

Meeting No. 152
Tuesday 11 October 2022
9.00 a.m. – 11.00 a.m.

Inside Industry, BlueScope

Minutes

Attendees

Community members

Ron Hales
 Jess Whittaker
 Phillip Laird

Business Representatives

Nigel Harpley – Ixom
 Rosa Thomson – AIE/Squadron
 Energy
 Lorrie Zammit – BlueScope
 Emma Leslie – AIE/Squadron
 Energy
 Peter Duplex – AIE/Squadron
 Energy

University of Wollongong

Andy Davis

NSW Ports representatives

Peter Munro (Acting as Chairman)
 Bryan Beudeker

Port Authority of NSW

Peter Ernst

NSW EPA

Greg Newman

Wollongong City Council

None present

Dept of Agriculture

None present

Guest Presenters

Dr Rochelle MacDonald – AIE/Squadron Energy
 Pip Harley – NSW Ports

Apologies

Renee Winsor – Wollongong City Council
 Wayne Vorley – PKCT
 Dave Allan – Quattro Ports
 Kevin Edward – GrainCorp
 Michael Curley – Port Kembla Coal Terminal
 Peter Maywald – Community Member
 Mark Peterlin – Community Member
 Trevor Brown – NSW Ports
 Sharad Bhasin – Port Authority of NSW
 Sara Starr – (AAT)
 Brian Kiely – Port Kembla Gateway
 Paul Bollen – Morgan Cement
 Kate Flint – Pacific National
 Chris Haley – Chairperson

Chairperson & Minutes

Natalie Murphy – Minute Taker

1. Introduction & Apologies:

- 1.1 Acknowledgment of the Dharawal people – Peter Munro
- 1.2 Welcome attendees and guest presenters– Peter Munro

2. Minutes of Meeting and Actions

- 2.1 Acceptance of Minutes of Meeting held 3 August 2022
- 2.2 Business arising from Minutes 3 August 2022

3. Guest Presenter – Dr Rochelle MacDonald– Senior Executive General Manager, AIE/ Squadron Energy - Appendix A

- Dr Rochelle MacDonald has recently relocated to the region from Queensland and has been in this role for approx 3 months.
- Rochelle holds a PhD in public health, holds a Bachelor of Science with honours (First Class) and a Master of Engineering Management.
- Emma Leslie has also recently joined Squadron energy from UOW and has been in the Stakeholder Engagement position for approx. 6 weeks.
- Peter Duplex has worked with Rochelle in regional ports within WA and has recently relocated to the area and has been in the position of Asset and Infrastructure Optimisation Manager for the past 6 weeks. Peters background is in civil engineering. Peter has recently been working on renewable energy.
- The plan is for green hydrogen in the future. Australia is currently not ready however there is currently testing overseas. We are working on hydrogen-ready pipes.
- Some shells were uncovered during dredging in the inner harbour. The contractor stopped work and an archaeologist was called in to investigate.
- LNG tanker can discharge 24-48 hours into regasification unit.

Queries relating to:	Responses/Updates
Question: You mentioned seawater. Is there a release of water?	Yes, it is in our EIS and has been approved. We are under strict obligations in terms of volumes and water temperature. More information can be provided.
Question: What happens to dredge spoil?	It goes into an emplacement cell in the Outer Harbour.
Question: Are you looking at offshore Windfarms?	We are looking at all renewable energy but there is no commitment at this stage
Question: Who is the source of domestic gas? And will this increase vessels?	LNG is the source of domestic gas however it does depend on the terminal users. We are hoping for Australian gas as it is more suited to regasification.
Question: Will vessels anchor offshore?	As with all operating berths it is dependent on operational issues including the availability of berths and pilots. Berth utilization of B101 is unlikely to materially change the number of vessels at anchorage.
Question? Does any gas find its way into QLD and VIC?	Yes. The volumes will be sufficient to meet 70% of gas needs of NSW or 30% of the combined NSW and VIC gas needs. The gas will be available for reticulation via the Eastern Gas Pipeline.

Question: Are your vessels chartered or owned?	A long- term future depends on demand however at this time our vessels are chartered by the terminal users.
Question: In the summer months will the mobile gasification unit move around?	Depends on customer demand but it is possible that it could seasonally depart for Europe or other locations. It has flexibility to operate either as a LNG carrier or as a regasification unit.
Question: Is there any thermal pollution?	Our assessments indicate that the release of cold water from the FSRU will only have minor impacts on seawater temperatures. These impacts are expected to be confined to within the port limits. Nevertheless limitations have been placed on the approved pumped volume of thermal discharge Link to EIS: https://ausindenergy.com/file/2019/04/PKGT-EIS.pdf
Question: Is chlorine used to clean the pipes?	The FSRU operates a Marine Growth Prevention System (MGPS), which helps to ensure no marine growth in the various pipes and other processes which use seawater within the operations. The MGPS takes seawater from the surrounding area, and concentrates its natural salts to produce a solution of sodium hypochlorite to act as a natural biocide. The sodium hypochlorite degrades naturally and so most of the solution will be used within the vessel well before the water is ready for re-release.
Question: Can you recapture the cooling water?	The regasification process on board the FSRU relies on the use of seawater extracted from the Inner Harbour to heat the LNG to convert it to gas. The water cannot be recaptured and will be released to the Harbour.
Question: Are you looking at wave energy power?	We are looking at all renewable energy sources.

