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# Renewable Energy Jobs in Australia 2020

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## Victoria 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](https://bit.ly/REjobs_Au)
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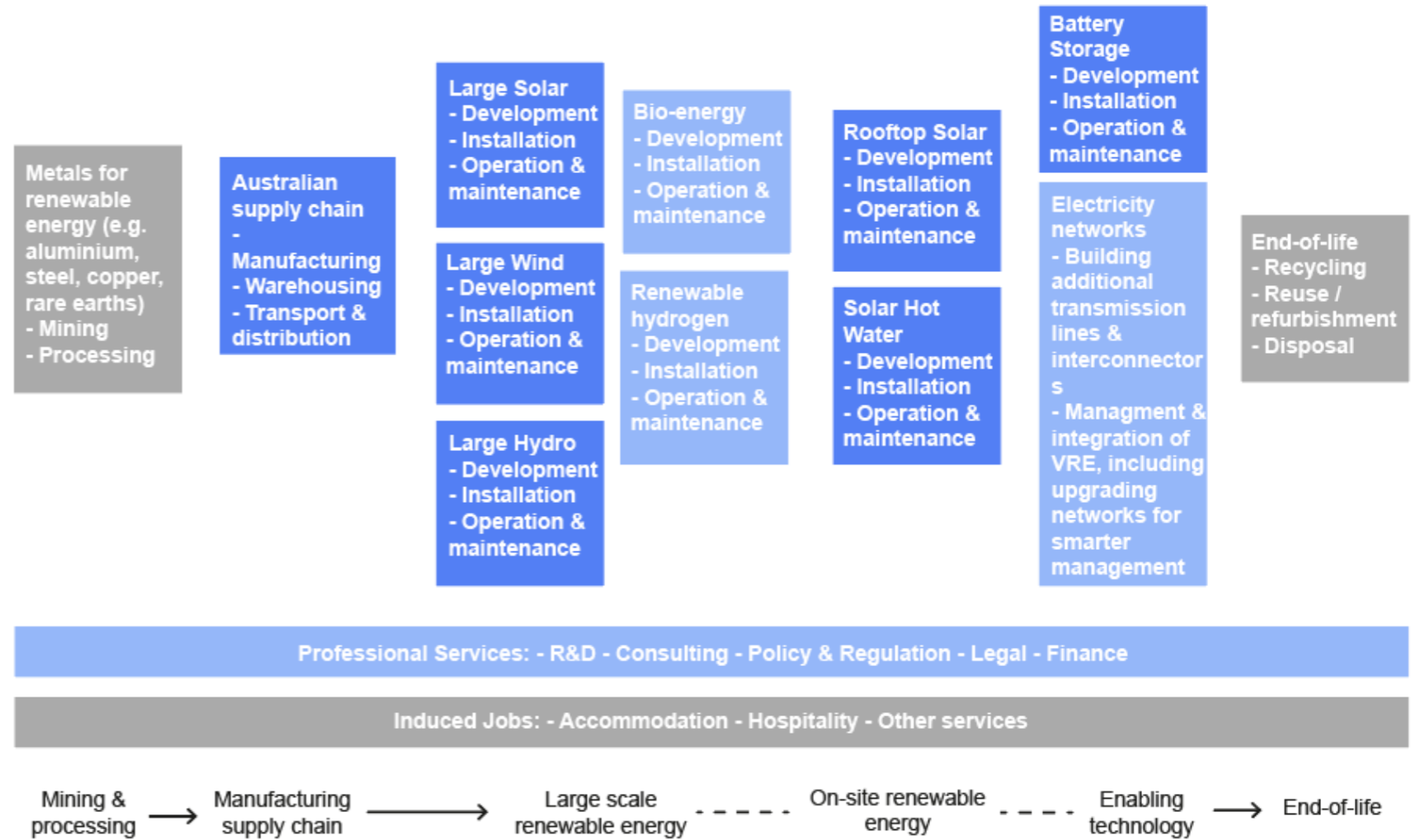


