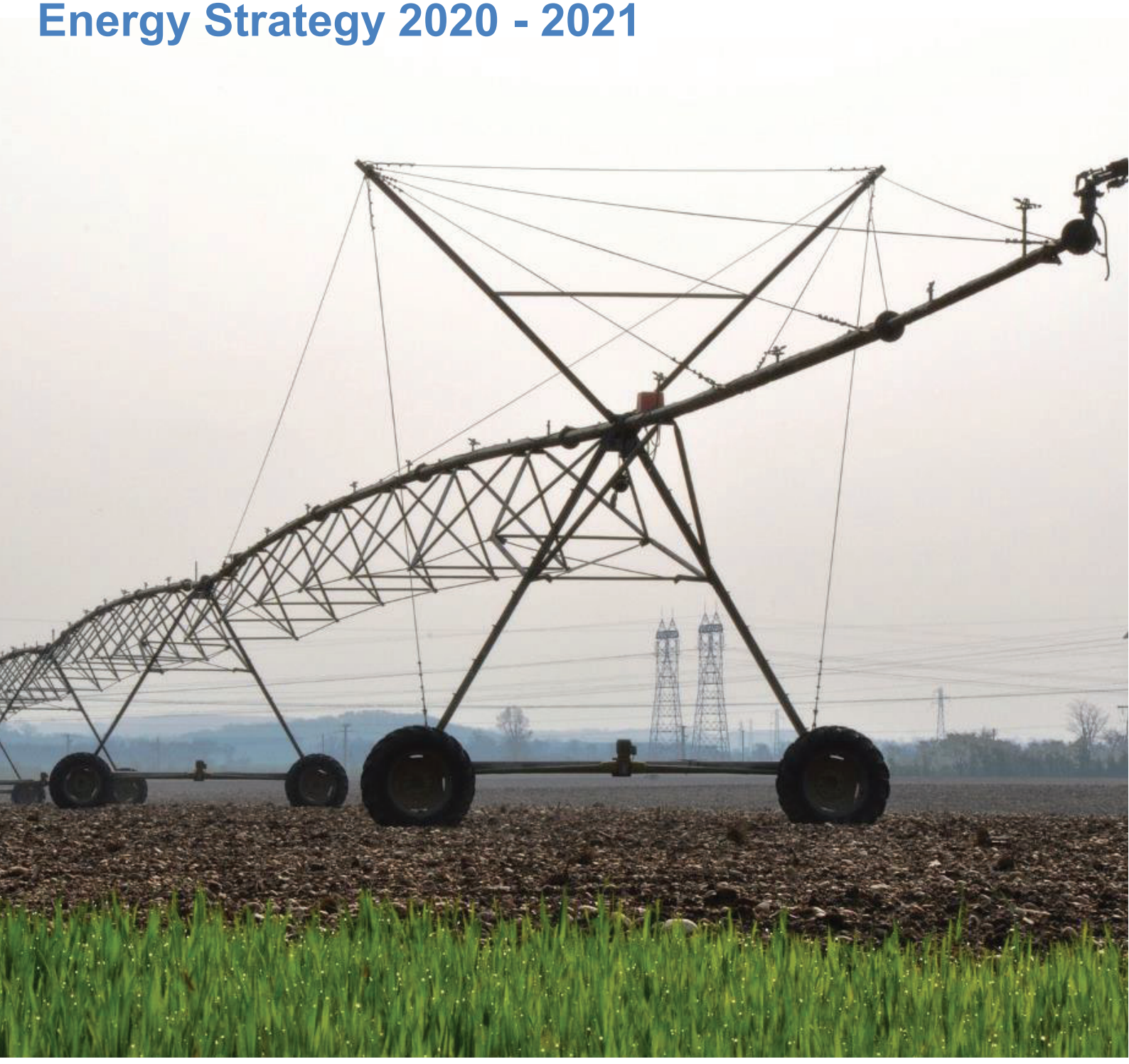
Agriculture Industries Energy Taskforce

Energy Strategy 2020 - 2021



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Introduction

The Agriculture Energy Taskforce (the Taskforce) received a grant from Energy Consumers Australia (ECA) via the CEO Grants Program to provide assistance with the development of a strategy to enable a more focussed and effective collaboration and advocacy on key energy issues for our members.

A workshop with Taskforce members was held in December 2019 to assist with the development of the strategy and action plan for the period 2020 - 2021, which is summarised in this document.