4. Guest Presenter – Pip Harley, Sustainability Manager, NSW Ports – Strategy– Appendix B

- Pip Harley has been with NSW Ports for just over 12 months. This is the first time NSW Ports has had a role dedicated to Sustainability.
- The Sustainability report identifies the impacts on our business and what impacts our business has on the environment and people.
- The Sustainability Plan focusses on 4 factors: Steward Forecast Growth, Champion Decarbonisation, Build Resilience and Support Thriving Communities.
- NSW Ports have signed 2 new power purchase agreements (PPA's) this year working which means that 70% of electricity now comes from renewable sources.
- NSW Ports are analysing the carbon footprint of the port precinct with tenants and suppliers. Working closely with these stakeholders to develop decarbonisation pathways to net zero emissions.

Queries relating to:	Responses/Updates
Question: was there 3D scanning done on breakwaters	NSW Ports monitors the breakwaters on a regular basis. The technology space is fairly new. It was noted that Rochelle MacDonald has used 3D scanning in previous roles and can share info with NSW Ports
Question: Has NSW Ports considered plastic waste in their Sustainability Report?	Yes but as a landlord port, NSW Ports is not directly responsible for producing much plastic

	waste. NSW Ports is working with it's tenants and suppliers and are always open to ideas about how to better manage plastic waste.
Question: Sustainability Growth. Is there a time when it will stop?	Forecast trade growth is driven by the economy. It is our job to provide the port infrastructure to support that trade and we have made a commitment to do that in responsible, resilient and a sustainable way ensuring we are minimizing and managing impacts to the planet and people.

5. Round Table Reports

5.1 NSW Ports

- Nothing to report

5.2 Port Authority

- Port Authority have been working on the Lismore floods. AVCON approved
- Emergency response working on chemical spill off Port Kembla.
- Port Authority have been working with NSW Ports and UoW on Anchorages. 12 anchorage spots have been allocated in the outer harbour with GPS. We are able to direct vessels where to drop anchor. Went live a few weeks ago. This is a major environmental achievement.
- You can view the anchorages on the VTS showing a 1 mile diameter.
- There is an upcoming media release re: anchorages. UoW is keen for a joint press release. Andy to discuss with Peter.
- There is no further update on Defence in Port Kembla, other than that Port Kembla is still a viable option for the Government. There is still work undergoing and a department has been created to research the best option. Brisbane and Newcastle are also still an option. Information will be passed on if there are further developments.

5.3 BlueScope

- Lorrie noted he has just returned from Europe (Malta) and would like to acknowledge that Australia is far more advanced and taking pollution a lot more seriously than other countries. Malta in particular had no progression with environmental processes from the previous visit.

5.4 Squadron Energy

- Silk curtains have been installed.
- Dredging works continue in the Outer Harbour and B101

5.5 IXOM

- Nothing to report

5.6 UoW

- There has been a recent publication re: Anchoring case studies. Andy will give a presentation at the next meeting.

5.7 Community

- Ron Hales mentioned a radio announcement he heard this morning regarding Sydney Water contaminating Garragatty Waterway. Ron would like to hear more information from the EPA however it is noted Greg Newman left the meeting early.

ACTION: Nat to email Greg on behalf of Ron Hales to see if EPA has any information they can share.

- It was also mentioned on the radio the increase of containers to Port Kembla. It was noted that it is a long- term state government policy once Port Botany reaches capacity. Port Kembla will take the overflow of shipping containers.
- Jess Whittaker noted there is mental health training available to businesses in Port Kembla supporting Metal Health Awareness Month.

ACTION: Jess to send Natalie training information and dates and Nat to circulate to committee members.

6. General Business

6.1 Proposed meeting times for 2022 – moved to next meeting

7. Next Meeting:

DATE: 6 December 2022
VENUE: Inside Industry, BlueScope
TIME: 9am to 11am

Port Kembla Energy Terminal

11 October 2022

Dr Rochelle Macdonald
Executive General Manager

Acknowledgement of Country



Image: "[Clouds Over Mount Keira](#)" by [Kaptain Kobold](#) is licensed under [CC BY-NC-SA 2.0](#).

Squadron Energy acknowledges the Traditional Custodians of Dharawal Country whose lands we live and work.

We recognise and respect their continuing connection to land, waters and community.

We pay respect to all Aboriginal and Torres Strait Islander peoples throughout Australia, and to their Elders past, present and emerging.

Who we are

Squadron Energy is an Australian-owned energy company dedicated to accelerating the decarbonisation of Australia's economy.

Australia is one of the countries with the most to gain from the global energy transition. Abundant renewable resources, a huge land mass and significant mineral deposits open up the opportunity to become a global clean energy leader and manufacturer. We need to embrace new technologies to rapidly decarbonise our economy so we don't miss out on the huge opportunities ahead.

Squadron is...