# Scope of study

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

Study scope figure

Legend: Phase One Phase Two Out of scope



# Renewable Energy Scenarios – Victoria

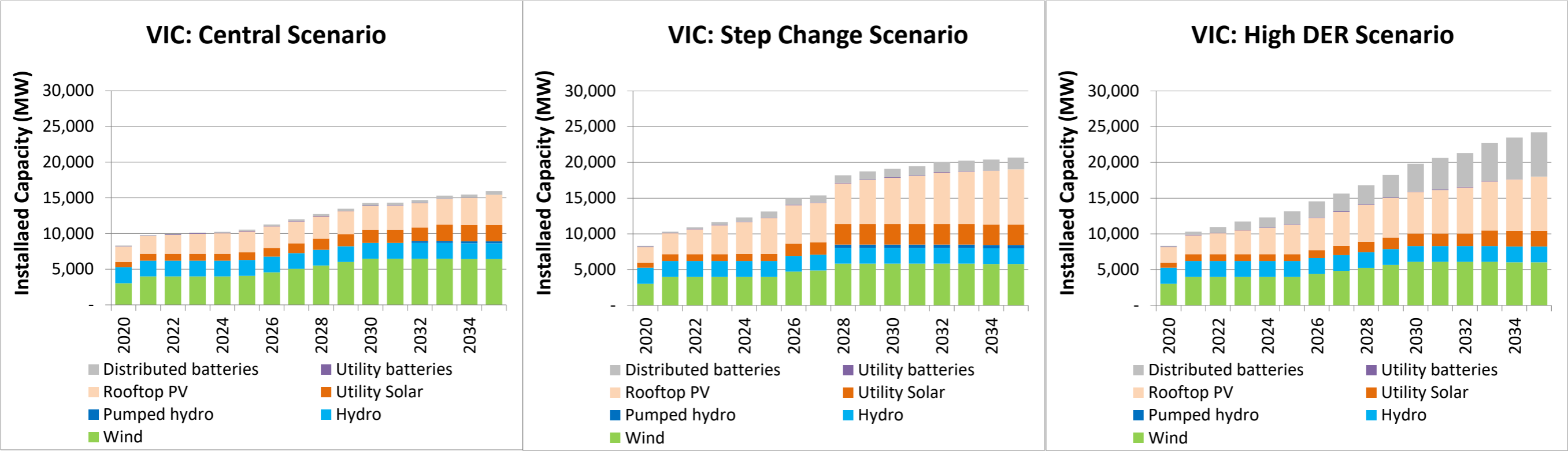
AEMO scenarios from the 2020 Draft Integrated System Plan were used for the study:

- Under the **Central Scenario** (i.e. BAU), there is modest incremental growth in renewable capacity over time to just under 15 GW
- Under the **Step Change** scenario, there is strong growth

in renewable capacity, reaching up to 20GW by 2035

- Installed capacity under the **High DER** scenario grows steadily to almost 25 GW by 2035 (including battery capacity)

AEMO scenarios see greater development in other states due to relative cost and network capacity

