

Community Success Story

Many Paths to Energy Efficiency at Xaxli'p First Nation

About Xaxli'p First Nation

Xaxli'p First Nation is an Indigenous community located north of the Village of Lillooet in the Fountain Valley. They are a member community of the St'at'imc Nation, and they have lived within their territory since time immemorial. Xaxli'p means “brow of the hill,” and people from Xaxli'p are called Xaxli'pmec.



Construction of a fiveplex at Xaxli'p First Nation. **Photo: Theresa Michel.**

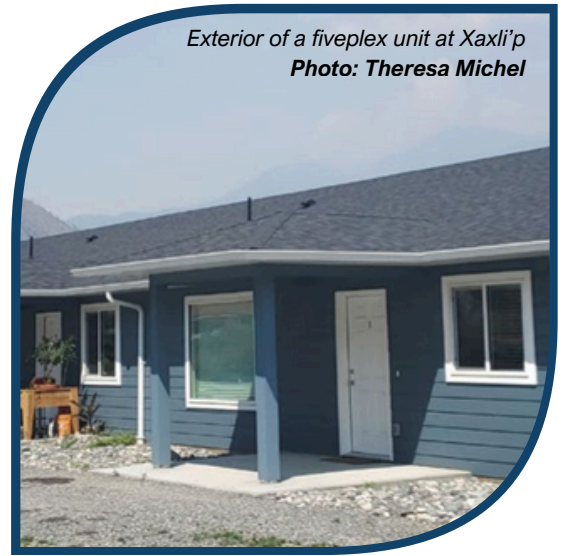
Xaxli'pmec are connected to the land and recognize that wise land use is best accomplished by taking only what they need from the land. This attitude informs their approach to energy use, sustainability, and climate change.

Xaxli'p First Nation has a variety of housing types in the community. These include 85 single-family homes, 27 manufactured homes, and four multiplexes with two to five units. Of the single-family homes, two are log homes, one is a Passive home, and four are tiny homes.

Project Background

Theresa Michel started as the Xaxli'p Housing Manager just after the COVID-19 pandemic began in 2020. Since then, she has advanced many projects to improve the quality, health and energy-efficiency of the homes in Xaxli'p.

Exterior of a fiveplex unit at Xaxli'p
Photo: Theresa Michel



Collaborators:

- Xaxli'p First Nation
- Richard Joseph
- Fraser Basin Council's Ask an Energy Specialist Program
- Ecotrust Canada
- Trevor Genshorek, Upgrade Energy Advisory Ltd
- Dave Bryant, KTA Mechanical Inc.
- Carl Wirtz, New Phase Electrical

Funding Provider:

- BC Hydro

Project Lead:

- Theresa Michel, Housing Manager, Xaxli'p First Nation



Interior of one of the fiveplex units at Xaxli'p first Nation. Photo: Xaxli'p First Nation.

When Theresa started, the last major housing project in the community had been completed in 2007 with funding from Canada Mortgage and Housing Corporation's On-Reserve Non-Profit Housing Program (Section 95). In addition, tiny homes had been built by Thompson Rivers University students in 2017-18.

Theresa's first goal as Housing Manager was to close the gap on the long housing waitlist in Xaxli'p. Some community members had been on the waitlist since 2004. Another important goal was to ensure that the current homes in Xaxli'p were healthy, safe, and affordable for residents.

Project Description

Theresa reached out to Devon Miller, the BC Indigenous Energy Coach, who works with the BC Government's Indigenous Community Heat Pump Incentive Program. She also reached out to the Fraser Basin Council and received advice from Richard Joseph, a Registered Energy Advisor, through the Ask an Energy Specialist Program.

Working with Richard helped Theresa gain knowledge and learn about different energy-efficiency projects and funding options available to her community.

Theresa began by completing energy audits on homes in the community and installing 10 heat pumps funded by rebates through BC Hydro's Indigenous Communities Conservation Program.

This created immediate cost savings for community members by reducing their BC Hydro bills. One resident saved \$200 per month on her electricity bill and no longer needs to purchase wood pellets for her pellet stove, which cost \$1000 per flat.

Theresa then formed a partnership with Ecotrust Canada, a charitable organization that works with rural, remote, and Indigenous communities to build resilient economies that provide for the health of the natural environment, sustainable resources, prosperous livelihoods, and vibrant cultures.

Ecotrust staff helped Xaxli'p develop a draft Community Energy Plan and prioritize future energy-efficiency projects. The plan was funded by New Relationship Trust's BC Indigenous Clean Energy Initiative Program and is currently in the process of being approved by Council.

The plan development process included sending out community surveys to receive feedback from community members. The responses helped Theresa to prioritize future projects that ensure fairness for community residents.