... different to other energy companies because it is:

- **Australian-owned and independent.** We are delivering clean energy that is made in Australia. We occupy the whole energy chain.
- **Agile and progressive.** We are the largest private investor in the Australian energy market and can fast-track the state and national energy transition.
- **Our solutions are renewable.** We are pioneering the transition to help combat climate change and deliver on government and industry net-zero targets.
- **Supporting local economies.** We are embedded in our local communities to support local investment in jobs and infrastructure.
- **Delivering affordable access to power.** We can deliver reliable power to regional and rural communities, fast.

Squadron has investments in...

- **Windlab**, a global renewable energy development company that designs and develop windfarms.
- **Sun Cable**, a company that is developing the world's largest solar energy infrastructure network, making it possible to power whole cities with renewable energy.



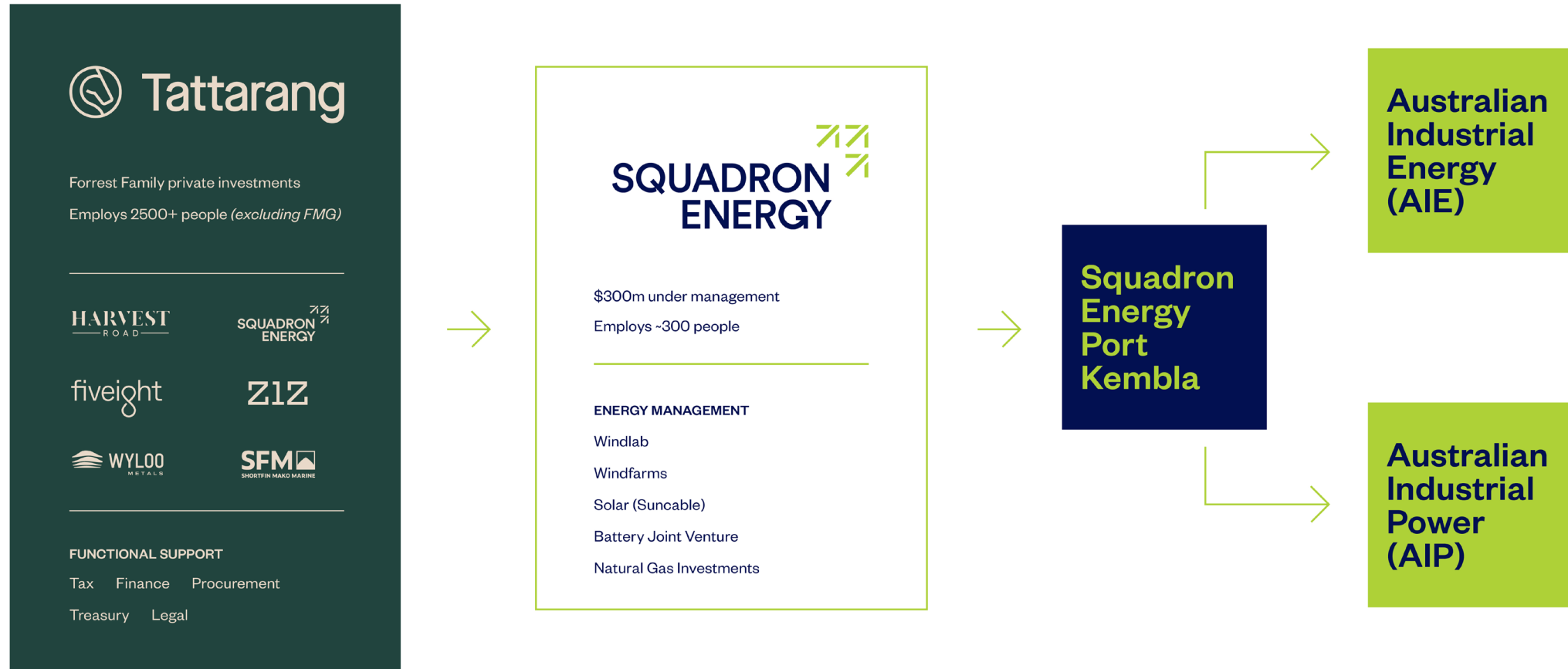
Squadron is building...

Clarke Creek Windfarm, in central Queensland.

- biggest grid-connected renewable energy project currently underway in Australia. One of the largest in the Southern Hemisphere.
- Will power 40% of Queensland households.



Squadron Energy



Guiding values

Squadron is guided by organisational values which should also guide our stakeholder engagement approach and relationship management. These values set an important precedent for how we communicate, engage and partner with all internal and external stakeholders.

Courage and Determination

NEGU – we never ever give up.

Empowerment

Go to your leader for advice, not permission.

Family

Support each other, always be kind.

Safety

Look out for your mates and yourself.

Stretch Targets

Always be uncomfortable with your level of challenge.

Generating Ideas

Always be on the lookout for breakthroughs.

Enthusiasm

Be the most positive person in the room.

Humility

Be vulnerable, take risks to trust others.

Integrity

Do what you say you you're going to do.

Frugality

Think of ways we can do things better, faster, cheaper, safer.

