

### Background

Over the last 15 years Australia appears to have given up its comparative advantage in competitively priced energy that has underpinned significant industrial development and employment for many decades. It is important to recognise that the impact of energy policy is not just confined to energy market participants but is felt economy wide. Therefore, when we talk about energy policy we are really talking about a fundamental component of overall economic growth at both a micro and macro level.

In assessing the causes of our current situation, it is important to highlight the broad range of issues impacting energy users. All too often the debate, and by virtue of this the policy and regulatory response, focuses on just one element of a highly complex environment when a more holistic response is required. We have identified a number of specific areas of concern that have contributed to the current perilous situation in electricity markets being:

1. A fundamental transition of the energy industry including net zero targets, the inevitable closure of legacy thermal generation and greater exposure of remaining thermal generators to international coal prices.
2. While welcome advances have been made in recent years, the energy industry and regulators still need to work towards delivering outcomes that are “in the long-term interests of consumers” which hasn’t always been the case. Previous “gold plating” of networks based on a political perception of customer reliability and slow progress on a customer focused demand response market are just two examples.
3. A dysfunctional political environment that has dramatically increased the risk associated with investment for both suppliers and consumers.
4. The significant increase in electricity network charges over the last decade that, despite the recent small reductions, will be locked in for many years given the regulatory frameworks in the charges associated with operating transmission and distribution networks.
5. Unprecedented increases in the price of natural gas due to LNG export has resulted in higher cost of peaking generation.

This raises a number of key questions for stakeholders being:

- How does the NEM adjust to the transition to more renewables and what is the total system cost of this transition? - We need to emphasise the importance of transparency around costs and benefits because that helps us to work out the most efficient transition pathway and who pays.
- Understanding total system costs will also allow us to choose the least cost pathway to net zero targets and to ensure public policy and government assistance is targeted at those areas of greatest need and potential benefit.
- What role can consumers play on their side of the meter to mitigate increased costs or to assist market operators manage system security.
- What does the 21<sup>st</sup> century grid look like and what is required to get there?
- Where is gas going to come from and what role will it play in a future energy market?
- Governance in a Federal system, the future role of COAG and state governments and continued independence of AEMO/AEMC/AER?

In response the EUAA have developed the following policy and regulatory positions.

## Protecting the long-term interests of consumers.

The National Electricity Objective (NEO) states that:

“the objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to:

(a) price, quality, safety, reliability, and security of supply of electricity; and

(b) the reliability, safety and security of the national electricity system.”

Given the relentless increase in energy costs and in some cases reduction in reliability over the last 10 years it is difficult to reconcile these objectives with reality.

The concept of “the long-term interests of consumers”, a definition of which can be found here, <https://www.aemc.gov.au/sites/default/files/content/Applying-the-energy-market-objectives-for-publication.pdf>, is often used by certain stakeholders or special interest group to justify their own commercial position. A point to make here is that regulators interpretation of the NEO/NGO in the past focussed more on ensuring an appropriate investment climate for the supply side rather the affordability for consumers

In this regard, given the system blackout event in South Australia and recent initiatives such as the energy security recommendations contained in the Finkel Review and the National Energy Guarantee, the EUAA will remain watchful of unnecessary expenditure aimed at achieving system security and reliability and focus on setting reliability standards that balance reliability and cost considerations.

With this in mind, the EUAA welcomes the AER’s current review of the Value of Customer Reliability (VCR), which has been largely absent in the discussion in recent times. In the absence of a clear understanding of VCR, any policy to ensure continued reliability and system security will lack direction and purpose leading to higher than necessary costs for consumers. The EUAA will continue to be an active participant in this as part of its role on the AER Stakeholder Panel and through the ESB’s Technical Working Groups.

We are also pleased to see renewed interest in developing a customer focussed day-ahead demand response market that would allow consumers to bid “negawatts” into the market in a similar way to which generators bid “megawatts”. Proving consumers with greater control and flexibility should be an outcome of a market being developed to serve their long-term interests.

## Electricity Markets

### AEMO Integrated System Plan (ISP)

A well-developed ISP can facilitate much improved overall planning and co-ordination across the NEM to minimise the chances of building stranded or underutilised assets. However, the ISP is not a substitute for a full economic analysis and robust independent assessment.

Projects identified in the ISP may be worthwhile, but they should still be required to undergo full, robust assessment under the RIT-T framework, which remains an important consumer protection.

