PEMBINA institute

NEW RELATIONSHIP TRUST
INVESTING IN FIRST NATIONS IN BRITISH COLUMBIA

Finding a path forward

First Nation leadership in B.C.'s renewable energy future

First Nations have played a vital role in Canada's clean energy economy for decades. In British Columbia alone, First Nations own, operate or co-partner 79 grid-tied renewable energy projects. Combined, these projects deliver 13% of B.C.'s electricity. Indigenous People own numerous renewable energy projects in remote communities with additional projects in development. Most are small-scale hydro, solar, wind or bioenergy projects. First Nations have invested millions of dollars in renewable energy projects, attracting capital independently and through partnerships with Independent Power Producer (IPP) companies.

Supporting First Nation leadership in B.C.'s renewable energy sector is critical to meeting B.C.'s legislative commitments to reduce greenhouse gas (GHG) emissions and advance reconciliation with Indigenous People.

B.C.'s path to decarbonization

To meet B.C.'s GHG reduction targets (mandated by provincial legislation) and to align with the province's climate plan to meet 2030 climate goals (as laid out in their **CleanBC**) plan, some electricity needs must be met through renewable power sources. Estimates based on modelling analysis indicate that **substantial growth in renewable electricity sources** will be required by 2030, even when accounting for planned large-scale hydro projects.

Declaration on the Rights of Indigenous Peoples

B.C. has legislated the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Doing so commits the government to updating all provincial laws in accordance with UNDRIP. Articles 4, 21, and 32, for instance, state that the government must ensure Indigenous People benefit from growth in B.C.'s renewable energy sector and are positioned to advance their right to self-determination and development goals.

This report's focus is on the development of renewable energy **supply** that will be needed to meet B.C.'s 2030 climate target. But finding ways to produce this supply is only part of the solution. It is equally important that policies are implemented that direct customers and industry to fuel switch away from carbon intensive energy sources and promote electrification; doing so will increase clean electricity **demand**.

The overlapping goals of CleanBC and legally recognizing Indigenous rights through UNDRIP has created a policy framework that prioritizes Indigenous involvement and leadership in B.C.'s next wave of growth in the province's renewable energy economy.

Highlights

New electricity to meet 2030 CleanBC targets

- Achieving B.C.'s legislated GHG reduction targets by 2030 through an increased supply of renewable sources to meet demand for electrification presents an opportunity to grow beyond the current committed supply of electricity in B.C. by 19% to 34%.
- Analysis indicates that a range of 10.9 to 19.1 terra-watt hours (TWh) of new electricity will be required by 2030.
- Prioritizing local generation of electricity through First Nation renewable energy projects satisfies several key mandates. It would support the self-sufficiency requirement in the Clean Energy Act as well as the Declaration on the Rights of Indigenous Peoples Act (DRIPA)'s call for the creation of new economic avenues for First Nations, and would help meet the demand for new electricity to achieve the CleanBC and 2030 climate targets.

Indigenous sovereignty, reconciliation and renewable energy opportunities

Satisfying a portion of the forecasted growth of 10.9–19.1 TWh in electricity supply through First Nation projects is a significant opportunity to increase support for Indigenous leadership in the energy sector, and would also fulfill the objectives of the Declaration on the Rights of Indigenous Peoples Act (DRIPA), providing an avenue for self-determination and economic betterment. Right now, the lack of economic opportunities for First Nations in the renewable energy sector is a violation of the spirit of DRIPA.

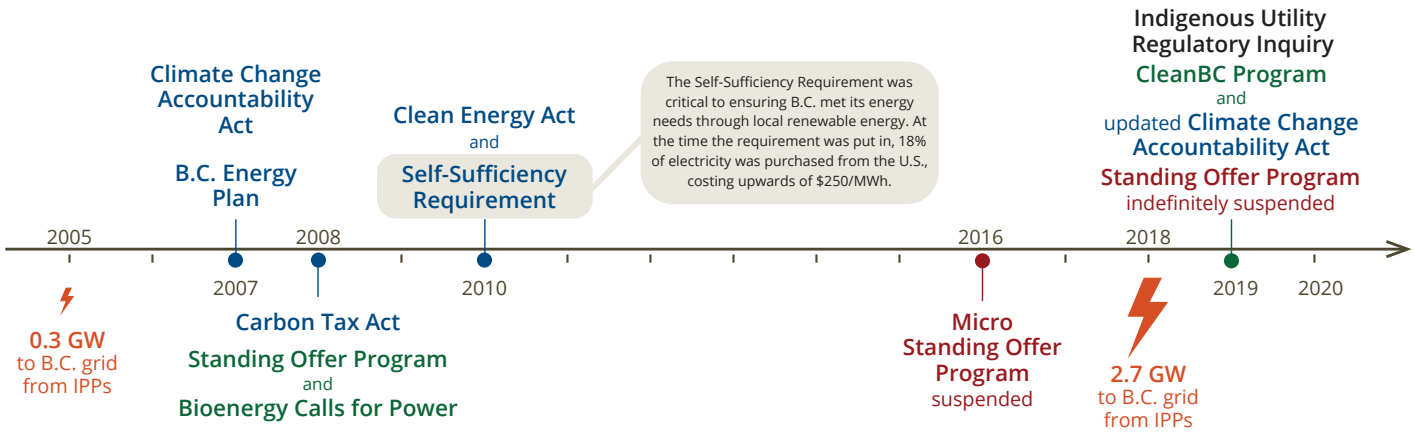
The development of new electricity capacity from First Nation renewable energy projects is a significant economic growth opportunity for First Nations. Using 10.9 TWh as a representative amount of new renewable electricity supply by 2030, if First Nations' renewable energy projects delivered **half of this new amount of electricity**, the results would be:

5.45 TWh
new electricity
(half of 10.9 TWh needed)

235%	**Growth in installed capacity (combined MW of renewable energy projects) of the current First Nation renewable energy sector**
3,456 MW	**Additional installed capacity of First Nation projects**
$8.25 billion	**Potential for new private investment**
10,000	**Number of First Nation part-time and full-time jobs created through these renewable energy projects**

Energy policy at a glance

The B.C Energy Plan (2007) and the Clean Energy Act (2010) enabled Independent Power Producers (IPP) to supply renewable energy, spurring a strong IPP sector that has invested $8.6 billion in energy projects over the past decade. The IPP sector provides approximately 14% of B.C.'s electricity supply. In 2019, the Standing Offer Program, established in 2008 to encourage the development of small clean or renewable electricity projects throughout B.C., was indefinitely suspended, removing policy support for non-utility electricity generation.



