Impact Analysis Statement

Summary IAS

Details

Lead department	Department of Energy and Climate
Name of the proposal	Legislation to implement the Queensland Energy and Jobs Plan
Submission type	Summary IAS
Title of related legislative or regulatory instrument	Energy (Renewable Transformation and Jobs) Bill 2023
Date	October 2023

For Proposals noted in table below

Proposal type	**Details**
Minor and machinery in nature	The proposal in the Bill to amend the *Electricity Act 1994* clarifies the terms 'operating works', 'battery storage device', and 'reactive power compensation device' to assist the integration of new grid supporting technologies with the Queensland electricity grid and generating plant. It is minor in nature and has no regulatory costs. The proposal in the Bill to correct a numbering error in the *National Energy Retail Law (Queensland) Act 2014* is minor in nature and has no regulatory costs.
Regulatory proposals where no RIA is required	The proposal in the Bill amends section 423(2) of the *Petroleum and Gas (Production and Safety) Act 2004.* It is a one-word, minor savings amendment to update a term due to changes to the National Gas Laws. Savings provisions are designed to preserve or 'save' a law that would otherwise cease to have effect. Under the Better Regulation Policy, regulatory impact analysis is not required for savings provisions.

For all other Proposals

What is the nature, size, and scope of the problem? What are the objectives of government action?
The Queensland energy system is rapidly transforming, with more renewable energy powering homes and businesses than ever before. In 2015, the renewable energy boom started in Queensland with the establishment of a 50% renewable energy target by 2030 to reduce emissions, create new jobs, and diversify the State's economy. Queensland is on track to meet that target, with 26% of electricity used in Queensland produced from renewable energy sources (as of 30 June 2023).[1]

[1] Department of Energy and Public Works, *Queensland Renewable Energy Target*, as at 30 June 2023, https://www.epw.qld.gov.au/about/initiatives/renewable-energy-targets.

As Queensland's energy transformation continues to gain momentum, it will be important that Queenslanders continue to have access to an affordable, safe, secure, and reliable supply of electricity. This will require a coordinated, sequenced, and well-managed transformation. It will also mean that the conversion of the State's publicly owned coal-fired power stations will only occur once there is sufficient replacement generation, storage capacity, and the network infrastructure in place to move the power to where and when it is needed. Through the energy transformation, the Queensland Government is seeking to maximise economic and social opportunities, while minimising cost and impacts on Queensland workers and communities.

Existing electricity infrastructure frameworks are not designed to facilitate the scale and pace of infrastructure development required to meet the vision and pathway set out in the Queensland Energy and Jobs Plan (the Plan) and the Queensland SuperGrid Infrastructure Blueprint (the Blueprint). New frameworks need to be implemented. In addition, certainty on the trajectory and the infrastructure pathway for the energy transformation is vital to direct, and drive, coordinated investment. Without new frameworks, certainty, and clear commitments, Queensland's transition risks being disorderly and uncoordinated. Such an approach is likely to result in:

- **Higher system costs, leading to increased electricity costs for consumers**: Inefficient spend on new or upgraded network due to uncoordinated development is expected to lead to higher electricity costs. This can also be exacerbated if adequate investment does not occur in storage or system security technologies.
- **Increased network constraints**: Inadequate coordination of network investment risks Queensland's electricity supply, through congestion and constraint of renewable generation. These constraints not only have an impact on Queensland businesses and households, through potential disruptions in supply, but also risk revenue loss for generators, creating investment risks in Queensland.
- **Social licence issues**: The large-scale, uncoordinated expansion of renewable, storage, and transmission infrastructure in local communities risks the long-term social licence for the future clean energy system.

Policy and regulatory reform at the national level can address some market concerns, but overall are insufficient to support Queensland's energy transformation. In particular, the reforms at the national level have not adequately addressed the scale, pace, and complexity of the energy infrastructure investments required to transform Queensland's electricity system and protect against the impacts of an uncoordinated energy transformation.

There are also insufficient measures in both the national energy framework and the Queensland policy and regulatory environment to ensure that workers and communities adversely affected by the transition are supported. Energy Government Owned Corporations (GOCs) will require a highly skilled workforce to maintain coal fired power generators until they are converted to clean energy hubs (by 2035), and the mechanisms to support existing workers through a period of structural adjustment. For communities that are expected to host new renewable energy, storage, and transmission infrastructure, there is a need for new frameworks to achieve a timely and coordinated energy transformation to minimise impacts and maintain the liveability of regional communities.

In September 2022, the Queensland Government released the Queensland Energy and Jobs Plan (the Plan). The Plan includes a vision for clean, reliable, and affordable power for future generations. The Plan outlines the Government's policy approach to addressing the challenges associated with decarbonising the electricity system. This approach includes, leveraging Queensland's natural advantages to:

- build a clean and competitive energy system for the economy and industries as a platform for accelerating growth.
- deliver affordable energy for households and business and support more rooftop solar and batteries.
- drive better outcomes for workers and communities as partners in the energy transformation.

