



Our Electrified Future

Presentation to Nanaimo City Council

April 24th, 2023

 **BC Hydro**
Power smart



Today's System

5 million customers

30 hydro facilities

300+ substations

80k of transmission line

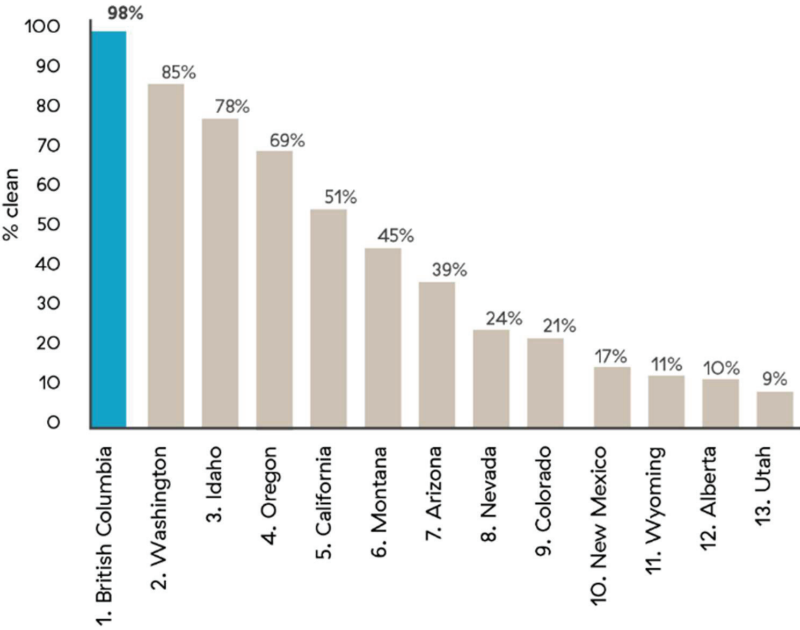


The Climate Imperative

United Nations IPCC noted that to address the climate crisis, electricity will need to supply as much as **80%** of our energy needs.

Clean Power Advantage

Cleanest electricity generation in western North America

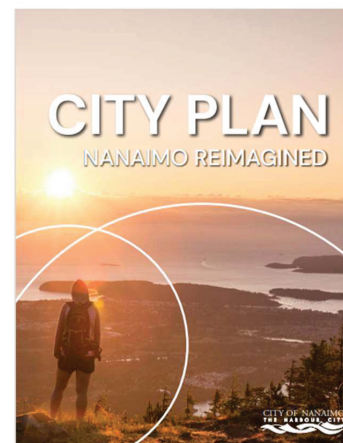
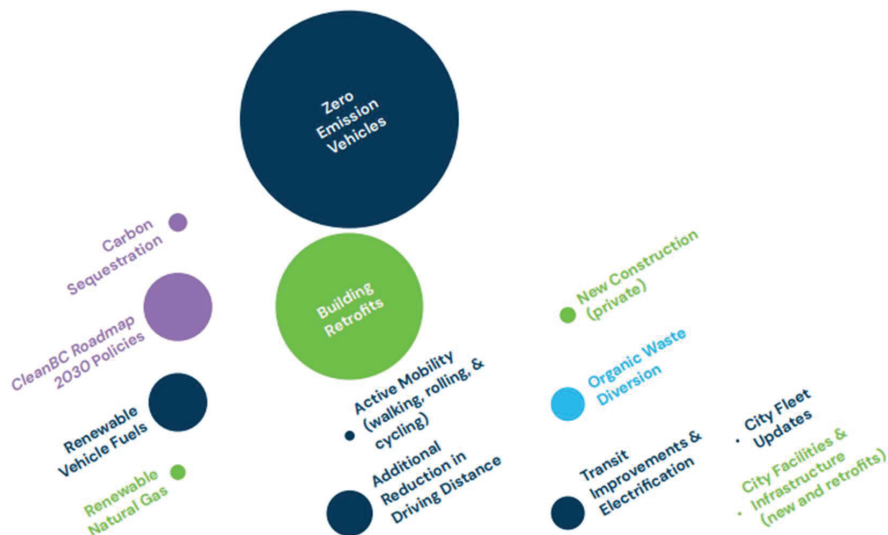


Hydro's Electrification Plan

5-year plan that supports CleanBC targets:

- Programs to help customers switch to clean electricity across buildings, transportation and industry
- Attracting new businesses to B.C. that want to be powered clean
- Making it easier for current and future customers to connect to our grid

