fallen substantially over the past two decades, and can often be deployed more quickly than large conventional generation projects. Globally, in 2025, renewables represented 86% of new electricity additions and almost half of total installed capacity.[7]

Building new infrastructure – the "hard path" as defined by Amory Lovins 50 years ago – should not be the only solution pursued by Canada. This should be complemented by the "soft path" of energy efficiency, demand-side flexibility, and distributed energy resources.[8]

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[1] According to one estimate, to meet a doubling of demand would require another 18 Churchill Falls, Robert-Bourassa and Bruce Nuclear generating stations (Public Policy Forum. July 2023. Project of the Century)

[2] International Renewable Energy Agency. April 2026. Moving from Energy Crisis to Energy Security with Renewables

[3] Canada Energy Regulator. Canada's Energy Future 2026; Energy Transitions Commission. 2025. Energy productivity: Increasing efficiency in an expanded, electrified energy system

[4] Natural Resources Canada. Buying an electric vehicle. Accessed October 13, 2026

[5] Natural Resources Canada. Heat pump basics. Accessed October 13, 2026

[6] Transition Accelerator. November 2024. Household Energy Affordability in a Net-Zero Future

[7] International Renewable Energy Association. March 2026. Renewable capacity statistics 2026

[8] Jigar Shah. October 13, 2026. The Soft Path at 50: Now Make It Flexible

Demand-side solutions can buy more time while saving money and enhancing reliability.[9] However, electricity demand is still forecast to grow substantially, even with expanded energy efficiency, requiring investments in new generation, storage, and grid infrastructure.[10]

Deployment is growing – but not fast enough

Canada is already adding substantial renewable generation and energy storage. The Canadian Renewable Energy Association (CanREA) estimates that approximately 25 GW of wind and solar capacity is operating today, with a further 8 GW expected by 2029 and approximately 24 GW in planned procurements over the coming decade. This pipeline could represent up to $200 billion in investment.[11]

However, renewable energy deployment will need to accelerate by three or four-fold to support projected electricity demand growth and Canada's net-zero objectives (Figure 1). The Canadian Renewable Energy Market Outlook projects 60-93 GW of new wind, solar and battery storage between 2026 and 2035.[12] The Canada Energy Regulator similarly projects more than 200 GW of new renewable generation and storage by 2050 under its net-zero scenario.[13] While estimates vary, they point in the same direction: Canada will need to build clean electricity infrastructure at several times the pace achieved since 2000.[14]

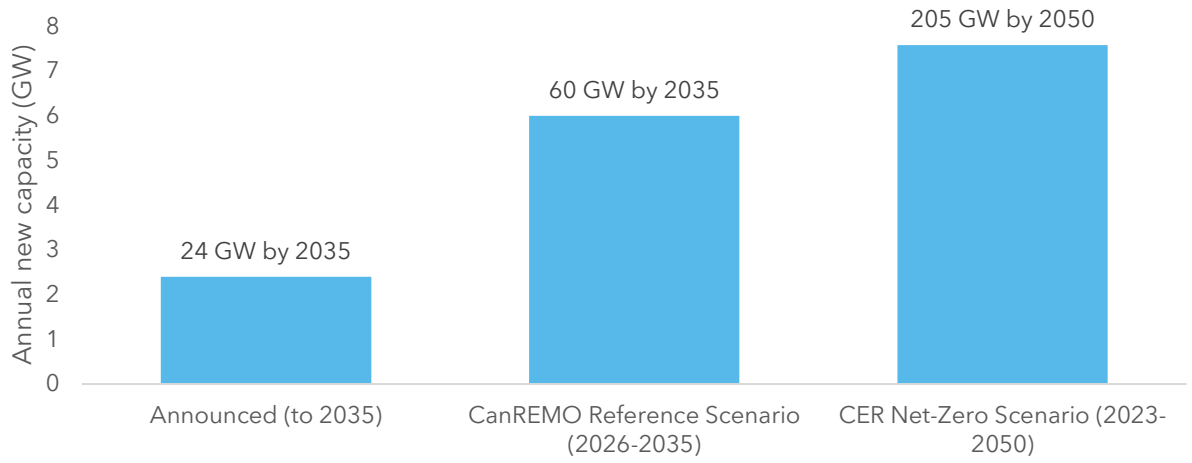


Figure 1. Announced renewable energy development lags behind what is required to meet net-zero targets

Sources: CanREA; Canada's Renewable Energy Market Outlook 2025; Canada Energy Regulator 2026

[9] Canada Electricity Advisory Council. 2024. Final report: Powering Canada: A blueprint for success
[10] IESO. 2026 Annual Planning Outlook.
[11] Canadian Renewable Energy Association. 2025 Annual Data Release.
[12] Canadian Renewable Energy Association and Dunsky. Canada's Renewable Energy Market Outlook 2025
[13] Canada Energy Regulator. Canada's Energy Future 2026.
[14] As the Canada Electricity Advisory Council final report states, between 1950 and 2000 Canada's electricity supply grew ten-fold to meet growing demand (at a rate of roughly 4.7% per year), which is higher than the growth required to 2050, although the absolute growth is higher than it was in the past.

Permitting reform is important – but only part of the solution

Recognizing this need, governments are pursuing a range of measures to accelerate electricity development. The federal government's draft electrification strategy, *Powering Canada Forward,* released in May 2026, sets a target of doubling Canada's electricity supply by 2050. To achieve this is proposes actions including financing new infrastructure, strengthening regional electricity integration, expanding energy efficiency and demand-side resources, developing domestic supply chains, and addressing skills and labour needs. [15] The federal government has also introduced legislation to accelerate and centralize federal reviews for major "nation-building" projects, including Bill C-5 and Bill C-39, and established the Major Projects Office to advance projects of national interest. [16]

There is a case for improving permitting and approval processes. Federal approvals for major electricity infrastructure can take several years, while overlapping federal, provincial and local requirements can create duplication and uncertainty. [17] Better coordination within and between governments, clearer timelines, and more focused review processes for lower-impact clean electricity projects could help projects proceed faster while maintaining strong environmental protections. [18]

At the same time, efforts to accelerate approvals have raised legitimate concerns that compressed timelines, broader exemptions or reduced review requirements could weaken environmental assessment, species and ecosystem protections, environmental justice, and the rights of Indigenous Peoples.[19] These are not obstacles to be removed from the development process. Well-designed assessment and consultation can help identify risks early, improve project design and strengthen the durability of project decisions. Conversely, inadequate consultation or insufficient attention to environmental and community impacts can generate opposition, legal challenges and project delays.

More fundamentally, permitting is only one part of the development process. A project that rapidly receives regulatory approval can still fail if it cannot secure land, connect to the grid, obtain financing, procure equipment, reach agreements with Indigenous Nations or gain community support. If the objective is faster deployment rather than simply faster approvals, policy must address the full range of factors that determine whether projects get built.

Looking beyond permitting

This report aims to answer the questions: **Beyond federal permitting, what causes clean electricity projects in Canada to be delayed or cancelled? And what could enable them to proceed more quickly, with more durable and sustainable outcomes**?

Social acceptability and Indigenous and community participation are particularly important. Renewable generation and transmission infrastructure is inherently place-based: projects

[15] Natural Resources Canada. May 2026. Powering Canada Strong: A National Strategy for an Electrified Canadian Economy

[16] As of publication, Bill C-39 remains under consideration in committee of the Houe of Commons and has not yet become law. First Nations, environmental, and civil society organizations have raised concerns about several elements of the proposed legislation. A detailed assessment of Bill C-39 is beyond the scope of this study. Government of Canada. September 2026. Bill C-39 Introduction

[17] Energy Regulation Quarterly. September 2018. Federal Energy Project Reviews: Timelines in Practice

[18] Canada Electricity Advisory Council. 2024. Final report: Powering Canada: A blueprint for success

[19] Science. June 2026. Canadian biologists decry plans to bypass environmental reviews for infrastructure projects; Canadian Environmental Law Association. October 2026. The Unjustifiable Demise of Federal Environmental Law

affect specific lands, communities and Indigenous territories even when their benefits extend across provinces or the country. Experience suggests that projects are more likely to advance when affected communities and Indigenous Nations are engaged early, have meaningful opportunities to shape project decisions and, where appropriate, participate in project ownership and benefits. Conversely, inadequate engagement can contribute to opposition, litigation, redesign and delay.

