

Response to the Environmental Impact Assessment of the Centre Village Renewables Integration and Grid Security Project

To:

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#### Introduction

The Conservation Council of New Brunswick (CCNB) appreciates the opportunity to comment on the Environmental Impact Assessment (EIA) for the proposed 500 MW Centre Village Renewables Integration and Grid Security Project (a dual-fuel gas plant with diesel backup in Centre Village, Tantramar). CCNB is dedicated to protecting New Brunswick's environment and advancing sustainable, low-carbon energy solutions. After careful review, we oppose this project. It poses unacceptable climate and ecological risks, lacks crucial information (e.g. fuel sourcing, efficiency, and mitigations), and undermines New Brunswick's clean energy transition goals. Importantly, the EIA fails to assess how this privately owned facility could operate beyond NB Power's needs (including the potential to run at full capacity for power export) despite New Brunswickers bearing all the environmental and health impacts. In our view, a more thorough EIA and exploration of better alternatives is needed before any approval is considered. Below, we detail our concerns — from climate impacts and wetland destruction to community risks — and highlight cleaner, modern alternatives that render this fossil fuel project unnecessary.

# Climate Impacts and Fossil Fuel Lock-In

**Inefficient Technology Choice:** Notably, the proponent chose simple-cycle combustion turbines (for fast starts) instead of modern high-efficiency combined-cycle units. Simple gas turbines like the <u>GE LM6000</u> (which WattBridge/PROENERGY often deploy) achieve only ~39-41% thermal efficiency. In contrast, <u>combined-cycle plants can exceed 60% efficiency</u>, cutting fuel burn and CO<sub>2</sub> per MWh. If, for the sake of argument, NB *needed* new gas for

reliability, it should insist on best-available technology. Instead we face a plant that is 20+ percentage points less efficient than modern standards - meaning unnecessarily higher emissions and fuel costs whenever it runs. This inefficiency highlights that the project is a short-term patch, not a forward-looking investment. Fast-start aeroderivative turbines may provide quick ramping, but emerging solutions (batteries, grid upgrades - see below) can fulfill that role without locking in decades of fuel waste and GHG pollution.

Potential Export Risks Not Addressed in EIA: While the EIA repeatedly frames the project as serving NB Power's reliability needs, it fails to analyze the full operational and market flexibility afforded to the facility's private owner, WattBridge/PROENERGY. As a privately owned asset operating under a long-term PPA, the proponent could-in theory or practice-sell surplus electricity to other provinces or U.S. markets via interties, particularly if NB Power's demand is low. The EIA does not explicitly rule this out, nor does it assess the emissions or ecological risks of such full-time, export-oriented operation. This omission creates a major accountability gap: New Brunswickers would bear the environmental, health, and climate costs of the facility (e.g., air pollution, GHGs, wetland destruction) while other jurisdictions potentially benefit from the exported power. This further undermines the credibility of the EIA's emissions "net reduction" claims, which are modeled solely on displacement within NB's grid. Any approval process must require clarity on market participation rules, export constraints, and enforceable operational limits - none of which are currently included in the EIA documentation.

**Incompatible with Climate Targets:** New Brunswick has committed to a net-zero electricity grid by 2035, in line with federal policy (<u>Clean Electricity Regulations</u>). <u>NB Power</u> itself intends to achieve net zero by 2035. Approving a 500 MW fossil-fueled power plant that would operate into the 2050s blatantly conflicts with these goals. It risks locking in carbon-intensive infrastructure for 25+ years, far beyond the timeframe science says power systems must decarbonize. By 2035, unabated gas plants will face stringent federal regulations or forced phase-out. This proposal thus either becomes a stranded asset or undermines our climate commitments.

**High Greenhouse Gas (GHG) Emissions:** The EIA's own figures indicate the plant could emit hundreds of thousands of tonnes of CO₂ per year. Even the proponent's "net system reduction" claim of −250,000 tonnes/year (by displacing coal/diesel) is misleading. That assumes other units are actually shut down, which NB Power has not guaranteed. In reality, if this plant runs frequently (a "stress test" scenario), annual emissions could approach 0.5–0.9 million tonnes − effectively erasing progress in provincial emissions reductions. For context, New Brunswick's total emissions rose by ~500,000 t from 2021 to 2022 largely due to increased fossil generation. This single project could duplicate that rise, negating gains from renewables or efficiency.