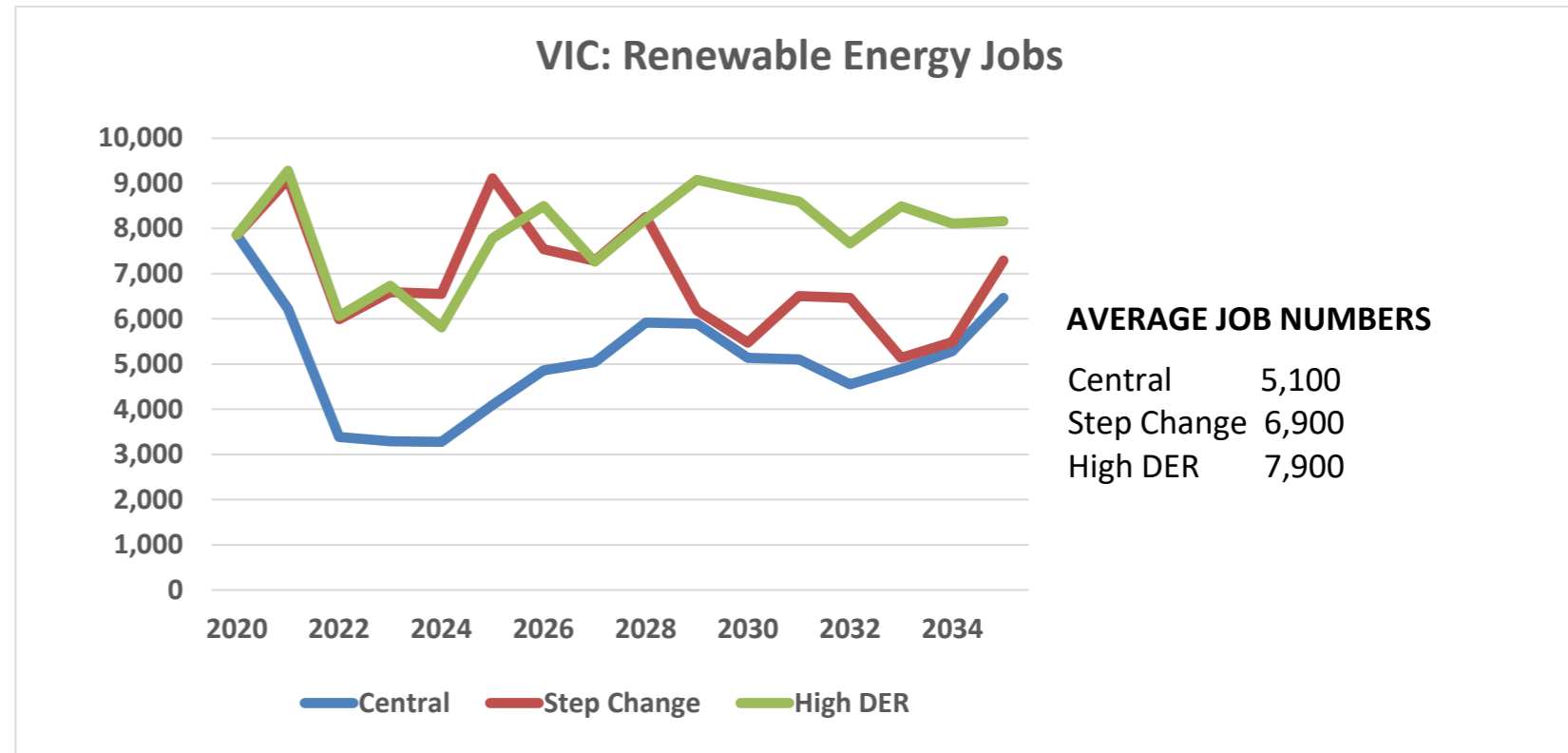


# How many Renewable Energy jobs?

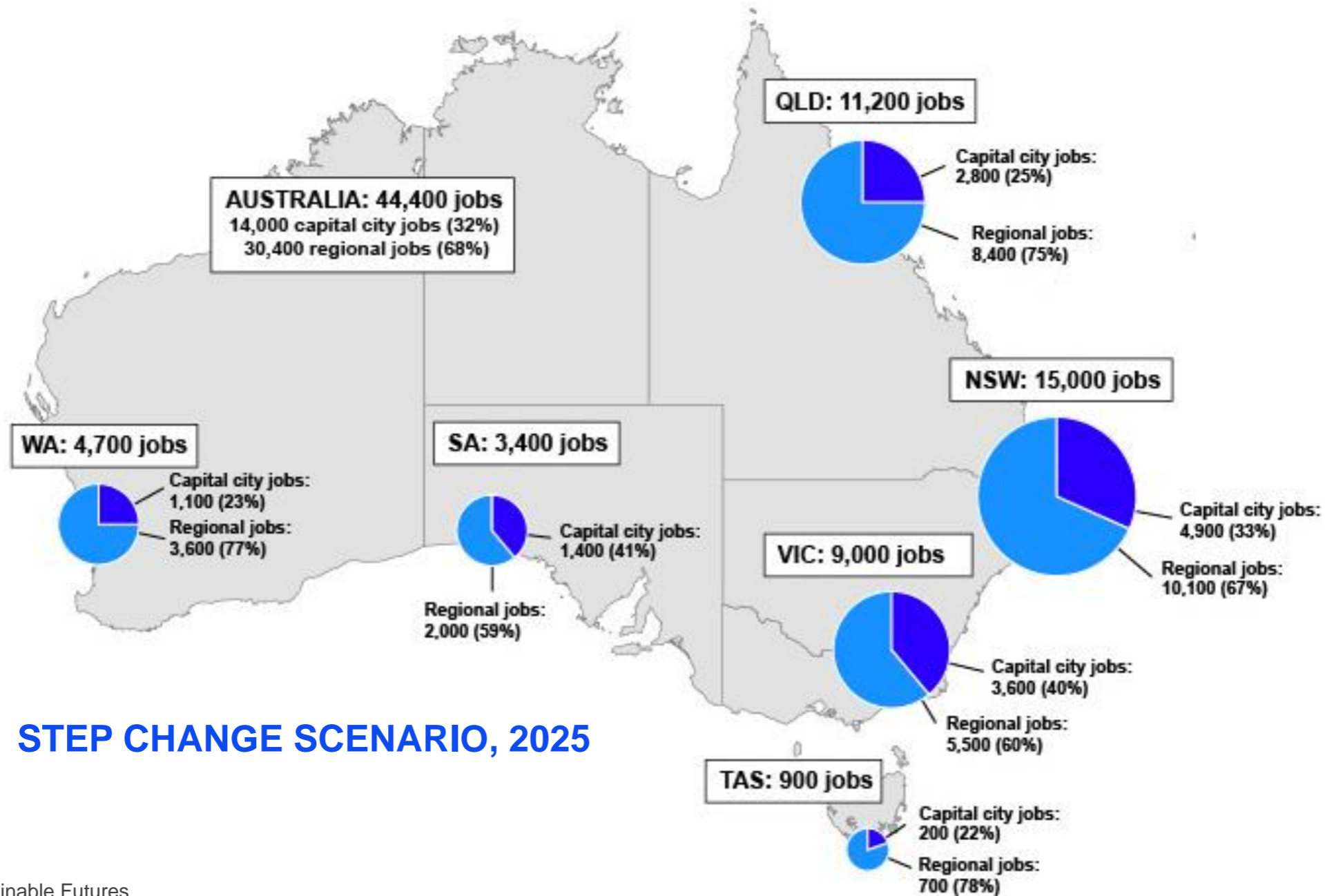
Based on AEMO scenarios, there would be job losses under all scenarios in the short-term reflecting AEMO's investment projections.