Other barriers arise throughout the development process, from early-stage planning and design through siting, regulatory approval, financing, construction and grid connection. Some can be addressed through faster or better coordinated government processes. Others require changes to electricity planning, procurement design, infrastructure investment, Indigenous partnerships, community engagement, workforce development or supply chains.

This report examines those barriers phase by phase. Drawing on literature, stakeholder interviews and Canadian case studies, it identifies where projects encounter delays or fail to advance and highlights approaches that can improve project outcomes. The analysis is qualitative as Canada lacks consistent national data on project delays, cancellations and their causes, limiting our ability to quantify the relative importance of individual barriers. Instead, we combine available evidence, stakeholder interviews, and case studies to identify recurring challenges and practical solutions to enable faster, more durable, clean electricity development. The report's primary audience is federal and provincial policymakers, but the findings are also intended to support utilities, developers, Indigenous and municipal partners, and civil society organizations seeking to accelerate clean electricity development responsibly.

2. Barriers to Clean Electricity Buildout

Clean electricity projects face different barriers at each stage of development, from establishing a viable market opportunity and securing a site to developing partnerships, obtaining approvals, connecting to the grid and completing construction. The following sections examine these barriers phase by phase, highlighting where delays most commonly arise and the approaches that can help projects move forward.

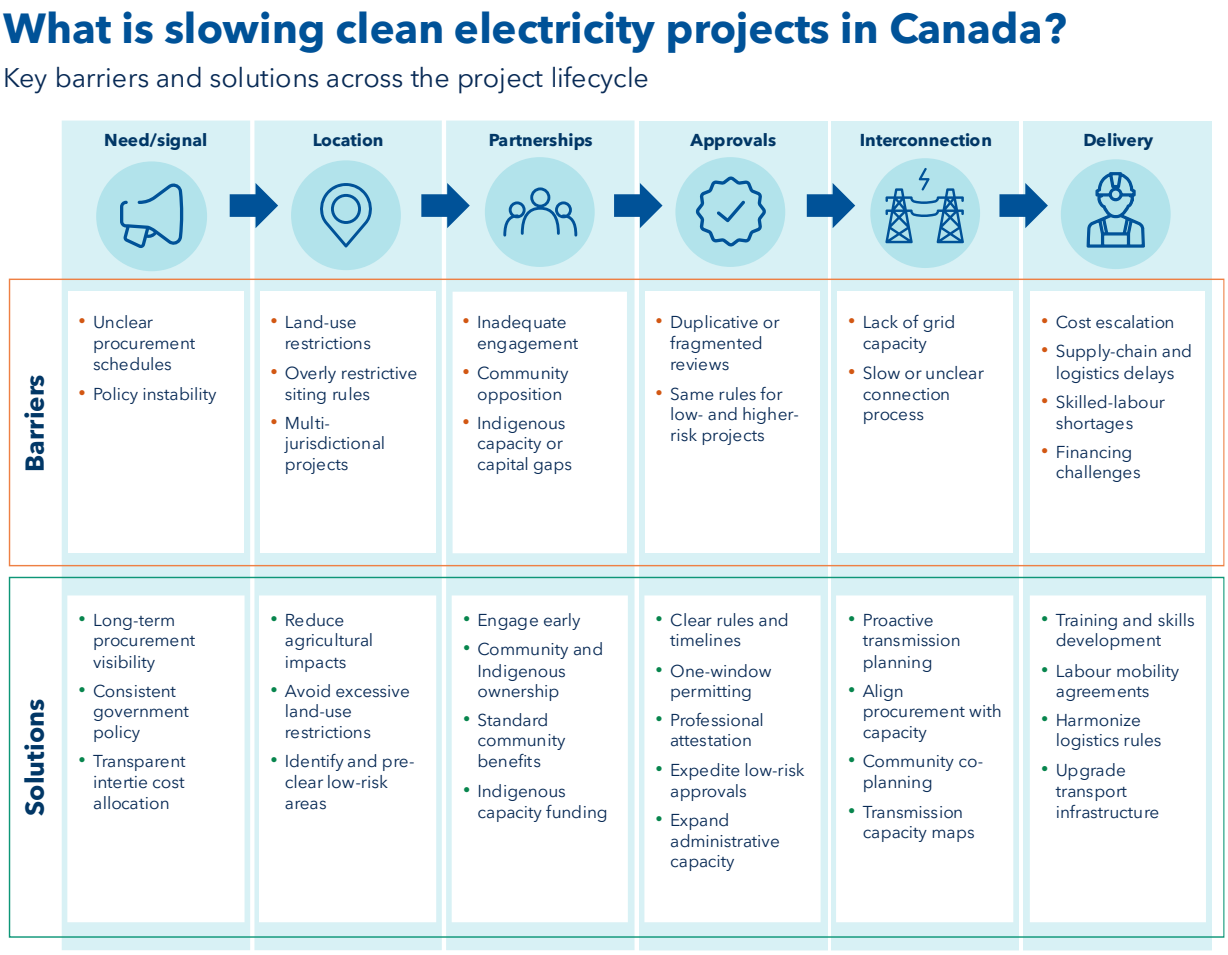


Figure 2. Generic project development stages and key barriers encountered

2.1 Creating the conditions for investment

Why build? Is there a need, policy signal, or market signal?

Developers make significant investments well before a project is selected through a procurement, including identifying and securing sites, undertaking technical and environmental studies, building relationships with communities and Indigenous partners, and completing other pre-development work. Therefore, long-term visibility and confidence in future market opportunities increases developers' incentive to invest.

A credible long-term market outlook gives developers confidence to invest in project pipelines, local relationships, supply chains and workforce capacity ahead of individual procurements, while improving competition and reducing the risks associated with stop-start development cycles.

The degree of long-term visibility provided to the market varies considerably across provinces and is heavily influenced by provincial policies and energy system planning frameworks. Some provinces, such as Ontario and Quebec, provide clearer signals about the scale and timing of future electricity needs, allowing developers and investors to anticipate where future opportunities are likely to emerge. The IESO's Annual Planning Outlook, for example, is updated annually and identifies long-term energy and capacity needs and planned acquisition actions.[20] Quebec similarly provides long-term signals through Hydro-Québec's Action Plan 2035.[21]

British Columbia Calls for Power

The Province of BC has taken important steps to help restore market certainty after a 15-year gap in competitive calls for power. In April 2024, BC Hydro issued a request for proposals to acquire 3,000 GWh/yr of clean electricity, aligned with the 2021 Integrated Resource Plan, which indicated the need for additional energy as early as late fall 2028.[22] This was followed by a second call for up to 5,000 GWh/yr in 2025. Since then, the Province has committed to holding calls every two years as an important signal to renewable developers to invest and advance projects.

However, the commitment does not provide certainty around the size or timing of the longer-term market. BC's Clean Energy Strategy explicitly states that the volume of future calls and timing of acquisitions will continue to be determined through BC Hydro's resource-planning process.[23] This leaves developers without the type of multi-procurement outlook that would show how much renewable energy will be required—and when—over the coming decade.[24]

The Calls for Power therefore represent both progress and the remaining gap. BC has established a near-term pipeline and committed to recurring opportunities; however, it has yet to provide equivalent certainty about the volume of renewable energy it expects to procure through those future calls.