"Bridge Fuel" Rhetoric vs. Reality: The proponent presents this gas plant as an "interim" solution to integrate renewables - framing methane gas as a "clean-burning" bridge away from coal. CCNB urges regulators to reject this greenwashing. Leading climate research finds that without strict policies, expanded natural gas use worsens global warming, not mitigates it. Any "bridge" role for gas must be very short-term to avoid further climate disasters such as the rapid increase in Canadian wildfires. Yet this project's bridge stretches to 2053, well past when Canada needs near-zero grid emissions. Moreover, methane leakage throughout the gas supply

chain makes fracked gas far from clean - methane has over 80× the warming power of CO<sub>2</sub> in the short term. As local MLA Megan Mitton aptly noted, "hydraulic fracking gas is neither renewable nor clean". Relying on it for decades would crowd out investment in truly renewable energy and saddle NB ratepayers with emissions-intensive power instead of zero-carbon solutions.

**Net Emissions "Reduction" Is Unsubstantiated:** The EIA suggests the plant will displace "heavier GHG generators" (like coal) and thus cut overall emissions. However, there is no enforceable commitment to retire an equivalent amount of coal or oil capacity if this gas plant proceeds. NB's lone coal station at Belledune must retire by 2030 regardless of this project. In absence of a firm shutdown plan, adding a new fossil plant could simply increase total generation and emissions. At best, it might marginally lower NB Power's emissions intensity while prolonging the life of other fossil units. Claiming credit for hypothetical reductions - without binding guarantees - is misleading. Real climate leadership would invest in carbon-free capacity to replace coal, rather than another emitter.

## **Ecological Destruction and Biodiversity Risk**

Sensitive Location - Chignecto Isthmus: The project site lies in the Chignecto Isthmus, the narrow land bridge between New Brunswick and Nova Scotia. This region is widely recognized as a critical wildlife corridor and migratory bottleneck connecting ecosystems of the Maritimes to the mainland. Any large-scale industrial development here endangers that ecological connectivity. The proponent's documentation barely acknowledges the significance of this location, yet conservation experts and even the Government of New Brunswick have identified the area as crucial for biodiversity at regional and national scales. CCNB is deeply concerned that siting a noisy, illuminated power plant (with flaring stacks) in this corridor will create a barrier to wildlife movement and degrade habitat quality across a much broader area than the footprint.

Habitat Loss (Wetlands and Forest): The project will clear or alter approximately 14 hectares of land, including wetlands and Acadian forest stands that serve as important wildlife habitat (a ~50-acre development area). Wetland complexes on site provide valuable ecosystem services - carbon sequestration, water filtration, flood mitigation - and support rich biodiversity. Destruction or infilling of these wetlands is effectively irreversible; created "offset" wetlands rarely replicate the function of natural ones. Moreover, losing wetlands and forest means losing carbon sinks, a double climate hit when combined with the facility's emissions. The proponent has not demonstrated that wetland impacts have been minimized or adequately compensated - in fact, local observers note that sensitive wetlands are directly threatened by this plan.

**Species at Risk in Project Area:** Field studies for the EIA identified numerous species of conservation concern on or near the site. At least nine bird species at risk (SAR) are present, including federally-listed Threatened species such as the Common Nighthawk, Olive-sided Flycatcher, Barn Swallow, Bobolink, and Bank Swallow, as well as the Special Concern Rusty Blackbird, among others. These birds rely on the Isthmus habitats for breeding or migratory

stopovers. The black ash tree, recently listed as Threatened, also inhabits local wetlands. The project will destroy or fragment portions of these species' habitat, which could be devastating given their already-vulnerable populations. For example, clearing forest and wet meadows could eliminate breeding sites for nighthawks and bobolinks, while increased traffic on new access roads heightens collision risks for low-flying species. Habitat fragmentation also introduces edge effects (e.g. predators, invasive species) that degrade what habitat remains. CCNB finds the EIA's mitigation proposals for SAR impacts to be weak, seasonal clearing restrictions alone are not sufficient. No amount of mitigation can fully replace lost habitat in such an ecologically strategic location.

