

# WHY DO WIND ENERGY PROJECTS FAIL?

The enduring effects of process  
and distributional unfairness

Dr. Louise Comeau

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# Background: Why do renewable energy projects fail?

- In 2021, a family visit to northern New Brunswick resulted in a chance encounter with a resident of Anse-Bleue concerned about a proposed wind energy project in her community.
- As a social scientist, climate activist, and family member, Dr. Louise Comeau was moved to ask, “why do renewable energy projects fail?”
- This question has guided a year-long research project, including in-depth review of relevant academic literature, national focus groups and a survey, and this wind energy case study.

# Locally Owned Renewable Energy Projects that are Small Scale ([LORESS](#)) Program

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- In 2016, the Government of New Brunswick committed to procure 80 megawatts (MW) of power under the Locally Owned Renewable Energy Projects that are Small Scale ([LORESS](#)) Program.
- The announcement followed a [2015 provincial commitment](#) to generate 40 per cent of the province's electricity supply from renewable energy by 2020.
- The province and NB Power issued two calls for [expressions of interest](#) in early [2016 and 2017](#).
  - The first call of 40 MW for Aboriginal businesses (e.g., a band, corporation, not-for-profit, co-operative, proprietorship, or partnership)
  - The second 40 MW for local entities (e.g., community groups, co-operatives, municipalities, or a resident of the province in partnership with a local entity).
- Four projects were awarded power purchase agreements with NB Power in 2017 and 2018. Only two were built. The two indigenous business projects were developed. The northern New Brunswick, Baie des Chaleurs region were not.

# Motivation: Normative: Limit barriers to renewable energy and transmission projects from pace, proportion, people

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## Pace

- Climate policies to reach zero emitting electricity systems in Canada in less than 15 years (2035)

## Proportion

- Electrification modelling suggesting the electricity system will at least double in size to power transportation, homes and businesses

## People

- Canadians' favour renewable energy (wind, sun, water)
- Also oppose new renewable energy and transmission developments causing delays or project cancellation

# Literature Review

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MORE THAN 30 YEARS OF ACADEMIC RESEARCH IS NOT REACHING  
POLICY MAKERS, DEVELOPERS AND CLIMATE ACTIVISTS



# Literature: More than 30 years of evidence

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- Process fairness, participation, and trust can influence acceptance.
  - A planning process that is perceived as “fair” can lead to greater tolerance of the outcome, even if it does not fully satisfy all stakeholders. More participatory processes may increase trust and support, and ongoing post-construction community stewardship should be maintained.
- NIMBY is invalid.
  - The NIMBY explanation has been widely discredited as simplistic, pejorative, politically inappropriate, and unhelpful as a framework to explain public attitudes toward wind facilities both before and after they are built. Nonetheless, use of the term persists among the wind industry, policymakers, even researchers.

# Literature: More than 30 years of evidence

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- Socioeconomic impacts are very important.
  - Local stakeholders are concerned with various socioeconomic impacts...In general, those living near wind facilities want benefits that stay in the local community, and they feel a sense of injustice about bearing the burden of costs when consumption of and profits related to the power are enjoyed elsewhere.
- Sound and visual impacts are strongly tied to annoyance and opposition.
  - Annoyance and opposition related to actual or expected sound and visual impacts are well documented...In some cases, annoyance and other impacts are ignored, downplayed, or assumed to be absent or inconsequential by developers and policymakers, which may exacerbate conflict and distrust among community members.

