



Institute for
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Futures



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Renewable Energy Jobs in Australia 2020

Tasmania summary

June 2020

Background

The first National survey of Renewable Energy jobs in Australia

Objectives

- Improve estimates and understanding of renewable energy employment
- Facilitate better workforce planning to avoid future skill shortages
- Identify opportunities for regional jobs and managing energy transition
- Fully study and methodology available from https://bit.ly/REjobs_Au

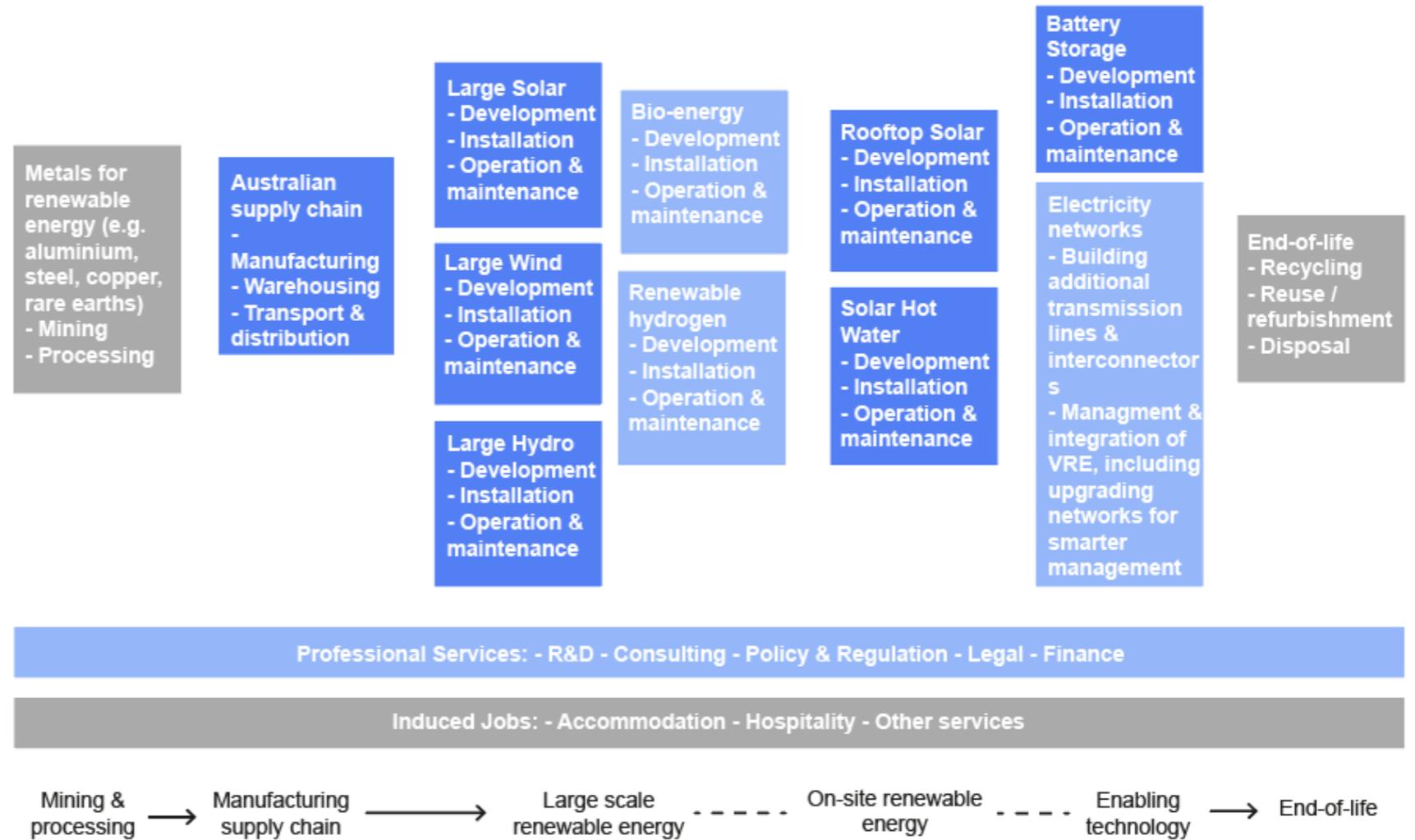


Scope of study

Study scope figure

Legend: Phase One Phase Two Out of scope

1. All direct jobs (development, construction/installation, operation and maintenance, manufacturing)
2. Some indirect jobs are included (transport, warehousing, but not professional services, or R&D)
3. Induced jobs are not included (e.g. expenditure of construction workers in regional towns)
4. Some areas were not covered
 - Renewable hydrogen
 - Metals for renewable energy
 - Bio-energy
 - Electricity networks
 - Professional services (R&D etc)
 - End of life recycling, reuse and disposal

