Community Report: Burns Lake

This document shares a summary of the Community Energy Dialogue held in Burns Lake January 23rd, 2025. The conversation involved four community members and was facilitated by Sinead Earley. Quotes have been reported anonymously.

*The Burns Lake Dialogue highlights the village as a service and transportation hub for a dispersed rural population within the region. Key energy **assets** include hydroelectric power, solar, bioenergy, and biofuels, while **actors** range from local government, industry, to small-scale renewable energy service providers. **Opportunities** for alternative energy initiatives exists in municipal building and infrastructure projects, and for residential technologies in rural areas. However, **vulnerabilities** such as rising energy costs, climate impacts (wildfire and drought), aging civic infrastructure, and power grid reliability, pose significant barriers. **Capacity issues**, including heavy workloads for local government staff, conflicting or lack of access to information on emerging technologies, and gaps in skilled professionals further complicate progress. **Prioritizing** government-supported energy projects, residential energy systems for rural populations, and education and workforce initiatives around emerging renewable energy technologies will be essential for navigating these challenges and ensuring a sustainable energy future for Burns Lake.*

Assets: hydroelectric power, solar, bioenergy, biofuels, hydrogen; Active Transportation Plan (2023); Carbon Neutral Action Plan (2013)

Actors: local government, BC Hydro, Rio Tinto Alcan, K'ull Power, Coastal GasLink, professional associations, Burns Lake Solar, Babine Forest Products, Decker Lake Forest Products, Drax Group

Key Areas of Interest:

- Small footprint energy options
- Energy efficiencies and cost savings; smarter civic buildings
- Creative energy storage solutions
- Energy independence and reduced reliance on energy grid
- Addressing unique northern energy needs
- Time horizon costs and emissions savings for renewable energy projects
- Active transportation
- Finacial support for early adoption of renewable energy technologies

Opportunities for Regional Collaboration:

- Local government forums as key to identifying shared interests and concerns
- Communicating project progress and success stories with other communities
- Information sharing through professional associations and service providers as established networks across the region

Northern Regional Energy Dialogues is an Accelerating Community Energy Transformation (ACET) project led by Sinead Earley, Tamara Krawchenko and Kara Shaw in partnership between the University of Victoria and University of Northern British Columbia and with support from the Community Energy Association and Northern British Columbia Climate Action Network (NorthCAN).

We are working with diverse communities and First Nations across Northern British Columbia to help them identify their interests, needs and opportunities in support of renewable energy transitions. The current phase of the project is focused on convening community based and regional energy dialogues. Future phases will support targeted and community-identified capacity building initiatives and help formalize them with enduring peer networks.

Summary drafted by: Sinead Earley, Assistant Professor, School of Planning and Sustainability, University of Northern British Columbia

Sinead.earley@unbc.ca

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ACCELERATING COMMUNITY ENERGY TRANSFORMATION

What does energy look like in your community? How is it discussed and what are the greatest concerns?

The energy conversation in Burns Lake centered on local government roles and initiatives. Participants positioned the community as a service and transportation hub for a dispersed rural population within the Lakes District.

> *"In northern climes, we're very much focused on heat, because it's just a huge amount of our budget for consumption. The cold weather climate drives a lot of your energy conversations."*

The village is characterized as an energy transmission and transportation corridor, that is about "energy transport to elsewhere." This primarily relates to hydropower and natural gas pipelines, but the railway remains as a central artery through the village; "the rail goes through town, so there's a lot of money going out to the coast." The relative cost of energy sources is driving energy-related decisions, and there are concerns around the cost of hydroelectricity: "We're in a hydro province? Why is electricity so expensive?" There are also concerns linked to wider watershed impacts. For instance, "something that's viewed as a sustainable power source, if we keep seeing these droughts, I don't know what the future for this is."

Burns Lake functions as a service hub for a dispersed rural population in the region, who rely on village infrastructure for many of its needs related to food and healthcare provision. There is an appetite for energy independence for a lot of rural dwellers. For example, "there is demand in the rural areas, or just on the outskirts of town. There's a large number of people that are off grid." There are also people offsetting with solar in the village. It was also referred to as a retirement community.

