

PBSC UPDATE

Powercor REFCL Program

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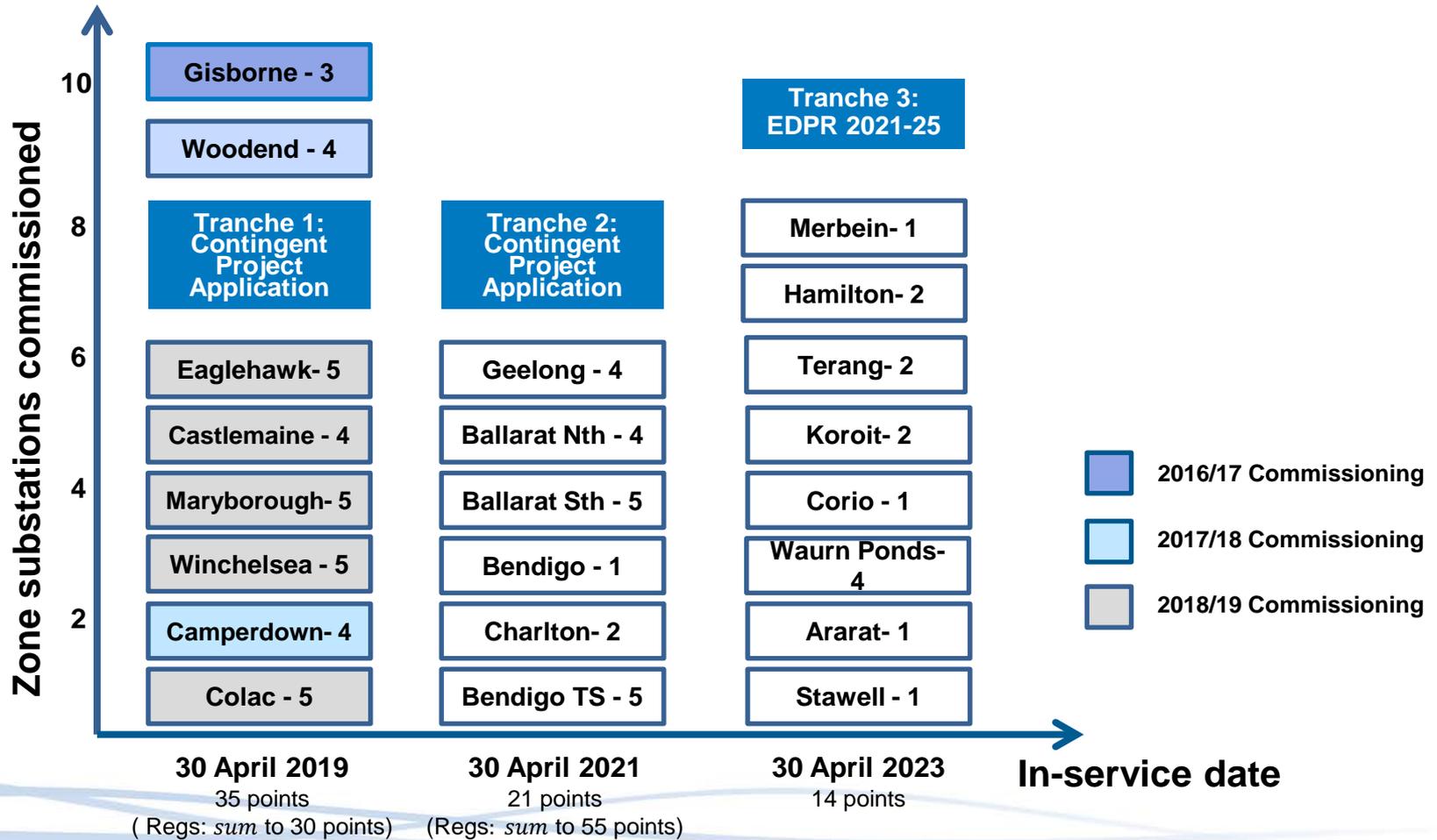
Summary

Gisborne trial site has been in service since April 2017

Woodend trial site undergoing commissioning and compliance testing in October 2017

Powercor aim to have the REFCLs at the two trial sites, plus Camperdown, in operation over the 2017/18 summer fire season

Timetable and points per REFCL site



Trial Sites

Gisborne operational, Woodend by October 2017

Gisborne

- Full compliance test achieved in April 2017
- Working with ESV through the requirements for formal test certification
- REFCL in service 96% since January 2017
- 52 operations in 2017
- 47 transient faults cleared without interruption to customers
- 5 permanent faults with low energy and reduced fire risk

Woodend

- Stress testing completed in late 2016 without major incident
- Four HV cable failures during commissioning
- Investigation revealed early vintage (steam cured) XLPE cable susceptible to insulation failure from REFCL over-voltages
- Commissioning now planned for October 2017



Tranche 1

The Tranche 1 Contingent Project Application submitted to the AER in March 2017

As no anticipated change to the allowable voltage limits in the Distribution Code, isolating substations were costed into the Application for each HV customer connection

On 21 August the AER provided their final decision on expenditure for Tranche 1, and funding provision for HV Customer isolating substations was included

The need for isolating transformers was a key focus of the AER deliberation

Surge arrester replacements, design works and some zone substation construction works are well underway

Tranche 1 Timeline

Areas	Zone substation	Activity	2017 to 2019											
			Q1 '17	Q2 '17	Q3 '17	Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19	
All	Surge arrester replacements	construction												
1	Camperdown	design												
		construction												
2	Colac (2 x REFCLs)	design												
		construction												
3	Castlemaine	design												
		construction												
4	Maryborough	design												
		construction												
5	Winchelsea (2 x REFCLs)	design												
		construction												
6	Eaglehawk (2 x REFCLs)	design												
		construction												

2 HV Customers

6 HV Customers

4 HV Customers

No HV Customers

Balancing isolating transformer

Tranche 1 Regulation compliance date

9 HV Customers

Exemption Requests

On 15 August Powercor submitted a request that underground or overhead insulated polyphase electric lines (PELs) be exempt from the requirement to be REFCL protected, on the basis that if it is mandatory it:

- is technically impractical in many cases, and will actually reduce safety performance of the REFCL on bare conductor sections due to capacitance balancing;
- provides little or no additional reduction in fire risk compared to underground or overhead insulated PELs, and as confirmed by the Regulatory Impact Statement;
- is not consistent with the intent of the outcomes of the Victorian Bushfire Royal Commission (VBRC); and
- does not represent prudent expenditure on behalf of Victorian customers

The Exemption request relates to proposed underground or overhead insulated cable downstream of an isolating substation at Winchelsea (for capacitive balancing), and at Camperdown, Colac, Castlemaine and Eaglehawk zone substations (HV Customers).

A future request for a time extension is likely where:

- The Vic Government High Voltage Customer Assistance Program (HCAP) identifies a HV customer who agrees to hardening works, and where this impacts a service date, or
- The installation of an isolating substation at a HV customer site impacts a service date