We have also become increasingly concerned by the politicisation of the ISP where it is assumed “because it’s in the ISP it should be built”. We reject this notion, especially given this is often stated before full economic analysis has been conducted.

Network investments the ISP is proposing will be in place for many decades during which time the transition of our energy system will proceed apace and in directions we may not contemplate or understand today. However, once they are locked into the Regulated Asset Base (RAB), consumers are stuck with paying for them regardless of the use or usefulness.

#### Reliability and Emergency Reserve Trader (RERT) Mechanism

RERT must remain as a safety net to be enacted in extreme circumstances and should not be considered as a long-term solution to system stability. Its use must be subject to a robust process based on the existing reliability standard and it is not designed to achieve an arbitrary “zero blackout” philosophy.

In addition to this. The EUAA support the continuation of the current reliability standard and urge regulators to resist what appears to be the emergence of a virtual “political reliability standard” that is set above the actual “technical reliability standard”. If this political reliability standard prevails, consumer costs will increase with virtually no discernible consumer benefit.

#### Regulatory Investment Test & Interconnectors

There are good reasons to believe that greater interconnection between states will improve energy security and facilitate a quicker reduction in emissions. While we do not disagree with these sentiments, greater interconnection must not be seen as a panacea. While the current RIT-T may need some adjustment, it should not be unduly weighted to bring forward more network investment on climate change, energy security or ISP grounds.

The EUAA recognises the recent COAG Energy Council review of the RIT-T framework and supports the conclusion that no material changes are warranted.

The AEMC is correct to identify that *“These processes have been designed to achieve different things - the ISP is a strategic infrastructure development plan, while the RIT-T replicates investment outcomes for defined projects in a competitive market environment.”*

The RIT-T is a fundamental consumer protection against capital spending that does not provide a material, lasting financial benefit for consumers.

However, we do recognise that the RIT-T, like most other aspects of the energy market, is struggling to deal with ongoing political volatility. As we noted in our submission to the Riverlink RIT-T (see Appendix A), *“With the National Energy Guarantee now put into suspended animation and with it the Reliability Guarantee that could have played an important role of integrating variable generation and deployment more dispatchable resources, the unpredictability of the system is only set to get worse.”*

The same political risks that make it difficult to build a business case for new energy generation (beyond legislated targets) or for consumers to commit to long-term investments in plant and equipment, has significant effects on the reliability of assumptions regarding new transmission assets, in particular new interconnectors. This in turn may make it difficult to justify many new investments contemplated under the ISP.

While we are not in favour of material changes or weakening of the RIT-T (i.e. including additional, hard to quantify elements) we do think that reducing the amount of capital being assessed in a RIT-T application would significantly improve the prospect of it being approved.

We are also open to the development of a more streamlined RIT-T process, especially for those assets identified in the ISP, provided stakeholder consultation and rigorous, independent economic analysis by the AER are not sacrificed or diluted.

### Alternate Approach to Transmission Funding

It is unreasonable to expect that consumers alone should carry the entire cost and risk of new transmission investment such as Renewable Energy Zones (REZ's) or new interconnectors where there are a range of other beneficiaries of these investments such as new entrant generators or state and federal governments.

We are of the view that the risk and significant portion of the capital costs associated with the connection and operation of these assets should rightfully reside with the project owner/operator given they are the primary beneficiaries and are in the best position to manage both costs and risks. While consumers may receive some marginal price benefit from the operation of projects located in these zones, or indeed from the development of a new interconnector, given the fluctuating nature of the energy market these benefits may be fleeting at best.

Therefore, we propose that we move to some form of “generator co-contribution” model or in the absence of this a government supported transition fund or rolling capital fund should be pursued.

We recognise that moving to generator co-contribution could result in slightly higher contract prices (i.e. PPA's) as project proponents seek to recover these additional costs. So yes, while the customer will always pay we should not continue to be asked to absorb aspects of project risks and costs that we have no control over or be faced with paying “full weight” for underutilised assets.

Further, we contend that that exposing more network costs to open markets and competition will drive better outcomes for consumers compared to a regulated environment that, despite good intentions to deliver a result that replicates a competitive market outcome, has not always proven to be so.

### Snowy 2.0

The Federal Government are now 100% owners of the Snowy Hydro Scheme having bought out NSW (58% share) and Victoria (29% share) during the latter half of 2018 for a reported \$6B. This puts the value of Snowy Hydro in the vicinity of \$7B.

