

SACOME

SACOME Energy Policy 2022

South Australian Chamber of Mines & Energy

The leading industry body representing the resources sector in South Australia

1. Context

The South Australian Chamber of Mines & Energy's (SACOME) *Energy Policy 2022* sets out a clear statement of energy policy priorities on behalf of SACOME member companies.

SACOME supports a target of net-zero by 2050. SACOME notes some member companies have set ambitious decarbonisation targets with the aim of achieving them well ahead of 2050.

Australia's electricity markets are undergoing a profound transition from a centralised system of large fossil fuel (coal and gas) generation toward an array of smaller scale, widely dispersed wind and solar generators, grid scale batteries and demand response.¹

The deeply complex nature of the energy market coupled with the desire to rapidly decarbonise the economy represent one of the most significant public policy challenges in recent history.

As a consequence, South Australia is now tackling with the urgent challenge of managing and reengineering the State's energy system to accommodate the mass influx of distributed energy resources (DER).

South Australia is at the forefront of this energy transition process and is now grappling with the massive system reengineering challenge that has accompanied the rapid development of renewable generation, and particularly domestic rooftop solar photovoltaic generation.

SACOME recognises that the energy transition which started in the early 2000s is now well underway and is moving towards its next phase which further embeds renewables as the dominant energy source within South Australia.

Commercial and industrial operators have incurred significant additional expense given the ad hoc approach to managing electricity security in South Australia which is now characterised by a combination of government and regulator intervention, along with significant investment in new transmission and system stability infrastructure.

Between 2018 and 2021 the cost of State Government, network and regulatory authority interventions in the South Australian electricity market to support the energy transition or to resolve system security issues arising from SA's world-leading solar PV penetration is over \$1 billion.

Going forward, SACOME believes that detailed consideration must be given to how the ongoing energy transition process links with economic and industry policy, noting the specific challenges faced by heavy industry and the desire to preserve and transition the State's industrial base to net-zero operations.

¹ Australian Energy Regulator, 2021, *State of the Energy Market 2021 Report*, Chapter 1, p20.

The politicisation of energy and climate policy in Australia is well-documented, having been a feature of national debate for over a decade. The repeated development and subsequent abolition of national carbon reduction frameworks has stalled nationally unified energy and climate policy, leaving States to pursue their own policy arrangements.

This poses a range of issues for the resources sector and other heavy industries which face the pressing need to decarbonise their operations while also making significant contribution to the South Australian and national economy and meeting customer demand.

In the absence of a unified national framework, industry has set its own emissions reduction and/or abatement targets in line with international obligations and pressure from shareholders and activist groups. The consequence being that much of the resources sector is further progressed in strategies for emissions reduction and/or abatement than is the Australian Government.

SACOME and its member companies recognise that meeting these decarbonisation goals is critical to demonstrating environmental, social and governance (ESG) responsibilities and in securing project financing.

Recognising the scale of the energy transition challenge, SACOME has called for creation of a South Australian Energy Advisory Board with representation from industry, government, regulatory organisations and customers for the purpose of considering the impacts of energy policy across the whole of the South Australian Economy.

A key objective of the Energy Advisory Board should be development of an Energy Transition Roadmap that consolidates policy challenges and sets out measures to ensure continued supply of reliable affordable energy to meet customer demand while mitigating cost and operational risk to key industrial sectors on the pathway to decarbonisation.

SACOME's *Climate Change Policy 2021*² functions as a companion document to SACOME's *Energy Policy 2022* and should be read in parallel, recognising that these policy areas are interlinked.

SACOME has also prepared an *Energy Transition Roadmap White Paper*³ which provides detailed analysis of the energy transition process underway in South Australia and presents a range of policy solutions to better coordinate the major structural changes occurring across energy, climate and industry policy.

The following strategic issues require prioritisation:

1. Affordable wholesale power
2. Affordable transmission costs
3. Affordable grid stabilisation services
4. Affordable total power costs
5. Dispatchable 24/7 energy supply

² https://www.sacome.org.au/uploads/1/1/3/2/113283509/sacome_climate_change_policy_2021_final.pdf

³ https://www.sacome.org.au/uploads/1/1/3/2/113283509/sacome_energy_transition_roadmap_2021_final_22.02.22.pdf

6. Equitable distribution of cost

2. Statement of Policy Principles

2.1 Affordability

Energy affordability is a key concern for SACOME member companies and their customers.

SACOME acknowledges and supports the transition to a decarbonised energy system, however, South Australia's energy transition process has resulted in an array of additional and unbudgeted costs for commercial and industrial operators.

