

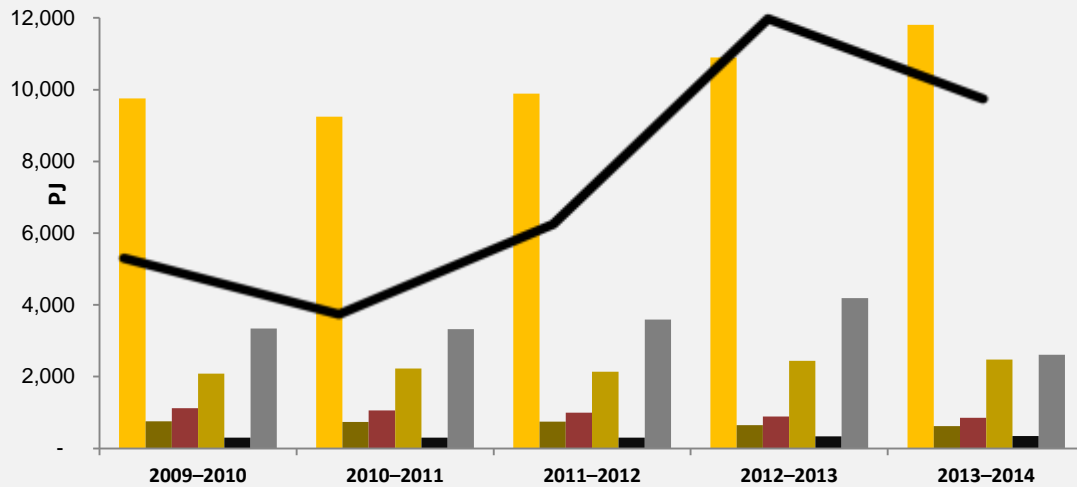


CorpStrategy
CONSULTING

**RENEWABLE ENERGY: AUSTRALIA WHERE
ARE YOU!!!?.....**

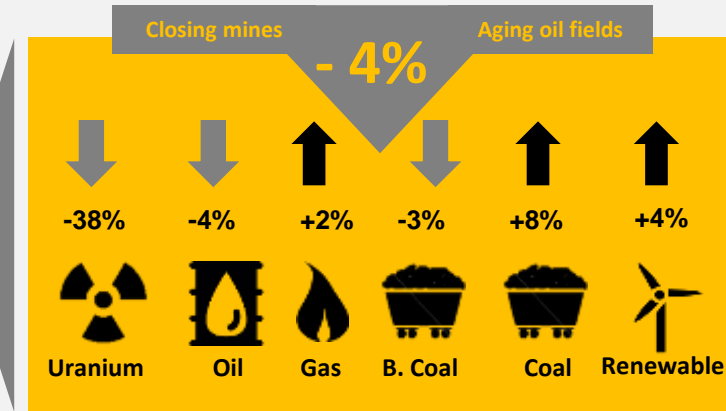


Black coal Brown coal Oil and LPG Natural gas Renewables Uranium oxide



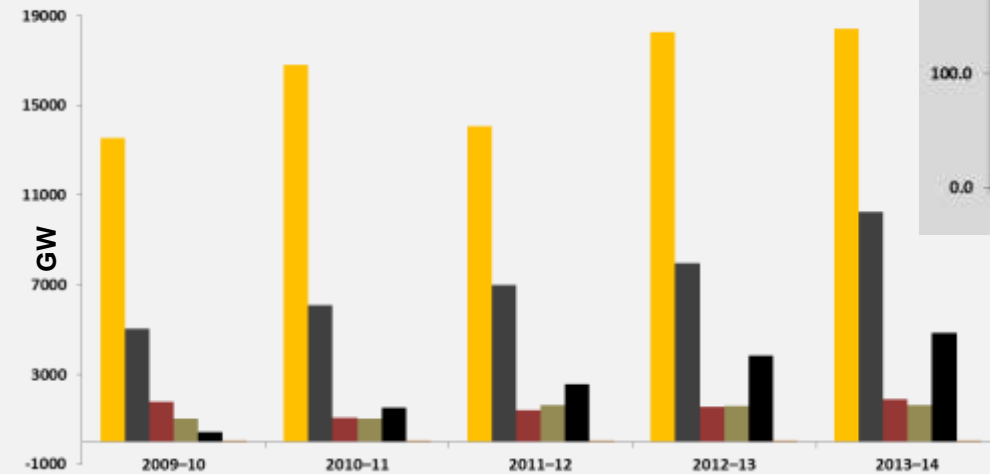
Australian Energy Production

AUS Energy Production 2013 – 2014

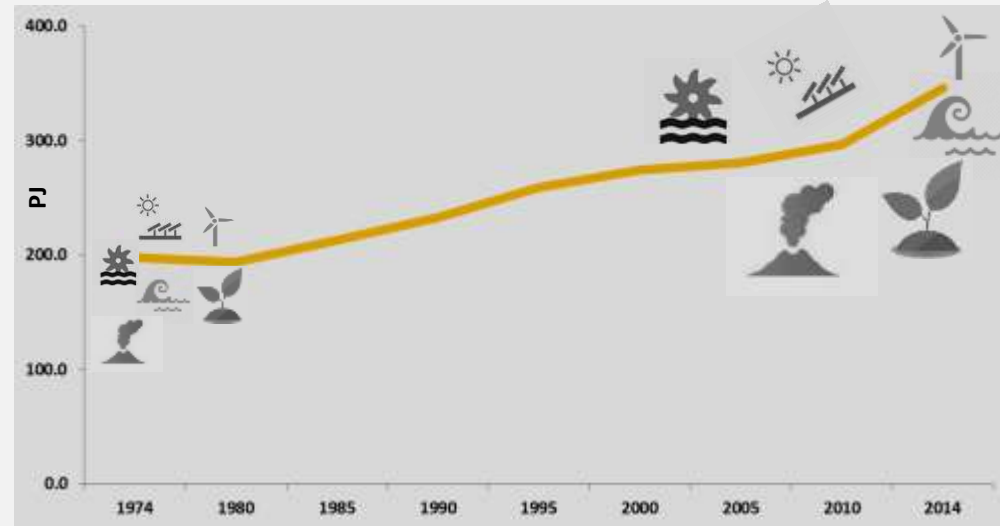