By contrast, Alberta and Ontario have both demonstrated how major or abrupt policy shifts can detrimentally impact market opportunities, reducing the number of interested renewable energy investors. Prior to 2023, Alberta's competitive electricity market supported rapid wind

[20] IESO Annual Planning Outlook, Ontario's electricity system needs: 2026–2050, April 2025. https://www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook

[21] Hydro-Québec. Action Plan 2035.

[22] Government of BC, New legislation ensures B.C. benefits from clean, affordable electricity. https://news.gov.bc.ca/releases/2024EMLI0019-000536

[23] POWERING OUR FUTURE: BC's Clean Energy Strategy. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/community-energy-solutions/powering_our_future_-_bcs_clean_energy_strategy_2024.pdf

[24] BC Hydro 2025 Integrated Resource Plan Technical Advisory Committee (TAC) – Meeting #5b Summary Notes. https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/integrated-resource-plans/current-plan/2025-irp-tac-mtg5b-20250723-summary-notes.pdf

and solar development. The pace of that growth resulted in some projects being developed in areas of constrained transmission access, as well as siting concerns.[25] The Province subsequently paused approvals in 2023 and introduced new requirements related to agricultural land, viewscapes and reclamation. Following the changes, the value of new corporate renewable energy deals fell by 99%.[26]

Ontario illustrates a similar example of how broad policy changes can rapidly reshape market opportunities. The *Green Energy Act* of 2009 established the framework for Ontario's Feed-in Tariff (FIT) program, providing long-term contracts and supporting significant renewable energy development. Annual wind project additions increased ten-fold from 2009 to 2015, and wind capacity increased by five times.[27] Following a 2018 change in government, the Province shifted direction, cancelling over 750 renewable energy contracts (mostly wind and solar). From 2019 to 2024, wind capacity growth dropped to 1% per year. The cancellation of the FIT program also affected community-scale wind and solar projects, removing the financial incentive to absorb early-stage development risk. In June 2025, the IESO launched the Long-Term 2 (LT2) competitive procurements for new energy and capacity resources, awarding contracts to one new wind project (200 MW) and 12 new solar projects (915 MW), all with at least 50% Indigenous ownership.[28]

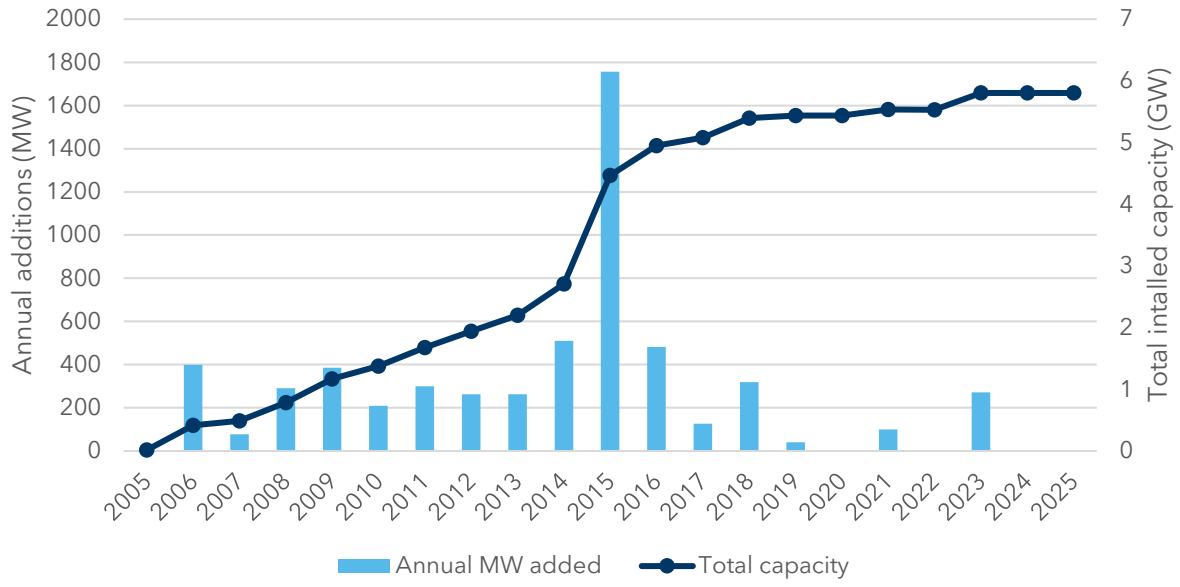


Figure 3. New wind development in Ontario grew rapidly between 2006 and 2018, before dropping after provincial policy changes.

[25] AESO 2023 Reliability Requirements Roadmap. https://www.aeso.ca/assets/Uploads/future-of-electricity/AESO-2023-Reliability-Requirements-Roadmap.pdf

[26] Business Renewables Centre, 2025 Renewables in Review. https://businessrenewables.ca/sites/default/files/2026-01/State%20of%20the%20Market%202025%20FINAL_0.pdf

[27] Statistics Canada. Table: 25-10-0022-01

[28] IESO. Second Long-Term (LT2) Request For Proposals. Accessed October 21, 2026

Building regional transmission requires political buy-in and clear commercial value

Canada has more transmission interties with the US than it does between provinces and territories. Although there are geographic and historical reasons for this, the shortage of east-west transmission limits opportunities for inter-provincial trade and optimizing electricity systems across larger regions. Federal and provincial governments are now working to address that as part of the national electrification strategy, National Energy Corridor, and specific projects including the BC-Yukon intertie and the Quebec-Newfoundland electricity deal.

The contrasting examples of the Atlantic Loop initiative, which ultimately collapsed, and the Wasoqonatl Reliability Tie between Nova Scotia and New Brunswick, illustrate why some interties succeed and others fail. The Atlantic Loop was a grand vision to integrate Nova Scotia's relatively isolated system with that of New Brunswick and Quebec, enabling it to decarbonize by transitioning away from fossil fuel generation. The initiative collapsed in part due to a lack of consensus between different government partners on the system need and benefits of the project. As cost estimates increased from $3B to $9B, provinces withdrew their support in favour of lower-cost alternatives.

The Wasoqonatl line has advanced because each partner was able to see clear value from the project, there was provincial support from the outset, and costs were fairly allocated based on the anticipated benefits. One lesson: achieving political buy-in from affected stakeholders is critical for advancing projects that cross boundaries, and this is far more likely to happen when there is a clear commercial rationale and justification that all sides can agree on.

2.2 Finding the right location

Where to build? Finding the right site, route and grid access.

Identifying a technically viable renewable resource is only the first step. Projects must also find locations where grid access, suitable land, environmental requirements, and community support align. These constraints are interconnected and can significantly narrow the number of sites that can realistically proceed.

Land use and environmental constraints: Even where grid capacity and strong renewable resources coincide, competing land uses and environmental considerations can substantially restrict viable sites. Agricultural land protections, wildlife and conservation areas, setbacks, municipal zoning and other requirements all shape where projects can be located. The challenge is not necessarily to remove these protections, but to provide clear and predictable siting rules and identify areas where renewable development is both technically and environmentally appropriate.

In Ontario and Quebec, agricultural land rules can significantly constrain available sites, especially for solar projects. For example, restrictions in Ontario on ground-mounted solar on agricultural land can significantly constrain siting; agrivoltaics may provide one way to accommodate renewable development while maintaining agricultural use and creating revenue streams for farmers. Quebec's Commission de Protection du Territoire Agricole du

Québec (CPTAQ) has adopted stringent restrictions on wind and solar projects on agricultural land, impacting hundreds of megawatts of projects.[29] This illustrates the challenge of reconciling clean energy development with agricultural and environmental objectives.

Access to suitable sites can be an even greater challenge for community-led and non-profit developers that lack large land portfolios or the resources to secure sites speculatively. Governments can help create development pathways by identifying suitable public or previously disturbed lands, supporting compatible uses such as agrivoltaics, and establishing transparent processes through which community and Indigenous proponents can access suitable sites.