Vision and purpose

Our Vision

Accelerate Australia's transition to **Net Zero**

Our Purpose

Develop **infrastructure, technology and energy services** to achieve rapid decarbonisation

Strategic Pillars

Deliver safe, green
efficient power



Develop
and build the
infrastructure
required



Provide
energy services
to facilitate
the transition



Invest in new
technology



Advocate for
the energy
system of
the future



Community Engagement & Partnerships

- UCI Community Day partnership and activation
- Major Skills Roundtable with Minister Henskens
- UOW Global Leadership program

Coming up:

- UOW Climate Change Week panel
- Sustainability reporting and emissions targets
- Stakeholder strategy (partnerships, grants and community engagement)





Port Kembla Energy Terminal

Infrastructure for Australia's energy future

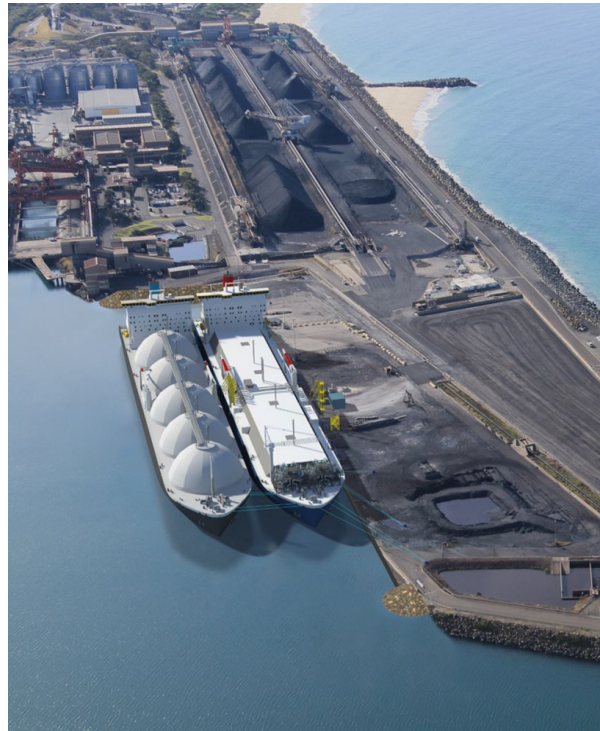
We're developing new infrastructure to supply the east coast gas market and support future exports

Port Kembla Energy Terminal (PKET)

- A new Energy Terminal to support domestic gas supply and future exports
- Construction cost: \$400 million for new berth & associated facilities at Port Kembla
- ~150 construction jobs, ~40-50 operational jobs
- Operate initially to supply gas to the east coast market
- Flexibly planned & designed as a future export facility

Supporting the Illawarra & energy future

- PKET will help establish the Illawarra region as a green energy hub and as one of five NSW Renewable Energy Zones



Timing certainty for customers

- Construction underway – wharf and facilities construction commenced in Jan 2022
- On schedule for construction completion Dec. 2023 Jemena contracting to build lateral to EGP (12km)
- Floating Storage Regasification Unit (FSRU) vessel secured

Fuel in transition

- Terminal designed to support the changing volume of GH2 in natural gas and play a key role in a managed energy transition
- Future proofing facilities to be hydrogen capable

What are we building?

New Wharf

- 472m tubular steel combi wall
- 15,000 tonnes of steel
- 450,000m³ of dredging
- Mooring equipment

Onshore facilities

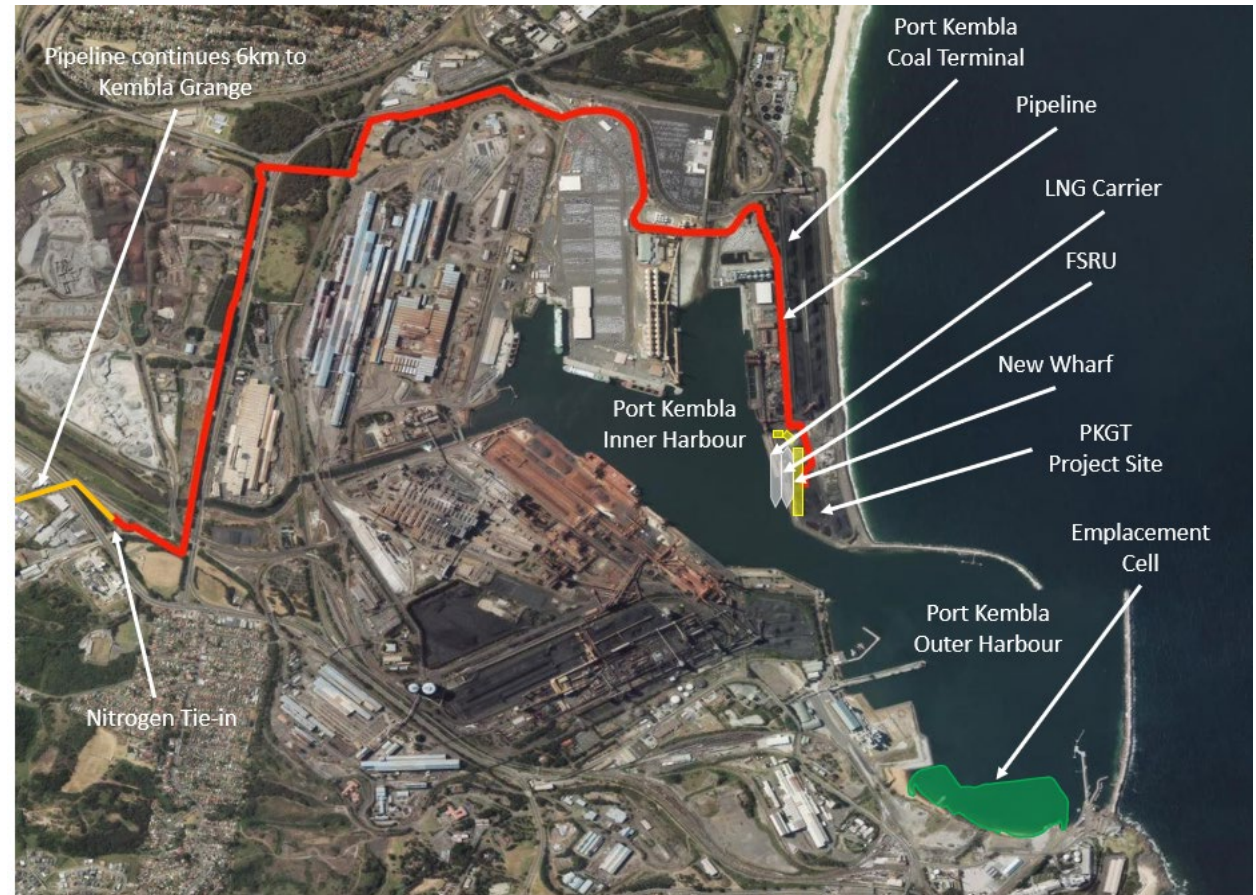
- 2 marine loading arms
- Power, utilities, control system
- Fire-fighting equipment

