

Clean Economy Jobs Bill 2024

Submission No: 26
Submitted by: Port of Brisbane Pty Ltd
Publication:
Attachments:
Submitter Comments:

7 March 2024

Committee Secretary
Clean Economy Jobs, Resources and Transport Committee
Parliament House
George Street, Brisbane Qld 4000
cejrtc@parliament.qld.gov.au

Dear Committee members

Thank you for the opportunity to make a submission to the Committee Inquiry into the *Clean Economy Jobs Bill 2024*.

Port of Brisbane Pty Ltd (PBPL) is the manager of the Port of Brisbane (the Port), Queensland's premier port and logistics hub and facilitates trade and economic growth for Queensland. The Port is the third largest container port in Australia and is also home to the Brisbane International Cruise Terminal.

Clean Economy Jobs Bill 2024

The Port welcomes the Bill and commends the Queensland Government on its targets for the State to achieve 30 per cent reduction below 2005 levels by 2030, 75 per cent below 2005 levels by 2035 and net zero emissions by 2050.

Please see attached the Port's submission to the *Energy (Renewable Transportation and Jobs) Bill 2023* Public Inquiry and presentation to the Committee which provides extensive detail on the Port's initiatives to deliver net zero transition across Scope 1 and Scope 2 emissions and investment in Scop 3 emissions reductions strategies.

As Queensland's renewable energy import hub, the Port is investing significantly to ensure infrastructure is fit for purpose including being the central hub for import elements (such as wind farm cargo, battery and solar panel componentry). The Port is also providing industry leadership in enabling supply chain decarbonisation. This includes ongoing dialogue with customers regarding hydrogen and the use of shore power.

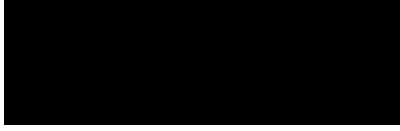
A key component of the transition to a renewable energy future and electrification of carbon intensive industries, such as marine transport, is the ability and capacity of the electricity network to support both local and regional renewables and the transport of this energy throughout the electricity network. While the Port is only in the early stages of the renewable energy transition and associated electrification, it is already seeing the electricity network becoming the limiting factor in this process. As part of the Government's overall strategy, it is critical that the importance of the electricity network is acknowledged and adequately resourced and maintained.

The Port also notes the Bill provides a framework for future action as part of efforts to decarbonise key sectors including energy, industry, transport, land and agriculture. This includes the development of emissions reduction plans for sectors.

As such, we would request the government fully consults with the Port in the development of any emissions reduction plans which relate to the marine, transport and logistics sectors and associated industry supply chains.

Sustainability is at the heart of our business decision making strategy and we are committed to playing our part in the global transition towards a more sustainable future. We look forward to working with the Queensland Government to support the delivery of initiatives to achieve these outlined targets.

Yours sincerely



Brendan Connell
Executive General Manager, Sustainability and Corporate Relations
Port of Brisbane

08 December 2023

Committee Secretary
Transport and Resources Committee
Parliament House
George Street
Brisbane Qld 4000

Dear Committee members,

Subject: *Energy (Renewable Transformation and Jobs) Bill 2023* Public Inquiry

Port of Brisbane Pty Ltd (PBPL) is the manager of the Port of Brisbane (the Port), Queensland's premier port and logistics hub. The Port is the third largest container port and one of the most diverse multi-cargo ports in Australia; an economic powerhouse driving Queensland and Australia's trade growth. The Port provides critical export and import links to world markets. On average, approximately \$55 billion in international trade is handled annually through the Port, which includes around 50% of Queensland's agricultural exports and 95% of its motor vehicles and containers.

As a major coastal asset at the mouth of a major river system, the Port is incredibly conscious of the impacts of climate change, such as rising sea levels and increases in the intensity and severity of major weather events.

