



HERBERT
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MAXIMISING THE ENERGY TRANSITION OPPORTUNITY FOR QUEENSLAND

IMPROVING ENVIRONMENTAL ASSESSMENT
AND APPROVALS

13 DECEMBER 2024



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Executive Summary

Herbert Smith Freehills has been engaged by WWF-Australia to consider legal and policy frameworks that could be utilised to accelerate and maximise the transition of Queensland's energy market from fossil fuels, towards renewable energy sources.

WWF-Australia has previously produced renewable energy scorecards, calling on each of the Australian states, territories and the Commonwealth government to develop policies that would put Australia on a path to 700% renewable energy. This target would require:

- delivery of substantial renewable energy sources;
- deep electrification of existing systems (such as transport and industry); and
- sufficient energy production to support new export industries which could include renewable hydrogen, advanced manufacturing of products that embody renewable energy, or direct electricity transfer.

The energy transition cannot occur without consideration of the full range of environmental impacts. All energy systems, including renewables, have some impact on nature. Managing the impact on nature requires detailed and considered planning, informed by reliable and high quality data.

The energy transition requires the support of local communities, peak industry and green bodies as well as government. Given the magnitude of the energy transition, its success will hinge on substantial levels of planning, coordination, and community support. In this report, we set out a number of recommendations based on our experience, numerous conversations with WWF-Australia and with other key stakeholders about the steps required to enable and progress the energy transition.

These recommendations are the start of the conversation, and do not purport to assimilate with any particular political ideology or viewpoint. They start with the assumption that decarbonisation and the energy transition, in line with Australia's and Queensland's announced targets is the goal, with the increased ambition of WWF-Australia to achieve a path to 700% renewable energy. This ambition occurs alongside WWF-Australia's commitment to zero extinctions and ending deforestation and forest degradation.

This report focusses primarily on environmental assessment and approvals processes that can be adapted and strengthened to help support the delivery of the energy transition task. It is recognised that a range of other considerations will apply to the energy transition, including the operation of the National Electricity Market, funding and grant incentives, human rights considerations, labour and logistics, all of which will influence the energy transformation. We have not considered these matters in detail in this report, save to recognise that there are a range of competing and complementary levers and tools that can be relied upon to deliver the energy transition.



Recommendations

Recommendation 1:



Ensure policy certainty and market confidence in Queensland's energy transition projects by signalling support for renewable energy through mechanisms such as renewable energy targets, efficient planning processes, and governance models that foster investment and encourage collaboration between proponents, communities, and landholders.

Recommendation 2:



Maximise use of existing data and acquire new high quality and open data for better and faster decision making.

Recommendation 3:



Maximise the use and efficiency of appropriately located Renewable Energy Zones (REZs) and encourage project investment and development in the REZs.

Recommendation 4:



Encourage, through efficient development and environmental assessment processes, enhanced development of renewables projects in appropriate locations (and conversely discourage project assessments in inappropriate locations).

Recommendation 5:



Where appropriate, maximise the use of State land to support the delivery of renewables projects and undertake investigations into the suitability of State land.

Recommendation 6:



Improve the decision making processes and timeframes under the EPBC Act for renewables projects.

Recommendation 7:



Implement planning and assessment frameworks that prioritise clean energy infrastructure on degraded low conservation value lands and brownfield sites (eg industrial areas, mining sites, cleared land)

Recommendation 8:



Consider ownership and delivery models that provide for returns to the broader community.

Recommendation 9:



In the long term, consider creating a "renewables tenure" similar to the tenures that already exist for mining and petroleum projects, that provides a system for land access, compensation, royalties, environmental management and rehabilitation.

Recommendation 10:



Consider extending the above recommendations to industries that support decarbonisation, including encouraging deep electrification and manufacturing industries.

Introduction

With its exceptional solar and wind resources, Queensland has the opportunity to become a leader in the energy transition. In early 2024, the Queensland Government legislated renewable energy targets that are designed to take advantage of Queensland's unique location and attributes. Maximising this opportunity will require rapid deployment of infrastructure to support renewables, including decisive facilitation by all levels of government.

Herbert Smith Freehills has been engaged by WWF-Australia to review the current legislative and policy framework in Queensland and to provide a set of recommendations regarding the planning and environmental approvals framework to assist in achieving a "fast, best, just" energy transition for Queensland.

WWF advocates for Australia to become a Renewables Nation¹ with a target of 700% renewable generation by 2050. Queensland has been identified as a key contributor to reaching that target. The 700% renewables target represents meeting Australia's domestic energy needs and developing a substantial energy export market.² For the purposes of this report, Herbert Smith Freehills understands that the 700% renewables will require:

- delivery of renewable energy sources;
- deep electrification of existing systems; and
- sufficient energy production to support new export industries, which could include:
 - renewable hydrogen
 - direct electricity transfer
 - products that embody renewable energy (eg green steel, advanced manufacturing, aluminium)
 - development of relevant expertise
 - components and recycling
 - support and operation clean energy systems

Box 1: WWF-Australia, Making Australia a Renewable Export Powerhouse

What is a Renewables Nation?

WWF-Australia and its community and business partners have called for Australian governments to develop a vision, suite of policies, and investments that would position Australia as a world-leading renewable energy exporter.

WWF recognises that for Australia to realise its renewable energy superpower potential, it will need to ensure that the intersection between the speed and scale of the rollout, and its impact on the environment and local communities, is managed effectively.

Specifically, WWF-Australia has called on each of the State and Territory Governments, and the Commonwealth of Australia to:

- Develop bold renewable export strategies that capture the opportunity and put Australia on a path to 700% renewable energy;
- Develop policy to ensure the energy transition contributes to regenerating the environment and creates net-positive outcomes; and
- Deliver a fair transition that ensures First Nations people, low-income households, workers and regional communities all benefit from the energy transition.^a

WWF-Australia is advocating for a 700% renewable target to enable Australia to:

- Meet Australia's total current electricity demand;
- Switch Australia's current transport, industry and building energy needs away from coal and gas to renewable sources; and
- Produce renewable hydrogen fuels for export, send renewable power to Southeast Asia via sea cables, and manufacture new zero-carbon products with embedded renewables like green steel and aluminium.^b

Scorecard

WWF-Australia has produced scorecards, comparing how each jurisdiction is progressing toward the target of becoming a renewable superpower.

Queensland is currently ranked equal third with South Australia.^c

1. See WWF-Australia, *Making Australia a Renewable Export Powerhouse* (2020) available [online](#).

2. *Ibid*, pg 18.

a. WWF-Australia, *Renewable Energy Superpower Scorecard #3* (2022), available [online](#), pg. 15.

b. *Ibid*.

c. *Ibid*, pg 21.

Background

Queensland Electricity Market

The *Energy (Renewable Transformation and Jobs) Act 2024 (Qld) (Renewable Transformation Act)*, legislates renewable electricity generation targets of 50% by 2030, 70% by 2032 and 80% by 2035.³

Currently, **27.9%** of Queensland's total electricity generation is from renewable sources.⁴ Compared to other States, Queensland's proportion of electricity generated from renewables remains low. For example,

South Australia generates **70.5%** of its electricity from renewable sources, with Victoria generating **38.2%** from renewable sources, and New South Wales generating **34%** from renewable sources.

