



Indsights

A Window into the Indigenous Economy

Case Study

Kisik Clean Energy

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Kisik Clean Energy

Meet Darrell

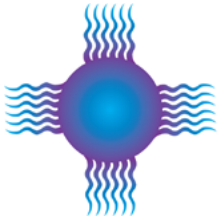


Meet Darrell

Darrell Brown is the founder of Kisik Clean Energy, located in Treaty 1 territory in Winnipeg, Manitoba. Kisik Clean Energy provides consulting and project management services to First Nations that are looking to reduce their carbon footprint and move their energy needs from non-renewable energy sources to renewable energy sources such as solar and wind. He has completed an Advanced Indigenous Diploma in Certified Management from the Banff Centre and an Advanced Diploma in International Business from Red River College in Winnipeg. He has also owned and operated a successful furniture business for over twenty years called Kisik Commercial Furniture.

Darrell is of Cree ancestry and has resided in Manitoba since childhood. He holds a strong connection to the land, listing the outdoors and hiking as some of his foremost passions. He is also a founding member of the Indigenous Chamber of Commerce in Manitoba, dedicating his time to promoting Indigenous procurement and economic development. Additionally, Darrell has volunteered on a variety of boards for Indigenous organizations in the province that support Indigenous procurement and social enterprises, both provincially and nationally.

The Inspiration Behind Starting Kisik Clean Energy



KISIK
CLEAN ENERGY

The Inspiration Behind Starting Kisik Clean Energy

During his 20 years of experience in successfully running his furniture business, Darrell has acquired the business acumen to effectively transition into the clean energy sector. Combining his passions for nature, the environment, and Indigenous economic development and procurement, it was a natural fit to launch Kisik Clean Energy.

“It was easy to switch over to the renewable energy sector because I already know how to run a business and to operate in an effective manner.”

Darrell also recognizes the vital role that Kisik Clean Energy plays in remote Indigenous communities becoming energy efficient and relying less on diesel fuel to provide energy resources to their communities. Diesel can have devastating effects on the local environment and can leak into the soil via oil spills. Helping communities’ transition away from traditional energy sources is what drives Darrell and Kisik Clean Energy.

“I always knew that there had to be some help given to these First Nations that are so remote, and often get looked over, living in grinding poverty, stuck on diesel — with massive soil spill, damaged soil from diesel spills and all the other problems that come with this dense fuel.”





Market Background

Products and Services

Kisik Clean Energy primarily services remote Indigenous communities located in northern Manitoba and northwestern Ontario. Darrell acts as an advisor and project manager, ensuring the community's rights are protected. Utility suppliers hire Darrell and Kisik Clean Energy to consult with Indigenous communities, and Kisik plays a key role in overseeing the development of the renewable energy project and helping partnering utility companies understand the local community's concerns, needs, and priorities. He can also assist Indigenous communities by leveraging his network to hire external advisors in financial account management, legal contracts, feasibility studies, and procurement.

"I am not a technical expert in renewable energy, but I know how to manage a team. And this is important. I keep saying it, to protect the interests of the First Nations so industry doesn't take advantage of them.

We never, ever let our clients be at risk. So, we're very risk-averse, and we're very aware that they often don't have the resources, expertise, or capacity to do these kinds of projects. But [First Nations people] need to see people like myself and my other project leadership team to help them achieve their goals —which is becoming an energy supplier in their own right."

Market Background

Market Background

Energy generation plays a crucial role in everyday life, supplying access to essentials such as electricity, HVAC systems, and transportation (Chidanand & Eswara, 2021). Energy generation contributes to an improved quality of life, economic opportunities, access to education and healthcare services, and emergency preparedness. While fossil fuels have traditionally been used to meet energy needs for centuries, a major shift toward the use of sustainable energy sources has been brought to the forefront as economies and societies seek to reduce their carbon footprint (Chidanand & Eswara, 2021).

Renewable resources are natural sources of energy, such as wind, hydroelectricity, solar, and biomass, that can provide a limitless supply of power (Government of Canada, 2017). Wind energy is captured through large blade turbines, which rotate and produce power as gusts pass through them (Government of Canada, 2017). These turbines are best used in offshore and coastal areas due to the presence of strong winds. Similarly, hydroelectricity uses flowing water passing through turbines to generate energy and are typically positioned near waterfalls and steep inclines to maximize outputs (Government of Canada, 2017). Solar energy, on the other hand, is absorbed from the sun through solar panels, converting it into electricity (Government of Canada, 2017). Bioenergy involves the burning of biomass materials such as wood and food waste to produce energy (Government of Canada, 2017).

