Renewable Integration Grid Security (RIGS) Project

Public Information Session

January 2026

Énergie NB Power

NB POWER AT A GLANCE

almost 2,900
employees

14
generating stations

3,776 MW
total generating capacity

6,900 km
transmission lines

21,897 km
distribution lines

392,597
direct customers

47,095
indirect customers

13,557 GWh
total in-province sales

5,236 GWh
total out-of-province sales

$2.4 billion
in total sales of electricity

SYSTEM MAP

Nuclear	663 MW
Hydro	884 MW
Thermal	1,709 MW
Combustion Turbine	518 MW
Solar	2 MW
Wind	
Biomass	

- Terminal
- Interconnection
- 345 kV Lines
- 230 kV Lines
- 138 kV Lines
- ≤ 69 kV Lines

WHAT IS RIGS?

- A proposed generation facility designed to maintain a stable and reliable energy grid
- Consists of dual-fuel combustion turbines and grid-stabilizing synchronous condensers
- Provides energy when renewable energy from sources like wind and solar are not available
  - Renewable energy (wind and solar) is a priority
  - RIGS will only run when we don't have access to renewable resources

WHY IS IT CALLED RENEWABLE INTEGRATION?

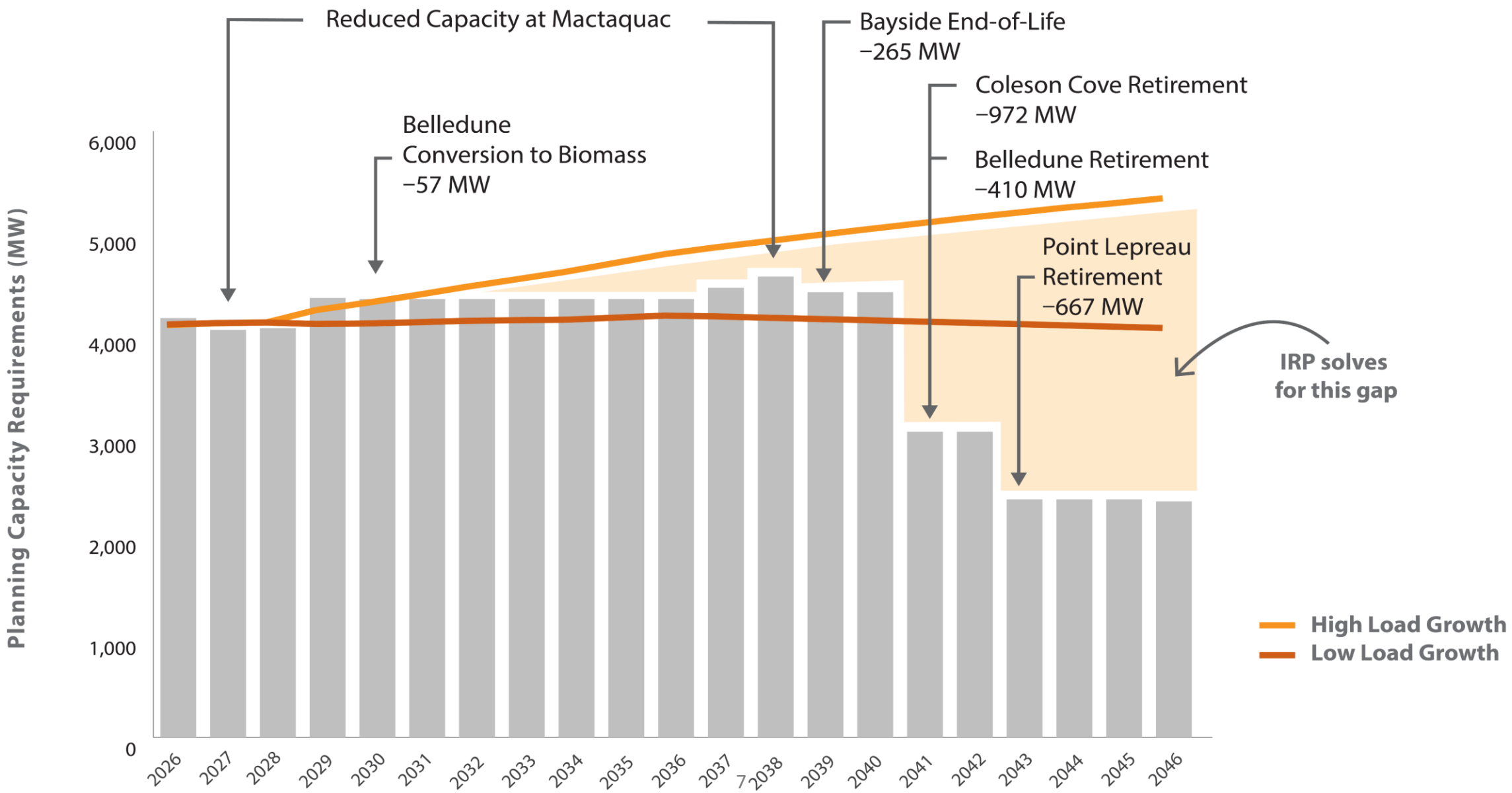
RIGS serves 2 purposes

- **To provide essential backup energy when renewables are not available**
- **To help integrate more renewable energy onto the grid (by providing voltage support for naturally-intermittent wind and solar sources)**

WHY NOW?

- The 2023 Integrated Resource Plan (IRP) indicated additional resources would be needed in the 2030s
- Additional resources now needed for 2028 to meet increased demand
- Increased electrification and population growth since 2021
- Stabilize grid as we add renewable energy from wind and solar projects to the grid