Figure 1 represents the current renewable electricity generation in Queensland. **Figure 2** represents the total electricity generation in Queensland.

Queensland's Electricity Generated from Renewables

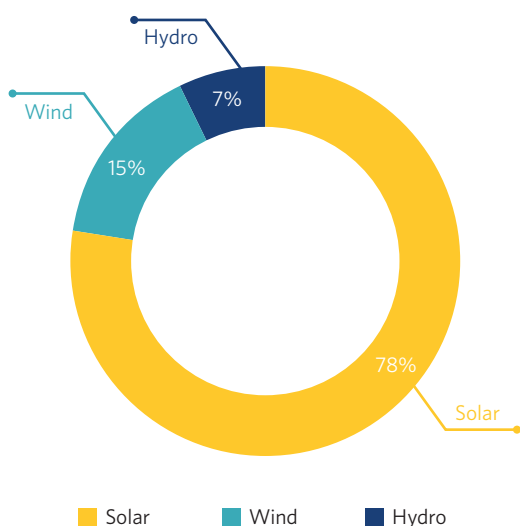


Figure 1: Composition of Queensland Renewables.

Data source: [OpenNEM](#), Queensland Generation, September 2023-September 2024.

However, the electricity generation market in Queensland is unique in comparison to other states, such as New South Wales or Victoria. Queensland has retained significant public ownership of generation, transmission and distribution assets. The Renewable Transformation Act also legislates public ownership requirements, requiring that 54% of generation assets be publicly owned and 100% of transmission, distribution and deep storage assets be publicly owned.⁵

Queensland's Total Electricity Generation

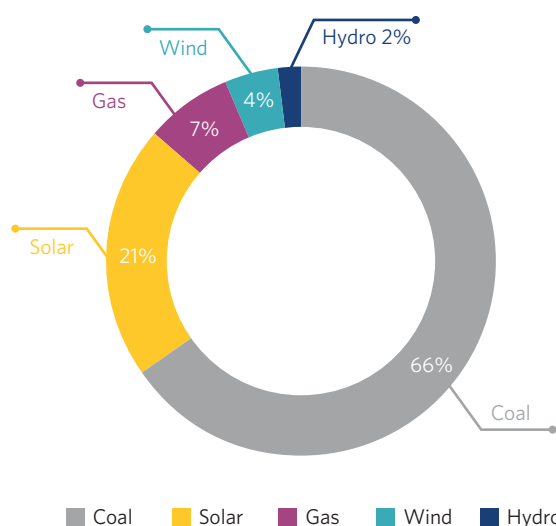


Figure 2: Composition of Queensland Total Electricity Generation.

Data source: [OpenNEM](#), Queensland Generation, September 2023-September 2024.

With appropriate policy settings, Queensland could unlock significant private investment in renewables projects. The large upfront capital investment required to develop renewables projects means that the cost of capital makes up a significant proportion of project costs. Uncertainty and excessively lengthy project approvals processes increase these capital costs. Therefore, the regulatory framework must include mechanisms which appropriately signal and coordinate investment while mitigating, where possible, the likely cumulative impacts of the energy transition on communities, biodiversity and First Nations groups.

3. *Energy (Renewable Transformation and Jobs) Act 2024 (Qld)* s 9 - Renewable Energy Targets.

4. OpenNEM energy dataset available [online](#). The data has filtered on a monthly basis, for the period September 2023 - September 2024. Using NEM data assumes that electricity is traded through the NEM. This excludes electricity generated outside the NEM. This may exclude household rooftop solar generation - see, the Australian Energy Regulator, *State of the Energy Market (2022)* available [online](#), pg 18.

5. *Energy (Renewable Transformation and Jobs) Act (Qld)*, part 3.

Existing Policy Framework

Queensland has an existing policy framework to deliver the energy transition with the Energy and Jobs Plan (**Energy and Jobs Plan**), the Queensland SuperGrid Infrastructure Blueprint (**SuperGrid Blueprint**) and the REZ Readiness Roadmap (**REZ Roadmap**).

Much of this policy is legislated through the Renewable Transformation Act and the *Clean Economy Jobs Act 2024* (Qld) (**Clean Economy Act**).

Energy and Jobs Plan 2022

The Energy and Jobs Plan included the following commitments:⁶

- renewable energy targets of 70 per cent renewable energy generation by 2032, and 80 per cent generation by 2035;
- all publicly owned coal-fired power stations in Queensland operating as clean energy hubs by 2035, supported with a legislated Job Security Guarantee for workers in the sector;
- construction of pumped hydropower projects aiming to deliver up to 7 GW of long duration storage;
- construction of around 1500 km of new high voltage backbone transmission to move more power around the state;
- up to 3 GW of low to zero emissions gas generation capacity for periods of peak demand and backup security; and
- the development of a smarter electrical grid to support over 11 GW of rooftop solar and around 6 GW of batteries used in homes and businesses.

To achieve this policy ambition, the plan is focused in the areas of: the clean energy economy, empowering households and small businesses, and secure jobs and communities.

To achieve the clean energy economy, the Energy and Jobs Plan 2022 contains the following action items:

- Building the SuperGrid
- Develop two world-class pumped hydro energy systems
- Invest in more batteries and storage
- Build more renewable energy and connect an additional 22 GW by 2035
- Advance Queensland's bioenergy future
- Ensure reliability with low to no emissions gas
- Grow the future renewable hydrogen industry
- Deliver sustainable liquid fuels
- Switch to renewable energy with new targets
- Establish a new technical board for expert advice

To facilitate the energy transition, the Queensland Government has committed \$4.5 billion to the Queensland Renewable Energy and Hydrogen Jobs Fund. This funding will support government owned corporations to invest in renewable energy, storage, and hydrogen projects.

SuperGrid Infrastructure Blueprint

To implement the Energy and Jobs Plan, the Queensland Government developed the SuperGrid Blueprint.⁷ The SuperGrid Blueprint is a technical document which sets out an optimal infrastructure pathway to support the transformation of the Queensland electricity market.

6. Department of Energy and Climate, The State of Queensland, *Energy and Jobs Plan* (2022), available [online](#).

7. Department of Energy and Climate, The State of Queensland, *Queensland SuperGrid Infrastructure Blueprint* (2022), available [online](#).

The Blueprint provides a framework for significant investments across four areas, being:

- **Renewable investment:** Given the variable nature and capacity factors of renewable generation, around 25 GW of large-scale renewable generation (total) and around 7 GW of new rooftop solar generation is required to meet forecast demand in 2035 (without reliance on coal-fired generation);
- **Storage, firming and dispatchable capacity:** Queensland will need at least 6 GW of long duration storage for a highly renewable system, complemented by approximately 3 GW of grid-scale storage and up to 3 GW of new low-to-zero emission gas-fuelled plant to cover extended low wind, low solar conditions;
- **Major network transmission:** Queensland's electricity system will become increasingly decentralised, and the transmission network must develop to allow the transportation of renewable energy around Queensland when and where it is needed; and
- **Clean Energy Hubs:** For an intermediate period, coal-fired power stations provide dispatchable power and system services, keeping the state's energy system reliable and secure. In the future, renewable energy generators, pumped hydro, batteries and low emissions gas-fuelled plant will collectively provide the dispatchable capacity and system reliability currently provided by coal fired power stations. The Queensland Government will invest to repurpose publicly owned coal-fired power stations into clean energy hubs.