Grid availability and interconnection: Renewable resources are often located far from existing transmission capacity or in areas where the grid cannot accommodate additional generation. Projects can therefore secure permits and contracts but still face delays if transmission upgrades or interconnection capacity are unavailable. Grid constraints and interconnection processes are discussed further in Section 2.1.5.

Community acceptance: A technically and environmentally viable site may still not be a viable project without local support. Some developers will only pursue projects in communities where support already exists. A growing number of Ontario municipalities have declared themselves "unwilling hosts" to wind and solar projects, further limiting potential sites for new developments. Community support is covered in Section 2.1.3.

A Tale of Two Provinces

Ontario and Quebec provide contrasting examples of how the role given to local communities can shape renewable energy development.

Ontario provides a cautionary example of the consequences of limiting local participation. Under the 2009 *Green Energy Act*, Ontario municipalities lost much of their planning authority over renewable energy siting. At the time, expressed opposition was not enough to prevent projects from proceeding. This became a contributing factor to the sharp rise in opposition to wind development and the inception of municipal "unwilling host" resolutions. Since the Province repealed the GEA in 2018, municipalities now have far greater control over renewables development, and more than 150 have declared themselves "unwilling hosts" for future wind projects.[30]

Under the IESO's second long-term procurement (LT2), proponents must now secure municipal support before projects can proceed.[31] Municipalities therefore have a formal opportunity to determine whether they support proposed projects. Despite the new responsibilities, municipalities have been overwhelmed with applications and many have limited capacity to respond in a timely way. The Ontario experience demonstrates how failing to establish community acceptance early can create lasting opposition and ultimately result in more restrictive requirements for future development.

[29] CBC Radio-Canada. Wind turbines on agricultural land: Hydro-Québec faces initial refusals. September 11, 2026

[30] CTV News, 155 Ontario municipalities 'unwilling hosts' for future wind projects, 2024. https://www.ctvnews.ca/london/article/155-ontario-municipalities-unwilling-hosts-for-future-wind-projects/

[31] IESO's LT2 Request for Proposals. https://www.ieso.ca/Sector-Participants/Resource-Acquisition-and-Contracts/Long-Term-2-RFP

Quebec's Eastern Energy Alliance illustrates a very different model where communities are partners rather than hosts. The Alliance emerged through bottom-up, community-led regional collaboration among municipalities rather than having been initiated by government or private developers. In response to Hydro-Québec's 2013 community wind procurement, municipalities across Eastern Quebec organized regionally to pursue projects collectively, pool their capacity and ensure that local communities had a direct role in renewable energy development. It has since grown to represent 209 communities, 16 regional county municipalities (MRCs) and the Wolastoqiyik Wahsipekuk First Nation, with local partners taking equity positions in utility-scale renewable projects.[32] Rather than concentrating benefits in individual host communities, its model seeks to share the economic, social and environmental benefits of development across the broader region.

This demonstrates how involving communities as participants and economic partners from the outset can create a stronger regional foundation for development.

2.3 Building partnerships and support

Whose support is needed? Who builds, owns and benefits?

Securing a viable project site is not enough for a project to move forward. Large-scale clean electricity projects also often require partnerships with the municipalities, Indigenous Nations and communities that will be affected by and host infrastructure. More broadly, Indigenous Nations and local communities can also participate directly as project developers, investors or owners. Building these relationships early can strengthen project legitimacy, address concerns before they become sources of delay, and ensure that communities share meaningfully in project benefits.

Municipal support and decision-making: Municipalities can play a significant role in determining whether projects can proceed, through land-use planning, permitting, infrastructure decisions and, increasingly, formal support requirements. Developers therefore need to engage municipalities before projects are substantially defined, giving local governments meaningful opportunities to shape siting and project design. At the same time, municipal involvement needs to be supported by clear processes and adequate capacity so that local decision-making does not become an unpredictable or duplicative approval process. The Ontario experience with "unwilling hosts" (Section 2.1.2) demonstrates the risks of excluding municipalities from decisions. The IESO's current LT2 procurement framework represents a shift toward requiring local support earlier in project development.

Community Benefit Agreements

Where direct community ownership is not feasible or desired, community benefit agreements (CBA) can provide another mechanism for ensuring host communities share in project benefits. CBAs are a legally binding agreement between developers and host

[32] About the Eastern Energy Alliance. https://alliance-est.ca/a-propos-de-lalliance/

municipalities that provide a formal mechanism for sharing project benefits with host communities.[33]

The experience of wind developers in Ontario illustrates an emerging approach in which community benefits are established earlier and more transparently in the development process. Rather than negotiating benefits only after a project has been selected, developers may work with municipalities in advance to establish a CBA alongside the municipal support process. One developer has developed standardized benefit formulas to provide municipalities with greater transparency and a more consistent basis for negotiations, while also connecting municipalities with one another to share information and experience.

Importantly, the model also recognizes that municipalities may lack the capacity to assess complex renewable energy proposals on their own. Pre-development funding can allow municipalities to retain independent third-party expertise, supporting more informed local decision-making rather than leaving communities dependent on information provided by the developer. This reflects a broader lesson that community engagement is most effective when relationships are built early and are based on trust, and when municipalities have sufficient advance notice and capacity to participate meaningfully.

Indigenous rights, capacity and equity: Indigenous Nations have become significant developers, owners and leaders in Canada's clean energy sector, as well as partners in utility or developer-led projects. Indigenous Clean Energy traces Indigenous participation in clean energy infrastructure back 20–25 years and describes the past 15 years as a period of increasingly substantive Indigenous leadership, equity participation and project diversity.[34] This is complemented by new government and utility initiatives, such as federal and provincial Indigenous loan guarantee programs, and minimum equity requirements for new transmission, wind and solar projects.

Indigenous communities can bring local knowledge, governance, investment and long-term interests that can strengthen clean electricity projects. Meaningful participation begins with respecting Indigenous rights and engaging Nations early enough to shape project development, rather than treating consultation as a procedural requirement. Ensuring Nations have access to capacity funding, technical and legal expertise, and capital can support informed decision-making and enable participation on their own terms. Indigenous equity ownership can further strengthen partnerships by providing a direct role in project governance and ensuring that economic benefits are shared over the life of the project. At the same time, equity ownership does not replace proper rights-based consultation and other legal and governance requirements.

Common obstacles can nevertheless limit the ability of Indigenous Nations to participate on equal footing in major clean electricity projects. Access to capital remains a significant structural challenge, particularly where Nations face limited ability to collateralize on-reserve assets, higher borrowing costs, and limited balance-sheet capacity for large infrastructure investments. Capacity is another recurring constraint. Some small communities are expected

[33] Columbia Law School Community Benefits Agreements Database https://climate.law.columbia.edu/content/community-benefits-agreements-database

[34] Indigenous Clean Energy. 2026. Regenerative Energy: A National Survey of Indigenous Clean Energy Leadership Across Canada

to assess complex legal, financial, engineering, environmental and commercial questions. Meaningful participation requires dedicated funding for capacity building, independent advisors, community engagement, technical training and project governance. For transmission projects in particular, these needs can be even greater because projects may cross multiple territories and require extra coordination, benefit-sharing arrangements, routing analysis, cultural and archaeological input, and governance structures before key decisions can be finalized.

There can also be market-access and infrastructure barriers, especially for on-reserve projects, including difficulty connecting to the grid, limited ability to sell power into the broader system, regulatory complexity, land-status issues, and wheeling constraints. These challenges reinforce the importance of involving Nations early and providing the resources needed to shape projects from the pre-development stage, rather than approaching communities after routing, design or commercial structures have largely been fixed.