PBPL has taken a proactive approach to managing our emissions profile and subsequently set ambitious targets to reduce emissions in the short term. We have invested heavily in ensuring a timely net zero transition across our own Scope 1 and 2 emissions sources and are now investing in Scope 3 emissions reductions strategies. We have also invested in infrastructure to place ourselves as a critical import hub for renewable energy infrastructure componentry, something that continues to be a challenge given the size and scale of the components involved and the increasing volume of components being imported.

As a national ports industry leader in sustainability and energy transition, PBPL has been extremely encouraged by the foresight of the Queensland Government in setting an ambitious energy transition pathway. We acknowledge the release of the Queensland Energy and Jobs Plan (QEJP) and the SuperGrid Infrastructure Blueprint in 2023 which is now being supported by the *Energy (Renewable Transformation and Jobs) Bill 2023*.

Queensland Energy and Jobs Plan/*Energy (Renewables Transformation and Jobs) Bill 2023*

PBPL commends the Queensland Government on its initiative to set and legislate its renewable energy targets for Queensland of 50% renewable energy by 2030, 70% by 2032 and 80% by 2035.

PBPL understands the Government will set targets for public ownership of energy assets - 100% ownership of transmission and distribution assets, 100% ownership of deep storage assets (defined as pumped hydro storage with a generation capacity of at least 1500MW), and a target equal to or more than 54% ownership of generation assets. The Minister must have a public ownership strategy prepared by the end of 2025 and will set out how these targets will be achieved and maintained by 2035.

Significantly, the Bill also requires the Minister to develop the "Queensland SuperGrid Infrastructure Blueprint" to identify and plan significant electricity and infrastructure projects, including priority transmission investments, REZ transmission networks and large-scale energy storage.

The first Blueprint was released with the QEJP in September 2022 and is required to be reviewed under the Bill by 31 May 2025 and be subject to a biennial review.

Section 15 of the Bill also provides for:

(3) The infrastructure blueprint may also include any other matter the Minister considers relevant to achieving—(a) the optimal infrastructure pathway objectives

PBPL acknowledges the importance of the Act and the Minister's proposed objectives. The Port's track record in emissions reduction, renewable power generation and the facilitation of critical renewable energy componentry aligns with the Act and the Blueprint it aims to create.

Port of Brisbane Pty Ltd – net zero on Scope 1 and 2 emissions in FY24

PBPL has been recording and reporting our Scope 1 and 2 emissions for 20 years, and more recently our Scope 3 emissions. Of our own Scope 1 and 2 emissions, 82% are Scope 1 emissions and 18% are Scope 2 emissions.

Our Scope 1 emissions are made up of direct emissions from the combustion of fuel with the majority of that coming from our dredge vessel, the *TSHD Brisbane*, which not only maintains the shipping channel in Moreton Bay, but does likewise across a vast network of state-owned ports along the Queensland coast. We have implemented fuel efficiency upgrades across all our vessel and vehicle fleet however, due to age of equipment and the lack of availability of alternate fuels, future emissions reductions are challenging. Our business made the decision to offset our Scope 1 emissions in 2022.

Our Scope 2 emissions are made up of indirect emissions from the purchase of electricity. We have been installing local renewable energy across our facilities for several years and in late 2021 implemented a Virtual Energy Network (VEN).

We now have installed over 1MW of rooftop solar and generate around 25% of our electricity from these systems, which is most of our daytime demand. We are currently installing a battery energy storage system (BESS) with our goal to install more solar and storage over time and become as self-sufficient as possible in renewable energy generation. We entered into a renewable energy power purchase agreement (PPA) with our energy retailer in January this year which means all our electricity is sourced from renewables and subsequently zero emissions.

Under our current strategy, including offsets, we will achieve net zero for our business this financial year. Our goal however is to shift to absolute zero through technology upgrades and efficiencies, particularly across our Scope 1 emission sources. This will require significant industry and government support which we are hoping the Queensland Government approach will facilitate. There is an immediate requirement for continued support of alternative fuels such as biodiesel fuels and hydrogen, and the implementation of updated standards to facilitate and encourage zero emissions transportation. For example, current steer axle weight restrictions preclude the use of battery powered trucks on Queensland roads, resulting in a significant barrier to their introduction into Queensland.