The SuperGrid Blueprint seeks to achieve the renewables targets outlined in the Energy and Jobs Plan by:

- encouraging the development of renewable generation within 'declared REZs';
- construction of **two pumped hydro** energy storage systems;⁸
- **improving major network transmission** and system strength by adding the Borumba Connection, Central Queensland Connection, Pioneer-Burdekin PHES, NQ Connection, and the Townsville to Hughenden Connection; and
- **transitioning existing state owned coal fired power stations towards clean energy hubs**, which will eventually generate renewable electricity and provide relevant network stability.

The SuperGrid Blueprint assumes that peak electricity demand will remain roughly constant.⁹ As set out by WWF-Australia in the Renewables Nations Report (see **Box 1** above) there are a number of opportunities which are uniquely available to Queensland, particularly with the development of a substantial renewable energy export industry or green manufacturing sector.

8. Following the recent state election in October 2024, the incoming Liberal National Party (LNP) government has cancelled the Pioneer-Burdekin pumped hydro project and stated that the policy position will change to the development of several, smaller hydro projects.

9. Department of Energy and Climate, The State of Queensland, *Queensland SuperGrid Infrastructure Blueprint* (2022), available [online](#) pg 47, figure 13.



Existing Policy Framework (continued)

REZ Roadmap and REZ Readiness Assessment

Another policy document is the REZ Roadmap.¹⁰ The REZ Roadmap was released in March 2024, and outlines the process by which the Queensland Government will work with Powerlink (Queensland's electricity transmission system operator) to plan for, and ultimately declare, REZs in Queensland under the Renewable Transformation Act.

The aim of a REZ is to ensure that there is a coordinated, transparent and collaborative approach for the development of renewable projects and associated energy infrastructure within a particular region. This aims to achieve better economic, social and environmental outcomes across Queensland from the construction of renewables projects and minimise friction points between proponents, community and the Queensland Government.

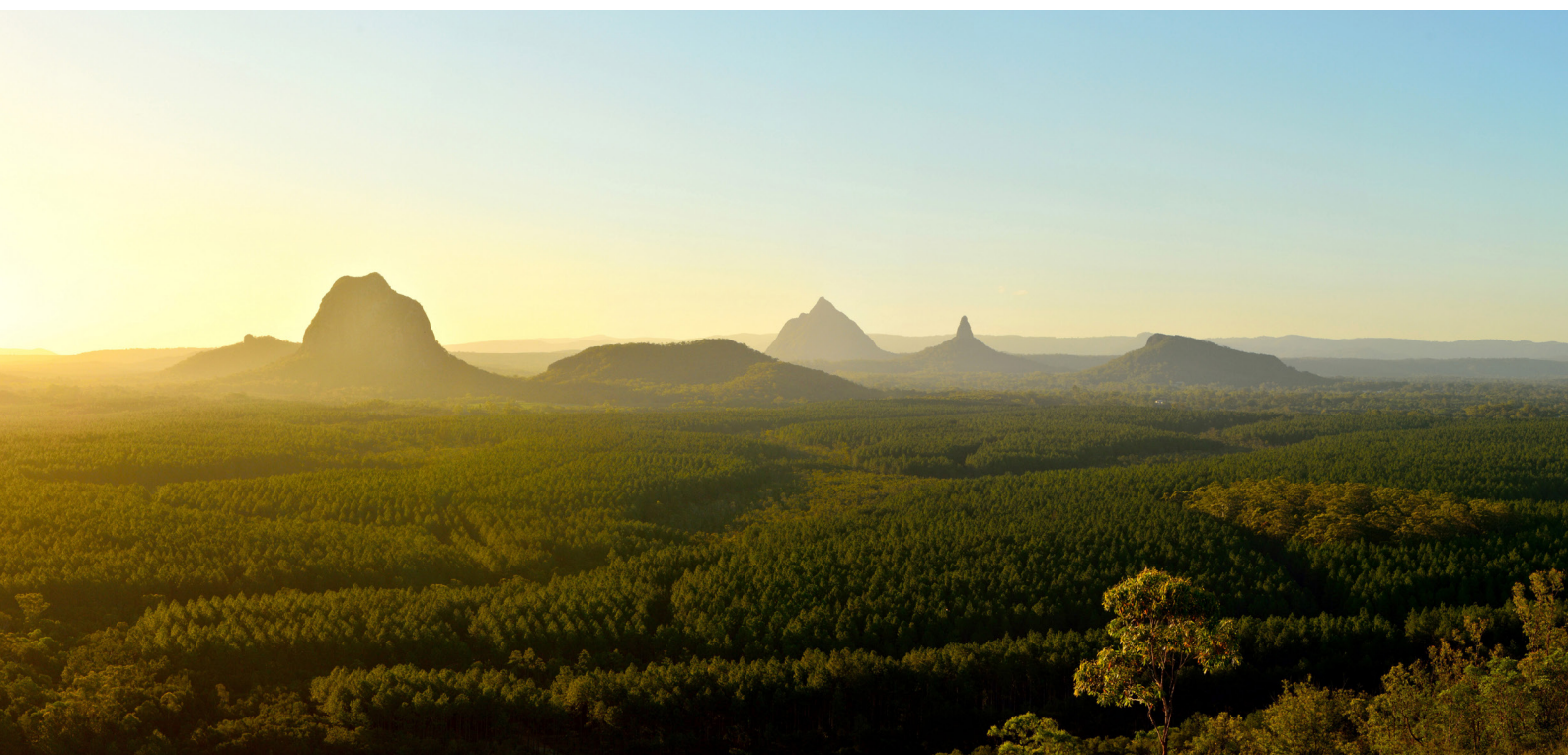
To support REZ development, the Roadmap includes an approach for undertaking strategic regional assessments and detailed local assessments of the opportunities and impacts of renewable projects within a REZ. The Government has referred to these assessments as "REZ Readiness Assessments".

- The REZ Roadmap outlines that these assessments will consider the "potential implications for infrastructure, transport, housing and accommodation, workforce, supply chains, waste management, other

land uses, and social infrastructure, as well as local industry and First Nations considerations". Information from these assessments will inform planning for individual REZ declarations, including the preparation of Detailed REZ Readiness Assessments at the time of each declaration. These assessments aim to feed into other Queensland Government planning and state development processes. Under the REZ Roadmap, REZs will be developed in four stages:

- **Planning:** This will involve early engagement and investigations into potential sites and areas of potential REZ Development.
- **Consultation and Declaration:** The REZ is declared through the mechanism contained in the Renewable Transformation Act and a draft REZ Management Plan is published for consultation. Powerlink will engage with communities and proponents.
- **Construction and Operation:** The final REZ Management Plan is published. Construction of relevant REZ infrastructure commences. As the REZ progresses, projects begin to connect and commence generation.
- **Commissioned:** REZ Capacity is fully subscribed and projects continue to generate electricity into the grid. Remediation or refurbishment to take place as projects reach end-of-life.