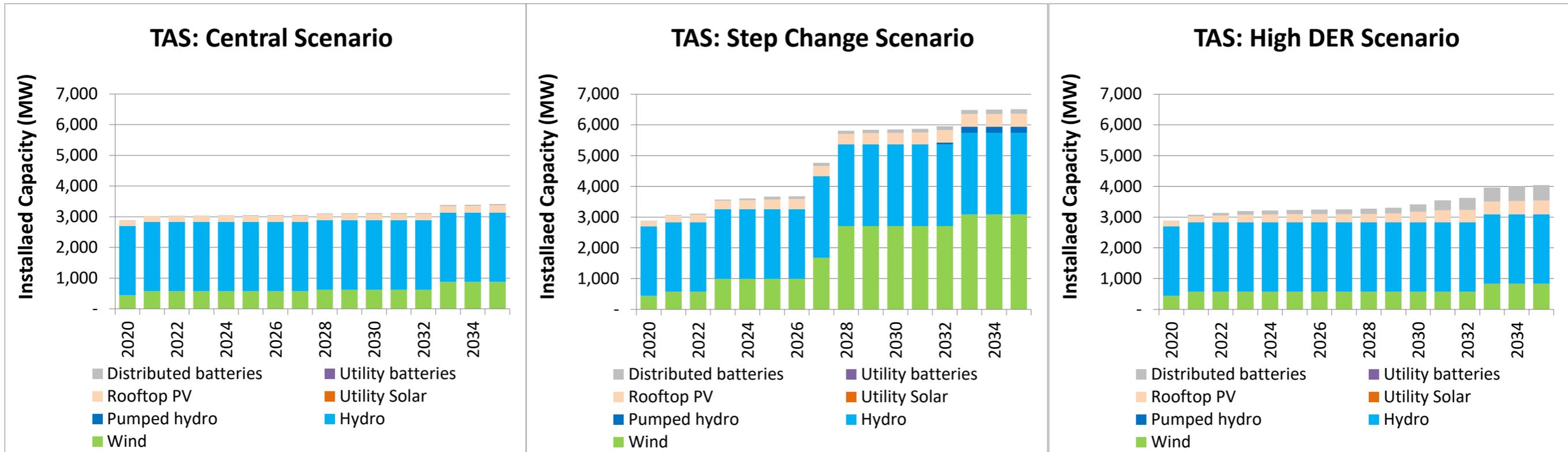


Renewable Energy Scenarios – Tasmania

AEMO scenarios from the 2020 Draft Integrated System Plan were used for the study:

- Under the **Central Scenario** (i.e. BAU), there is almost no growth in renewable capacity

- Under the **Step Change** scenario, installed capacity increases to more than 6 GW by the late 2020s, driven by hydro and wind and rooftop solar
- Under the **High DER** scenario, installed capacity grows moderately to 4 GW.

