



COTTON
AUSTRALIA



Feedback on the Queensland Draft Renewables Regulatory Framework

Jennifer Brown
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Submission prepared by Jennifer Brown

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ABOUT COTTON AUSTRALIA

Cotton Australia is the peak body for Australia's cotton growers, representing up to 1,500 cotton farms mainly in New South Wales and Queensland but also in the Northern Territory and Western Australia. Cotton Australia works with growers and stakeholders to ensure the Australian cotton industry remains viable.

Cotton Australia supports the Australian cotton industry to be globally competitive, sustainable and valued by the community. It drives the industry's strategic direction, retains a strong focus on research and development, promotes strength of the industry, manages sustainability reporting and implements policy objectives.

1. Executive summary

Cotton Australia is an active member of the Queensland Farmers Federation (QFF) and welcomes the opportunity to provide feedback on the Draft Renewables Regulatory Framework¹. As energy is a key input for both our growers and the ginning processors they supply, this is an important issue for their future operation.

Queensland's cotton growers produce approximately 33% of the Australian cotton crop which in a 'average season' contributes just under \$800 million to the Queensland economy operating across approximately 600 farms employing around 4,800 people². Queensland's cotton growers produce other winter and summer crops, significantly adding to production opportunities and output.

Cotton Australia has reviewed QFF's submission to this review but the importance of this issue for our industry has made it necessary to make our own complementary submission. We reiterate that, Cotton Australia is broadly in alignment with QFF, but for the avoidance of doubt, if there is any divergence of positions, the position of Cotton Australia is the position in this submission.

2. Recommendations

Cotton Australia welcomes the introduction of minimum complaint management standards. However, we also seek the establishment of an independent agency to handle escalated complaints.

Cotton Australia adds its voice in support to QFF's call for:

- Continuing to roll out Local Energy Partnerships program, and more farm energy assessments and rebates
- Support from the state government to deliver energy literacy educational projects to farmers and regional communities across Queensland
- A long-term workforce strategy, developed collaboratively by the government and the energy sector
- Development of model contracts for landholder agreements that includes neighbouring properties.

Additionally, we will be providing more detailed comments concerning the following aspects under Questions 2 – 4:

- No further loss of agricultural land and the active protection of high value agricultural lands
- Proactive biosecurity due to the increased development activity in the regions
- That Queensland Treasury provide ongoing support to Co-Existence Queensland for their biosecurity resources and extension that it has developed, originally for the CSG industry and landholders, including The Farm Check-In app and checklists
- The framework includes site rehabilitation, soil preservation/restoration and product stewardship of the associated infrastructure

¹ <https://www.energyandclimate.qld.gov.au/energy/community/community-feedback-on-the-energy-transformation>

² These figures are taken from industry estimates that QLD produces 33% of the national cotton crop

- Genuine community engagement involving co-design as well as the inclusion of 'agent of change' principle
- Whole of landscape planning for offsets, their availability and impact/benefits for the surrounding communities
- Bushfire management.

3. Submission response

3.1. DO THESE INITIATIVES EFFECTIVELY CONTRIBUTE TO THE DESIRED OBJECTIVES INCLUDING ENHANCED ENVIRONMENTAL OUTCOMES, EFFECTIVE COMMUNITY PARTICIPATION, EASY ACCESS TO INFORMATION, ENDURING LANDHOLDER PROTECTIONS, AND EFFICIENT INDUSTRY FACILITATION?

Cotton Australia like QFF, welcomes the introduction of *minimum complaint management* standards to foster increased trust and transparency. We too would welcome the establishment of an independent agency to handle escalated complaints.

Cotton Australia adds its voice in support to QFF's call for:

- Continuing to roll out the *Local Energy Partnerships program*, and more farm energy assessments
- Support from the state government to deliver *energy literacy educational projects* to farmers and regional communities across Queensland
- A *long-term workforce strategy*, developed collaboratively by the government and the energy sector
- Development of model contracts for landholder agreements that includes neighbouring properties.

3.2. WHAT POTENTIAL CHALLENGES DO YOU FORESEE IN THE IMPLEMENTATION OF THESE INITIATIVES, AND WHAT STRATEGIES OR SOLUTIONS COULD HELP ADDRESS THEM?