- Renewable energy provided 13.5% of Australian electricity in 2014, which doubled the number since 2000. This increase is due to the increase mainly in Hydro, Wind and Solar technologies in the past 15 years.
- The power provided in 2014 through renewable energy is equivalent of approximately 4.5 million average homes

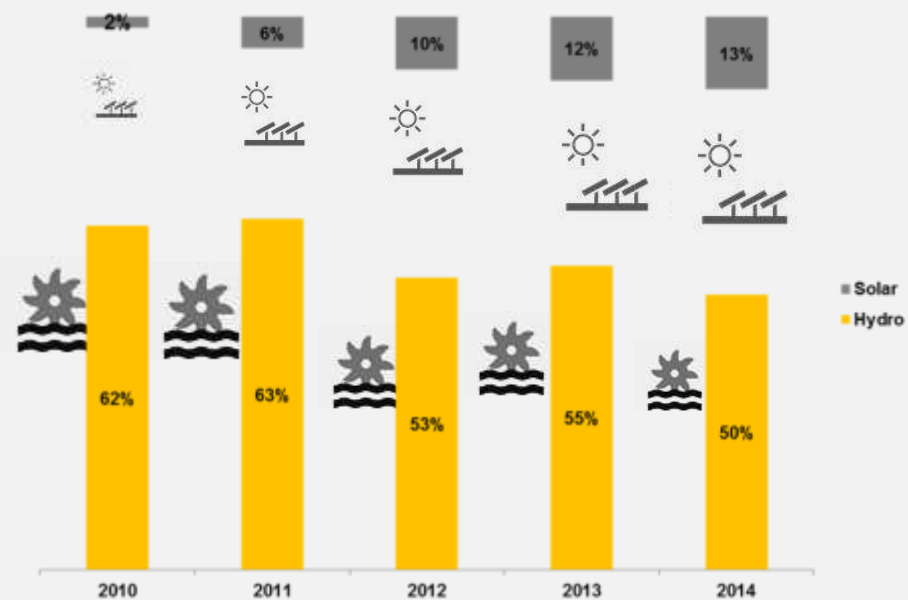
Hydro Wind Biomass Biogas Solar PV Geothermal



