

**Submission
No 160**

SUSTAINABILITY OF ENERGY SUPPLY AND RESOURCES IN NSW

Name: Ms Sarah Robertson

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Partially
Confidential

Dear Ministers,

Thank you for this opportunity to contribute my perspective on the sustainability of energy supply and resources in New South Wales. I have been a Newcastle resident for the past 10 years and I currently work for ██████████ a national youth mental health organisation. I'm quite excited to share with you my vision for the Hunter Region and for our state, as decisions made now, by people like you, will be pivotal for future generations. We have the opportunity to prepare early and mitigate the generational unemployment that will be a certain repercussion for NSW mining communities as overseas countries start shifting away from coal to renewables.

I understand the most recent forecast from the Office of the Chief Economist shows declines in coal imports in Japan, South Korea and China (Resources and Energy Quarterly, March 2019), and a report by The Institute for Energy Economics and Financial Analysis published in November last year states that "we will witness a permanent, terminal decline as Asian markets continue their technology-based energy transition towards cheaper more sustainable renewables" (Tim Buckley, IEEFA, New South Wales Thermal Coal Exports Face Permanent Decline). The same report found "the pipeline of new coal plants in major Asian markets experienced a 74% decline since 2015, with more contraction expected".

Four of NSW's five coal fired power stations are expected to close in the next 17 years – all of them in the greater Hunter region, predictions being: Liddell closure in 2022, Vales Point in 2028, Eraring in 2035 and Bayswater in 2036 (Aurora Energy, May 2019. "Aurora Energy Research analysis of AEMO's ISP Part 2: economics of coal closure"). NSW has the chance now to transition in a way that will ensure continued employment for people currently working in the mines, as long as adjustment programs are implemented in consultation with the communities that will be impacted. It's crucial that diversification is a community-driven process, utilising local knowledge and leadership. It would be good to model a Hunter Regional Diversification Taskforce on Germany's government-appointed coal commission which is planning for full closure of the coal industry in 2038. Germany's commission comprises representatives from unions, industry associations, coal regions, scientists, local communities and environmental NGOs.

There are many opportunities that can be explored in the face of the decline of coal. Replacing coal power stations and rehabilitating their ash dams can bring new jobs and affordable energy to the Hunter Region. For this region specifically, existing agriculture, wine tourism and manufacturing industries can be built upon, and the Weathering The Storm report details further how this can be explored most advantageously (https://assets.nationbuilder.com/lockthegate/pages/5918/attachments/original/1551040943/WeatheringTheStorm_Final_%281%29.pdf?1551040943). A Hunter Regional Diversification Plan would build on existing strengths to make communities more stable before the impacts of the decline in coal were felt. New opportunities could include use of the existing train line for export of agricultural produce; solar panels to create shade for strip grazing, with gutters to catch rainwater in underground tanks; bush tucker plantations; and carbon sequestration. However large scale investments dedicated to coal mining regions are required, such as from the Snowy Hydro Legacy Fund, with an emphasis on infrastructure upgrades for energy generation, grid connectivity, manufacturing, transport and communications. There needs to be immediate prioritisation of programs in renewable energy development, and education and skills training towards the Hunter, plus funding put toward labour-intensive projects such as site remediation and plant decommissioning.

We can look to other communities who are successfully making the move away from fossil fuels, including The Repower Port Augusta project (http://media.bze.org.au/Repowering_PortAugusta.pdf), and also look at how to maximise alternatives to our economic advantage. ARENA Chief Executive Officer Ivor Frischknecht has said that “Australia has a golden opportunity to become a major exporter of hydrogen, as other countries look to transition to low carbon energy sources” (<https://arena.gov.au/news/hydrogen-offers-significant-exporting-potential-for-australia/>). The CSIRO has estimated Australian hydrogen exports could contribute \$1.7 billion per annum to the economy and provide 2,800 jobs by 2030, with Japan, China, Korea and Singapore identified in the report as prospective markets as they are looking to import hydrogen on a large scale. The global market for hydrogen is expected to reach \$220 billion by 2022 (<http://www.renewablessa.sa.gov.au/topic/hydrogen/>). A recent report for ARENA provides estimates of the direct economic contribution of hydrogen exports for the Australian economy (https://www.acilallen.com.au/uploads/files/projects/227/ACILAllen_OpportunitiesHydrogenExports_2018pdf-1534907204.pdf).

The Weathering the Storm report states that “planned renewable energy and environmental remediation investment in the [Hunter] region has great potential in alleviating the impact of a declining coal sector. In addition, the region’s natural resources and agricultural potential can aid in the region’s diversification”. I support the Hunter Renewal Roadmap and strongly encourage community consultation in this period of change for the Hunter Region and NSW.

Yours sincerely,

Sarah Robertson

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