Gas pipeline

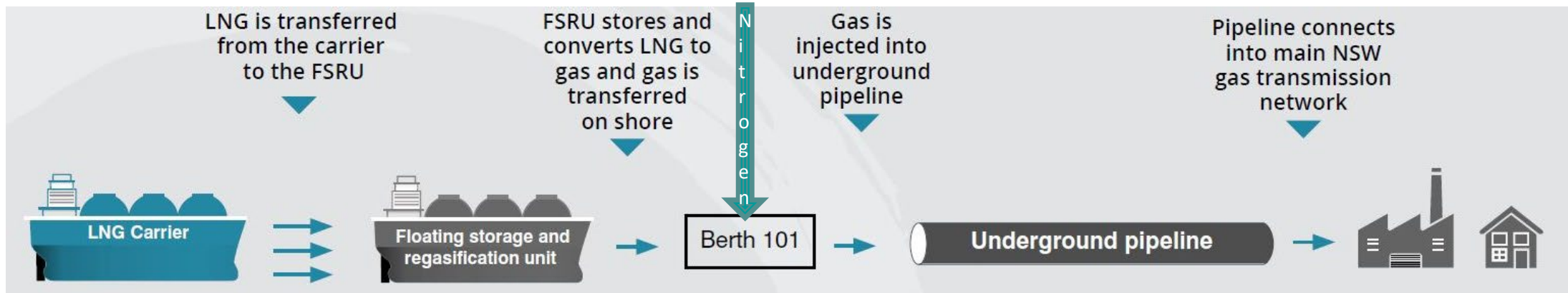
- 12.2 kilometres underground pipe
- 450mm diameter steel pipe
- Trenched and trenchless methods

Emplacement cell

- Contains dredged material
- Critical environmental aspects



How does it work?



- Liquefied Natural Gas (LNG) carriers arrive at Port Kembla and berth adjacent to the floating storage and regasification unit (FSRU) moored at Berth 101
- LNG at about -160°C is transferred via loading hoses onto the FSRU and stored. About 70,000 tonnes of LNG are on each shipment
- LNG is regasified onboard the FSRU using seawater
- Gas is then transferred via an onshore receipt facility to the pipeline
- Nitrogen is injected at the wharf to meet quality specifications
- The pipeline connects into the main gas transmission network



Approvals and the Environment

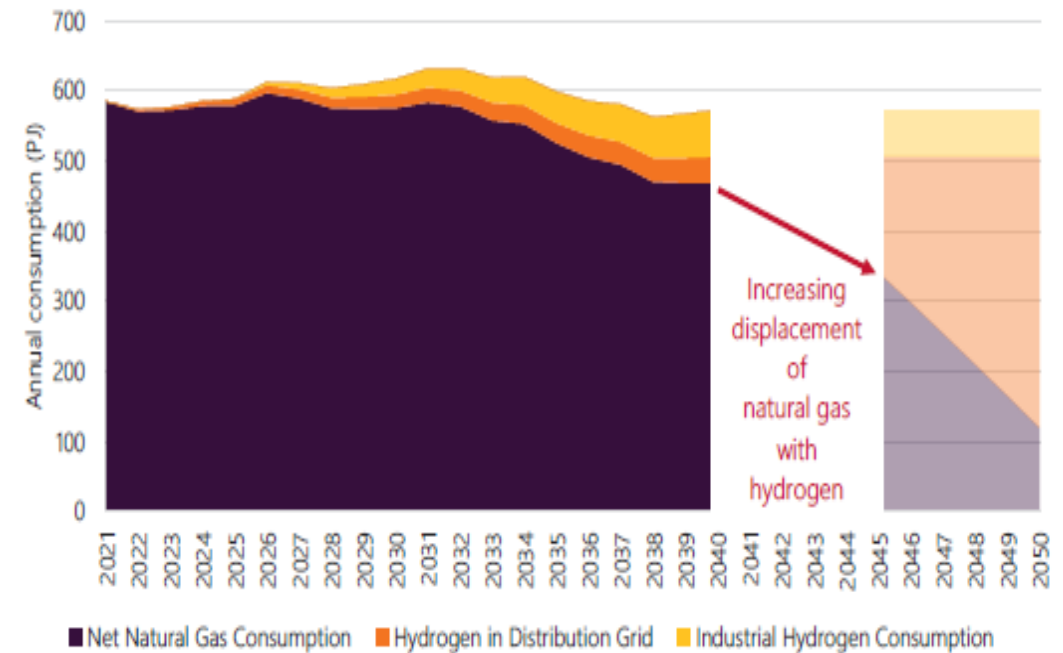
- Squadron works in accordance with their Infrastructure Approval which requires approved Environmental Management Plans and an Environment Protection Licence
- Historic contaminated and reclaimed land complicated by land ownership structure through NSW Ports and TfNSW
- Landowner agreements and Management Plans provide methods for accessing land, managing our work, handling unexpected finds and minimising environmental risk



