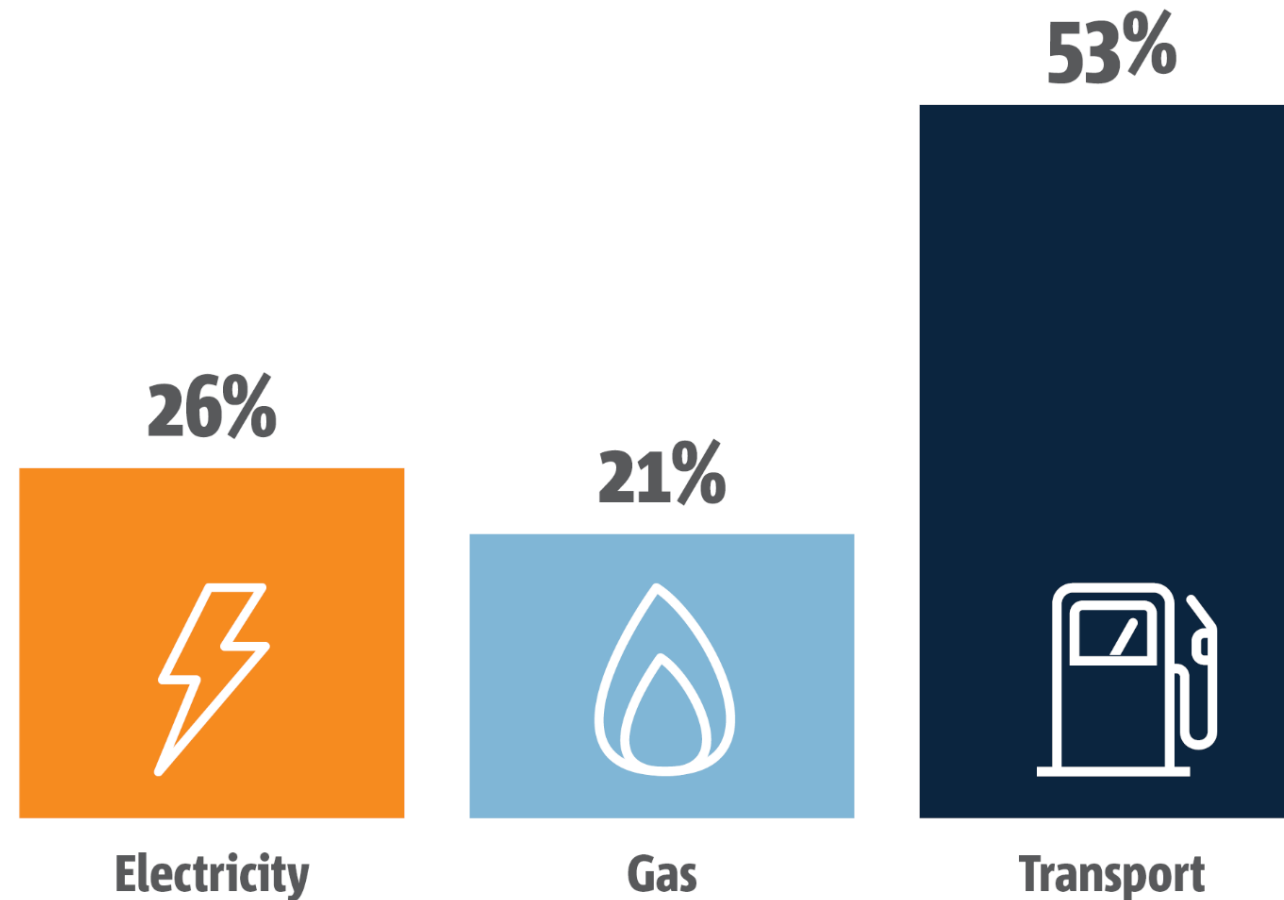


The power of possibility

The changing way we make, share and use energy in South Australia



