

11 May 2018

Department of Natural Resources, Mines and Energy  
Lodged electronically via: [largescalesolar@dnrme.qld.gov.au](mailto:largescalesolar@dnrme.qld.gov.au)

Dear Sir/Madam,

**Clean Energy Council submission on the Draft QLD Large-Scale Solar Guidelines**

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in solar, wind, energy efficiency, hydro, bioenergy, energy storage, geothermal and marine along with more than 5,000 solar installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to make a submission on the draft QLD Solar Guidelines ('the draft guidelines').

As you are aware, the large-scale solar industry is an emerging sector in Australia, and Queensland is at the forefront of its development. Just a few years ago, there was not one commercial large-scale solar facility (> 5 MW) in Queensland. Today, the economics of solar energy have improved markedly and large-scale solar is now cost competitive not only with wind developments, but is significantly cheaper than building new thermal generation. As a result, in 2018, six plants have been built and approximately 40 are under construction or expected to commence construction this year.

This is a very positive development. Firstly, because increased renewable energy generation is expected to drive down average annual electricity bills from 2018-19<sup>1</sup>.

Secondly, because Queensland's exceptional solar resources means that it stands to benefit from the increased investment, job opportunities and economic activity that these developments deliver, particularly within regional areas. Direct employment for thousands of people will be generated by these plants during the construction phase, and hundreds of jobs will be supported directly and indirectly in the long term. Large-scale solar developments can also support diversification of regional economies and greater financial resilience for landowners and agricultural districts during times of drought.

And finally because solar energy can play a major role in accelerating the decarbonisation of Queensland's electricity sector. Queensland is particularly vulnerable to climate change and the state has a large interest in playing its part in the national and international effort to reduce emissions. We congratulate the Queensland Government on its strong commitment to lift the share of renewables in Queensland's energy mix from 7 per cent to 50 per cent by 2030.

The CEC welcomes the Queensland Government's new draft guidelines, which provide valuable information and resources for local governments, communities and proponents.

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<sup>1</sup> Australian Energy Market Commission, *2017 Residential Electricity Price Trends*, December 2017

In response, we would like to provide a number of observations with regard to the commitment of our industry to responsible development, and the considerations and challenges that developers and operators must take into account as we build the clean energy supply for the future.

*A strong commitment to good community engagement*

The renewable energy industry recognises the importance of working closely with communities to develop new generation facilities in a responsible manner that reflects community expectations.

Indeed for the wind industry, which is more established than Australia's solar industry, the CEC and a number of its members recently commissioned an independent research report entitled *Enhancing Positive Social Outcomes from Wind Development* (2018). The purpose of this report was to support continuous learning and improvement in our sector for best practice community engagement.

The CEC works actively to share these findings with all of its members, many of whom now work across both the wind and large-scale solar sectors, to further strengthen the community engagement expertise within the renewables industry.

In late 2017, the CEC partnered with the Australian Renewable Energy Agency to deliver free seminars in Queensland and other states for large-scale solar developers on effective community engagement techniques. These seminars attracted strong interest from a broad range of professions and skill sets.

The CEC has also been pleased to actively contribute information and insights to the development of the Queensland Government's new draft solar guidelines, and is playing an active role in promoting this guidance in its member gatherings.

We know that this guidance can help to shape the growth of our industry. In 2012, the Clean Energy Council published its *Community Engagement Guidelines for Wind Developments*. Research conducted in 2017 showed that 78 per cent of the wind companies surveyed used the guidelines to inform the development of their Community Engagement Plans.

We expect the same will occur for large-scale solar. As the first comprehensive set of community engagement guidelines in Australia specifically designed for the large-scale solar industry, we expect that the Queensland Government's guidelines will be of great interest to our members.

We recognise that good engagement begins as early as possible in the project lifecycle. In developing their projects, large-scale solar developers will usually establish initial engagement with relevant landowners and local council/s to introduce the project proposal and consult on key issues. This process can help developers better understand the social context and secure an agreement to use the land if the project moves forward.

While openness is important for building trust, it is important to note that developers will often need to exercise a degree of confidentiality in this early engagement activity. This is because public acknowledgement of the site under consideration may be commercially sensitive within the current competitive environment. Developers are also concerned not to create unnecessary stress or expectations in the community when project feasibility is still being assessed. Many large-scale solar developments never make it off the drawing board

because of the many pre-requisite criteria that must be met for project viability. These can include the grid capacity and connection agreements with the transmission network service provider, environmental and cultural heritage considerations, expected economic returns, and securing finance.

Where the project does make it through the feasibility stage, community engagement should be continued and extended to ensure that all those who identify as local community members are aware of the project and able to provide comment and feedback. Our members find that this process will often strengthen the project and lead to improved outcomes.

Our members are aware that many of the impacts of solar developments occur during the construction phase of the development. Good practice involves proponents remaining in close contact with local landowners, neighbours and authorities to understand and accommodate their needs and expectations during this time, and provide updates and information where situations change.

From the time that the solar farm is in operation, responsible firms will maintain regular communication with their landholders, neighbours and local communities as part of good land and asset management and making a positive contribution to the local community.