Hydrogen Future

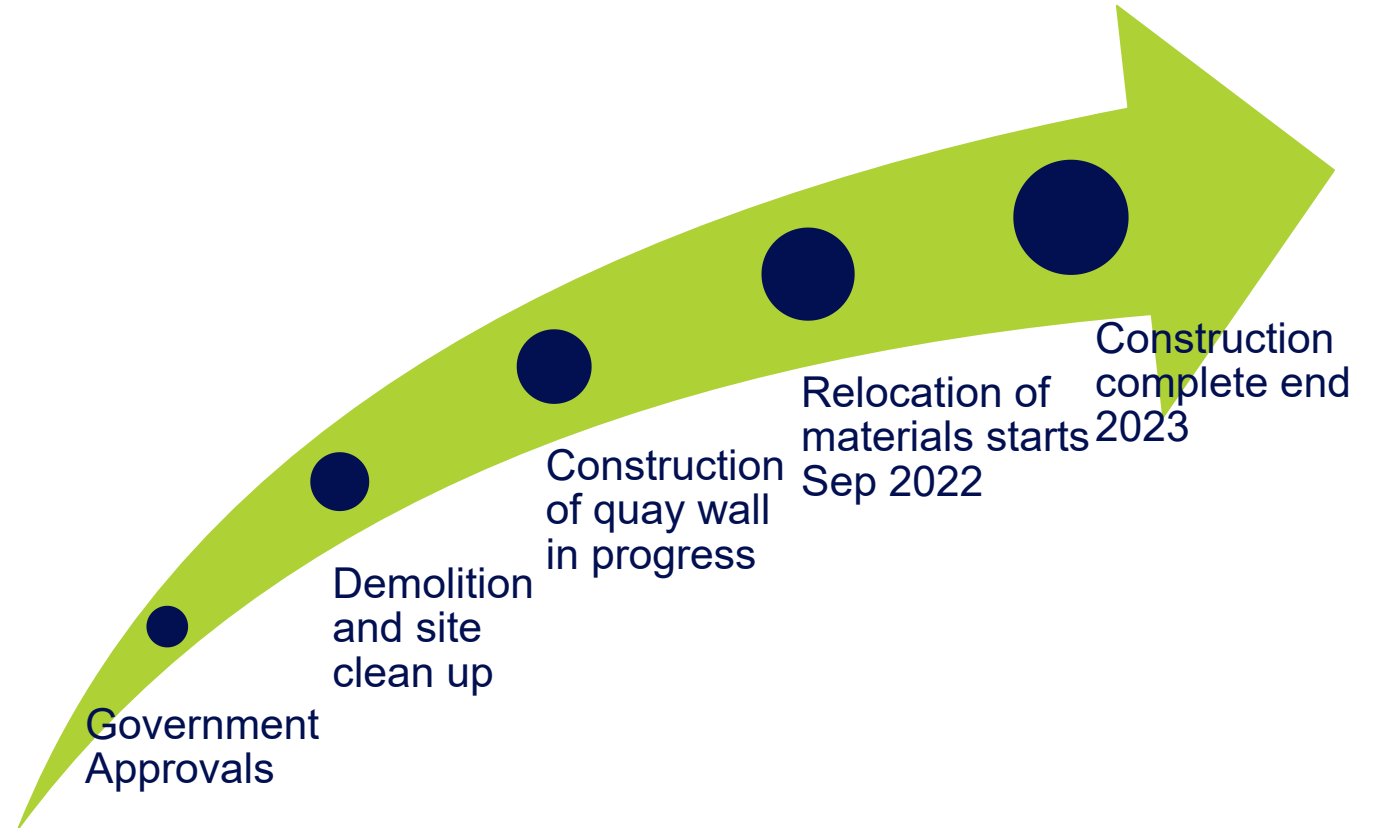
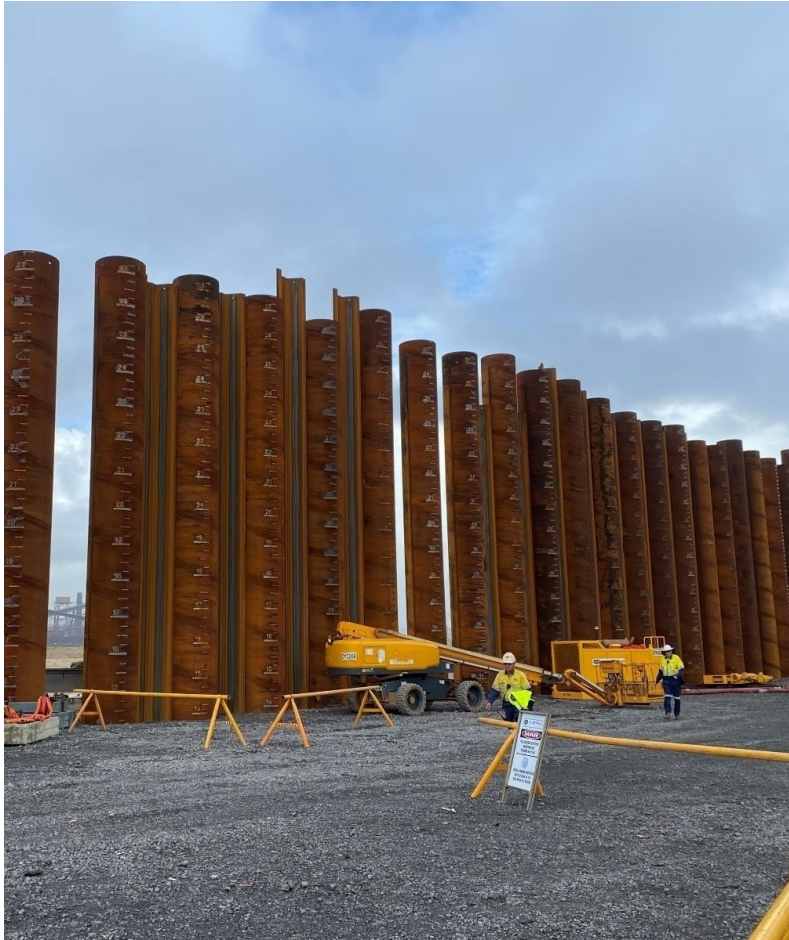
- PKET is being built to allow for transition to hydrogen export/import
- Joint study with Hoegh re: LNG and Hydrogen/Ammonia FSRU
- Lateral pipe specially procured and is 100% H2 compatible
- Working with Jemena on increasing H2 % in EGP
- Facility ideally positioned for export from proposed Port Kembla hydrogen hub