Despite challenges facing various sectors in recent years due to the COVID-19 pandemic, the renewable energy market continues to grow rapidly worldwide, demonstrating its strong potential for new business opportunities (Clean Energy Canada, 2021).

Definitions

Renewable Resources: Natural sources of energy, such as wind, hydroelectricity, solar, and biomass, that can provide a limitless supply of power

Wind: Captured through large blade turbines, which rotate and produce power as gusts pass through them. These turbines are best used in offshore and coastal areas due to the presence of strong winds

Hydroelectricity: Hydroelectricity uses flowing water passing through turbines to generate energy and are typically positioned near waterfalls and steep inclines to maximize outputs

Solar: Energy that is absorbed from the sun through solar panels, converting it into electricity

Bioenergy: Involves the burning of biomass materials such as wood and food waste to produce energy

Government of Canada, 2017

Market Background

Renewable Energy in Canada

Well-known for its extensive renewable resources, Canada has long been committed to expanding its energy sector, with renewable energy now accounting for over two-thirds of the country's electricity generation (Government of Canada, 2017; Statista, n.d.). Hydroelectricity is Canada's dominant renewable energy, followed by wind and biomass (Government of Canada, 2017). However, wind and solar power have recently emerged as the fastest-growing sources of electricity in the country's energy market (Government of Canada, 2017). These sources are recognized for their minimal environmental impact from low to zero carbon emissions, aligning with Canada's sustainable energy generation objectives (Government of Canada, 2017).

The Canadian renewable energy sector has witnessed significant growth in recent years, driven by a combination of government incentives, technological advancements, and a growing awareness of the need to confront global warming challenges (Mordor Intelligence, n.d.). In 2021, Canada joined forces with 120 countries, pledging to achieve net-zero emissions by 2050, solidifying the federal government's commitment to sustainable change (Government of Canada, 2023). To achieve this, countries involved are working to offset the release of greenhouse gas emissions (Government of Canada, 2023). These emissions are considered harmful to the earth, as their release contributes to the gradual increase in climate change. Canada's commitment to clean energy is anticipated to expand business opportunities across the Canadian renewable energy market, with a projected compound annual growth rate (CAGR) of 9% from 2019 to 2028 (Mordor Intelligence, n.d.).

Fossil Fuels

Although Canada is working its way to net-zero emissions — defined as cutting greenhouse gas emissions to as close to zero as possible¹ — there continues to be a heavy reliance on fossil fuels, especially in remote areas of the country. Fossil fuels are an important source of energy for Canada, contributing to its economic growth due to its comparatively lower production and export cost (Chidanand & Eswara, 2021). However, most common fuels, such as crude oil, natural gas, coal, and diesel, have several environmental and health risks, such as air pollution and greenhouse gas (GH) emissions (Harvard T.H. Chan School of Public Health, n.d.).

The use of fossil fuels is particularly significant to Indigenous communities in Canada, with approximately 178 remote Nations across Canada lacking access to primary electricity grids and natural gas infrastructure (Canada Energy Regulator, 2023). As a result, these communities rely heavily on fossil fuels, such as diesel generators, to power their communities (Canada Energy Regulator, 2023). In addition to the environmental risks of diesel use, the combination of cold climates and poor energy efficiency in these communities' results in higher energy consumption than the Canadian average and higher expenses for fuel use (Lovekin & Heerema, 2019). As shown in Figure 1 (Clean Energy Regulator, 2023), Indigenous communities across Canada find themselves in this situation.

¹ With remaining emissions reabsorbed from the atmosphere by oceans and forests, and other methods (United Nations, n.d.)

Market Background

Collaboration between governments, renewable energy companies, and communities is leading to not only a reduction of fossil fuel use, but also the creation of new job opportunities in the energy sector (Clean Energy Canada, 2021). Indigenous communities are an integral part of Canada's transition to clean energy, as many of the natural resources that these renewable sources of energy require are found on Indigenous lands (Indigenous Clean Energy, 2022). Many Indigenous communities have established partnerships or are beneficiaries of nearly 20% of Canada's energy infrastructure, both in the renewable energy and fossil fuel sectors (Indigenous Clean Energy, 2022). Although the majority is dedicated to renewables, Indigenous communities are continually seeking ownership of projects in both sectors, not only highlighting an inclusive energy future for all, but also maintaining economic opportunities throughout the transition to new energy systems (Stikeman Elliott LLP, 2019; Indigenous Clean Energy, 2022).