Given the dynamic nature of the energy industry and the policy environment, this strategy will need to be monitored and updated on a regular (likely annual) basis. The updates will include progress update (achievement of outcomes, status of process etc) and any changes required due to changing circumstances and / or priorities.

What is the Taskforce?

The Taskforce was established in September 2014 to enable the representatives of the Australian agriculture sector to collaborate, build capacity and provide advocacy to alleviate the impact of high electricity costs on agricultural industries.

The Taskforce includes a group of active peak agricultural bodies such as:

- The National Irrigator's Council (NIC) who provide secretariat and administrative services
- Cotton Australia
- Queensland Farmers Federation
- CANEGROWERS
- National Farmers Federation
- Central Irrigation Trust
- Bundaberg Regional Irrigators Group
- NSW Farmers
- Pioneer Valley Water

The Taskforce also has other (less active members) such as Australian Grape and Wine, Dairy Australia and Dairy Connect.

Without the work of the Taskforce, there would be limited representation and advocacy for issues specifically impacting the agricultural sector. The transition to renewable electricity, coupled with high energy costs are impacting on Australia's capacity to be competitive in the international market for agricultural products and is undermining the viability of producers of fresh food and natural fibre consumed by all Australians. These pressures are also impacting many rural businesses, resulting in loss of employment opportunities in rural and regional communities.

Key features of the agriculture sector

Australian agriculture is a significant sector in the economy upon which many other sectors in the economy rely. Agriculture sector outputs are inputs into many other economic sectors including food processing, retail and hospitality. Examples of key statistics for the sector include[1]:

- 58 per cent of Australian land use (446 million hectares, excluding timber production)
- 59 per cent of water extractions (9,434 gigalitres used by agriculture in 2015–16)
- 14 per cent of goods and services exports in 2016–17
- 2.7 per cent of value added (GDP) and 2.5 per cent of employment in 2016–17.

The mix of Australian agricultural activity is determined by climate, water availability, soil type and proximity to markets. Livestock grazing is widespread, occurring in most areas of Australia, while cropping and horticulture are generally concentrated in areas relatively close to the coast.

More than 75% of Australian agriculture produce is exported. As a sector that is highly exposed to trade, agriculture must remain competitive in the international market. Reliable, affordable and sustainable electricity supply is therefore a necessary pre-condition for the economic development of agriculture. It is also key to ensuring farmers remain profitable and can efficiently invest in agriculture.

The sector also has significant growth potential. Australian producers have an opportunity to meet the demand of an ever-increasing global need for clean, green food and fibre. The National Farmers Federation and the Federal Government are both working toward a target of producing $100 billion worth of agricultural product by 2030 – up from around $60 billion in 2017-18.

Many industries within the agriculture sector have production processes that rely heavily on power, in particular, irrigators who pump and pressurise water or producers who process, package or refrigerate food and fibre products.

Most sectors of Australian industry have achieved significant gains in energy productivity over the past decade. The conspicuous exception is agriculture, where energy productivity is declining.[2] The chart below shows a decline of 21% since 2008.

These energy cost pressures and other factors discussed later in this document are imposing challenges on the agricultural sector and are driving down Australia's competitive edge. This has a direct impact on Australia's export income, domestic jobs and domestic prices for food and fibre, along with being a significant brake on the capacity to reach the $100 billion by 2030 target.

Approach to developing the strategy

The approach to developing the strategy involved the following key steps:

- Identifying the challenges and opportunities facing the sector, noting that many of the challenges are not unique to the sector.
- Identifying the key barriers impacting the sector and mapping them against the opportunities.
- Developing priority focus 'solution' areas for members to address specific barriers.

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[1] https://www.agriculture.gov.au/abares/publications/insights/snapshot-of-australian-agriculture

[2] *(Eyre, 2016) http://www.aginnovators.org.au/blog/new-thinking-needed-about-regional-electricity-supply*

- This summarises the problems members are seeking to address and how these are critical to their long term interests.
- Identifying the key parties to be influenced in these priority areas and the associated regulatory processes.
- Summarising the actions the Taskforce will need to undertake and how it will effectively and efficiently collaborate across our membership and with other consumers, where relevant, to maximise the benefits of any advocacy.
- Outlining high level measures of success of any advocacy we will undertake – i.e. what outcomes are the Taskforce trying to achieve?

The outcomes from these steps are summarised in the next sections of this document.

Challenges and opportunities facing the agriculture sector

This section summarises the key challenges and opportunities facing the sector. The challenges and opportunities are not in priority order or any specific order.