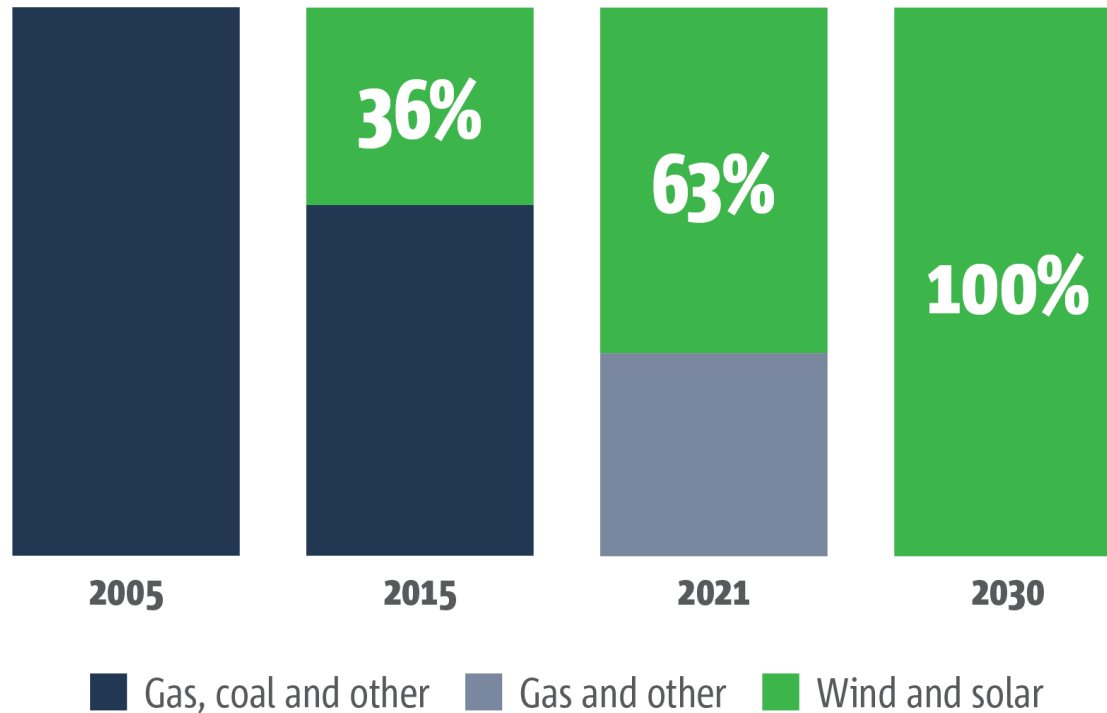
South Australia's daily energy consumption



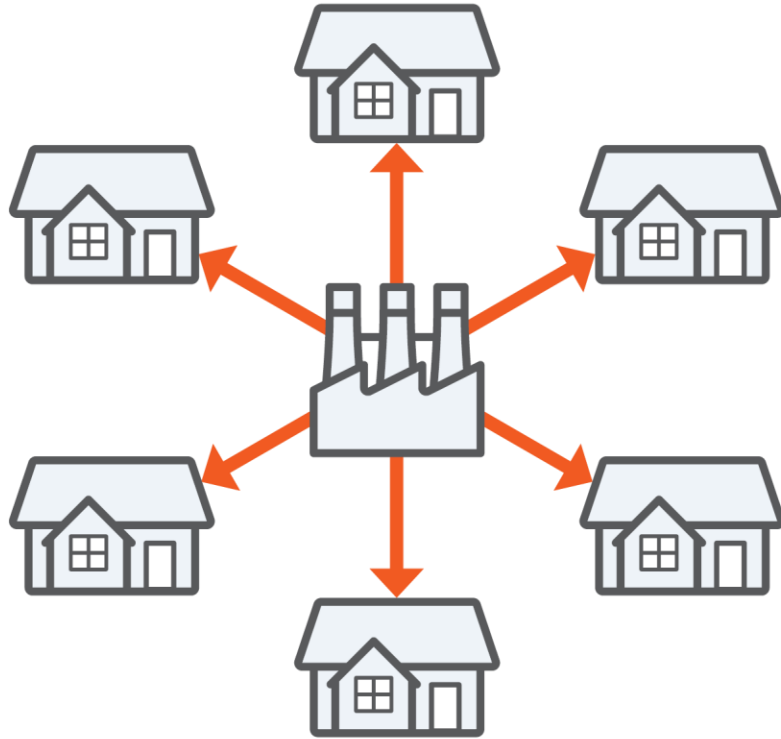
25% of gas is for electricity generation

