

PBSC Update

Powercor REFCL Program

August 2019
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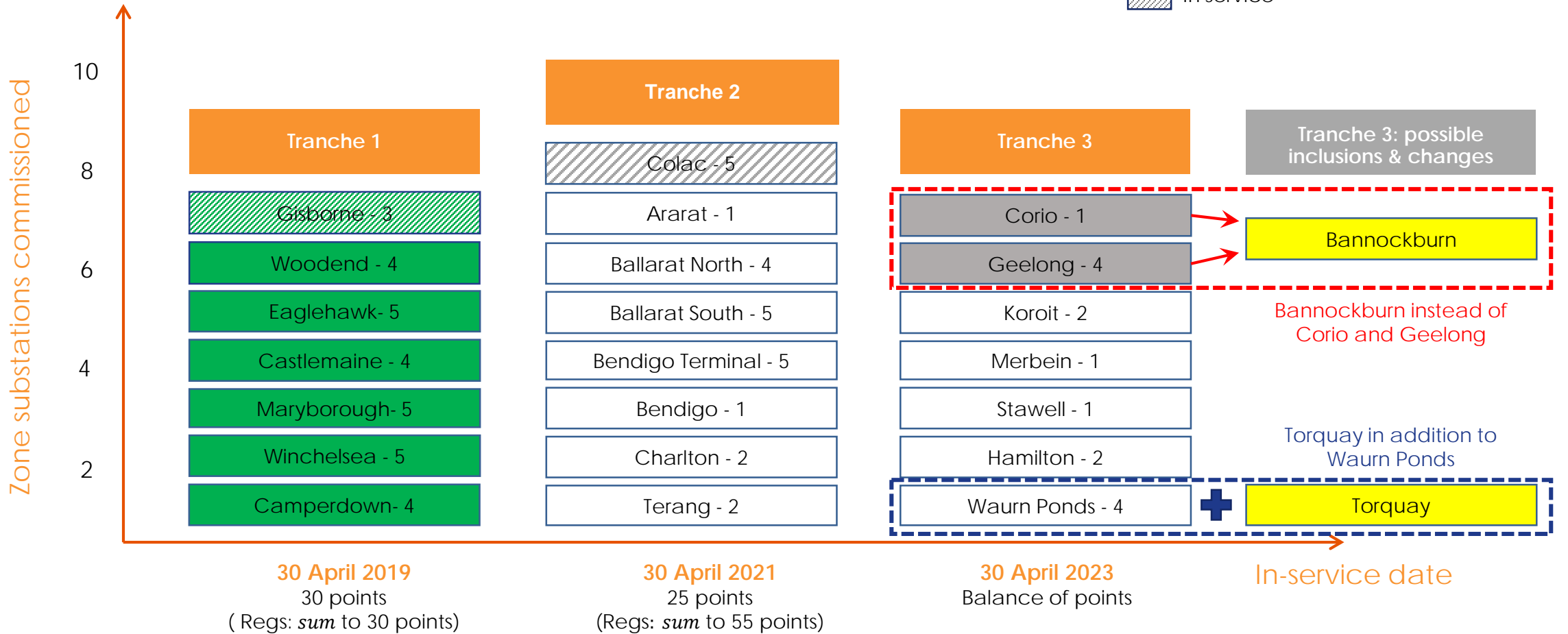
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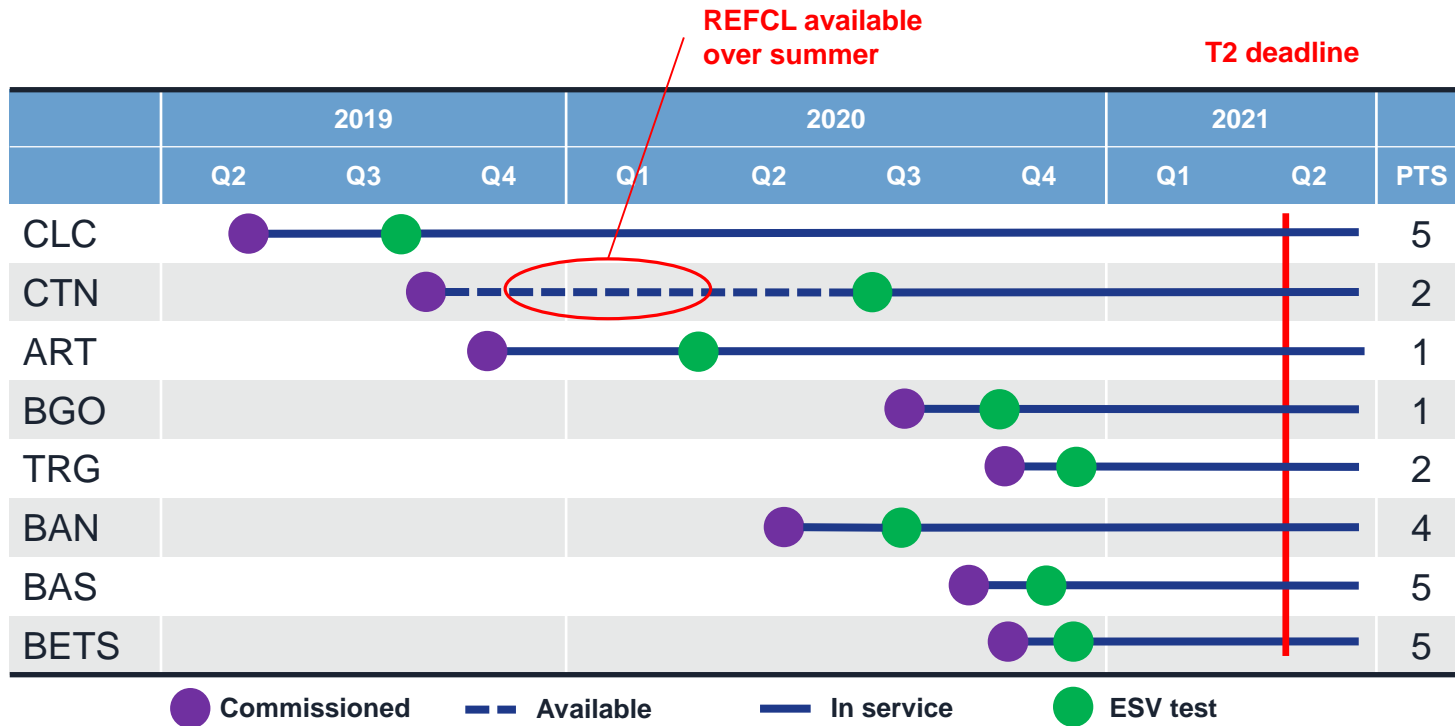