- Under the **Central Scenario** (i.e. BAU), there could be 5,000 jobs lost in the next few years. Jobs average 5,100 to 2035.
- Under the **Step Change** scenario, the industry is quite boom-bust with upswings and down-swings. Jobs average 6,900 over the period.
- As rooftop solar is the main source of new generation, jobs growth is stronger in the **High DER** scenario. Jobs average 7,900 over the period.

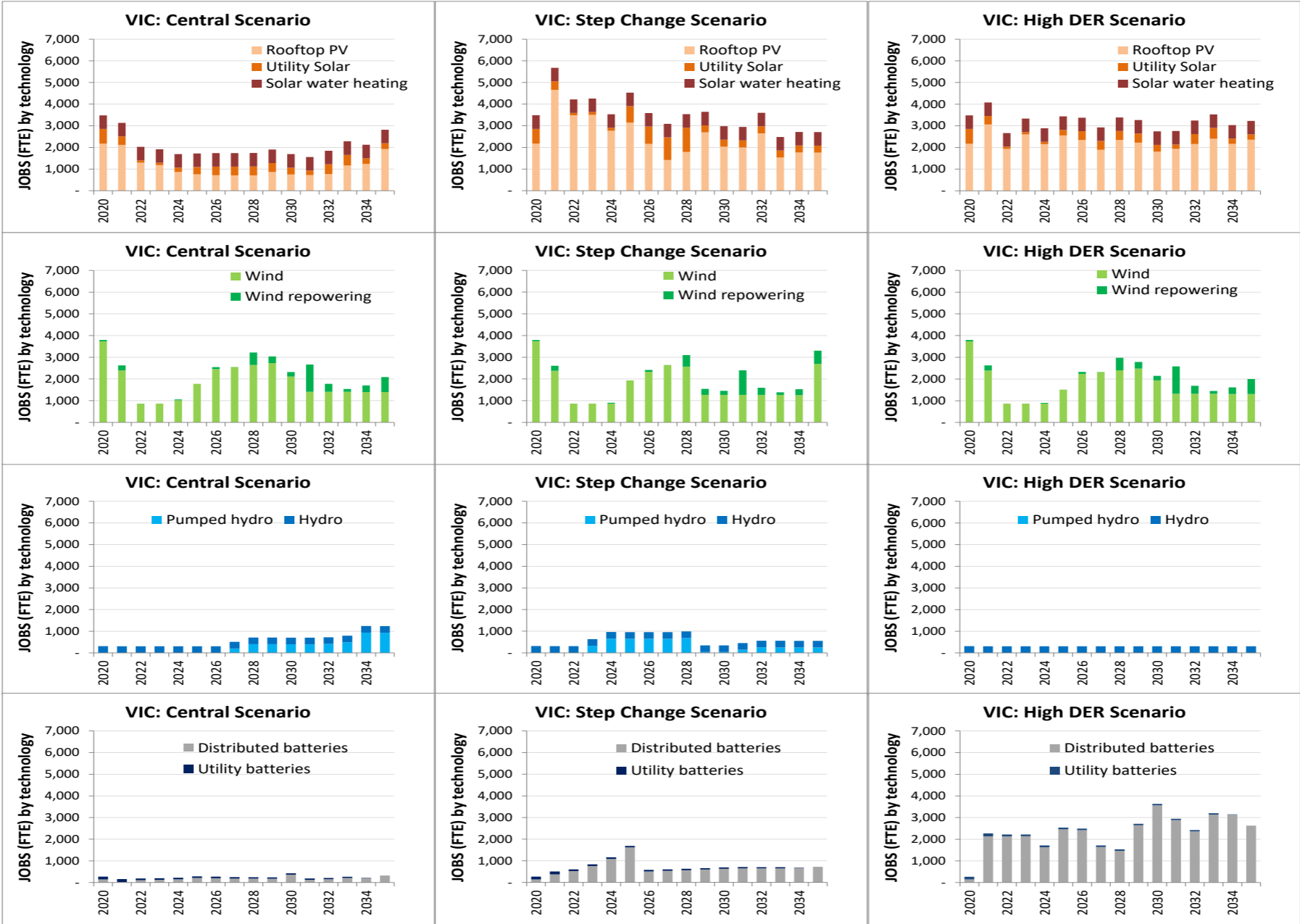
The future of renewable energy jobs will depend on an extension to VRET, Corporate PPAs and investment in transmission infrastructure.