AEMO - Assumed hydrogen impact on gas consumption



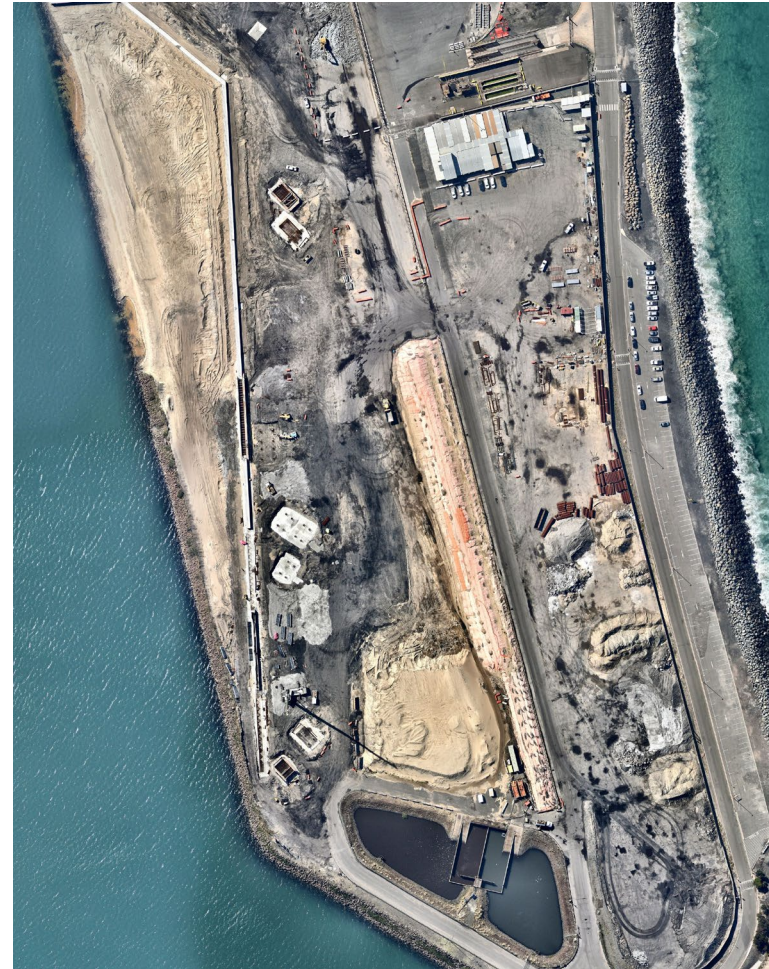
Source: AEMO 2022 GSOO

Project status



Next steps (September 2022):

