

Best Practices on Renewable Energy in Isolated Communities or Islands

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Introduction

As the international community works to achieve a just energy transition and a net-zero carbon economy, we must closely monitor and resolve the growing dangers to human rights that come with the implementation of renewable energy projects (Vazquez & Hodgkins, 2021). Renewable energy projects can impact communities, including Indigenous Peoples, who suffer the weight of natural resource exploitation on their land and seas and upon which their lives and livelihoods frequently depend if thorough due diligence and strict restrictions are lacking. Islands are ideally positioned to take the lead in the energy transition because of their unique geographical, vulnerable nature and natural resources. The capability of a country or business to invest in research, manufacture, and installation typically determines its ability to lead a technological change. Development and manufacture of technology are only one aspect of the transition to renewable energy. Other elements like public backing, administration of logistics and operations, local leadership, community involvement and participation swiftly enter the picture. Those who show that deep decarbonization is feasible and that economies and society can prosper in a zero-carbon energy system will be leaders in the energy transition. Indigenous peoples are paving the way for Canada's move to a future powered by sustainable energy and are driving the development of clean energy in Canada. However, Canada's history of developing clean (or renewable) energy is not that clean. It is rife with conflict, the degradation of ecological systems, state-centred policies, and the displacement of Indigenous people from their lands and ways of life (Molander, 2022).

The focus of this research will be primarily on energy projects integrated into Indigenous communities; the lessons learned, successes, failures, engagement processes, and additional factors that would present a relevant comparison to the work that is being proposed. This research will contribute toward developing a Strategic Energy Plan ("SEP") to help NunatuKavut community members prepare for their energy future and capture priorities that

directly affect them. I chose this project because electricity, or power, plays a significant role in daily life, and is an integral part of practically all businesses operations. Therefore, with the continuous affects of the rise of inflation on fuel pricing, isolated communities in the NunatuKavut territory who are currently diesel dependent, will require an alternative to fossil fuel to survive the increasing cost of living and protect the environment. I am interested in investigating the methods that could be employed to include community input and participation in new projects. I also wish to gain knowledge about how early community involvement can result in a successful project in isolated communities, with an emphasis on energy initiatives. The piece will look at three cases to learn what strategy each case employed and then draw conclusions.

Literature Review

A case of the Japanese island of Yakushima has switched almost entirely to renewable energy; Yakushima Island, with a 132 km circumference and a 503 m² area, is the fifth largest in Japan. There are 35 days of rain in a month in Yakushima. Due to the mountainous terrain, it is a region with much rain. Japan's southern region is home to Yakushima Island, a world heritage site. Currently, hydroelectricity is the primary energy source for electricity. 58,600 MWh/yr are consumed as electric energy (Uemura et al., 2003). Yakushima Hydroelectricity Company was founded in 1924; two years later, the Takeno River Plant was built, supplying the Isso, Yoshida, and Nagata regions with general electric light. There were 1,530 light bulbs and only four hydroelectric power plants producing 385 kW of power in 1949 (Ichikawa, 2017). Senpiro Fall Plant and Anbou River Plant were completed by Yakushima Denko Co., Ltd. in 1953 and 1960, respectively. As a result, Yakushima has four hydroelectric plants and one thermal plant. The Miyanoura thermal power plant is not operating. It only works when there is not enough hydropower. In Yakushima, Yakushima Denko has been in charge of it rather than Kyushu Electric Power. In this instance, one of these private investors is based

locally and perhaps controlled by the locals. Silicon carbide (SiC), a rare semiconductor and long-lasting abrasive material, is mined and produced by Yakushima Denko Co., Ltd.(based on the island). Yakushima is projected to achieve energy self-sufficiency rather quickly, given this island municipality's corporate buy-in and relatively high affluence. The island used the available resource (silicon carbide) to attract private investment and support from the local population. In this scenario, the significant contribution to the successful transition to renewable energy could be using locally based energy companies and the island's available resources (Ichikawa, 2017). However, there is still some question as to how the historic forest ecosystems on the island might be impacted by increased hydroelectric power production. Depending on how new dams are built, flooding, sedimentation, and stream continuity could negatively affect the island's ecology, residents, and tourism sector.