# Where are the Renewable Jobs – capital cities vs regions?

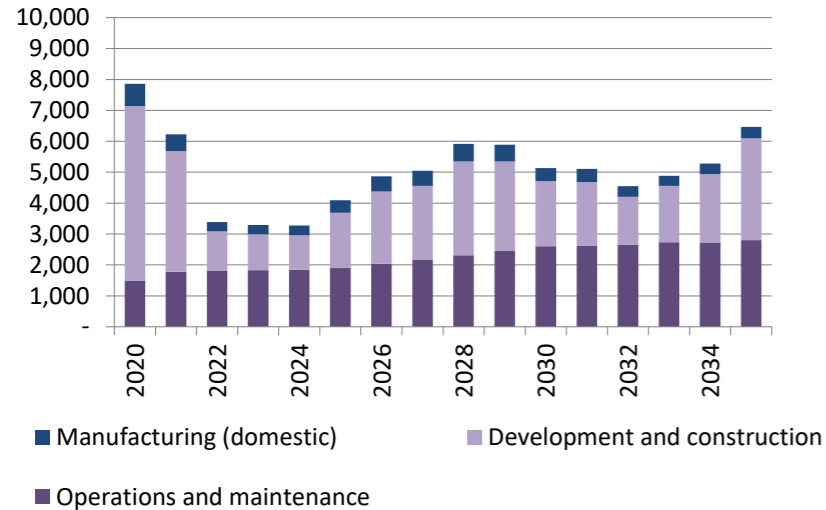


# Jobs growth by technology and scenario

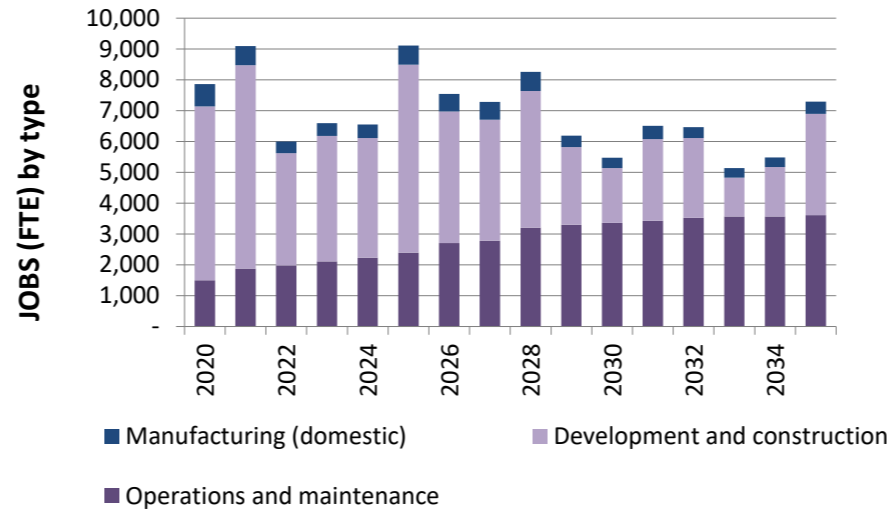