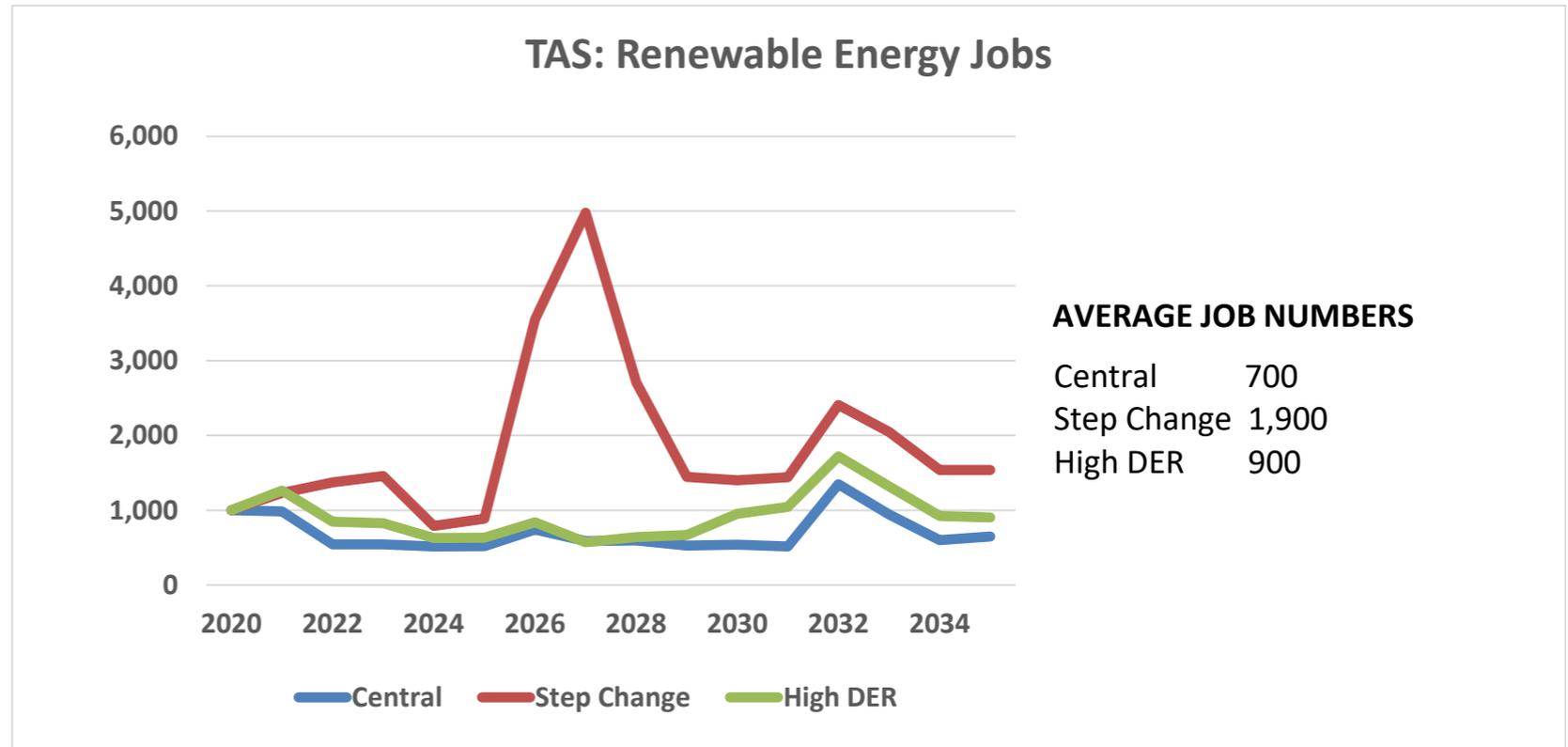


How many Renewable Energy jobs?

