

Welcome

2L51 Partial Cable Replacement – Virtual info session

November 30, 2023

Virtual Meeting Etiquette



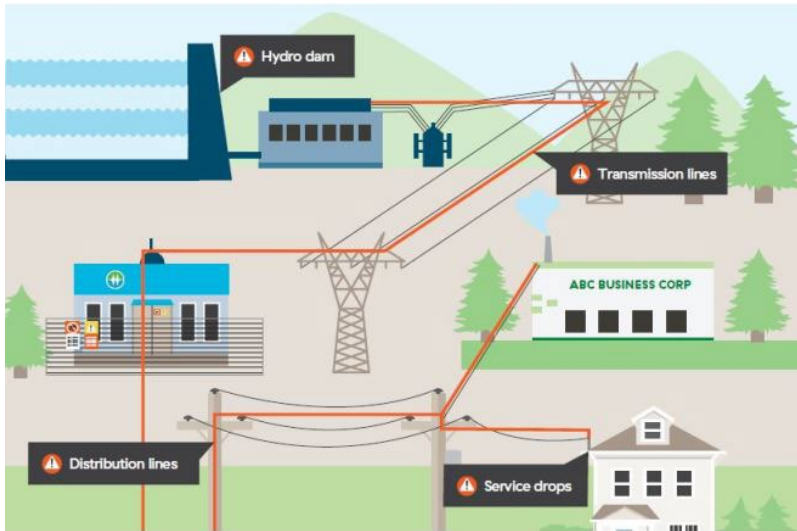
Welcome!

- Use the 'raise your hand' button for comments/questions
- Mute your microphone when not speaking
- Please don't use a virtual background with video to save bandwidth
- Share air space so that everyone can participate
- Challenge ideas, not people
- We aren't recording this session, and kindly ask that others do not record

Transmission lines move large quantities of power and carry electricity at high-voltages

B.C. is powered by water. Our transmission system moves electricity from generating stations at dams to distribution substations, where it's transformed to lower voltages for use in your homes and businesses.

Some transmission lines are overhead, supported by towers, and others are buried underground.



Did you know...

Our high-voltage transmission system has:

- 18,000+ km of lines and underwater submarine cables
- 100,000 wood poles
- 22,000 steel towers
- 292 substations

2L51 runs west from the Como Lake Substation

2L51: A 230 kilovolt transmission line from Como Lake Substation in Coquitlam to Barnard Substation in Burnaby. The line is made up of three, oil-insulated cables buried underground. The majority of the cable is on BC Hydro fee simple land, although a westerly section crosses gardens of seven residential properties in an existing BC Hydro statutory right of way (SRW).

The existing cables were installed in the 1970s and are at end-of-life. In past years, we remediated leaks at the cable joints in Ranch Park neighborhood.



This section of the project is within an existing SRW over seven private properties.

Quick facts

- **What:** Replace 1.3 km section of an underground direct buried oil-filled transmission cable
- **Where:** Within an existing utility corridor within Ranch Park neighbourhood (Coquitlam)
- **When:** Vegetation clearing to start after August 15, 2024
Construction to start early 2025 through Fall 2026
- **Why:** To improve system reliability and to reduce our impact on the environment

How will the cables differ?

The current cables were installed in 1971. They are insulated with oil.

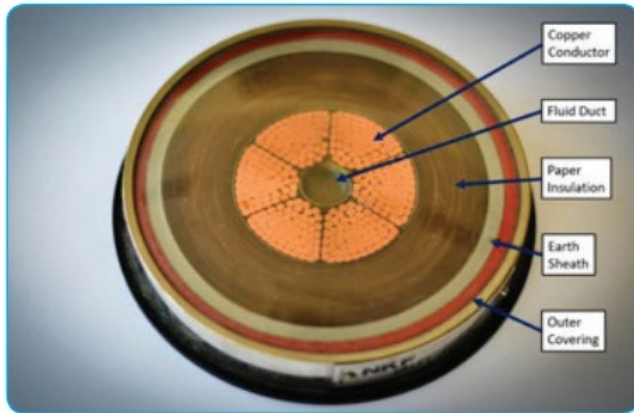


Figure 1. 400 kV Fluid-Filled Cable (1985)

The new cables are insulated with plastic. They are called **XLPE cables**.