Flaring and Nocturnal Bird Mortality: We are alarmed by the risk of bird kills due to flaring and lighting at the plant. Migratory birds navigate by moonlight and starlight; bright artificial lights and flame plumes can disorient them, especially in fog or low cloud. In one infamous 2013 event, a flare at the Canaport LNG facility in Saint John caused the death of approximately 7,500 songbirds in a single night. The proposed diesel/gas plant will likely include pressure-relief flaring systems (especially to manage the two on-site diesel tanks). Given the huge migratory bird populations funneling through the Isthmus, even one flaring episode at the wrong time could replicate the Canaport tragedy. Continuous stack lighting and aircraft warning lights pose additional collision hazards for night-migrating birds and bats. The proponent has not provided a robust plan to prevent or minimize these risks (e.g. flare shields, targeted shutdowns during migration peaks, bird-friendly lighting technology). This omission is unacceptable under federal Migratory Birds Convention Act obligations. Preventing mass mortality events should be a baseline requirement if this project proceeds at all.

Noise, Vibration, and Disturbance: The construction and operation of the plant will introduce significant noise and human activity into a relatively tranquil rural area. Blasting, pile-driving, and heavy machinery during construction could disrupt breeding of sensitive species (e.g. ground-nesting birds) well beyond the immediate footprint. Once operational, turbine noise (potentially 100 dB+ near the source) and low-frequency vibrations could interfere with wildlife communication, feeding, and movement. Such disturbances are known to cause displacement of species from otherwise suitable habitat, effectively enlarging the project's impact zone. The EIA should have included an assessment of noise impacts on wildlife (e.g. for birds that rely on song/call for mating and territory). We see no evidence of such analysis. It is dubious to assume wildlife will simply "get used to" a peaking power station that starts and stops unpredictably, many species will likely abandon the area, to their detriment and the ecosystem's.

In summary, the project as proposed would impose *significant*, *foreseeable*, *and inadequately mitigated harm* to the Chignecto Isthmus ecosystem. It threatens to sever a key wildlife corridor and further imperil species already at risk of extinction. This location is too ecologically important for such development. We urge that, at minimum, a comprehensive regional biodiversity study and corridor protection plan be completed *before* any decisions, so that the full scope of ecological impacts is understood. To do otherwise would contravene the precautionary principle and Canada's commitments under the <u>Species at Risk Act</u>.

#### Water and Aquifer Risks

Massive Groundwater Extraction: The proposed facility would consume an enormous volume of water for its operations (turbine inlet cooling, steam injection, demineralization, etc.). EIA figures show needs of up to 7,000 m³ per day (≈5,000 L/min) of groundwater. Such a draw is orders of magnitude above typical local usage - for comparison, an average NB household uses only 0.243 m³ per day. Withdrawing 7,000 m³ daily from the local aquifer could deplete groundwater levels, especially during dry seasons. Nearby wells (residential and farm wells in Centre Village and surrounding communities) may experience reduced yield or even go dry. The Tantramar region has no surplus aquifer capacity studies to assure this extraction is sustainable. It is troubling that the project triggers the requirement for a provincial Water Supply Source Assessment (due to exceeding 50 m³/day), yet the EIA offers no detailed hydrogeological modeling of aquifer recharge vs. drawdown under various scenarios. CCNB believes this level of groundwater use is unsupportable without risking other water users and ecosystems.

Impacts to Wetlands and Streams: Pumping groundwater at 5,000 L/min may also reduce base flows to wetlands, streams, and springs that depend on the water table. Wetland habitats downgradient from the site could dry out or experience vegetation shifts if the water table drops. This compounds the direct loss of wetlands mentioned earlier. It is well documented that over-pumping groundwater can cause wetland desiccation and soil subsidence. The proponent has not committed to a sustainable yield limit or a monitoring plan that would halt pumping if environmental flow thresholds are exceeded. Granting a water-taking permit of this magnitude without such safeguards and analysis would be irresponsible. We need to ensure water security for both people and nature in the region before allocating millions of litres per day to a power plant.

