# SITUATION IN SOUTH AUSTRALIA

Andrew Stock Councillor Climate Council of Australia



# SOUTH AUSTRALIA WIND AND SOLAR PV CAPACITY GROWTH





# SOUTH AUSTRALIA A "NEW RENEWABLES" LEADER



Getting Wind and Solar onto the Grid

Source: Clean Energy Council 2016; IEA 2017, ABC 2017



# AUSTRALIA RENEWABLE ENERGY INVESTMENT









# SOUTH AUSTRALIA WORLD #2 WIND AND SOLAR CAPACITY PER CAPITA



8. Source: World Bank, International Renewable Energy Agency (IRENA), Global Wind Energy Council (GWEC).

9 Source: World Bank, International Renewable Energy Agency (IRENA), Global Wind Energy Council (GWEC), EGA



#### 25% OF HOUSES HAVE SOLAR PV



Imagery ©2017 Google, Map data ©2017 Google 20 m

Arial Photo of Urban Rooftops – Angle Vale, an Adelaide suburb



Rooftop Solar Panels



# SA GENERATION AFTER COAL CLOSURE





## WHAT HAPPENED IN JULY 2016?





# GAS GENERATORS EXPLOIT PRICING POWER WHEN RENEWABLES OUTPUT LOW

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







#### THE AUSTRALIAN

NATIONAL AFFAIRS

#### Business blows up as turbines suck more power than they generate





Source: The Australian 2016 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.



# TORNADOES TOPPLE TRANSMISSION TOWERS





Source: Debbie Prosser via The Plains Producer

## 600 MW GAS PLANT TRIPS





Source: Michael Coghlan CC BY-SA 2.0