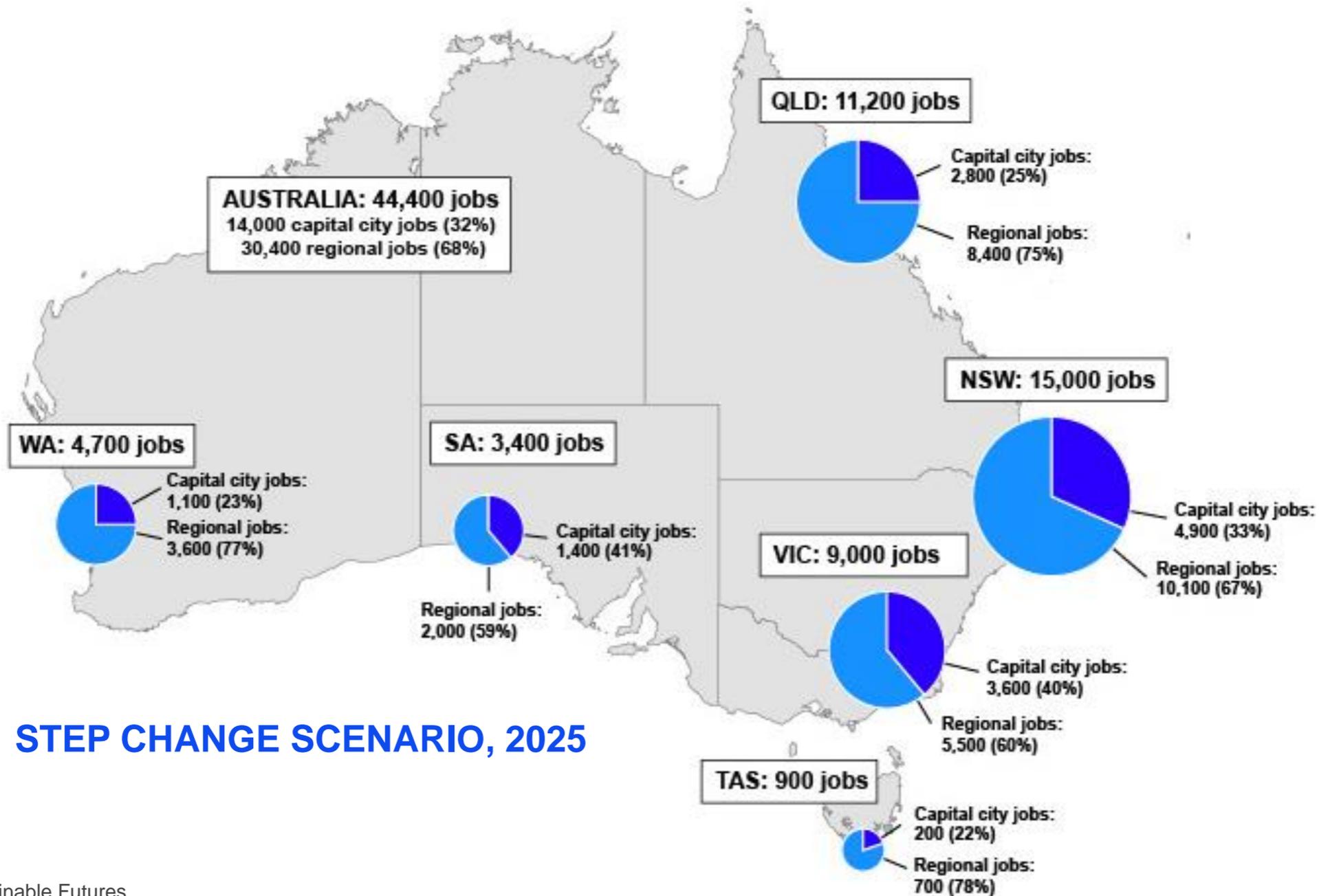
Based on the AEMO 2020 Integrated System Plan scenarios, jobs under the Central scenario (BAU) and the High DER scenario shrink somewhat and then stay mostly steady.

In the Step Change Scenario there is a very large peak in the mid to late 2020s, when new hydro and wind schemes are under construction, and jobs remain close to double current levels.

