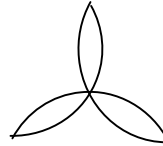


**Submission  
No 9**

## **SUSTAINABILITY OF ENERGY SUPPLY AND RESOURCES IN NSW**

**Organisation:** EcoEnviro Pty Ltd

**Date Received:** 7 August 2019



Dora Oravec  
Committee Manager  
COMMITTEE ON ENVIRONMENT AND PLANNING  
LEGISLATIVE ASSEMBLY  
NSW PARLIAMENT

By Email: [environmentplanning@parliament.nsw.gov.au](mailto:environmentplanning@parliament.nsw.gov.au)

Re: Inquiry into sustainability of energy supply and resources in NSW

Dear Ms Oravec

Thank you for the opportunity to submit to the committee on environment and planning in relation to sustainability of energy supply and resources in NSW.

EcoEnviro Pty Ltd has been consulting to the renewable energy industry sector in NSW since 2003. It's clients include major utilities, developers and engineering companies. EcoEnviro specialises in project development from greenfield development through to construction, operation and management of wind and solar projects. EcoEnviro is also developing its own wind and solar projects in Northern NSW.

Addressing the terms of reference:

**1. The capacity and economic opportunities of renewable energy.**

The benefits of renewable energy for rural and regional Australia are well documented and understood (Clean Energy Council and others). These benefits include local economic, social and environmental impacts from the development, construction, operations and maintenance of wind and solar projects, with additional grid benefits through the deployment of battery storage technologies.

**2. Emerging trends in energy supply and exports, including investment and other financial arrangements.**

*Emerging trends in energy supply include:*

- Larger and more efficient wind turbines, reducing the number of wind turbines required to fulfil project and grid capacities
- Higher efficiency and capacity PV cells, including bifacial PV technologies and new and innovative racking and tracking systems
- Greater community acceptance of renewable technologies through better understanding of the urgency of climate change initiatives, and the need to replace fossil fuels
- Larger, more efficient and cheaper battery storage solutions which also provide frequency controlled ancillary services to the grid
- Increasing popularity of electric vehicles, charged through domestic and commercial charging systems
- Increasing popularity of solar and storage systems into domestic, industrial and commercial premises.
- Increasing interest in offshore wind due to improved resource availability and decreasing levelised cost of energy
- Increasing interest in renewable hydrogen opportunities
- Increasing interest in fuel cell vehicles focussing on heavy vehicle opportunities such as mining and transport

*Emerging trends in investment and financial arrangements include:*

- Lowering of commercial power purchase agreement pricing
- Increasing popularity of aggregation of commercial power purchase and offtake agreements
- More aggressive retail pricing models for commercial energy users

- Increasing opportunities for off-grid and microgrid technologies to reduce local costs and grid demand.
- Greater use of technology to allow trading of energy between generators and users (and a blurring of the lines, where trading can occur between local participants)
- Increasing interest in local community energy investment models

**3. The status of and forecasts for energy and resource markets.**

- The need for replacement of generation from aging and expensive coal-fired plants to renewable energy due to costs, emission reduction goals and renewable energy targets
- The success of renewable energy targets when initiated by states and territories (eg RET)
- The success of reverse auctions in driving down the cost of energy for state utilities (eg ACT, Vic, Qld)
- The success of common goals for emission reduction to zero and 100% renewable energy (2030 and 2050)

**4. Effects on regional communities, water security, the environment and public health.**

The benefits of renewable energy to local communities in replacing fossil fuels include:

- Reduced emissions (CO<sub>2</sub>, dust and other pollutants)
- Reduced noise from the use of electric vehicles vs diesel
- Reduced risk of contamination of soils and water from decreased use of diesel
- The ability to integrate renewable energy generation with water security, water quality and desalination opportunities
- The positive effect of removal of fossil fuels on the general community health and safety

**5. Opportunities to support sustainable economic development in regional and other communities likely to be affected by changing energy and resource markets, including the role of government policies.**

Opportunities to support economic development in regional and other communities include:

- Setting strong and long term targets for renewables, including a pathway to 100% zero emissions and 100% renewable energy and goals for 2030 and 2050.
- Streamlining the development pathway for renewable energy projects
- Supporting local government initiatives toward emission reduction and renewable energy deployment.
- Improving the educational pathway for community development by holding local workshops on the impacts of climate change and the benefits of renewable energy.
- Developing a pathway toward commercialisation of renewable hydrogen and fuel cell vehicles through development of local and export market opportunities
- Implementing incentives for electric vehicles including reduced registration and on-road costs
- Implementing the roll-out of charging stations for EVs
- Encouraging the roll-out of more domestic, commercial and industrial roof-top solar and storage through improved feed-in-tariffs

I trust that this information is of benefit

Yours sincerely

Richard Finlay-Jones



Dr Richard Finlay-Jones  
Director