Australian Renewable Energy Electricity Production

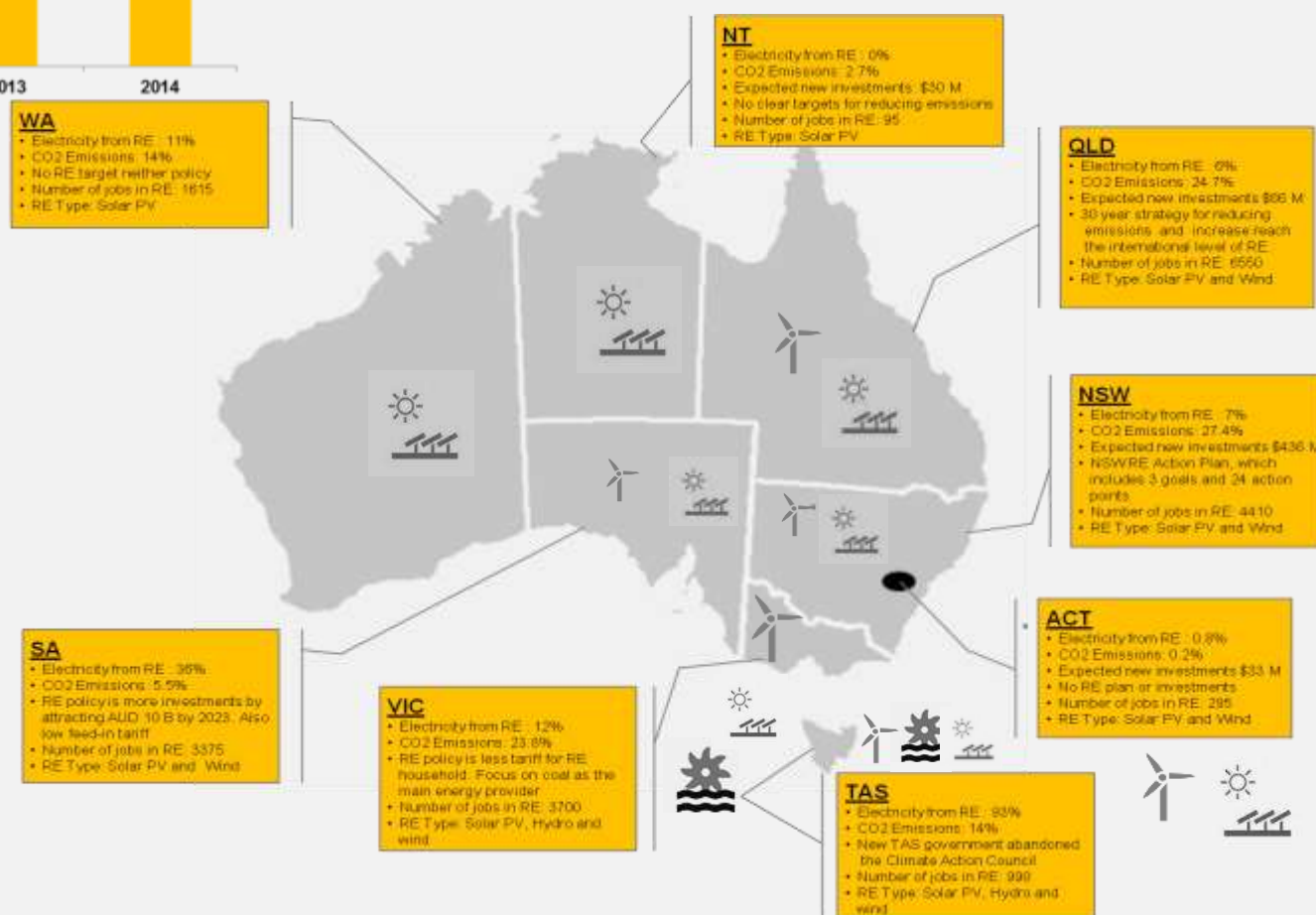


- With all types of renewable energy technologies, hydro made the largest share to the total energy generation by 6.2%, followed by wind 4.2, solar 2.1% and bioenergy 1% in 2014.
- More than 1.4 million Australian homes have installed solar panels or technology on roof tops from 2001 to 2014. Queensland and New South Wales are ahead in number of instalments.



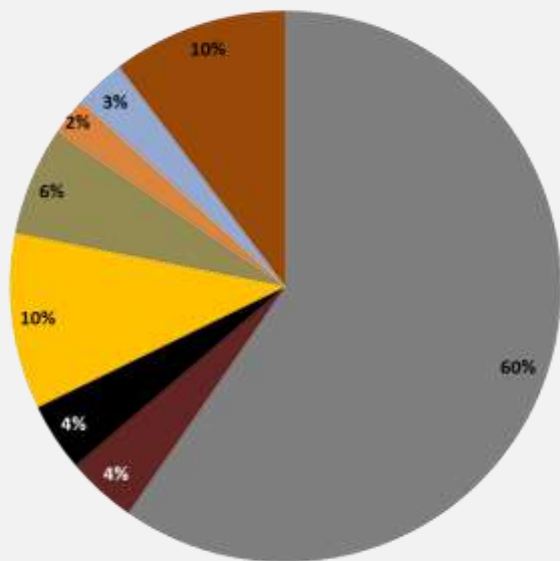
- Of the various renewable energy technologies, hydro made the largest contribution to the sector by reaching 62% in 2010 and decreasing 12% in 2014 to reach 50%. The decrease was compensated by solar technology by reach 13% of the total energy sector in 2014.
- Investments in renewable energy sector in Australia for large scale projects decreased by 88% in 2014 compared to 2013, which was due to policy uncertainty by the federal government according to Bloomberg New Energy Finance.
- Investments in renewable energy for household in 2012 were more promising, AUD 2.3B were invested in small projects . In 2013 the total investments decreased to AUD 1.7B due to an increase in efficiency across the industry.

- The Federal Government is providing over \$1 billion for research and development in renewable energy projects and AUD 0.5B to low emissions fossil fuel projects.
- The Australian government has recently published an Energy White Paper, recommending or suggesting that the public agencies or public policies should not favour one technology or energy source over another, which contradicts the government policy against renewable energy sector.
- The South Australian Government developed a AUD 10B clean energy target by 2025, which secured AUD 5.5B so far in 2015.