Challenges

The following five (5) key energy specific challenges were identified as the most material or those with the largest impact:

1. **Price of energy:** As noted above, large parts of the sector are energy intensive and trade exposed. The high cost of energy is causing significant challenges and impacting not only the agriculture sector but many downstream sectors in the economy. The high cost of energy is not only driven by high wholesale costs, but also high network charges, particularly compared to our international competitors.

2. **Energy reliability and security:** This impacts specific sub sectors most notably the irrigation industry broadly, including the dairy, cotton and sugar industries. Many of these sectors are located on single wire earth return (SWER) lines with their known issues of low energy quality (at times) and more frequent outages. There are also more general issues such as the cost impact of Australian Energy Market Operator (AEMO) directions to generators and the impact of the increasing penetration of non-firm renewable energy.

3. **Inability to control load:** Some users in the agriculture sector have limited ability (or often lack of knowledge about how) to control their usage patterns and reduce costs (network and wholesale) via participating in demand management related activities. This compounds the first two challenges identified above.

4. **Constant change:** This is not unique to the agriculture sector. The energy sector is undergoing significant (transformational) change with numerous, complex and time intensive reforms and regulatory processes occurring simultaneously. This presents challenges for many end users, who struggle to 'keep up' with the activity and change. Many end users are not significantly energy literate and generally time poor compared to those in the industry who have dedicated resources focussed on specific issues within the energy sector.

5. **Disorderly transition to renewables:** The increasing penetration of renewable energy, whilst important, is also a challenge on the sector. The key impacts of the challenge relate to the non-firm nature and reduced reliability (at times) as well as the increasing costs. Limitations on the ability to feed in to the grid from on farm generation is also a factor.

Opportunities

Whilst some areas have been identified as challenges there were also six (6) key energy specific opportunity areas which were identified. This notes that some areas have been identified as both a challenge and an opportunity.

1. **Energy Efficiency:** Like many other sectors, there is still much potential for energy cost savings and environmental benefits from undertaking further energy efficiency related activities and investments.

2. **Demand management / load control**: Whilst some in the agriculture sector are unable to control or shift their energy usage, others are able to do so. This enables those in the sector to reduce their energy costs and / or create value.

3. **Orderly transition to renewables:** The transition to renewables will provide many in the sector with an opportunity to create value through utilisation of their large land resources and their accessibility to renewable sources. Many have the capability to farm energy alongside their other activities. There is also an opportunity for many to capture cost reductions through the transition to renewable energy.

4. **Access to new technologies:** Related to opportunities 2 and 3, the development of new technologies, such as batteries and microgrids, can assist the sector to have increased control over their energy usage and their production systems and the timing of those activities. This can assist in reducing costs.

5. **Capturing new value streams:** The transformation of energy markets, including the move to renewables and storage, has introduced and will continue to introduce new value streams and markets. These include firming, ancillary services, grid services and demand response. There is an opportunity for the sector (and other end users) to participate in those markets and capture these new sources of value.

6. **Increased focus on sustainable energy**: Related to opportunity number 3, many local, state, federal and international governments, consumers and businesses are increasing their focus on sustainable energy and production derived from sustainable energy. Australian producers have an opportunity to meet the demand of an ever-increasing global need for clean, green food and fibre.

Barriers impacting the sector

This section summarises the key barriers impacting the sector's ability to capture the opportunities. The barriers are not in priority or any specific order.