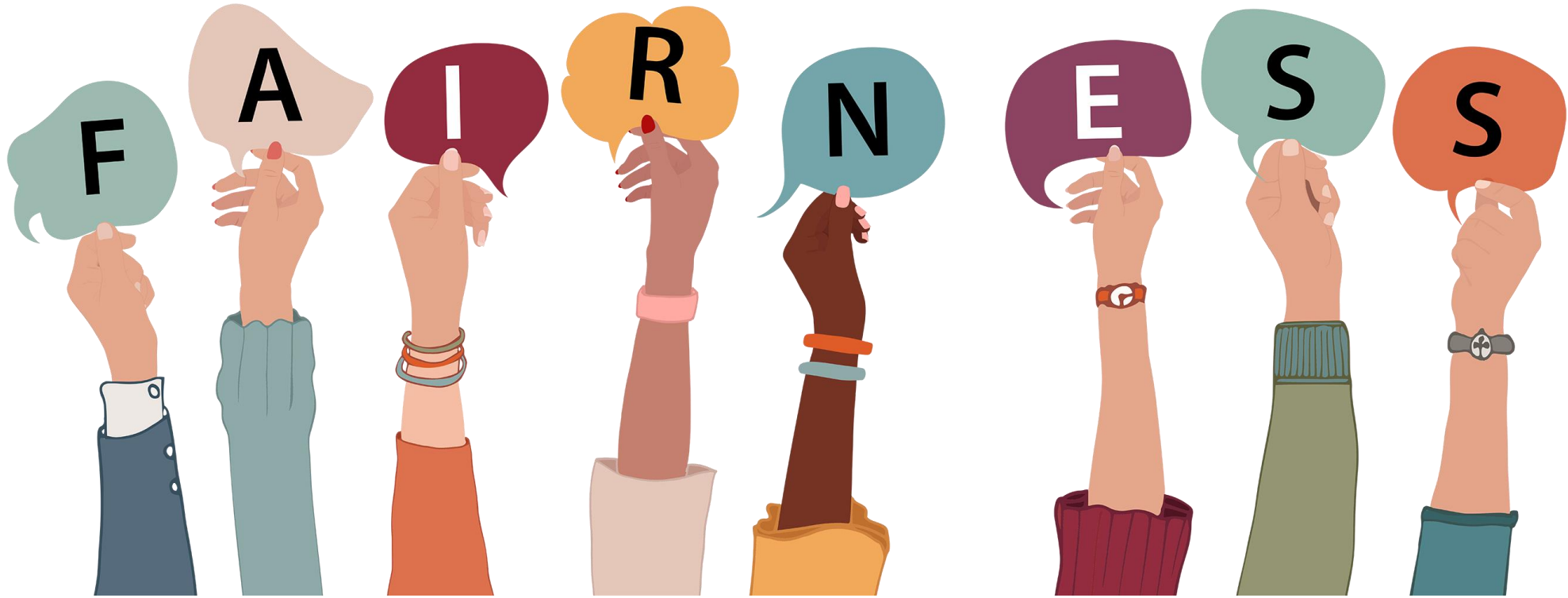


# Literature: Social acceptance framework

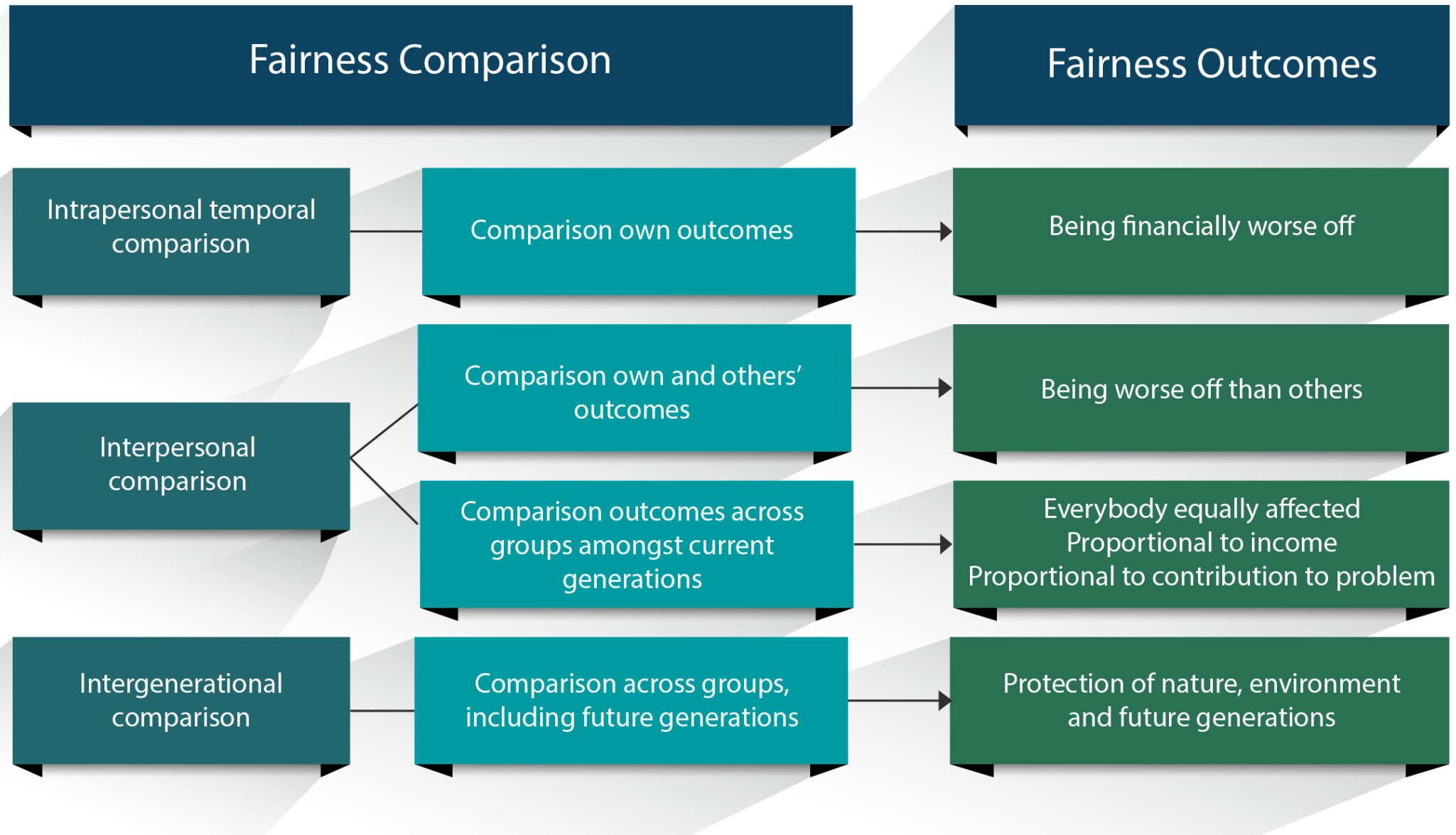
- Three components:
  - Socio-political, market and community acceptance. Socio-political acceptance relates to acceptance of technologies and policies, by the public and key stakeholders and policymakers. The launch of the LORESS program, as well as positive public opinion are examples of socio-political acceptance.
  - Market acceptance relates to acceptance by consumers, investors and markets.
  - Community acceptance relates to citizen perceptions of process fairness (procedural justice), community benefits (distributional justice), and trust. This case study focuses on community acceptance.

Figure 5. The triangle of social acceptance of renewable energy innovation





Recognition, Procedural and Distributive Justice, but  
Fairness to people



Adapted from Schuitema, G., Steg, L., & Kruijing, M. v. (2011). When are transport policies fair and acceptable? *Soc Just Res*, 24, 66-84.