The northern context was referred to many times as distinct and unique, and importance is placed on communicating those differences to levels of government beyond the local. As one contributor noted, "being in Burns Lake has been a learning curve for me in a lot of ways, but also just made me want to champion, you know, the North. When you've got those larger conversations that are had at a provincial level, and to highlight the unique situation that you find yourselves, in Burns Lake and in northern towns. I think it's important."

What energy assets and infrastructures exist in your community?

Hydroelectric power and transmission are central to discussions, given the village's proximity to the Nechako Reservoir. The region has long-standing ties to the forestry sector, and bioenergy, biofuels, and hydrogen surface as part of the energy conversation. The community's dynamic relationship to wildfire is also important, as are challenges associated with drought, at levels unprecedented since the establishment of the reservoir in 1952.

Participants noted that they are Interested in power sources that have a 'small footprint', with members commenting on the impacts of large-scale hydroelectricity projects or forestry-based bioenergy, in comparison to small-scale renewable energy generation or nuclear. There are also significantly entrenched attitudes when it comes to energy, that were noted as an impediment to change. Livelihoods are very much embedded in truck and diesel culture, and attitudes are not going to change very easily. At the same time, there are no public transit options to serve rural dwellers.

The village is currently looking at a solar project for the arena, to reduce emissions associated with one of their highest energy-consuming infrastructures. Significant efforts are being made to understand both the relative cost savings and emissions reductions for potential pathways.

"For a lot of the grants that are out there, they're looking for greenhouse gas reductions. When you're going from hydro to solar it's not a big gain. In the arena we have high electricity consumption to keep things cold, and a large roof. Putting up 300 panels on an arena roof, could save us $20,000 a year. So, the cost savings make a lot of sense."

They are also seeking smarter, more efficient, more cohesive infrastructure. Arenas and recreation facilities in northern towns are often community hubs, but aging buildings and infrastructures are common. The arena in Burns Lake exemplifies this and is referred to as 'Frankenstein's building' – subject to additions every decade since the 1960s. This means there are limitations: "It's not necessarily a cohesive system, which makes it that much more challenging. We're looking for and planning for ways we can make the whole building more cohesive and talk to itself and send heat from where we don't want it to the places that we do want it."

Granting opportunities are often oriented towards emission reductions, meaning that making the case when hydroelectric power is abundant is harder; the switch from hydro to solar, for instance is not much of a gain. On the other hand, potential cost savings allow the village to make a strong case. They are aiming to electrify where they can and move away from natural gas. There are other opportunities at the arena: "We can get creative with heat reclaim, in terms of keeping that energy that we're generating and venting it out."

Active transportation infrastructure is also part of the discussion in Burns Lake, and the village is working on an electric bike ride-sharing program. Yet, there concern expressed for more clarity around who potential users are, and that there might not be much uptake.

Who are the key actors and organizations involved in energy initiatives and projects and what do they do?

The area's role as a transmission corridor is apparent in the energy actors named. BC Hydro is referenced in relation to the proposed North Coast Transmission Line (NCTL). Industrial actors are also active in the region; Rio Tinto Alcan in relation to the Kemano Generating Station and the Nechako Reservoir, and TC Energy Corporation in relation to the recent construction of the Coastal Gaslink natural gas pipeline. Other entities referenced included K'ull Power formed by eight Nations in 2023 that is supporting First Nations ownership, development, and operation of renewable energy transmission and generation projects in Northwest BC (largely in response to the BC Hydro NCTL twinning project). Local sawmills (Babine Forest Products, Decker Lake Forest Products) are small-scale energy producers with integrated co-generation, and Drax Group acquired the biomass pellet mill from Pinnacle Pellet in 2021. Burns Lake Solar is a local business that does solar installation, primarily focused on residential units for people who are seeking independence from the energy grid.

There was commentary on the dynamic between individualism and community in the village. One attendee noted that the "2018 fires probably showed me the most, people rallying and everybody kind of banding together to help those who needed it. I don't feel I would have seen as much of that down south. So, while there's that rugged independence up here, there is also a lot more of a community on certain things." Members also spoke of groups in town who pick up an issue and make it happen, such as those involved in the mountain bike or skiing community. It was noted that "there are a lot of opportunities that way, that are very grassroots and just community driven."