South Australia's rapid transition to all green electricity

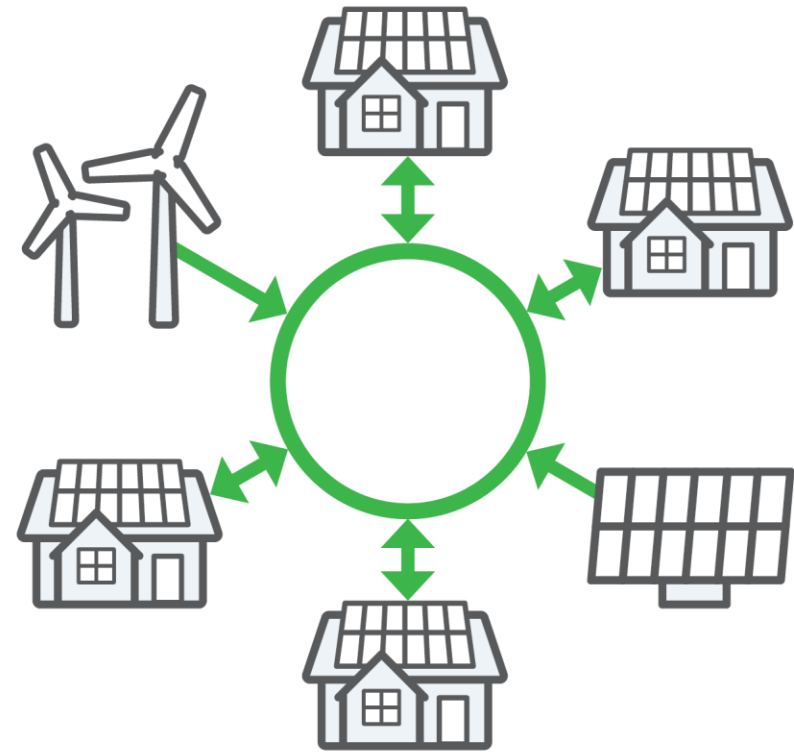
Demand met by renewables



The network's role has changed

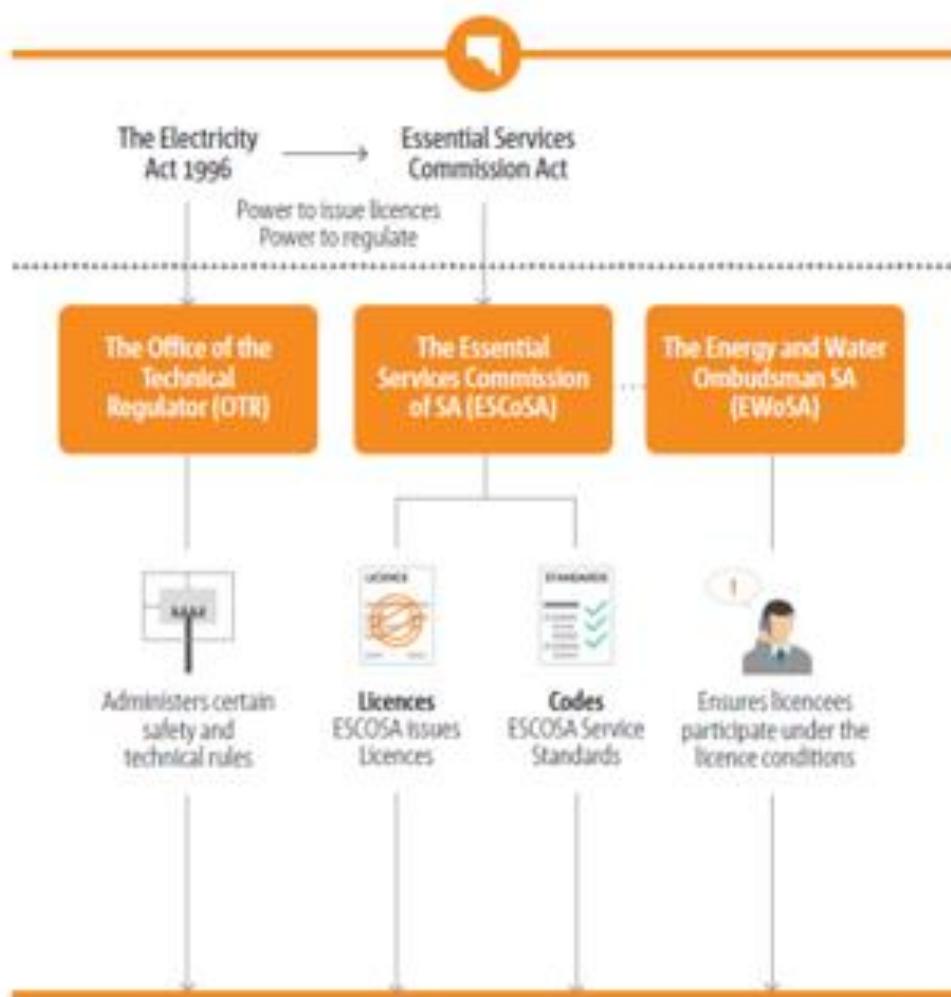