# Wind projects overview

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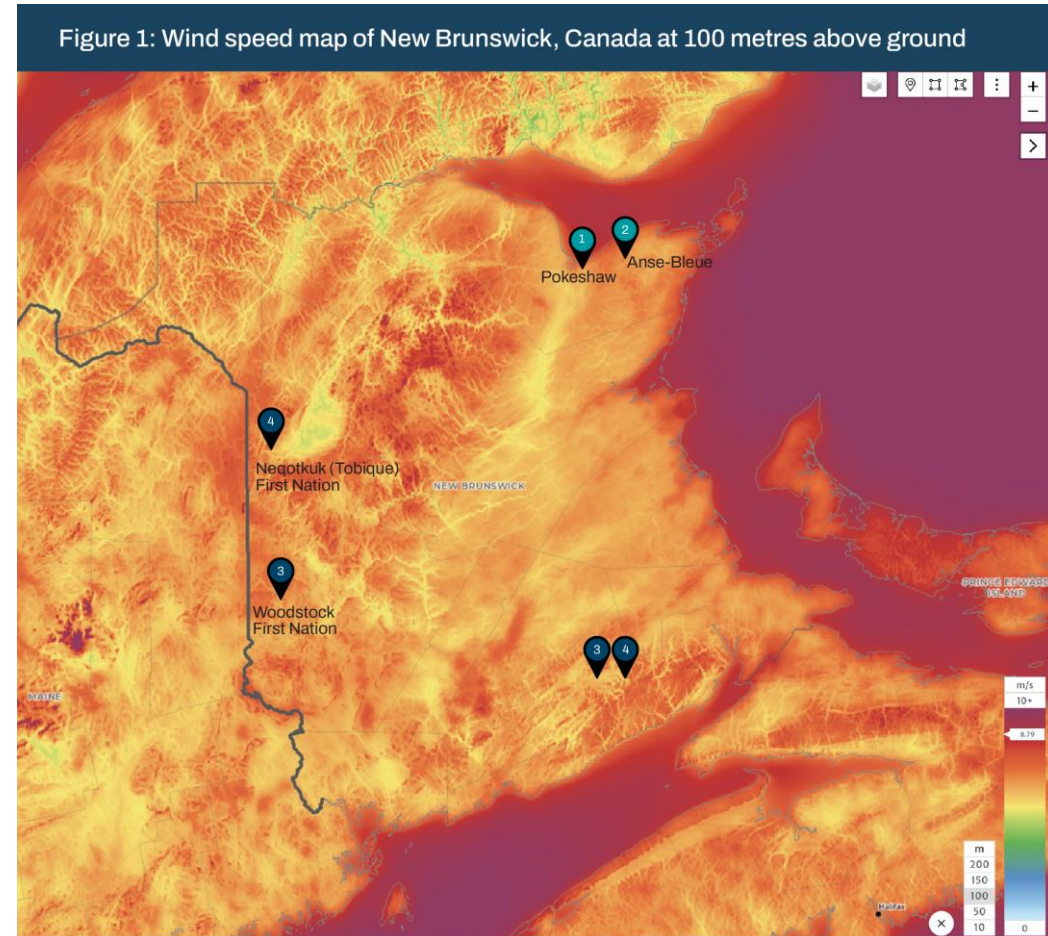
Table 1. Approved LORESS wind development projects

Project Name	<a href="#">Pokeshaw Black Rock Wind Power Project</a>	<a href="#">Anse-Bleue Chaleur Ventus Wind Power Project</a>	<a href="#">Negotkuk First Nation (Tobique) Wocawson Energy Project</a>	<a href="#">Woodstock First Nation Wisokolamson Energy Project (WISK)</a>
Partnership	<a href="#">Pokeshaw Black Rock Community Recreation Council Inc.</a> , (PBRRC) and Halifax-based Community Wind Farms Inc.	Chaleur Ventus Limited Partnership ( <a href="#">Windforce Investment Inc.</a> and the City of Bathurst. Entity: <a href="#">Association Mieux-Etre Bathurst Well-ness Association Inc.</a> ) and Teksuk Management Inc. general partner, a wholly-owned subsidiary of Fredericton-based <a href="#">Naveco Power Inc.</a>	<a href="#">Woodstock First Nation</a> and Halifax-based <a href="#">SWEB Development</a>	<a href="#">Negotkuk</a> (formerly Tobique First Nation) and Halifax-based <a href="#">Natural Forces</a>
Location	Private land approximately 2 km southeast of Pokeshaw, N.B.	Private land south of Route 303 in Anse-Bleue, Gloucester County, N.B.	Crown land south of New Ireland Road, in Albert County, N.B.	Crown land in Cardwell Local Service District approximately 20 km northeast of Sussex, N.B.
Project size	20 MW, five, 4-MW turbines, total height up to 200 metres (m), 2,500m roads upgraded, 2,400 new roads	20 MW, five, 4-MW Enercon turbines, total height up to 200m, rotor diameter 127m	20 MW for Phase 1, with possible additional 20 MW, 6 to 12 Enercon wind turbine generators, a new substation, and the installation of 5.25 kilometres (km) of new 69kV transmission line.	18 MW, five 3.6-MW turbines, total height up to 180m, substation