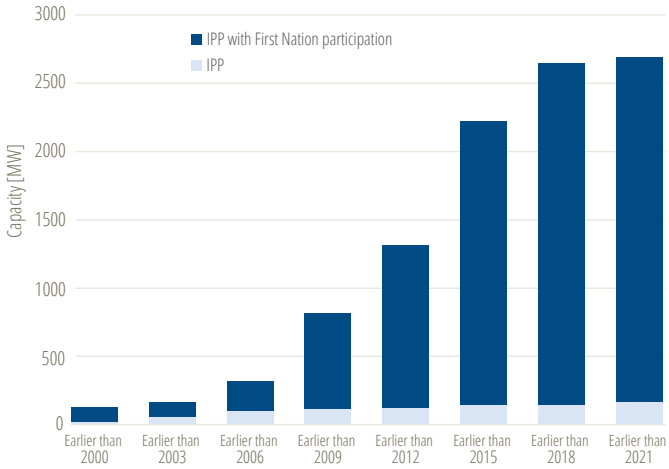
Timeline of energy policy development between 2005 and 2020.

Between 2005 and 2018, installed capacity from IPPs grew ten-fold because of supportive climate and energy policies.

B.C.'s IPP sector today

Growth in the IPP sector was accelerated by B.C.'s drive to be energy self-sufficient, coupled with policies that favoured electricity generation from entities other than BC Hydro. This helped create a strong domestic IPP sector with billions of dollars worth of investment in the province. However, growth has slowed in this sector because Calls for Power have been suspended. Today in B.C.:

- There are approximately 102 IPPs providing renewable power to B.C's energy grid, generating 10,000 GWh per year of electricity (enough to power one million homes).
- 64% of the electricity from IPPs come from small hydro projects, however solar and wind energy projects are gaining momentum.
- In addition, there are 36 larger industrial generation facilities providing power to the B.C. grid.
- 79 of the 102 independent IPPs are owned by First Nations or owned in partnership with First Nations.
- IPP projects provide approximately 14% of B.C.'s annual electricity supply; projects with First Nation partnership make up the bulk of these (approximately 13% of the provincial supply; see graph).



IPP sector development

Data source: BC Hydro, IPP Supply List plus estimates

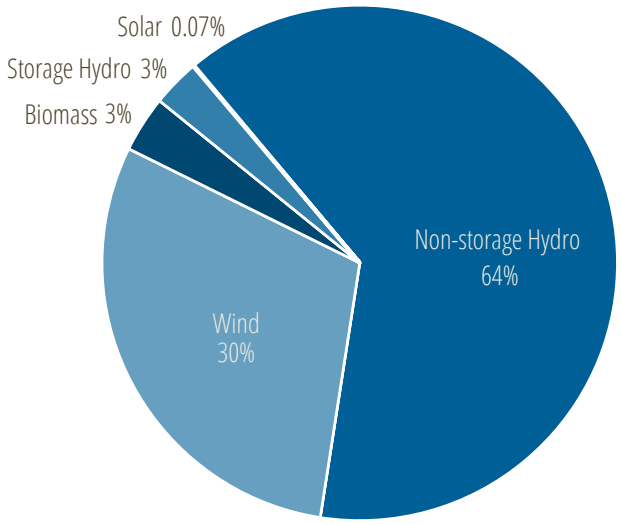
80% of IPP projects include some form of First Nation participation either through royalty payments, Impact Benefit Agreements or an equity share in projects. The breakdown between each of the main participation types is not fully known, but there is likely an opportunity to transition from participation models where projects deliver only royalty payments to projects that have full First Nation equity ownership.

First Nations and the IPP sector

Most IPP projects were developed by, or in partnership with, First Nation communities. A 2017 survey conducted by the B.C. First Nation Clean Energy Working Group found that 98% of First Nation communities in B.C. want to participate in the renewable energy sector. First Nation renewable energy projects have played an instrumental role in B.C.'s energy landscape for decades.

DID YOU KNOW: First Nation clean energy projects currently have a combined power capacity of 2,553 MW. This is more than double the capacity of the future Site C dam — a notable contribution to the B.C. electricity sector.

First Nation renewable energy projects



First Nation IPPs, by energy type
Data source: BC Hydro, IPP Supply List

Economic contribution

To date, $6.1 billion has been invested in First Nation owned or partnered IPP projects. Of the $6.1 billion, $3.9 billion was invested in small-scale hydro projects. However, investment in wind and solar projects has been ramping up recently.

First Nation energy projects have created:

9,875 Development jobs for First Nations

587 Ongoing operations jobs for First Nations

First Nation IPPs generate 2,553 MW of energy, which is 13% of B.C.'s electricity.

However, energy development avenues are currently limited for First Nations.

Despite a proven track record of success, options for the development of renewable energy projects remain extremely limited. Despite the five First Nation projects that were guaranteed EPAs with BC Hydro when the Standing Offer Program (SOP) was put on hold in 2019, there has been little progress in First Nation renewable energy projects since the Standing Offer Program (SOP) was put on hold in 2019.

BC Hydro's June 2021 Draft Integrated Resource Plan indicated an intention to renew IPP contracts set to expire in the next five years — although the terms are still to be negotiated. The draft plan suggests these IPPs would be offered a renewal price based on their value on the market. This price would be much lower than what was offered in the original contracts, and may or may not be a financially viable way forward for some projects. Non-renewal of projects would significantly impact jobs and future revenue for First Nation communities.