The Blueprint, released alongside the Plan, outlines the optimal infrastructure pathway to deliver the energy infrastructure required to decarbonise Queensland's electricity system. It is the state-based infrastructure pathway that will achieve the renewable energy targets, while maintaining electricity system security and reliability and minimising costs on Queensland consumers. New legislation is required to ensure the pathway outlined in the Plan and Blueprint are achieved.

What options were considered?

The Queensland Government considered how best to deliver Queensland's energy transformation as part of developing the Plan and Blueprint. The Plan outlines the actions Government considers are needed for a smooth, coordinated energy transformation that delivers real, lasting benefits for Queensland industry, households, workers, and communities. The Plan and Blueprint were developed based on robust analysis, expert advice, and detailed policy analysis.

Independent modelling completed to support development of the Plan indicates the Plan will deliver more jobs in the energy sector and across the Queensland economy, with higher economic growth by 2040, lower electricity emissions by 2035-36, and lower retail bills in 2032 for households and small business, than an uncoordinated approach (i.e., without the Plan). The Plan commits to legislating key elements of the Plan to ensure the benefits of the Plan are delivered.

The below analysis looks at two options:

- Option 1: Do nothing; and
- Option 2: New legislation to support delivery of the Plan and Blueprint (Preferred)

Option 1: Do nothing

The Plan and Blueprint set a clear pathway to transform the State's electricity system. In this 'Do nothing' option, the Government would seek to deliver on the commitments, pathway, and vision of the Plan and Blueprint without any new legislation. This would mean the Government would be reliant on the Plan providing sufficient certainty on the trajectory, without the force of enshrining the commitments in law, and mean existing infrastructure and governance frameworks would need to be utilised for delivery.

Commitments

The Queensland Government has a long-standing policy commitment to public ownership in the energy system and 50% renewable energy by 2030. The Plan sets further commitments, including new 2032 and 2035 renewable energy targets and a Job Security Guarantee.

During consultation on an exposure draft of the Bill, there was support for enshrining all these commitments in law. Stakeholders felt this provided certainty and confidence in terms of the trajectory and the Government's commitments. It gave a sense of trust in where Queensland was heading, and that affected energy workers would be supported throughout the energy transformation. There is a risk that without enshrining these commitments in law, as signalled in the Plan, that Queenslanders will have uncertainty around Government's vision and trajectory. It may also create uncertainty for affected energy workers, impacting implementation of the Queensland Energy Workers' Charter and Job Security Guarantee.

Renewable Energy Development and Coordination

The largely nationally consistent regulatory arrangements, adopted by Queensland as part of its participation in the National Electricity Market (NEM), includes an open access regime where generators who meet minimum technical requirements can connect to the shared network regardless of transmission capacity or constraints. Powerlink Queensland (Powerlink), as the Transmission Network Service Provider (TNSP), has limited means to coordinate and fund transmission network augmentations necessary to achieve the government's policy objectives in the Plan and Blueprint. There are also minimal requirements in the national framework for renewable developers to undertake community engagement and deliver benefits to communities under the NEM. The Renewable Energy Zone (REZ) framework, as stated in the Plan, is seen as impossible to implement without legislation derogating away from the National Electricity Law and National Electricity Rules (NER). Other states have legislated their own REZ frameworks for this reason [e.g., New South Wales (NSW)]. In the absence of new legislation, Queensland would need to continue to rely on the existing NEM framework to increase renewable energy investment and achieve the targets.

Backbone Transmission Delivery

In addition, without legislation, it will be challenging for Queensland to deliver the backbone transmission identified in the Plan and Blueprint. This backbone transmission is vital to the State's energy transformation, connecting the two foundational pumped hydros and areas of strong renewable energy resources with Queensland's demand centres.

Queensland would have continued reliance on the existing national regulatory framework for transmission development. This means these transformational transmission proposals would continue to be assessed through the national Regulatory Investment Test–Transmission (RIT-T), which looks at whole of NEM benefits (rather than Queensland need and benefit aligned to the Blueprint to deliver the optimal infrastructure pathway). The relatively narrow national requirements are likely to inhibit the ability to deliver transmission infrastructure at the scale and pace outlined in the Blueprint, notwithstanding modelling identifying this as the least cost approach to decarbonising Queensland's electricity system and achieving the targets in the Plan.

Advisory Functions

While the Queensland Energy System Advisory Board (the Board), Energy Industry Council (EIC), and Queensland Renewable Energy Jobs Advocate (the Advocate) can be established under existing government policy arrangements, without legislation, there is no ongoing commitment that these bodies will be retained through the energy transformation. The functions of these bodies can also be unclear, and subject to change over time, which may result in 'scope creep', 'policy drift', and a lack of transparency to the public. Consequently, the functions of these bodies may be diluted over time, which can result in future risks to electricity system and social licence for the energy transformation.