Renewable Energy Projects By State

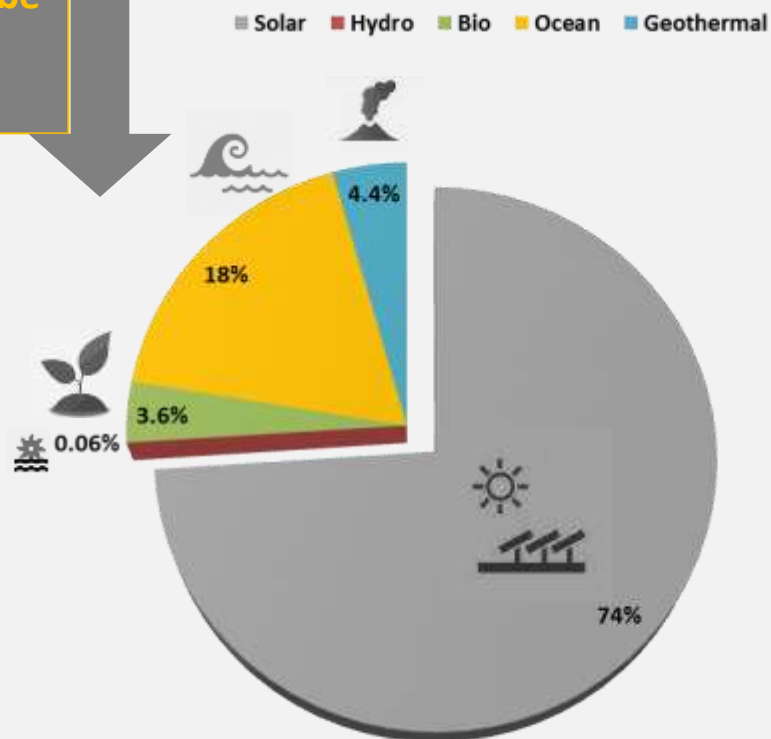
■ NSW ■ ACT ■ NT ■ QLD ■ SA ■ TAS ■ VIC ■ WA



- More than 24,000 Australians were employed in the renewable energy sector in 2012, and the Renewable Energy Target could generate a further 18,400 jobs by 2025 if the policy did not change.
- Analysis and research showed that prices to consumers are likely to increase under the majority of the scenarios if the Renewable Energy Target is changed.
- In 2014 in Australia, investment in large-scale renewables fell 88%, to the lowest level since 2002, and Australia became behind India, Chile, South Africa and other developing countries.
- In the latest ranking done by Ernst & Young in September 2015, Australia dropped from ranking 10th to 13th in the same index that was conducted in March 2015. This is due to uncertainty renewable energy policy by the federal government.

Inv. AUD 1.9B,
expected to be
delivered by
2016

- Wind and solar projects already identified could contribute 22-30 per cent of Australia's electricity by 2023-24. This is up to a ten-fold increase on the 3 per cent wind power contributed to electricity supply between 2011 -2013.
- Policy uncertainty is holding back many renewable energy projects. These projects could create much needed jobs and investment at a time when unemployment is rising.
- Renewables could go well beyond supplying a quarter of our electricity. The potential for renewables is more than 500 times the forecast demand for electricity.
- The past government issued directions to prohibit AUD 10B Clean Energy Finance Corporation from investing in wind projects, stating it should only back "new and emerging technologies".
- The plans to reduce the renewable energy target in Australia were rejected by opposition parties end of 2014 in Australia. These plans were amid to cost the country jobs and billions of dollars in investments. The investment in renewable energy already falling 88% in 2014 according to Bloomberg New Energy Finance. However, the new liberal government passed the AUD 10B wind power investment in Dec 2015 .



Renewable Energy Current Projects By Type



This Report Developed By:

Reda Haddadeh

Lead Consultant

CorStrategy Consulting

Email: reda@corpstrategyconsulting.com.au

Mob: +61420508944

References:

1. Bnef.com, Bloomberg New Energy Finance, 2014
2. Department of Industry and Science, Australian Energy Statistics, 2015
3. Bureau of Resources and Energy Economics, Australian Energy Projections to 2049-50, 2012
4. Bureau of Resources and Energy Economics, Energy in Australia, 2014
5. Clean Energy Council, Clean Energy Australia, 2014
6. Department of Industry and Science, Energy White Paper – at glance, 2015
7. Climate Council, The Australian Energy Race, 2014
8. Climate Council , The Global Renewable Energy Boom, 2015
9. Centre for Energy and Environmental Markets, 100% Renewables for Australia?, Challenges & Opportunities, 2015
10. Frankfurt School of Finance & Management gGmbH, Global Trends in Renewable Energy Investment, 2015
11. Grattan Institute, Sundown, Sunrise. How Australia can Finally Get Solar Power Right, 2015
12. Ernst & Young, Renewable Energy Country Attractiveness Index, 2015
13. www.arena.gov.au