Projects still at risk of being cancelled

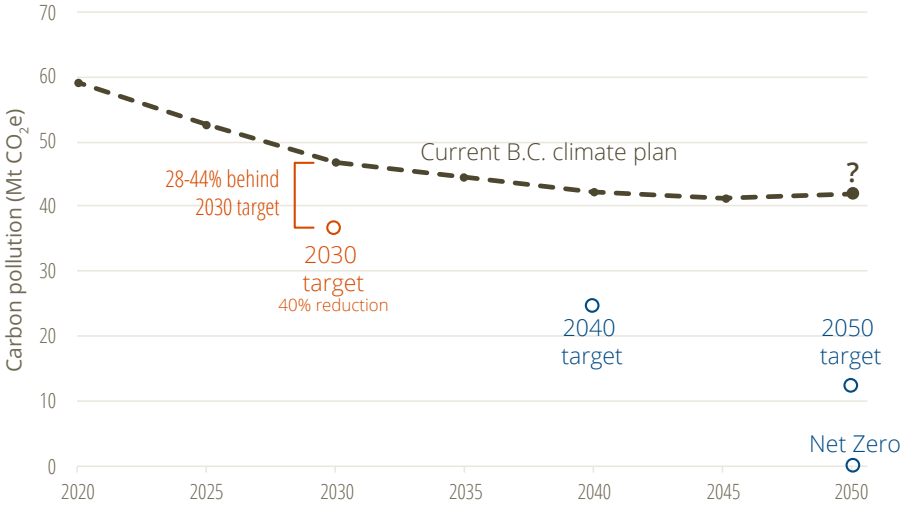
15 Number of First Nation owned or partnered projects slated for renewal within the next 10 years

244 MW Combined capacity of these projects

$582 million Investment that is at risk if the contracts are not renewed

B.C. GHG emission targets

To achieve B.C.'s climate goals, the province legislated targets for reducing GHG emissions and created its climate plan, CleanBC. But B.C.'s Climate Change Accountability Report, released in late 2020, shows that the province is not on track to meet its 2030 emission reduction goals. In fact, emission reductions may fall short of the targeted number by 28% to as much as 44%.



B.C. climate targets and current forecast emissions

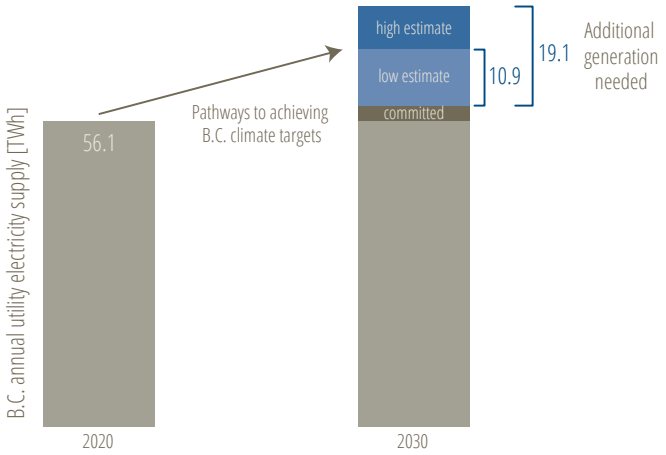
Data sources: Government of B.C., Navius Research

The role of increasing renewable electricity in B.C.

Electrification is key to the CleanBC plan to reduce GHG emissions. Fortunately, B.C. is rich in renewable energy resources. Understanding the extent to which electrification will support achieving CleanBC targets has been the focus of much analysis conducted by various parties, including BC Hydro, other utilities and independent research.

Substantial growth in renewable electricity generation will be required in the near future to meet B.C.'s 2030 GHG targets.

A review of several modelling sources by the Pembina Institute and partners shows that additional electricity generation will be needed by 2030 (in addition to existing and committed resources), to meet anticipated energy demand. For the province to meet its legislated climate targets, additional electricity generation needed is in the range of 10.9 to 19.1 terawatt-hours (TWh), representing a 19% to 34% increase in B.C.'s committed electricity supply for 2030. This range incorporates various possibilities about the future of B.C.'s electricity demand in which a legislated target of a 40% reduction below 2007 levels in GHG emissions by 2030 is achieved. The lower end of this range, identified through an analysis of modelling by BC Hydro and FortisBC Electric, sees 10.9 TWh of additional 2030 electricity generation is needed (see the Technical Appendix accompanying this report for more information). This value accounts for the anticipated renewal of Electricity Procurement Agreement (EPA) contracts and the extension and growth of existing demand side management (DSM) programs outlined in BC Hydro's June 2021 Draft Integrated Resource Plan. The higher end of the range represents the highest anticipated level of demand for electrification in 2030.

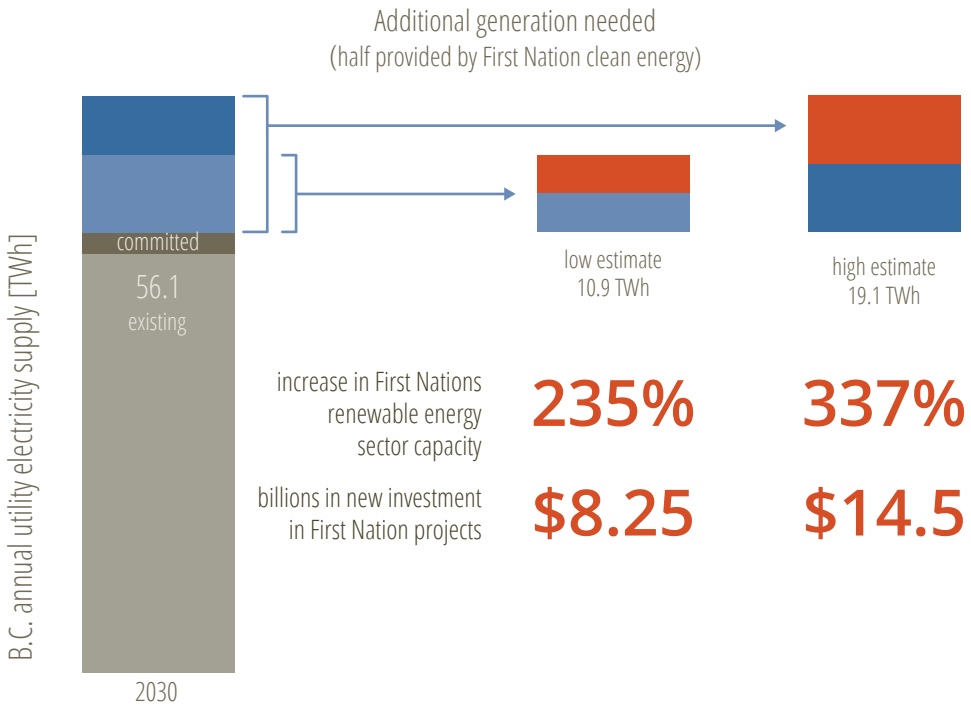


Estimates of additional electricity generation needed in B.C.