Community ownership

Communities can participate in clean electricity projects not only as hosts or beneficiaries, but also as developers, investors and owners. Community energy projects can take several forms, including municipal or cooperative ownership, non-profit and community-led development, and shared ownership with private developers. These models can keep a greater share of project revenues within host regions, give residents a more direct role in decision-making, and strengthen the connection between local impacts and local benefits. Community Energy Cooperative Canada defines community ownership as an important tool for equity, resilience and democratic participation, and Natural Resources Canada is funding work to develop regulatory roadmaps for expanding cooperative ownership in Canadian energy systems.[35]

However, community-led proponents can face many of the same development barriers as commercial developers, often with less financial and technical capacity. These include access to suitable land, development capital, grid connections, procurement opportunities, technical expertise and lengthy pre-development requirements. Policy frameworks can therefore influence not only whether communities support projects, but whether they have realistic opportunities to initiate and own them.

Community ownership will not be appropriate for every project, nor does ownership by one local entity necessarily demonstrate broader community acceptance. But where communities want to participate, procurement rules, financing, access to land, technical assistance and enabling legislation can create pathways for them to do so.

Overcoming Grid Access Constraints in Saskatchewan

George Gordon First Nation's Wicehtowak Solar Project provides an example of how Indigenous ownership can be combined with new approaches to electricity market access. The 32.4 MW solar project near the K+S Potash Bethune mine is 100% owned by George

[35] Julie MacArthur, Khaoula Bengezi, Dan Curwin, Niels Vilstrup, Karl Janelle, Derya Tarhan, Karen Miner, Chad Walker. 2026. Regulatory innovation for co-operative ownership and governance in Canadian energy grids: A Roadmap for Resilience. Community Energy Co-operative Canada & Royal Roads University

Gordon First Nation, and sells electricity to K+S under a 30-year power purchase agreement.[36]

What makes the project notable is the wheeling arrangement. SaskPower's Renewable Access Service enables K+S to purchase renewable electricity from an independent producer while using SaskPower's transmission system to deliver the power, in a first-of-its-kind arrangement in Saskatchewan. The model created a pathway for an Indigenous-owned generator to contract directly with a large industrial customer rather than relying solely on a conventional utility procurement.

The project was also enabled by federal funding and a provincial loan guarantee. The model provides a potentially replicable example for other jurisdictions: combining Indigenous ownership, access to capital, corporate demand for clean electricity, and utility transmission access to create new pathways for Indigenous-led renewable development.

2.4 Permitting and approvals

How are projects approved?

Federal permitting is just one layer of approvals required for new electricity infrastructure. For most onshore wind, solar, and battery storage projects, interviewees generally did not identify federal approvals as a major source of delay.[37] Federal processes are more likely to matter for interprovincial transmission, offshore wind, hydroelectric projects, and projects with significant impacts on aquatic environments, species at risk or federal lands.

Provincial and territorial governments, municipalities, and Indigenous rights holders may each have roles in project review, consultation, and approval. Permitting requirements are often spread across multiple laws, regulators and levels of government, and may apply similarly to projects with very different scales and environmental impacts.[38] Overlapping or sequential reviews can therefore add time, cost and uncertainty, particularly for large transmission and hydroelectric projects.[39] These delays not only add to project costs – and ultimately electricity rates – but also postpone the emissions reductions and other benefits that new clean energy infrastructure can provide.

Lack of administrative capacity can compound these challenges. Provincial departments, municipalities, Indigenous governments and regulatory agencies may be responsible for reviewing projects or supporting consultation without having sufficient staff or technical expertise. This can create bottlenecks even where the underlying approval requirements are relatively clear.

A range of reforms has been proposed to reduce approval timelines while maintaining environmental and community protections. Northey (2023) proposed a two-track framework

[36] SaskPower, 100% Indigenous-owned solar project to supply K+S Bethune mine site through SaskPower Renewable Access Service. https://www.saskpower.com/about-us/media-information/news-releases/2025/100-percent-indigenous-owned-solar-project-to-supply-ks-bethune-mine-site-through-saskpower-ras

[37] There are some exceptions, including projects on Crown land, proximity to water or migratory bird/species at risk habitat, or projects that receive federal funding. Interview with Chad Eggerman.

[38] Northey. 2023. Expediting clean energy facilities in Canada: A framework for new fast-track permitting. Canadian Climate Institute.

[39] Canada Electricity Advisory Council. May 2024. Powering Canada: A blueprint for success.

that would expedite proven, small-scale, zero-emission projects that meet defined criteria (including local support and avoidance of significant ecological and community impacts). The Canada Electricity Advisory Council has proposed federal reforms that could inform provincial, territorial and municipal approaches.[40]

BC's One-Window Permitting Model

In 2025, British Columbia expanded the mandate of the BC Energy Regulator (BCER) to include renewable energy and certain transmission projects, with the goal of simplifying approvals and establishing a single point of contact for provincial permits. The BCER is now responsible for permitting wind and solar projects and prescribed transmission projects, including the North Coast Transmission Line.[41] It oversees approximately 95% of the provincial permits required for these projects, significantly reducing the number of ministries and agencies developers must navigate. [42]

The reforms also introduced a more proportionate approach to environmental review. Onshore wind projects are now exempt from the Environmental Assessment Act, with environmental studies and requirements incorporated into the BCER permitting process. [43] This reflects the generally lower environmental impacts of wind projects relative to developments such as mines or LNG facilities, while maintaining regulatory oversight. The BCER also continues to regulate projects during operation to ensure ongoing compliance with environmental and other requirements.

It is too early to assess how significantly the reforms will reduce approval timelines. However, CanREA described BC's approach as "best in class" and a potential model for other provinces and territories seeking to streamline clean energy permitting without weakening environmental safeguards.

Renewable energy developers interviewed for this study generally supported streamlining approval processes, but not at the expense of ecological protections or the credibility of regulatory frameworks. Interviewees identified several promising approaches:

- **Clear and predictable timelines in Nova Scotia**: Nova Scotia's environmental assessment process establishes defined requirements and timelines, providing greater certainty for developers and investors. However, provincial approval does not guarantee municipal approval. While some municipalities offer as-of-right zoning for wind, others require project-specific development agreements which can introduce additional risk and delay (particularly for projects spanning multiple municipalities).
- **Professional attestation model**: Ontario is moving towards professional attestation for some lower-risk requirements, replacing the repeated ministry review cycle with a model where qualified professionals prepare conservation plans, subject to ministry audit and

[40] See Canada Electricity Advisory Council recommendations 9-12.

[41] Government of BC. April 2025. B.C. streamlines permitting for renewable-energy projects

[42] Interview with CanREA

[43] BC Energy Regulator. What we regulate: Wind. Accessed November 5, 2026

enforcement.[44] The province has also streamlined some approval requirements for battery storage projects, reducing timelines by 6-12 months.[45]

- **Expedited approvals for wind repowering**: Many wind projects are approaching the end of their operating periods, creating opportunities to replace existing turbines with newer, more efficient equipment. These projects have established sites, grid connections, and relationships with host communities. In Ontario, because many were approved under an earlier regulatory regime, repowering can trigger EA requirements, creating uncertainty that they qualify under new rules. One solution is to expedite repowering, conditional on updated community benefit agreements and/or municipal tax arrangements.

These examples are fragmented and early-stage, but suggest that faster permitting does not necessarily entail weaker standards. Many benefits can be gained from greater coordination, clearer timelines, right-sizing requirements, and ensuring sufficient administrative capacity. This can and should be achieved while preserving environmental and community protections.

2.5 Grid connection

How and when does a project connect to the grid?

Transmission bottlenecks and interconnection delays were identified by several interviewees as among the most significant barriers to clean electricity development. This challenge has two related aspects: whether sufficient transmission capacity exists, and whether developers have clear information on the interconnection process itself.

Most utility-scale generation and storage projects connect to the transmission system. In many regions, the strongest wind and solar resources are located far from available transmission capacity. In others, land use rules or procurement design can concentrate development in areas where the grid is already constrained, as has occurred in parts of Northern Ontario.