*Councils are best placed to determine how to accommodate solar in their community*

The Clean Energy Council recognises that many councils across Queensland have had to get up to speed relatively quickly to understand the nature of solar developments as they assess development proposals within their municipalities. Our interactions with a number of local governments indicate that while there are opportunities for improvements in the information sharing between councils and State Government agencies, most have adapted very well. The *Guidance for Local Governments* should only assist to enhance the confidence of the sector further.

We are pleased to see the advice in the guideline regarding the importance of councils consulting their communities on how large-scale solar may be appropriately accommodated within their region. Clear strategic planning frameworks that factor in the role of renewable energy make it easier for the solar industry to invest in suitable places.

We agree with the State Government that the way in which communities should integrate the State Planning Priority of Renewable Energy into their planning schemes is best determined by councils rather than the State, as with other forms of development. The environmental, social and economic context of each community in Queensland – from Roma to Rockhampton, and Townsville to Toowoomba – is different, and a cookie-cutter approach to the integration of solar energy would be inappropriate and unnecessary.

It is therefore also appropriate that councils determine when certain forms of development require either code assessment or impact assessment processes. Some of the solar development proposals in Australia are situated on private properties in very remote locations on cleared grazing land. In such cases, impact assessment would likely be redundant. By contrast, for those developments near significant population centres or in areas of high landscape value, impact assessment may be the most sensible approach.

Regardless of the form of the assessment chosen, the CEC considers early and respectful engagement with impacted stakeholders to be a fundamental step in the project development process.

### *Site selection*

Site selection is a very important stage in a project's development, and our members will need to consider a wide range of criteria in locating a suitable site. Proponents seek clear, flat (or gently sloping) land, in close proximity to the grid, without the constraints of surface rock, flooding, shading, geotechnical issues and underground infrastructure can be difficult to find.

Large-scale solar developers seek out land that does not contain native vegetation or areas of high cultural significance. This is often land which has been previously cleared for farming or industrial purposes. It is not in their interests to seek out high-value agricultural land, and they will generally try to avoid it where they can. However, the site selection is highly constrained by the location of the electricity transmission network as well as the capacity of the network.

Unless the development is very large, most large-scale solar projects will need to be located within close proximity of the grid in order for the project to be considered financially viable. This is due to the high costs associated with transmission extensions and the relatively low-margins for profitability of the development. In a typical project, proponents will seek to be within two kilometres of a high-voltage transmission line or substation.

Another constraining factor is the capacity of the local transmission network which limits the number of new generation facilities that can be accommodated in any given region. Areas that may be ideal for large-scale solar, such as central Queensland are presently ill-equipped to host many such projects because of the limited network and the limited capacity on that network. Therefore, there is a very finite area of land that can be used for solar generation in any one section of the network.

### *Transmission networks should be augmented in suitable locations for solar*

As such, the CEC is very supportive of the work currently being undertaken by the Australian Energy Market Operator to develop an integrated system plan, which should identify prospective Renewable Energy Zones across the National Electricity Market and the transmission augmentation necessary to connect them to the existing network.

We also support the acceleration of strategic planning studies and investments by Powerlink and the Queensland Government to increase the capacity of the transmission network in suitable areas with strong solar resources.

### *Working with farmers for win-win outcomes*

Where productive agricultural land is selected for a solar project, the responsibility is on the developers to work in consultation with landholders and stakeholders to minimise the impacts through thoughtful planning and design.

Many developers and some hardware manufacturers too are exploring ways to integrate agricultural production within solar farm developments, such as sheep grazing or cultivation of crops.

Solar farms can be complementary to agricultural activities and enhance a landowner's financial resilience during times of drought or market changes. If proper planning and engagement processes are in place, a positive outcome can be achieved for the landowner, the community and the project developer.

*Solar farms on land with irrigation infrastructure*

If a solar farm is sited on irrigated land, it does not automatically follow that the acquisition of the land rights (through lease or freehold) will also be an acquisition of the water rights. Indeed, this would be very unusual. The licensee remains free to deal with the water rights as they see fit, which may be by way of sale to a third party (either on a seasonal or permanent basis) to generate additional revenue, or used by the landowner to increase productivity elsewhere on their property.

*Low-level impacts on the land*

Solar farms have a relatively low impact on the land, with most developers now opting for pile driven or screw foundations (avoiding the need for concrete footings) which mean relatively little ground disturbance. In addition, solar farms are not permanent installations. They typically have a 25-30 year life, after which time they may be decommissioned and returned to full agricultural use.

Once again, the CEC commends the Queensland Government for developing the draft guidelines to outline its expectations for the planning, assessment and consultation processes for large-scale solar developments.

Queensland has embarked on an exciting journey to transition to clean energy, and we look forward to working with the Government to support the responsible and sustained development of the solar industry.

If you have any further questions with regard to this submission, please contact Anna Freeman on 03 9929 4124 or via email at [afreeman@cleanenergycouncil.org.au](mailto:afreeman@cleanenergycouncil.org.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Anna Freeman', with a stylized, cursive script.

**Anna Freeman**  
**Director, Energy Generation**