While wholesale electricity prices have significantly decreased in recent years, industry has borne significant energy costs over a protracted period with South Australia having some of the highest wholesale power prices in the nation for sixteen of the last eighteen years.

The initial fall in wholesale power prices was welcomed, however, as the closure of coal fired generation is fast-tracked, wholesale power prices are again trending upwards.

As a result of a transition to renewables, wholesale power prices are now impacted by the cost of regulator intervention, infrastructure charges, transmission charges, government initiatives and a range of other pass-through charges. This is resulting in significant, unbudgeted costs for the commercial and industrial sector.

The true cost of the energy must be factored as a component of energy affordability and this must include the full cost of energy transition measures, rather than relying on narrow metrics such as the wholesale cost of electricity.

As a broad statement of policy, the cost of energy and system transition must be considered in conjunction with industry and economic growth policy to better mitigate economic impacts for entities that have made major capital investment in South Australia and to support future investment in the State.

2.2 Reliability & Stability

Reliable, stable electricity supply is a critical consideration for SACOME member companies in making operating/investment decisions. The cost of maintaining reliability and stability is increasing with the majority of cost being borne by the industrial sector and concealed from the residential sector.

As electricity generation in the NEM continues to transition to a complex mix of resources, this increases the uncertainty and variability of demand and supply; and the ongoing need for the Australian Energy Market Operator (AEMO) to intervene in the market to support secure system operations.

Dispatchable electricity with adequate storage is key to the transition. Dispatchable 24/7 electricity supply should be pursued as a matter of urgency, reflecting the importance of energy reliability as a policy principle.

In pursuing this objective, consideration must be given to how the costs associated with ensuring reliability are recovered, acknowledging that ongoing pass-through costs are currently incurred by commercial and industrial customers, not residential customers.

2.3 Consistent & Integrated Approach

The Integrated Systems Plan (ISP) and its proposed pathway for the NEM transition should continue to receive bipartisan support.

Federal and State Governments have also requested that the Energy Security Board (ESB) develop recommendations for a future NEM design to ensure the market remains fit for purpose.

Continued intervention in the market is now a feature of the South Australian electricity system resulting in uncoordinated policies, additional costs and creating uncertainty for investors to commit to large generation projects.

Policy makers must now provide a stable regulatory environment to support investment in the new generation required to transition the NEM at least cost. The cost of the energy transition process must be transparently calculated and equitably distributed across the whole of the economy.

Recent geopolitical tensions have highlighted the critical importance of energy security. This aspect must be considered by Federal and State Governments ahead of energy transition.

2.4 National Emissions Policy

Major resources companies operate in a global environment in accordance with international emissions obligations. This has resulted in the resources sector having accepted the operational reality of accounting for their emissions and meeting their responsibilities as corporate citizens.

The continued politicisation of emissions policy belies the urgent need for a nationally cohesive approach.

SACOME's *Climate Change Policy* recognises that to mitigate and adapt to climate change will require structural policy and economic reforms. The ideal policy response should employ efficient, market-based mechanisms which achieve lowest cost emissions reduction.

2.5 Energy Infrastructure

Government should prioritise the strategic facilitation of energy infrastructure given the importance of energy in the development and operation of resources projects and its role as a fundamental prerequisite in project development.

Policy makers should pursue facilitative regulatory settings through the development of 'Resources Infrastructure Corridors' that remove barriers to investment for the private sector such as land access, approvals and logistics issues, particularly where this investment is critical to project development.

Projects that provide cross-sectoral economic and social benefit in regional and remote locations should be pursued.

A focus on policy settings that allow the market to determine the lowest cost deployment of technology is critical to prevent market distortions.

2.6 Increasing Energy Storage

South Australia has approximately 33 per cent of dwellings with rooftop PV installed – the highest proportional penetration of all Australian States and territories; and the second highest registered wind capacity in Australia after Victoria⁴.

The State's high penetration of renewable electricity generation has resulted in the deployment of storage technologies to support the asynchronous nature of their generation.

South Australia's current and future energy mix means the continued development of storage options will be critical in maintaining secure system operations; reducing the price and volatility of electricity supply; and boosting industry confidence.

SACOME supports government policy initiatives that:

- accelerate the roll-out of large grid-scale storage, particularly 'Big Batteries' and 'Virtual Power Plants';
- deploy demand management programs; and
- limit domestic photovoltaic export generation.