Recording, reporting and working to reduce Port of Brisbane's Scope 3 emissions

In 2022, we calculated and reported our Scope 3 emissions for the first time. There were significant challenges in both setting our Scope 3 emissions boundaries and then collecting data and calculating these emissions. Our Scope 3 emissions shadow our Scope 1 and 2 emissions and, although we do not have direct control over Scope 3 emissions, we are starting to take actions to influence reductions in these emissions where practicable.

The Port is working on a number of initiatives that will assist us in tackling Scope 3 emissions, including but not limited to:

Shore Power

Shore Power provides large, high emitting oceangoing vessels to 'switch off' their main engines when at berth within a port. At the Port of Brisbane, approximately 40% of our Scope 3 emissions occur from ships alongside, so tackling this issue is of critical importance.

The Port has commissioned an investigative study into installing shore power – including the provision of renewable power – at the Brisbane International Cruise Terminal as a first step.

In NSW, these activities are being funded by the State Government. Indeed, most projects of this nature around the world benefit from public funding. The Port of Brisbane would welcome an opportunity to partner with the Queensland Government on this initiative.

'Green Button' shipping routes

The Port is working with its technology provider and the Regional Harbour Master on an initiative that would model a ship's most efficient route and timeslot through our 70+ kilometre shipping channel. A ship's Master would then have the option of 'pressing the green button', utilising wind and tides, as well as slowing down or speeding up depending on conditions, to reduce its emissions profile on its way to and from the Port.

The development of this software and subsequent scenario testing is now complete and we have commenced discussions with the Regional Harbour Master to begin a trial. If the trial is successful, we hope to have the software fully operational by mid-2024.

Port West Stage 2 Embedded Network

The Port is currently leasing land to industrial property customers in its Port West Stage 2 development on Lytton Road in the suburb of Lytton.

As a greenfield development, PBPL has taken the decision to invest in its own 'embedded energy network', building, owning and operating the energy infrastructure within the development. This will be accompanied by (at least) 1MW of solar panels and 1MW battery storage, to ensure all power provided to our customers there is fully renewable.

We not only expect this to provide great outcomes in the provision of renewable energy to our customers, but we will also be able to generate a return on our investment while providing customers with a discount on their power bills.

Port of Brisbane – Queensland's renewable energy import hub

The Port of Brisbane plays a critical role in facilitating an increase in the amount of electricity generated in Queensland from renewable energy sources by becoming an integral cog in the importation of renewable energy infrastructure into Queensland. We are currently supporting the importation of significant renewable energy equipment for the \$2B Macintyre Wind Farm, having previously supported both the \$850M Coopers Gap and \$500M Dulacca projects.

In FY23 alone, 86,169 tonnes of wind farm cargo was handled through the Port of Brisbane.

Not only are these projects driving Queensland's renewable energy transition, but they are helping create and support hundreds of jobs in the renewables and logistics sectors. Supporting these wind farm projects is no small undertaking, requiring significant logistical planning and significant space for the storage of componentry at the Port of Brisbane.

The Port has also been integral in the support of the solar and battery industries with the majority of solar componentry imported via containers, with 4,650 containers of solar related equipment handled through the Port in FY23.

The Port of Brisbane handles 95% of all containers entering Queensland and therefore is responsible for facilitating the import of the majority of all solar componentry into Queensland. Again, there is significant logistical planning and management to facilitate the movement of this cargo.

‘Off-Port’ supply chain challenges – Queensland’s roads and bridges must keep up

Whilst the Port is investing heavily to ensure our infrastructure is fit for purpose for the import and storage of various renewable energy equipment, it is important that external supply chain infrastructure is developed and maintained to allow for the transport of the equipment from the Port to its ultimate destination.

The Warrego and Cunningham Highways are critical freight routes for heavy vehicles carrying wind farm and associated electrical components. We are currently seeing disruptions to these critical routes with significant restrictions placed on the Bremer River Bridge on the Warrego Highway and future delays on the Cunningham Highway due to the Cunninghams Gap reconstruction project. This will place significant restrictions and cost implications on the transport of renewables from the Port.