LOAD & RESOURCE BALANCE

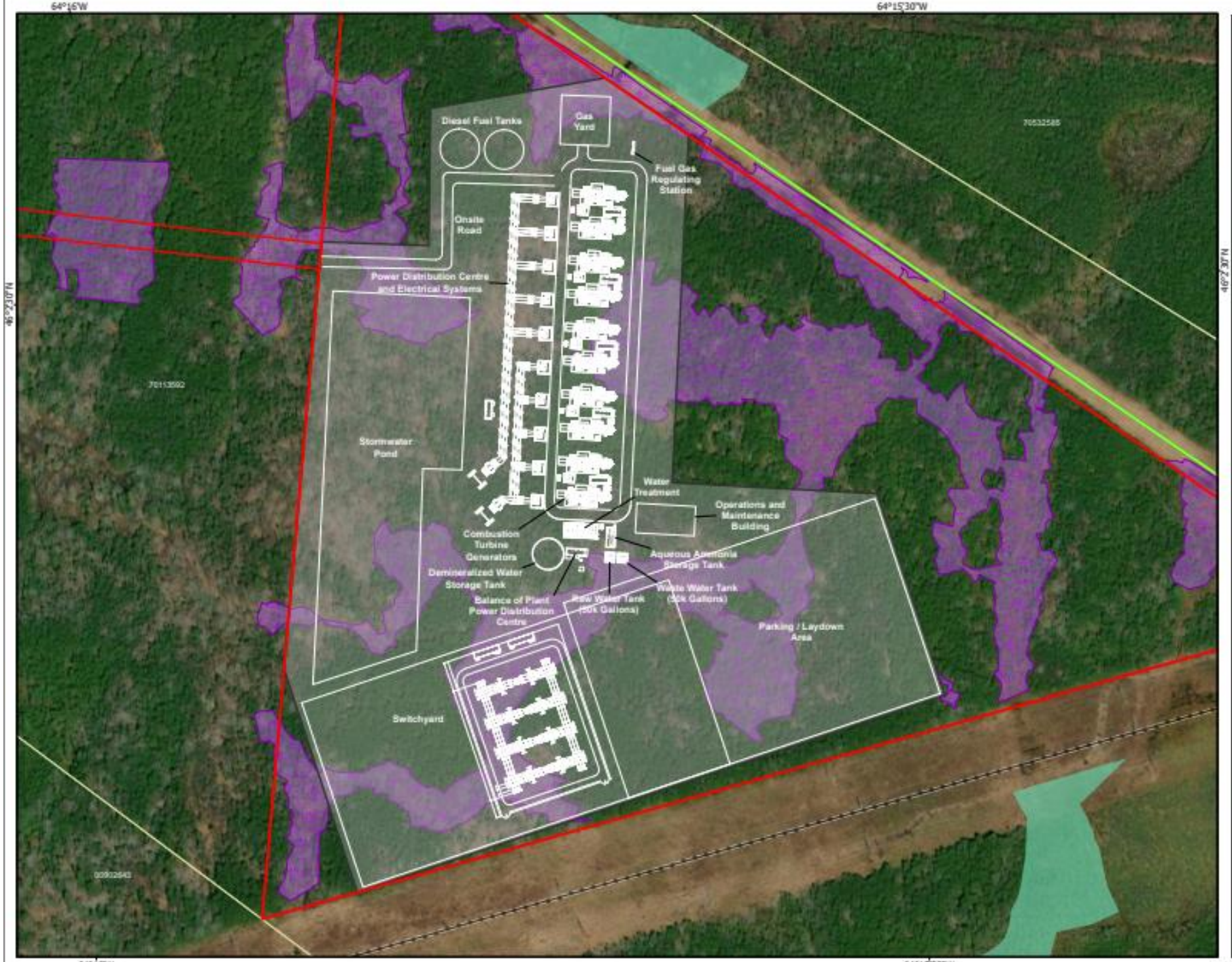


WHY COMBUSTION TURBINES?

- Quick response
  - ➢ Can start up quickly to respond to rapid changes in electricity demand
- Grid stability
  - ➢ Provide voltage support to balance the grid when integrating intermittent power sources like wind and solar
- Emergency power
  - ➢ Reliable for responding to emergencies and extended outages and can run continuously for days

WHY CENTRE VILLAGE?

- We evaluated numerous locations based on population and proximity to existing natural gas and electrical transmission infrastructure
- Best opportunity for timely project delivery and cost savings, roughly $50 million in lower costs (i.e. transmission costs)
- Evaluated several criteria including wetlands, watercourses, protected species and archaeological potential
- Ability to accommodate up to 500 MW of incremental capacity
- Minimal transmission investment



Stantec

Legend

- Site Features
- Development Footprint (Approximate)
- Project Area

Built Infrastructure

- Transmission Line (Existing)
- Pipeline (Existing)

Land Use

- Property Boundary

Wetlands and Waterways

- Wetland (NBELG)
- Wetland (Stantec)

N

0 20 40 60 80 100 m

(At original document size of 11x17)
1:3,000

Notes
1. Coordinate System: NAD 1983 CSRS New Brunswick Stereographic
2. Data Sources: Client; Stantec; GeoNB (NBHN, NBRN); NB Natural Resources and Energy Development; NB Environment and Local Government; Service NB
3. Background: Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Project Location:

Project Location
Centre Village, NB

Prepared by AC on 2023-09-26

Client/Project
WattBridge Energy LLC
RGS-Centre Village