What are the vulnerabilities and barriers around energy in your community? What barriers exist that are preventing your community from moving forward on energy issues and projects? What kinds of capacity barriers exist?

There are clear capacity challenges for municipal staff, which creates a critical gap between funding and implementation. Here, one of the reasons that the Province's Local Government Climate Action Program (LGCAP) funds are not spent, or are spent slowly, is because there are no people to lead and implement. Many funding

opportunities require the right context to be put in place if an initiative is to be successful. For example, "when there's funding that's tied to a certain initiative, you can't just go and spend that. Sometimes you need to have so much research that's put into that beforehand, and we don't have capacity in house to do that. And if we're hiring that out, it's just another financial thing." There is value placed on inventories and audits, such as energy or emissions studies, or climate action plans. As noted, "once you have those studies done, that opens up doors to leverage your funding."

MOVE: The relative cost of energy sources is driving energy-related decisions, despite local government and non-government actors recognizing the long-term advantages renewable energy options. The up-front capital costs for clean energy technologies are hard to justify, particularly when hydroelectricity already exists as a low-emissions pathway.

A major barrier to addressing energy issues is access to information or conflicting information. There is hesitation in the community around some low-carbon technologies, in particular, electric vehicles and heat pumps. People are receiving conflicting information around heat pump efficiency and performance in extreme cold temperatures. There is concern about the long distances and cold temperatures that are linked to rural mobility, and "there's a lot of uncertainty and unknowns around electric vehicles." Federal and provincial rebate programs have helped; the financial incentive drew people in who would not be doing it for conservation or climate-related reasons. Rebates were referred to as a policy tool that allows people to get their foot in the door; "the people I know who installed solar, who would have originally been against it, but because there was a rebate program, they just went for it. And I think that opens it up. And now people are a little more amenable to the idea where it makes sense." More so, "there's not as clear a path for electrification when you're talking commercial vehicles." There are strong links between resource industries, heavy duty vehicles, and long-distance transportation in the region that has influenced local culture; "people just seem to kind of be against it because it represents something that they don't believe in."

> *"From a local government standpoint, there are a lot of projects, and there are only so many people. We hit capacity. It's a conversation daily. People say – I really love to do this, but I don't have time. I don't have capacity. We do a lot with the capacity that we have, but there's always something that's being left on the table."*

A noted barrier for the community is lack of access to skilled professionals. This challenge extends across energy, construction, or transportation infrastructure to other sectors, but attracting qualified professionals is hard. From a hiring perspective, "I don't necessarily look for people who have the certifications, because I'm not going to find them. I'm looking for competencies. Even if you can find the right candidate from somewhere and convince them to move here, it turns into a totally separate conversation." In many ways, "it's fed into a do-it-yourself culture in a major way. In some ways maybe we're building our own basic skills again." A recommendation for the village going forward is active recruitment of professional skills and expertise associated with emerging energy technologies, to address these practical gaps.

Lastly, another barrier is related to communications and monitoring technologies. For those in rural settings, internet connectivity is an issue and comes up when options like 'virtual health' are offered as alternatives to travelling 2 or 3 hours for healthcare appointments. Consider fibre optic broadband connections, for instance: "it is one of those things where new technology is coming that will improve a poor service, but to run that into the rural areas, is it viable for them?" Access to new and emerging technologies for rural residents is limited. This is important because it is linked to some of the community's identified opportunities: housing costs are relatively low compared to other parts of the province, and remote working situations are increasingly common. Yet, these trends need to be accompanied by communications

> *"A barrier is not enough skilled people. If you want anything installed, they have to come from Smithers or someplace else. Technicians and professional service providers. And people won't come from Smithers because they have enough business there."*

technologies: “Connectivity is one of those things, if people are looking for an affordable place to live and they have a remote working situation, why would you not want to come and buy a house for half a third of the price?” There is a positive sentiment towards attracting new homebuyers to the region, with the potential to bring some of the professional expertise and skills with them in sectors where gaps have been identified, particularly those related to new and emerging energy technologies.