As with other aspects of the energy transition, battery development has primarily evolved as a 'fix' for frequency control of the grid. The scale of storage required to back up the grid is yet to be developed.

SACOME supports a technology neutral and merit-based approach towards storage project development.

⁴ Pg. 3 & Pg. 41 [South Australian Electricity Report](#)

2.7 Oil and Gas

The South Australian oil and gas sector makes a major contribution to the South Australian economy. Gas is a lower emission fuel than coal and has a key role in the energy transition process.

Gas continues to be essential to the South Australian electricity grid, with gas-fired power plants responsible for 33.5% of the State's power generation. While this figure continues to decline with the uptake of renewables, gas-fired generation performs a critical role in maintaining system security and reliability.

South Australian oil and gas operators continue to make headway in reducing their carbon intensity and are actively assessing the technologies and investments that can enable further progress.

Bi-partisan support for the South Australian oil and gas sector while it undergoes decarbonisation, and the pursuit of net-zero objectives is imperative to preserving the State's economic base and energy security. Additionally, the skill sets underpinning oil and gas supply chains will be critical to the commercialisation and trade of future fuels like hydrogen.

Continued exploration and development in oil and gas is necessary to allow transition to occur in a planned and orderly fashion. With increased uncertainty surrounding this energy source a decline in production will drive shortfalls and price increases.

Pursuit of net-zero targets should not mean abandonment of energy sources, particularly those which are critical to electricity generation and grid stability in our State.

The energy transition process must consider mechanisms to reduce the carbon intensity of those sources in an orderly manner.

2.8 Carbon, Capture and Storage (CCS)

SACOME supports policies and incentives to support the future development of commercial Carbon Capture & Storage (CCS) as an energy abatement tool.

SACOME notes that commercial-scale CCS is being actively progressed in South Australia and potentially offers a mechanism to reduce emissions; position Australia to continue as a leading energy exporter and manufacturer of energy-intensive materials.

2.9 Low Carbon Generation

Renewable Generation

South Australia is at the forefront of the global energy transition, with renewables forecast to account for 85% of the state's energy sources by 2025-26 and aspirations in place to be 100% net renewable by 2030. In 2021, South Australia met 100% of its operational demand from renewable resources on 180 days (49%).

South Australia's established renewable energy sources include solar, wind and battery:

- The state currently hosts three large scale solar farms and one of the highest per capita levels of rooftop solar installed anywhere in the world; in 2020-21, solar PV generated over 20% of South Australia's electricity needs;
- There are currently 22 wind farms in operation in the State and two under construction; wind generated over 40% of South Australia's electricity in 2020-21, the highest percentage share of any Australian state or territory;
- South Australia has the highest uptake of residential batteries in Australia and has four grid-scale batteries, including the Hornsdale Power Reserve.

SACOME recognises that a focus on renewable energy storage, energy efficiency and demand management is required.

Hydrogen Generation

The strategic development of hydrogen through the National Hydrogen Strategy could create significant commercial opportunities for industry as the world transitions to a low-carbon economy if the technology can be commercialised.

SACOME recognises that the strategic development of hydrogen has the potential to create significant commercial opportunities for South Australia when combined with the State's abundant renewable energy as a feedstock to production.

This includes providing large-scale energy storage as a fuel source for remote resources sector operations; further opportunities for manufacturing, including the production of 'green steel' in the Upper Spencer Gulf; and the development of an export hub at Port Bonython.

Hydrogen requires very low-cost wholesale energy to be nationally and internationally competitive. It is probable that the exit of coal fired generation will impact the evolution of hydrogen. Hence, the issue of low carbon dispatchable energy needs to be resolved as a priority to the development of hydrogen.

Additionally, a business case is required to demonstrate the viability of hydrogen production and the location of future markets.

Nuclear Generation

Nuclear energy offers a zero-emissions energy source with the ability to provide safe, reliable baseload power but is routinely excluded from climate change and energy policy discussions in Australia as both an emissions reduction and energy solution, for political reasons.

Australia remains the only G20 nation without nuclear power.

South Australia is a world class uranium province, hosting 25% of the world's uranium resources and 80% of Australia's uranium; and stable geology conducive to making nuclear energy a viable low-cost, low-emissions option.

The accelerated global commercialisation of Small Modular Reactor technology as a reliable, low-emissions power source is supported by SACOME.

While regulatory reform is required to enable the use of this zero emission energy source, international guidance exists to assist nations progress the pre decision phase. SACOME supports the evaluation of a nuclear energy programme for South Australia.