Accelerating Transition

Economic Impacts of Indigenous Leadership in Catalyzing the Transition to a Clean Energy Future Across Canada

INDIGENOUS CLEAN ENERGY

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Indigenous Clean Energy (ICE) Social Enterprise is an independent, Indigenous-governed, non-profit organization. ICE advances Indigenous and broader sustainable prosperity by supporting First Nation, Métis, and Inuit clean energy participation in every region of Canada.

This survey draws on ICE's national research database of Indigenous clean energy projects which has been maintained for over 10 years.

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The 'Sweetgrass' of Indigenous Clean Energy

In her spellbinding book Braiding Sweetgrass, Robin Wall Kimmerer of the Potawatomi Nation writes of how her "braid of stories is woven from three strands: Indigenous ways of knowing, scientific knowledge, and the story of an Anishinabek scientist." She goes further and expresses that "wiingashk, or sweetgrass is a powerful ceremonial plant cherished by many Indigenous nations…its value both material and spiritual."

In this same fashion, as Indigenous peoples play a more and more vital role in the development of clean energy projects in every province and territory of Canada, new stories are being woven. They are demonstrating how a unique Indigenous-centered approach can realize a braid of impacts with strands of cultural, economic, and environmental prominence.

This is about embracing a new way of being. It is not simply the case of moving with pace to a clean energy future – it is about a Just Transition. An end point where how we create and use energy embodies:

- Adherence to Indigenous rights and treaties, the norms of free, prior, and informed consent, and the United Nations Declaration on the Rights of Indigenous Peoples;
- Respect for all ancestral Lands and Waters of First Nation, Métis, and Inuit communities, without exception, across Canada; and,
- Intention to realize a diverse array of social and economic outcomes for Indigenous communities and peoples, and their partners, with profound action on Climate.

Indigenous communities across Canada are a powerful force for change in the country's transition to a clean energy future. The numbers presented in this survey are truly staggering. Apart from crown and private utilities, Indigenous communities and enterprises are the largest single owner of clean energy assets. It would be fair to describe Indigenous people as the country's strongest clean energy community, and Indigenous Clean Energy (ICE) as Canada's National Partnership Hub advancing First Nation, Métis, and Inuit clean energy projects.

We at ICE, believe the evidence is definitive – Indigenous leadership is essential to the realization of the Sustainable Development Goals (SDGs) in Canada, and our country's economic development, clean energy future, and reconciliation with Indigenous peoples.

Darrell Brown
Chair, Board of Directors

Chris Henderson
Executive Director

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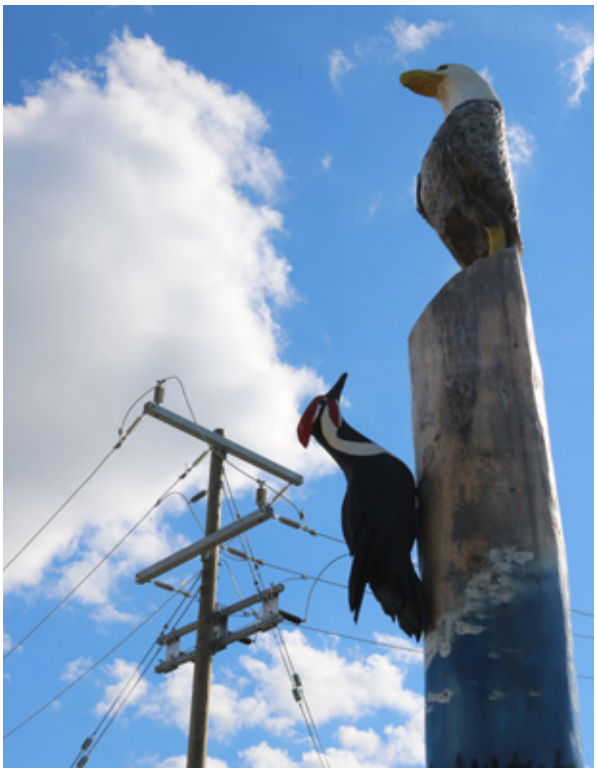
Trends & Highlights

