

Backgrounder: Is Biomass Electricity good for New Brunswick?

Based on the report: [*Belledune Coal to Biomass Electricity – Impact on Forests and Emissions*](#)

Overview

NB Power proposes converting the Belledune coal-fired generating station into Canada's largest biomass electricity facility. Test firing of torrefied wood pellets occurred in spring 2024, and the utility submitted a request for proposals for long-term supply.

Though promoted as a “green” alternative, evidence shows the project would require unsustainable amounts of biomass fuel, which would degrade forests, increase emissions and undermine climate and biodiversity goals.

Dr. Moe Qureshi, Director of Climate and Energy Solutions at the Conservation Council of New Brunswick, recommends fully retiring the Belledune Generating Station in 2030 and investing instead in small-scale, locally distributed renewable energy.

Fuel requirements and availability

Operating Belledune full-time on biomass would require up to 2.4 million tonnes of raw biomass annually, about half the province's estimated total supply. But within 150 kilometres of Belledune, only 393,000 tonnes are available, and no commercial black pellet production currently exists in New Brunswick.

This mismatch would likely force NB Power to import fuel, erasing potential local economic benefits and inflating emissions from transport and processing. The infrastructure and forest safeguards needed for biomass harvest at this scale simply do not exist.

Environmental impacts

Biomass harvesting removes not only trees but essential forest floor material – branches, shrubs, deadwood – vital for carbon storage, soil health, and wildlife habitat. This intensifies erosion, reduces regeneration capacity, and increases the risk of permanent deforestation.

While biomass emits less carbon per unit burned than coal, intense harvesting creates a “carbon payback period”, the time it takes for forests to absorb the carbon put out by the facility, that lasts decades. This undermines New Brunswick's 2030 and 2050 climate targets.

Reliance on out-of-province biomass would increase fossil-fuel-based transportation emissions and decrease energy efficiency, making biomass less “green” than advertised.

Policy conflicts and regulatory gaps

New Brunswick’s 2023 forest strategy commits to protecting biodiversity and promoting resilience, goals that large-scale biomass harvesting directly undermines.

In 2014, the province prioritized economic growth by slashing mature forest cover targets from 26 per cent to 10 per cent. That era ended with the 2023 pivot to ecological health. Yet no policy currently governs biomass extraction, despite its known harms.

A 2008 biomass policy existed but was quietly dropped. It at least recognized the ecological value of post-harvest residue. Its disappearance leaves forests exposed to unchecked exploitation.

Recommendations from the Conservation Council

Cancel the proposed biomass conversion of the Belledune Generating Station and commit to its full retirement by 2030 to safeguard forest ecosystems, reduce emissions, and align with New Brunswick’s climate commitments. Redirect investments toward small-scale, locally distributed renewable energy that enhances community resilience.

Relevant Quotes

“The evidence is clear: Burning biomass at the scale the province is proposing is neither a sustainable energy solution nor a credible path to reducing emissions. New Brunswick does not have the ecological safeguards necessary to support industrial-scale biomass harvesting without putting our forests and climate goals at serious risk.” – **Dr. Moe Qureshi, Director of Climate and Energy Solutions at the Conservation Council of New Brunswick.**

“If all or most of the biomass fuel required for the Belledune station were to be sourced from New Brunswick’s forests, the impact would be devastating for biodiversity and potentially for long-term forest productivity in the province.” – **Jamie Simpson and Richelle Martin, Juniper Law & Consulting, *Belledune Coal to Biomass Electricity: Impact on Forests and Emissions***

“The bottom line is that NB Power would have to rely on imports for the majority of its biomass fuel for the Belledune facility.” – **Jamie Simpson and Richelle Martin, Juniper Law & Consulting, *Belledune Coal to Biomass Electricity: Impact on Forests and Emissions***

“New Brunswick’s public forests will remain healthy and resilient and will support the species of flora and fauna we know exist today, those which we haven’t yet discovered, and those which may naturalize in the future.” – **Government of New Brunswick, *A Long-Term Management Strategy for Healthy & Sustainable Forests***

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