# Four projects; six locations

- *Northern New Brunswick and the Baie des Chaleurs region, called by some the “Saudi Arabia of wind,” was the location for the proposed Pokeshaw (#1) and Anse-Bleue (#2) wind energy projects.*
- *The Woodstock (#3) and Negotkuk First Nations (#4) are located in western New Brunswick, with the sites of the wind projects about three hours’ drive away.*



# Method

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COMMUNITY AND ZOOM-BASED INTERVIEWS



# Interviews

Table 2. Summary of interview demographics	
Demographics	# of interviews
Anse-Bleue	9
Males	<u>4</u>
Females	5
Citizens	8
Community Leaders	1
Pokeshaw	6
Males	4
Females	2
Citizens	5
Community Leaders	1
Males (total)	8
Females (total)	7
Citizens (total)	13
Community Leaders (total)	2
Developers (total)	4
French (total)	9
English (total)	6
Interviewees (total)	19

# Findings

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# Community concerns

Table 4: Community concerns in Pokeshaw and Anse-Bleue

Environmental	Health	Economic
Birds being killed	Noise	Changing amount received by Recreation Council
Contamination of groundwater	Shadow flicker	Cost of cleaning up wind turbines should anything go wrong
Light impacting squirrels, bats and wildlife	Maintenance, once project is underway	Loss of value of their homes
Lynx population (not explored in EIA)	Groundwater [concerns over concrete being poor in construction phase]	No significant job creation
Marine Fauna (not explored in EIA)	Too close to homes (did not want them that close)	
Earthworms impacted due to vibration (questioned re: a study in Ontario)	Ultrasound, low-frequency sound	

# Findings: Trust, Fairness, Community Benefits

- Trust, fairness and community benefits are central themes in community interviews, consistent with academic research and the Conservation Council's 2022 research.
- Key findings relate to:
  - The power of distrust
  - Missteps in community engagement
  - Failure to consider literacy and language
  - Lack of community entity to negotiate with
  - Inflexibility and lack of involvement from NB Power
  - Unfair distribution of costs and benefits

# Findings: The power of distrust

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- NB Power LORESS solicitation: Competitive
- Developers not required to wait until they had power purchase agreements with NB Power to engage landowners, but did wait
- Failure to engage citizens early, particularly in Anse-Bleue, haunted project to the end
- Developers followed a “*decide-announce-defend*” approach in contrast to “increased consultation, engagement and collaboration,” (Boudet, 2019)

As explained by a developer:

*“There was no guideline about social acceptance, there was no guideline about going in and having time to meet with communities. So, unless you're a very big company, as a developer, you don't have the time, energy resources, or the manpower to be able to say “there is a theoretical project a few years from now, let's go in and do things early...”*”

As a married couple reports:

*“The first time I heard about it was when they held a meeting to announce that they might have wind turbines built. The program was already advanced, they were ready. And I had never heard of any studies or anything.”*

# Findings: The power of distrust

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- Siting was a significant concern in Anse-Bleue, where residents felt the proposed project would be located too close to homes.
- The combination of feeling betrayed and feeling uninformed precipitated the steady decline of resident trust.
- As one female informant from the village noted:  
  