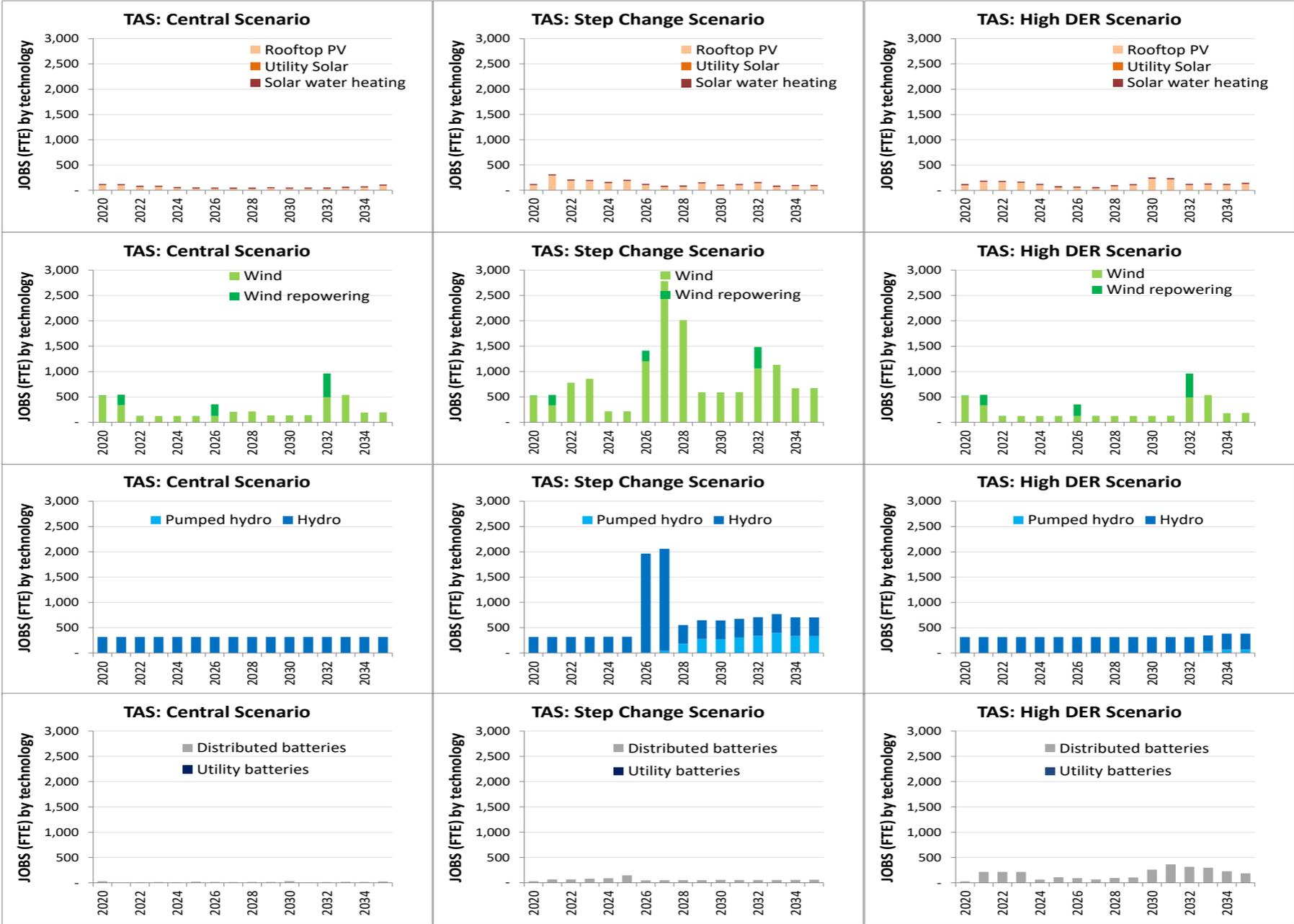
- Under the **Central Scenario** (i.e. BAU), there are several hundred jobs lost, and then things plateau until the late 2020s. Jobs average 700 over the period.
- Under the **Step Change** scenario, there is a large peak in employment in the mid 2020s, followed by a return to about 1,500 jobs. Jobs average 1,900 over the period.
- The **High DER** scenario is similar to the Central scenario, with a slightly higher average of 900 over the period.



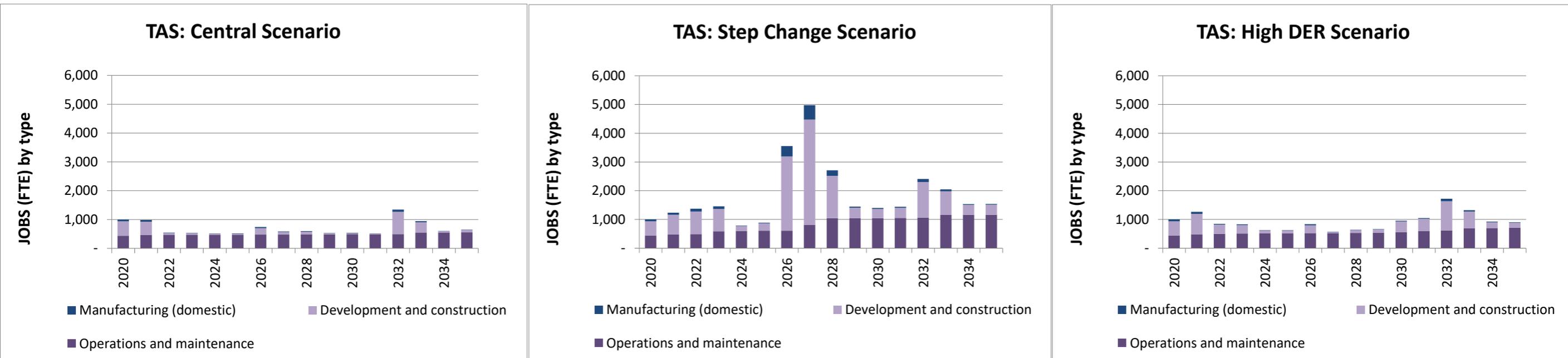
Where are the Renewable Jobs – capital cities vs regions?