Centralised one way energy system

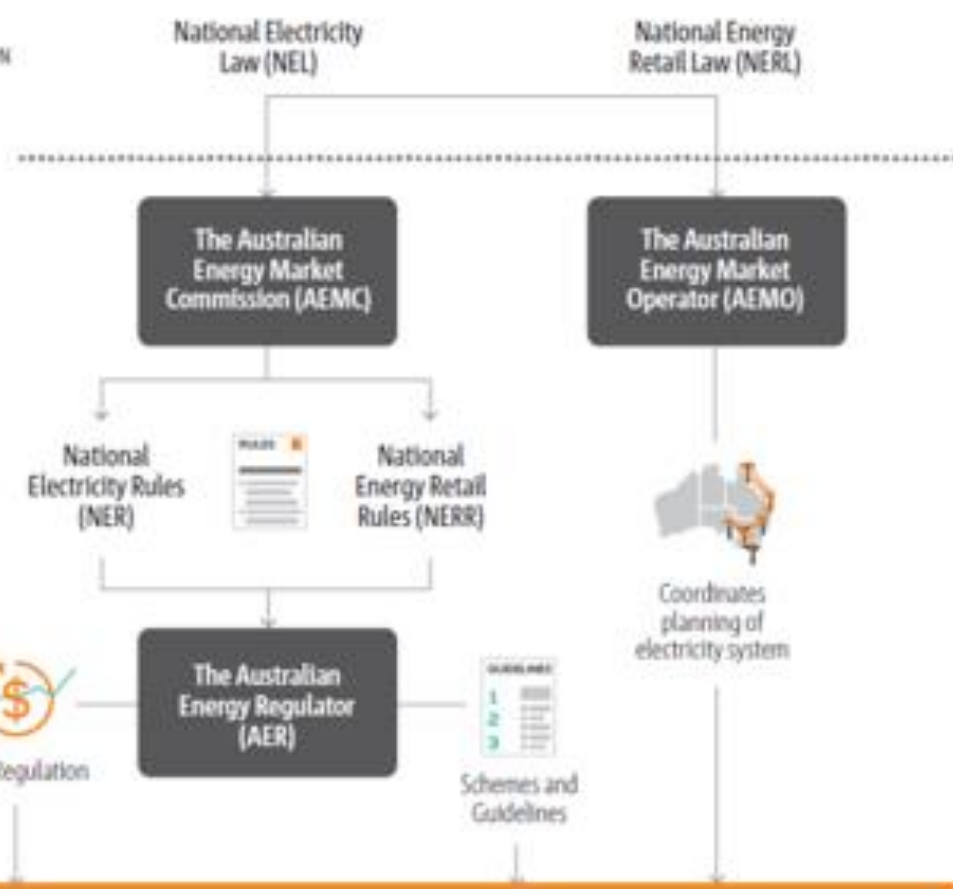


Customer and community driven system

Regulatory Framework

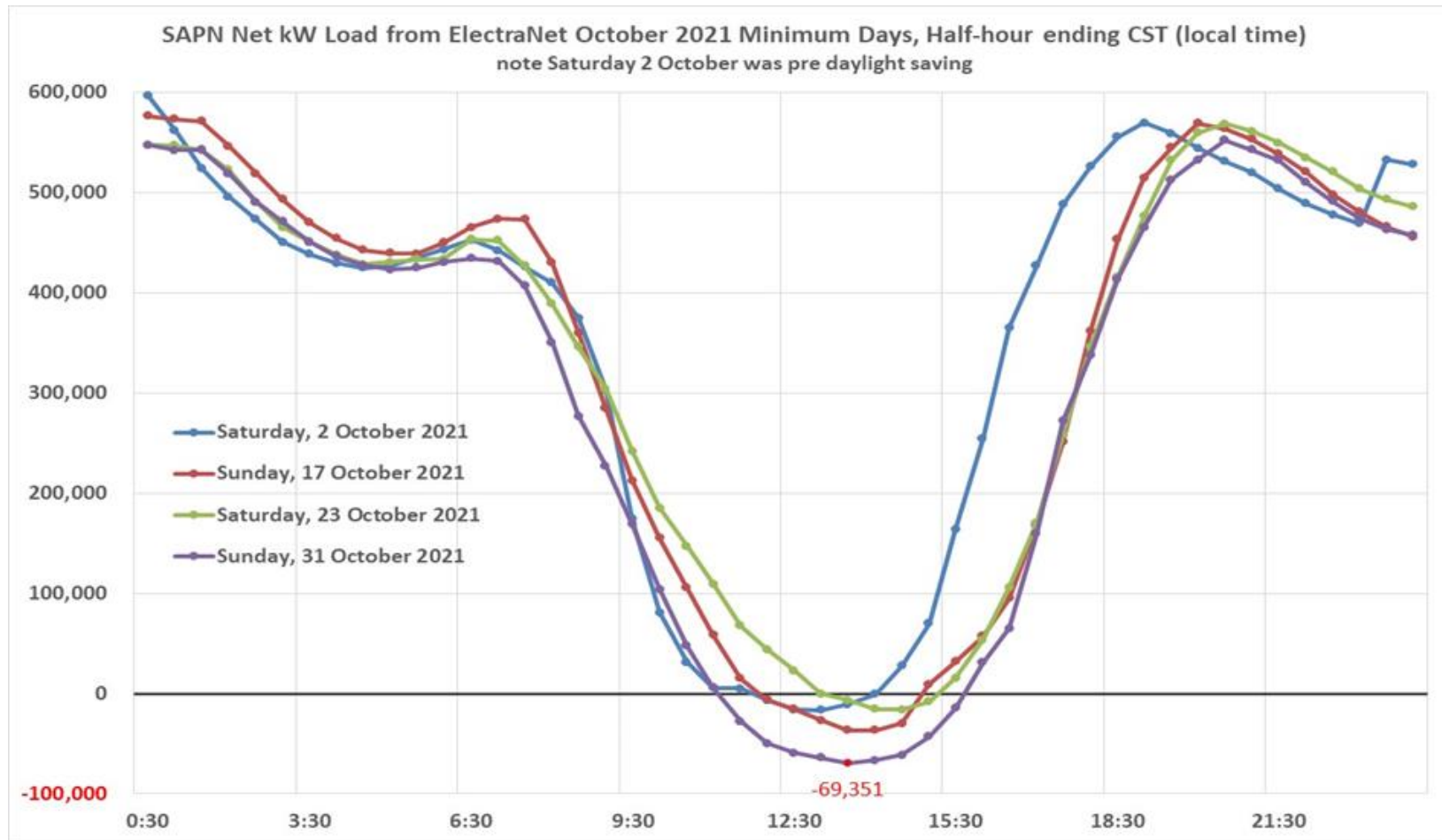


LEGISLATION



SA Power Networks