Option 2: New legislation to support delivery of the Plan and Blueprint (Preferred)

This option involves new legislation to:

- enshrine key commitments from the Plan in law, including the renewable energy targets, public ownership, and Job Security Guarantee, to provide certainty and confidence on the direction of Queensland's energy transformation;
- establish new infrastructure frameworks to build the Queensland SuperGrid and deliver clean, reliable, and affordable electricity (e.g., Priority Transmission Investment (PTI) framework and REZ framework); and
- create new advisory bodies to ensure there is a smooth, coordinated transition (e.g., the Board, EIC, and the Advocate).

Commitments

In practice, the legislation will reaffirm key policy commitments around the energy transformation in law. This includes the Government's commitments in the Plan to:

- achieve 50% renewable energy by 2030, 70% by 2032 and 80% by 2035;
- provide a Job Security Guarantee and associated Fund to affected energy workers; and
- maintain majority ownership of generation assets, 100% ownership of transmission and distribution assets, and 100% ownership of deep storage assets.

Enshrining these commitments in law will create certainty for all stakeholders around the commitments. In terms of the renewable energy targets and public ownership commitments, legislation will create both certainty and transparency in the methodology and approach. Enshrining the Job Security Guarantee, and associated Fund, in legislation provides certainty to affected energy workers that Government will ensure there are secure choices, opportunities, and pathways available. It creates a legislative mechanism for delivery.

Collectively, these legislative commitments provide certainty to investors, workers, and communities that Queensland is committed to decarbonising its electricity system in a way that delivers improved economic, social, and environmental outcomes.

Renewable Energy Development and Coordination

The REZ framework is a bespoke regulatory and economic access model for energy market participants in Queensland. The Bill allows for the declaration of REZs in specific geographical areas of high-quality renewable resources to improve the coordination of investment in electricity transmission and renewable generation infrastructure. The Bill provides targeted modification to the application of the NER to allow for the appropriate connection and access arrangements and recovery of associated expenditure (through appropriate derogations from the economic regulation framework).

The REZ framework also builds on the principles of community engagement and local benefits developed by the Government through new consultation processes for:

- REZ management plans: this technical document developed by an independent REZ delivery body will identify the most suitable generation for the REZ, and the network infrastructure needed to connect the generation to the grid. Each REZ management plan will be consulted on publicly in draft form, thus ensuring that local communities and businesses will always have a say in how a REZ is managed. A management plan will not be approved unless the Government is satisfied public submissions have been appropriately dealt with.
- REZ assessments: these assessments can look at the suitability of an area to host a REZ and understand the impact of the infrastructure on the community. These assessments will allow the Government to take a coordinated approach to REZ development and allow local communities to be heard and see the benefits of REZ developments in their area.

Backbone Transmission

The PTI framework will enable Queensland to build the high voltage backbone transmission outlined in the Blueprint at the scale and pace needed to achieve the Plan. This backbone transmission infrastructure is critical to Queensland's transformation: it will connect the 22 GW of new large-scale wind and solar and the two pumped hydro energy storage assets identified in the Blueprint and move power to where and when it is needed. New legislation is required to allow this infrastructure to be delivered at the scale and pace required for a smooth, coordinated energy transformation in Queensland.

The PTI framework has been modelled off the existing processes under the NER and provides a new pathway for delivery of the transformational backbone transmission required for the energy transformation. The PTI framework is time limited (sunset date of 2035), captures only a small number of transmission projects (i.e., identified as part of Queensland's optimal infrastructure pathway in the Blueprint), and relies on, or is in substantial alignment with, existing planning and economic regulatory tools found in the NER, such as the RIT-T and Australian Energy Regulator's (AER) expenditure efficiency checks and balances.

Advisory Functions

The Bill establishes new advisory bodies (e.g., the Board, EIC and Advocate) to provide advice to Government on the optimal infrastructure pathway in the Blueprint, support for affected energy workers, and opportunities in the future energy system. Legislating these functions provides assurance to Queenslanders that during the energy transformation the Government is basing its decisions on expert advice, and provides certainty, and transparency around the Government's support of impacted workers and communities. The functions of these advisory bodies can be set in legislation as follows:

- The Board will provide expert technical advice on the transformation, including how to update the Blueprint every two years from 2025.
- The EIC will advise the Government on new opportunities and pathways for affected energy workers at publicly owned coal fired power stations, and their communities.

The Advocate will undertake research and provide advice on how to increase opportunities for employment in the energy industry, including consulting and engaging with Aboriginal peoples and Torres Strait Islander peoples in relation to how employment opportunities in the energy sector may be increased for these cohorts.

What are the impacts?

Option 1 is not preferred. It seeks to deliver the pathway and vision of the Plan without:

- enshrining key commitments from the Plan in law (to provide certainty);
- creating the infrastructure frameworks needed for the transformation (could lead to delays and/or an uncoordinated, inefficient approach to infrastructure delivery); or
- establishing the advisory functions to guide a smooth, coordinated transformation that supports workers and communities (could lead to an uncoordinated transformation).

Option 2 is the only option that delivers the Plan's vision and the coordinated energy transformation outlined in the Blueprint.

