UTS Institute for Sustainable Futures

CLEAN ENERGY COUNCIL

Renewable Energy Jobs in Australia 2020

South Australia summary

June 2020

Background

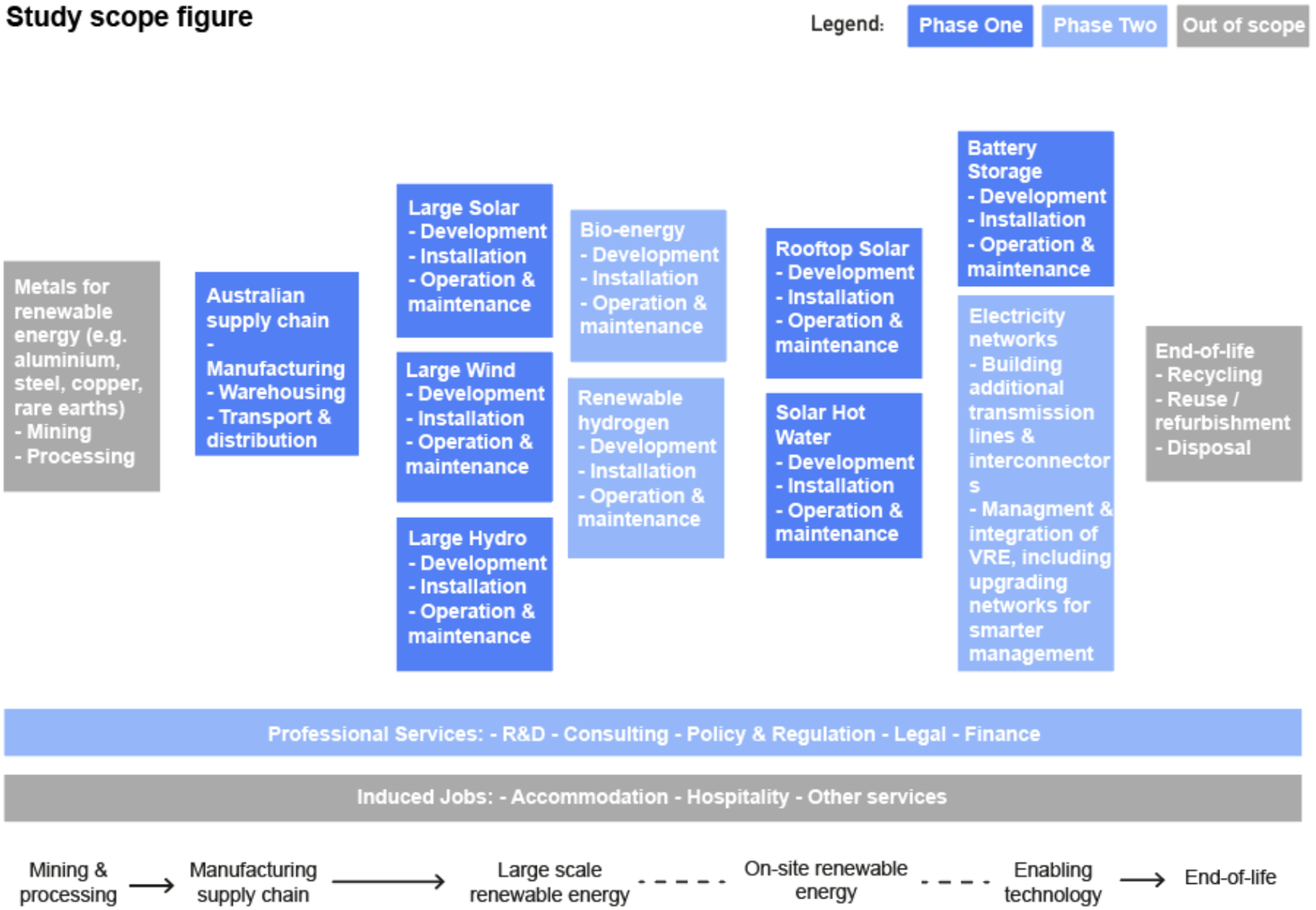
The first National survey of Renewable Energy jobs in Australia