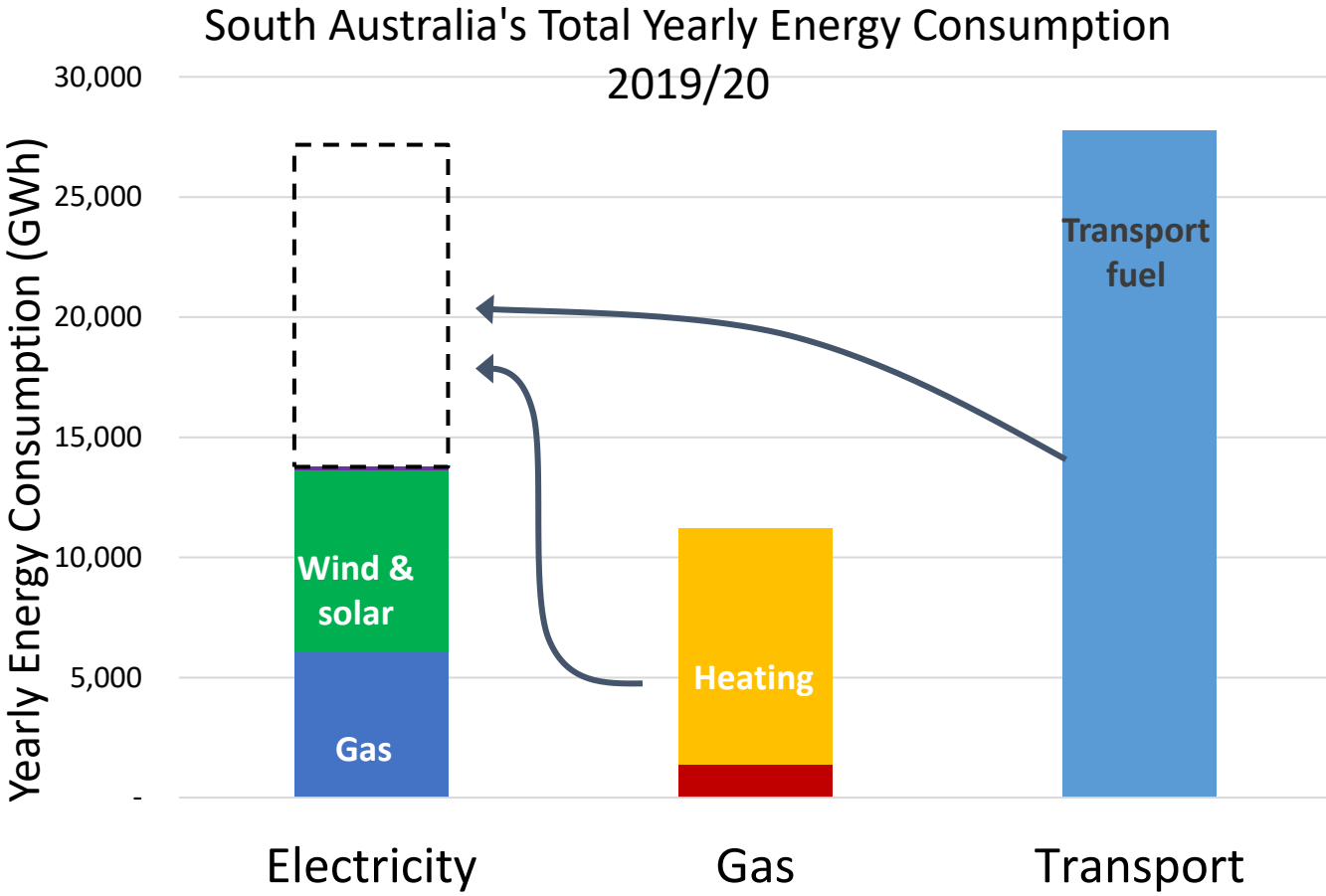
26 September 2021, network a net exporter for 2.5 hours with load dipping below zero (to -30MW).



We want to be ready for the next big things (EVs, electrification)



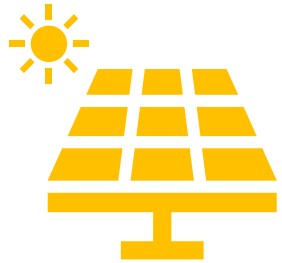
The network will have to carry much more energy in future



As we decarbonise, the distribution network could ultimately supply more than **80%** of the state's energy needs