Both options will have economic, social, and environmental impacts. The differences in impacts for each of the options is listed below:

Option 1 – Do nothing

Independent modelling conducted to support development of the Plan examined the impacts of Queensland's energy transformation with and without coordination. For the below analysis, the modelling results for 'without coordination' have been used. This is because the Plan includes actions to prepare legislation to support delivery. Without such legislation, the coordinated approach outlined in the Plan and Blueprint may not be achieved. The impacts are outlined below.

Economic

- Option 1 does not provide sufficient transparency and certainty to the renewable energy industry to invest in Queensland, which will result in an uncoordinated transformation. This is because there is no legislative commitment to the three renewable energy targets and no requirement to: (1) publish the methodology for calculating progress and (2) reporting on progress. Some stakeholders may consider, without the targets in legislation, there is a risk that the targets will change.
- The modelling indicates the impact of an uncoordinated energy transformation is a failure to achieve the renewable energy targets, which would result in lower economic growth, and higher wholesale energy prices due to delayed and inadequate investment in storage and transmission infrastructure to unlock investment in new renewable energy generation.
- Costly system security and congestion impacts will not be addressed through Option 1, which will result in renewable generators continuing to suffer from inefficiencies from the current open access regime, dampening further growth of renewable generation. This is because a REZ framework that addresses these issues cannot be implemented without legislation. This will create ongoing cost pressures for consumers through delay in realising the benefits of clean, affordable electricity.
- Delayed investment in energy infrastructure may negatively impact investor confidence, and delay realising the economic benefits associated with decarbonising the electricity system through green growth opportunities (e.g., renewable hydrogen). These opportunities will not necessarily be captured by Queensland later, as new investment may flow to other states.
- Option 1 relies on the national framework, which means the transmission backbone would not be constructed to the State-specified size or timeframes. Delayed delivery of Queensland's transmission backbone would likely increase costs to Queensland electricity customers (due to higher construction costs because of piecemeal augmentation of the existing transmission network, and constrained planning and delivery times) and negatively impact investment confidence in REZs (i.e., renewable investors may choose to invest in other jurisdictions who have the transmission infrastructure needed to transport their renewable generation to market).
- If the transmission backbone is not built to the scale called for in the Blueprint, it could lead to line losses and incremental augmentation of the existing transmission network, both of which would lead to less efficient and more expensive outcomes for Queensland electricity customers over the longer term.
- Under Option 1, without the certainty that Government will review and update the Blueprint, industry may lack the information and confidence to invest in energy infrastructure in an informed, timely manner. This could result in Queensland relying on coal fired power generation for an extended period.
- Cumulative electricity emissions are anticipated to be significantly higher under Option 1 due to delayed investment in renewable energy generation. This will place further economic costs on other sectors of the Queensland economy to do more to reduce their emissions to achieve the Government's broader emissions reductions policy objectives.

Social

- There are social impacts to communities and reputational impacts to the Queensland Government in not meeting the commitments in the Plan to legislate the renewable energy targets, Job Security Guarantee, advisory functions, and enabling frameworks such as the REZ. This could result in a loss of trust and public confidence in the energy transformation and of Government's capacity to manage the impacts on the social fabric of regional communities.
- Option 1 fails to give the existing energy workforce in publicly owned coal fired power stations the certainty of support through the energy transformation. Periods of structural adjustment, without the confidence of Government support, can have social impacts on individuals and impact community cohesion. There is a risk that this uncertainty will have adverse impacts for affected workers and community members.
- An uncoordinated approach is likely to lead to a more incremental build out of the transmission network, which could impact more landowners' properties than would be required under a coordinated energy transformation (Option 2). This would have a social impact on communities where there are significant changes in land use (i.e., agriculture land for transmission infrastructure) to accommodate incremental transmission build out. It may also create angst, mistrust, and a lack of support for the energy transformation.
- Option 1 does not provide certainty about the longevity of the Board, EIC and Advocate as they will not be legislated. This could impact the public's confidence in Government's ability to manage the energy transformation and the perception that regional communities will not benefit from the opportunities in the Plan.

Environmental

- In an uncoordinated energy transformation (Option 1), the modelling forecast a limited reduction in the annual emissions forecast until mid-2030s. This would delay action on addressing climate change and have an adverse impact on the environment.

Option 2: New legislation to support delivery of the Plan and Blueprint (Preferred)

Independent modelling conducted to support development of the Plan examined the impacts of Queensland's energy transformation with and without coordination. For the below analysis, the modelling results for 'with coordination' have been used. The impacts are outlined below.