1. **Lack of competition:** In some jurisdictions, most notably Queensland (northern), South Australia (retail), Tasmania and certain areas in NSW (for the irrigation sector) there is limited competition. This includes retail energy, impacts of a limited understanding the needs of the agriculture sector, difficulties in obtaining competitive renewable and access to new technologies.
2. **State owned energy companies:** This causes split incentive and at times can have unnecessary increases in energy prices for consumers.
3. **Limited understanding of agriculture sector**: There are many decision makers, policy makers and key stakeholders in the energy sector who have a limited understanding of the specific characteristics (positives and negatives) of the sector. This causes some decisions to be made which can have adverse (and sometimes disproportionately) impacts on the sector or participants in the sector.
4. **Regulatory framework:** The energy regulatory framework is complex, highly technical, undergoing significant change, is difficult to change and not fit for purpose for the emerging technologies. These issues are not unique to the sector and are well known.
5. **Current financial circumstances:** This relates to the impact of issues such as the drought, bushfires and general high capital costs (and other costs) of the agriculture sector. There are also significant competing priorities for capital which can make the transition to renewables and new energy technologies more difficult.
6. **Buying group challenges:** Like many other sectors, there are benefits from forming buying groups, however there are some challenges with the agriculture sector. This is partly driven by the sometimes unique nature of each end user within the sector and the impact of geographic distances.
7. **Unfavourable project economics**: This is not unique to the sector, and relates to the high capital costs associated with many new technology investments and the long payback periods.
8. **Inability to control load:** This has already been discussed.
9. **Inefficient costs embedded in the energy system**: Sometimes the function of historic decisions, but also the structure of the energy sector and the location of many in the agriculture sector. There are high (higher than necessary) capital and operating costs embedded in the energy system which are causing impacts on energy consumers in the form of higher prices (current and future).
10. **Limited consistent long term vision:** Again, not unique to the agriculture sector, across various levels of Government, but in particular at the federal level, there is no bi-partisan vision for the energy sector. This is causing inefficient investment to occur resulting in higher prices for consumers.
11. **Lack of technology:** There are some challenges impacting the agriculture sector (and others) that require technological solutions that are not yet developed.
12. **Energy system is not built for the new era:** Again, not unique to the agriculture sector, the energy system was not designed for the new decentralised generation mix. This is causing costs for consumers associated with the transition to the more appropriate system.
13. **Risk allocation in networks:** Many times the allocation of risk to the end consumer causes costs (and risk) that are unmanageable to be passed on.
14. **Lack of peer to peer trading:** There is a growing view in the agriculture sector that there is untapped potential from the ability to trade electricity amongst end users. This reflects the reality that some agriculture users are more readily able to install renewable energy whilst others are unable to do so. The ability to trade energy more freely amongst end users would create value.
15. **Costly and time consuming processes:** Related to number 4, the number and complexity associated with the various regulatory reform, review and business as usual processes is

costly and time consuming. It is difficult for end users to participate in all processes, or even a majority of them.

16 **High degree of unpredictable costs:** A number of costs are unpredictable and unmanageable, causing risks and higher prices for consumers. A recent example is the costs associated with marginal loss factors.

17 **New energy services markets:** As the energy market and system transitions, there are a number of new energy services related markets that are likely to be developed. This was noted in opportunity number 5. At the moment many of these markets do not exist and there are costs associated with developing the new regulatory frameworks and technologies, processes and systems to support with these markets.

18 **No end to end perspective:** The changing nature of the energy system, from a one way flow of energy to a two way decentralised model requires a more complete end to end perspective. At times some of the regulatory reforms and analysis are lacking this end to end perspective, which causes inefficiencies, issues and costs to be incurred.

19 **Lack of coordinated planning**: Many would agree that there is still a lack of coordination of planning between the energy sector, key energy market bodies and the Government. This is causing inefficiencies and costs to be incurred.

20 **Ability to access data:** There is still an inability for many customers to be able to access their data in a cost effective and efficient manner. This should be addressed over time with the consumer data right related reforms.

Mapping barriers to opportunities

This section maps the key barriers to the identified opportunities. This is used to identify the key focus areas and actions.

Opportunity	Key barriers
1: Energy Efficiency	1, 5, 7 and 13
2: Demand management / load control	1, 4 and 8
3: Orderly transition to renewables	2, 4, 5, 7 and 12
4: Access to new technologies	2, 4, 7 and 10
5: Capturing new value streams	4, 11, 13, 17 and 18
6: Increased focus on sustainable energy	1, 7, 9, 10, 13 and 14

Key strategic priority areas

This section outlines three (3) key priority (solution) areas and actions identified at the workshop in December 2019 and in the subsequent few months that the Taskforce can undertake to address selected barriers. The following information is included for each solution area:

- The problems (i.e. barriers) seeking to be addressed.
- The key parties to be influenced and where relevant the associated regulatory processes.
- The key actions to be undertaken, timelines and other parties to collaborate with.
- The key outcomes (or measures of success) for each action area.

The subsequent section then discusses how the Taskforce can monitor, evolve and update the strategy to reflect changing priorities, policy direction and other factors over time.

At an overall level the key outcomes desired by the Taskforce are externally focussed on influencing key energy policy and regulatory processes and decisions affecting agriculture based and other small consumers of energy, these include:

- Improved effectiveness of participating organisations in delivering policy change and regulatory framework impacts that are in the long term interests of consumers.
- Increased communication and awareness of shared perspectives and priority focus areas for the Taskforce.
- Increased communication and awareness of the impact of the work of the Taskforce on the long term interests of consumers.