# O&M jobs will grow in importance

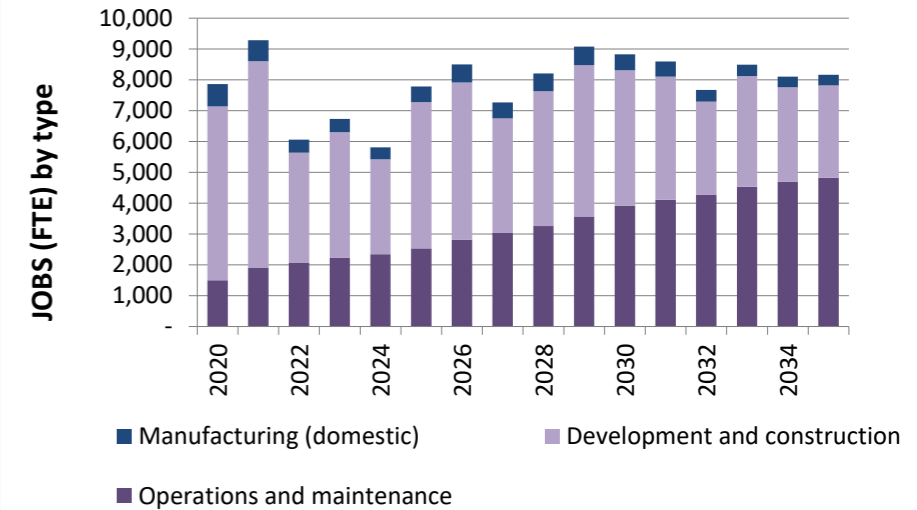
VIC: Central Scenario



VIC: Step Change Scenario



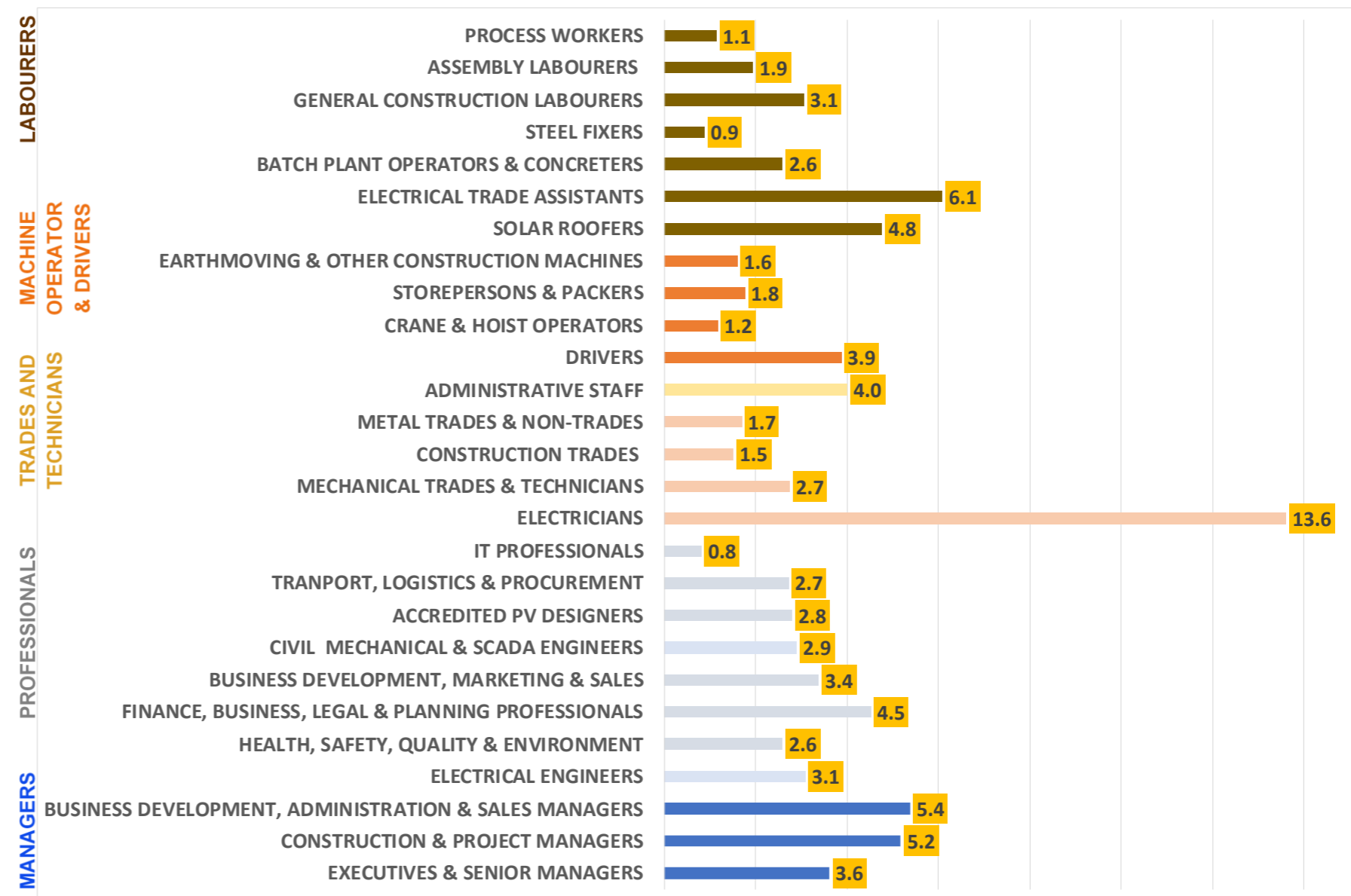
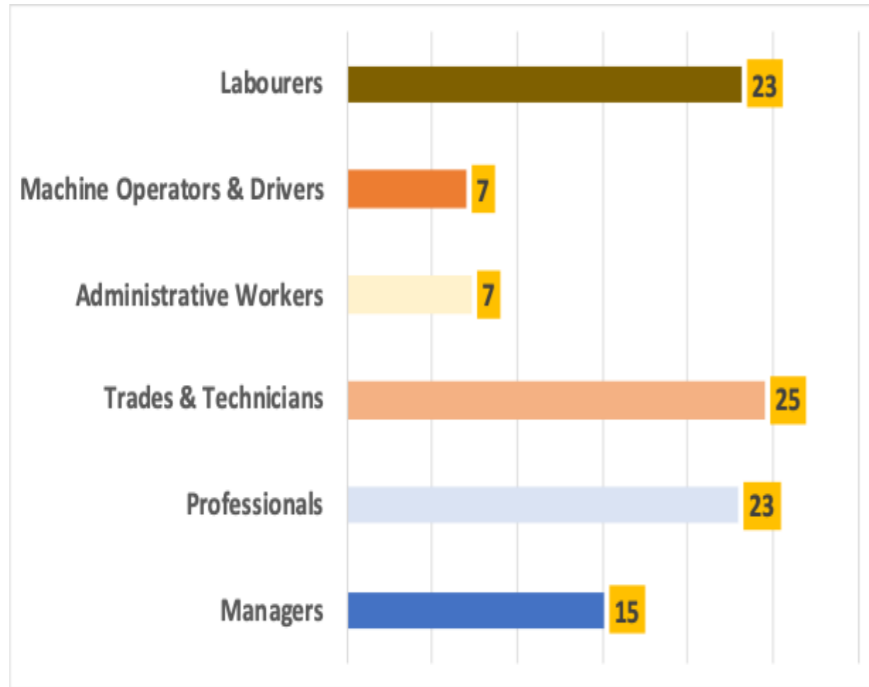
VIC: High DER Scenario