Water Discharge and Quality Risks: The project design includes on-site water treatment systems (e.g. reverse osmosis and deionization units) to purify feedwater. These processes will produce a continuous stream of reject water (brine). The EIA indicates that wastewater may be discharged to a nearby wetland or drainage ditch after some neutralization. We are concerned that this effluent could contain contaminants or have altered chemistry (e.g. high TDS, temperature, or chemical additives). Even "clean" RO reject can be significantly above natural freshwater salinity. If released to wetlands, it could harm amphibians, plants, and invertebrates sensitive to water quality changes. There is also a risk of thermal pollution if turbine cooling water is discharged while hot. The EIA does not provide details on effluent parameters and how they will meet environmental protection standards. A conceptual water management plan with defined discharge limits, treatment steps, and receiving water studies are lacking. Without them, one cannot conclude the wetlands and watercourses won't be negatively impacted.

**Spill and Contamination Hazards:** The facility will store and handle large quantities of hazardous materials: diesel fuel (likely >11 million liters on-site in two ULSD storage tanks), lube oils, water treatment chemicals, etc. An accident or spill - whether a tank rupture, pipe leak, or overflow – could be catastrophic for soil and water. <u>Diesel is hard to clean up</u> in wetlands/groundwater, and even a few thousand liters can contaminate wells and kill aquatic

life. The proponent has not provided a detailed emergency response and spill containment pla. Vague assurances of "industry-standard containment" are insufficient. After 25 years in service, fuel tanks often corrode or leak, and the risk grows if oversight is lax under a private operator. CCNB urges that robust emergency plans and third-party risk assessments be required, and the proponent should demonstrate they can effectively protect the environment (and nearby residents) from worst-case spill scenarios. At present, this is another information gap.

The project as proposed poses a multi-faceted threat to water resources: *overuse of groundwater, pollution of surface water, and spill hazards*. These concerns are exacerbated by the fact that the region's water is a shared and finite resource, and climate change is expected to increase drought stress on aquifers. CCNB recommends that, if the project proceeds to a next phase, a comprehensive water sustainability analysis be mandatory. This should include hydrogeological modeling, real-time monitoring commitments, stringent discharge criteria (with treatment upgrades if needed), and ironclad spill prevention/response measures. Absent such steps, the risk to New Brunswick's waters - and by extension to public health, farms, and ecosystems - is simply too high.

## **Socioeconomic and Community Concerns**

Lack of Early Consultation: It is troubling that the local municipal government and area residents first learned of this project through the media, *after* NB Power had already inked the development deal. The <u>Town of Tantramar's Mayor</u> has stated it is "incredibly unacceptable" that no prior briefing or consultation occurred. This flies in the face of good planning practice and community engagement – especially for a project of this magnitude (the largest generation addition in NB in decades). Holding the initial federal EIA comment period in midsummer with minimal notice has further fueled public distrust. Meaningful engagement and consent are not bureaucratic hoops; they are essential to obtain a social license.

Private Profits, Public Risk: Another aspect of concern is the project's business model. Rather than NB Power building a public asset, the facility will be privately owned and operated by a U.S.-based company (WattBridge/PROENERGY) under a 25-year Power Purchase Agreement (PPA). Such arrangements can lock ratepayers into paying for expensive power regardless of future market changes. If renewable energy or storage becomes far cheaper, NB Power could be locked into overpaying for gas-fired electricity, with those extra costs passed to consumers. Moreover, with a private operator, accountability and transparency are reduced, NB Power would not have operational control, yet would depend on the plant for grid security. If the plant underperforms or experiences outages, New Brunswickers still foot the bill, but without the recourse they'd have if this were a publicly owned Crown utility asset.

Crucially, while the EIA frames this plant as being built for NB Power, it does not restrict or analyze the plant's ability to sell power to other jurisdictions. This means that NB Power may not even use the plant at full capacity, yet the facility could still operate continuously, exporting power to other provinces or U.S. markets if profitable to do so. This opens the door to a troubling scenario: New Brunswickers bear all the environmental, climate, and health impacts of

hosting this fossil-fueled infrastructure (including wetland loss, air pollution, and GHG emissions) while a private U.S.-based company profits from selling electricity outside the province. There is no evidence in the EIA of a binding operational limit tied to NB's demand or decarbonization goals. In this way, the premise of the EIA appears flawed: it evaluates the project only as a reliability asset for NB Power, rather than a commercially flexible power plant with the capacity to run near-continuously for profit, regardless of local energy needs.