- **Indigenous clean energy projects continue to ramp up Canada-wide.** A larger number of diverse projects are coming online across the spectrum of renewables, energy efficiency, and advanced technologies.
- A total of **197 medium-to-large renewable energy generating projects with Indigenous involvement are now in operation** (171 projects) or in the final stages of planning or construction (26 projects). Most of these projects involve partnerships between Indigenous communities and energy sector companies, utilities, or developers.
- Medium-to-large Indigenous renewable energy projects have **experienced a 29.6% growth rate** across Canada since 2017.
- The energy sources for medium-to-large scale projects include: **Hydro (56.5%), Wind (22.9%), Solar (11.8%), Bioenergy (7.1%), and Hybrid Sources (1.7%).**
- Smaller Indigenous clean energy projects are proliferating with many Indigenous communities installing community-scale or small-generation solar systems supplying provincial/territorial grids. It is estimated that **1,700 – 2,100 micro or small renewable energy systems are now in place** with Indigenous leadership/partnerships. A high proportion (just under 50%) of these installations are in Ontario.
- Bioenergy projects have boomed. Some **72 power and/or heat generating systems are now functioning**, or about to be switched on. Most of these projects are of modest scale, though four (4) are included in the set of medium-to-large renewable energy projects. Some of these projects (5 in total) employ Geothermal or Earth Energy technologies.
- **Renewable energy projects to replace diesel-reliant generation of heat and power are becoming very prevalent across Canada**, in large measure due to government programming such as NRCan's Clean Energy for Rural and Remote Communities (CERRC). Many of these are micro-grids integrating renewable power generation with battery storage and control systems to tie into local power plants. **Almost all these projects are in development and will be operational over the next 1-3 years** and are therefore not yet accounted for in projects completed or in latter stages of development in this report.
- Indigenous involvement in electricity transmission is growing. **Nineteen (19) projects are completed or in construction**. These projects involve: grid access for major projects (e.g. La Romaine Hydro,



Culture and energy infrastructure mix at the Okikendawt Hydro Project owned by the Dokis First Nation in partnership with Hydromega.

Quebec), off-grid community interconnection (e.g. Wataynikaneyap Power, Ontario) or grid strengthening (e.g. Bipole III, Manitoba). Four (4) of these projects are necessary interconnections for medium-to-large generating projects. The remaining projects, which are strictly transmission focused, represent major infrastructure investment, but are not included in the list of medium-to-large renewable energy projects.

- **An independent survey has identified a minimum of 127 energy efficiency projects** in Indigenous communities at various stages of implementation, from early stage planning to completion. Most of these are small-scale or pilot projects, and many involve energy audits and retrofits.
- **The level of Indigenous ownership of clean energy projects** appears to slot into one of three models: 1) Minor project participation reflective of single digit ownership percentages, or equivalent financial benefit; 2) Significant minority ownership which is trending towards 25-50% project participation; and 3) 100% Indigenous community ownership, which is becoming more common in comparison to three years ago.
- **The impact on employment and contracting income from Indigenous clean energy projects is game-changing**. While medium-to-large renewable energy projects are significant job-creators during construction, operational employment is quite modest. However, micro-small and transmission projects are catalyzing both construction and operational employment. The major clean energy job creators, though, are bioenergy and energy efficiency projects which have long-term and sustained economic multiplier effects.
- Government policies and programs, including electricity procurement mechanisms, and funding arrangements which **reduce project development risk continue to be central to Indigenous clean energy action**, and the role of provinces and territories is critical. There are opportunities, for example, to promote large scale clean energy procurement (e.g. Alberta and Saskatchewan), or to kick start off-grid diesel-replacement projects (Yukon).
- Most Indigenous clean energy projects have included specific measures to **optimize the reduction of Greenhouse Gases (GHGs)**. Given the long lifecycle of projects, their carbon value will increase as carbon levies/fees rise.
- Community energy planning is an important catalyst that garners Indigenous and local support for clean energy projects and partnerships. **Such engagement and educational efforts are a hallmark of successfully implemented Indigenous clean energy projects.**
- **Communities are already looking ahead at future clean energy opportunities.** This survey includes an analysis of what's on the horizon with Indigenous clean energy including energy efficient housing and infrastructure, advanced energy, and broad-based, low-carbon electrification.