The role of First Nations in supplying new electricity

Meeting demand for new energy from renewable sources will require new electricity (beyond committed resources) in the range of 10.9 to 19.1 TWh. Meeting this new demand will require a combination of demand-side management, net metering, generating more electricity through the renewable energy sector, and, possibly, importing electricity.

The diagram below shows what additional energy demand could mean for the First Nation renewable energy sector if 50% of the demand is directed to First Nation clean energy projects through policy decisions.



Results of supplying additional electricity generation with First Nations clean energy projects

Satisfying a portion of the forecasted growth in electricity supply through First Nation projects is a significant opportunity to increase support for Indigenous leadership in the energy sector, and would also fulfill the objectives of the Declaration on the Rights of Indigenous Peoples Act (DRIPA).

"The Fort Nelson region has experienced an economic downturn in the gas and forestry industry over the last decade. Our geothermal project brings renewed hope, revenue and steady employment to our community. This will inspire our youth to pursue opportunities in renewable energy in the community and connect with the land."
— Chief Gale, Fort Nelson First Nation

B.C.'s legal commitment to First Nations

Declaration on the Rights of Indigenous Peoples Act (DRIPA)

The B.C. government passed the Declaration on the Rights of Indigenous Peoples Act (DRIPA) in the fall of 2019. The Act mandates the government to ensure that all provincial laws are consistent with the 46 principles in UNDRIP, an undertaking that the province is required to do in collaboration with the Indigenous Peoples of B.C.

DRIPA also directs government to enhance social and economic conditions, strengthen Indigenous institutions, and provide stable, long-term government funding to First Nations.

At its core, DRIPA advances Indigenous self-determination, including the right and authority to improve their economic and social conditions without discrimination.

UNDRIP

Legal framework to revitalize, improve and protect Indigenous:

- culture
- identity
- religion
- language
- health
- education
- community
- economy

Energy policy in B.C. is not currently aligned with DRIPA

B.C.'s energy policy is structured in a way that it is an impediment to Indigenous economic growth and self-determination, despite DRIPA. One example of this is the indefinite suspension of the Standard Offer Program. The suspension has hindered First Nations contributions to B.C.'s clean economy and has stymied investment in the sector.

DRIPA and First Nations leadership in renewable energy

Under DRIPA Articles 4 and 21, the rights of Indigenous Peoples to self-determination and economic betterment are clear. The Articles specifically note the need to access financing in order to pursue independent business ventures, which could be realized through initiatives such as New Relationship Trust's Clean Energy Legacy Fund. The legacy fund is a $250 million trust fund to provide a stable revenue stream for First Nation clean energy projects.

Articles 26 and 32 outline the right of Indigenous Peoples to determine the priorities for the development or use of their lands, territories, and other resources. B.C. recently issued a draft of the DRIPA Action Plan, which includes a commitment to engaging and supporting First Nations in identifying clean energy opportunities as they align with the province's climate goals, and conduct further inquiry into the regulation of Indigenous utilities. It is key that Indigenous Peoples are involved in the implementation of this legislation. **If the promise of DRIPA is to be achieved, participation by First Nations in the energy sector is crucial.**

The absence of energy policy options for First Nations to participate in the renewable energy sector conflicts with the government's commitment to reconciliation. First Nations ready to take the lead in developing renewable energy projects have negligible policy avenues at this time — in a province that has legislated and committed to improving economic opportunities through Indigenous rights. **This negligence is a violation of the spirit of DRIPA.**

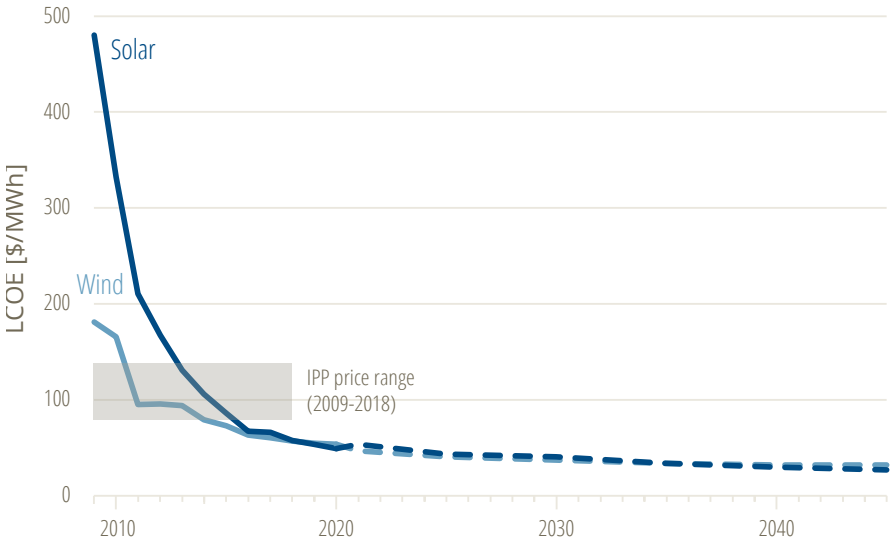
"First Nations will need to pressure the governments to make this a priority so [that First Nations] can continue in their goals to be a significant part of the clean energy industry in their territories and to contribute to the goals of net zero emissions set by Canada and B.C. by 2050."
— Judith Sayers, President of Nuu-Chah-nulth Tribal council

The price of renewables

The cost of renewable energy has decreased dramatically in recent decades both worldwide and in Canada. In many jurisdictions, renewable energy — most commonly wind and solar energy — is a cost-effective option. As a result, opportunities to meet B.C.'s climate goals have multiplied.