Source: Australian Energy Statistics + SAPN

Forecast by 2035 for our 3GW network



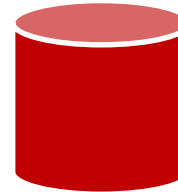
4GW
rooftop solar



2GWh
residential battery
storage



2.5GW
500k electric vehicles

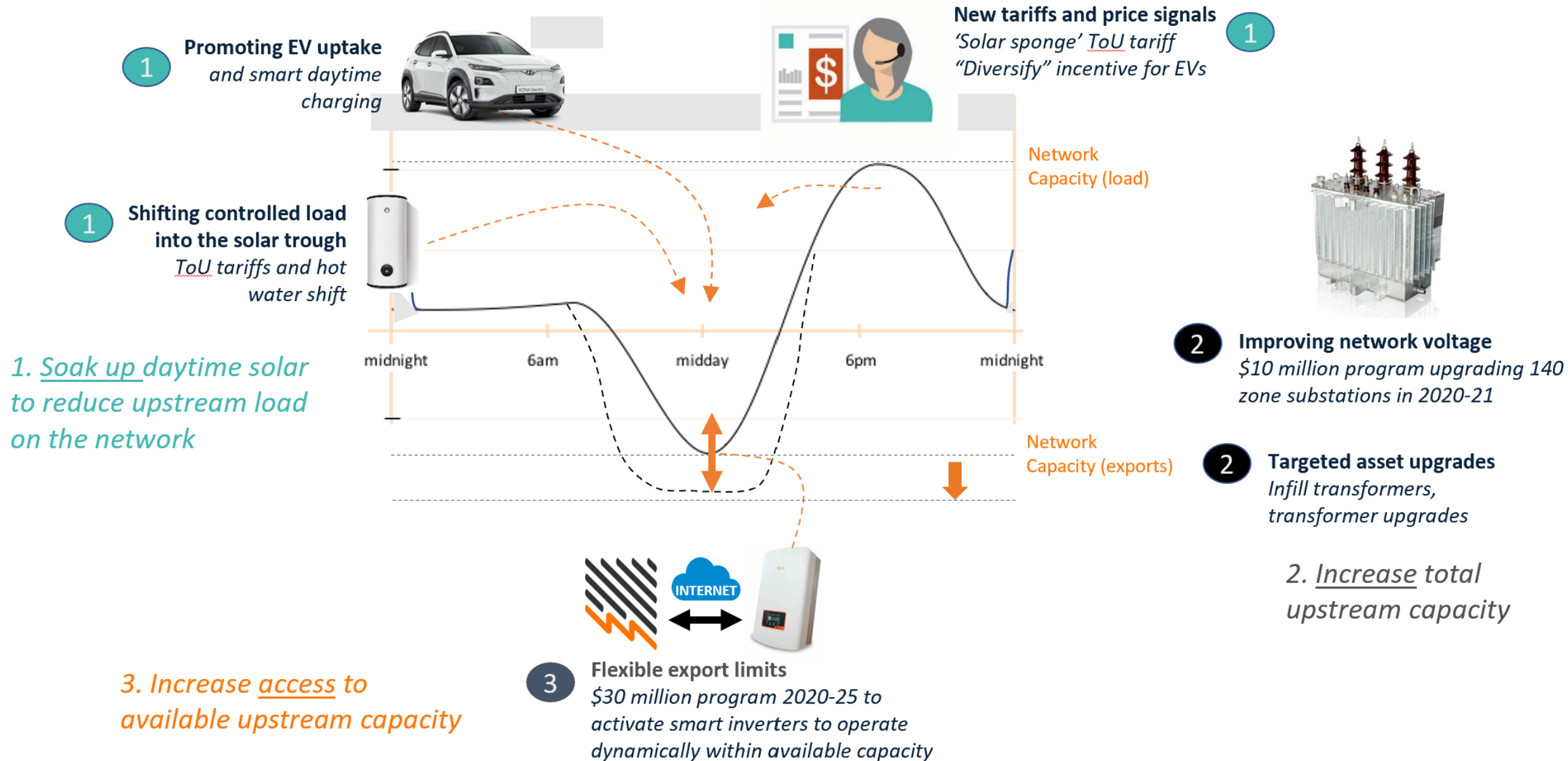


2GW
electric hot water

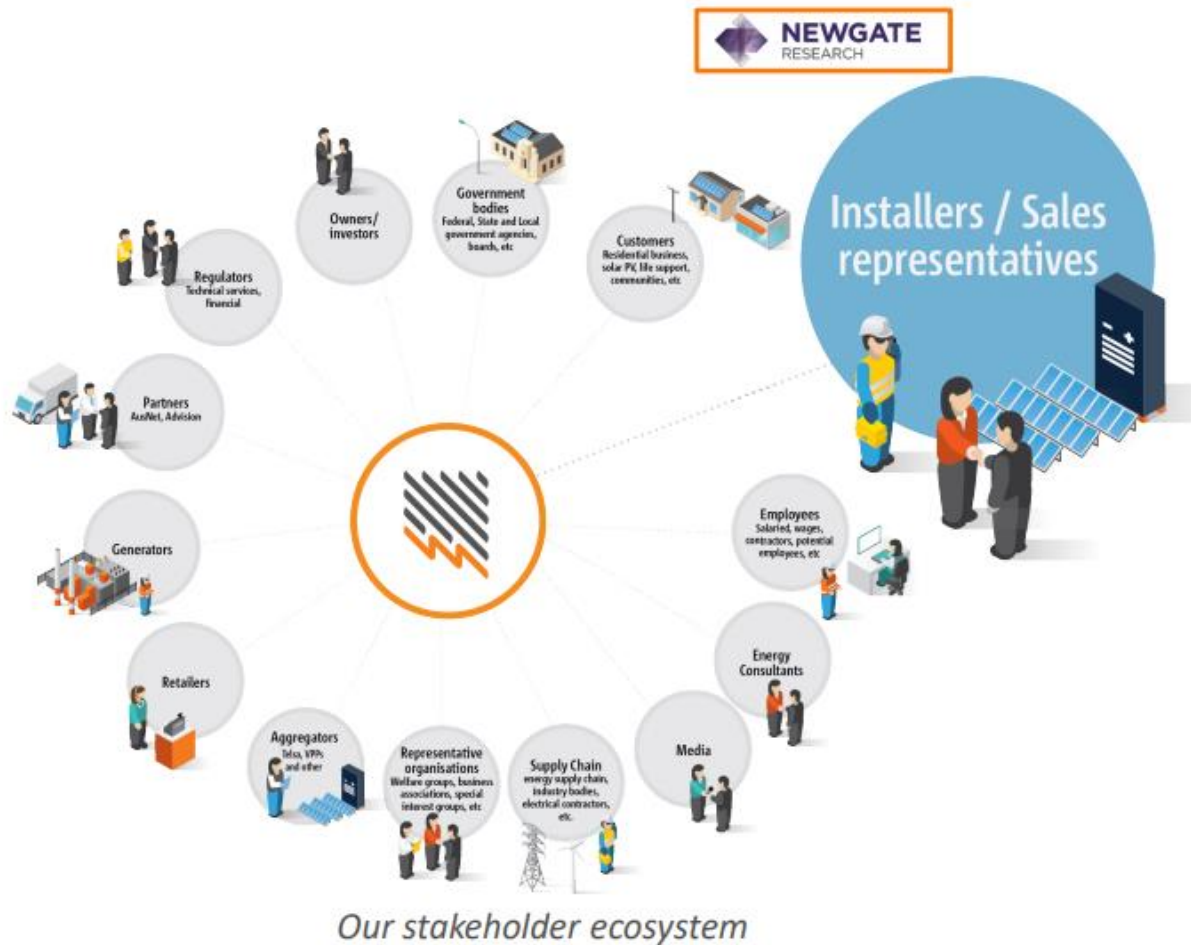
Our approach - stretch and fill

- Stretch the network's capacity through smart management
- Leverage spare capacity periods by filling it with flexible CER

A combination of approaches



Innovation requires, trust, partnerships and engagement



Future networks stakeholder engagement framework

Technical working groups	Customer/Policy/Strategy focus groups	National engagement programs / groups
<p>Distributed Energy Resources (DER) API Working Group</p> <p>Purpose: to share information and collaborate on DER projects eg ARENA funded VPP/PV programs</p>	<p>SA Energy Transition Steering Group</p> <p>Purpose: ensure the reliability and security of the SA electricity system is effectively managed through the distributed energy transition</p>	<p>Distribution Network Service Providers</p> <ul style="list-style-type: none"> Future Networks Distributor's Forum Flexible Exports Network Distributor Reference Group
<p>Pilots & Trials (Reference Groups, Working Groups and Steering Committees)</p> <p>Purpose: to share information, advise and collaborate on DER pilots and trials with industry partners</p> <ul style="list-style-type: none"> Flexible Exports for Solar PV Reference Group Advanced VPP Grid integration Integration Reference Group 	<p>DER Integration Working Group</p> <p>Purpose: collaborate on the advancement of technology standards to integrate renewable resources