10. Department of Energy and Climate, The State of Queensland, *Queensland Renewable Energy Zone Roadmap (2024)*, available [online](#).



Box 2: REZ Framework

What is a REZ?

A Renewable Energy Zone (**REZ**) is a designated area which has a high potential for renewable energy (whether it be high rates of wind or solar).

A key design element of a declared REZs is the coordination of generation sources with transmission infrastructure and storage.

A REZ can be co-located with high energy users such as renewable energy industry precincts or renewable hydrogen hubs.

Under the current framework, the benefits of REZs are:

- Shared infrastructure for all energy producers resulting in coordinated and lower cost infrastructure, transparent connection and access charges.
- Minimising the footprint of development by optimising network and associated infrastructure.
- Achieving better outcomes for communities, with local reference groups established to ensure local input on REZ development and to highlight local priorities.
- Delivering more jobs and opportunities to regional communities.

A REZ could:

- Facilitate an initial baseline assessment of a proposed REZ area, including assessments of social and ecological values.
- Facilitate assessment of the likely cumulative impacts from several renewables projects being constructed within a local area, including likely impacts on local communities and the environment.
- Minimise consultation fatigue, improve access to sources of truth, and prevent local communities from having to repeat their concerns continuously to individual renewables developers.
- Improve transparency and allow for REZ wide benefit sharing for local communities.
- Facilitate REZ wide engagement with traditional owners and management of cultural heritage. This could include the development of a REZ wide Indigenous Land Use Agreement under the *Native Title Act 1993* (Cth) and or a REZ wide Cultural Heritage Management Plan under the *Aboriginal Cultural Heritage Act 2003* (Qld).
- Facilitate REZ wide benefit sharing agreements with local communities.
- Allow the Queensland Government to conduct a more holistic assessment on a 'REZ wide basis' and development sources of high quality data, rather conducting proponent-led assessment on a project by project basis.
- Allow the State of Queensland to develop a whole of government delivery framework to deal with particular REZ issues (eg transportation, common user facilities, offsets, infrastructure, or workforce accommodation).
- If possible, open up areas of unallocated Crown reserve within a REZ area by competitive tender or auction.

See **Recommendations**.

Existing Policy Framework (continued)

The Energy (Renewable Transformation and Jobs) Act 2024

The Renewable Transformation Act was legislated in April 2024. It legislates much of the policy outlined above. It:

- Legislated renewable energy targets of 50 per cent renewable energy generation by 2030, 70 per cent renewable energy generation by 2032, and 80 per cent generation by 2035;
- requires a public ownership strategy which targets 100% public ownership of distribution, transmission, and prescribed deep storage assets, and equal to or more than 54% ownership of generation assets by 2035;
- establishes the framework for the declaration and management of REZs;
- establishes the Job Security Guarantee Fund; and
- establishes additional governance arrangements and new advisory bodies.

The core intention for the REZ framework, as formulated in the Renewable Transformation Act, is to facilitate and coordinate the construction by Powerlink of the significant transmission infrastructure required for the energy transition. The REZ framework, deliberately, does not intend to replace or otherwise augment existing approvals required for renewables projects.¹¹

Hydrogen Policy

Green hydrogen plays an important role in Queensland's energy transition. Queensland's Hydrogen Industry Strategy 2019-2024 sets out the state's ambition to develop a sustainable hydrogen industry and become a renewable hydrogen 'exporter of choice'.¹² The strategy aims to leverage Queensland's existing gas pipeline and export port infrastructure, as well as Queensland's proximity to Asian export markets to support the emerging hydrogen industry. The Queensland Hydrogen Industry Strategy 2019-2024 is supported by the Queensland Hydrogen Investor Toolkit and Hydrogen Developments Guidance for local governments.

Under the existing policy settings, hydrogen energy proponents must navigate a complex patchwork of local, state and federal laws to establish hydrogen projects in Queensland. Planning approvals are required to construct hydrogen facilities, pipeline licences are required to transport hydrogen, and special permissions are required to consume and generate electricity.

The Department of Energy and Climate has identified that the complexity around obtaining approvals has the potential to delay project delivery and put investment at risk. As a result, the Queensland Government is looking at several options for legislative reform. In February 2024, the Queensland Government released a consultation paper concerning the potential regulatory framework for the Hydrogen Industry.¹³

To a large degree, the consultation paper proposes to integrate hydrogen into existing regulatory structures, rather than create a new legislative scheme for hydrogen developments. The major proposals discussed in the consultation paper focus on planning reform, in particular considering the establishment of a threshold for certain hydrogen projects to be assessed by the State or alternatively the development of a State Code for hydrogen (similar to the Wind Code).¹⁴

The Queensland Hydrogen Industry Strategy is currently in the process of being updated for 2024-2028.

Clean Energy Jobs Act 2024

The Clean Economy Jobs Act commenced on 26 April 2024. The Act legislates the following greenhouse gas emission reduction targets:¹⁵

- 30% reduction below 2005 levels by 2030;
- 75% reduction below 2005 levels by 2035; and
- net zero by 2050.

The Act allows the relevant Minister to make emissions reduction plans for a particular sector of the economy, as well as establishing the Clean Economy Expert Panel.

11. *Energy (Renewable Transformation and Jobs) Act 2024 (Qld) Explanatory Notes*, cl 49, pg 42.

12. Department of State Development, Manufacturing, Infrastructure and Planning, The State of Queensland, *Queensland Hydrogen Industry Strategy 2019-2024* (2019), available [online](#).

13. Department of Energy and Climate, The State of Queensland, *An Effective Regulatory Framework for Queensland's Hydrogen Industry Consultation Paper* (2024), available [online](#).

14. *Ibid* 13.

15. *Clean Energy Jobs Act 2024 (Qld)* s 5.

Approvals Framework

The assessment and approvals of renewables projects occurs through a complex web of local government, State and Federal approvals.

Required approvals can include:

- planning assessment and approval by the State of Queensland and or the Local Government under the *Planning Act 2016* (Qld) (**Planning Act**) or through alternative planning regimes such as the *Economic Development Act 2012* (Qld) (**Economic Development Act**) or the *State Development and Public Works Organisation Act 1971* (Qld) (**State Development Act**);
- environmental approvals and authorities under the *Environmental Protection Act 1994* (Qld) (the **EP Act**), the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (the **EPBC Act**). Other legislation such as the *Nature Conservation Act 1992*, *Queensland Heritage Act 1992*, *Water Act 2000* and other site specific legislation can also be triggered for renewables projects; and
- a variety of secondary approvals such as roadworks approvals under the *Transport Infrastructure Act 1994* (Qld), the *Nature Conservation Act 1992* (Qld) or a waterway barrier works under the *Fisheries Act 1994* (Qld). As these secondary approvals are highly site specific, they are outside the scope of this report.

Planning Approvals

Development Approval under the Planning Act

The use and development of land in Queensland is typically regulated by the *Planning Act*, the *Planning Regulations 2017* (Qld) (**Planning Regulations**) and the relevant local planning instrument made by a local council.

Under the *Planning Act*, development is defined to mean:

- carrying out building work;
- carrying out plumbing or drainage work;
- carrying out operational work;
- reconfiguring a lot; or
- making a material change of use of premises (eg starting a new use, re-establishing a use that has been abandoned or changing the intensity or scale of the use).