While all stakeholders, including DTMR representatives, are working towards short-term mitigation measures, direct investment in the upgrade of the Bremer River Bridge by the State Government must be of the highest priority. Without this investment, the logistics of moving these components to site becomes more costly and therefore puts long-term energy transition projects at risk.

A DTMR audit of all relevant supply chain infrastructure, particularly high-risk roads and bridges, would enable better planning to mitigate against potential disruption.

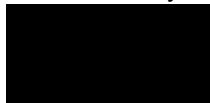
Port of Brisbane – investing in Queensland’s energy transition

PBPL welcomes the Bill, as the underpinning legislation for the State Government’s comprehensive clean energy transition – the AUD\$62B Queensland Energy and Jobs Plan, which was released in September last year.

To further the discussion, PBPL has offered to host a visit by the Committee as part of their Inquiry into the Bill.

We look forward to working with the Government to achieve the afore-mentioned objectives and play a significant role in facilitating Queensland’s energy transition.

Yours sincerely

A solid black rectangular box used to redact the signature of Neil Stephens.

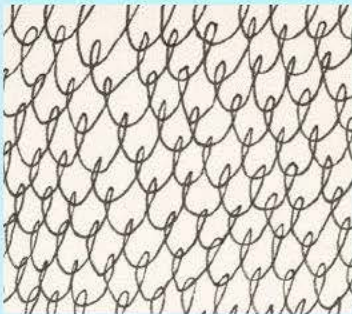
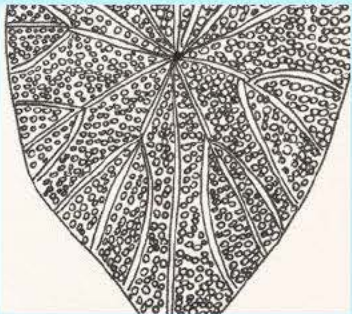
Neil Stephens
Chief Executive Officer



Queensland Parliament Transport and Resources Committee

Neil Stephens
Chief Executive Officer

29 January, 2024



Acknowledgement of Country



Port of Brisbane Pty Ltd acknowledges the Traditional Owners of the lands and waters on which the Port of Brisbane operates – the Quandamooka, Turrbal and Yuggera peoples – and pay our respects to their Elders past and present. We acknowledge any First Nations people in attendance today.

*Artwork: Journey through the bay to the river, 2020.
Created by Delvene Cockatoo-Collins.*

Agenda

Welcome

Energy Transition at the Port of Brisbane

Port of Brisbane – Qld's renewable energy import hub

Critical supply chain needs for energy transition



Port of Brisbane Pty Ltd

A world-class port

- Queensland's largest multi-cargo port
- Over \$1.3 billion invested in capital works since 2010
- One of only three Australian ports to handle 8,500+ TEU container vessels
- National leader in port sustainability, including Sustainability-Linked Financing
- Owner and manager of the new Brisbane International Cruise Terminal
- Manage one of SEQ's largest industrial property portfolios
- Robust health and safety management systems
- Owned by four of the world's most experienced infrastructure investors:



2022/23 trade overview



A record

1.56m
containers



33.59m
tonnes of cargo
throughput



Approx.

95%
of Queensland's
containerised trade and 90%
of its motor vehicle imports



21.5%

of Australia's **east coast port**
container throughput



Approx.

\$55b

in **international trade** annually



Approx.

50%

of Queensland's **agriculture exports**

Financial year ending 30 June 2023

A Queensland economic powerhouse

In FY22, the Port of Brisbane and its supply chain helped power the Queensland economy.



\$7.8 billion
total economic contribution



supported over
62,900 jobs

The Port of Brisbane's contribution to Queensland's economy grows over time.



