







IRRIGATORS








The flow on benefits of regionally embedded generation

Strategic Plan and Priorities

Practical “on the ground” measures

-  Prepare a solar PV “decision tree” to guide growers through the assessment, installation and connection process. The aim is to ensure growers ask the right questions and are able to scrutinise the advice of solar PV suppliers/installers.
-  Document the actual solar PV connection process as a case study.
-  Promote the Solar Retailer Code of Conduct more broadly amongst growers.
-  Seek a meeting with the AER/AEMC to gain a better understanding of whether funding through the Demand Management Incentive Scheme (DMIS) and Demand Management Innovation Scheme (DMIA) could be used for these types of trial projects.
-  Arrange grower workshop with the Distribution Network Service Providers (DNSPs) to discuss mutually beneficial opportunities for future solar PV installations across regional NSW and Qld as well as obtain a commitment from the DNSPs to improve the visibility and public information on current/likely future network constraints.
-  Seek funding through Federal/State agencies to conduct a project with growers on solar battery installations on the farm (e.g. in light of the upcoming elections). The aim is to assess whether the identified challenges of the project: *Irrigators - the flow on benefits of regionally embedded generations* can be overcome and/or mitigated.

Regulation

-  Seek public disclosure of grid constraints and remaining export capacity that is updated at a regular interval.
-  Seek third-party accreditation requirements through the Clean Energy Council. The aim is to ensure a consistent level of service provisions and quality assurance for any installation/maintenance.
-  Seek an AER led or independent review of the National Electricity Rule (NER) Chapter 5 amendments to determine whether the previous legislative amendments have been effective from a growers’ perspective. If not, seek further amendments to Chapter 5 (e.g. through a consortium of organisations and ECA) and ensure regular reviews of Chapter 5 amendments are conducted.
-  Seek a review of the planning laws to ensure that they are effective and efficient in protecting high quality agricultural land plus drive further investment in on-farm solar PV where it is sensible.
-  Seek legislative amendments to ensure agricultural land is restored post the life of a solar PV project (more relevant if the land is leased).
-  Seek a change of the NER to improve grid monitoring and enable the development of a database to facilitate PV projects in regional NSW and Qld.
-  Amend NER to enable network augmentation costs that would result from solar PV connection applications to be shared so that it does not ‘crowd-out’ potential investment in solar PV.

Guide

-  **High priority**
Achievable and/or inexpensive
-  **Medium priority**
Challenging and/or potential resource intensive
-  **Low priority**
Difficult and/or resource intensive

This project was funded by Energy Consumers Australia Limited (www.energyconsumersaustralia.com.au) as part of its grant process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas.

Policy

- Seek a meeting with the AEMC/AER to discuss whether current consumer protection is sufficient in the context of solar PV installations (lease arrangements; adequate installation etc).
- Lobby for the AER or AEMC to design a 'One-stop-shop' website that includes advice on solar grid connection process for growers (e.g. rules & regulation, protection & recourse, barriers & challenges, case studies, advice on who to speak to, a reference to codes and key issues).
- Lobby for a review the Energy Network Australia (ENA) model connection process via the Agricultural Industries Energy Taskforce to develop clear performance benchmarks for future evaluating the voluntary codes.
- Lobby for a review of the Australian Standard AS 4777 - Grid Connection of Energy Systems via Inverters.
- Lobby for an optimal solar feed-in tariff to give growers greater certainty for their investment decisions in on-farm solar PV systems.
- Lobby state governments or AEMC to host an online register and/or FAQ with information on past connection issues. Also, seek assistance from state governments to improve the interaction between growers, DNSPs & solar PV installers/suppliers.

Other

- Seek funding to undertake further investigation into related solar PV connection challenges in order to develop a science/evidence-based research base and construct a data-set for growers (e.g. CEFC to drill down into the finance data).
- Seek funding (through DMIS and other opportunities) to improve the hosting capacity of the network (and seek a meeting with AEMC/AER to determine how DNSPs can access funding for upgrades) – particularly in low-voltage networks.
- Seek funding to investigate opportunities for peer-to-peer trading in regional NSW and Qld (in partnership with state governments/ARENA and DNSPs).
- Seek funding to investigate opportunities to achieve more 'value from solar installations' – including through PPA agreements; using other technologies as another energy storage instead of investing batteries; investigate options for electric tractors to be used on-farm.

Why do these challenges and barriers need to be addressed?

Simply because agriculture is important!

Agriculture contributes \$60 billion dollars to Australia's economy. Based on its current trajectory, the agricultural industry is forecast to grow to \$84 billion by 2030 (ABS 2017).

Australian growers are an important part of regional Australia, supporting local businesses and communities. Their financial viability and productivity are important to grow regional Australia.

The project undertaken by Cotton Australia, NSWIC and QFF has shown that there are several barriers and challenges facing the installation of solar PV in regional NSW and Qld. Change is required to realise untapped opportunities. The changes include:

- Streamlining the connection process;
- Improving the information flow between the network business, solar installers and growers.

Australian growers continue to see opportunities in the renewable space – all that is needed now is that the regulatory and policy setting to be an *enabler* and not a *constrainer*.