Renewable energy globally

In 2020, 90% of the growth in the global power sector came from additional renewable energy capacity which increased by 45% — the largest year-over-year expansion in capacity since 1999.



Past and forecast prices for solar and wind

Data sources: Lazard, Bloomberg

Renewable energy costs throughout the years

Data trends in B.C. indicate costs associated with renewable energy are likely to be in the range of $40 to $80 per MWh depending on the type of technology used, site location, and other factors.

With renewable energy costs on a continued downward trajectory, B.C. energy policy should be updated to reflect these cost changes and to accommodate energy pricing strategies that support First Nation owned and partnered renewables projects, satisfying future provincial electricity demand.

Electricity delivered by renewable power projects offers security of supply at a predictable cost. It also can safeguard against rising BC Hydro costs.

Renewable energy pricing and future opportunities

Between 2010 and 2020, IPP projects provided secure supplies of energy to the grid at an average of $77/MWh. As renewable energy technologies become more cost-effective, the cost of renewable energy has dropped significantly and will continue to do so, creating economically viable solutions as the graph above shows.

Considering the downward trend of renewable energy project costs, provincial policy around clean energy pricing models can be updated to secure lower cost, stable, long-term energy contracts that are better aligned with these renewable energy market trends.

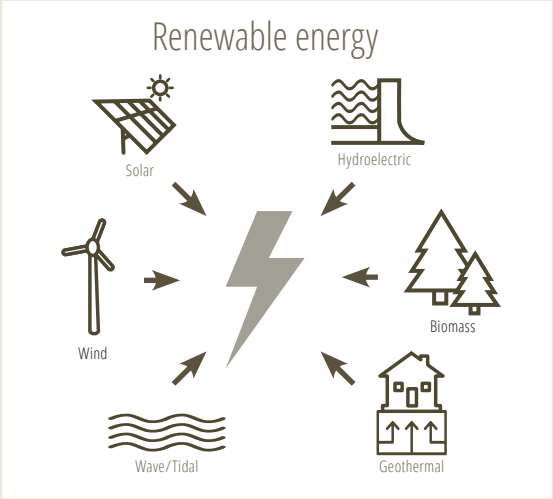
Producing renewable electricity locally versus importing

CleanBC's mandate to decarbonize the economy will create a significant increase in future demand for renewable energy, which can be produced locally and in partnership with First Nations. The removal of the self-sufficiency requirement from the Clean Energy Act, proposed last year by the Government in Bill 17, could have led to increased imports from the U.S. While allowing for some imported energy can provide flexibility in long-term planning, we need to ensure that demand is primarily met through the domestic generation of energy.

Local energy generation

Developing local, renewable energy:

- ✔ aligns with B.C.'s existing mix of natural resources
- ✔ has the support of First Nations
- ✔ creates significant socio-economic benefits
- ✔ has minimal impact on the environment
- ✔ meets the goals of CleanBC



Purchasing electricity from the U.S.

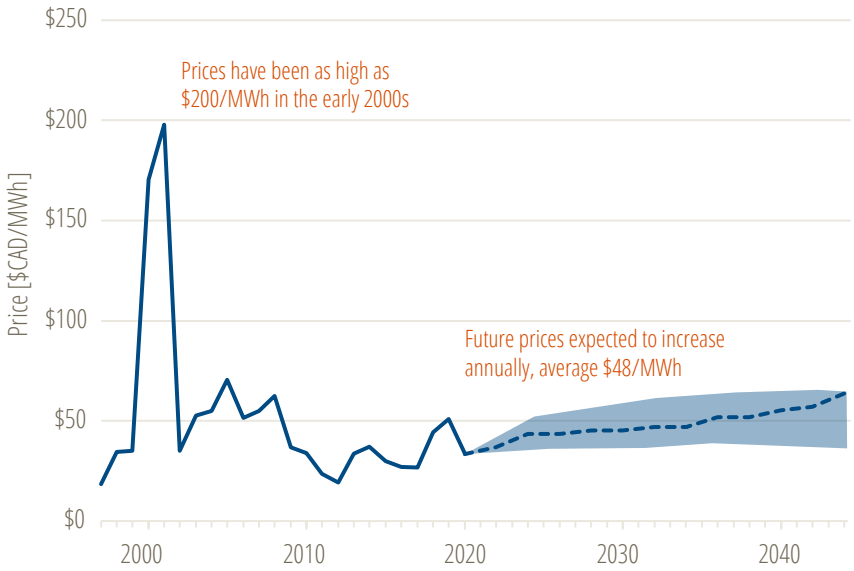
Currently, B.C. buys and sells relatively small amounts of electricity with the U.S. From a planning perspective, purchasing from the U.S. jeopardizes B.C.'s energy security. The energy market is unreliable as aggressive U.S. climate policies are implemented and extreme weather events resulting from climate change occur more frequently. As U.S. producers sell to multiple utilities, with similar demands and obligations, purchasing electricity through the U.S. Mid-C energy market comes with several risk factors.

Purchasing electricity from the U.S. instead of relying on local generation:

- ✖ undermines the self-sufficiency requirement in the Clean Energy Act and violates the principles of DRIPA
- ✖ is neither a secure nor a reliable source of power at a predictable price; B.C. would be reliant on non-domestic energy markets which in turn puts B.C.'s energy security at risk
- ✖ is driven by the misconception that electricity from the U.S. will remain the most reliable and least expensive option
- ✖ fails to adhere to broader policies and mandates to which the government has committed, specifically around Indigenous economic reconciliation and low-GHG electrification. Confirming that imported electricity is certified as green or zero-GHG emitting is challenging

Importing electricity from the U.S

Purchasing electricity from the U.S. negates opportunities for Indigenous partnerships and revenue for First Nation communities, and additionally shuts down avenues for economic reconciliation.



Import prices — historical and projected

Data sources: BC Hydro Submission F 1-8; BC Hydro 2021 IRP TAC Meeting

Future energy prices appear relatively stable compared to earlier years, but this stability cannot be guaranteed. Analysis from B.C. Hydro indicates significant fluctuation where prices could be as low as $35 or as high as $67 per MWh.