Economic

- The modelling indicated a coordinated approach is expected to result in $76 billion of investment (in real terms) by 2040, which could support 64,000 jobs. This includes 28,500 direct jobs across construction, manufacturing, and operations, with almost 20,000 of these jobs located in regional Queensland. This significant investment is also expected to support more than 35,000 indirect jobs.
- The modelling also indicated a coordinated approach would deliver an additional $25.7 billion in Gross State Product (GSP) to the Queensland economy, compared to an uncoordinated energy transformation (Option 1). This forecast increase in GSP can be broken down into the modellings four key input mechanisms: electricity infrastructure investment, reduced electricity prices, carbon transfers, and green premia. The modelling indicates that approximately 51% of increased economic output will occur in regional Queensland, with significant gains for Central Queensland (CQ), Mackay and Whitsundays, Darling Downs, and Townsville.
- The REZ framework is forecast to lower costs for developers and improve coordination which also contributes to lower price outcomes. This can only occur under Option 2 as a REZ framework cannot be introduced through policy alone. The framework will efficiently coordinate transmission investment (avoiding asset duplication) and renewable energy generation through a lowest total system cost approach while maintaining a competitive cost environment for Queensland industry and maintaining affordability for consumers.

- Participation in REZs will be voluntary, with open access available outside of declared REZs. Therefore, economic impacts associated with proponents' engagement in the REZ are expected to be offset by the advantages provided to these proponents through coordinated connection to the electricity system. Renewable generators can make decisions around access to new REZs based on the value proposition to individual projects.
- Under Option 2, the establishment of, and operational costs for, the REZ transmission network (i.e., development, operation, and maintenance) will be recovered from REZ participants (i.e., generators) in the first instance. Fees and charges that are payable by the REZ participants are to be determined on a commercial basis between participants and the TNSP, but it is not anticipated to impose significant additional direct compliance costs compared to the current open access process.
- There is expected to be an economic impact on Government associated with providing ongoing support for the REZ framework in partnership with Powerlink, and from costs associated with the obtaining of expert advice and Queensland-specific AER functions. This cost to the State is expected to be outweighed by the significant benefits provided by the introduction of legislated REZ framework (Option 2).
- Under Option 2, the PTI framework establishes a head of power to allow Powerlink to recover costs in respect of PTI projects through its revenue determination and regulatory asset base under the NER. In turn, this may impact how much and when Queensland electricity consumers pay for costs associated with the construction, operation, and maintenance of PTIs. It is intended that, under this head of power and subsequent regulations, the Minister may include less than the full cost of the PTI project into Powerlink's regulatory asset base, and therefore the full cost may not be passed through to electricity consumers.
- Electricity customers are expected to pay more in the future for transmission infrastructure than they do today under either Option 1 and 2. A process is underway at a national level to incorporate emissions targets into the national electricity objective. This change, when finalised, will influence the transmission infrastructure approved under the national regulatory framework, particularly the timing of that infrastructure. Practically speaking, it is likely that more transmission investment will be required and earlier than may have been previously planned to transport substantial amounts of renewable generation to replace exiting coal generation.
- Under Option 2, regulation costs for Government would be higher than Option 1 in relation to the PTI framework. Costs would include engaging a 'suitably qualified person' to provide expert advice, Queensland-specific AER functions, and Government administration of the framework, as well as Powerlink administration costs to respond to directions by the responsible Ministers (e.g., Energy Minister and Treasurer). The Blueprint's optimal infrastructure pathway cannot be achieved without legislating this framework.
- The exact costs for Government for the REZ and PTI frameworks have not been calculated but are expected to be significantly less than the overall contribution to the economy brought about by those frameworks' facilitation of investment in renewable energy generation. The facilitation of this investment will in turn put downward pressure on consumer prices over the long term and result in avoided costs to the community and economy. These impacts will occur through the minimisation of disruption to supply from ensuring large scale pumped hydro and renewable energy sources are connected as part of the transition and the closure of coal-fired power stations. Further, investing in expert advisory functions and leveraging the expertise of the AER will ensure the robustness of regulatory processes and decision-making, including a focus on the prudency and efficiency of network expenditure so that Queenslanders will pay no more than necessary for these services.

Social

- By legislating the Plan under Option 2, particularly the REZ framework, more coordinated infrastructure investment can be delivered in regional Queensland communities, which is anticipated to lead to an overall smaller infrastructure 'footprint' than Option 1. This is expected to have a positive social impact.

- Community concerns for the large-scale development of renewable energy projects can cover a wide range of issues, including scepticism about the reliability of renewables, concerns about visual or environmental impacts, views on the economic and employment impacts of renewable development, worries about health impacts, and concerns around expansion of transmission infrastructure. There are also growing concerns about competing land uses as the footprint of the renewable energy sector expands. The REZ management plan's consultation process, coupled with the ability for REZ assessments to be undertaken in communities with renewable development in the Bill (Option 2), provides scope (as compared to Option 1) for communities to have a voice.
- Legislating the PTI framework under Option 2 allows Queensland to build the transmission backbone identified by the optimal infrastructure pathway in the Blueprint. Under Option 1, and Option 2, communities will be impacted by the construction of transmission infrastructure (this is because any transition to renewables requires additional transmission infrastructure). Under Option 1 the construction of transmission infrastructure will be piecemeal and may ramp up as it approaches 2035. Under Option 2, construction would occur once, in earlier years. Therefore, in the short term, transmission construction under Option 2 may impact communities sooner.
- However, once construction of Option 2's larger transmission lines is complete, it is unlikely to require further, multiple, and unforeseen disruptions to the impacted communities (as would occur under Option 1's piecemeal augmentation of the existing transmission network). Legislative safeguards for the construction of Option 2's transmission backbone include a review and update to the Blueprint, with advice from the Board and the design of the PTI framework which has checks and balances through the process (e.g., requirement to seek advice from a suitably qualified person including on efficiency of expenditure).
- Legislating the Job Security Guarantee and Fund, and EIC is expected to have a positive social impact on affected workers as it will provide certainty and confidence that there will be support, as well as secure choices, opportunities, and pathways.