Our members recognise the benefits of increasing the amount of energy generated from renewable and low carbon technologies to secure energy supply, reduce greenhouse emissions and stimulate investment in new jobs and business.

From our experience on behalf of NSW members and their communities, who are also undergoing the energy transition and creation of Renewable Energy Zones, we reiterate QFF's statement:

... it is crucial to adopt a comprehensive and coordinated approach to ensure that landholders, agricultural production, and regional communities are not adversely impacted, that risks are managed, and opportunities maximised.

Furthermore, it is Cotton Australia's view that *high value agricultural land is protected* from the installation of renewable energy infrastructure, **period**.

We consider this non-negotiable; the planning principle should be applied to Renewable Energy Zones and associated infrastructure.

It is not just the direct loss of agricultural land but also land lost through the secondary impacts from the development on adjacent land that concerns our members and their communities. We provide two aspects relating to solar infrastructure as examples.

Firstly, the 'PV heat island effect' where there is a warming effect across the landscape, having the potential to influence biodiversity and wildlife habit, ecosystem functions and human health as well as agricultural land values of properties directly adjacent to these facilities.³

Secondly, the loss of agricultural land or resulting loss of productivity or commodity adaptation as a result of impacts from large-scale solar infrastructure facilities, can also impact the viability of agri-processing facilities (e.g. animal processors and cotton gins), the efficient utilisation of assets, and ultimately the agricultural profitability of a region. If it is not properly planned and located accordingly, such infrastructure can also impact ongoing investment decisions and investment certainty; and investment security where land prices may be reassessed.

Cotton Australia is aware of landholders hosting CSG related infrastructure or on neighbouring properties that have faced similar issues, again making a whole of landscape uniform approach to planning across resource extraction and agricultural industries an imperative.

³ Barron-Gafford, G. A. et al. (2016). The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures. *Sci. Rep.* 6, 35070; doi: 10.1038/srep35070. [<https://www.nature.com/articles/srep35070>] This study determined that temperatures around a solar PV plant were regularly 3–4°C warmer. It went on to state:

"As with the Urban Heat Island (UHI) effect, large PV power plants induce a landscape change that reduces albedo so that the modified landscape is darker and, therefore, less reflective. Lowering the terrestrial albedo from ~20 per cent in natural deserts to ~5 per cent over PV panels alters the energy balance of absorption, storage, and release of short- and long-wave radiation".

And other publications since:

https://www.researchgate.net/publication/387516474_Empowering_Rural_Farming_Agrovoltaic_Applications_for_Sustainable_Agriculture

https://www.researchgate.net/publication/387381684_Global_disparity_in_synergy_of_solar_power_and_vegetation_growth

3.3. ARE THERE ANY IMPORTANT ISSUES OR GAPS THAT THESE INITIATIVES HAVE NOT YET ADDRESSED?

Energy information services

From our joint projects with QFF for our NSW and Qld members we know that members want to be part of the energy solution but often technical barriers hinder renewables uptake. We also know from microgrid feasibility study that interested growers could play a part of a geographically dispersed microgrid supplying their communities.⁴

Cotton Australia also reaffirms the benefit that the *energy information services* (audits, advice about energy efficiency, including efficient plant and equipment) can provide. So too providing our members and their communities a trusted source of advice about tariffs and determining the correct assignment.

We therefore add our voice to QFF's recommendation of further funding being provided for more *on-farm energy assessments and rebates* to support for on-farm renewable energy solutions (including micro grids, behind the meter solutions, tariff reform and ongoing support for on farm energy efficiency initiatives).

Biosecurity

Regarding biosecurity, the risks of an incursion will increase as development activities in the regions increase. Consequently, it is essential that developers are made to adhere to farm and regional biosecurity plans, such as the *Soil Movement Guideline* set out by the *Biosecurity Act 2014* and the *Biosecurity Regulation 2016*.

Importantly this vigilance needs to go beyond just the immediate site or farm as the surrounding community and businesses become impacted both physically and financially when an exclusion zone is imposed.