Developers also need transparent information on where grid capacity is available and what it costs to connect. Ontario's LT1 storage procurement illustrates the challenge, with roughly 68 GW of proposed battery storage competing for a target of 1.6 GW of capacity.[46] Interviews with project developers suggest that limited public visibility into available grid capacity led to duplicative or stranded development costs.[47] In its LT2 procurement, the Independent Electricity System Operator (IESO) improved transparency by publishing transmission system maps, identifying specific transmission constraints, and holding pre-submission consultations with proponents.[48] Alberta also experienced rapid growth in wind and solar, much of it in areas in the south of the province with grid congestion. The Alberta Electricity System Operator (AESO) has since introduced transmission-capacity mapping, cluster-based

[44] Environmental Registry of Ontario. May 2026. Amending the Renewable Energy Approval regulation to remove certain project types from the process and streamline the review of Natural Heritage Assessments

[45] Environmental Registry of Ontario. August 2026. Exempting low-risk activities from requiring environmental permissions

[46] IESO. September 2023. Deliverability Test Results for LT1

[47] Interview with BESS developer.

[48] IESO. May 2025. Preliminary Connection Guidance for the Long-Term 2 Energy Supply (Window 1) Request for Proposals

connection studies and congestion tools to give developers clearer signals about where the grid can accommodate new generation.[49]

Another challenge is development timelines. New transmission can take 7-10 years to plan and build, compared with 3-5 years for a wind project. This creates a "chicken-and-egg" problem where developers may be reluctant to invest without confidence that transmission will be available, while utilities and transmission owners may struggle to justify investments without committed demand or regulatory approval to build ahead of need.

As a result, viable projects may be delayed or stranded for years without grid access. [50] A failure to build out transmission networks can result in congestion, curtailment, and higher electricity costs.[51] In addition, there are significant opportunity costs when clean generation or new industrial demand is unable to connect to the system.[52] [53]

Potential solutions include:

- **Proactive transmission planning and investment** to unlock renewable generation and economic development opportunities (see Hydro-Quebec case study)
- **Better alignment between procurements and grid capacity**, including identified zones, scoring criteria, and timelines that reflect existing and planned transmission availability.
- **Early co-planning with Indigenous Nations** and affected communities, particularly for new transmission corridors. This should account for Indigenous rights and governance, route selection, community impacts, and benefit-sharing.
- **Transparent interconnection capacity maps** and data showing available and planned capacity, connection costs, and realistic timelines.
- **Cluster studies** that assess groups of projects and associated network upgrades together, rather than relying only on sequential project-by-project reviews.

Hydro-Québec's integrated wind and transmission planning

Hydro-Québec has adopted a more integrated approach to wind development and transmission planning to provide greater certainty for developers, municipalities and First Nations about where projects can connect, where development is likely to occur, and how benefits will be shared.

The model focuses on large-scale wind development zones, including projects of 1,000 MW or more, as part of Hydro-Québec's objective to add approximately 10,000 MW of new wind capacity by 2035. Capacity mapping is used to identify areas where new

[49] AESO. Transmission Capability Map. Accessed October 14, 2026

[50] WATTS AT STAKE: Canada's $200-Billion Clean Energy Investment Opportunity. What it will take and what could stop it? https://renewablesassociation.ca/wp-content/uploads/2026/04/Watts-at-Stake-%E2%80%93-CanREA-report-%E2%80%93-April-2026_20260429.pdf

[51] Pembina Institute. May 2026. Lost in Transmission.

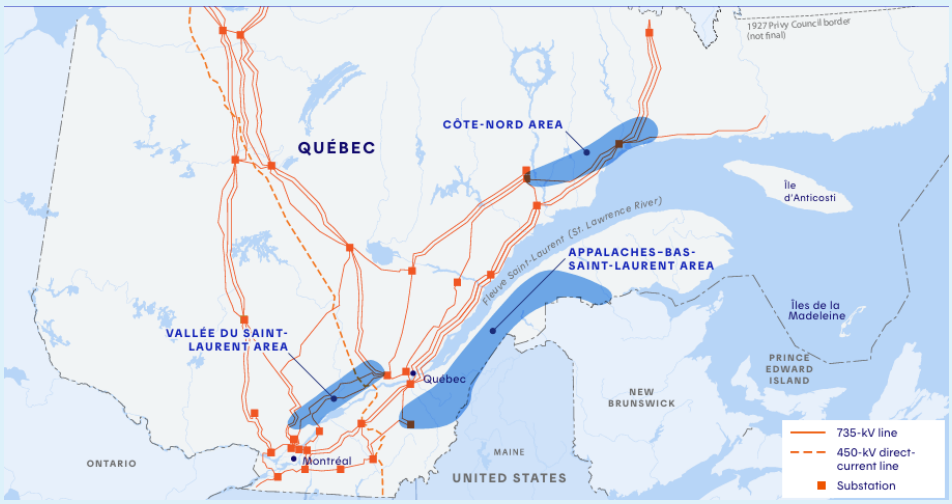
[52] SHARE and Dunsky. February 2025. The Investment Case for a Clean, Competitive Canada

[53] Canadian Climate Institute. June 2026. Canada must build clean power faster to compete in global race for investment

generation can be connected at manageable cost, giving developers and host communities clearer signals about where projects are most viable.

This is paired with proactive transmission investment: 850 km of new high-voltage transmission lines, representing $10 billion in investment, to strengthen the grid in areas with significant renewable development potential, including the Appalaches–Bas-Saint-Laurent corridor. By planning transmission alongside generation rather than waiting for individual projects to trigger upgrades, the approach can reduce the risk that viable wind projects are delayed by insufficient grid capacity.[54]

The model also places greater emphasis on early partnerships with municipalities and First Nations, including consultation, local participation and shared ownership or economic benefits. Hydro-Québec has also proposed assuming certain interconnection costs, reducing a source of uncertainty for developers and potentially lowering project bid prices and costs to ratepayers.



Hydro-Quebec's planned high-voltage transmission corridors.

2.6 Project delivery

How is the project financed and built?

Once approvals, community and Indigenous support, and grid access are in place, a project must still secure financing, equipment and labour before construction can proceed. Large wind projects may take up to two years to build, while transmission lines can take three or more years. The main barriers at this stage include financing risk, workforce and skills shortages, supply chain delays, and transportation logistics.[55]

Financing: Projects can still fail to reach financial close after securing approvals. Developers may face higher interest rates, inflation, equipment and labour cost escalation, fixed-price bid exposure, and import tariffs. These risks are particularly significant where projects are bid

[54] Hydro-Quebec. Transmitting the Energy of Our Goals.

[55] Financing barriers are also covered under Indigenous partnerships above

several years before construction or depend on public or Indigenous equity financing that may not be available when required.

Workforce shortages: These are a growing challenge for utilities and clean electricity developers.[56] Electricity sector labour demand is growing faster than the economy more broadly, with 21,000 jobs (19% growth) added from February 2025 to February 2026.[57] This is compounded by an ageing workforce, competition with other sectors for the same workers, and declining apprenticeship and training pipelines for key roles.[58] More than 80% of electricity employers report finding skilled talent as the most pressing constraint, according to Electricity Human Resources Canada.

This is slowing the deployment of needed electricity infrastructure across the country. In B.C. for example, limited availability of electricians, powerline technicians and other skilled trades is affecting wind and transmission projects, with clean energy projects competing with sectors such as LNG. Interviewees also identified workforce quality as a concern, noting that a lack of experienced contractors can lead to construction deficiencies, rework and higher costs. The federal government launched an Energy and Electricity Workforce Alliance in September 2026 to bring together employers, labour groups, Indigenous partners, and educators to identify labour market gaps and priority workforce investments.

Supply chains and logistics: Large equipment, particularly wind towers and blades, are increasingly difficult to transport, particularly in regions with mountainous terrain or constrained port, rail and highway infrastructure. Transmission, storage, and renewable projects also rely on long-lead electrical equipment such as transformers, switchgear, cables, and substation components, which may takes years to source. Delays or price increases can affect construction schedules even after a project has been approved. Domestic content requirements can add further costs or delays if local supply chains cannot meet demand.