Environmental

- Based on the modelling, a coordinated energy transformation (Option 2) would result in lower emissions from energy generators in comparison to an uncoordinated energy transformation (Option 1). The emissions benefits of Option 2 are expected to have a positive impact on the environment. Emissions benefits are primarily due to the coordinated withdrawal and repurposing of publicly owned coal fired power stations. Emissions are anticipated to fall by 56% on 2005 levels from 49Mt in 2005, to 22 Mt in 2030-31 and by 96% on 2005 levels by 2039-40, down to 2 Mt.
- Option 2 is likely to have a more positive environmental impact than Option 1 with the legislated REZ framework providing scope for additional assessment of impacts associated with the development of transmission infrastructure, for example land use impacts (i.e., REZ assessments). This will provide an extra layer of potential assessment in comparison to Option 1.
- The PTI framework under Option 2 will enable the construction of the transmission needed to connect the pumped hydro and REZs that will provide the renewable energy and storage required to transform the electricity system and meet the renewable energy targets. The construction of the PTI framework is not possible under Option 1.

Comparable impacts across both Options 1 and 2

There is expected to be no discernible difference in costs associated with implementing either Option 1 or 2 in relation to:

- Public reporting of renewable energy and public ownership commitments – would occur under both options.
- Review and updates to the Blueprint – would occur under both options.

- The establishment and operation of the Job Security Fund, Board, EIC and Advocate – would occur under both options. Initial funding has been allocated by government, including $150 million for the Job Security Guarantee Fund committed to in the Plan. Secretariat arrangements to be provided by the department under both options, and would require similar levels of administrative burden.
- Powerlink's role as TNSP – consultation with affected landholders and other stakeholders, and meeting requirements under existing legislative frameworks (e.g., environmental protection laws, infrastructure approval processes).
- Energy GOCs investments – investment to achieve the targets would occur under both options. Planning for clean energy hubs and upskilling of the workforce for a clean energy job opportunities would occur under both options.

Who was consulted?

Significant consultation has been undertaken in the development of the proposals included in this statement.

An exposure draft of the Bill was released for a period of four weeks' public consultation. Most stakeholders were supportive of the transition to renewable energy and key elements of the Plan, and how these elements were translated into legislation.

Feedback from stakeholders on the elements of the Plan to be legislated have informed some updates to the Bill and form the basis of Option 2. A summary of feedback indicates:

- Most respondents were supportive of the renewable energy targets. Respondents were pleased the Government had a clear vision and commitment to timeframes for the transition and considered the Government's approach was sound.
- Of those responding to the Board and Blueprint elements of the exposure draft of the Bill, the majority were supportive. Supportive respondents noted the Blueprint would provide value in coordinating and sequencing key infrastructure investments required for the transition and would be a useful tool for the private sector to guide investment decisions.
- Most respondents were supportive of the PTI framework and considered it would assist Queensland to build the transmission infrastructure to transition to renewable energy. Respondents supported the framework being modelled on the existing national regulatory system with measures to minimise costs to consumers.
- Most respondents saw benefit in the Government retaining public ownership of energy assets and these respondents considered public ownership to have served Queenslanders well and would provide certainty during the energy transformation. Most respondents indicated they were open minded to the proposed generation target, but remained cautious about how the target would be calculated and achieved. Respondents remained hopeful the generation target could drive private investment and provide security for electricity customers during the transition.
- Most respondents who responded to the Job Security Guarantee were supportive of it. Stakeholders considered the benefits to include retention of skilled workers in regional towns, peace of mind for local communities and ongoing system security in the energy system.
- Of those responding to the EIC and Advocate, most were supportive of their establishment. The most common theme across respondents was a call for additional members to provide a diversity of viewpoints, and to extend the remit of both the EIC and the Advocate.
- REZs were the third most responded-to topic. Most respondents supported a transition to renewables. Feedback also indicated that stakeholders wanted the transition to be executed in a fair way that allowed impacted communities to have appropriate opportunities to help shape the transition and derive long term benefit and prospects from the transition.

Other consultation

REZs, more generally, have also previously been consulted on extensively through a mix of formal and informal industry engagement, a technical discussion paper and community consultation paper. Consultation has also occurred on a draft 2023 REZ Roadmap.