Cotton Australia recommends Treasury provide ongoing support to Co-Existence Queensland for the resources and extension that it has developed, originally for the CSG industry and landholders, including The Farm Check-In app and checklists.⁵

Site restoration and product stewardship

It is Cotton Australia's view that where development on agricultural land cannot be avoided, large scale renewable energy installations must be designed and constructed to be 'reversible', allowing the site to be easily restored to a more intensive agricultural use. Intrusive development, such as trenching and foundations, should therefore be minimised and the use of mass concrete should be avoided.

⁴ The Flow on Benefits of Microgrids for Agriculture was funded by the Australian Government's Regional and Remote Communities Reliability Fund. <https://www.qff.org.au/projects/microgrids/>

⁵ https://www.cqld.org.au/wp-content/uploads/2024/06/Biosecurity-Checklist_fact-sheet_FINAL-WEB_October-2021.pdf

For example:

- Large-scale arrays should be installed using ‘pile’ driven or screw foundations or pre-moulded concrete blocks (shoes), and capable of easy removal.
- The use of shoes may also be required for land subject to native title or areas with biodiversity values.
- Where ‘pile’ driven foundations are proposed, impacts during construction on nearby sensitive receptors should be considered.

Cotton Australia also flags that in some cases, it may be beneficial to the landholder that some of the infrastructure remain and this is negotiated with the proponent at the start of a project in their landholder agreement. This has been the case for CSG related infrastructure where roads, irrigation infrastructure or dams have been appropriately decommissioned and left in-situ for the landholder to use.

Regarding *decommissioning and rehabilitation*, Cotton Australia recommends renewable infrastructure is treated like resource extraction projects:

- security deposits and bonds are used to secure decommissioning activities for large scale facilities
- the quantum of security held is adequate and it needs to be reassessed during the project’s life, particularly considering the risk of future insolvency of a company
- as with any other resource development in Queensland, a final restoration plan must be provided during the planning application phase that reinstates the land concerned to its previous physical form and productive integrity.

It is Cotton Australia’s view:

Any impact intended or unintended must be fully compensated by the company constructing, operating and maintaining the large-scale solar infrastructure/active within the designated Renewable Energy Zone. Given it is the Queensland Government that can decree the location of Renewable Energy Zones, Cotton Australia is of the view that these declarations are also supported by government guarantee.

Furthermore, in the absence of national *product stewardship* scheme⁶ that the decommissioning of Queensland projects should be subject to a product stewardship plan to minimise waste and promote the reuse of materials, particularly for both solar and wind infrastructure. Installations currently operating could be grandfathered into the scheme as there is some decades before these projects come to the end of their originally intended life, during which time there are likely to be fore technological change promoting materials to be updated. The economies of scale for recovering a number of large scale infrastructure projects may even create a new service industry for the State.

⁶ <https://consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv>

3.4. DO YOU HAVE ANY SPECIFIC FEEDBACK OR SUGGESTIONS REGARDING ANY PARTICULAR INITIATIVE?

Consultation

Cotton Australia reiterates, QFF's statement:

Transitioning renewable energy into the mix requires careful planning, transparent communication, and meaningful consultation with local communities....

Integrating renewable energy into the mix without disrupting agricultural production or rural livelihoods requires a clear and enforceable regulatory framework. Developers must work within established guidelines and engage with landholders and local communities to maintain a social licence, foster trust, and ensure that the transition benefits all sectors, including agriculture.

Consultation can be an empowering activity for communities when done well because it generates true engagement and sharing of local knowledge, we provide the following two examples of this.

Tasmania's *Renewables, Climate and Future Industries Tasmania* (ReCFIT) undertook in 2022-23 a co-designed approach with the communities likely to be impacted/benefiting. The Government agency's use of spatial mapping provided this geographically dispersed North West Renewables Zone community (approximately 120,000) the opportunity to literally map features that were important to them, as well as areas they felt could host renewable infrastructure. This enabled not just spatially

defining of the environment, agriculture, cultural heritage, and so on but incorporating social data provided by the local community as an overlay. ReCFIT have taken a similar approach with their community benefit sharing consultations.⁷

