

Demystifying Diesel Reduction

A set of introductory guides in support of remote community clean energy

Do you want to bring renewable energy — such as wind, solar, or hydro — to your remote community? This series, *Demystifying Diesel Reduction*, is a set of introductory guides that will give you the info you need to help get clean energy working for you.

The other guides in this series are available at pembina.org/demystifying-diesel

So, you want to be an independent power producer?

Building a renewable energy project in your community

Remote clean energy projects are sometimes led by “Independent power producers” – organizations that plan, build, and operate renewable energy infrastructure such as solar parks or wind farms within a community.

Becoming an IPP is a big decision, requiring considerable and long-term commitment and dedication, but it can also be a critical method of achieving energy independence and supporting diesel reduction.

This guide will provide an introductory overview of what IPPs are and the benefits and challenges of becoming one.



Why become an IPP?

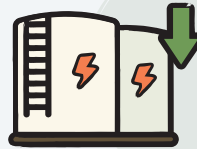


There are many reasons to implement a renewable energy project:



Job creation:

create jobs for your community during the construction of the project and afterwards for operations and maintenance.



Diesel & emissions reduction:

reduce how much diesel your community uses every year.



Economic development:

raise revenue for your community through signing a power purchase agreement (PPA).¹



Energy sovereignty: building and owning a renewable energy project means that you can own the systems powering your community.



What is an “Independent Power Producer”?



DEFINITION:

Independent power producer (IPP)

The community, or an affiliated organization such as a development corporation or Indigenous government, that builds and operates a medium to large size renewable energy project (think solar parks and wind turbines) and sells the electricity generated to the local utility²

¹ Learn more about PPAs in our guides, *Power Purchase Agreements: A two-part guide for Indigenous clean energy project proponents in remote communities* pembina.org/pub/power-purchase-agreements

² Learn more about IPPs in the guide, *Understanding your options: Net metering vs. independent power producers* pembina.org/pub/understanding-your-options-net-metering-vs-independent-power-producers



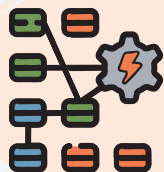
But be aware of the challenges:



Financial viability: these projects are expensive – most IPP projects rely on support from government funders.



High collaboration required: remote IPP projects require a high degree of collaboration between your community, the utility, regulator, and government. Achieving alignment between all parties is necessary throughout the project.



Technical complexity: integrating renewables to your community's existing diesel infrastructure is a challenge that requires a close working relationship with your utility.



Long-term planning: after your project is built, having a plan for its long-term success is key – things like operations and maintenance, having funds for replacements and upgrades, and local job training and skills development are important to plan for.

Lessons from the Vuntut Gwitchin First Nation

Sree Vyàa, the Old Crow Solar Project, was built by the Vuntut Gwitchin First Nation in Old Crow, Yukon and has been fully operational since 2021. The project consists of 2,160 solar panels oriented east/west to maximize generation under the Arctic summer sun. All the electricity generated is sold to ATCO Electric Yukon.

William Linklater, Senior Energy Analyst, Natural Resources and Heritage with the Vuntut Gwitchin First Nation, shares his thoughts and reflections on the project:



Q: Why did your community want to have renewable energy?

A: In the 2010s, our leadership began to really think about the pros and cons of 100% diesel reliance: noise pollution, costs, and the risks of diesel – including the potential for major spills. The cost of flying in fuel, the cost of cleaning it up, all of this fed into our decision to pursue renewable energy... There was also strong motivation for community-led energy because they align with our goals for sovereignty.

Q: If you could do it all over again, what would you do differently?

A: We'd think more holistically about the entire project – not just about building it, but also about operations and maintenance. Matters like land-use planning and engineering studies, I think we would spend more time on that at the beginning rather than in the middle...

Early planning and early studies allow us to go to key funders and provide the full context of our project and how certain variables, like climate change, impact our decisions, tools, and timelines.

It's important to think five to ten years ahead and think about how things like population growth, energy demand, and climate change are going to impact your work.

In addition, more community education...

The community is interested in how things like community-owned solar panels work and how revenue generated from the project impacts their lives – including their bills!





Q: How has it been going since your project has been implemented?

A: *The project is going well. It is helping fund other renewable energy projects, it is creating local contract jobs, bringing more revenue to the community, and contributing to the local economy. We also have a healthy relationship with the utility.*

This is something that our community is proud of. We're proud that our nation built Sree Vyàa. It's something that helped create new processes, including the independent power policy. It was an important milestone that helped create new legislation, new regulations, new engagement processes with the government and utility.

Q: What lessons would you share with a community that is just starting out with the independent power production process?

A: *It's important to know there are going to be many unforeseen challenges, from climate change to economics to politics. These are hard things to also plan for but, if you can, you should!*

There are some things that you just won't find on the internet or from government. You'll only learn it when you talk to communities who have built a project like the one you're interested in.

Reach out to talk with people who have done it – call the energy coordinator of a community that is building or has built a project and ask them all your questions.

Editor's Note: This interview has been edited for length and clarity.





The Pembina Institute is a Canadian think tank that researches the clean energy transition across Canada, including how to advance Indigenous energy sovereignty and diesel reduction for remote communities.

We work with Indigenous clean energy leaders, policy makers, and utilities to collaboratively address barriers to diesel reduction and advocate for funding and policy reforms that support community-led clean energy projects.

Questions? Reach out to an expert – email us at info@pembina.org to get the conversation started.

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