- By 2035, O&M jobs could be more than half of renewable energy jobs
- Trend driven by wind farms – good quality blue-collar jobs
- O&M a growing trend in rooftop solar, lower proportion of jobs in solar farms
- The High DER scenario performs best: by 2035 O&M jobs are 59% of RE jobs, compared to 50% in the Step Change and only 43% in the Central scenario



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

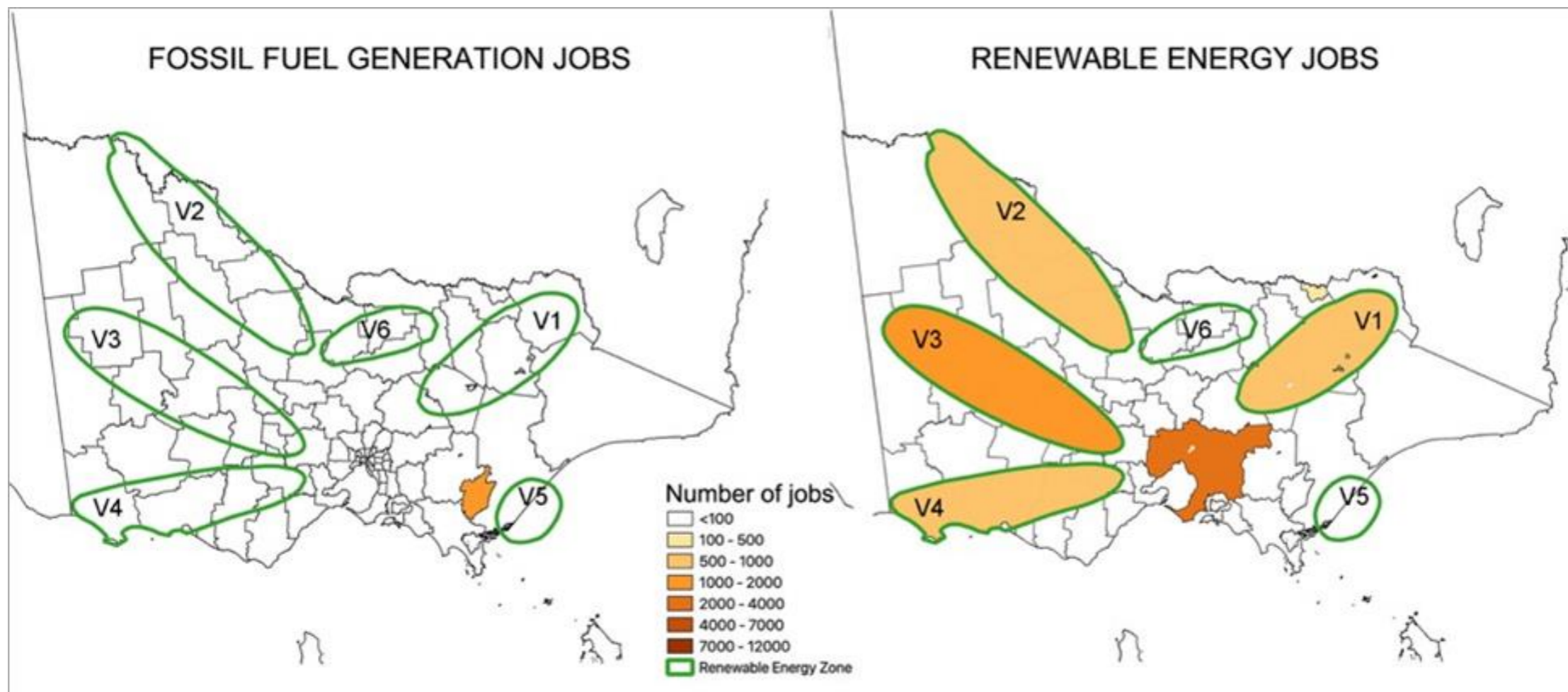


Note: the figures are an average for each occupation in the Step Change Scenario 2020-2035 across Australia. Some of the minor occupations have not being included in the detailed figure. For further information on occupational breakdowns, skill shortages and recruitment issues see the full report.