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

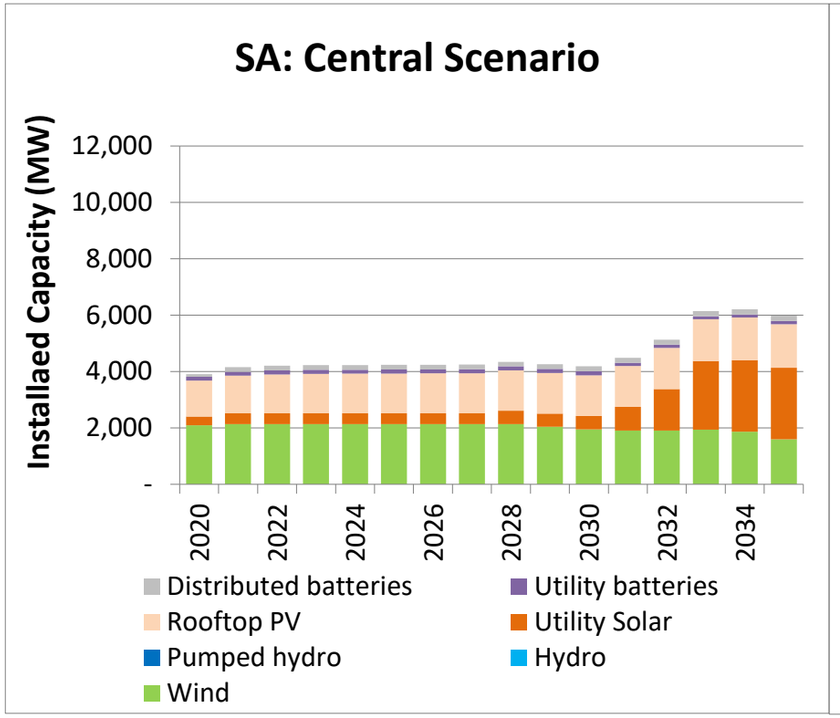
1. All direct jobs (development, construction/installation, operation and maintenance, manufacturing)
2. Some indirect jobs are included (transport, warehousing, but not professional services, or R&D)
3. Induced jobs are not included (e.g. expenditure of construction workers in regional towns)
4. Some 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