Challenges and Future

The renewable energy sector faces several challenges as it expands and transitions communities from fossil fuel use. Currently, traditional power grids may not be able to handle the fluctuating output of renewable energies, posing threats of system failures and blackouts (University of Saskatchewan, 2022). The construction of renewable energy technologies can also disrupt habitats by harming wildlife and displacing animals (Endangered Species Coalition, 2023). Additionally, producing renewable technologies requires significant mineral resources, raising concerns about supply security, price volatility, and its carbon footprint (International Energy Association, 2022).



While renewable energy positively impacts the climate and air quality, it is important to work to mitigate its negative effects through responsible research and technology development practices (University of Saskatchewan, 2022).

Despite these challenges, the renewable energy sector in Canada and across the globe is positioned to grow significantly in the coming years, presenting several opportunities for businesses and stakeholders in the future (Mordor Intelligence, n.d.). Employment in renewable energy is projected to increase by almost 50% by 2030, with Alberta and Saskatchewan experiencing the highest growth rates, creating diverse opportunities in the sector (Clean Energy Canada, 2021). Additionally, the cost of renewable energy technologies is expected to decrease as their use continues to grow (Inspire Clean Energy, n.d.). An example of this is the costly initial investment required to install solar energy provisions, which is expected to decline by 15% in the next year, hopefully leading to an increase in solar installations (Inspire Clean Energy, n.d.). With its substantial growth and widespread support, the transition toward the use of cleaner energy sources is becoming increasingly feasible and promising for the future.



Successes

In 2018, Darrell had the opportunity to work with the Gull Bay First Nation, located on the shores of Lake Nipigon in northwestern Ontario, as an advisor for their microgrid project. This project was the first of its kind in Canada in that it was the only fully integrated renewable energy storage microgrid in a remote community. It combines solar power, battery energy storage, and a microgrid that connects to existing energy infrastructure in the region. The microgrid provides clean energy to the community and offsets approximately 110,000 litres or 25% of diesel fuels used each year.

“There’s no technology that allows for 100% removal of diesel for these communities. They need those generators and that dense fuel as a backup. But what you can do, is you can offset it with a properly modeled and scaled renewable energy plan. And thereby, you reduce their diesel consumption annually. You reduce their GHG emissions; you reduce the trucking and transportation of the fuel. Well contamination spills.”

Darrell was involved in the process during the initial stages of negotiations and engagement – playing a key role in assessing the community’s needs and developing a plan for what would work best for the community based on their desired outcomes. In doing so, Darrell developed strong relationships with key leaders of the community while earning their trust.

“The First Nations have to learn to trust you, and you got to earn that trust. So that’s a success in itself. Also, community engagement. If you’re doing your job properly, then you are constantly in the community, and you’re constantly talking to their membership, their leadership. You’re telling them why this is a good idea, how it’s going to work, what are going to be the outcomes.”

Challenges

Challenges

Socio-economic issues are the biggest obstacles for remote communities that are looking to transition away from non-renewable energy resources. Many live in extreme poverty and fight to maintain and protect their livelihoods and traditions in an ever-changing society. It is difficult to divert resources and time to consider where your energy sources are coming from when you have more pressing existential challenges like a lack of continuous access to nutritious food and clean drinking water.

“Until your project’s commissioned, they’re just literally fighting for their food security, their safety, their way of life. And they got the basics to worry about. It’s very unfortunate, but it’s true with our First Nations, especially the remote reserves.”

When working with these communities, it is important to respect their traditions and culture. Their traditional way of life often conflicts with modern business methods. This is something that Darrell truly understands and considers when engaging with community members.

“A lot of times, we try to engage the community or engage leadership and it’s hunting season. We will forget that they are out hunting. They are not going to stick around with me when they only have that small window, right? So, all those challenges, it is important that you understand the culture we are dealing with, the history of their culture.”



Future Opportunities



Future Opportunities

For Darrell and Kisik Clean Energy, the goal is to continue to take on renewable energy projects in partnership with Indigenous communities. However, due to the nature and scope of these projects, it is difficult to take on multiple projects at a time.

“Because of time constraints, if you want to do your job properly in my line of business, you only take one client and one project at a time.”

