

# Partnering on Electrification

## Zero Carbon Step Code

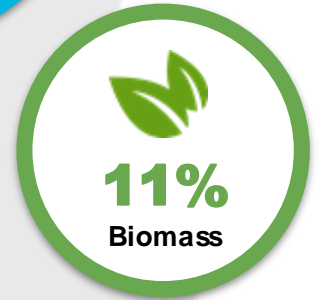
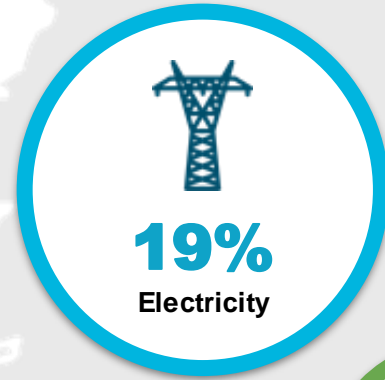
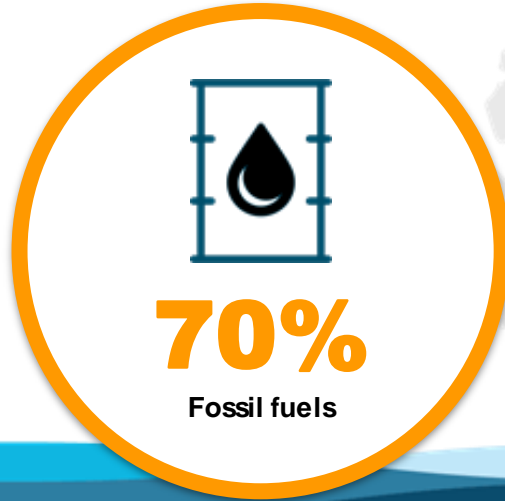