Importing power from the U.S. exports B.C. jobs and socio-economic development from investment in B.C.'s renewable energy sector. Doing so ignores Indigenous sovereignty and the provincial government's reconciliation requirements.

Policy considerations and implications

As mentioned earlier in this report, energy policy cannot be reduced to a cost comparison between generating local energy versus importing. Policy makers must also consider how GHG targets will be met, government obligations under DRIPA, energy security, investment in B.C.'s economy and prioritizing Indigenous participation in the province's climate solutions as other benefits of local energy generation.

Local renewable energy projects developed by First Nations are preferable to purchasing electricity from the U.S.

Government policy should develop an enabling framework and guidelines that empower First Nations to attract investment in renewable energy projects.

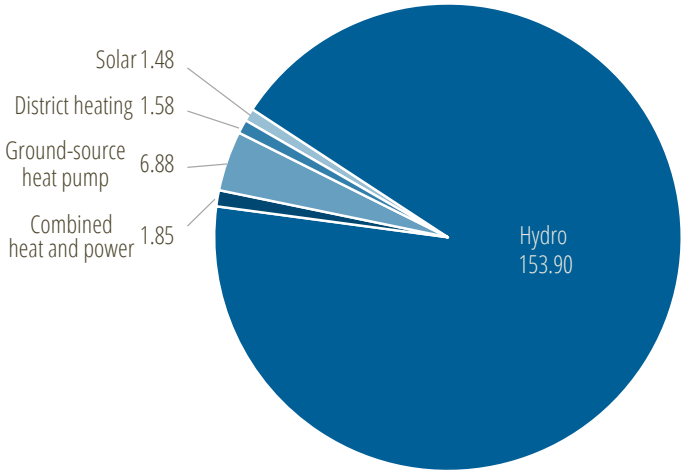
"Why should B.C. import electricity and ship tens of billions in capital investment and thousands of jobs south of the border? The far better strategy for B.C. is to build wind and solar farms."
— Chief Patrick Michell, Kanaka Bar Indian Band

Remote communities and grid-tied shovel-ready projects

Despite the erosion of policies (for example, the suspension of the SOP) and energy forecasting that does not recognize the need for additional energy until after 2030, Indigenous communities are finding ways to bring renewable energy to remote communities and celebrating their success. These projects bring benefits that go beyond replacing diesel as the primary energy source. Enabling First Nations to determine economic priorities and lead their development is realized through the energy projects. Doing so upholds the right to self-determination, and the possibility of self-sufficiency through energy sovereignty.

Remote clean energy projects

Presently there are nine renewable heat and 30 renewable electricity projects in B.C.'s remote communities, totalling 58 MW of capacity and delivering 166 GWh of energy every year.



Renewable power projects in B.C. remote communities [GWh]

Potential for more renewable energy projects

- 46 remote communities in B.C. still burn approximately 16 million litres of diesel fuel each year.
- CleanBC set a target to decrease diesel-powered electricity use by 80% by 2030.
- Remote community renewable energy projects can decrease dependency on diesel while advancing energy sovereignty and community pride.

Shovel-ready projects

There are at least 13 First Nation grid-tied renewable energy projects, representing 807 MW of capacity (enough electricity to power 188,000 homes), that are shovel-ready and can sell power to the grid. Yet these projects are not moving forward because of a lack of government policy that would enable their advancement.

The 13 First Nation projects represent:

$1.9 billion In investment

2,210 Development and construction jobs for First Nations

131 Full-time operational jobs for First Nations

"First Nations have invested in renewable energy projects as developers, and through partnerships. These projects provide electricity to our communities instead of dirty fossil fuels, and revenue on terms that align with our Indigenous values. Wind and solar projects ensure that future generations have the same as, if not more, opportunity than today's generation."
— Chief Patrick Michell, Kanaka Bar Indian Band

BC Hydro's Integrated Resource Plan

Every five years, B.C. Hydro is required by the B.C. Utilities Commission (BCUC) to complete an Integrated Resource Plan (IRP), which lays out a 20-year electricity supply and demand strategy. A draft report has been released, outlining the proposed future of the renewable energy sector in B.C. Its final release is scheduled for December 2021 and will set the stage for the development of new renewable projects and the continuation of existing ones for the next five years.

First Nation consultation

64 First Nation communities were consulted in the drafting of BC Hydro's IRP and many provided feedback.

Energy planning to support reconciliation was their top priority.

Five objectives of the IRP process

Below is a consideration of how the five objectives guiding the IRP process are met when comparing local renewable energy generation versus importing electricity from the U.S.

Criteria	Purchasing power through	
	Local renewable energy projects	Importing electricity
Keeping costs down	✓ Can be guaranteed through energy contracts	Possible, but cannot be guaranteed; subject to external forces (U.S. market, weather conditions, U.S. climate policy)
Reducing GHGs with clean energy	✓ Can be guaranteed through energy contracts	Cannot be guaranteed
Limiting land and water impacts	✓ Can be guaranteed through energy contracts	Limited insight possible on impact in U.S. from electricity projects
Supporting reconciliation with Indigenous Peoples in B.C.*	✓ If project is developed by or in partnership with First Nations	✗
Supporting B.C. economic growth with renewable industrial development	✓	✗

* Including reconciliation as an objective of the IRP process was viewed by consulted Indigenous communities as being inappropriately expressed as a trade-off objective to be ranked among other objectives. It is therefore not a stand-alone objective as the others. However BC Hydro has a mandate to incorporate UNDRIP into their business and decision-making process.

Developing renewable energy projects owned by, or in partnership with, First Nations can satisfy all the objectives of the IRP, showing that it is possible for BC Hydro to prioritize reconciliation while meeting other energy policy objectives.