Wind Turbine Blades for the Tobique Wind Project at Port of St. John, NB

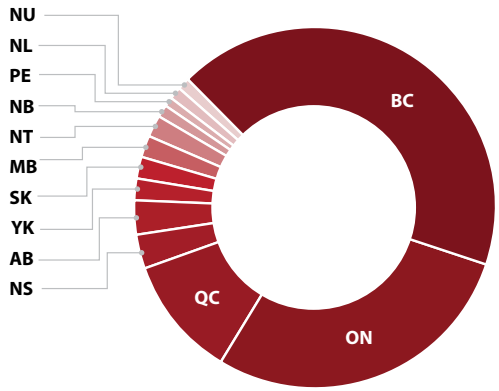
Cross Canada Picture

The footprint of Indigenous clean energy project participation is nation-wide, with every jurisdiction promoting some manner of policy, regulation, procurement regime, or support programs. The pie chart to the right highlights the distribution of medium-to-large renewable energy generating projects across provinces and territories.

BC, Ontario, and Quebec are the top three jurisdictions in terms of number of medium-large Indigenous renewable power projects. This is in large measure due to provincial policies and procurement programs for independent power production (IPP) which gave value to Indigenous participation. It is also the result of proactive partnerships between project development firms and utilities, and Indigenous communities.

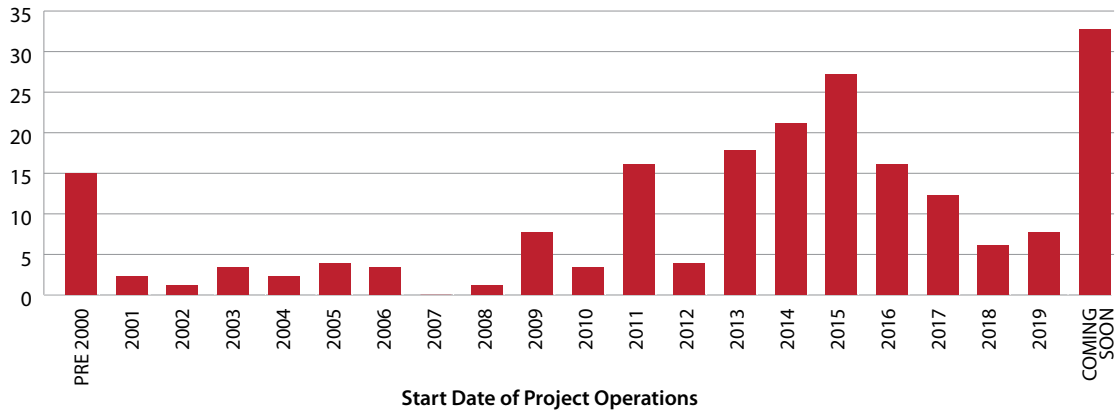
The chart below tracks when medium-to-large Indigenous clean energy projects were or are projected for commissioning. The peak period, so far, was between 2013-2016. However, the chart also shows that the downturn during 2018-2019 was short-lived, and there is a huge wave of projects in the final stages of planning or construction, many with secured power offtake (i.e. Power Purchase Agreements or Electricity Purchase Contracts) arrangements.

Provincial & Territorial Distribution of Medium-Large Indigenous Renewable Energy Projects



It is also important to note that the project tracking represented in these two charts is for medium-to-large renewable generating projects. The large number of micro-small renewable energy, remote community diesel reduction, bioenergy, and transmission projects add significantly to Indigenous clean energy projects totals.