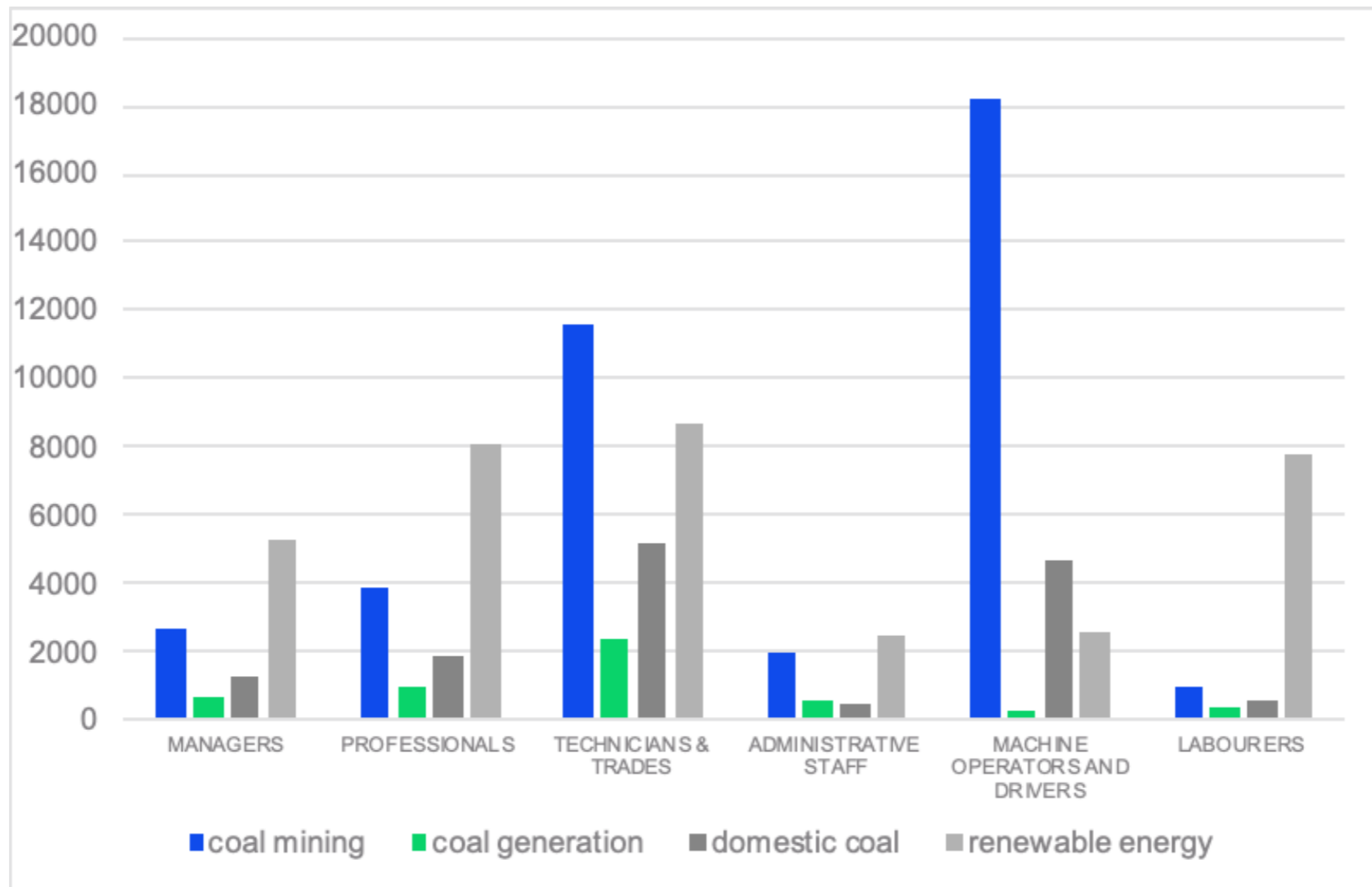
## Coal Mining and Renewable Energy Jobs (focusing on the Renewable Energy Zones)

Renewable energy will create jobs in the west and northern regions of Victoria, with the strongest job creation in the west in V3 (Western Victoria) and Melbourne, which has a mix of distributed PV & professional jobs for large-scale RE (Note that the survey does not include professional services apart from renewable energy companies).

There is a poor match between fossil fuel jobs and the REZs, with the major centre of power station jobs in La Trobe Valley.



## Current coal employment compared to RE employment by occupation



Source: coal mining jobs, ABS census 2016; RE jobs projections are for 2025 under the Step Change scenario)