IRP load planning does not align with BC's climate or energy demand targets

The 2021 draft IRP base scenario projects that new energy resources will not be needed until 2031 and new capacity will not be needed until 2038. However, this assumes future electricity needs that are lower than what BC Hydro's consultants predict will be needed assuming the province's legislated 2030 climate targets are met; the base scenario of the draft IRP does not align with provincial climate goals. The IRP also includes two contingency scenarios that reflect the load growth expected if B.C. is to meet its climate target; these have informed this report (see Technical Appendix). However, the B.C. government should provide additional clarity and direction to BC Hydro and the BCUC on how B.C.'s energy objectives should be reflected in the base resource planning of utilities.

Indigenous utility opportunities

In the spring of 2019, the people of the Schian'exw (Beecher Bay First Nation) wanted to service a new housing development on their reserve with a new power utility which is not currently allowed under the BC Utilities Commission regulation. They applied for an exemption from the BCUC regulation but were denied. After considerable advocacy on the part of First Nations, an inquiry was conducted to explore the regulatory feasibility of Indigenous utilities and whether they should be regulated differently from Crown or municipal utilities. It also looked at what would need to change at the BCUC and in the Utilities Commission Act to facilitate this.

The BCUC Indigenous Utility Inquiry sent 52 recommendations back to the B.C. government. Key takeaways in relation to Indigenous opportunities in renewable energy are highlighted below:

Update the Utility Commission Act to incorporate UNDRIP and modify BCUC policies to meet the objectives of reconciliation with Indigenous People

Reintroduce the Standing Offer Program for Indigenous communities

Explore avenues to support Indigenous utilities to sell power other than to BC Hydro

The recommendations were clear: First Nations need more opportunities in B.C.'s clean energy economy and should be able to create their own utilities or power authorities. The recommendations also supported First Nations' goals of finding new markets for generating, selling, and distributing electricity to customers other than BC Hydro.

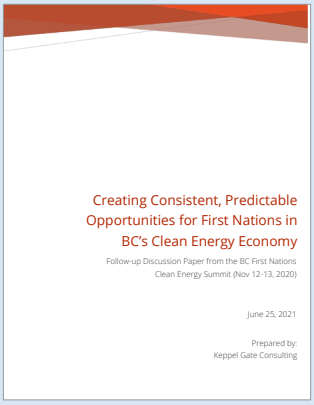
These recommendations were made in April 2020 and B.C. First Nations, while awaiting a response from the province, are working to determine how energy policy can shift to facilitate the goals and objectives cited during the Inquiry.

Opportunities

First Nations across B.C. are exploring what a First Nation Power Authority could look like, one that will serve their interests and possibly advocate for certain Calls for Power to go directly to First Nations renewable energy projects.

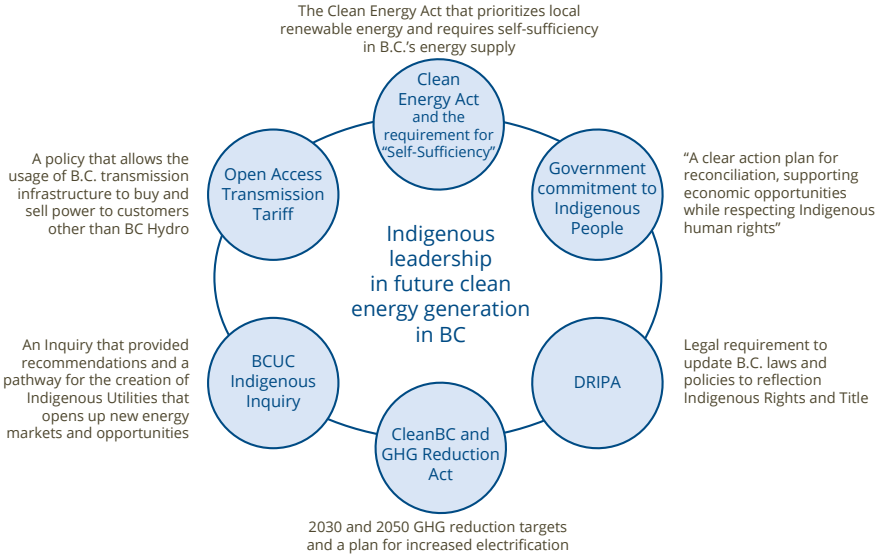
The establishment of a First Nation Power Authority in B.C. will build expertise, capacity, and policy advocacy experience among First Nations. All are critical to advancing First Nations energy sovereignty, economic reconciliation, and providing crucial input to provincial energy policy.

The possibilities and opportunities that a First Nation Power Authority could achieve are examined in more depth in a New Relationship Trust member-only discussion paper, *Creating Consistent, Predictable Opportunities for First Nations in BC's Clean Energy Economy*. Contact the BC Indigenous Clean Energy Initiative program at New Relationship Trust for more information.



Putting it all together

The building blocks are in place. The prioritization of Indigenous renewable energy projects in B.C.'s growing energy sector will be achieved through Indigenous leadership and the next stage of energy policy development.



Energy policies, along with Indigenous reconciliation requirements, point to the need for leadership and transformation at a time when B.C. must reduce its GHG emissions and transition to electrification in all sectors of its economy. First Nations have the legal right to be fully included in the development of B.C.'s energy future.

Energy policy should not be reduced to a cost comparison between local energy generation versus importing energy. Policy makers must also consider meeting GHG targets, government obligations under DRIPA, energy security, investment in B.C.'s economy and prioritizing Indigenous participation in the province's climate solutions as additional benefits of local energy generation.

There is no better solution than looking to the leadership of First Nations to define and shape the next wave of B.C.'s renewable energy sector growth.

Influential First Nation lobbying

The attempt by the B.C. government to remove self-sufficiency requirements in the Clean Energy Act in 2020 through Bill 17 was hampered by strong Indigenous organization and First Nations' refusal to accept this policy direction. Indigenous voices and leadership prevailed when First Nations and the public urged members of the legislative assembly to refuse to support its removal. Reintroducing legislation to end self-sufficiency would directly violate the principles of the DRIPA and ignore legal requirements adopted by the government.

First Nations lobbying has the power to influence B.C. energy policy and must continue to ensure energy policy is inclusive of First Nations' reconciliation goals.