Future priorities



Cruise facility expansion to accommodate future growth early investigations underway for potential future expansion



Channel development program to cater to larger vessels – early investigations underway



PortBris 2060 – a project to articulate a 40-year vision for the Port, guiding long-term investment by PBPL and its stakeholders



Dedicated freight rail to increase rail modal share as container volumes grow – ongoing advocacy at all levels of government



Energy Transition

Energy Transition at the Port of Brisbane

Net zero on Scope 1 and 2 in FY24, with more ambitious goals in the pipeline

Scope 1 and 2
(with offsets)

FY22 – 8,500

FY23 – 4,316



96%
decrease

Scope 1 emissions
93% marine diesel



Ampol Carbon Neutral
Fuel Program

Scope 2 emissions
electricity usage
across all assets

Solar powered Virtual Energy
Network, plus Renewable PPA,
eliminating Scope 2 emissions

Updated Energy Transition Plan in FY24 to outline direct emissions
reductions pathways, especially for marine fleet



Scope 3

How the Port of Brisbane is enabling supply chain decarbonisation

Embedded Networks

- Investment in Port-owned 'behind-the-meter' infrastructure
- Ability to generate and store power for use by customers
- Trial to be conducted this year in new Port West Stage 2 industrial property precinct

Hydrogen

- Ongoing dialogue with customers about application of hydrogen
- 'Production/export' vs 'import/usage'
- Lion Energy first port customer building hydrogen demonstration plant

'Green Button'

- Shipping channel focused initiative providing ships with emissions reduction opportunities through Port
- Uses supercomputer to calculate route, weather and other factors
- Trial with major shipping this year

Transport and logistics

- Working with QTLC on 'Future Freight Energy Hub' initiative
- Planning in place for electric heavy vehicle charging
- Working with customers on higher-productivity, lower emissions operations, such as Super B Triple Double

Alternative fuels

- Facilitating CS Energy/Sojitz hydrogen powered vessel trial on Brisbane River (Sept 2024)
- Facilitated biofuels trials with shipping line ANL
- Studying shipping line trends and potential requirement for bunkering

Shore Power

- Critical opportunity to eliminate emissions of vessels while at berth
- More impactful if powered by renewable energy
- Major undertaking requiring partnerships to implement

Shore Power

Opportunity for Port of Brisbane and Government to partner to eliminate up to 25% of Scope 3 emissions

- Giving vessels the ability to 'switch off' their main engines while at berth, reducing marine diesel fuel emissions
- EU mandating vessels above 5,000 gross tonnes to be shore power enabled by 2030, driving global take-up
- 29 cruise ports globally have at least one berth with shore power, 20 other ports planned or funded (including Sydney – funded by State Government)
- 81% of cruise vessels calling Brisbane are already shore power capable. Based on industry trends, reasonable to expect 95-100% of fleet to be shore power enabled in near future
- Cruise vessels require up to 12MW of power per day – similar to a small town or large hotel.
- Feasibility study underway into shore power capability at BICT
- Major challenges already identified – local energy infrastructure likely to require an upgrade
- Port/Government partnership crucial to making shore power a reality