Project Completion Timeline for Medium-Large Indigenous Renewable Energy Projects



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20/20 Catalysts viewing Atlin Lake, BC

Benchmarking Indigenous Clean Energy Projects

In total there are 2,107–2,507 Indigenous clean energy projects encompassing power generation, electricity transmission, heat production, and energy efficiency. These projects span across Canada and are currently operational, or in the final stages of development. Indigenous participation in these projects may include: Indigenous ownership/co-ownership; stipulated economic benefits; royalty agreements; Indigenous financing; revenue sharing agreements; lease agreements; Impact Benefit Agreements (IBA's); and/or partnership agreements.

The scale of Indigenous clean energy leadership and ownership will continue to grow significantly over the short and longer-term. This growth will increase employment and economic development for First Nation, Métis, and Inuit communities, and Canada more broadly.

Here's how the numbers are adding up with Indigenous clean energy project participation and outcomes.

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Methodology Notes

Projects and Indigenous ownership metrics have been validated by empirical data. Return, employment and contracting projections are based on highly conservative assumptions backstopped by empirical data. Projections are based on projects completed or in the final stages of development. Projections do not include the potential economic and employment impacts for projects at early stages of development, or yet to be considered. Projections are strictly for direct project impacts. There are certainly additional multiplier effects that have not been included here, notably in terms of: i) economic and social re-investment of clean energy project earnings, ii) economic activity resulting from expenditures of employment and contracting income, and iii) household and community cost savings attributable to energy efficiency infrastructure and advanced technologies.

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2107–2507 PROJECTS IN TOTAL

197
Medium to Large Renewable Energy Projects

1700–2100
Small Renewable Energy Projects

127
Energy Efficient Homes

72
Bioenergy Projects

19
Transmission Projects

45%
32%
Trend in Average Indigenous Ownership

$1.492 billion

Estimated 10 year Indigenous Employment & Contracting Income

$295 million

Estimated net Annual Returns from All Projects 2020

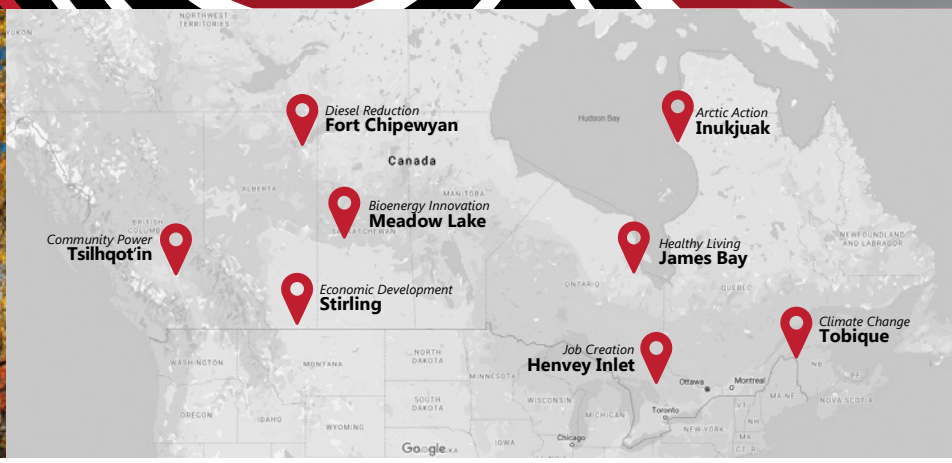
ECONOMIC IMPACTS

19,135
Person Years of Construction Employment

2,870
Person Years of Operating Employment Annually

EMPLOYMENT IMPACTS

The 300MV Henvey Inlet Wind Project. *Photo credit: Henvey Inlet Wind Project, Henvey Inlet First Nation.*



Six illustrative examples of the over 2000 Indigenous clean energy projects across Canada.

Incredible Impacts – Projects in Profile

Clean energy is a game changer for Indigenous communities. Each project delivers a set of outcomes that express the Sustainable Development Goals (SDGs) through the realization of social, economic, and environmental benefits – for the community, their regions, provinces or territories, and Canada. Here are some awesome Projects in Profile.