What are your highest priorities in relation to energy? What does the future of energy look like in your community in 5 to 10 years? What actions and resources are needed to advance these priorities?

Community members hear about potential renewable energy projects, such as a wind energy project proposed by Rio Tinto. They follow with the question: “Would that energy be fed into the community, or is it for industrial activity?” Community members also identify vulnerabilities associated with the electricity grid. Blackouts and brownouts are challenging for rural and remote areas. People want to see “alternative backup plans, and ways to reduce dependence wherever possible. That reliability is a key piece.” The impacts of outages in northern climates cannot be underestimated. For instance, “there was a snowfall in 2006 that had the power out for several days, or two weeks, depending on where people were. If it's minus 30, I mean, we got some real problems.” As part of a future energy vision, people refer to alternative or independent systems, or “off grid capability” which were also spoken of in relation to increasing wildfires. In summer months with extremely high temperatures, outages can also be devastating. People are interested in “energy independence, I think that goes for me personally, but also professionally. There has to be economic viability. That has to be a key to it.” At the same time, “it’s kind of hard to talk about greenhouse gases when half the North burns every year.”

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There is interest in being early adopters for new technologies, but there is a need for government leadership and financial supports. They would like to see more government-led pilot projects. For instance, “I think there are some opportunities for governing bodies and the local governments to lead. If there are opportunities for them to put some money into something and say, hey look, we did this, and it works.” These financial supports and experimental projects are considered essential for emerging technologies: “I don't want to be an early adopter if it's going to hurt me, right? It's nice when there are grant opportunities or rebates or lower risk ways to experiment on a smaller scale.”

The desire for greater energy efficiencies and cost savings is strong, as is the desire to see creative energy storage solutions. At the local government or small business level, capital goods can often be a significant opportunity gained or lost, particularly for those with long lifespans. Inventories for current holdings and future purchases could expose life-cycle emission and capital costs that could help procurement decisions follow lower-carbon pathways. For instance, “the village bought a new Zamboni in 2018. It was one of those things that the cost savings to buy a propane driven one were such that they went with that pathway. But there are electric options for that. There's a part of me that thinks, that was an opportunity missed. It's a very controlled environment, an indoor environment where we must have extra safety measures in place to run an internal combustion engine in a building that has lots of spectators.”

What would you like to learn from other northern communities?

Local government forums are important to these small communities, such as the Union for BC Municipalities (UBCM) and the North Central Local Government Association (NCLGA). It is at these gatherings “where some of this type of conversation would happen, in the breakout sessions or the workshops or the panel discussions, because everyone that's there is there for that common theme.” Supporting local government representation at these events is important.

Community members are interested in information sharing between communities. They also want to communicate progress and success stories with others. The are looking for more opportunities to share their experience they: “With so many projects, I would love to have opportunities to tell people about the stuff we're doing. The information is out there, but it's not readily available. But then when people do talk about it, then you get calls from people, saying how did you do that? We heard you put a splash park in. Tell me about it.” They also noted that “funders are looking for that too”; “that was a part of our energy study for the arena and one of the follow-up questions in the final report. What did you find and what are your opportunities to share this information? We were meant to find information, but we were also meant to share things in our networks.”

Professional associations often connect across the region. For instance, housing associations can promote energy benchmarking across communities, which could be very helpful. There is opportunity when “everyone who signs up for that will be sharing and asking, “how'd you get your bill down?” or things like that. I think information is probably our biggest opportunity, and relying on some of these established associations” is one established avenue. The BC Recreation and Parks Association was also referenced as an important connector across communities.

Professional service providers also form an informal network. They are often mobile and filling the gap in local skills and expertise (referred to earlier as a capacity barrier) and are sometimes conduits for sharing ideas as they move from community to community. Case in point: “The engineers that we're working with on our energy study, they do a lot of work in the region. So, they pick up something in other communities and then they'll tell us what they're doing there. There are elements of connection. It's almost like a network. I think because, especially in the north, having fewer of those professional connections in place, means that these people work in a bunch of different towns.” “This engineering company from Victoria plans every year to come up to the northern communities and tour through and touch base with everyone that they're working with. There's basically one refrigeration contractor that does all the arenas right on Highway 16. Established channels are important.”