Robyn Wark  
**Manager – Market Transformation**

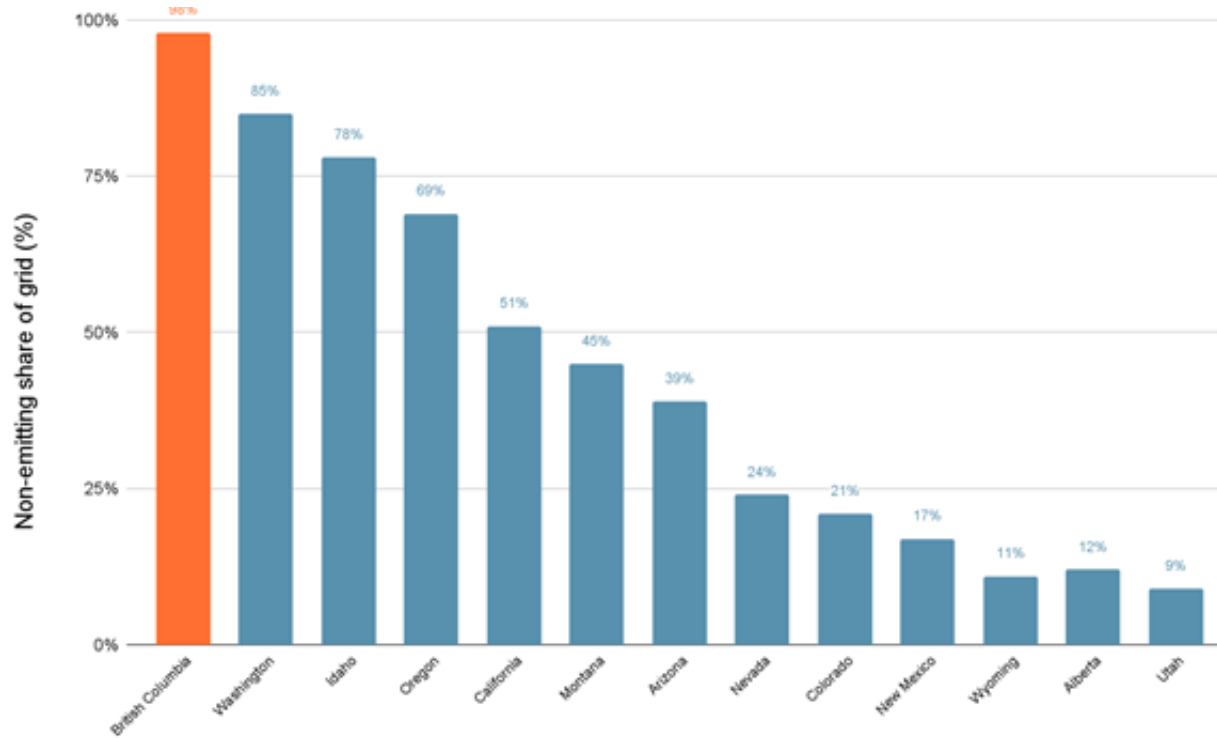


# BC's starting point

Fossil fuels currently supply most of our province's energy needs



# A clean power leader



# Where does our electricity originate?



**69%**  
Large hydro



**19%**  
IPP hydro



**5%**  
Biomass



**3%**  
Wind



**<1%**  
Solar

2023/24 - 2025/26 Service Plan (Feb 2023).  
Gas is approximately 1.4%

# Required to be self-sufficient with clean electricity



- **Clean Energy Act** – requires BC Hydro to secure enough electricity within BC to meet system energy and capacity needs
- **PLUS** – Additional generation for Capacity Reserve = 12% of the total system
- 20 year load forecasting and planning
- 2024 Call for Power

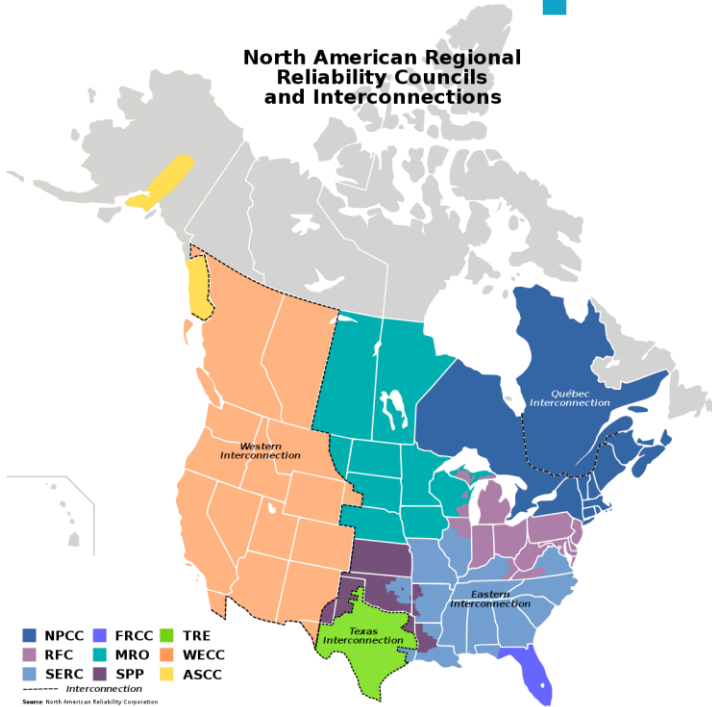
# Meeting peak demand

Coldest peak day:

- Electricity imports are typically expensive
- Use our dams - like a battery
- Capacity programs – to reduce demand



# Trade requirements



- Powerex manages BC Hydro electricity trading
- BC typically net exporter of electricity
- **Clean Energy Trade Standard (2021)**
  - Ensures that 100% of electricity used in BC has clean energy benefits



# Grid Reliability

Currently in Nanaimo there are high levels of reliability performance

On average one interruption per customer per year

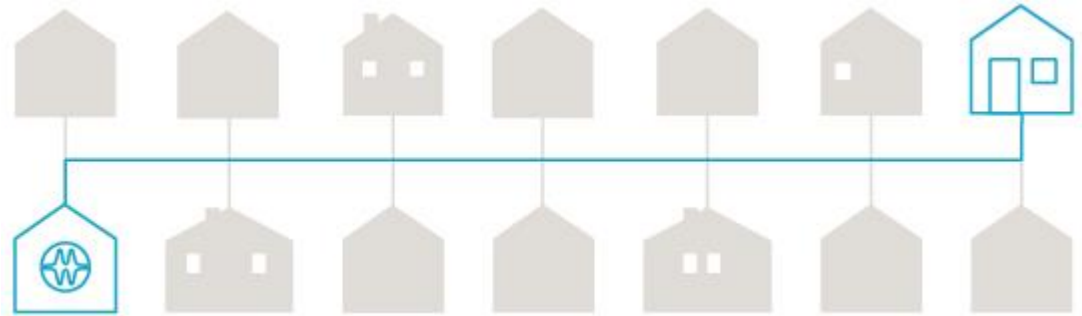
One of the largest expansions of electrical infrastructure in the province's history.



# Future grid in Nanaimo

The City of Nanaimo is served by 4 substations:

- Harewood
- Northfield
- Lantzville
- South Wellington



Upcoming loads:

- BC Ferries
- Car and bus EVs
- Healthcare facilities (i.e. Nanaimo General Regional Hospital)
- Zero Emissions Buildings

