



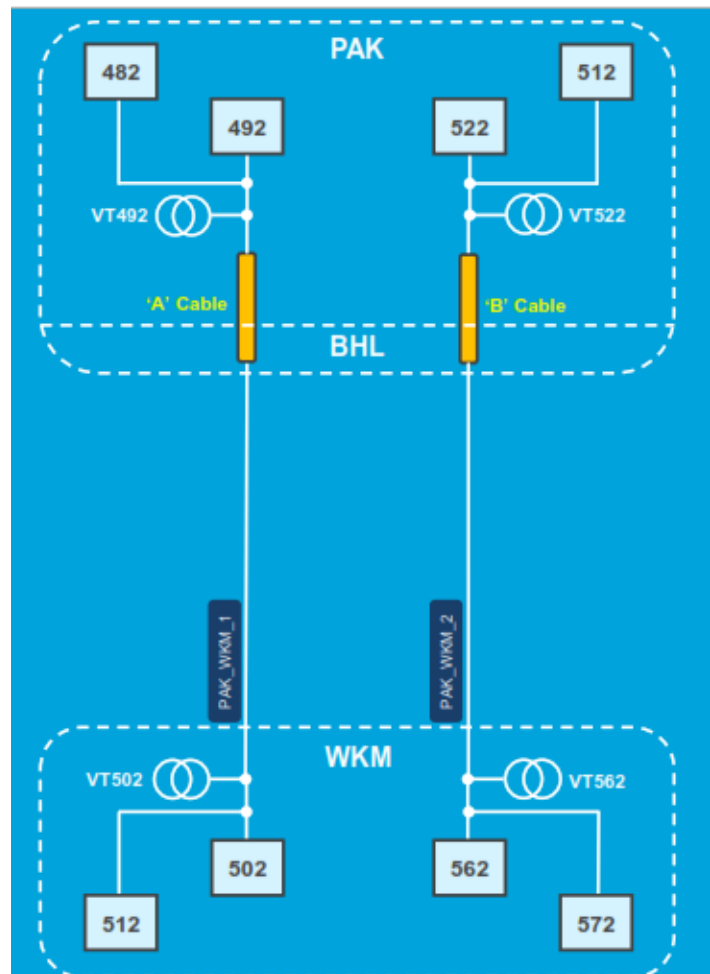
Brownhill-Pakuranga Cable Project Circuit Configurations

12 December 2023

Transpower has constructed a new temporary single circuit 220kV transmission line between tower BHL-WHN-A0156 and Ohinewai substation. This new section of line is designated OHW-DEV-A. This circuit will be utilised during outages of the BHL-PAK-A and B cables. Three extended outages, during which the cable sections are being temporarily decommissioned, are planned for the coming two to three years as cable joints are replaced between Brownhill and Pakuranga substations.

Weather and other operational factors may affect the dates of these extended outages, so the dates given here are indicative in nature.

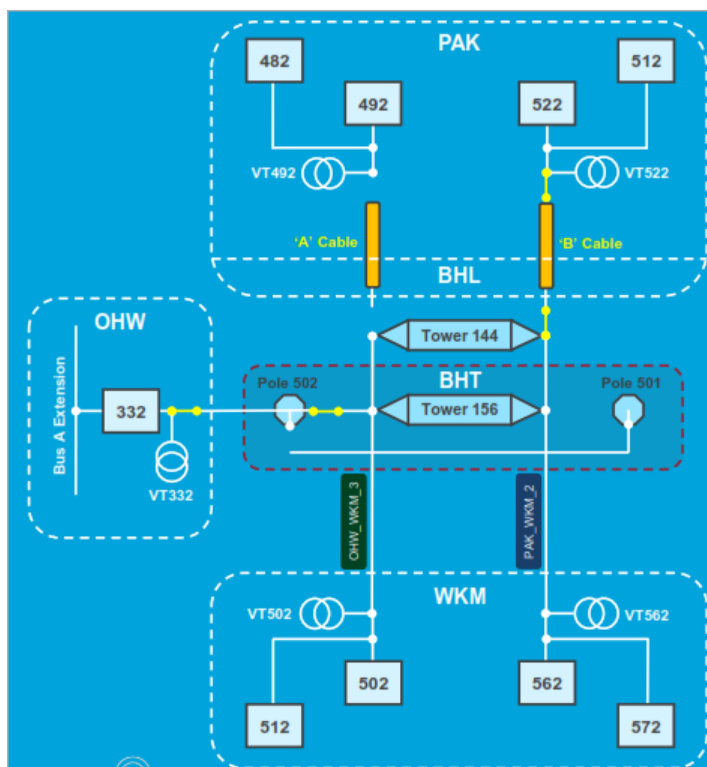
The normal configuration with both cables in service



Outage from 18/9/2023 to approximately **15/4/2024**

PAK-WKM-1 will be out of service and temporarily decommissioned to allow cable joints on BHL-PAK-A cable to be replaced. During this period the OHW-DEV-A circuit will be connected to part of the transmission line BHL-WKM-1 to create circuit OHW-WKM-3. PAK-WKM-2 will be in service at this time.

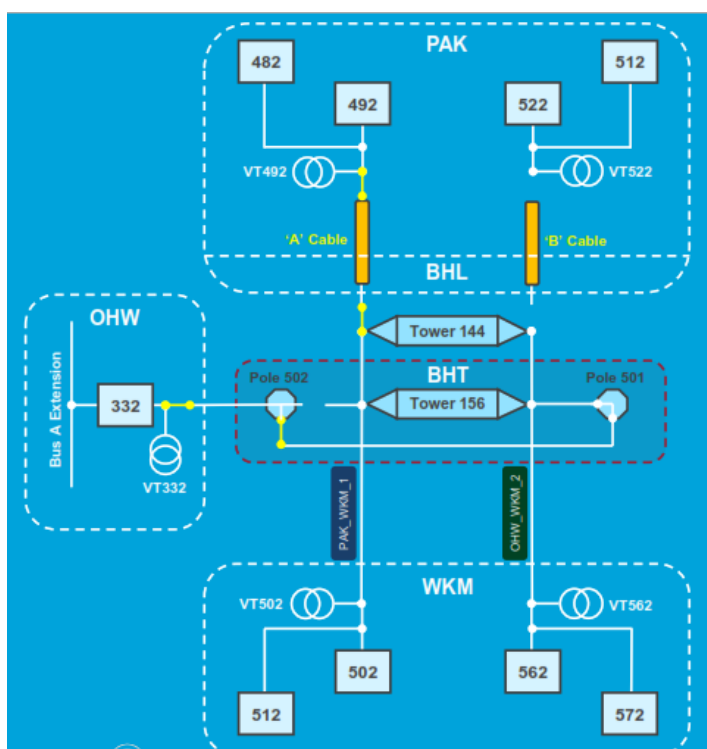
The configuration during this outage is shown to the right.



Outage from approximately 31/5/2024 to 9/5/2025 and 2/7/2025 to 8/6/2026

PAK-WKM-2 will be out of service and temporarily decommissioned to allow cable joints on BHL-PAK-B cable to be replaced. During these outages the OHW-DEV-A circuit will be connected to part of transmission line BHL-WKM-2 to create circuit OHW-WKM-2. PAK-WKM-1 will be in service during the PAK-WKM-2 outages.

The configuration during these outages is shown to the right.



The normal configuration applies whenever PAK-WKM-1 and PAK-WKM-2 are in service and on completion of the repairs, from approximately 8/6/2026.

The applicable ratings for each cable repair stage are given in spreadsheet Circuit Ratings for Cable Repair Stages.