Prior to the development of the exposure draft of the Bill, preliminary consultation regarding REZs was undertaken through a technical discussion paper. This was consulted on from November 2021 to January 2022.

- The paper outlined the proposed REZ model, and received 61 submissions from industry, environmental, government and community stakeholders.
- Feedback from stakeholders supported the development of REZ, and generally agreed with the proposed approaches to planning, notice and declaration.
- Stakeholders felt that – if anything – REZ could be more ambitious in its targets for facilitating new renewable energy generation. Concerns raised were focused on the funding model and access rights, particularly with regards to whether costs would be passed to consumers and what level these costs would be. Several stakeholders, particularly industry stakeholders, demonstrated a preference for government funding of transmission infrastructure.
- Stakeholders also highlighted the importance of prioritising community engagement and community benefits to maintain and grow social licence, prioritising high levels of transparency and accountability with a focus on engagement in any REZ developments.

This technical discussion paper followed on from a community consultation paper on *Local benefits in Queensland REZs*, which was released in August 2021 with an accompanying online survey. See **Attachment A** for a detailed breakdown of all REZ-related consultation activities undertaken prior to the exposure draft of the Bill.

What is the recommended option and why?

Recommended Option

The recommended option is **Option 2 – New Legislation to support delivery of the Plan and Blueprint (Preferred)**. It is the only option that allows for the vision and pathway of the Plan to be fully implemented and achieve the Government's objectives. Option 1 relies on a policy approach to implement the Plan, which cannot deliver the actions relating to REZs in the Plan or the commitments to prepare legislation to facilitate delivery.

Option 2 is also consistent with legislation implemented in NSW and Victoria, in the sense that NSW and Victoria have each committed to the development of REZs, with both jurisdictions applying, or planning to apply, their own bespoke framework for REZ development.

Option 2 provides greater economic, social, and environmental benefits by delivering the certainty and frameworks needed for a coordinated Queensland energy transformation. This includes overcoming the emerging challenges and identified regulatory barriers to drive investment, minimise long term costs on Queensland consumers, and provide the public with confidence in the energy transformation. The economic costs associated with Option 2, primarily in implementing a new REZ and PTI framework, will be offset by the added benefits to the Queensland economy.

Implementation, compliance support and evaluation strategy

Option 2 will be implemented through the Government, Parliamentary and Committee processes, supplemented by the development of supporting regulation and accompanying guidance materials.

With respect to compliance support, guidance materials are proposed to be developed, including (not exhaustive):

- Job Security Guarantee Fund Guideline.
- Renewable Energy Target Methodology.
- PTI Guidelines.
- Public ownership strategy.

Review processes proposed to be established under the Bill will include:

- A review of the Renewable Energy Targets every 5 years.
- A review of the governance bodies 5 years from commencement.
- A review of the Job Security Guarantee Fund 5 years from commencement and every 5 years thereafter.
- Any updates (biennial) to the Blueprint identifying the required PTI. Hence, the demand for use of the PTI framework will be dictated by this biennial review founded on expert evidence (provided by the Board). The Minister may also review the Blueprint at any time.
- Time-limiting the PTI framework, with a sunsetting period after 2035.

Impact assessment

The costs and benefits associated with delivering the Plan (Option 2), and an uncoordinated approach (Option 1) were undertaken as part of developing the Plan and Blueprint (modelling completed by Ernst & Young). These forecast costs and benefits have been published online and are not replicated in this Impact Assessment.

Signed

Paul Martyn
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Attachment A: Detailed REZ consultation activities

Stakeholder engagement on REZs to date, excluding the exposure draft of the Bill, has included:

- Publication and consultation on a technical discussion paper and community consultation paper.
- Establishment of Engagement HQ website and REZ inbox for individuals and organisations to subscribe to updates.
- Close and regular engagement with Powerlink Queensland to develop the REZ model, facilitated through a Terms of Reference and regular meetings and workshops. This engagement has continued throughout the development of the legislation.
- Regular informal discussions and updates held with Energy Queensland (EQL), Australian Energy Regulator (AER), Australian Energy Market Commission (AEMC), Australian Energy Market Operator (AEMO), previously Energy Security Board (ESB), VicGrid (Victorian Government REZ team) and NSW Department of Planning, Industry and Environment (DPIE) REZ team.
- Presentation of updates on local benefits principles and REZ model framework to the Ministerial Energy Council members.
- One on one meetings with key renewable industry developers including (for example, but not limited to): Neoen Australia, Cubico, Acciona, CWP Renewables and University of Queensland (Warwick Solar Farm).

Community

- A community consultation paper on local benefits and associated online survey was released for feedback from 10 August to 30 September 2021.
    - This included advertising on social media (LinkedIn and Facebook), ministerial statement, distribution of postcards to regional communities, regional newspaper advertisements, email distribution, and notification through stakeholder channels.
    - Received 248 responses to the survey with a further 26 written submissions.
- Local Government Association of Queensland (LGAQ) hosted a webinar, with the Department of Energy and Public Works (DEPW) presenting on local benefits principles in October 2021.
- Queensland Farmers Federation supported awareness raising of QREZ amongst their members. This resulted in the Queensland Renewable Energy Landholder Toolkit.
- Engagement with NextEconomy regarding their CQ Energy Futures Summit and outcomes.
- Collation of submission results to build Engagement Outcomes Summary report (currently being finalised for publication subject to approval).