Photo: Rostock Port/AIDA

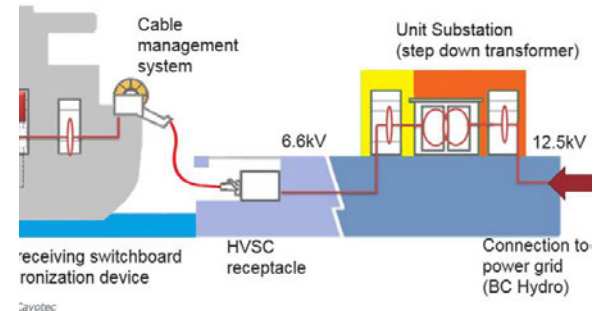


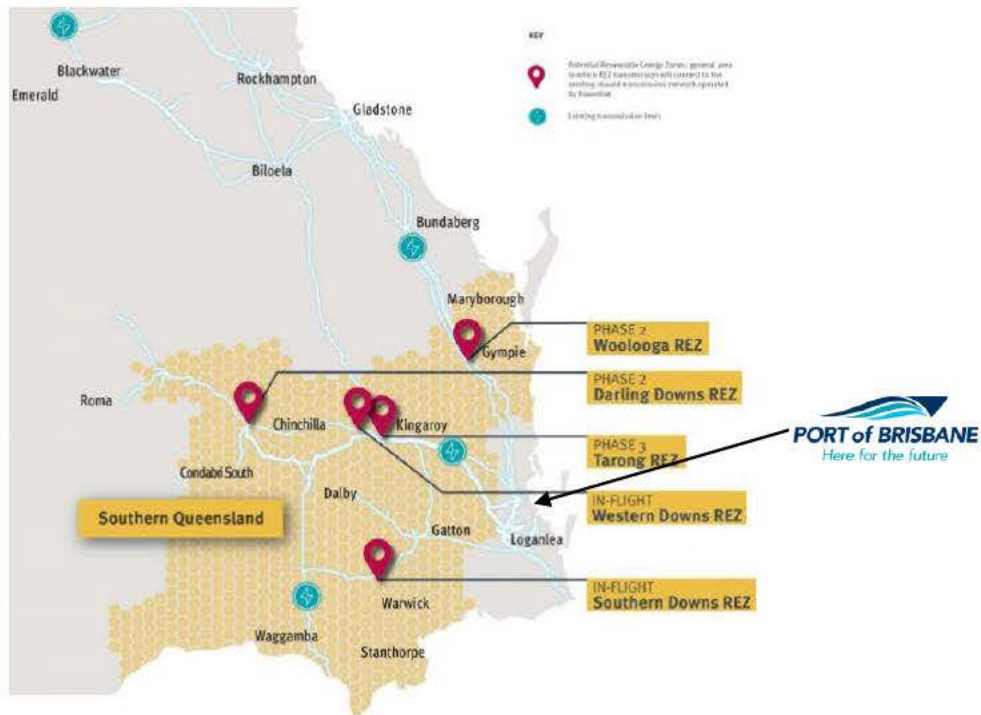
Photo: Cavotec/Port of Vancouver



Port of Brisbane:

Queensland's renewable energy
import hub

Geographic proximity to 'Southern Queensland REZ'



- 17 operating wind and solar farms
- five renewable projects under construction
- 31 projects in the pipeline
- up to 12,300 MW of expected new renewable generation to be installed
- up to 2,200 renewable energy construction jobs through development

Projects secured and economic impact

Two projects completed, two underway, at least two more in the short-term pipeline



Coopers Gap

- Completed April 2020
- 256kms from Port of Brisbane, 72kms NW of Dalby
- 123 wind turbines/453MW
- 200 construction jobs



Dulacca

- Completed October 2023
- 390kms from Port of Brisbane, 31kms W of Miles
- 43 wind turbines/180MW
- 150 construction jobs



Macintyre

- Construction underway
- 248kms from Port of Brisbane, 63km SW of Warwick
- 180 turbines, 1,026MW
- 400 new construction jobs

