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Christine McDonald  
Secretary  
The Senate Inquiry Into the Retirement of Coal-fired Power Stations  
Environment and Communications References Committee  
PO Box 6100, Parliament House,  
Canberra ACT 2600

Submitted by email to [ec.sen@aph.gov.au](mailto:ec.sen@aph.gov.au)

Dear Ms McDonald

## **Inquiry Into the Retirement of Coal-fired Power Stations**

Thank you for the invitation to make a submission to the Senate inquiry into the retirement of coal-fired power stations.

TransGrid is the operator and manager of the high voltage transmission network connecting electricity generators, distributors and major end users in New South Wales and the Australian Capital Territory. TransGrid's network is also interconnected to Queensland and Victoria, and is instrumental to an electricity system that allows for interstate energy trading.

TransGrid acknowledges that the National Electricity Market (NEM) is undergoing rapid change as Australia transitions to a lower carbon economy and technological developments continue to unfold. TransGrid supports the review and revision of policies, rules, and regulations which can address the resulting challenges and accommodate innovation in this changing environment.

### ***TransGrid's experience in closure of electricity generators***

Two large power stations in NSW have been already closed down: Munmorah power station of 1400 MW capacity in 2012 and Wallerawang power station of 1000 MW capacity in 2014.

Although these closures have reduced spare generation capacity in NSW, the impact on TransGrid's workforce has been insignificant. The transmission assets dedicated to the operation of these power stations were a very small percentage of TransGrid's total electricity transmission asset base.

### ***Policy mechanisms to encourage retirement of coal-fired power stations and the role of Federal Government in respect of the above***

TransGrid supports an in-depth investigation of the challenges and revision of policies to enable solutions to encourage the retirement of large coal-fired power stations. These solutions need to be economical, environmentally sustainable, technically feasible, and enduring.

The retirement of coal-fired powered generation will have significant economic and social impacts. These include a potential reduction in reliable electricity supply, loss of employment and uncertainty for other industries who are heavy users such as Tomago Aluminium.

The impact on the National Electricity Market will include:

- Reduction in generation capacity to meet electricity demand, in particular during hot summer days
- Reduction in the ability of the NEM to accommodate intermittency of the renewable generation
- Reduction in spare capacity available in the NEM to accommodate outages of generating units
- Reduction in the ability to maintain a resilient electricity supply, in particular the supply frequency and voltage

Therefore, the policy framework to encourage retirement of coal-fired power stations should entice:

- development of new generation, most likely renewable generation, to take up the deficit created
- development of a strong transmission system to interconnect the new renewable generation and other forms of complementary generation such as peaking gas fired power plants and hydro generation, located in different geographic parts of the NEM

TransGrid believes a strongly interconnected transmission system is critical for the NEM to compensate for retiring coal-fired generation and to accommodate the large uptake of renewable generation.

TransGrid supports a transparent regulatory framework to assess the investment decisions of network businesses. It is also important that the framework facilitates timely investment decisions which will allow the development of an interconnected electricity system to support a well-functioning economy.

### ***Just transition for affected workers and communities***

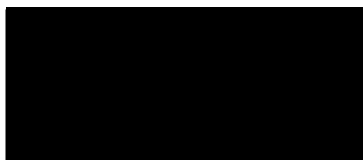
Investment in transmission infrastructure, in addition to providing a reliable and resilient electricity supply to consumers, will also provide economic benefits such as the:

- Creation of employment for staff displaced by the closure of coal-fired generation, such as the construction and ongoing operation of new transmission lines and substations
- Growth of industrial activities by reducing the volatility of electricity prices caused by transmission congestion between the states, and by allowing development of a diverse and efficient generation fleet

- Synergetic development of other infrastructure, such as roads and railways along common infrastructure corridors

If you would like to discuss any matter raised in this submission, please do not hesitate to contact me [REDACTED] TransGrid looks forward to engaging further with the Environment and Communications References Committee and other stakeholders on this important review.

Yours faithfully



Gerard Reiter  
**Executive General Manager, Asset Management**