Call for policy aimed at increasing electrification

B.C. will need to add policies and regulations on how the BCUC and utilities should pursue electrification, while fostering economic development and relationships with First Nations. BC Hydro's electrification plan offers incentives for fuel switching, yet there is little mention of First Nation opportunities and how Indigenous communities will be supported in the transition.

Recommendations

Indigenous energy solutions and CleanBC emission reduction targets

Analysis shows that new sources of electricity will be needed within the next decade to meet CleanBC 2030 targets — in the range of 10.9 TWh to 19.1 TWh, or a 19% to 34% increase in B.C.'s current committed supply of electricity for 2030.

Sourcing and purchasing energy supply from First Nations renewable energy projects helps fulfill the CleanBC goal to reduce GHG emissions and aligns with government commitments to Indigenous Peoples while ensuring First Nations have a central role in decarbonizing B.C.'s economy. Directing 50% of the 10.9 TWh of new electricity supply to First Nation renewable energy projects would attract approximately $8.25 billion in new investment and increase the current First Nation renewable energy sector by 235%.

Local energy generation fulfills the IRP objectives

A growing renewable energy economy that is structured to be competitive in the marketplace is possible and will boost market confidence. As already demonstrated, importing electricity is a strategy that comes with more risk than domestic production. Imports fluctuate in price, reliability and security, and lack full transparency in projects' environmental impact. In contrast, local energy production promotes self-sufficiency, contributes to economic growth, presents opportunities for Environmental Social Governance investment to support B.C.'s clean-energy transition, and leverages the skills, traditional knowledge and guidance of Indigenous Peoples. First Nations could be on the leading edge of new innovative technologies creating many venture opportunities within First Nations communities.

Linking DRIPA and First Nation energy projects

Renewable energy projects — both generation and transmission — are direct pathways to Indigenous reconciliation. Providing a policy framework that supports Indigenous renewable energy projects links government action on climate change to the implementation of the DRIPA. B.C.'s DRIPA Action Plan includes the recommendation to "Engage First Nations to identify and support clean energy opportunities related to CleanBC, the Comprehensive Review of BC Hydro, and the B.C. Utilities Commission Inquiry on the Regulation of Indigenous Utilities."

Conversely, policies that undermine DRIPA are detrimental to advancing B.C.'s renewable energy sector. These include attempting to remove the self-sufficiency requirement, not renewing First Nation owned and invested IPP projects when there is a clear need for new electricity, and not prioritizing First Nations in future electricity generation opportunities.

Prioritize the creation of a First Nation Utility / Power Authority

BCUC has already recommended that the province, BC Hydro, and BCUC itself must respect and advance reconciliation by facilitating Indigenous utilities, as defined by First Nations, and supporting these utilities in finding new energy market opportunities.

A First Nation Power Authority will bridge new energy policies in which First Nations act as broker and seller, and advocate for more aggressive energy policies in B.C.

Additional information

Modelling — Increased demand for renewable electricity to reach 2030 CleanBC targets

The Pembina Institute reviewed modelling by Navius Research, BC Hydro, FortisBC Electric and the Canada Energy Regulator (CER) to estimate the amount of electricity supply needed in 2030. Leveraging the sources that simulate the achievement of CleanBC's 40% GHG reduction target by 2030, we identified a range of 10.9 TWh to 19.1 TWh as the gap between currently planned supply and demand in 2030. This will need to be met by demand-side programs to encourage more energy conservation and new sources of clean energy generation.

For a complete review of the assumptions used to derive estimated future demand, refer to the Technical Appendix accompanying this report.

Is the message that no additional energy will be needed before 2031 accurate?

The 2021 IRP draft report states that no new system energy resources beyond those already planned will be needed before 2031 under the base resource scenario. Growth in demand until then is expected to be met by additional demand-side management strategies and 895 GWh of EPA renewals. The base plan also indicates that no new capacity is needed until F2038. However, critically, B.C. Hydro's base resource plan does not model the achievement of B.C.'s 2030 GHG reduction targets. This is covered in a contingency scenario called the "accelerated electrification scenario," which reflects the likely growth in demand for clean electricity expected in a future where BC meets its legislated 2030 targets. In this scenario, additional system energy would be needed by 2025 and new system capacity by 2029.

This highlights the central issue with B.C.'s resource planning process: legislated climate targets are not part of the base resource plan submitted by utilities to the BCUC. A modernization of the BCUC is urgently needed in this new reality of climate crisis. The government can direct BC Hydro and other utilities to account for climate targets in their resource planning and programs. For example, the revised climate plan propose to set a cap on emissions from the gas utilities. The accelerated scenarios modelled by BC Hydro suggest that there are opportunities for First Nations to deliver new system energy before 2031. All is needed for this to be set in motion is a signal from the government.

Estimating jobs

The number of jobs created was based on the *Investment, Job Creation and Community Contributions* report commissioned by Clean Energy BC. The report contained labour statistics for clean energy projects in B.C., broken down into the development phase and the percentage reflecting First Nation labour. These were then used to scale for First Nation jobs based on project capacity.

FIRST NATIONS ENERGY SUMMIT

Advancing the "Indigenous Utility" conversation at the 2020 First Nation Energy Summit

In November 2020, First Nations members convened for an extensive discussion on how to advance a First Nation utility. Bringing in Indigenous voices, renewable energy experience, and examples of established First Nation Power Authorities (FNPA), members explored options for electricity generation and transmission and discussed additional services which could be provided by a FNPA.

These talks were guided by the recommendations of the BCUC Indigenous Utility Inquiry, and First Nation leaderships' interest in advancing those recommendations.

The B.C. government can advance reconciliation by supporting Indigenous self-determination and Indigenous sovereignty through bold policy actions that open up opportunities for First Nation renewable energy projects.

Energy policy should respect and protect these rights and prioritize ways to address future energy demand that incorporates Indigenous knowledge, values, and environmental principles.

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This report was made possible thanks to the financial support and input from New Relationship Trust.

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Acknowledgements

The following contributors provided extensive input into this report:

- Cole Sayers, New Relationship Trust
- Judith Sayers, President of the Nuu-chah-nulth Tribal Council
- Laureen Whyte, Clean Energy BC

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August 2021 revised January 2022

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