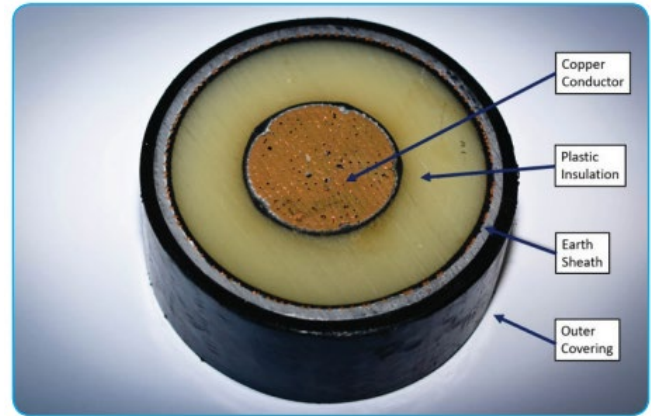
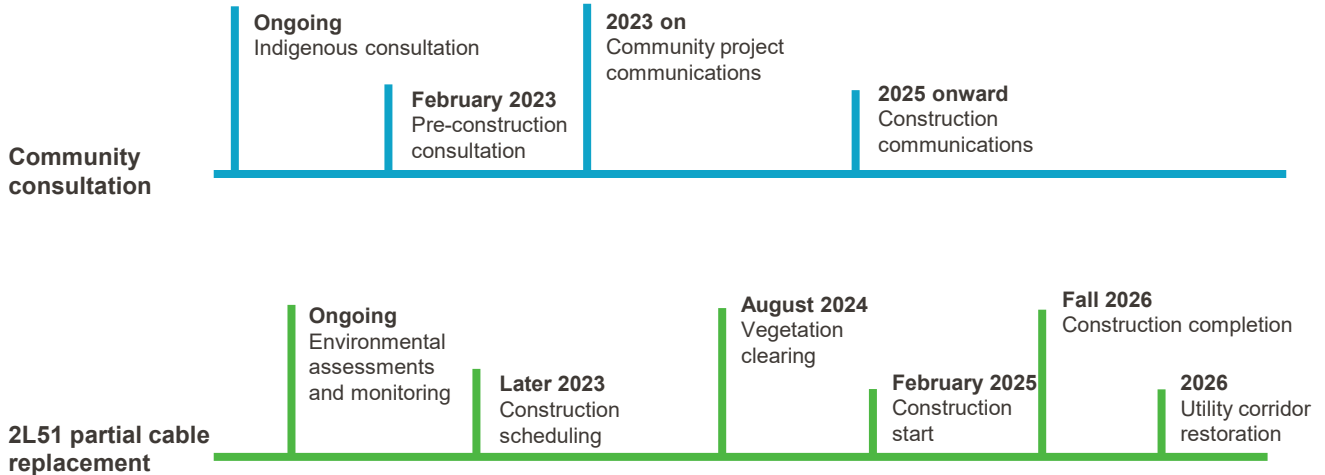
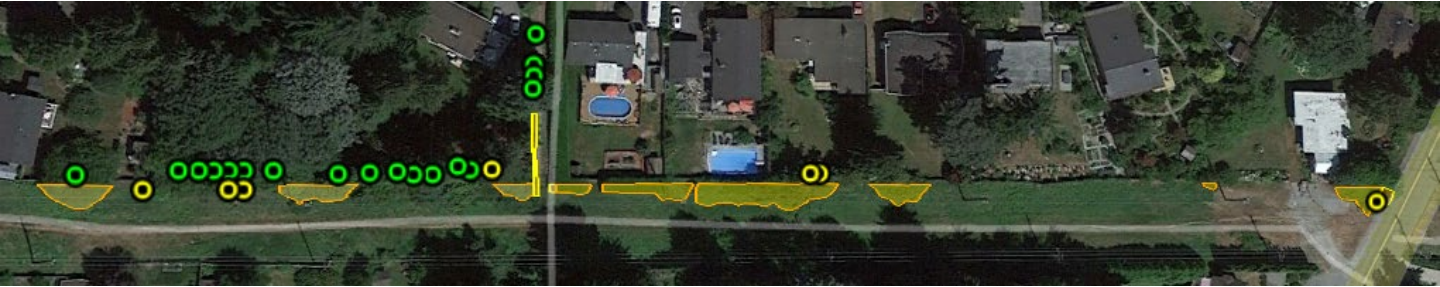