Diesel Reduction

Three Nations Energy (3NE) is a unique partnership between Athabasca Chipewyan First Nation, Mikisew Cree First Nation, and Métis Local 125 which will own and operate a solar photovoltaic system of 7,500 panels that will replace 800,000 litres of diesel fuel each year in Fort Chipewyan, Alberta. Slated for construction in 2020, 3NE will foster a climate-friendly economy that is less dependent on diesel tanker trucks. Power generated will be sold to the local utility which is operated by ATCO.

Job Creation

Henvey Inlet First Nation Wind in Ontario is a unique partnership between Nigig Power Corporation, an entity of the Henvey Inlet First Nation and Pattern Canada. As one of Canada's largest wind farms at 300 megawatts, the project has or is, creating over 1,000 new jobs in the Georgian Bay area during peak construction; more than 20 permanent jobs during operations; and, over 100 indirect jobs through expansion of programs and services of the Henvey Inlet Band.

Solar panels installed in the first phase of the Three Nations Energy solar project. *Photo credit: Donald Voyageur, Journal of Commerce*

Incredible Impacts – Projects in Profile

Bioenergy Innovation

The Meadow Lake Tribal Council in Saskatchewan is building a bioenergy plant using an Organic Rankin Cycle technology supplied by Turboden of Italy which will generate electricity from biomass fuel derived from residual wood waste and produce 6,600kW (net) of carbon neutral baseload electricity to power approximately 5,000 homes. The cogeneration system will also provide heat to the NorSask sawmill buildings and a high efficiency lumber dry kiln, reducing natural gas consumption and improving the economics of Canada's largest 100% Indigenous-owned sawmill facility.

The future site of the 10MW Innavik Hydro project on the Inukjuak River.

Community Power

The Tsilhqot'in First Nation near Williams Lake, British Columbia has installed a small community solar array fully owned and operated by the First Nation. The two-hectare solar site is made up of 3,456 solar modules generating electricity sold to BC Hydro. The project will produce approximately 1,500 megawatt hours of electricity each year over the solar farm's 25-year lifespan.

Meadow Lake Tribal Council set to construct an Organic Rankin Cycle facility like the one pictured her. *Photo credit: Meadow Lake Tribal Council Bioenergy Centre.*

Arctic Action

Construction of the 10-megawatt Innavik Hydro is slated to begin soon in the diesel-reliant community of Inukjuak, Quebec. The project is being developed through a partnership between the Inuit Pituvik Landholding Corporation and Innergex Renewable Energy Inc. The project will eliminate consumption of almost all diesel fuel currently consumed for power and heating. Over the 40-year power purchase agreement finalized with Hydro Quebec, 767,208 tonnes of CO2 will be reduced.

An aerial view of the Tsilhqot'in First Nation's solar array. *Photo credit: EcoSmart.*

Climate Change

The Wocawson Energy Project in New Brunswick is led by the Tobique First Nation in partnership with project developer Natural Forces. Consisting of up to a dozen wind turbines and an installed capacity topping out at 40 Megawatts, the project will be built in two phases. The wind facility will supply some 5,000 homes with electricity while offsetting 22,000-44,000 tonnes of carbon dioxide annually.

Local workforce adding instulations and air sealing a home on the James Bay coast. *Photo Credit: Conservation on the Coast Facebook.*

Healthy Living

Conservation on the Coast (COTC) retrofits 10 homes per year in each of the communities of Attawapiskat, Fort Albany, and Kashechewan on the shores of James Bay, Ontario making them healthier, more comfortable, and more energy efficient. To improve the health and safety of the occupants COTC seals air leaks and installs a membrane over the earthen crawlspace floor to stop moisture migration into the house. A Heat Recovery Ventilator or HRV is installed to maintain a healthy moisture level, which automatically limits mould growth, and exchanges stale house air with fresh outdoor air. The work done in all communities is completed by locally trained community members, providing employment and skills upgrading.