We also note the irony that while <u>NB maintains a moratorium on fracking</u> to protect its environment, this project effectively outsources fracking impacts to other jurisdictions, most likely through imported U.S. shale gas via the Maritimes & Northeast Pipeline. New Brunswickers are thus asked to accept the local pollution and long-term ecological disruption, while the profits, control, and upstream damage occur elsewhere. This raises serious questions about whether this PPA serves the public interest, and whether public ownership of renewable assets would deliver better long-term value, economic returns, and energy sovereignty for the province.

**Future Expansion or Prolongation:** We are also mindful that once infrastructure like this is built, there is a tendency to expand or keep it running beyond original plans. The proponent has dangled the idea that the gas turbines could be converted to burn hydrogen in the future, to assuage climate concerns. In reality, there is no green hydrogen supply remotely on the horizon in NB to fuel a 500 MW plant - this claim is speculative at best, and more likely a form of "greenwashing" to justify a fossil project. If the plant is built, NB Power may later seek to expand its use (e.g. run as baseload if gas prices drop, or add more generator units on site) since the capital is sunk - leading to higher emissions than initially promised. There is also the risk that meeting our 2035 net-zero grid mandate could require retrofitting this plant with carbon capture or costly hydrogen, at great expense to taxpayers/ratepayers. In summary, locking into this gas plant now introduces long-term risks of either expensive retrofits, non-compliance with climate laws, or project abandonment - all outcomes where the public loses. A prudent path is to avoid the lock-in altogether by choosing non-fossil solutions from the start.

## **Additional Risks and Underplayed Impacts**

Air Pollution and Health: While climate emissions get attention, we must not overlook classic air pollutants from gas/diesel combustion. This plant will emit nitrogen oxides (NOx), carbon monoxide, particulate matter, and volatile organic compounds (VOCs). When running on ultra-low sulfur diesel (ULSD) during gas supply disruptions or peaks, emissions of SO<sub>2</sub> and particulates will spike (diesel exhaust is a known respiratory hazard and carcinogen). NOx from gas turbines can also lead to ozone formation downwind in hot weather. The rural location does not eliminate human exposure – nearby residents and workers could be affected, and pollutants can travel. Yet the EIA provides no detailed air dispersion modeling. We find this a serious omission, as any peaking plant will at times operate at full throttle under atmospheric conditions (stagnant cold air, etc.) that could concentrate pollution. A proper assessment should model worst-case 1-hour NO<sub>2</sub> and PM<sub>2</sub>.5 levels at the fenceline and nearest homes, and compare to health-based standards. No such data is presented. We urge that a refined air quality modeling be required, along with consideration of the project's contribution to NB's airshed in combination with other emitters.

Greenhouse Gas Accounting: Another underplayed aspect is the full lifecycle GHG footprint. The EIA focuses on stack emissions at the plant, but upstream emissions (especially methane leaks during gas production and pipeline transport) are significant. Gas from U.S. shale plays has a higher lifecycle GHG intensity than conventional gas, due to venting and flaring at wells. Analyses have shown that when methane leakage exceeds just a few percent, gas's climate advantage over coal largely disappears. If this plant uses Marcellus shale gas, the upstream methane could add 20–40% more CO<sub>2</sub>-equivalent on top of the combustion emissions. None of this appears to be accounted for in the project's climate impact claim. CCNB recommends the assessment incorporate Scope 3 GHG emissions, including gas production, processing, and transmission, to fully understand the climate implications. New Brunswick should not offshore its environmental impact to Pennsylvania or Alberta; the true carbon cost must be acknowledged when weighing this project against alternatives.

Fire and Safety Concerns: The presence of two 5.5 million-liter diesel tanks (total ~11 million liters fuel) on site presents a major fire and explosion hazard. A failure of the containment or a boilover fire could endanger plant personnel and first responders, and send toxic smoke over the community. We did not see a detailed Fire Prevention Plan or coordination with local fire services in the EIA. The proponent must be required to have world-class fire suppression systems and emergency plans, and to consult with local emergency measures organizations. Additionally, the plant's high-voltage switchyard and gas compressors carry some risk of accidents (arc flash, pipeline rupture). While modern plants are generally safe, the consequences of low-probability events could be severe. Thus, transparency in risk planning is essential. We encourage regulators to demand a publicly available Emergency Response and Hazard Mitigation Plan as a condition for any approval.