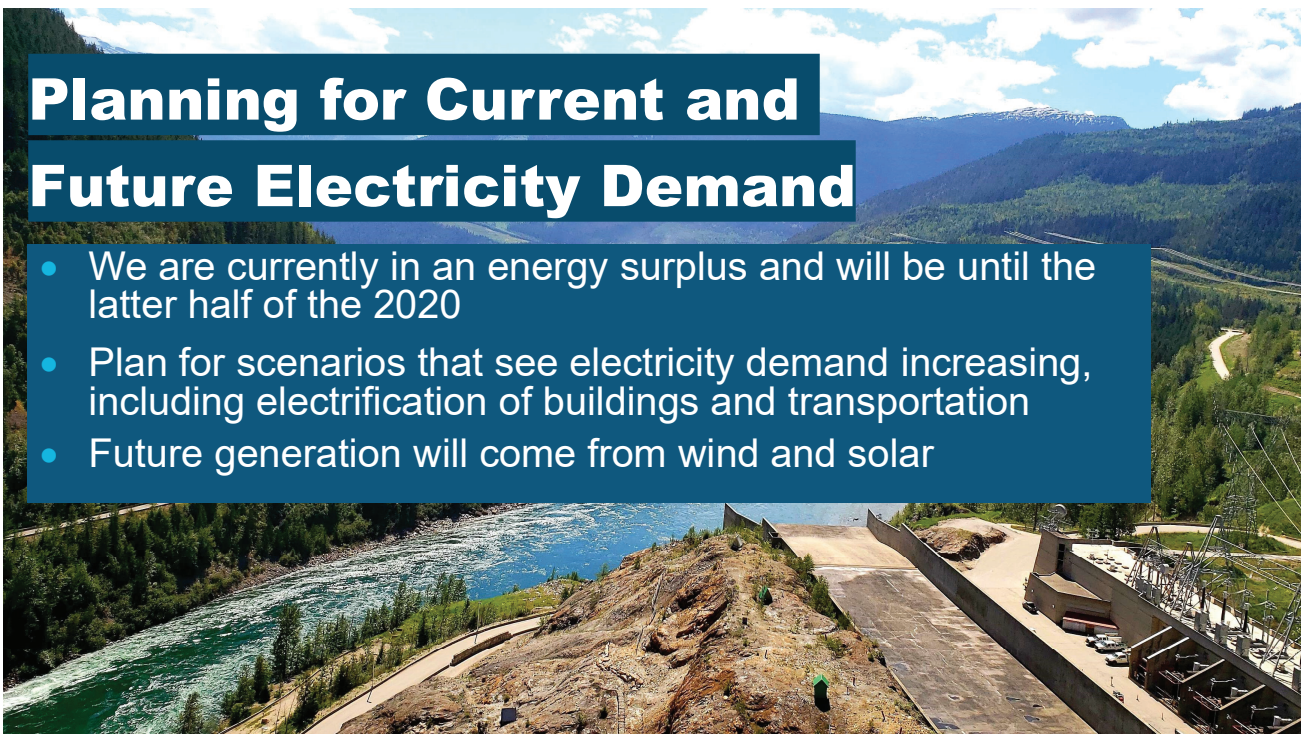
Nanaimo's Need for Electrification





The Electrified Future

- Current and future energy supply
- Grid capacity
- Connection costs



Planning for Current and Future Electricity Demand

- We are currently in an energy surplus and will be until the latter half of the 2020
- Plan for scenarios that see electricity demand increasing, including electrification of buildings and transportation
- Future generation will come from wind and solar



Efficiency is Important

Continue to encourage through programs and incentives
Historical savings from our programs amount to the capacity of Site C
Efficiency of new technologies like heat pumps will reduce demand



Demand Reduction and Response

Demand response programs allow us to shift demand out of peak times
Invest in energy efficiency in high growth areas
Optional residential time of use rate



Grid Capacity

Investing in capacity upgrades

Updating our planning criteria

Advancing major underground projects



Electrification Costs – Updating our Distribution Extension Policy

Development Industry Challenges

Free riders

Cost unpredictability

Cost inequities



Strong Partnership with Nanaimo

Position co-funding for a Community Energy Manager
Providing support for your step code engagement
Funding a study looking at the local government role in decarbonizing rental buildings



Strengthening our Partnership

- Gain a better understanding of climate and land use plans
- Inform distribution system upgrades
- Efficiently deliver electrical infrastructure