Development is further subcategorised as 'accepted development', 'assessable development', or 'prohibited development'. Accepted development does not require a development application or an approval. Prohibited development is development that is prohibited, and for which a development application cannot be made (such as certain vegetation clearing that is not for a "relevant purpose").



Approvals Framework (continued)

Assessable development requires a development approval before it can occur. Assessable development is either code assessable or impact assessable. Code assessable development is a bounded assessment, and assessed only against prescribed assessment benchmarks. It is not publicly notified and there are no third party appeal rights.

Impact assessable development undergoes a broader assessment, and is subject to public notification. Third party submitters accrue appeal rights to the Planning and Environment Court.

As part of assessing a proposed development, certain prescribed State interests require referral to the State Assessment and Referral Agency (**SARA**) or to other Queensland Government departments for technical advice such as for native vegetation clearing and development that impacts on State controlled transport infrastructure.

Wind farm development and State Code 23

Wind farm development in Queensland will generally be code-assessable and assessed against the provisions of State Code 23.

The Chief Executive is the assessment manager for a wind farm. In October 2024, the Queensland Government introduced amendments to State Code 23. These amendments focused on:

- improving **protections** for threatened species, areas of high ecological value and waterways;
- increasing the requirements regarding **progressive rehabilitation** to be undertaken; and
- introducing new assessment criterion considering assessment of impacts on **surrounding communities and townships**.

Some of the key performance outcomes for wind farms contained in State Code 23 are:

- **Ecological Protection:** There are four performance outcomes associated with the protection of wildlife. Performance Outcomes (**PO**) 1, 2, and 3 require that the proposed development be located, designed, and constructed to ensure that protected wildlife, associated habitats, and areas of high ecological value are safeguarded from adverse impacts. Protected wildlife is defined by reference to the *Nature Conservation Act 1992* (Qld) and includes wildlife that is classified as critically endangered, endangered, vulnerable, or near threatened. Areas of high ecological value are those described as Matters of State Environmental Significance under the Environmental Offsets Regulation 2014 and threatened species as outlined by the *Nature Conservation Act 1992* (Qld). PO4 mandates that areas which are cleared for the construction of a wind farm are progressively rehabilitated to the maximum extent practicable following the construction of the wind farm.
- **Amenity and Sensitive Land Use:** There are four performance outcomes associated with limiting interference with sensitive land uses. PO11 and PO12 stipulate that the predicted acoustic emissions from the proposed development must not exceed certain values, as specified in the Code. PO14 places a limitation on the amount of blade shadow flicker impacts on existing or approved sensitive land uses, such that it does not exceed 30 hours per annum and 30 minutes per day. PO16 requires that any proposed development in an area, which is identified by state or local government planning instruments as having high scenic amenity, should be sited and designed appropriately to protect the scenic amenity and landscape values of the locality and region.
- **Social and Community Impacts:** The Code also introduces a new assessment criterion requiring proponents to assess the implications on surrounding communities and townships resulting from any proposed on-site workforce accommodation camps.

The updated State Code 23: Wind Farm Development commenced on 30 September 2024.



Assessment of Solar Farms, Battery Storage and Other Infrastructure

Solar farms, battery energy storage systems (BESS) and other ancillary infrastructure required for renewable generation, when compared to wind farms, do not have a single efficient assessment approach under the Planning Act. Rather, the level of assessment for solar, larger battery and transmission projects depends on the local

planning instrument. See Table 1 for a comparison of the assessment as between a wind farm, compared to other renewable infrastructure.

As of 30 September 2024, the Queensland Government is undertaking further consultation on potential planning reforms for solar and battery developments.

Table 1: Assessment of Renewable Infrastructure under the Planning Act

Infrastructure	Assessment Manager	Level of Assessment	Local categorising instrument
	s 29, Planning Regulations	Schedule 10, Planning Regulations	Schedule 6, Planning Regulations
Wind Farms	Chief Executive	Code assessment, if — <ul style="list-style-type: none"> all wind turbines for the wind farm are at least 1,500m from a sensitive land use on a non-host lot; or 1 or more wind turbines for the wind farm are less than 1,500m from a sensitive land use on a non-host lot and the owner of the non-host lot has, by deed, agreed to the turbines being less than 1,500m from the sensitive land use. <p>Otherwise, impact assessable</p>	A local categorising instrument is prohibited from stating that the following is assessable development: <ul style="list-style-type: none"> Building work for a wind farm. Material change of use for a wind farm.
Solar Farm	Local Council and or State Government, which can include other Queensland Government departments providing technical advice.	Code or Impact, depending on the local planning instrument.	No exemption
Battery Storage System	Local Council and or State Government, which can include other Queensland Government departments providing technical advice.	Code or Impact, depending on the local planning instrument.	A local categorising instrument is prohibited from stating the following is assessable development: <ul style="list-style-type: none"> Development for a battery storage facility if — <ul style="list-style-type: none"> (a) the facility is for a pad mounted battery storage device only and the total area of the premises covered by the facility is no more than 15m²; or (b) the facility is for a pole mounted battery storage device only and the total volume of the device is no more than 2m³.

As demonstrated, for solar farms and BESS developments, there are multiple planning pathways with different assessment managers and referral agencies, planning instruments, levels of assessment, environmental and social impact assessment requirements. The result of this is uncertainty, delay and inadequate or otherwise inappropriate assessment for a project.

Approvals Framework (continued)

See Recommendation 3

Alternative Pathway: Ministerial Infrastructure Designation under the Planning Act

A Ministerial Infrastructure Designation (**MID**) is a process that allows the Planning Minister to designate particular premises for 'infrastructure'¹⁶ which includes 'electricity operating works'.¹⁷

The effect of a MID is that development for the infrastructure (except for building works) is "accepted development" under the Planning Act, meaning that the process for the MID effectively replaces the need for development approvals under the Planning Act.

Electricity operating works is defined in the Planning Regulation to mean "operating works under the *Electricity Act 1994* (Qld) (**Electricity Act**), section 12(3)."

Section 12(3) of the Electricity Act provides:

- (3) Operating works are—
 - (a) for a generation entity—the generating plant, fuel stocks, electrical and other property used for generating electricity or connecting supply to a transmission grid or supply network; or
 - (b) for a transmission entity—the transmission grid and other property used for operating or managing the transmission grid; or
 - (c) for a distribution entity—the supply network and other property used for operating or managing the supply network.

The 'entities' are defined in the Electricity Act to be a person who holds the relevant authority (that being a generation authority, transmission authority and distribution entity).

Applying for a MID

To make a designation, section 36(1) of Planning Act provides that the designator must be satisfied that either "*the infrastructure will satisfy statutory requirements, or budgetary commitments, for the supply of infrastructure*" or "*there is or will be a need for the efficient and timely supply of the infrastructure*". Given the pressures associated with the energy transition, it may be possible for a project or part of a project to demonstrate 'a need for the efficient and timely supply of the infrastructure'.

The Minister must be satisfied that adequate environmental assessment and public consultation in accordance with the Minister's Guidelines and Rules (**MGR**) has been carried out. That process is set

out in the MGR, which includes detailed technical requirements to be submitted for consideration for the MID, as well as a public consultation strategy. The material requirements include consideration of offsite impacts, which are relevant to the development and may include consideration of flooding, amenity and potentially contamination impacts.