Workers building a platform for one of a dozen wind turbines as part of the Wocawson Wind project. *Photo credit: Natural Forces.*

Economic Development

Approved through an open bid process by the Alberta Electric System Operator (AESO), the Stirling Wind Project sized at 113 Megawatts is a large economic development driver for southwestern Alberta. The project, a partnership with Paul First Nation, will involve the installation of up to 28 wind turbines, an electrical collection system, access roads, and a new electrical substation. The Stirling Renewable Energy Limited Partnership, in mid-stage development, will look to the local community wherever possible for local trades and other business opportunities.

Mi'gmaq carpenter in the base of a wind turbine at the Mesgi'g Ugju's'n Wind Farm Photo: www.muwindfarm.com

Henvey Inlet Wind Project

Accelerating Canada's Energy Transition – What's on the Horizon

"The next stage of the Canadian and global energy revolution will emphasize: further renewable energy development; enhanced energy efficiency of homes, community facilities and industry; advanced energy systems; and green energy infrastructure. These developments offer major economic development and climate action opportunities for First Nations."

Preamble to Assembly of First Nations Chiefs Resolution on Advancing First Nations Clean Energy Leadership for Economic Development and Action on Climate Change, July 2019

Major forces are shaping the future. Firstly, Indigenous communities and enterprises are already beginning to seize business opportunities that reflect a transition process characterized by the decarbonization and digitalization of energy. Secondly, there is a growing group of First Nation, Métis, and Inuit champions, including 20/20 Catalysts and community leadership with the skills and experience to take projects and partnerships forward. Thirdly, Indigenous communities have a broad-based interest in realizing economic benefits from clean energy, particularly through Indigenous companies. Fourthly, First Nation, Métis, and Inuit communities and leaders are incredibly motivated to take action on climate change through clean energy.

Atlin Hydro penstock installation, Taku River Tlingit First Nation, BC

Indigenous Clean Energy (ICE) observes that these forces are catalyzing clean energy projects and businesses in major sub-sectors. These emerging opportunities are described below in order of projected magnitude of impact.

Community-Scale Energy Efficiency and Housing

Improving housing energy efficiency in Indigenous communities is a massive opportunity to reduce energy use and costs and create local jobs and investments, while positively impacting health and well-being. Through the Bringing it Home initiative, ICE is working with first set of 'Guide Communities' to develop and implement plans for community-wide deep retrofits, high performance standards for new builds, sourcing financial investment, and putting management/technical implementation capacity in place. Bringing It Home is scalable nationally from communities such as the Heiltsuk First Nation (BC), Fishing Lake Métis Settlement (AB), Île-à-la-Crosse (SK), Animbiigoo Zaagi'igan Anishinaabek (ON), Red Rock Indian Band (ON), and the Inuit hamlet of Kugaaruk (NU) with application to hundreds of thousands of Indigenous homes across the country.

Bioenergy Lands Management, Feedstocks and Energy Conversion

Integrated bioenergy resource development offers a three-prongs of economic and carbon benefits. Firstly, enhanced lands management increases bio-feedstock supply while also augmenting forests carbon sequestration and reducing forest fire risk. Secondly, bio-feedstock supply creates economic opportunities for Indigenous communities and entrepreneurs. Thirdly, conversion of feedstocks through Combined Heat Power (CHP) and gasification systems offer a wide range of applications to support communities and industry to reduce costs and carbon impact. Such resources are also an essential part of the solution for advanced biofuels. Indigenous communities hold land rights and forest tenures, possess silviculture know-how, and, most importantly, represent a large, geographically distributed and competent labour pool to service a growing bioenergy economy. Teslin First Nation in Yukon is a leader with such bioenergy development.