Another challenge is the inconsistency of transportation rules. Provincial requirements for route studies, oversize-load permits, police escorts and when equipment can travel vary considerably, creating added cost and uncertainty. In some cases, developers have had to use route equipment via the U.S. because Canadian ports or transportation infrastructure could not accommodate oversized components.[59]

Potential solutions include:

- **Expand apprenticeships and training capacity** in occupations facing the greatest shortages, including electrical trades and engineering. **Expand workforce development**, particularly for electricians, powerline technicians, construction trades, commissioning specialists and grid-related technical roles.
- **Create tailored training streams and apprenticeship programs** for First Nations, rural communities, and workers transitioning from declining sectors.
- **Improve retention and workforce participation**, including more inclusive workplaces and pathways for Indigenous workers, women and other underrepresented groups.

[56] Electricity Human Resources Canada. Electricity in Demand: Labour Market Insights 2023-2028.

[57] Electricity Human Resources Canada. April 2026. Electricity sector employment grows sharply, reflecting a rapidly changing electricity grid

[58] EHRC. 2024. Electricity in Demand: Labour Market Insights

[59] Interview with CanREA

- **Improve interprovincial labour mobility** by reducing remaining barriers to recognizing and deploying skilled trades across provincial boundaries.[60]
- **Harmonize oversize-load and escort requirements** across provinces where possible, and consider pre-cleared transportation corridors for certain components.
- **Target infrastructure upgrades** including ports, roads, and rail bridges, to facilitate inter-provincial transport of electricity equipment and components.

[60] One Canadian Clean Economy Task Force. November 2025. North Star Action Plan.

3. Key Takeaways

Five lessons emerge for accelerating clean electricity development in Canada. The consequences of delay are significant: without faster deployment, Canada risks locking in GHG emissions and delaying the economic and social benefits of electrification. But the buildout must respect Indigenous rights, local communities, and the environment. Encouragingly, there is broad agreement on the barriers and many of the solutions are already being implemented across Canada.

1. Accelerating clean electricity requires coordinated action across all project stages

There is no single solution to Canada's slow clean electricity buildout. The challenge is multi-faceted, requiring action across jurisdictions and from all levels of government, as well as utilities, project developers, Indigenous Nations, communities and civil society.

As this report makes clear, projects can be delayed or derailed at any stage of development: from inception through to construction and delivery. Deploying clean electricity at the pace and scale needed to meet Canada's climate targets therefore depends on coordinated action across the project lifecycle, with each actor addressing the barriers within its control and coordinating where responsibilities overlap. In practice, this means providing clear policy direction and long-term procurement signals, proactive grid planning, predictable and right-sized approvals, access to financing, workforce and supply chain readiness, and early engagement with Indigenous Nations and affected communities.

Critically, projects depend on local legitimacy. Communities and Indigenous Nations should have meaningful opportunities to shape projects and share in their benefits. Without such opportunities, the rapid growth of clean electricity across Canada could generate opposition and result in broader policy backlash.

2. The electricity grid is increasingly the bottleneck

Transmission access and interconnection were repeatedly identified as major causes of project delay and disruption. This challenge is not unique to Canada; many jurisdictions are struggling with ageing infrastructure, limited grid capacity, and lengthy connection timelines.

New grid infrastructure can take 7-10 years to plan, approve and build – far longer than many generation projects or new sources of demand. This mismatch risks delaying not only wind, solar and storage, but also broader electrification, new housing, and industrial investment.

Several solutions exist. Utilities and system operators can improve transparency on available capacity, connection costs and timelines to provide greater certainty to project developers. Provinces can align procurements with existing and planned transmission, and require proactive grid planning to unlock areas with strong renewable resources. Transmission projects can also include community benefits and shared ownership with Indigenous communities. More can also be done to better utilize existing grid infrastructure, through demand flexibility, energy efficiency, and grid-enhancing technologies.

3. Social acceptability is necessary – and achievable

Opposition to large-scale wind, solar and transmission projects is not new, as demonstrated by Ontario's experience following the 2009 *Green Energy Act* and subsequent backlash and slowdown in new wind development. The evidence suggests that community concerns are

unlikely to go away, and in fact may become more prevalent as the pace and scale of electricity buildout grows.

Ontario's cautionary tale illustrates that social acceptability matters both for individual projects and for the durability of climate policy more broadly. The core elements of effective community engagement are well-established: engage early and often, clearly explain *why* a project is needed, be transparent about potential impacts and mitigation measures, demonstrate how feedback has influenced decisions, and ensure that benefits are shared more broadly (including through community benefit agreements and ownership models).

All actors have a role to play: developers can adopt proven engagement and benefit-sharing models; governments can provide municipalities with capacity and tools to properly review and assess projects, and civil society organizations can support informed public participation and access to credible information.

4. Indigenous partnership is increasingly a baseline expectation

Indigenous partnership and equity participation are becoming the norm for major renewable energy and transmission projects in Canada. Examples include procurement requirements in BC, Manitoba, and Ontario; Indigenous-owned wind, solar, storage and transmission lines; Hydro One's Indigenous equity model; and wind partnerships in Quebec. This represents a substantial shift in support, with billions of dollars allocated to support Indigenous ownership.

This represents important progress towards greater Indigenous participation in the clean energy transition. But significant barriers remain. Most notably, access to affordable capital still prevents many First Nations from becoming project investors or owners. Federal and provincial loan guarantee programs are helping address this gap and can be expanded and replicated to ensure more Indigenous communities are able to benefit.

Beyond financing, Indigenous communities need funding, tools, and capacity to meaningfully participate in pre-development, when major decisions about project design, siting, and partnership agreements are made. Longer-term investments to build technical expertise, governance capacity, and workforce development are needed to enable Indigenous communities to participate fully as project partners, owners and decision makers.

5. Canada already has promising models – the task now is to adapt, replicate and scale

A central finding from this research is that Canada is not starting from scratch. Across the country successful models are being developed by communities, governments and utilities to address many of the barriers highlighted in this report. From incorporating Indigenous equity and financing into procurement design, to building long-term municipal and community partnerships around renewable projects, to planning transmission proactively alongside future generation, there is no shortage of examples to choose from.

These approaches will not transfer directly to every jurisdiction. The task for governments and other stakeholders is therefore not simply to copy successful models, but to identify what makes them work and adapt them to local circumstances. Scaling proven approaches in this way offers a practical path to faster, more durable clean electricity development.

4. Recommendations

Action area	Policy solution	Why needed	Lead actor(s)
1. Need and Signal	**Publish long-term procurement roadmaps**	Developers, communities, manufacturers and training institutions need visibility on the scale, timing and location of future investment to plan and invest with confidence.	Provinces/territories; utilities/ISOs
	Provide clear, transparent procurement rules	Unclear or changing rules, grid information and procurement requirements increase development risk and discourage investment.	Provinces/territories; utilities/ISOs
2. Location and Siting	**Use proactive spatial planning to identify suitable development areas**	Clearer information on renewable resources, land-use constraints, environmental considerations and grid availability can direct development toward lower-risk locations before significant capital is spent.	Provinces/territories; municipalities; utilities/ISOs
	Create clearer pathways to suitable land and routes	Agricultural protections, zoning, competing land uses and multi-jurisdictional routes can limit viable sites; clear siting rules can reduce conflict without weakening environmental protections.	Provinces/territories; municipalities; Crown land agencies
3. Partnerships	**Enable informed community participation, ownership and benefit-sharing**	Projects are more durable where affected residents and communities can shape development and have meaningful opportunities to own or benefit from projects.	Municipalities; provinces; developers; utilities