Priority area one: consumers taking more control, reducing costs and emissions via new technologies

Item	Detail
Barriers	• 7 (Unfavourable project economics) • 11 (Lack of technology) • 12 (Energy system not built for the new era) • 16 (High unpredictable costs) • 18 (No end to end perspective, generation to consumer) • 3 (Limited understanding of the agriculture sector)
Parties to influence / regulatory processes	• Federal Government – Technology Investment Roadmap consultation process • Australian Energy Market Commission (AEMC) – general advocacy (possible need for / or input into future rule changes?) • Energy Security Board – general advocacy and input into Post 2025 review process (refer priority two). • State Governments – general advocacy • Federal Government – general advocacy • Energy industry – general support
Actions and broad timelines	• Review Technology Investment Roadmap and associated documents (once published) • Seek to be included as a key stakeholder in the Roadmap development process • Identify key benefits, cost areas, opportunities and impacts for agriculture consumers and regional consumers more broadly • Identify and understand ability for new technologies and / or existing technologies to help reduce / control and better predict costs

Item	Detail
	• Identify if any need for research / data gathering to assist with responding to the Technology Investment Roadmap consultation process. • Scope and undertake research (potentially by an expert third party) if required. • Review research findings and implications (if required). • Identify key issues and response areas for agriculture sector. • Identify key stakeholders to engage and collaborate with and develop engagement strategy and communications plan. • Develop responses to consultation process (e.g. submissions, a forum, advocacy, roundtable discussions) • Implement engagement and communications plan. • Lodge submissions / participate in consultation process This activity will be undertaken over the period of the consultation for the Technology Investment Roadmap, possibly for the period July 2020 – June 2021. The specific detailed action plan and timeline will be further developed once the Roadmap is released and once the dedicated resource is on boarded. This will be in conjunction with the working group of the Taskforce and collaborating partners (if any).
Collaborating partners (possible)	The following have been identified as potential collaborating partners, the exact list of partners will be developed as this action area is implemented. • End user groups: TEC, PIAC, Australian Farm Institute, Energy Consumers Australia (ECA), Consumer Roundtable, EUAA • Energy industry: peak bodies e.g. Energy Network Association (ENA), Australian Energy Council (AEC). • The Energy Charter
Key outcomes	• Active involvement of the agriculture sector / Taskforce in the Roadmap consultation process. • Greater understanding and awareness of the agriculture sector position and issues, opportunities and potential solutions amongst policy makers, decision makers and the industry. • Improved use of new technologies to assist with stability in costs and greater alignment across the chain. • Ensure that roadmap initiatives meet the needs of the agricultural sector and are able to be utilised by the sector. • Possible research papers (if required) to assist with response to consultation processes.

Priority area two: inappropriate market structures and frameworks for the future

Item	Detail
Barriers	• 10 (Limited consistent long term vision) • 12 (Energy system not built for the new era) • 14 (Lack of peer to peer trading) • 17 (New energy services markets) • 18 (No end to end perspective, generation to consumer) • 3 (Limited understanding of the agriculture sector)
Parties to influence / regulatory processes	• Energy Security Board – input and submissions into the Post 2025 review process • Australian Energy Market Commission (AEMC) – general advocacy (possible rule changes?) • State Governments – general advocacy • Federal Government – general advocacy • Energy industry – general support
Actions and broad timelines	• Review key documents published by ESB as part of the post 2025 review (once published) • Identify key benefits, cost areas, opportunities and impacts for agriculture consumers and regional consumers more broadly • Identify if any need for research / data gathering to assist with responding to the Post 2025 review consultation process. • Scope and undertake research (potentially by an expert third party) if required. • Review research findings and implications as required. • Identify key issues and response areas for agriculture sector. • Identify key stakeholders to engage and collaborate with and develop engagement strategy and communications plan. • Develop responses to consultation process (e.g. submissions, a forum, advocacy, roundtable discussions) • Implement engagement and communications plan. • Lodge submissions / participate in consultation process This activity will be undertaken over the period of the consultation for the Technology Investment Roadmap, possibly for the period July 2020 – Dec 2020. The specific detailed action plan and timeline will be further developed once more detail is released by the ESB and once the dedicated resource is on boarded. This will be in conjunction with the working group of the Taskforce and collaborating partners (if any).
Collaborating partners (possible)	The following have been identified as potential collaborating partners, the exact list of partners will be developed as this action area is implemented. • End user groups: TEC, PIAC, Australian Farm Institute, Energy Consumers Australia (ECA), Consumer Roundtable, EUAA • Energy industry: peak bodies e.g. Energy Network Association (ENA), Australian Energy Council (AEC).

