Mainwaring Substation upgrade
Maintaining reliability in East Vancouver

To continue to provide reliable electricity supply to over 60,000 homes and businesses in East Vancouver, we're upgrading the Mainwaring substation, located near Knight Street and 49th Avenue. The scope of work includes:

○ Replacing two transformers where they're currently located.
○ Replacing an aging feeder section—the lattice structure within the substation.

We're no longer planning to move the telecom tower located in the southeast corner of the substation.

We're currently assessing alternatives for replacing the feeder section between two alternatives (see next page).

WHAT IS MAINWARING SUBSTATION?

Mainwaring substation is a distribution substation built in the 1950s. It takes electricity at a higher voltage (230 kilovolts) and converts to 12 kilovolts to supply power to homes and businesses in the neighbourhood.

Over 60,000 customers are being served by Mainwaring substation. This number is expected to grow as density in the area increases. The current area Mainwaring substation serves is west to Cambie Street, east to Boundary Road, and north to 12th Avenue.

WHAT’S THE BENEFIT OF THIS UPGRADE?

This upgrade will provide increased reliability to the electrical system and address near–end–of–life equipment. This upgrade will also prepare for future growth by modifying station layout for future upgrades that will increase the station’s capacity to support homes, businesses, and industries.
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Alternative 1
- Upgrade the end-of-life feeder section to a modern indoor version.
- This involves constructing a building in the southwest corner of the substation to house the feeder equipment. The building would have space to expand in the future for the other feeder sections that currently remain in service.

Alternative 2
- Retain the existing feeder section location and refurbish the equipment.

Right now, we’re more likely to move forward with Alternative 1 that modernizes the substation because the existing equipment location poses construction safety risks and ongoing operational safety challenges for our staff.

If we replace with identical equipment, we would still need to eventually modernize and upgrade the equipment at some point in the future.