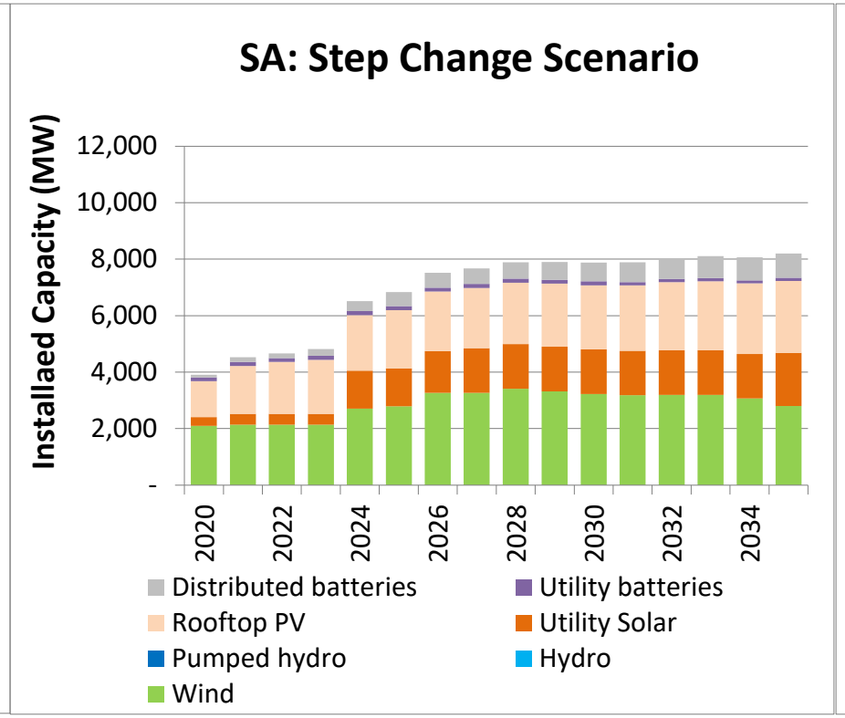


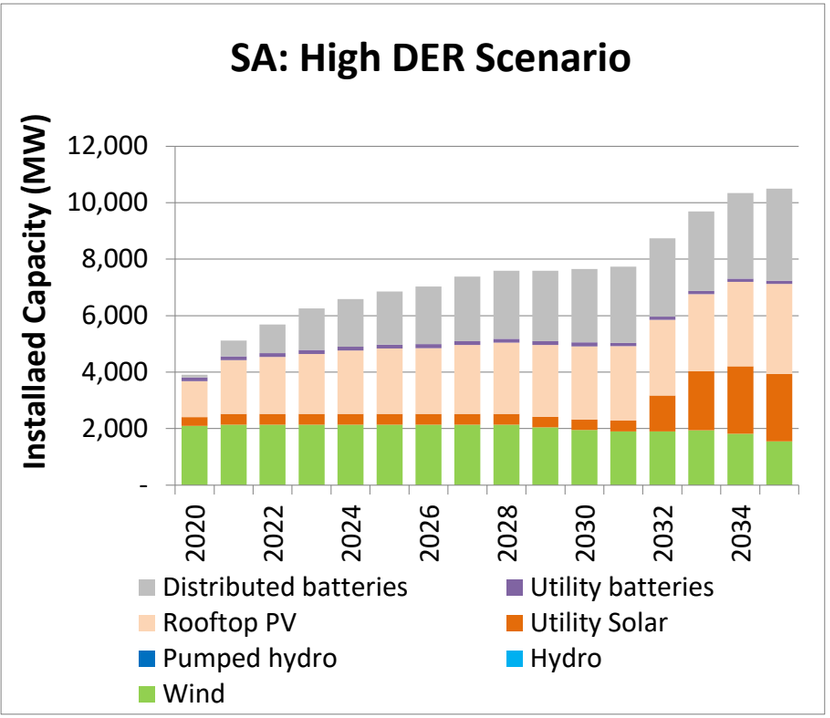
Renewable Energy Scenarios – South Australia

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

- Under the **Central Scenario** (i.e. BAU), there is minimal growth
- Under the **Step Change** scenario, installed capacity doubles to 8 GW by the late 2020s, driven by large solar, wind and rooftop solar
- Under the **High DER** scenario, installed capacity grows to 10 GW with a much higher installation of battery storage