Figure 4 Modern 220 kV XLPE Plastic Cable

We expect to start construction in 2025



Vegetation clearing – August 2024



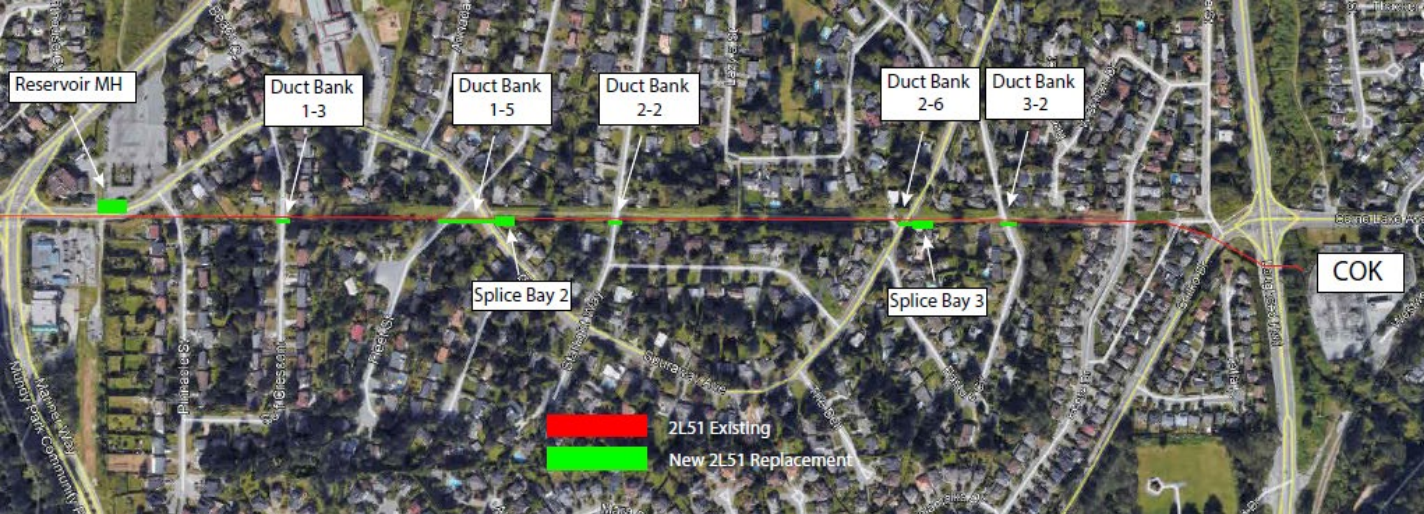
- We've surveyed the utility corridor and identified the areas where vegetation will need to be pruned or removed.
- All identified vegetation clearing is on the northern side of the utility corridor. This is because the existing cables are buried on the north side.
- We have contacted individual property owners to go over clearing work on their properties.
- If you wish to relocate any plants please do so by March 31, 2024.

Construction – Starting early 2025

Activity	Approximate Timing
Mobilize and prepare for construction	Early 2025
Install ductbank at road crossings	February to Summer 2025
Trench and install buried chaseways & Install new cables.	Summer 2025 to Spring 2026
Energize the new 2L051 circuit	July 2026
Remove the old 2L051 circuit	July to September 2026

Construction: Duct banks under road crossings

Duct banks are underground reinforced concrete containers used to house cables. As part of this project, we will build seven concrete duct banks under 11 local roads that cross the utility corridor.



Construction: Duct banks under road crossings

To build each duct bank, we will...



Remove the road surface and dig a trench about 2.5 metres wide and 2.5 metres deep.



Create a 'form' or mould to hold the concrete in the right shape while it sets solid and add PVC ducts that will hold the cables.

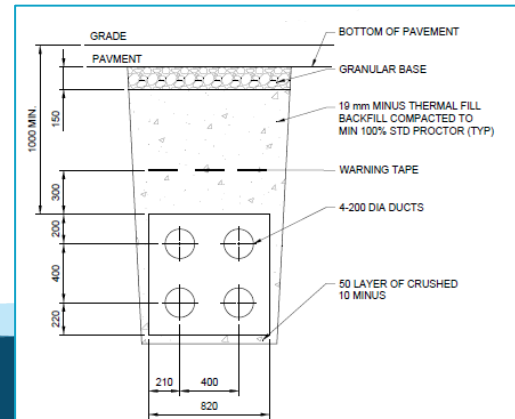


Pour in concrete, wait for it to set, then remove the form.



Refill the trench and repair the roadway.

Images for illustration only – this work will look different in this specific utility corridor.



How could ductbank construction affect you?