*“I personally am not against wind turbines, and all that. We're there today [that is the technology of our times]. But you know, we were really in shock. We returned [from the first community meeting in Bathurst], then we were really, like, enraged. We were like 30 there. It kind of made sense for a business. It didn't make sense in Anse-Bleue, near houses...”*

# Findings: Missteps in community engagement

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- Informant reports varied significantly on how they were consulted and how they felt about the consultation process
- Some residents, particularly in Pokeshaw, were satisfied with the information shared and community engagement
- Anse-Bleue another case entirely
- Information alone not adequate to satisfy community needs
- Information about a project also must be consistent over time
- When information is not consistent, trust is undermined
- An Anse-Bleue resident noted:  
  
*“Many didn’t trust the information provided since it changed constantly: the prices, the size of the windmills, the megawatts planned, and specifically where the windmills would be located. The places were treated like a secret. Also, the reports and evaluations were not disclosed.”*



# Findings: Failure to consider literacy and language

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- A particular misstep raised in Anse-Bleue interviews by both the developer and community members was that all information and studies were provided to a primarily Francophone community in English.
- Some community members also struggled with literacy in French and required assistance understanding documentation.  
  
*“[The developer] was unilingual Anglophone, while Anse-Bleue was almost unilingual Francophone...How do you want us to form an opinion if we are not able to read the impact study? I have to tell you my concerns, but I am not able to read it?”*
- Developer efforts to recover included:
  - Paying a third-party Francophone lawyer to review documents and explain to landowners considering lease agreements what they were signing on to.
  - Going door-to-door for one-on-one discussions with homeowners within a kilometre buffer area to address concerns.
- Because the developer had paid for the lawyer, this person was not trusted (there were also community trust issues with the community liaison).

# Findings: Lack of community entity

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- Unincorporated communities make it difficult for developers to partner with communities. In Pokeshaw the local partner was a recreation centre and in Anse-Bleue it was the city of Bathurst.
- A developer notes:
  - *“Because it's an unincorporated region of the province, we went through the regional service commission. They said, this is not our area of expertise, or even our area of management. So, there is no assembly or association. You're literally going door-to-door and talking to people [or] speaking to the five people who represent the local service district, the [recreation council], who could then possibly round up other members...It's very hard.”*

# Findings: Inflexibility, lack of involvement from utility

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- Citizens felt that the lack of public commitment by the utility to renewable energy generally through community open houses, for example, undermined their faith in the proposed projects.
- Citizens had questions about why NB Power was not more flexible regarding siting of turbines or timelines to accommodate delays in environmental assessment approvals and supply chain issues due to the COVID-19 pandemic.
- The communications vacuum included a near two-year wait for communities to hear from the utility on whether the Anse-Bleue project would proceed. Only in [June 2022](#), when Conservation Council researchers were conducting community interviews, did NB Power announce the Chaleur Ventus project would not proceed.
- A male informant from Pokeshaw notes:  
*“We couldn't find anything from NB Power. [The utility] just said ‘it's between you and the community,’ but maybe NB Power could have done more to prepare the groundwork for this project...Looking back on it, I think NB Power could have come and met with us and explained a little bit...but NB Power was absent and it's very difficult. And these things in this small community become so personal.”*
- A male from Pokeshaw:  
*“I'm very disappointed, very disappointed with NB Power, I'll tell you that. To not give an extension of nine months to complete a contract where there was going to be a \$40-million investment. And where a company in good faith had already invested about \$3 or \$4-million. It's not very responsible...”*