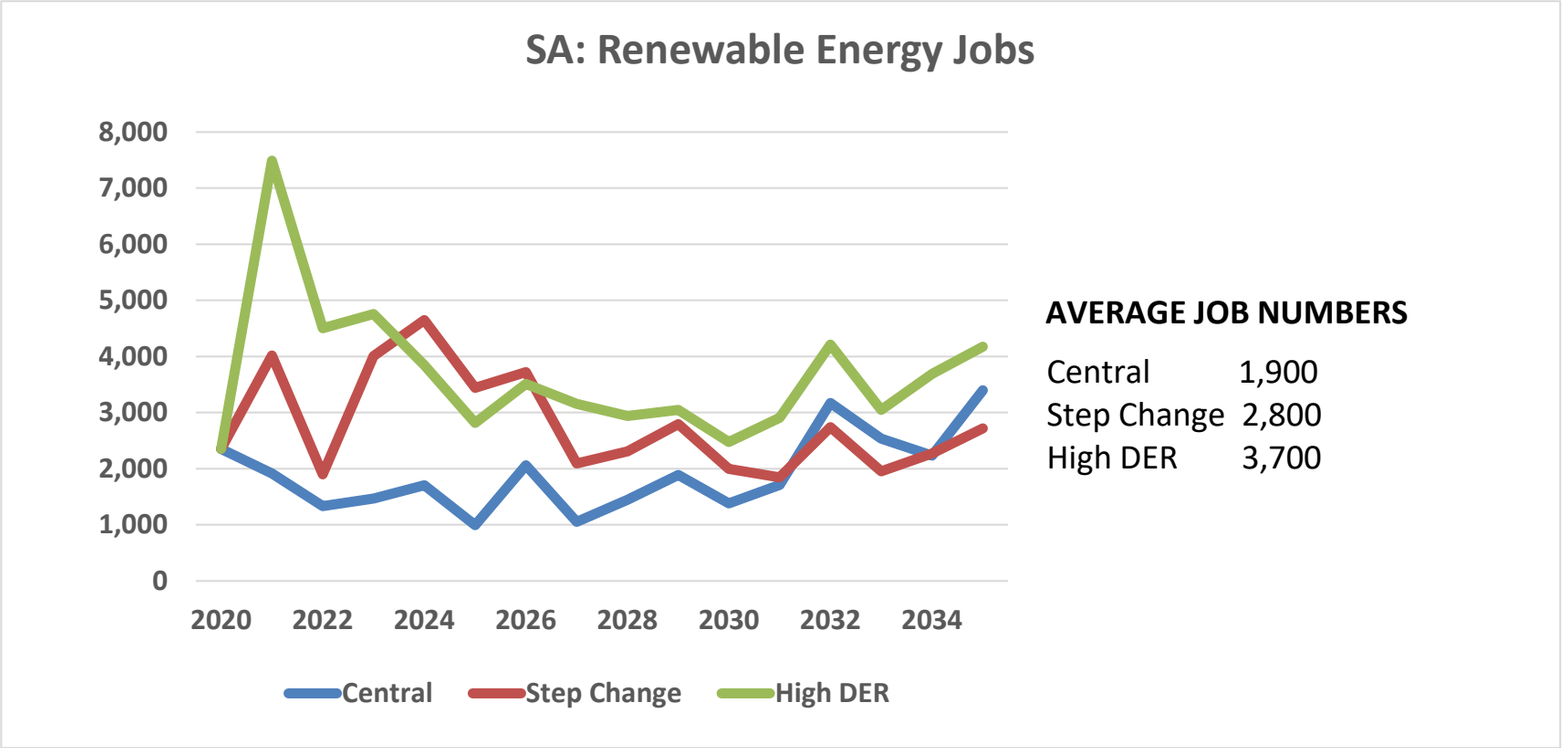