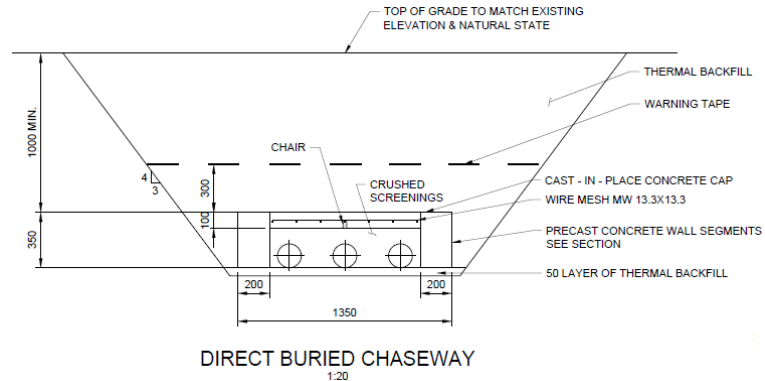
- Using duct banks means that in the future, we'll be able to work on the cables without needing to close the road to traffic.
- When constructing the duct banks, we'll use:
 - Asphalt cutters
 - Excavators
 - A concrete-pouring truck
 - Asphalt spreader and roller



Construction: Trench and install chaseways

For non-road areas, we'll trench and install chaseways instead of ductbanks. This work will be done in three sections and will involve:

1. Digging a trench about 4 metres wide, 2 metres deep: each section of trench will be about 500 metres long.
2. Lay sections of the new cables in the trench and join the cables together where needed.
3. Protect the cables with concrete side walls and a cover, then refill the trench.



How could laying the new cables affect you?

- Laying the new cables in a new chaseway means we can continue to move power through the existing power line while we work: **this project should not cause local power interruptions.**
- To complete this work safely, we will restrict access to the areas we are working – you will not always be able to access the utility corridor in the area we are working in.
- We expect to complete most of this work within daytime hours.



Public Safety

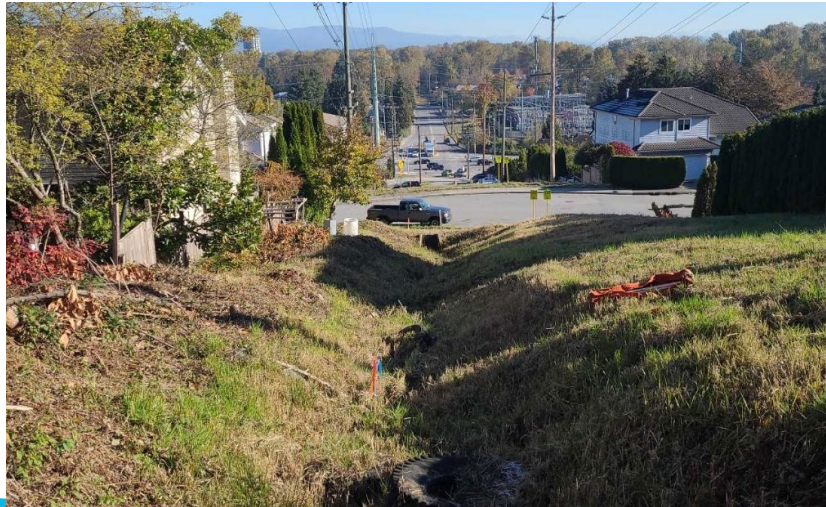
For BC Hydro, the safety of the public, our employees and contractors is our priority.

During construction all applicable regulations and codes of practice will be followed to ensure a safe work site, and we often:

- Use fencing to keep the public away from active construction areas
- Employ traffic-control personnel to direct people around work areas

Environment

- Environmental review of soil and groundwater quality & archaeological resources
- An Environmental Management Plan has been developed containing performance-based environmental requirements, standard protocols, and mitigation measures – that will reduce potential for adverse environmental effects during construction, including surface water.



Environment

- Mitigation measures are taken from BC Hydro standards and practices, provincial best management practices and guidelines, terms and conditions of Project permits, and other applicable documents.
- We will be monitoring environmental compliance during construction.



Wildlife

Have you noticed presence of any wildlife or nests / dens in the area – seasonal or frequent presence

Have you noticed Pileated Woodpecker cavities (typically in large living trees (>25 cm) or dead/dying stumps, logs or trees)



Source: [Pileated Woodpecker Cavity Identification Guide - Canada.ca](#)



Source: [Pileated woodpecker - Wikipedia](#)

Questions?



Thank you!

Thank-you for joining us today to hear more about this project and share your feedback.

To keep up-to-date with project information, please sign-up for our email notifications at bchydro.com/coquitlamcable.

You can also email us with questions and comments at projects@bchydro.com.