A primary reason for this buy-out was to give the Federal Government freedom to develop the proposed Snowy 2.0 pumped hydro project which is estimated to add 2,000 MW of generation and 175 hours of storage.

At the time of its announcement, the EUAA provided qualified support for the Snowy 2.0 concept recognising the potential benefits of lower wholesale prices and system stability/energy balancing services it could provide.

However, we also recognise that if built, Snowy 2.0 will be the most influential generator in the NEM, using its scale and fast start nature of its generation fleet to effectively control the spot market. This level of control could be a deterrent to private investors in generation and transmission assets (particularly interconnectors).

Also concerning is the initial project cost estimates of \$2B have since been increased to as much as \$4.5B. Feasibility studies are ongoing including cost estimates of the significant transmission upgrades that will be required but little has been made public.

There are still many unknown factors associated with the project with many private investors and energy market participants expressing increasing concern that the level of uncertainty surrounding the project and governments intentions, is making project assessments in both generation and transmission assets problematic.

Therefore, the Federal Government must come to a decision on the future of Snowy 2.0 in the near future so as to remove this significant “variable” that is concerning other market participants. The longer this is dragged out, the more uncertainty will be created for investors, further delaying project commitments or even result in the shelving of new generation projects altogether.

All of these factors need to be carefully considered and managed by the Federal Government by ensuring amongst other things:

- Provision of a clear message to the market regarding the project future including outlining clear timelines and completion date.
- Transparency and independent verification of all project costs, including transmission upgrades.
- Clarification of who will pay and how (i.e. will the transmission assets be regulated or merchant as part of the project) along with clear demonstration of how it contributes to the “long-term interests of consumers” as defined by the National Electricity Objectives.
- A mandate for Snow Hydro to operate the assets as a rational commercial entity, independent of government intervention.
- Installation of an independent board.
- Snowy Hydro to continue to be subject to the same scrutiny and regulatory control as other market participants.

## **Climate Change Policies and the need for co-ordinated energy policy**

### Price on Carbon

It is in Australia's best interests to be part of a global climate change solution that minimises overall costs of decarbonisation of its economy and takes advantage of new technological and economic opportunities. To ensure the transition to low carbon energy market is both economically and environmentally efficient, investment grade policy is required.

Central to this must be a market-based mechanism that puts a price on carbon.

Climate change policies must be clear in their intent, consistent and fair in their application and always seek to minimise the financial impact on consumers while meeting the government's international commitments. Climate change is a global problem that can only be met by a global solution; hence, location of carbon mitigation is irrelevant provided it originates from a highly reliable and reputable source.

### National Emissions Reduction Targets

The EUAA is supportive of the existing targets set out under the Paris Agreement being a 26% to 28% reduction on 2005 levels by 2030. This is consistent in scope and timeframe with targets agreed by other parties to the Paris Agreement. We view these targets as a minimum level and suggest more ambitious targets will be required in the near future.

With this in mind, the EUAA are currently engaging with member companies on net zero emissions targets. While it is clear that some member companies have a clearer transition path than others a consistent theme amongst all member companies is that transition to zero or near zero energy is inevitable and that to do nothing is not an option.

An important consideration is that many large commercial and industrial energy users are operating in hard to abate sectors where no immediate, viable alternative to the technologies they use is available. The EUAA are engaging with member companies to identify these hard to abate sectors and to work with them, governments and technology providers to develop sector specific pathways along with ensuring appropriate assistance is made available.

The EUAA have also made substantive comments on issues such as the continuation of EITE exemptions, providing liable entities with flexibility to meet their obligations including the ability to access international permits and the appropriate setting of baselines.

Looking further ahead, higher emissions reduction targets must continue to be consistent in scope and timeframe with targets agreed by parties under future international agreements. Furthermore, paramount to setting higher targets is the direct and indirect effects on domestic energy costs.

It is the responsibility of government to clearly and transparently demonstrate the effects on energy costs that may come about from deeper emissions cuts and to work constructively with impacted stakeholders to put in place

appropriate supporting policies designed to provide a sustainable glide path for business to innovate, invest and adapt to a lower carbon economy.

Governments must ensure domestic energy costs are maintained at economic levels for energy users and that the energy industry is not required to take on a disproportionate burden of meeting these targets if that results in significant increases in energy costs that are unsustainable for domestic consumers.

A good place to start would be to undertake substantive analysis on the total system costs associated with a continued transition to lower emissions energy.