In summary of our opposition: the project, as currently described, raises too many red flags across environmental, social, and economic dimensions. The EIA does not provide the necessary information or assurances to conclude that these impacts can or will be mitigated to acceptable levels. On the contrary, evidence suggests the project would undermine NB's climate goals, harm sensitive ecosystems, strain water resources, and expose nearby communities to

unwanted risks and costs. It is, in our view, *not the best solution* for New Brunswick's energy needs in 2025 and beyond. Fortunately, cleaner and more sustainable alternatives are available – and these should be thoroughly examined in lieu of proceeding with the gas plant.

#### **Conclusion and Recommendation**

In conclusion, the Conservation Council of New Brunswick urges regulators and government authorities to reject the Centre Village gas plant proposal as it currently stands, or at the very least require a far more comprehensive assessment. The project has not demonstrated an overriding necessity or net benefit that would justify its substantial environmental and climate harms. On the contrary, evidence suggests it would:

- Undermine NB's climate objectives by adding major new GHG emissions sources through 2053, contrary to the 2030 coal phase-out and 2035 net-zero electricity goal.
   The notion of a "clean energy bridge" via gas is not supported by climate science or real emissions data.
- Cause significant ecological damage in one of Atlantic Canada's most sensitive ecological corridors, fragmenting wetlands and forests that host numerous species at risk. The risk to migratory birds from flaring and lights is especially unacceptable given known mass mortality events.
- Put water resources at risk, both through unsustainable groundwater extraction and potential pollution from wastewater and fuel spills. The proponent has not shown that our aquifers and waterways will be safe in the long run.
- Impact local communities who have thus far been sidelined in the process. Residents of Tantramar and Indigenous partners deserve full transparency, health impact analysis, and a say in their energy future - not a decision made over a summer holiday with minimal consultation.
- Lock New Brunswick into a 20th-century solution with declining relevance. As renewable
  and storage technologies advance, this plant could become an albatross either running
  on expensive fuel and undermining climate policy, or sitting idle while ratepayers still pay
  capacity fees. It is a high-regret investment in a world rapidly transitioning to net-zero
  energy.

CCNB respectfully recommends that the reviewing agencies and the Minister *refrain from approving* the EIA at this time, as the current documentation lacks sufficient information and clarity to enable a comprehensive and evidence-based assessment. Until critical gaps (including emissions modelling, fuel sourcing, ecological impacts, and market operations) are addressed, the proposal remains incomplete and cannot be adequately reviewed. We request:

- A full analysis of alternatives (as outlined above) be required, demonstrating whether non-fossil options could meet the identified capacity need at comparable cost and reliability. The current EIA is deficient for not rigorously exploring this.
- Clarification of operational scope and export potential: The proponent must clearly disclose whether the facility could operate beyond NB Power's needs, including the

possibility of selling electricity to other provinces or U.S. markets. As currently written, the EIA treats the project as a reliability tool for NB Power, yet no binding constraints appear to limit operation or exports. If the plant is allowed to run at high capacity for commercial gain, New Brunswickers would assume the environmental, health, and climate burdens while the benefits (and profits) accrue elsewhere. Regulators must require a detailed operations and offtake plan, including firm limits, before the project can be credibly assessed.

- A comprehensive climate test for the project, including lifecycle GHG accounting and consistency with Canada's climate laws. Projects that "bake in" emissions past 2035 should receive the highest scrutiny.
- Much stronger environmental studies: independent wetlands delineation and compensation plan, wildlife surveys over all four seasons, bird migration monitoring, noise modeling, air quality modeling, and cumulative effects on the Chignecto Isthmus at an ecosystem level. The proponent should also detail mitigation measures (e.g. bird-friendly lighting, habitat offsets) and their efficacy, not just identify impacts.
- Community impact assessments and genuine consultation: extend the comment periods, hold additional public meetings (with plain-language summaries), and consult Tantramar officials and First Nations openly. Social license cannot be assumed; it must be earned through engagement and trust-building.
- Contingency and monitoring plans: If, despite our concerns, the project proceeds, it must be held to the highest standards. That means binding conditions for groundwater monitoring, restrictions on wetland work, no-clearing timing windows (to protect nesting season), real-time bird deterrents and shutdown protocols during migrations, and robust emergency response plans for spills/fires. An environmental monitoring committee with Indigenous and community representation should oversee compliance throughout construction and operation.