One of her main priorities for the housing program is to ensure that Elders have safe and healthy homes. This includes mitigating issues such as mold which were identified in the surveys.



Construction of a five-plex at Xaxli'p First Nation. **Photo: Xaxli'p First Nation.**

With Ecotrust's support, Xaxli'p is now preparing an application to Indigenous Services Canada for funding to upgrade windows from single to triple-pane, install new doors and insulation, install additional heat pumps, and perform health and safety renovations. They hope to stack this funding with Provincial and utility rebates and, potentially, additional funding from New Relationship Trust.

Xaxli'p is currently completing 50 building inspections with the First Nations Health Authority. Their Environmental Health Officer determines health and safety issues in the homes. The results from the completed inspections support and align with the priorities identified in Xaxli'p's draft Community Energy Plan.

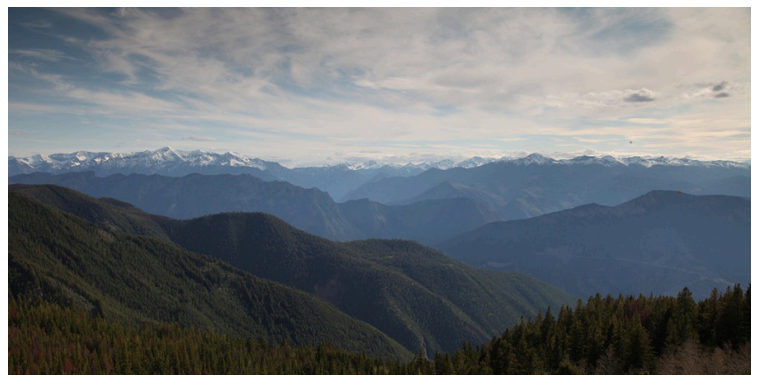
The next step after completing the retrofit projects will be to seek additional funding for more heat pump installations in the community. Some of the homes to be renovated have already received heat pumps, so additional community members will be able to benefit from the new installations. However, some residents are concerned about heat pumps due to the possibility of power outages.

Apart from retrofits and renovations, Xaxli'p is also working on building new homes.

In February 2022, Xaxli'p completed a family-based fiveplex, with five rental units. The fiveplex provides a home to a single father with children, a single mother with two sons, an elderly couple, a family previously experiencing homelessness, and an Elder living independently.

In 2023, a second fiveplex was built. One unit was provided to a couple with children, and the others were allocated to a single father, a single person, and 2 Elders who are living independently.

Two new homes featuring triple pane windows, fire-resistant materials, increased R-value insulation, and heat pumps are currently being constructed and will likely be completed in July 2025. One of the homes also incorporates solar energy generation.



Views from Xaxli'p territory. **Photo: Xaxli'p First Nation.**

What's Next for Xaxli'p First Nation?

To uphold Xaxli'p's mandate to provide safe, livable and healthy homes, Theresa and her team will continue assisting Elders with wood and pellet stoves to convert to heat pumps. They will also continue to work with community members to provide necessary upgrades to their homes. Finally, they plan to advance new home construction projects so that more Xaxli'p members can come home to the community.



Xaxli'p Territory. Photo: Xaxli'p Community Forest.

Ongoing Benefits of Energy Efficiency

"We started the heat pump installations for Elders to make sure they didn't need to pack wood pellets or chop wood. We wanted to increase safety. This also created significant money savings. Some members' Hydro bills dropped from \$400 to \$100 per month."

-Theresa Michel, Housing Manager, Xaxli'p First Nation

We are thankful to Theresa Michel for sharing her experience for this case study.

Lessons Learned:

- It's important not to stop at the heat pump. You need to upgrade the electrical panels and ensure the home has good windows and doors, and no drafts. One home ended up with a higher energy bill due to a heat pump installation in a poorly insulated home that was previously heated with wood. This resident organized the installation herself, and the contractor did not recommend the extra work (insulation, windows, doors and maintenance) to ensure the heat pump was suitable and worked well.
- Make sure the contractors do a thorough job on all heat pump installations. In one home, there was a hole for cables that had not been sealed, which caused significant air leakage.
- It's important to teach community members that maintenance is important. When an exterior door isn't insulated or the door handle sags, it can make a big difference to energy use. You can start small and do larger projects later based on funding.

Timeline:

- 2020 – Theresa Michel started as Housing Manager at Xaxli'p First Nation
- 2022 – Family-based fiveplex completed
- 2023 – Second fiveplex completed
- 2023 – First 10 heat pumps were installed in Xaxli'p First Nation
- 2023 – Connected with Richard Joseph through FBC's Ask an Energy Specialist Program
- 2023 – Formed partnership with Ecotrust Canada
- 2024 – Draft Community Energy Plan completed
- 2025 – Two new energy-efficient homes slated for completion