### Beyond Levelized Cost of Energy (LCOE) and Total System Costs

LCOE has often been used as the benchmark measure to assess the costs of various energy technologies. LCOE simply looks at the deployment cost of the technology itself based on an average cost per MWh of energy produced. Historically, this approach has provided a reasonable guide to policy makers, particularly in markets with spare grid capacity and a level of idle generation assets.

In Australia, this is no longer the case. We must now begin to seriously consider the Total System Costs (TSC) of new generation as it enters that market. An analysis of TSC must include the deployment cost of technology (LCOE), system balancing/security costs (firming), deep connection costs (REZ's and interconnection) and carbon emissions.

The equation to be solved therefore is  $LCOE + \text{Balancing Costs} + \text{System Augmentation Costs}$ .

Only then will policy makers, investors and energy users have a complete understanding of the true cost of the transition of our energy market. This understanding may bring forward alternatives such as demand response, self-generation and energy efficiency, which up to this point not have not been widely considered.

### Federal Renewable Energy Target (RET)

The EUAA position on the Federal Renewable Energy Target (RET) has remained consistent for a number of years being that it supports a 2020 target of 33,000GWh (23.5% by 2020).

The EUAA adopted this position as it establishes a level of stability for investors and industry participants so that the target could be achieved at least cost to consumers.

Given the forecast reductions in the cost of renewable energy, it would appear logical to not extend mandated renewable energy legislation beyond its current time frame as doing so would simply subsidise an industry that does not require it to compete successfully.

We also note that State Governments are setting aggressive renewable energy targets (see Appendix A) such that the penetration of renewable energy technologies at both residential and industrial scale is likely to reach between 40% to 45% by 2030.

This raises two primary concerns that needs to be addressed being:



- The ad-hoc nature of this deployment without due consideration for energy balancing/dispatchable resource requirements
- Creation of regulatory overlap and multiple compliance obligations that adds cost.

We maintain that given renewable energy technologies are the cheapest on an LCOE basis that direct support for deployment is not required. The new challenge, as already described, is system balancing/dispatchability and network augmentation. We strongly suggest that governments focus their efforts in these areas.

Finally, if some form of price on carbon were to be introduced, adding cost to existing fossil fuel plant, then renewable energy would find itself in a position of the cheapest form of generation, obviating even further the need for assistance.

### State Based Renewable Energy Targets

Despite bipartisan agreement on the RET and commitment to the ESB Post 2025 work program, it appears that a number of state governments have reignited plans for state based renewable energy targets and appear to be engaging in a form of renewable energy arms race as they compete for investment.

While it is the right of state governments to make policy it believes will be in the best interests of their state, due consideration must be given to the effects these policies will have on the broader market environment.

Therefore, the EUAA does not support state based renewable energy target schemes that simply duplicate the federal RET, add costs and create unnecessary complexity. We are currently working with State Governments as they develop jurisdictional programs with a view to ensuring least cost outcomes for consumers, maintenance of robust cost benefit analysis and establishment of sound corporate governance frameworks.

## **Politics of energy**

### Dysfunctional Political Environment

In the absence of long-term coordinated national energy and climate policy, energy users continue to face unprecedented pressures on the costs and availability of electricity and gas for their operations.

Therefore, the EUAA strongly supports a nationally coordinated approach to climate change and energy policy including an agreed set of objectives and overarching policy instruments that it leads to the creation of a stable environment for investors, increased system security and achieving emissions reductions at lowest cost to consumers.

### Government Intervention

Outside of setting broad based public policy that creates competitive markets, the EUAA would prefer that Government intervention be kept to a minimum. Only in instances of clear market failure or where a poor government decision has led to unintended consequences and where the long-term interests of consumers is threatened, should Government consider substantive intervention.



In the case of the Federal Government plans to underwrite assets (based on an ACCC recommendation), increase the pump hydro capacity of the Snowy Hydro scheme and plans by the Tasmanian Government to do similar things with Hydro Tasmania assets. It appears that, due to the absence of a stable policy and/or political environment, that governments are now forced to take such measures.

Given this now appears to be our new reality, the EUAA continues to provide qualified support for these projects, recognising that our preferred approach is for a well-functioning market to deliver better consumer outcomes. However, we recognise that significant intervention and potential manipulation by governments, especially in way in which these assets could be operated, may have an adverse effect on private investment. If these issues can be managed, we believe Snowy 2.0 and Battery of the Nation could lead to increased energy security and lower prices for consumers.