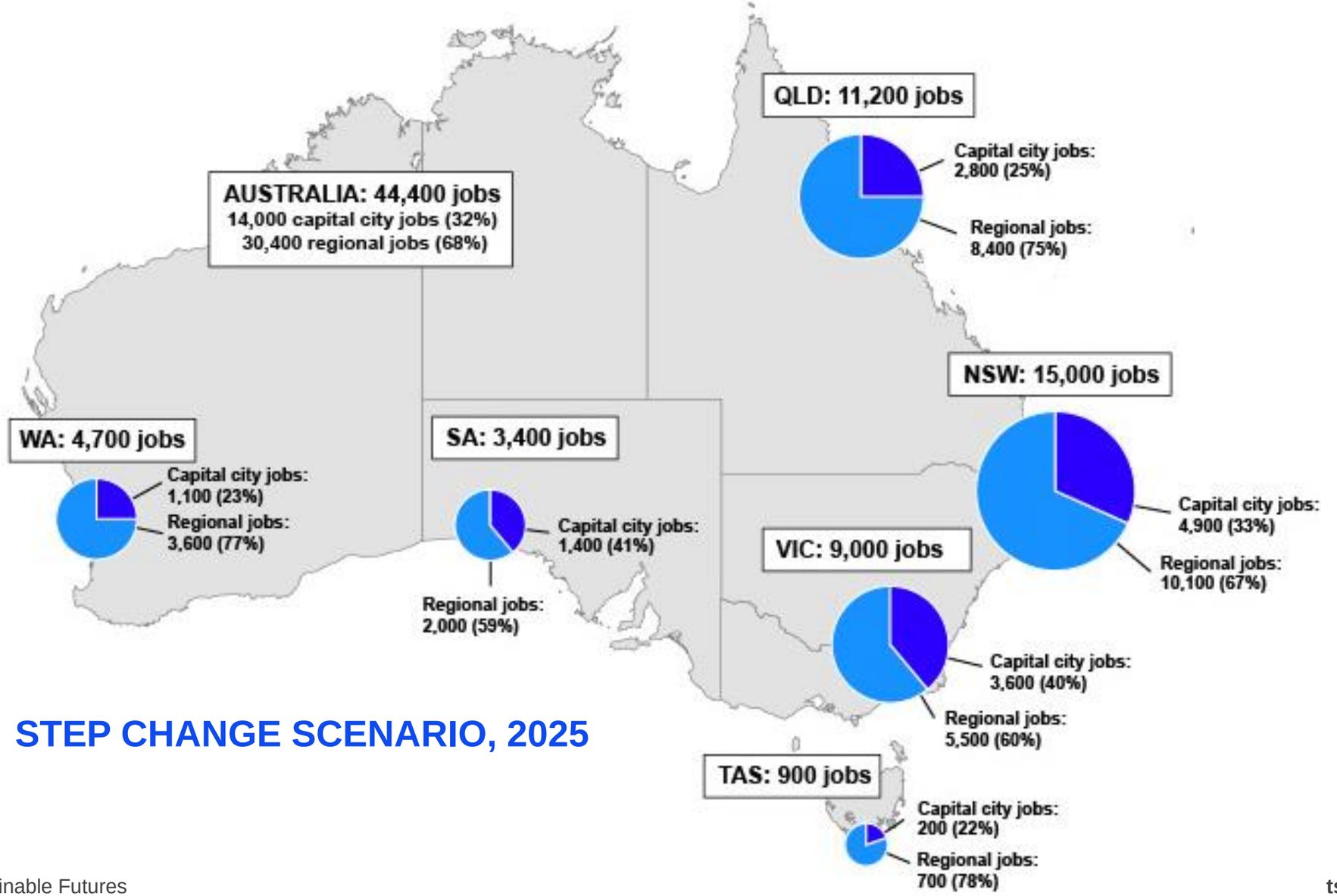
How many Renewable Energy jobs?