At this pivotal time, New Brunswick should be investing in the future, not the past. We stand at a crossroads: one path extends our dependence on fossil fuels, sacrificing irreplaceable natural heritage in the process; the other path embraces innovation in clean energy and conservation, protecting our environment while building a resilient economy. The Centre Village gas plant represents the former, a short-sighted attempt to solve a problem in a way that creates bigger problems down the road. CCNB firmly believes New Brunswick can do better. By pursuing the alternative strategies outlined, we can ensure reliable power and meet our climate and ecological responsibilities. It is a false choice to say we must accept environmental harm to keep the lights on.

We urge the regulators to apply a precautionary approach. The stakes, our climate, our wetlands and wildlife, our communities' well-being, are simply too high to rush into this project as proposed. There is still time to choose a cleaner, sustainable path for New Brunswick's electricity future.

Thank you for considering our comments. We trust that the final decision on this EIA will reflect the need to safeguard New Brunswick's natural heritage and climate for current and future generations.

Sincerely,
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#### Appendix: Better Alternatives Exist: Modern Solutions for Grid Reliability

Technology / Solution	Typical Capacity Scale (MW)	Dispatchability (Control & Duration)	GHG Profile (Operational)	Readiness by 2028	Cost (Capital or LCOE)	Notable Examples
Lithium-ion Battery Storage	10–300 MW per project (modular to >1000 MW with multiples)	Yes – fast response; duration 0.5–6 hours typical (longer requires more capacity). Best for short peak shaving and ancillary services.	Zero direct emissions (Some lifecycle manufacturing CO <sub>2</sub> but negligible per MWh). Replaces/avoids fossil peaking generation.	Mature now. Large systems operating and under construction in Canada. Can deploy within 1–2 years.	~\$1,000–1,500/kW for 4-hour systems (cost falling rapidly); LCOE ~\$100–200/MWh for peak duty, dropping.	Oneida Energy Storage (ON, 250 MW/1000 MWh, online 2025); Enfinite BESS fleet (AB, multiple ~20 MW units).
Flow Battery Storage	5–50 MW (scalable via module addition; energy duration 6–12h or more)	Yes – dispatchable for longer durations (8h+), though slower ramp than li-ion. Good for daily shifting.	Zero emissions (Some lifecycle manufacturing CO <sub>2</sub> but negligible per MWh). No fuel use; non-toxic fluids. Long life cycling without degradation.	Emerging by 2030. Pilots in place (few MW scale). Likely commercially viable for >4h needs by late 2020s.	~\$3,000–5,000/kW (current est.), but 20-30 year life. LCOE could be <\$150/MWh by 2030.	Chappice Lake solar+flow battery (AB, 2–4 MW, 8.4 MWh); Oxford Superhub (UK, 5 MW/10 MWh vanadium).
Compressed Air Storage (CAES)	50–300 MW (with large cavern; smaller modular CAES 5–10 MW units emerging)	Yes – dispatchable; start in minutes. Long duration (8–24h) if reservoir large. Some variants need small gas burn (if not adiabatic).	Low/zero emissions. Adiabatic CAES: no fuel burn (just electricity input). Conventional CAES: small gas use (~½ of a turbine's CO₂ per MWh).	Early stage but progressing. First 1.75 MW built in ON. 2 large CAES projects proposed in Canada. Could be viable by ~2030 with funding (especially if salt caverns available in NB).	Est. ~\$1,500–2,500/kW. LCOE potentially ~\$100–150/MWh (adiabatic) depending on off-peak power cost. Fuel-cost if any for reheating in conventional CAES. Long lifespan similar to power plants.	Goderich A-CAES (ON, 1.75 MW demo); Hydrostor's Planned Willow Ridge (CA, USA, 500 MW) and AB project (500 MW) in development. Two existing plants: Huntorf, Germany (290 MW); McIntosh, Alabama (110 MW).
Onshore Wind Power	Typically 50–300 MW per wind farm	Partly – wind output varies with wind	Zero direct emissions. Some lifecycle	Mature and fastest to deploy. Many	Capital ~\$1,500–\$1,800/kW.	Caribou Wind (NB, 45 MW); Western