Industry

- An expression of interest was run online between 10 to 25 September 2020 to gauge the level of interest in the scope, scale, and type of projects to develop across each REZ.
- A Technical Discussion Paper outlining the proposed REZ model and outline of initial investment opportunities (3,300 Megawatts (MW) new capacity across Northern, Central, Southern) – was released to take submissions from stakeholders.
- Advertised via LinkedIn, email update subscribers, and ministerial statement as well as at the Powerlink Transmission Network Forum where hard copies were distributed.
- In June 2021, Powerlink issued a Notice of Consultation “Developing the Northern Queensland Renewable Energy Zone” and Consultation Paper to the Australian Energy Market Operator, Registered Participants and interested parties commencing the first stage of consultation. Submissions closed on 6 August 2021. After an assessment of the submissions received and subsequent meetings with Consulted Persons, Powerlink commenced Stage 2 of the consultation process, issuing the Draft Report and Determination in late August 2021. Submissions to the Draft Report closed on 13 September 2021. This Final Report was the third and final stage of the funded augmentation process which was undertaken in accordance with the National Electricity Rules consultation procedures.

Stakeholder views

Registration of Interest (September 2020)

- An online Registration of Interest (ROI) survey for REZ was released between the 10th and 25th of September 2020. The intent of the survey was to gather information on the level of participation interest from industry as well as scope, location, scale, timing, and technology types for REZ development.
- The survey received significant industry responses, confirming there is a high level of interest and enthusiasm to engage stakeholders in the development of REZ in Queensland from project proponents.
- In total, 192 projects registered their interest, representing 60,699 MW of project capacity.
- Proponents estimated their projects would support more than $93.7 billion in investment and more than 57,000 construction jobs if developed.

Community Consultation Paper (August – September 2021)

There were five key themes that emerged from the Community Consultation paper on local benefits consultation:

1. Support for renewable energy in Queensland
    - Respondents strongly supported renewable energy and most survey respondents would like to see more renewable energy in their region, highlighting that renewable energy is the way of the future and it should be occurring now.
2. Desire for more engagement
    - Respondents confirmed the importance of genuine, frequent, and tailored community engagement. The need to sufficiently consult with and include Traditional Owners was a key issue raised, along with the need for more in-depth community engagement being completed at every project stage.
3. Concerns about environmental impacts of renewable energy
    - Most respondents stated their concern about environmental impacts of renewable development. Concerns were raised on biodiversity, impacts on flora and fauna, end-of-life strategies for project materials, and managing the potentially competing land uses such as high value agricultural land.
4. Community needs and benefits
    - Job creation was highlighted as a key priority for communities, alongside sourcing of components or materials locally. The potential in providing innovative project financing solutions, including co-investment and co-ownership opportunities was also highlighted.
5. Local employment and training
    - Respondents stated that the jobs delivered by renewable projects are extremely important to local communities, and that Government has a clear role to play when it comes to leveraging this opportunity for longer-term employment.

Technical Discussion Paper (November 2021 – January 2022)

- The Technical Discussion Paper outlining the proposed REZ model received 61 submissions from industry, environmental, government and community stakeholders.
- Feedback from stakeholders overwhelmingly supported the development of REZ and generally agreed with the proposed approaches to planning, notice and declaration.
- Stakeholders felt that – if anything – REZ could be more ambitious in its targets for facilitating new renewable energy generation.
- Concerns raised were focused on the funding model and access rights. Stakeholders expressed concern over whether costs would be passed to consumers and what level these costs would be. Several stakeholders, particularly industry stakeholders, demonstrated a preference for government funding of transmission infrastructure.

- Stakeholders also highlighted the importance of prioritising community engagement and community benefits to maintain and grow social licence. Feedback called for the REZ framework to have high levels of transparency and accountability with engagement prioritised in any REZ developments.
- Each interest group is keen to minimise the cost (and risk) to themselves and requested that the government bases its framework on who receives the benefits from establishing REZ.

Other groups consulted

- In October 2021, National Cabinet endorsed the Energy National Cabinet Reform Committee's proposal to adopt the Interim Framework for REZ, as recommended by the ESB. This principles-based framework provides an overarching approach to the state-based development of REZ that remains compatible with the efficient development of the power system. It supports a nationally consistent framework to promote adoption of, encourage participation in, and improve connections to REZ. The proposed QREZ model has sought to incorporate stakeholder feedback on the ESB's earlier REZ proposals, noting stakeholder preferences for the relative simplicity offered by a physical access model, as compared to the financial access model.
- Powerlink received several submissions from industry groups and market participants which were supportive in nature, all of which are publicly available.