Based on AEMO scenarios, there would be job losses under all scenarios, although these are most acute under the Central (BAU) scenario.

- Under the **Central Scenario** (i.e. BAU), there could be 1,000 job losses (50% of the total) by the mid 2020s, recovering to higher levels after 2030. Jobs average 1,900 over the period.
- Under the **Step Change** scenario, the industry is quite boom-bust with upswings and down-swings, rising to 4000 and then falling back to today's level. Jobs average 2,800 over the period.
- The **High DER** scenario has the highest level of employment, with jobs always about 1000 more than today. Jobs average 3,700 over the period.

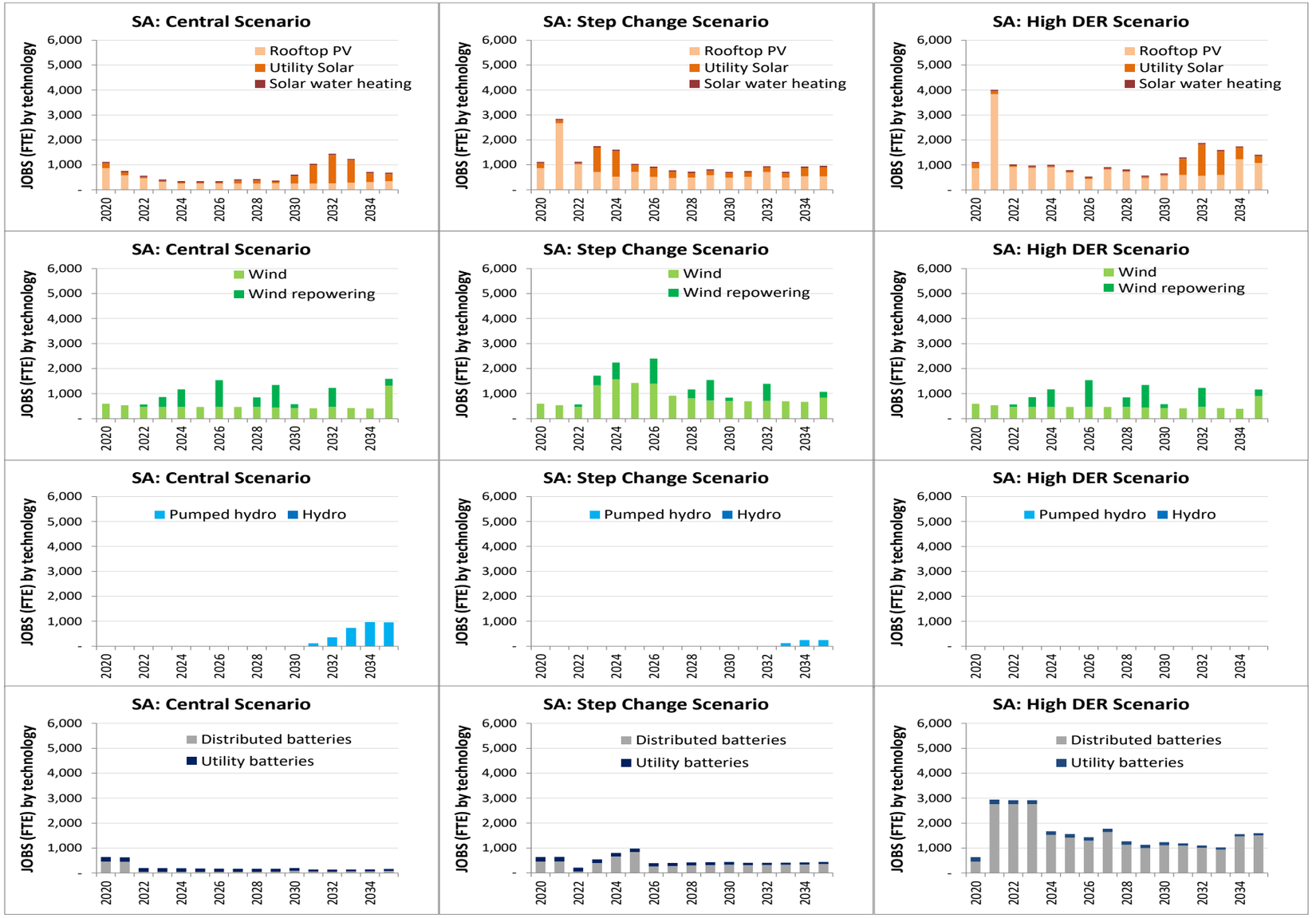


Where are the Renewable Jobs – capital cities vs regions?