121418652

Figure No.
9.2

Title
Preliminary Site Layout

WHY NATURAL GAS?

- Clean-burning and fast acting
- Can ramp up to full production in as little as 10 minutes
- Easy transition to hydrogen or biodiesel, when available
- Coleson Cove uses fuel oil which
  - ➢ Requires a longer startup time
  - ➢ Needs to burn for 30 hours before it can produce even one MW of power

WHY NOT BATTERIES?

- High cost
  - Building battery storage facility with enough capacity to power NB for an entire day is estimated to be in the tens of billions of dollars
  - This would ultimately pass cost onto customers
- Can only put energy on the grid for a short period of time
- Limited ability to backstop renewables and provide reliable capacity needed during extreme weather events

RECENT ACTIVITY

- 2023 Request for Expression of Interest (REOI)
  - Requested cost-effective wind, hydro, battery storage and solar projects
  - Resulted in 475 MW of Power Purchase Agreements (PPAs) with First Nations-owned projects
  - Did not solicit any cost-effective storage projects

RECENT ACTIVITY

- 2024-25 Demand Response Program
  - ➢Expanded from ~35 MW to 70 MW
- 2024-25 Energy Efficiency
  - ➢Saved New Brunswickers 82.85 GWh (82,850,000 kWh)
- 2024 agreement on the development of a new interprovincial transmission line (pending EIA approval)
  - ➢Facilitated the movement of clean energy in the region

RECENT ACTIVITY

- 2025 Renewables REOI
  - ➢Seeking another 400 MW of new renewable energy
- 2025 REOI for Battery Energy Storage Systems
  - ➢50 MW 4-hour duration
- 2026 seeking final approval on plan to phase out coal in New Brunswick

THANK YOU

QUESTIONS?

Énergie NB Power