Action area	Policy solution	Why needed	Lead actor(s)
	Enable Indigenous leadership, ownership and participation	Indigenous Nations are increasingly developers, owners and partners, but access to capital and pre-development capacity can constrain participation on their own terms.	Indigenous Nations; federal/provincial governments; utilities; developers
4. Approvals	**Resource regulators, ministries, municipalities and other approval bodies for timely project review**	Predictable timelines require sufficient staffing, expertise and institutional capacity—not simply shorter statutory deadlines.	Federal/provincial governments; municipalities
	Coordinate and right-size permitting and approvals	Reducing duplication and matching review requirements to project risk can accelerate appropriate projects while maintaining environmental protections, Indigenous rights and meaningful consultation.	Federal/provincial governments; municipalities; regulatory agencies
5. Grid Connection	**Plan and expand transmission proactively, aligned with future procurement and demand**	Generation can be developed much faster than transmission; waiting for individual projects to trigger grid investment can strand otherwise viable projects.	Provinces/territories; utilities/ISOs; regulators
	Improve transparency and efficiency of interconnection processes	Developers need earlier visibility into available capacity, likely upgrade needs, connection costs and realistic timelines before committing significant development capital.	Utilities/ISOs; transmission owners; regulators
6. Project Delivery	**Develop the workforce required for sustained electricity buildout**	Rapid growth, retirements, training constraints and competition for skilled workers could increasingly constrain construction and grid expansion.	Federal/provincial governments; employers; labour; educators

Action area	Policy solution	Why needed	Lead actor(s)
	Address financing, supply-chain and logistics constraints early	Projects can still stall after approval because of financing risk, long-lead equipment, cost escalation and transportation constraints.	Governments; developers; utilities; industry
7. Cross-cutting	**Coordinate across all stages and key actors**	No single institution controls the full project-development process. Federal, provincial, territorial and municipal governments, Indigenous Nations, regulators, utilities and developers need to coordinate decisions so that progress at one stage does not simply shift the bottleneck to another.	Governments; municipalities; utilities; industry; Indigenous Nations; civil society

Appendix A: Actions by lead actor

Accelerating clean electricity development requires action from multiple institutions. The table below translates the report's seven action areas into a high-level division of responsibilities, recognizing that many actions require collaboration and that responsibilities vary by jurisdiction and project type.

Priority action	What it does	Barrier(s) addressed
Federal Government		
Provide durable national policy and funding signals	Maintain predictable federal policy, financing and infrastructure support so provinces, utilities and investors can plan over the long term.	Policy/market uncertainty; financing
Coordinate and right-size federal approvals	Reduce duplication between federal and provincial processes, establish clear responsibilities and timelines, and focus review effort according to project risk and impacts.	Permitting; multi-jurisdictional coordination
Expand Indigenous financing and pre-development support	Maintain or expand loan guarantees, capacity funding and technical support so Nations can participate earlier and on their own terms.	Indigenous capital; capacity; participation
Support workforce growth and mobility	Invest in apprenticeships, training and credential recognition, and reduce barriers to workers moving where projects are being built.	Workforce and skills shortages
Support informed public understanding of the buildout	Clearly communicate why new electricity infrastructure is needed, its costs and benefits, and how communities can participate.	Public acceptance; policy durability

Priority action	What it does	Barrier(s) addressed
Provincial and territorial governments		
Publish long-term deployment and procurement roadmaps	Give developers, communities, utilities, manufacturers and educators visibility into the scale, timing and location of future development.	Market/policy uncertainty
Align procurement, siting and grid planning	Ensure generation procurement reflects existing and planned transmission capacity and broader system needs.	Grid access; stranded development; procurement risk
Enable proactive transmission investment	Give utilities and regulators frameworks to build ahead of immediate project commitments where future need is reasonably foreseeable.	Transmission bottlenecks; interconnection delay
Resource regulators, ministries and municipalities	Ensure approval bodies have sufficient staff and technical capacity to make timely, well-informed decisions.	Permitting delays; administrative capacity
Create pathways for community and Indigenous ownership	Incorporate ownership, benefit-sharing, financing and participation opportunities into procurement and project-development frameworks.	Community acceptance; Indigenous participation; access to capital
Electricity regulators, utilities and system operators		
Publish clear grid-capacity and connection information	Provide transparent information on available and planned capacity, constraints, connection costs and realistic timelines.	Interconnection uncertainty; speculative development

Priority action	What it does	Barrier(s) addressed
Plan transmission proactively	Identify likely future generation and load needs and develop grid infrastructure before constraints become binding.	Grid capacity; long transmission lead times
Align procurements with system capability	Design procurements around where and when projects can realistically connect to the grid.	Procurement risk; congestion; stranded projects
Improve interconnection processes	Use tools such as capacity maps, pre-application guidance and cluster studies to reduce uncertainty and duplicated study work.	Interconnection timelines; developer costs
Co-plan major infrastructure with affected Nations and communities	Bring rights holders and host communities into transmission routing, project design and benefit discussions before key decisions are fixed.	Indigenous rights and participation; community acceptance
Indigenous Nations (*where consistent with the priorities and governance of individual Nations)*		
Define preferred roles in project development	Determine whether and how a Nation wishes to participate—as developer, owner, equity partner, rights holder, host or another role.	Late engagement; misaligned partnership models
Build and retain pre-development capacity	Develop access to independent legal, financial, technical and environmental expertise needed to assess and shape projects.	Capacity constraints; information asymmetry
Pursue ownership and governance opportunities where desired	Use equity, co-development and governance structures to create long-term economic and decision-making roles.	Access to ownership; benefit-sharing

Priority action	What it does	Barrier(s) addressed
Participate early in transmission and siting decisions	Bring rights, traditional/local knowledge, routing considerations and community priorities into decisions before project configurations are fixed.	Siting; transmission; consultation and rights
Municipalities		
Establish clear local siting and approval processes	Give proponents and residents predictable requirements, timelines and decision points.	Municipal permitting; siting uncertainty
Engage before project designs are fixed	Identify local priorities, impacts and acceptable mitigation early enough to materially shape projects.	Community opposition; redesign and delay
Build independent assessment capacity	Use technical support or pre-development funding to obtain independent advice rather than relying solely on developer information.	Capacity; trust; informed decision-making
Explore local ownership and benefit models	Consider municipal, cooperative or regional ownership, community benefit agreements and other mechanisms that retain project value locally.	Local acceptance; equitable benefits
Other stakeholders		
Developers: engage early and transparently	Begin community and Indigenous engagement before major siting and design decisions are locked in, and clearly communicate impacts, mitigation and benefits.	Community acceptance; Indigenous participation
Developers: offer meaningful participation and benefit models	Where appropriate, incorporate community or Indigenous equity, standardized benefit-sharing and local economic opportunities.	Local benefits; trust; ownership

Priority action	What it does	Barrier(s) addressed
Employers, unions and educators: expand training pipelines	Increase apprenticeships, work-integrated learning, retention and training capacity in occupations needed for generation and grid construction.	Workforce shortages; skills gaps
Industry: plan early for equipment and logistics constraints	Coordinate procurement, transport routes and long-lead equipment needs earlier in project development.	Supply-chain delays; logistics; cost escalation
Civil society: support informed participation and public understanding	Help communities access credible information, understand trade-offs and participate effectively in project and policy discussions.	Trust; misinformation; public acceptance

Appendix B: Stakeholders interviewed

Dunsky gratefully acknowledges the valuable insights and perspectives provided by the organizations and individuals listed below. Any errors, omissions, interpretations or recommendations in this report are those of Dunsky and should not be attributed to the organizations or individuals consulted.

- Climate Action Network Canada and steering committee members
- Canadian Renewable Energy Association (CanREA)
- First Nations Major Project Coalition (FNMPC)
- Boralex (renewable energy developer)
- EverWind (renewable energy developer)
- Louise Comeau, Re.Climate
- Chad Eggerman, energy lawyer
- Charles Godreau and Marilys Clément, Nergica



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Dunsky is proud to stand by our work.