

New South Wales and Australia: Energy Situation and Recommendation

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New South Wales (NSW) is the hub of the manufacturing, food, agricultural and transportation industry in Australia. Many of its energy resources come from the Surat and Sydney basins which have a lot of coal mining. NSW consumes 27% of the total energy in Australia, with over 50% energy being consumed by the electricity generation sector. NSW depends mainly on coal (62%), hydroelectricity (23%) and natural gas (10%) for this generation. By 2020, the group proposes an increase in natural gas to 62%, and renewables to 26%, with a reduction in coal mining.

With regards to the storage sector, it becomes evident that the potential for battery storage has not been fully tapped. Battery storage has 4.5 MW whereas pumped hydro constitutes 2.2 GW. Since Australia has many applications of storage, a target for energy storage of over 3 GW is set to be achieved by 2030. The price of this storage is also set to decline sharply over the next decade according to the group's research.

Finally, in terms of their renewable capacity, New South Wales remains a pioneer. Currently Hydroelectricity and Solar make up more than 75% of the renewable mix. By 2030, a shift to wind energy and further more solar energy is recommended in order to reduce costs of electricity generated and carbon emissions. Since NSW has a large potential for wind power, two major incentives have been proposed for wind installation and generation. Therefore, the policy recommendation for achieving a strong renewable future are encouraging investments in renewable sector, promoting community support, investing in research and development of technologies, demonstrating commercial scale viability and promoting smart meters technology in all residences.