(with potential storage)	(dozens of turbines). Regional potential in Atlantic is several GW.	resource; not controllable to increase on demand. Dispatch-limited: can curtail if excess, but needs backup for deficits. When paired with storage, combined output can be shaped to some extent.	manufacturing CO <sub>2</sub> but negligible per MWh. Displaces fossil generation when wind blowing. No fuel combustion.	projects in pipeline. NB/NS adding >500 MW by 2030 collectively. Can be built within ~2 years once permitted. High resource availability in NB/NS (capacity factors ~30–40%).	LCOE ~\$40–\$80/MWh (very competitive). Cheapest energy source in region. However, capacity credit is low (~10–30% of nameplate) at high penetration, so must invest in storage/backup too.	Valley Wind (NB, 42 MW under construction); multiple new NS wind farms (e.g. Higgins Mountain 100 MW). PEI's wind supplying ~30% of its energy. US Maine has >900 MW wind. All demonstrate viability in similar climates.
Solar PV Power (utility-scale, with batteries)	5–100 MW per solar farm typical (can aggregate for more). Rooftop/communit y solar in kW to MW scale contributes too.	No (intermittent) – available only when sunny (none at night). Predictable daily pattern. With battery storage, can dispatch some of output into evening peak, improving dispatchability.	Zero emissions in operation (Some lifecycle manufacturing CO <sub>2</sub> but negligible per MWh). Manufacturing footprint for panels, but clean during use. Reduces fossil generation in daytime.	Mature tech, costs sharply down. Fewer built in NB so far, but many in Western Canada. Possible to develop quickly (months). By 2028 likely a bigger role as costs drop. However, winter output is lower (short days, snow cover).	Capital ~\$1,000-\$1,300/kW. LCOE in NB est. \$70-\$120/MWh (higher than wind due to lower capacity factor). With storage, combined LCOE a bit higher but adds firming (e.g. solar+4h battery ~\$100/MWh). Qualifies for federal incentives (ITC).	Bas-Caraquet Solar (NB, 1 MW demo); Amherst Solar (NS, 13 MW planned); Alberta's Travers Solar (465 MW) for scale reference. Chappice Lake (AB, 21 MW PV + flow battery). Many global examples of solar+storage (USA, Australia islands, etc.).
Offshore Wind (future potential)	Single turbines 8–15 MW; farms often 100–500 MW. Atlantic Canada technical	Similar to onshore wind – variable with wind availability. Tends to be steadier and higher capacity	Zero emissions in operation. Higher build emissions (offshore construction) but negligible per MWh	Proven in Europe, just starting in North America (first US projects 2024). NS	Expensive upfront: ~\$4,000+/kW currently. LCOE ~\$100/MWh (expected to fall).	Vineyard Wind (US, 800 MW, underway), UK North Sea projects (e.g. Hornsea, 1.2

	potential huge (GW-scale).	factor (~45%). Can be somewhat forecasted day-ahead. Needs integration with storage/other sources for full dispatchability.	given high energy yield.	targeting leases by 2030 (likely first power early 2030s). Not a near-term (2028) solution for NB, but by mid-2030s could contribute major renewable firm power (especially if paired with hydrogen production).	Large infrastructure but long life (25+ years). Good capacity credit (~50% of nameplate often counted for peak in some systems).	GW). Equinor/BNDF exploring NL offshore wind for hydrogen. A future option for Atlantic reliability.
Energy Efficiency (EE)	Has already reduced peak by 100s of MW over years in many provinces. Incremental EE can cut a few percent of load (tens of MW) per year with strong programs.	N/A (not dispatchable, but permanently lowers demand curve). Indirectly reduces need for generation at all times, including peaks.	N/A (emission reduction via avoided generation). One of the cheapest ways to abate emissions – first resource in IRPs.	Very active – NB and NS have ongoing efficiency programs. By 2028, improved building codes, retrofits, efficient appliances & HVAC can significantly dampen demand growth.	Cost: negative or low – many EE measures pay back over time. Utility EE programs cost ~2–5¢/kWh saved, far less than generating that kWh. Capacity-wise, cheap as well (defers new capacity investments).	NB Power EE programs (SaveNB) aiming for 0.75% load reduction per year. NS EfficiencyOne delivering ~1%/yr savings. Vermont, California etc. kept loads flat for years through EE, avoiding new peakers.

#### References:

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**Lazard Levelized Cost of Energy** 

NB Power 2023 Integrated Resource Plan

Nova Scotia's 2030 Clean Power Plan

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