A second example from NSW is that of the community of Hay Shire Council within the Riverina's Renewable Energy Zone. As the Shire would be hosting eight of the 20 planned developments with the Riverina Zone, the council proactively worked with the community to set out documented principles for its negotiations with developers. We understand it has resulted in agreements for cheaper electricity for the whole town and long-term projects for education, housing and healthcare.⁸

It is Cotton Australia's view, all the Queensland REZ should be a means to establishing local energy use hubs, that provide communities hosting a lot of infrastructure to access considerably discounted power for employment creating businesses (say located within a very defined precinct). Furthermore, that the Queensland Government should actively facilitate such initiatives, be that by articulating this purpose within the framework as well as providing enabling seed funding for the REZ communities to co-design such energy hubs, thereby being attractive to new industries and employment opportunities.

Cotton Australia recommends that to facilitate such constructive consultation and recognition of locally held knowledge Cotton Australia proposes that the "agent of change" principle be adopted in all Queensland Treasury's Division of Energy guidance and planning documents/policies.

⁷ <https://www.renewableenergyzones.tas.gov.au/consultation-hub/consultation-cbs>

⁸ <https://www.abc.net.au/news/2024-09-22/renewables-nsw-town-embraces-wind-solar-to-boost-economy-farms/104355706>

The *agent of change principle* is an established principle in land use planning but is not always applied in practice. The principle places the onus on proponents of new developments to recognise and mitigate any potential impact that their development may impose on, or experience from, the normal and legal operations of existing land uses in the vicinity. This is commonly seen in residential development where neighbouring properties cannot be built in a way that impacts solar access of neighbouring properties and is also applied in Victoria around music venues and managing noise complaints⁹

As QFF observes

Community and industry benefit sharing requires a deep understanding of each community's priorities, and a one size fits all approach will not achieve the best outcomes.

This is also the case for the use of *offsets*. Cotton Australia shares QFF's concerns about the lack of transparency, dialogue and planning with respect to project offsets let alone their impacts on land use, food and fibre production and the future viability of regional communities. Is the Queensland Government confident that there are sufficient areas of land with the same attributes available to match the future demand of infrastructure projects?

At the same time do infrastructure projects, solar, need to be laid out as a single block covering many hectares on mass? As Cotton Australia found from the microgrid feasibility research project, landholdings may have discrete less productive parcels of land that could be joined up into a microgrid across a region, that then use existing network infrastructure and deliver the required Gigawatts. Taking this approach could also reduce the deficit of area needed for offsets but currently appears not to be physically available within the State.

Bushfire management

Final comment relates to bushfire risk mitigation and management. Firstly, has thought been given to the Rural Fire Service Queensland's ability to tackle a fire adjacent to or within solar infrastructure, will these volunteers need to have additional training for dealing with incidents inside their REZ? Secondly, over the life of the project, vegetation needs to be appropriately maintained to minimise the fire risk. Cotton Australia shares QFF view that:

developers must be aware of, participate in and contribute to the bushfire resilience, preparedness, and response capacity of the community in which they operate.

During the current bushfire 'season' and dry conditions in NSW and Victoria these concerns are resonating in many communities hosting REZs¹⁰.

⁹ NSW Agricultural Land Commissioner's "Improving the Prospect for Agricultural and Regional Australia in the NSW Planning System" paper p27.

¹⁰As recently as The Land 5/1/2025 <https://www.theland.com.au/story/8860638/walla-solar-farm-fire-sparks-safety-concerns-among-neighbours/> and previous concerns raised in Vic <https://www.abc.net.au/news/rural/2024-06-19/cfa-renewables-protest-volunteer-firefighters-transmission-lines/103995318>

4. Conclusion

Cotton Australia has appreciated being able to provide feedback to this draft document. We also acknowledge the opportunity that other Queensland agricultural and horticultural industries have had, to provide to the Government regarding renewables and the energy transition, courtesy of QFF during the last 18 months.

As we have previously stated our members want to be part of the solution, so we look forward to continuing to provide via QFF strategic advice to enable Treasury to design an appropriate framework.

Thank you for the opportunity to make this submission. If you would like more information concerning the matters raised in this submission, please do not hesitate to contact me on 02 9669 5222 or via email: jenniferb@cotton.org.au



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