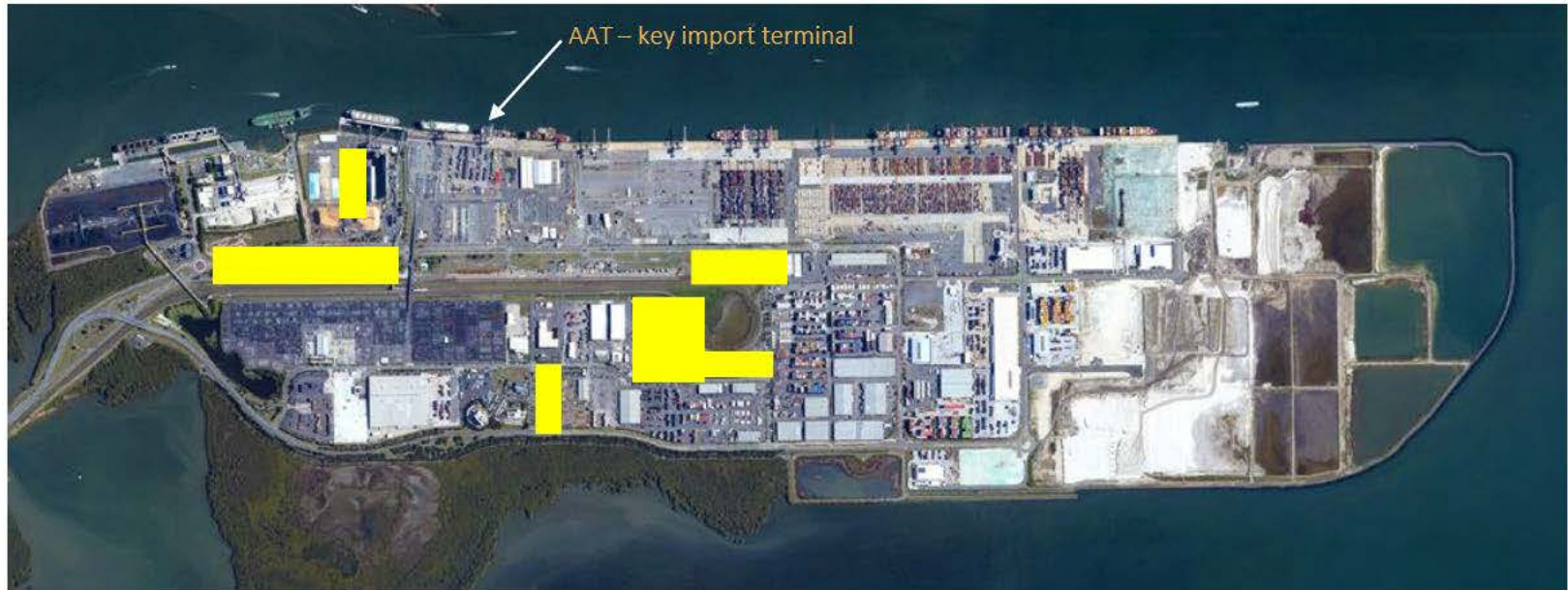


Wambo

- Construction underway
- 315 kms from Port of Brisbane, 76kms N of Dalby
- 42 turbines, 252MW
- 200 construction jobs

Port of Brisbane land availability critical to import efficiency

Currently 23 hectares of land being used for wind blade and tower storage



Port of Brisbane the central hub for import components



Almost 90,000 tonnes of wind farm cargo handled through Port of Brisbane in 2023



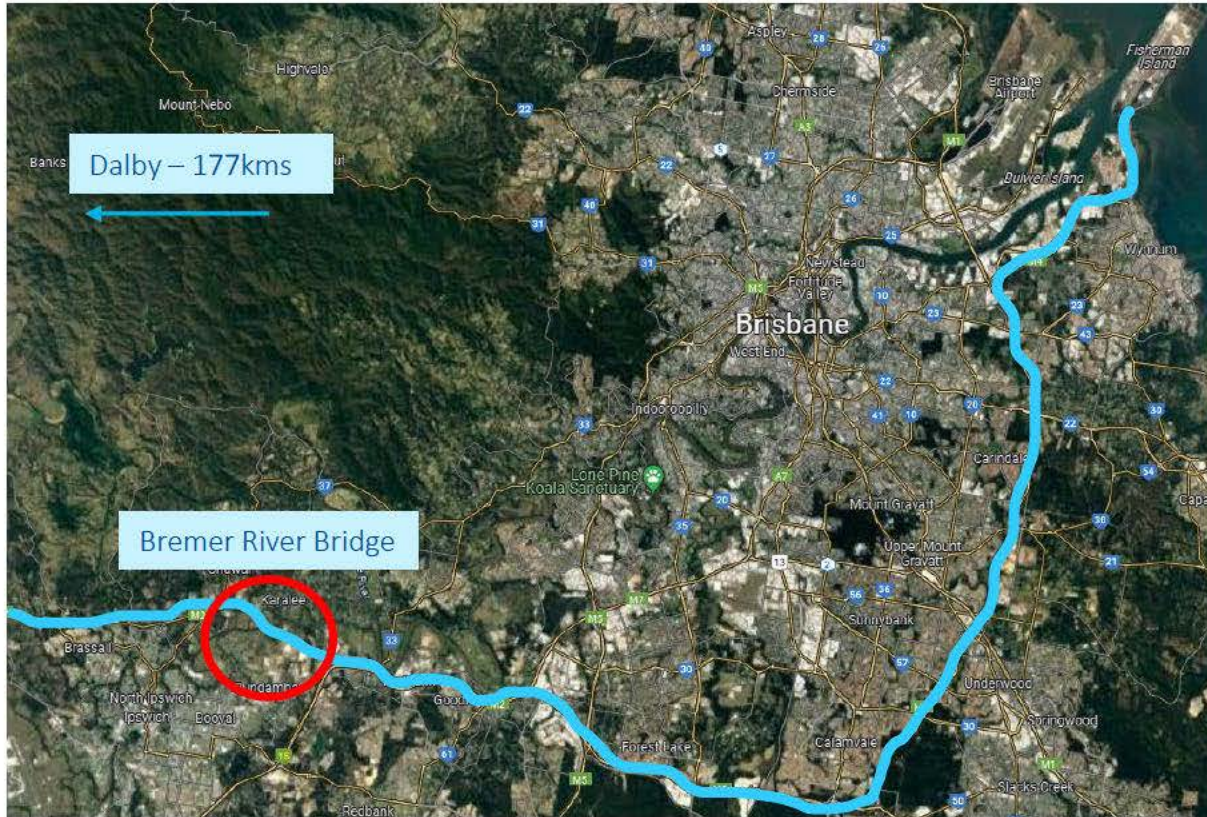
Not just wind farms – batteries and battery components, and solar panels and componentry