Now that the Gull Bay project has finished, Darrell and Kisik Clean Energy is working with the Sayisi Dene First Nation in northern Manitoba to develop a clean energy strategy to eliminate their dependency on diesel fuels. The team aims to build wind turbines, solar panels, microgrids, and battery storage infrastructure, offsetting up to 60% of their energy consumption with renewable sources. With the project being in its initial stages of development, Darrell is working diligently to balance the demands of this endeavor while still operating his furniture business.

Darrell also hopes to continue to share his knowledge and experience working in the clean energy industry with those communities that need guidance or are interested in transitioning to clean energy.

“If there’s other First Nations in northern Canada that are on diesel, if they want to learn from what we’ve done that, what we learned from Gull Bay and from Sayisi Dene, then I’m happy to share my knowledge.”

Opportunities for First Nations

Darrell believes that clean energy can play a significant role in Indigenous self-determination and economic reconciliation. Transitioning to clean energy provides many benefits to First Nations communities. First, they own the assets and can use them as leverage to help build their communities.

“It’s good for them to have something they can leverage if they need to. You have a revenue stream which allows them to become more self-sufficient, own-source funding they can do with what they want.”

Opportunities for First Nations



Second, it is an opportunity for Indigenous communities, the original land protectors, to become climate leaders in producing clean energy and reducing their carbon footprint.

“They really will show the rest of (us) the process. They want to become their own energy producers as much as they can and show how we can save our earth.”

Lastly, it provides an opportunity for economic reconciliation and a step toward sovereignty for Indigenous communities that have been long neglected due to the lasting impacts of colonialism.

“If they own, and if they produce, that’s one form of reconciliation. They have some skin in the game, as it said, to make energy. It’s just really a driver for sovereignty, energy sovereignty, and all things related to the business side of it, which is revenue and hopefully producing opportunities to improve their communities.”



Cree Beliefs and Values

Cree Beliefs and Values

For Darrell, his Cree heritage strongly influences his business. Growing up, he was taught from an early age to respect the land and always felt a connection to the earth and nature. Respecting the environment was second nature for Darrell, and he feels it played an integral role in starting Kisik Clean Energy.

He also credits his heritage for how he conducts business with partners and First Nations communities. He ensures that he treats everyone with respect and does his best to take care of those he encounters.

“You want to make sure that you’re there to give them the best support you can based on your project.”

“I can’t solve food insecurity, but I can bring them as many lunches and dinners as I can, give away some merchandise, and have fun and play clean energy bingo with the kids in the school, like things like that.”

He also recognizes the importance of sharing the knowledge he has obtained from his experiences, a key characteristic he attributes to the teachings of his ancestors.

“I never try to hoard the knowledge — you are there to share. I am going to be transparent with everybody about how to do it, what you can do, and how your communities can benefit.”





Advice for Future Entrepreneurs

Darrell offers practical advice for those who are looking to start their entrepreneurial journey:

Find a mentor — Darrell has had the same mentor for over 25 years. He credits this relationship as helping him enter the clean energy industry and understands the importance of making long-lasting connections with people.

Education — it's never too late to go back to school and learn a new skill. Darrell went back to take the 20/20 Catalyst Program through Indigenous Clean Energy. This capacity-building program allowed him to learn more about the Indigenous clean energy industry in Canada. The 20/20 Catalysts Program provides students with practical and applied learning on how to build Indigenous clean energy capacity.

“The Indigenous Clean Energy (program) took a whole summer of intensive training, but it is well worth it. So never, ever turn down a chance to educate yourself.”

And lastly, Darrell recognizes the opportunities that volunteering can provide young students. It provides students the chance to work and learn firsthand from industry leaders. This invaluable investment can help establish lasting relationships while growing and developing key skills they can take with them in their career journey.

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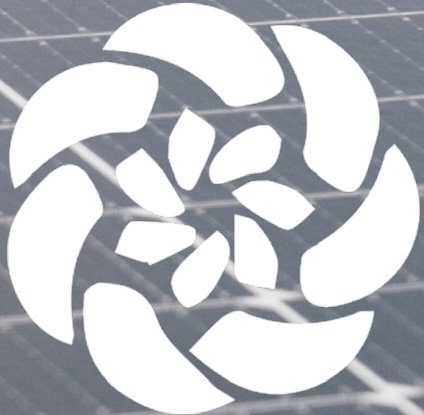
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