Hydro Facility Refurbishment

Waterpower accounts for over 60% of electricity generation in Canada. Almost all provinces and territories are reliant on hydro dams and reservoirs

Indigenous youth at the ICE Gathering – a key element for accelerating the transition

for electricity supply. Between 300 and 500 of such legacy hydro facilities will require refurbishment or rebuilding over the next twenty years and are located on First Nation, Métis, and Inuit territory and ancestral lands. Upgrading hydro facilities is critically important for powering Canada's economy; and such initiatives can be most effectively advanced through Indigenous partnerships covering environmental protection, cultural recognition, economic development, and project participation. The Acadia First Nation and Nova Scotia Power are collaborating on such hydro facility refurbishment.

'Behind the Meter' Renewable Energy

Technological innovation offers industry, public facilities, and commercial/institutional facilities a means to diversify electricity supply. Rapidly declining costs and increasing reliability of platforms such as solar-plus-storage systems are making 'behind the meter' options cheaper than the cost of provincial/territorial grids in certain conditions. Providing such distributed generating capacity in partnership with major electricity consumers, is an interest for Indigenous communities. Six Nations of the Grand River Development Corporation is involved with 'behind the meter' projects with industrial/commercial companies.

Renewable Energy Microgrids in Diesel-Reliant Communities

Never has there been such a confluence of interest in supporting remote and Northern Indigenous communities in Canada to reduce diesel reliance through renewable energy. Feasibility planning is underway on solar, wind, hydro, and bioenergy projects in over 24 diesel communities. While such projects are challenging, and necessarily require collaboration with utilities, these developments herald a new area for renewable energy in remote communities, particularly in the Arctic. The Nunatsiavut Government on the North Coast of Labrador is conducting a Front-End Engineering Design (FEED) study for two wind turbines to supply clean energy to the community of Nain.

Municipal Partnerships

Indigenous communities and municipalities are often geographic neighbours. Yet, there has been limited cooperation on clean energy, either for renewable energy development, or cooperative community energy efficiency action. This is an untapped area of collaboration, but the situation is changing. An early example of such a joint venture is Hupacasath First Nation on Vancouver Island, who worked with the City of Port Alberni on the China Creek Hydro Project. More recently, the Bayside Development Corporation owned by the Paqtnkek First Nation, and the Municipality of the County of Antigonish in Nova Scotia are partnering a ground-mounted 72-kilowatt, 290 solar photo-voltaic installation located adjacent to municipal offices. Opportunities for municipal-Indigenous clean cooperation in urban and built up areas holds particular promise.

20/20 Catalysts touring a 100MW solar project owned in partnership with Six Nations of the Grand River.

District Energy

Projects which heat and cool multi-unit residences and/or a groups of community facilities from a central plant is referred to as District Energy, and such installations are limited across Canada, including in Indigenous communities. However, some First Nation, Métis and Inuit communities with access to biomass resources, or with waste heat recovery from generating plants are taking advantage of such resources. The Oujé-Bougoumou Cree Nation in Quebec with support from the federal government is upgrading an existing biomass district heating system, and expanding the market for local sawmill waste, supporting local economic development and better waste management.

Transport Electrification

Indigenous communities rely heavily on all manner of transport, especially since many communities are located outside of major urban areas. The cost of fuel, and associated environmental impacts, are leading communities to consider electric transport options. The development of electric trucks, ATV's, snow machines, and boats is opening up greater opportunities for electrification as these machines start to meet the needs of community members. Indigenous communities are also beginning to ramp up electric charging infrastructure. The Stoney Nakoda First Nation in Alberta is now home to two new charging stations powered by renewable energy at the Bearspaw First Nation's Travel Centre on the Trans-Canada Highway.

Clean Energy Mining

Canada's mining companies are highly reliant on hydrocarbons such as diesel fuel and Liquified Natural Gas (LNG) for extracting and processing mineral resources. The sector is becoming more proactive in in seeking renewable energy options, and, since many mines are located in regions with Indigenous communities, project cooperation is emerging. The western Hudson's Bay diesel-reliant community of Rankin Inlet, Nunavut has excellent wind resources, as does the Agnico Eagle Mine 40 kilometers from the community. Joint wind energy development could reduce development and capital costs.