Development under a designation is accepted development for the Planning Act (except for building work), and building work carried out by or for the State or a public sector entity that complies with the relevant provisions is accepted.

The designation may include requirements about works for the infrastructure (eg height, shape, form, location of works), the use of premises and lessening the impact of the works or use.

Alternative Development Pathway: State Development and Public Works Organisation Act (SDPWO Act)

The *State Development and Public Works Act 1971* (Qld) (**SDPWO Act**) provides a broad framework for the State to declare certain areas to be State Development Areas, develop a program of works to be undertaken by local bodies or the Coordinator-General, or declare a project as a prescribed project, ensuring that necessary approvals are provided in a timely manner.

State Development Area

A State Development Area (**SDA**) is declared by regulation made under the SDPWO Act if the Governor in Council is satisfied that it is required for the public interest or the general welfare of residents in any part of the State.

Development is regulated by the development scheme for the SDA, which is made by the Governor in Council. Another Act or law does not apply to development to the extent it is regulated by the development scheme. In this way, the development scheme can, for State approvals, operate as a single coordinated approval. Although there is no requirement to do so in the SDPWO Act, the SDA declaration and development scheme are generally subject to a public consultation process.

SDAs have been historically used to coordinate large scale industrial developments. Examples include the Gladstone State Development Area or the Townsville State Development Area.

16. *Planning Act 2016* (Qld) s 35.

17. *Planning Regulations 2017* (Qld) Schedule 5, Part 2

There is the potential for SDAs to be used in conjunction with REZs, or other large industrial zones, to facilitate the delivery of renewables projects. SDAs may be combined with the coordinated projects EIS process in the SDPWO Act to provide environmental assessments that address both State and Federal matters of environmental significance. SDAs may also be declared in consideration of opportunities to facilitate manufacturing or industrial projects, including through access to land or efficient approvals systems.

Approved works under the SDPWO Act

There are two types of approved works under the SDPWO Act:

- works that a local body is directed to undertake (ss.99 and 100 of the SDPWO Act); and
- works that the Coordinator-General is directed to undertake (ss.108 and 109 of the SDPWO Act).

Works that a local body are directed to undertake cannot be made assessable by local planning instruments (eg planning schemes) and therefore are not subject to planning controls by local governments.

The Coordinator-General is not subject to certain legislation in the exercise of the functions and powers of the Coordinator-General (eg the Planning Act or the *Water Act 2000* (Qld)) and therefore can undertake directed works outside of the approval requirements of those Acts.

The approved works regime also enlivens certain powers of the Coordinator-General in relation to access to land, the compulsory acquisition of land and powers in respect of roads, reserves and water bodies.

Prescribed project under the SDPWO Act

Projects that are declared a “prescribed project” under the SDPWO Act are subject to certain powers of the Coordinator-General. The Coordinator-General can take steps for those projects to ensure timely decision making and, with the approval of the Minister, can issue a step in notice to assess and decide (or reassess and redecide) a prescribed decision. The powers are rarely exercised but can be used by the Coordinator-General to ensure timely approvals for projects that are considered economically, socially or environmentally significant.



Approvals Framework (continued)

Environmental Approvals

Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)

Under the EPBC Act, a person is prohibited from taking an action that has, will have or is likely to have a significant impact on a matter of national environmental significance (**MNES**) unless that action:

- falls within a specific exception to the prohibition; or
- is approved by the Commonwealth Environment Minister.

A controlled action is an action that, if taken without approval, would be prohibited.

A person proposing to take an action that the person thinks may be, or is a controlled action, must refer the proposal to the Commonwealth Environment Minister. If the Commonwealth Environment Minister determines that the action is a controlled action, then assessment and approval under the EPBC Act is required before commencing the action.

The EPBC Act is a significant approvals gateway for renewables projects. Data from the Department's 2022/23 Annual Report indicates that of the 214 referrals where a decision was made under the EPBC Act, 56 of those were for energy generation and supply (renewable) projects. The majority of controlled action were based on threatened species and communities as the controlling provisions (135 decisions), followed by listed migratory species (42 decisions). This is consistent with the controlling provisions typically seen for renewable energy projects.

There are significant concerns with the timeliness and effectiveness of decisions for the EPBC Act, which has been reflected through the Samuel Review, the State of the Environment Report and submissions in relation to the Nature Positive Plan. Consultation is ongoing in relation to major reforms of the EPBC Act, however it seems likely that these reforms will not result in short term fixes to address the criticisms of the EPBC Act. Parts of these reforms are included in the *Nature Positive (Environment Protection Australia) Bill 2024 (Cth)*, *Nature Positive (Environment Information Australia) Bill 2024 (Cth)* and the *Nature Positive (Environmental Law Amendments and Transitional Provisions) Bill 2024 (Cth)* which are currently before the Commonwealth Senate. Stage 3 of the proposed Nature Positive reforms has been deferred, likely until after the next Federal election.

Environmental Protection Act 1994 (EP Act)

The EP Act provides an environmental licencing regime in relation to resources activities and prescribed environmentally relevant activities. Renewables projects often trigger prescribed environmentally relevant activities during the construction phase, and require an environmental authority under the EP Act. The EP Act also contains a regime directed at protection of the Queensland environment, including in relation to a contaminated land and managing environmental incidents.

Detailed Recommendations

Queensland is well positioned to deliver renewable energy projects, including to establish a substantial renewable energy export market. To capitalise on these opportunities requires an environment that provides investment certainty, including a well established social licence.

In our view this can be achieved through:

- adequate planning to establish renewable energy locations that are technically, environmentally and socially acceptable;
- development of reliable and high quality data to inform future approvals and locations for renewable energy projects;
- development of community ownership of projects, through public ownership of infrastructure where appropriate and partnering opportunities between project proponents, local communities and First Nations groups;
- clear identification of “go” and “no go” areas, and environmental restoration and repair benefits that can flow from a coordinated roll out of renewables projects; and
- efficient processes for approvals, land access, cultural heritage engagement and connections, informed by the above steps.

Recommendation 1:



Ensure policy certainty and market confidence in Queensland’s energy transition projects by signalling support for renewable energy through mechanisms such as renewable energy targets, efficient planning processes, and governance models that foster investment and encourage collaboration between proponents, communities, and landholders.

Certainty in policy settings is important to provide investor confidence in energy transition projects in Queensland. Queensland’s political systems are well entrenched and stable, contributing to low levels of sovereign risk. However, the energy sector, particularly the renewable energy sector, requires clear and consistent policy signals to ensure its viability and attractiveness as a long-term investment.

The retention of renewable energy targets, improvements in planning processes, and development of new governance models can serve as strong signals to the market. These mechanisms can demonstrate the State’s commitment to the energy transition, thereby encouraging investment in renewable energy projects and associated infrastructure. However, any abrupt changes in policy settings can increase sovereign risk and damage investor confidence.

Therefore, it is recommended that any changes to the policy settings be carefully considered and implemented in a predictable manner. Positive actions should be taken to signal to the market that renewables projects and associated supporting infrastructure will be supported in Queensland, through mechanisms such as renewable energy targets, reforms to planning processes (see Recommendation 4), and governance models that provide appropriate support to proponents, communities, and landholders which encourage investment and delivery in renewables projects.