Another case investigated was that of energy in(justice) in Latin America. The Global South, including Latin America, is where many renewable energy projects (solar farms, wind farms, and hydroelectric projects) are being built. More than a quarter of primary energy in Latin American nations comes from renewable sources, which is times two the global average, according to the International Renewable Energy Agency (IRENA). The projects have repeatedly been accused of violating human rights. Thus, this energy shift comes at a significant cost (Vazquez & Hodgkins, 2021). The Business & Human Rights Resource Centre documented 501 cases of abuse between January 2010 and September 2020, accounting for more than 2,300 allegations of human rights abuses allegedly committed by 156 renewable energy companies and private and State banks operating in 17 countries throughout Latin America. Examples feature numerous complaints of abuse made. Annual abuse cases increased by 1,050% in Latin America (from 8 reported cases in 2010 to 92 cases in 2020). The most frequently reported types of alleged abuses were assaults on human rights advocates (454

complaints), violations of Indigenous rights (324 allegations), and violations of land and territory rights (478 allegations) throughout the region (Vazquez & Hodgkins, 2021).

There are national and international laws governing energy and indigenous people's right. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) acknowledges the urgent need to uphold and advance indigenous peoples' inherent rights, particularly those to their lands, territories, and resources derived from their cultures, spiritual traditions, histories, and philosophical systems. Article 26 of the UNDRIP discusses the Indigenous people's right to lands, territories, and resources they have historically owned, occupied, utilized, or obtained (UN General Assembly, 2007). The above cases violate the laws in the United Nations Declaration on the Rights of Indigenous Peoples. The obligation to give access to a legal remedy and grievance procedures for abuse victims falls on the State. Renewable energy development appears to be plagued by abuses despite such laws and norms. The absence of mandatory environmental and human rights due diligence regulations that are codified and enforced is one of the significant governance gaps in the scenario. A culture of abuse and impunity will remain present without legal frameworks to hold businesses and governments responsible for developing renewable energy, such as through penalties or other obligations when violations occur.

A massive photovoltaic plant was to be built on several hectares of land in Prados I and Prados II, Choluteca, Honduras, so machinery was brought in to clear the site of trees in 2015. Communities in the area organized to protest against the energy project and demand that their rights be upheld. Two non-violent protest camps were set up by the neighbourhood in 2016. At least eleven (11) community leaders were charged due to the companies' response. Companies' use of "strategic lawsuits against public participation" (SLAPPs) is a kind of legal harassment intended to silence human resources directors by binding them in expensive and prolonged

legal procedures. Following a court ruling, the peaceful protest camps were removed in 2018 (Vazquez & Hodgkins, 2021).

The third case is Canada's BC Renewable (clean) energy project and reconciliation. As British Columbia advances its climate agenda, key concerns have surfaced regarding where this anticipated electricity will come from, how it will be produced and distributed, and who will maintain regulatory control and ownership. The majority of BC's mega-dam hydroelectric systems, which produce nearly 90% of the province's energy, are found in the Peace River and Columbia River regions in the northeastern and southeast of the province. Despite its track record of poor performance, the province continues to move on with the construction of yet another mega-dam project. According to recent studies, over 200 renewable energy projects nationwide have Indigenous participation (ICE, 2022). These initiatives have demonstrated to provide local communities with direct and numerous advantages. Indigenous peoples are Canada's third-largest owner of clean energy assets, behind the Crown and for-profit utilities (Clean Energy Canada, 2021). Although Indigenous peoples have made significant progress and have proven their ability to lead this transition, BC has yet to formally acknowledge these efforts as solutions in its provincial climate strategy. The province of British Columbia needs to advance an energy future that considers its commitments to meaningful climate action and reconciliation by ignoring these contributions and failing to acknowledge its colonial heritage across energy system planning and decision-making. BC Hydro created the Standing Offer Programme (SOP) in 2008 as a way for IPPs to seek and develop renewable energy projects in order to support the BC Energy Plan (2007) and the BC Clean Energy Act (2010). However, BC Hydro announced in 2019 that the SOP programme would be suspended indefinitely. First Nations with ambitions for renewable energy have been disproportionately impacted by BC Hydro's decision to neither accept new applications nor award any new EPAs outside of five already-existing projects with significant Indigenous involvement (Yunker, 2020; Shaw,

2018). There have been changes to the inclusion of the Indigenous community in recent years by the BC government.

Conclusion

From the three examples mentioned above, it is clear that Indigenous people want to be heard and engaged before projects or laws are implemented on their land. This is because, in most cases, the Indigenous community is not informed in advance or engaged throughout the process. The province of Newfoundland and Labrador must learn from the mistakes of other provinces like British Columbia and other remote places, like the three (3) instances shown in this research paper, to succeed with its renewable energy initiative. The success of the Yakushima, Japan, renewable energy project was due to the usage of regional resources, regional businesses, and community involvement. Everyone must be in agreement because the energy project is a significant undertaking. To comprehend and uphold the rights of the Indigenous people, the Indigenous community and the government must work together; issues like who will profit from the energy project must be tackled. The Indigenous people must be educated by their leaders at the community level and made to feel that they own the project for them to understand and accept the idea of the energy transition.

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