Energy Storage

Indigenous community participation in energy storage projects are at an early stage, but are being considered for several applications, including: battery storage integrated with micro grid projects, pumped hydro storage, and grid storage systems to address supply bottlenecks and peaking requirements. One of the projects being considered to supply electricity needs for the Yukon grid is a potential pumped hydro storage site at Moon Lake in northern BC on the traditional territory of the Taku River Tlingit and Carcross Tagish Nations.

Simply put, the 'Future is Now', and Indigenous communities and entrepreneurs will be more and more important players in energy diversification, technology innovation, and value-generating clean energy projects and ventures cross Canada.

Breakout group at the 2019 ICE Gathering in Ottawa

2019 Catalysts Tour of Nanticoke Solar built on the recommissioned site of one of Canada's largest coal plants with partnership with Six Nations of the Grand River and the Mississaugas of the Credit First Nation.

Indigenous Clean Energy — National Partnership Hub

Indigenous Clean Energy Social Enterprise (ICE) is an independent, Indigenous-governed non-profit organization. In the introduction to this survey it was highlighted that an Indigenous-centered approach can realize a braid of impacts – strands of social, economic and environmental prominence. ICE's logo reflects this braid - the 'sweetgrass' of Indigenous clean energy.

ICE programs are hugely collaborative. As a National Partnership Hub, we work with governments, corporations, foundations, clean energy companies, NGOs, educational bodies, and financial firms. Several dozen clean energy experts, including many alumni of the 20/20 Catalysts program, and other Indigenous leaders are ICE mentors sharing their experience in: community energy planning, renewable energy (solar, wind, bioenergy, geothermal, low-impact hydro, etc.) project development, partnering, financing, implementing and operating clean energy projects, including energy-efficient community infrastructure and housing. The ICE Network and CoLabs are top-rung 'go to' sources for Indigenous clean energy information, tools resources, and project profiles. We have established relationships with National Indigenous Organizations, and many national and regional Indigenous governments and entities, augmenting our capacity to accelerate clean energy on the ground.

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ICE Team members and supporters at the 2019 ICE Gathering in Ottawa

With Appreciation

The Board of Directors and Advisory Council of Indigenous Clean Energy (ICE) expresses appreciation to the staff team led by Chris Henderson, Eryn Stewart, Terri Lynn Morrison and Ian Scholten for efforts to advance Indigenous clean energy Canada-wide; and to Cara Sanders, head of Askii Energy, and a 20/20 Catalyst, who was Lead Researcher for this report.

Survey Methodology

The survey classed Indigenous participation in a clean energy project as including either: Indigenous ownership; a memorandum of understanding with economic benefits; royalty agreements; evidence of Indigenous financing; revenue sharing agreements; lease agreements; Impact Benefit Agreements (IBA's); and/or partnership agreements. Projects which had limited Indigenous benefits, such as minor employment gains or a modest community donation were excluded from the survey.

The survey methodology was as follows:

1. Clean energy projects with Indigenous participation were identified through literature, Internet research, media, and government funding programs,

2. In many instances, data on project size, capital investment and Indigenous participation such as equity ownership was garnered from public sources,

3. Individual Indigenous communities identified as having clean energy involvement were contacted by phone and email to obtain information project status, participation/ investment terms, project benefits and rates of return,

4. A commitment was given to all Indigenous respondents that information shared with Indigenous Clean Energy (ICE) would be held as confidential and only disclosed in aggregate summaries,

5. Definitive empirical data was obtained for over 82% of the projects identified including: generating capacity, capital cost, Indigenous participation, and in some cases employment numbers,

6. From this baseline national projections were made for all clean energy projects with Indigenous participation with reference to project case studies and business parameters.

7. Estimates provided in the survey are conservative, discounting investment, income and employment impacts from Indigenous clean energy participation.

Clean Energy 101 session, 2019 Catalysts Program first session on Saltspring Island

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