# Findings: Unfair distribution of costs and benefits

Table 3. Summary of community benefits

Project Name	Pokeshaw <a href="#">Black Rock Wind Power Project</a>	Anse-Bleue <a href="#">Chaleur Ventus Wind Power Project</a>	Negotkuk First Nation (Tobique) <a href="#">Wocawson Energy Project</a>	Woodstock First Nation <a href="#">Wisokolamson Energy Project</a>
Purchase agreement	Power purchase agreement with NB Power	Power purchase agreement with NB Power	30-year power purchase agreement with NB Power	25-year purchase agreement with NB Power
Funding	Payment to the recreational council: \$75,000 per year (from original offer of \$200,000)	Payment to recreational council on an annual basis	Community fund	Community fund
Land leasing	Land leasing agreements for private citizens	Land leasing agreements for private citizens	51 per cent equity partner	Not public
Community Donations	A \$10,000 donation made to the community recreation council in 2007	Tourist booth, ATV and bike trail development, and ongoing trail maintenance if funds allowed	<a href="#">\$800,000 to \$1.2 million/year</a> earnings re-invested in the community infrastructure, including housing and roads	Not public

- A female from Anse-Bleue asks:

*"What also happens is that studies on the impact of wind turbines are really understated. And they don't consider the human impact at all. The impact on animals is greatly minimized, all impacts are minimized. They just want to have money. It's not hard to understand. And that's quite frustrating."*

# Conclusions: Fairness and trust are the currents through which community acceptance flows

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- Interviews were highly emotional
- Interviewees remain agitated almost two years after active project engagement ended. Many informants cried during interviews
- The Anse-Bleue wind developer is taking the City of Bathurst [to court](#) for withdrawing its support for the project
- More inclusive models are needed to increase the potential for community acceptance of renewable energy projects
- Early engagement, and community benefits and equity partnership agreements used as part of indigenous projects by developers should guide best practice for all community-oriented wind energy projects

# Recommendations: 1. Consult early, be flexible

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- Consult host communities early about proposed renewable energy projects
- Provide, where feasible, opportunities to indicate a preference in project siting
- Waiting until power purchase agreements have been secured to consult host communities' leaves residents feeling powerless to influence projects
- Conflict over proposed siting sets off a chain reaction of concern and declining trust
- Developer focus on negotiating landowner leases without community engagement creates community tensions and perceptions of winners and losers

## Recommendations: 2. Utilities, local government, provinces should play a legitimizing and supportive role

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- Project selection criteria should include significant points for early consultation
- Utilities and government can facilitate with up-to-date best practice guidelines relating to siting, community benefits agreements, and community engagement to guide developers and inform host community residents of their options
- A government office of renewable energy could provide general, but also locally and culturally relevant information, best practice guidelines to developers, municipalities, regional service commissions, and citizens, and province-wide geographical and ecological analysis to help developers prepare proposals



# Recommendations: 3. Benchmarks should be set for community benefits

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- Community residents had difficulty evaluating whether community benefits offered by developers were standard practice, and found it difficult to sort through developer hype about potential project benefits and risks
- Hype can lead to scepticism (i.e., *this is too good to be true*) and risk aversion (i.e., *this is too good, it must be risky*), which are difficult beliefs to change once projects are approved or underway. Developers pitch the benefits of working with them and then downgrade the benefits once projects are in motion
- Government should publish, and regularly update, best practice community benefits guidelines and consider host community compensation options like utility bill rebates

# Recommendations: 4. Address misinformation relating to renewable energy developments

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- Misinformation is often the result of distrust
- Concerns raised may not be resolved through information alone (e.g., on effects on property values or groundwater and surface water during construction or other misinformation)
- Where information is not conclusive, the precautionary principle should apply
- It is important to offer unbiased information to communities. A provincial renewable energy office could serve this function. Provincial organizations, community and environmental groups could also be funded to provide educational and information services



## VIDEO SUMMARY OF WHAT CCNB LEARNED

# Discussion

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THIS CASE STUDY IS THE RESULT OF A TEAM EFFORT, INCLUDING LOUISE COMEAU, ELIZABETH GRESH, LOUIS-CHARLES VAILLANCOURT AND CECILIA PEREZ PLANCART. GRAPHIC DESIGN AND COMMUNICATIONS SUPPORT PROVIDED BY STACY HOWROYD, JON MACNEILL AND COREY ROBICHAUD.