
1. Transition of the electricity generation sector

As noted in the report, accelerating the transition from coal fired power generation to renewable energy presents a significant opportunity for Victoria in respect of long term emissions reduction. The Report also notes that the electricity generation sector is capable of making a more than proportional contribution to emissions reduction in the short term.

Victoria already has a strong renewable energy target (VRET) in place – targeting 50% renewable energy by 2030. As noted in the Report, though this target is ambitious, it is also reflective of the fact that renewable energy sources represent lowest cost new generation capacity, and that the electricity sector is in the process of rapid transition.

This rapid transition will also require careful planning to ensure that there is minimal impact on energy system security and reliability, and for energy customers. As noted in Box 6.4 of the Final Report a 50% reduction in electricity sector emissions is dependent on the installation of significant additional battery and pumped hydro storage capacity and increased demand side participation. However, as the Report also shows in Figure 6.6 – the pipeline for committed and proposed Victorian storage projects is very low. As such, this is a gap that needs to be managed with the right policy intervention.

Victorian Energy Storage Target (VEST)

A policy reform that would address this gap, is the introduction of a Victorian Energy Storage Target (VEST) linked to the VRET.

In global jurisdictions, energy storage targets are well established – particularly in jurisdictions with strong renewable energy targets and/or zero emissions targets. However, we are yet to see any Australian jurisdictions take the lead in establishing a local storage target.

The following provides a summary of some of the energy storage targets that have been operating over the last decade:

- **California** - first introduced their Energy Storage Procurement Mandate in 2013, with a mandate for 1325 MW of energy storage by 2020². An extra 500 MW was added to that mandate in 2016. Supports a 60% 2030 clean energy target and a 100% 2045 clean energy target.
- **Massachusetts** – introduced an energy storage target of 1000 MWh of energy storage in July 2018, to be delivered by 2025. Supports an 80% reduction in emissions by 2050.
- **New York**- has an energy storage target of 1500 MW by 2025 and 3GW by 2030. This is supported by the New York Green Bank, \$200m fund. Supports the recently passed 70% 2030 clean energy target, which will see 15 GW of renewables deployed³.
- **Arizona** – has an energy storage target of 3000 MW by 2030. Supports the (possible) 100% clean energy target by 2050⁴.
- **New Jersey** – has an energy storage target of 2000 MW by 2030⁵
- **Nevada** – the SB204 Storage Targets Implementation bill is considering the introduction of a storage target of up to 1000MW by 2030⁶.

There is an opportunity for Victoria to lead the way and be the first state in Australia to establish an energy storage target.

How could a VEST be established?

² Refer - https://www.theclimategroup.org/sites/default/files/downloads/etp_californiacasestudy_apr2017.pdf

³ Refer - <https://pv-magazine-usa.com/2019/06/19/new-york-senate-passes-the-biggest-baddest-renewable-energy-mandate-in-the-nation/>

⁴ Refer - <https://pv-magazine-usa.com/2019/06/11/powerful-100-renewable-energy-plan-drafted-in-new-jersey/>

⁵ Refer - <https://www.eesi.org/papers/view/energy-storage-2019>

⁶ Refer - <https://www.energy-storage.news/news/energy-storage-procurement-targets-could-work-for-nevada-pucn-commissioned>