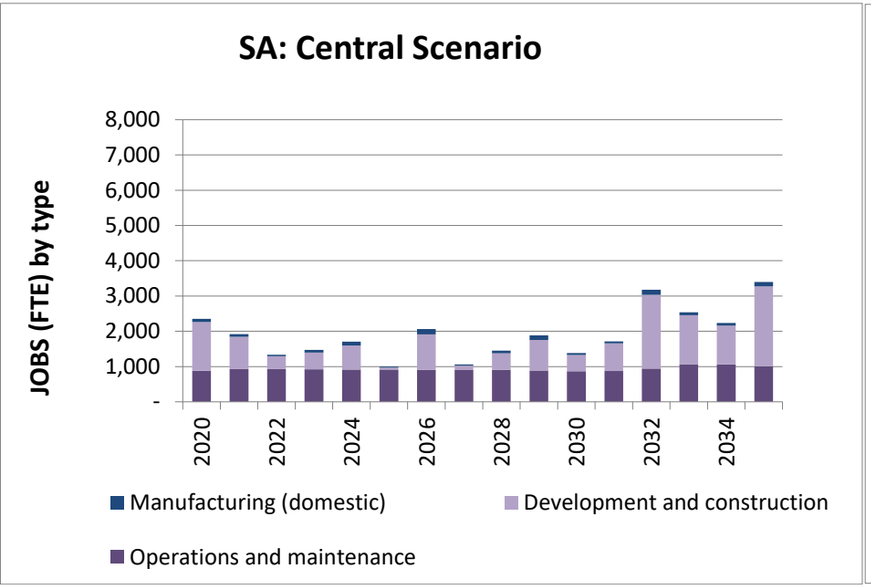


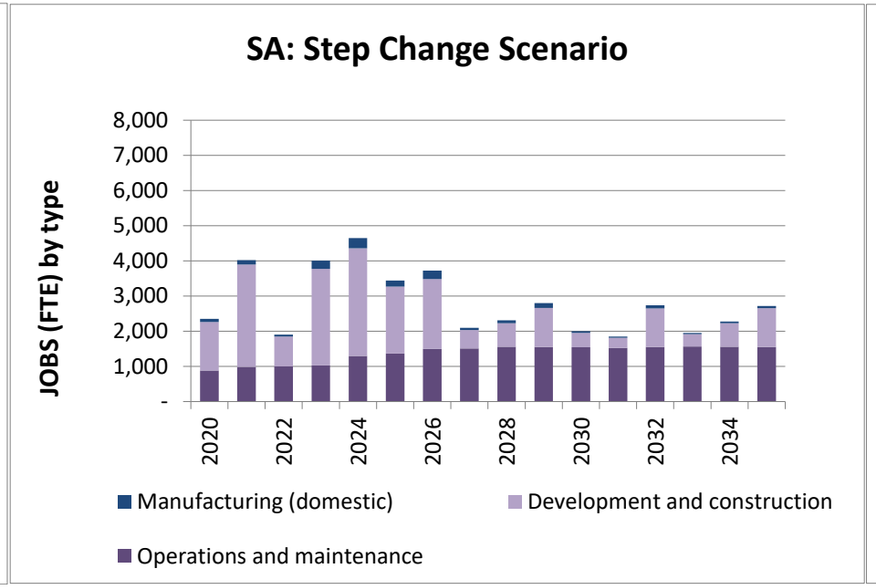
STEP CHANGE SCENARIO, 2025

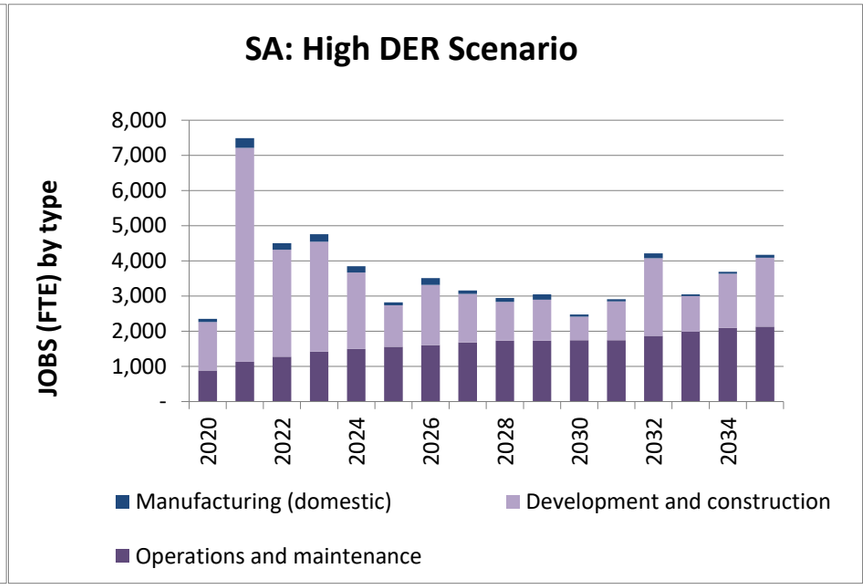
Jobs growth by technology and scenario



O&M jobs will grow in importance

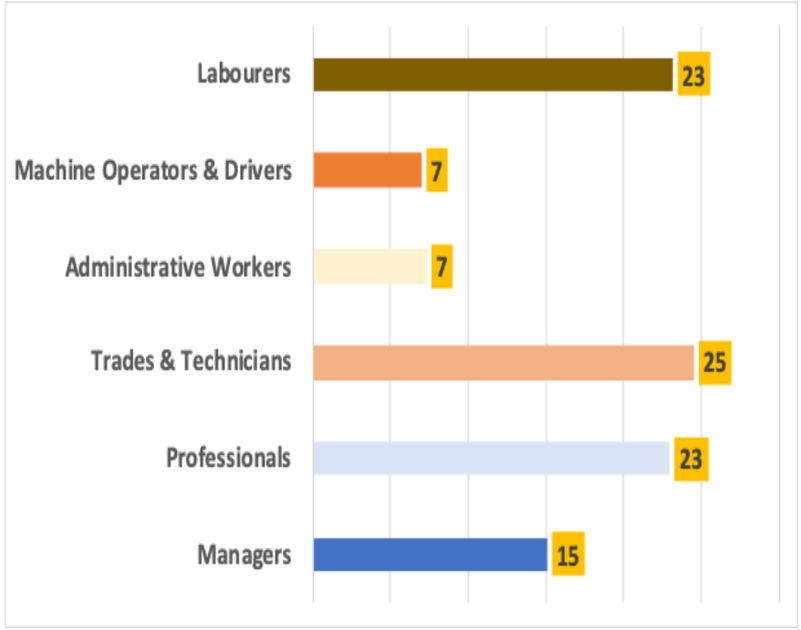


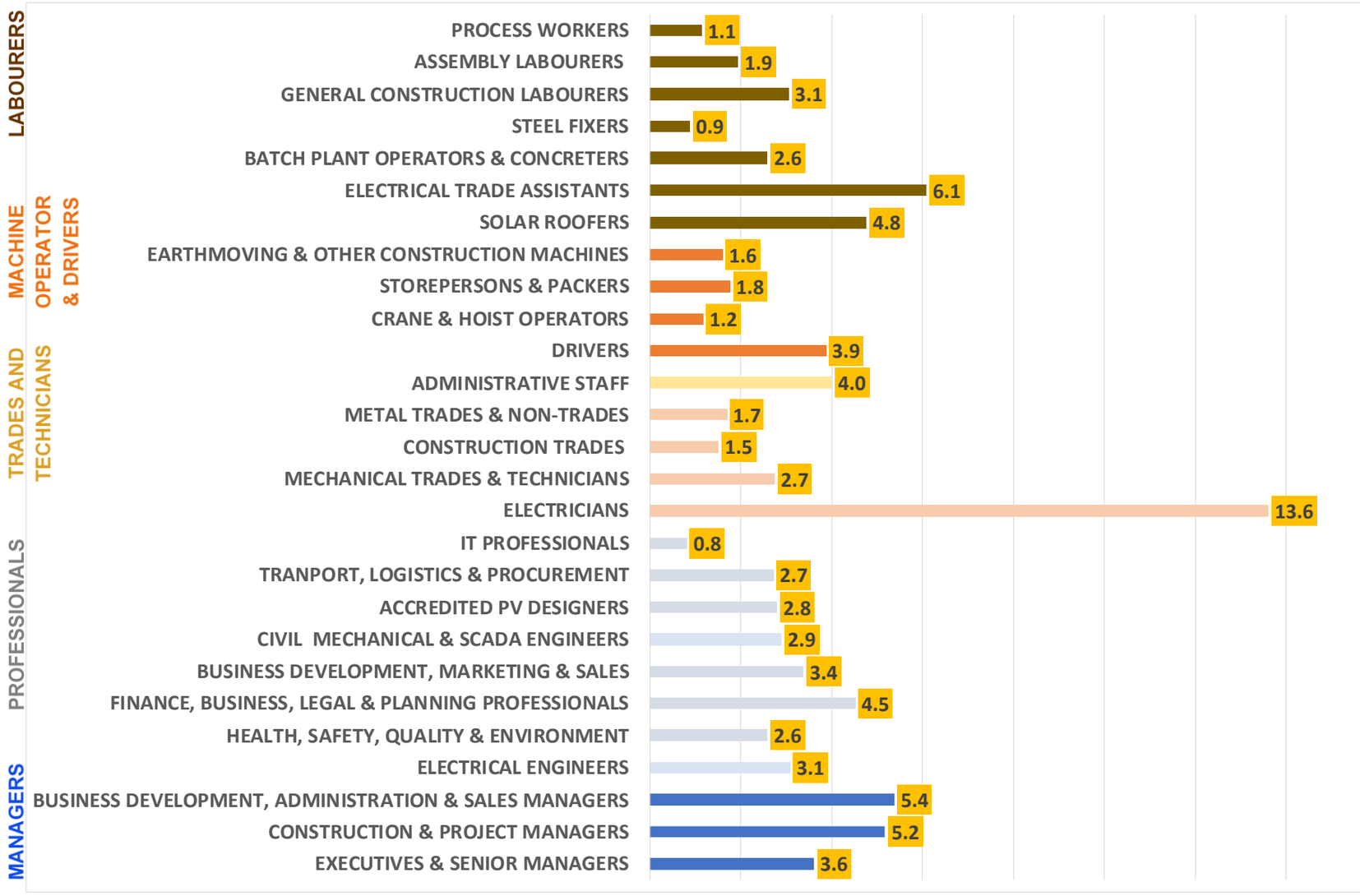




- By 2035, O&M jobs could be more than half of renewable energy jobs
- Trend driven by wind farms – good quality blue-collar jobs
- O&M a growing trend in rooftop solar, lower proportion of jobs in solar farms
- The Step Change scenario performs best: by 2035 O&M jobs are 57% of RE jobs, compared to 51% in the High DER and only 30% 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.

Renewable Energy Jobs and the Renewable Energy Zones

Zone S3 (mid North SA) has the highest job creation of the REZs, close to 1000, with the area around Adelaide close to 1500 jobs.

The job projections are for 2025 under the Step Change scenario.