Jobs growth by technology and scenario

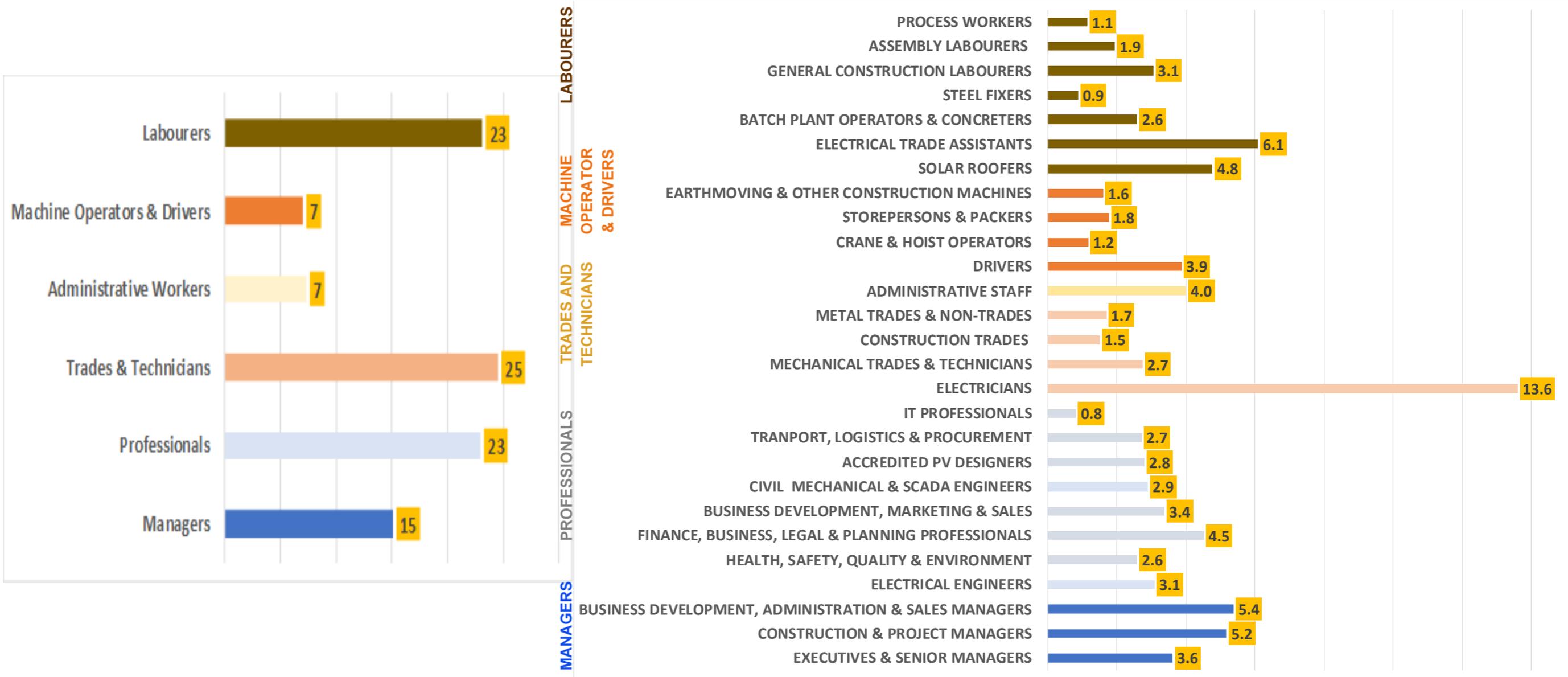


O&M jobs make up more than three quarters of the renewable work force



- O&M jobs constitute most of the renewable jobs in Tasmanian because of the high proportion of hydro, although an increasing number of wind farm jobs are also O&M.
- All scenarios have well around three quarters of renewable jobs in operations and maintenance. The Central scenario has the highest percentage of O&M jobs (86%) at 2035, as so little new renewable capacity is being built. In the Step Change scenario at 2035 O&M jobs are 76% of RE jobs, and in the High DER they are 79%.

What are the key occupations across renewable energy (%)?



Note: the figures are an average for each occupation in the Step Change Scenario 2020-2035 across Australia. Some of the minor occupations have not being included in the detailed figure.

New hydro and pumped hydro will require large volumes of construction workers (%)