We would note that both pump-hydro opportunities will require substantial transmission assets to be built. Clearly there are two options being to:

1. Absorb transmission costs into the overall project with the generator recovering these costs via wholesale market revenue or
2. Absorb transmission costs into the regulated asset base with the local transmission operator recovering these costs via an increase in regulated transmission charges

We are open to a discussion on how best to recover these costs with the driving principle being to deliver the least cost outcome for consumers. (Refer to our position on Alternate approach to transmission funding).

We differentiate between these pump-hydro announcements and recent South Australian gas announcements where the state government plans to intervene and/or invest in a market that is fully privatised. It is one thing to support an asset already owned by the commonwealth/state and an entirely different proposition for a state government to re-enter a market either by investment or by granting itself powers to intervene.

## Appendix A: State Renewable Energy and Emissions Targets

|                | % Renewable energy (2017) | Capacity per cap (kw/cap) | % solar households | Renewable energy targets   | Net zero emissions targets | Highlights  |
|----------------|---------------------------|---------------------------|--------------------|----------------------------|----------------------------|---|
| <b>TAS</b> (A) | 87.4                      | 0.7                       | 14                 | 100% by 2022               | Net zero by 2050           | Highest proportion of renewable electricity.<br>Achieved net zero emissions.              |
| <b>ACT</b> (A) | 46.2                      | 1.1                       | 14                 | 100% by 2020               | Net zero by 2045           | On track to meet renewable energy target.   |
| <b>SA</b> (A)  | 43.4                      | 1.1                       | 32                 | -                          | Net zero by 2050           | On track for 73% renewables by 2020.  |
| <b>VIC</b> (B) | 13.6                      | 0.3                       | 16                 | 25% by 2020<br>40% by 2025 | Net zero by 2050           | Completed Australia's largest renewable energy reverse auction.                           |
| <b>QLD</b> (B) | 7.1                       | 0.1                       | 33                 | 50% by 2030                | Net zero by 2050           | Highest proportion of solar households.<br>Largest number of projects under construction. |
| <b>NSW</b> (C) | 12.6                      | 0.2                       | 18                 | -                          | Net zero by 2050           | Strong pipeline of renewable energy projects with planning approval.                      |
| <b>NT</b> (C)  | 3.0                       | 0.1                       | 14                 | 50% by 2030                | -                          | 50% renewable energy target by 2030.  |
| <b>WA</b> (C)  | 7.5                       | 0.2                       | 27                 | -                          | -                          | Only state with no renewable energy target or net zero emissions target.                  |

Source: <https://www.climatecouncil.org.au/resources/states-renewable-energy/>

**Enabling**



**Policies aiming to remove a barrier for the market to solve the issue.**

**New South Wales**

- Energy Savings Scheme
- Regional Community Energy
- Empowering Homes Solar Battery Loan Offer
- Peak Demand Reduction Scheme

**Victoria**

- Solar Homes Program
- Victorian Energy Upgrades Program

**Queensland**

- Solar 150
- Renewables 400
- CleanCo
- Wandoan South Battery Energy Storage System

**Western Australia**

- DER Roadmap

**South Australia**

- Grid-Scale Storage Fund
- Home Battery Scheme
- Retailer Energy Productivity Scheme

**Tasmania**

- Renewable Energy Action Plan
- Australian Capital Territory
- Gas Phase-out
- Community Solar
- Next Generation Energy Storage Program
- Energy Efficiency Improvement Scheme

**Northern Territory**

- Home and Business Battery Scheme

**Commonwealth**

- National Gas Reservation Scheme
- Underwriting New Generation Investments Program
- Technology Investment Roadmap
- Australian Gas Security Mechanism

**Solving**



**Significant interventions with material market impacts to address a policy concern.**

**New South Wales**

- Energy Infrastructure Roadmap
- Emerging Energy Program

**Victoria**

- Victorian Default Offer
- Renewable Energy Zones Development Plan

**Queensland**

- Renewable Energy and Hydrogen Jobs Fund

**Western Australia**

- Whole of System Plan

**South Australia**

- Energy and Emissions Reduction Agreement
- Smarter Homes

**Northern Territory**

- Electricity Market Priority Reform Program

**Commonwealth**

- 'Big Stick' Legislation
- Snowy 2.0
- Default Market Offer
- Hunter Power Project (Kurri Kurri Power Station)

Source: <https://energyconsumersaustralia.com.au/publications/australias-energy-transition-a-snapshot-of-the-changing-policy-landscape>