more effectively with the grid</p>	<p>Reliable Affordable Clean Energy for 2030 Cooperative Research Centre (RACE for 2030 CRC)</p> <p>Purpose: an industry-led research effort to drive energy innovation across the supply chain to deliver better value for energy customers</p>
<p>Standards Working Groups</p> <p>Purpose: to participate in discussions that influence consistency across national standards (eg AS4777 and AS4555 updates and IEEE 2030.5 review)</p>	<p>SA Power Networks Reference Groups</p> <ul style="list-style-type: none"> Customer Consultative Panel Connections Working Group Solar Industry Reference Group Others as required 	<p>AEMO consultation</p> <p>ARENA Distributed Energy Industry Program</p> <p>Energy Security Board</p> <p>National industry bodies (eg Clean Energy Council directorates, Smart Energy Council, Electric Vehicle Council)</p>

Our existing Reference Group framework underpins our engagement program, with three new Working Groups to be established to support the implementation of Flexible Exports.

What our customers want us to focus on

**Affordable
and equitable
energy supply**

**Customer
experience,
choice and
empowerment**

**A reliable,
resilient and safe
electricity network**

**Enabling clean
energy and
unlocking future
value for our state**

Priority RACE research topic areas of interest

- Effective incentives and rewards for customers
- Flexible demand control technology and development
- Using home energy sources for grid support
- EVs and the grid
- Enhancing dynamic DER hosting capacity
- DSO and Beyond – optimising planning and regulation for DM and DER

How do we make energy
easy for customers,
every day?





Empowering South Australia