REFCL Timetable

- T3 changes
- Compliant
- In service
- New ZSS
- Annual capacity testing



REFCL Deployment timetable – Tranche 2

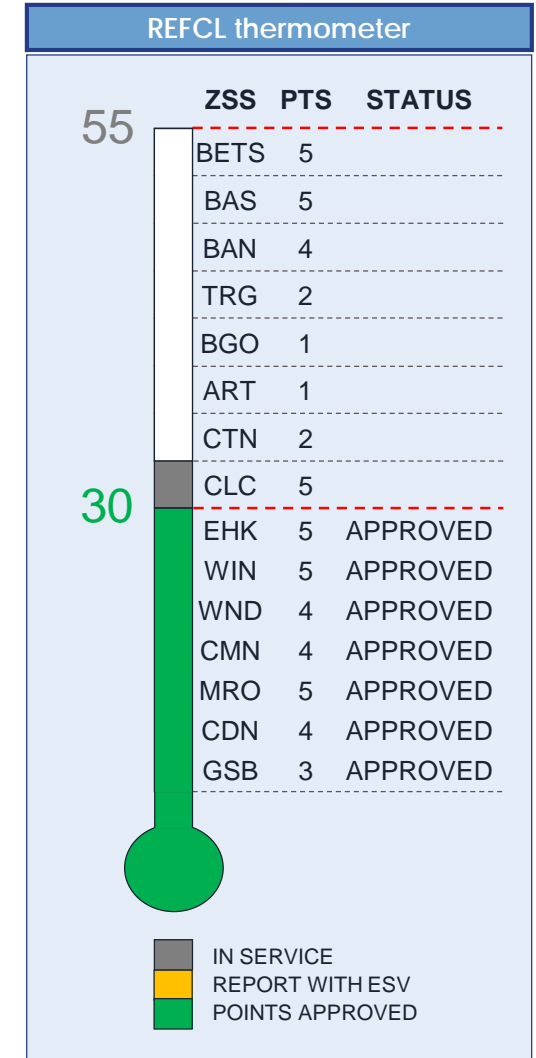


Powercor has recently placed Colac into service.