A large container ship is docked at a port. The ship is white with a red hull and is surrounded by stacks of colorful shipping containers. Two large orange gantry cranes are visible in the background. The water is blue and the sky is clear.

Critical Supply Chain Needs for Energy Transition

Supply Chain efficiency leads to competitive advantage

Port to site supply chain strong, albeit with one significant point of weakness



Bremer River Bridge

Urgent replacement needed to shore up supply chain and help Qld deliver on its renewable energy aspirations



- Entire south-west Queensland supply chain route relying on a 65-year-old bridge that has been identified as defective
- Westbound side of the bridge closed completely to OSOM traffic
- Crossover from 11pm to 4am enabling large wind farm components to get through.
- All other OSOM traffic – wind farm components, solar components, battery components, defence machinery, agricultural machinery, mining machinery – forced to find alternative route, adding many hours and costs to travel
- The primary alternative, **Cunningham's Gap, will be closed for two years** from July 1.
- Industry urges Government to move quickly on plan to repair or replace the bridge.

Investment and certainty required to protect supply chain

Renewable energy transition won't happen without collaborative supply chain investment



Supply chain
certainty

Thank you



Disclaimer

All information contained in this document or presentation is and remains 'Confidential' and any person or entity in possession of this information will ensure that it is not disclosed to any other party without express written authorisation from Port of Brisbane Pty Ltd.

Copyright in this information remains with Port of Brisbane Pty Ltd or its related entities ('PBPL') and at all times the information remains the exclusive property of PBPL. All rights are reserved. Do not copy, disseminate or use, except in accordance with the prior written consent of PBPL.

Without limitation, disclosure of the information contained in these documents could prejudice the business, commercial and financial affairs of Port of Brisbane Pty Ltd, its associates or its related entities, or could diminish the commercial value of the information to those entities.

Port of Brisbane Pty Ltd and its related entities ('PBPL') shall not be liable for any loss or damage of any nature whatsoever due to any inaccuracies or errors, which may result from use of data supplied by others or prepared by PBPL. The data provided by PBPL is provided "as is" without warranty of any kind. PBPL does not guarantee or warrant the correctness, completeness, currentness, merchantability or fitness for a particular purpose of such data. This presentation should not be relied upon by any party. PBPL disclaims all responsibility to any other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the contents of this presentation, the provision of this presentation or data to the other party or the reliance on this presentation or data by the other party.