

From: [Mochrie, Paul](#)
To: [Direct to Mayor and Council - DL](#)
Cc: [Smith, Doug](#); [City Manager's Correspondence Group - DL](#)
Subject: Memo to Mayor & council - Increasing the climate-smart supply of renewable energy in Vancouver
Date: Thursday, April 18, 2024 6:45:25 PM
Attachments: [Memo to Mayor & Council - Memo - Increasing the climate-smart supply of renewable energy in Vancouver.pdf](#)
[image001.png](#)

Dear Mayor and Council,

This memo provides an update on efforts by the City, BC Hydro and other levels of government to increase the supply of renewable energy in Vancouver, in response to a council motion approved in 2023. Key points include:

- There are currently 338 BC Hydro net metering projects in Vancouver (primarily solar). The recent elimination of varied design guidelines in RS zones makes it easier for residents to install solar panels, complementing earlier City efforts to streamline and simplify the solar permitting process.
- Staff are partnering with BC Hydro to identify local grid capacity constraints as Vancouver grows and increasingly electrifies. The second phase of this work will examine options to address grid constraints, including by increasing local supplies of renewable energy.
- BC Hydro is forecasting a 33 percent growth in electricity demand by 2040. While most of the new supply is expected to come from larger utility-scale wind and solar projects, BC Hydro is forecasting rooftop solar to increase by a factor of five in the same time-period.
- Overall, there has been growth in local renewable energy supplies and that's expected to continue in the future. Staff will be exploring additional measures to increase local renewable energy as part of developing the City's next climate plan.

Should you have any questions, please contact Doug Smith (doug.smith@vancouver.ca).

Best,
Paul

Paul Mochrie (he/him)
City Manager
City of Vancouver



The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the x^wməθk^wəyəm (Musqueam), Sk̓wxwú7mesh (Squamish), and səliilwətał (Tsleil-Waututh) Nations.

MEMORANDUM

April 17, 2024

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Armin Amrolia, Deputy City Manager
Karen Levitt, Deputy City Manager
Sandra Singh, Deputy City Manager
Katrina Leckovic, City Clerk
Maria Pontikis, Chief Communications Officer, CEC
Teresa Jong, Administration Services Manager, City Manager's Office
Mellisa Morphy, Director of Policy, Mayor's Office
Trevor Ford, Chief of Staff, Mayor's Office
Patrice Impey, General Manager, Finance
Andrea Law, General Manager, Development, Buildings and Licensing
Lon LaClaire, General Manager, Engineering Services

FROM: Doug Smith, Acting General Manager, Planning, Urban Design and Sustainability

SUBJECT: Increasing the climate-smart supply of renewable energy in Vancouver

RTS #: N/A

On January 18, 2023, Council approved a motion directing staff to evaluate the potential of renewable energy to reduce carbon pollution and costs, and increase energy reliability, and to assess opportunities to enable increased renewable energy production in Vancouver. This memo provides an update on work underway within the City, BC Hydro, Metro Vancouver, and the provincial government to increase the local supply of renewable energy. This work goes hand-in-hand with efforts to transition away from fossil fuels and improve energy efficiency.

City of Vancouver

- There are currently 338 [BC Hydro net metering](#) projects in Vancouver (primarily solar).
- The elimination of varied design guidelines in RS zones that came with the approval of multiplexes in September 2023 is expected to make it easier for residents interested in installing solar panels in the new R1-1 zone. This standardization will complement earlier efforts to streamline and simplify the solar permitting process.
- The City's Neighbourhood Energy Utility uses energy captured from sewage to provide space heating and hot water to over 6.4 million square feet of residential, commercial, and institutional space. Additional local renewable energy sources can be added over time to support system expansion and enable a transition to 100% renewable energy.
- Staff also support the development and decarbonization of local non-City owned district energy systems with a focus on enabling the recovery of waste heat energy and expanding the impact of renewable energy resources (e.g., River District and Señákw).

- The construction of two methane recovery bio-gas facilities at the Vancouver Landfill should be completed in 2024 (constructed by DeltaRNG and FortisRNG). The biogas will displace natural gas in Fortis' network, and the City will have first rights to purchase it.
- Staff are close to completing a project with BC Hydro to identify potential grid capacity constraints as Vancouver grows and increasingly electrifies. Once those challenges are better understood, the second phase of work will examine options to address them, which will include local supplies of renewable energy.
- Staff are beginning the process of refreshing the Climate Emergency Action Plan. That work will explore additional opportunities to advance the supply of renewable energy.

BC Hydro

- The BC Utilities Commission (BCUC) approved [BC Hydro's Integrated Resource Plan](#) on March 6. The Plan accounts for an anticipated 1/3rd growth in demand by 2040 from population growth, electrification, and industrial projects.
- BC Hydro expects that most of the new supply will come from larger utility-scale wind and solar projects because they are more cost-effective than smaller projects. That said, BC Hydro is forecasting rooftop solar to increase by a factor of five in the same time-period, which could be enough to supply over 10% of the new demand.
- BC Hydro's net metering program supports smaller renewable energy projects (up to 100 kW) by reducing customer bills by the amount of electricity they generate. Program participation grew from under 1000 customers in 2016 to over 8000 in 2023. Different renewable energy options are eligible, but 99.5% of the projects have been solar.
- BC Hydro will propose updates to the net metering program to the BCUC in June 2024. Changes being considered include allowing larger scale renewable energy projects and providing support for battery systems. Staff will engage in the update process in addition to related processes for residential rates and the Distribution Extension Policy.

Metro Vancouver and Government of BC

- Metro Vancouver's Climate 2050 Energy and Buildings Roadmaps includes strategies and actions to increase the regional supply of low carbon hydrogen and renewable fuels, increase the installation of solar systems combined with batteries, and use waste heat from liquid waste infrastructure (e.g. wastewater treatment plants and large sewers) to expand and decarbonize district energy systems.
- The provincial government has well established regulatory requirements through the Clean Energy Act and Low Carbon Fuels Act to ensure the supply of electricity comes from renewable sources, and to transition liquid petroleum fuels to renewable options. A similar approach has been committed to for natural gas, but is not yet implemented.
- The provincial government has committed to developing a Climate Aligned Energy Framework, which is expected to provide more information on how they view the energy transition unfolding as BC moves towards its climate change and affordability objectives.

Please feel free to contact me at doug.smith@vancouver.ca if you have any questions.



Doug Smith, P.Eng.
Acting General Manager, Planning, Urban Design and Sustainability

604.829-4308 | doug.smith@vancouver.ca