Recommendation 2:



Maximise use of existing data and acquire new high quality and open data for better and faster decision making.

The appropriate location, assessment and timing of renewables projects needs to be informed by good data to support decision making. Key decisions that should be informed by quality data include:

- capacity, planning, roll out and cumulative impacts of renewables projects;
- the location and management of the REZs;
- planning and environmental decisions in relation to individual projects; and
- the use of (bio)regional planning processes under EPBC Act (including any future Nature Positive reform).

Quality data is important to support speed, accuracy and robustness of decision making, particularly around critical considerations for renewables projects including:

- technical suitability (including maximising the outputs from renewables projects and appropriateness of the connection locations);
- ecological values likely to be impacted by the project;
- land ownership, tenure and use, as well as any native title considerations;
- community and social impacts of the project; and
- ability to access common infrastructure and external services (such as accommodation camps, roads, ports).

We recommend that the Government proactively embrace the principles of open data. A portal could provide Government-developed data from each of the REZ Readiness Assessment, creating a more accessible information source for developers and the community. This strategy could also significantly improve the efficiency and accuracy of assessments undertaken by renewable developers.

Detailed Recommendations (continued)

Recommendation 3:



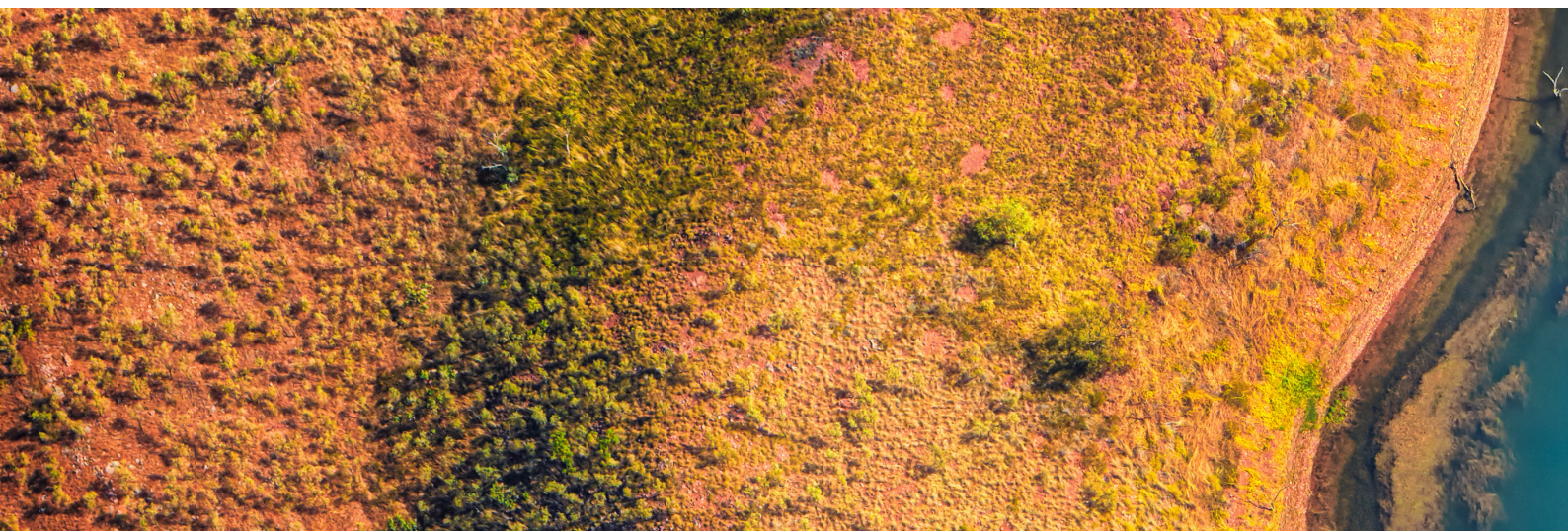
Maximise the use and efficiency of appropriately located REZs, and encourage project investment and development in the REZs.

We have set out below a number of options which separately or cumulatively may increase the concentration of renewables projects in the REZs and maximise their efficiency. In recommending these steps we are aware that there are some projects that are located in proposed future REZs that are advanced in terms of their assessment and approvals processes, and care will need to be taken to ensure those projects are not delayed by implementation of the below steps. We expect that this would need to be resolved on a per-project basis.

These options include:

- The State (or Powerlink as the REZ manager) lead environmental impact assessment (**EIA**) prior to the declaration of the REZ, or at least prior to the implementation of the REZ management plan.
- We suggest that this EIA process:
 - follow the process set out in the SDPWO Act for a declared coordinated project;¹⁸
 - also follow the process for a referral under the EPBC Act (which accredits the process under the SDPWO Act); and
 - identify suitable and strategic environmental offsets that can be coordinated by the State;
- Following the EIA process, and State and Commonwealth approvals, the REZ be declared a “State development area” under the SDPWO Act, with a development scheme that provides for a single State approval for development of individual projects that is managed by the Coordinator-General. Targeted consultation with affected landholders and First Nations owners can be managed through land tenure, native title and cultural heritage processes.
- The State (and/or relevant local governments) take the lead on the delivery of common infrastructure to facilitate establishment of the REZs, including accommodation camps (which may also serve a legacy purpose) and external infrastructure upgrades that are required to support the REZ such as roads and ports.
- Native title and cultural heritage be managed by the State at a REZ level, by seeking an Indigenous Land Use Agreement with relevant parties that also includes measures for management of cultural heritage. Individual project proponents would be required to opt into the commitments in the Indigenous Land Use Agreement, including for management of cultural heritage.
- The State identify and manage environmental restoration and repair measures to compensate for impacts of the REZs, that achieve an overall net positive outcome. The State (or a delegate or contractor) could then manage the environmental offset, with contributions from individual project proponents proportionate to their impacts after avoidance and mitigation measures have been applied. Ideally, these areas would operate as advanced offsets, so that construction is not delayed while offsets are identified and established. The offset areas may also be contributed to through the Queensland and future Nature Offsets funds.

¹⁸ Note that this process may also benefit from improved efficiencies, including a review of the terms of reference to ensure a targeted risk-based assessment and comprehensive community consultation so that community consultation does not need to be continuously repeated throughout the delivery process. The process will likely need to be refined with the introduction of the proposed Nature Positive Bills.



- Tenure for renewables projects be resolved, either by State ownership (see recommendation 4 below) or by the State implementing policies to ensure consistency of dealings with individual landowners.
- The State or REZ manager coordinate purchasing and procurement to minimise supply chain and logistics issues. We are anecdotally aware of some of this work occurring already, however there may be further opportunities for the State to coordinate common products to minimise logistics risk.
- The costs of the above steps may be recovered by the State through:
 - access and connection charges that represent a recovery of the costs under the REZ management plan; and
 - direct payments for services such as for environmental restoration and repair.

