SITUATION IN SOUTH AUSTRALIA

Andrew Stock
Councillor
Climate Council of Australia
SOUTH AUSTRALIA
WIND AND SOLAR PV CAPACITY GROWTH

Source: AEMO 2016
SOUTH AUSTRALIA
A “NEW RENEWABLES” LEADER

Share of VRE generation

DENMARK
IRELAND
PORTUGAL
SPAIN
GERMANY
UK
ITALY
BELGIUM
SWEDEN
AUSTRIA
NETHERLANDS
AUSTRALIA
NEW ZEALAND
CANADA
BRAZIL
INDIA
CHILE
MEXICO
SOUTH AFRICA
INDONESIA

PHASE ONE
PHASE TWO
PHASE THREE
PHASE FOUR

South Australia 50%

Getting Wind and Solar onto the Grid
Source: Clean Energy Council 2016; IEA 2017, ABC 2017
AUSTRALIA
RENEWABLE ENERGY INVESTMENT

Source: BNEF Q2 2016
Areas of Excellent Wind & Transmission Access

~ 3000 MW Gas Power Stations

760 MW Coal Power Stations Closed 2016

Source: RenewablesSA 2015
SOUTH AUSTRALIA WORLD #2
WIND AND SOLAR CAPACITY PER CAPITA

Source: Australian Energy Council 2016
25% OF HOUSES HAVE SOLAR PV

Arial Photo of Urban Rooftops – Angle Vale, an Adelaide suburb
SA GENERATION AFTER COAL CLOSURE

Source: RenewEconomy 2016
WHAT HAPPENED IN JULY 2016?

Source: Saddler 2016
GAS GENERATORS EXPLOIT PRICING POWER WHEN RENEWABLES OUTPUT LOW

SA Wholesale Power Prices from midday to midnight – 7 July 2016

Source: The Perfect Storm: Analysing the Role of Gas in SA’s Power Prices September 2016
Business blows up as turbines suck more power than they generate

Wind turbines in South Australia were using more power than they generated during the state’s electricity crisis, which has prompted major businesses to threaten shutdowns and smaller firms to consider moving interstate.

The sapping of power by the turbines during calm weather on July 7 at the height of the crisis, which has caused a price surge, shows just how unreliable and intermittent wind power is for a state with a renewable energy mix of more than 40 per cent.
TORNA DOES TOPPLE TRANSMISSION TOWERS

Source: Debbie Prosser via The Plains Producer
600 MW GAS PLANT TRIPS
BATTERY STORAGE AND RENEWABLE TECHNOLOGY FUND

NEW GAS POWER PLANT

LOCAL POWERS OVER THE NATIONAL MARKET

NEW GENERATION FOR MORE COMPETITION

SOUTH AUSTRALIAN GAS INCENTIVES

ENERGY SECURITY TARGET

Source: South Australian Government 2017