Item	Detail
	• The Energy Charter
Key outcomes	• Active involvement of the agriculture sector / Taskforce in the ESB post 2025 consultation process. • Greater understanding and awareness of the agriculture sector position and issues, opportunities and potential solutions amongst policy makers, decision makers and the industry. • Improved market structures and frameworks for the future to with reduction / stability in costs and greater alignment across the chain. • Possible research papers (if required) to assist with response to consultation processes.

Priority area three: general advocacy for specific issues and regulatory processes

This action area can and will evolve over time as new areas for input and advocacy are identified and pursued by the Taskforce. The detail below reflects the areas currently identified by the Taskforce.

Item	Detail
Barriers	• 9 (Inefficient costs embedded in the system) • 10 (Limited consistent long term vision) • 12 (Grid/Energy system is not built for the new era) • 13 (Risk allocation in networks)
Parties to influence / regulatory processes	Examples include (but not limited to): • Australian Competition and Consumer Commission – implementation of the 2018 review recommendations • Australian Energy Regulator – various regulatory processes • Energy Security Board – other items beyond post 2025 review (if any) • AEMO – Integrated System Plan consultation and others consultations as required • AEMC – COGATI review and other rule change processes or reviews as required • State Governments – general advocacy and consultations as required • Federal Government – general advocacy and consultations as required • Energy industry – general support and advocacy • Other consumer advocates – general support and collaboration where possible.
Actions and broad timelines	• Confirm specific areas of work to participate in and approach to participation • Review relevant documents published as part of the consultation or reform processes • Identify issues and opportunities • Develop communications and engagement plan • Develop positions (short / medium / longer term) and submissions aligned with the findings of the review and the engagement / communications plans • Draft short, medium and longer term positions • Advocate with key stakeholders (e.g. Government, industry, AEMC etc) • Publish submissions, position papers and media releases as required

Item	Detail
	This activity will be undertaken over the period July 2020 – June 2022 and is subject to the timelines of the various processes the Taskforce will participate in. The specific detailed action plan and timeline will be further developed by the dedicated resource (once on boarded) and in conjunction with the working group within the Taskforce and collaborating partners (if any).
Collaborating partners (possible)	The following have been identified as potential collaborating partners, with the exact list of partners developed as this action area is implemented. • End user groups: Australian Farm Institute, PIAC, Energy Consumers Australia (ECA), Consumer Roundtable, EUAA
Key outcomes	• Documented short, medium and longer term narratives on key positions (to support advocacy) • Published submissions to relevant processes where required. • These narratives and submissions will be agriculture industry specific where relevant. • Maintenance of high profile in regulatory processes, forums and discussions. • Build understanding, support and buy-in for the Taskforce position with key stakeholders. • Influence regulatory outcomes for the benefit of agriculture customers and potentially other regional / rural customers due to advocacy.

Monitoring and progressing the strategy

The Taskforce provides participating organisations and other agriculture sector parties an ability to better deliver their desired outcomes for agriculture based and other energy consumers.

The Taskforce will achieve this by:

- Reviewing and updating the specific priority areas outlined earlier in this strategy via an internal prioritisation and governance process. This recognises that the Taskforce and participating organisations have limited resources and it is important to focus work effort on priority areas. It also recognises that there are some matters that can be proactively planned and pursued and other areas which require a more reactive approach.
- Meeting twice a year face to face as a group, with at least one to two further discussions via teleconference or video conference. These meetings and discussions will enable collaboration, open dialogue, strategising and information sharing across participating organisations. It will also assist in agreeing priority focus areas, monitoring overall progress and agreeing any new areas to focus on. The key decisions and outcomes from these meetings will be documented.
- Establishing working groups to progress the specific priority areas as required. This will assist in co-ordinating and sharing work effort on agreed priority areas to enable improved effectiveness and efficiency by leveraging access to the resources of participating organisations. Resources to be accessed include communications channels and networks of participating organisations to better and more widely disseminate shared messaging of:
    - Key outcomes and successes of the Taskforce and participating organisations
    - Issues impacting consumers and desired changes to address these issues
    - Opportunities for further evolving and developing the energy markets in the long term interests of consumers