Ultimately, the delivery of the REZs should occur in such a way that:

- there are clear signals to renewable developers for “go” and “no go” zones;
- there is certainty for local communities as to likely future REZ locations;
- impacts to land ownership, tenure and use are managed and consistently resolved;
- impacts to native title and cultural heritage are managed early, and resolved consistently and in a way that integrated First Nations knowledge into projects;
- creates maximum efficiency in terms of use of the renewables resource is achieved; and
- there is confidence that restoration and repair measures are funded and implemented in a timely way.

Additionally, as part of developing the REZ process, it is important to establish a framework that ensures streamlined and consistent

community engagement. This framework should provide readily accessible, high-quality information, while carefully recognising stakeholder time commitments, consultation fatigue and a broader social imperative to support the energy transition.

Recommendation 4:



Encourage, through efficient development and environmental assessment processes, enhanced development of renewables projects in appropriate locations (and conversely discourage project assessments in inappropriate locations).

This may take the form of:

- Replicating the code-assessment process for battery storage and solar, as currently exist for wind farm developments under State Code 23, where the applicant can demonstrate that the proposed infrastructure is:
 - on land that is the subject of an agreement with the affected landowner and immediately adjacent landowners; and
 - not located on or near land with significant environmental values or sensitive land uses.
- The use of project facilitation mechanisms, such as the Ministerial Infrastructure Designation process under the Planning Act or the approved works process under the SDPWO Act in appropriate cases and for infrastructure that is critical for the delivery of energy transition.
- Exemptions from State planning approval requirements for transmission infrastructure that is delivered within existing corridors (meaning it has already been subject to assessment), and consideration of exemptions for that same infrastructure under the EPBC Act to avoid the need for unnecessary referrals.



Detailed Recommendations (continued)

Recommendation 5:



Where appropriate, maximise the use of State land to support the delivery of renewables projects and undertake investigations to identify suitable State land.

Information released by the Queensland Government in 2014 indicated that there was, at that time, 1.31 million hectares of unallocated state land administered under the *Land Act 1994* (Qld).¹⁹

Unallocated state land is land that has not been allocated as freehold, leasehold (including agricultural or grazing leases), or as some other type of tenure such as a reserve, road, national park, or timber reserve. This area of land could be utilised for renewable energy projects or ancillary infrastructure. Options include:

- conducting an audit of unallocated state land, identifying areas of low conservation and ecological value that are not in close proximity to sensitive land uses, which may be suitable to host renewables projects;
 - Any audit should also encompass technical assessments, as well as native title and cultural heritage considerations.
- releasing areas of unallocated state land through a competitive, transparent tender process or auction; or
- alternatively, consider developing a leasehold interest type that could be utilised by renewable projects.

We note that South Australia has adopted a similar policy.²⁰ South Australia is tendering areas of crown reserve through competitive tender processes. Proponents, when making applications to develop projects on crown reserve, must demonstrate they have sufficient capability and a plan of works for the development.

Recommendation 6:



Improve the decision making processes and timeframes under the EPBC Act for renewables projects.

As set out above, the assessment and approvals of renewables projects occurs through a complex web of local government, State and Federal approvals. Renewable project proponents are currently experiencing significant delays in obtaining Federal EPBC Act approvals. The decision-making processes and timeframes under the Act should be improved. This may be achieved by:

- the Commonwealth appropriately resourcing the Department to ensure timeliness and appropriate level of assessment in decision making processes;
- the Commonwealth producing clear guidance on what is considered “habitat”, consistent with the approved conservation advice and recovery plans, supported by clear habitat assessment guidelines;
- clear guidance on assessment requirements for renewables projects, and the bounds of that assessment (limited by the matters of national environmental significance). There should be clarity on the Commonwealth’s role in terms of matters such as visual amenity assessment, greenhouse gas emissions assessments and whether decarbonisation projects should be assessed differently from an economic and social perspective compared to other actions; and
- administrative improvements to increase efficiency in the decision making process for renewables projects, including the operation of “stop the clock” provisions and information requests

Recommendation 7:



Prioritise clean energy infrastructure on degraded low conservation value lands and brownfield sites (eg industrial areas, mining sites, cleared land etc.).

Historical land use in Queensland has resulted in areas of land which may be of low ecological value or otherwise unsuitable for sensitive land uses. Given that the land has already been significantly impacted historically, it may be more suitable to host renewable projects or associated infrastructure, where appropriate technical studies support that infrastructure.

This may be achieved by:

- properly accommodating future industrial/renewable energy use for mine sites in Progressive Rehabilitation and Closure Plans; and
- providing efficient development and environmental assessment processes to establish new renewables uses on industrial land (eg code assessable development and a clear process to deal with decommissioning and rehabilitation requirements in existing approvals that are overtaken by renewables uses).

19. Queensland Government, Department of Natural Resources and Mines, *Queensland state land – Strengthening our economic future Discussion paper* (2014). Available [online](#). Appendix 1 lists areas by land tenure, with unallocated state land being 1,314,335 ha or 0.76% of the total land area in Queensland.

20. For further detail see, Government of South Australia, *Hydrogen and renewable energy regulation, Release areas*, Available [online](#).

Recommendation 8:



Consider ownership and delivery models that provide for returns to the broader community.

Queensland is unique in that much of the generation and supply infrastructure is already in the ownership of the State and State bodies. As Government needs to replace its revenue from traditional royalty sources, and as projects that foster a partnering approach with communities and First Nations evolve, we expect to see more complex and create ownership models emerge.

Ownership models will need to balance the best way to:

- encourage private investment and bankability;
- provide secure returns to the State; and
- influence the social licence and community benefits that can flow from renewables projects.

As these projects are generally long term, flexibility and review of the suitability of ownership models will need to be built into the structure, along with consideration of issues such as:

- step in rights;
- registrability of interests;
- order of priority of tenure and revenue streams; and
- end of life, including rehabilitation and recycling of components.

As part of considering any new ownership and delivery models, it is important they maintain consistency and certainty for project delivery. Part of this consideration should also include the development of methods for consistent community engagement which do not overwhelm stakeholders with time commitments, while balancing the need to deliver the energy transition.

Recommendation 9:



In the long term, consider creating a “renewables tenure” similar to the tenures that already exist for mining and petroleum projects, that provides a system for land access, compensation, royalties, environmental management and rehabilitation.

Because of its mining history, Queensland already has an established and well understood system that deals with the cycle for delivery of a mining project, including:

- processes to access land for investigation and production;
- environmental assessment and approvals;
- rights to certain resources;
- closure and rehabilitation;
- financial assurance;
- compensation to landholders, including a Land Court process; and
- overlapping tenements.

Consideration should be given as to whether the above processes can be adapted or replicated for a renewables tenement. While we see many advantages in replicating a well known system to new development, we expect that issues including:

- existing or advanced renewables projects;
- implications for landholder rights including native title; and
- the timeframe to establish and implement such a system,

would need to be considered prior to deciding to proceed to implementation.

Recommendation 10:



Consider extending the above recommendations to industries that support decarbonisation, including encouraging deep electrification and manufacturing industries.

While our report focusses primarily on the delivery of the renewables generation and transmission projects, there are a range of supporting and complementary developments and industries that could benefit from the above recommendations, either as projects in their own right, or in conjunction with renewables projects. If Government elects to proceed with any of the above recommendations, we further recommend that consideration be given as to the boundary of the developments that could benefit from the above.

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