metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT

AIR QUALITY AND CLIMATE COMMITTEE

Friday, July 4, 2025

O N T A B L E

1. On Table: Invited Presentation re: BC's electricity grid is ready for 2030 and a rapidly electrifying economy.

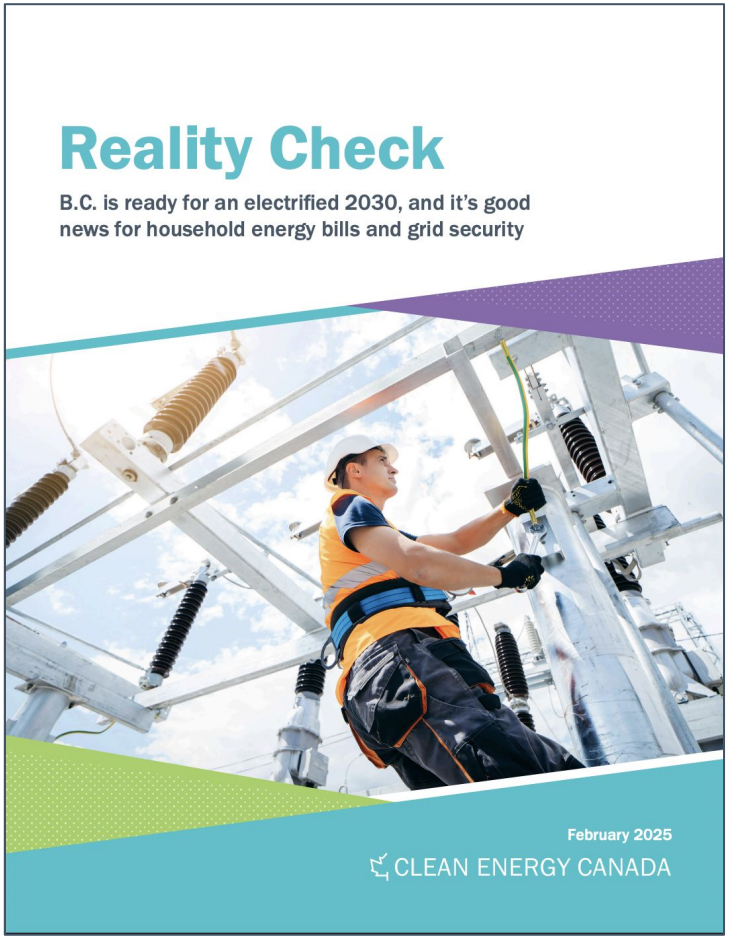
BC's electricity grid is ready for 2030 and a rapidly electrifying economy

Presentation to the Metro Vancouver Air Quality and Climate Committee

Mark Zacharias, Fellow, SFU and special advisor, Clean Energy Canada

CLEAN ENERGY CANADA

SFU MORRIS J. WOSK CENTRE FOR DIALOGUE



Reviewed by

- Ministry of Energy and Climate Solutions
- BC Hydro
- Powerex

https://cleanenergycanada.org/wp-content/uploads/2025/02/Report_BCElectricity_2025_V3.pdf

Purpose: Address misconceptions regarding B.C.'s electricity system

Misconceptions

- "B.C. has an electricity shortfall now and into the future"
- "Importing power means B.C. has not adequately planned for energy needs"
- "Climate policies, including EV sales mandates, heat pump incentives, and natural gas bans will overload the grid"

Electricity 101

- B.C. has the third lowest electricity rates in N. America
- An average B.C. household spends $114 monthly compared to $258 per month in Alberta for the same amount of electricity
- B.C.'s grid is 97% non-emitting
- B.C.'s grid is among Canada's most reliable systems
- 17% of B.C.'s final energy demand is met with electricity
- Cost declines since 2010: Solar PV (90%), onshore wind (70%), offshore wind (63%), battery storage (89%)

Misconception #1: “B.C. has an electricity shortfall now and into the future”

Electricity demand by 2030

- Demand increases 15% by 2030 compared to 2021 (2023 IRP)

Electricity supply by 2030

- Site C +8%
- New clean power call +8%
- Efficiency +3%
- Second clean power call +8%

19%

Misconception #2: “Importing power means B.C. has not adequately planned for energy needs”

- Since 2019, electricity exports have exceed imports on average with a net gain of over $1.5 billion
- Electricity trading with the U.S. lowers B.C. electricity bills by 10% from what they would otherwise be
- BC Hydro is not seeing a trend in the long-term drying of our hydro reservoirs in the province.

Misconception #3: “Climate policies will overload the grid”

- BC Hydro estimates that current EV sales requirements will increase electricity demand by 2% in 2030 compared to 2021
- Heat pumps are 3-5 times more efficient than natural gas furnaces and switching all homes with electric baseboards would reduce overall electricity demand on the grid by 5%
- Electrifying new construction starting in 2030 increases electricity demand by 2% in 2035 compared to today; when also electrifying appliances starting in 2035, power demand increases by 9% in 2040

Questions?

Each Monday we publish the Clean Energy Review, a free weekly digest of must-read climate and clean energy stories from across Canada and around the world.

For follow-up questions, contact:

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Appendix: Final energy demand

Energy type	Overall Use (PJ)	Breakdown by sector
Refined petroleum	394 PJ (33%)	74% transportation 24% industrial 2% buildings
Natural gas	366 PJ (30%)	60% industrial 40% buildings
Biofuels and decarbonized gas	229 PJ (19%)	81% industrial 13% transportation 6% buildings
Electricity	208 PJ (17%)	57% buildings 43% industrial
Other	8 PJ (1%)	100% industrial