We plan to commission two further REFCLs this year: CTN and ART.

BAN commissioning has been deferred until 2020.

Placing them into service is reliant on HVCs being ready.



REFCL performance update

Anomalous results

- Powercor have submitted a draft paper to ESV aimed at resolving the conditional acceptance for the tranche one sites
- The paper documents the engineering journey we have undertaken in conjunction with Swedish Neutral to investigate, understand and rectify the technical issues over the last six months
- This has resulted in the latest version of software, SVN527, which is being used for annual compliance testing for all tranche one sites
- We anticipate that through the paper and annual compliance testing we will demonstrate resolution of the anomalous results and conditional acceptance

Annual Capacity testing (ACT)

- Last week Powercor conducted annual capacity testing at Gisborne zone substation with ESV observing
- The testing showed considerable performance improvement
- ACT is planned for Castlemaine this week and Winchelsea next
- Reports will be submitted for ESV's consideration

REFCL general update

Tranche two

- Commissioning dates for Charlton and Ballarat North have shifted out. HV customer readiness remains a concern.

Contingent Project Application

- Powercor has finalised our Contingent Project Application to the AER for Tranche 3
- The application will cover the installation of REFCLs at 7 zone substations

Future exemptions

- Bannockburn – favourable draft response from ESV received. Working through small areas of risk.
- Waurm Ponds & Torquay – no exemption being planned as Torquay will complement Waurm Ponds.

Reliability pressures

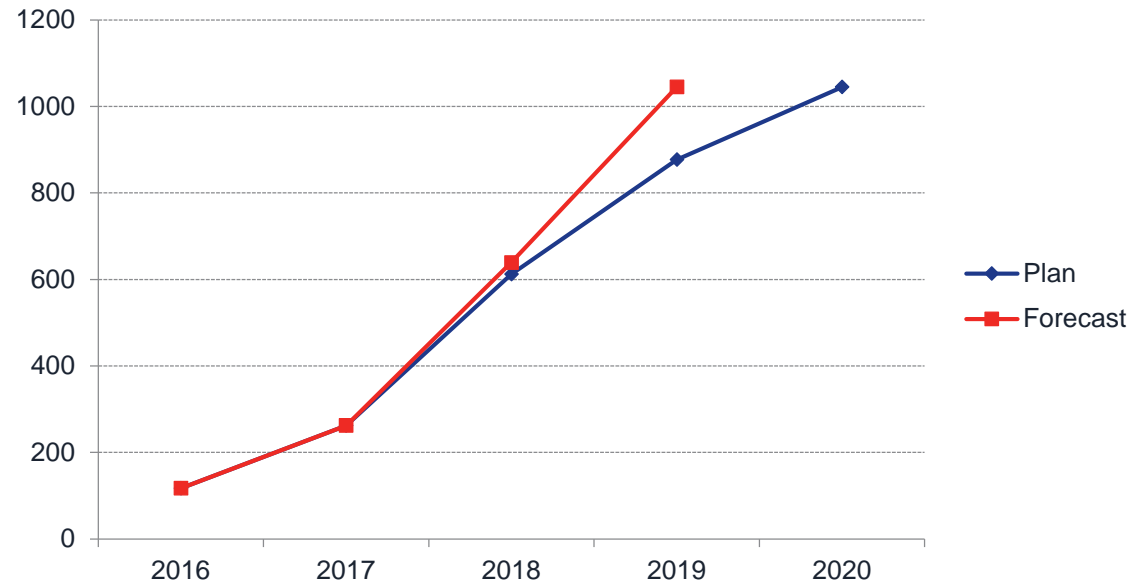
- We are seeing a detrimental impact on reliability due to incompatibility with auto-loop schemes and FDIR, our automated switching program
- We also seeing increased customer and community awareness of the reliability impact
- Recently we trialled an EOR-3D fault recorder with promising results. Potentially this could be incorporated into our existing devices to assist with fault identification on REFCL networks.

SWER ACR status

A total of 1,045 SWER systems are to be protected with new functionality ACRs



377 ACRs were installed in 2018 which exceeded our plan of 350 ACRs.



Powerline Replacement



Commentary

- The Ashbourne South project commenced construction in May 2019. Civil works have been completed. Cutover and retirement works have been pushed out for an end of November completion. This is due to access issues caused by recent wet weather.
- Powercor has commenced planning and design of further powerline replacement works where a total of 100km of overhead line will be retired by the end of 2020.