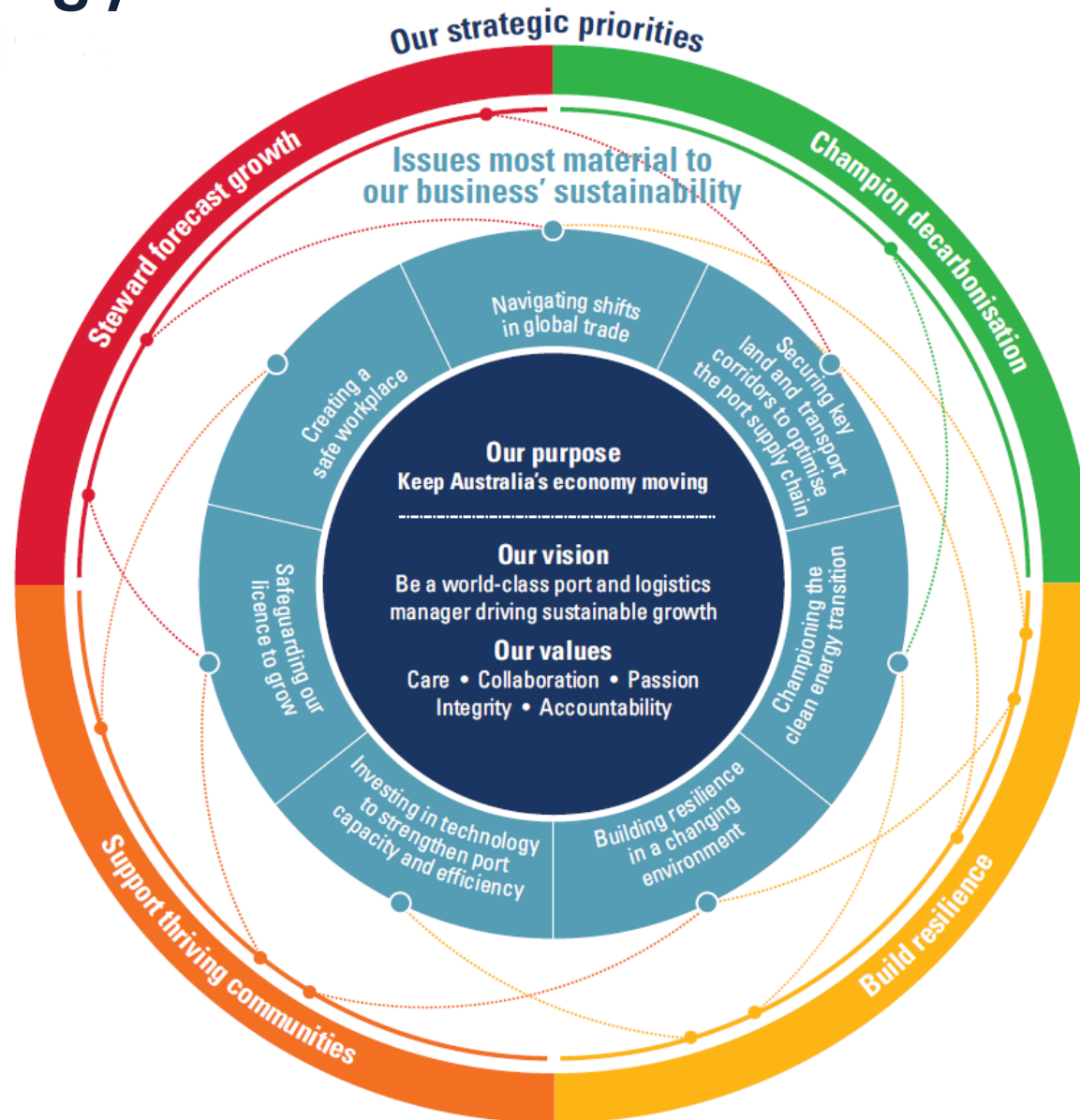
- Spread of vessels to relocate materials from the wharf to the emplacement cell have arrived
- Relocation of materials (Sept 2022 - February 2023)
- Hydrogen-ready pipeline arrives (November 2022)
- Pipeline construction projected to commence (December 2022)
- Project is due to be completed by December 2023





NSW Ports
Sustainability

Our strategy



Steward Forecast Growth



Key Initiatives

- Updated sustainable development code
- Advocacy for the protection of industrial lands
- Shift freight to rail

Our Targets

- 100% of development projects comply with our sustainable development code
- No loss of industrial land surrounding our assets
- Year-on-year increase in freight on rail to and from our ports

SDG Target Alignment

Key SDGs	
	9.1 Develop quality, reliable, sustainable and resilient infrastructure to support economic development and well-being.
	11.3 By 2030, enhance inclusive and sustainable urbanisation. 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.




Champion Decarbonisation






Key Initiatives

- Invest in renewable energy
- Use procurement to work with our suppliers to decarbonize their operations
- Work with our customers and tenants to develop decarbonisation roadmaps for our precincts

Our Targets

-  Net zero scope 1 and 2 greenhouse gas emissions by end of FY2025
-  Define, measure and reduce our scope 3 emissions
-  100% renewably sourced electricity by end of FY2025

SDG Target Alignment

Key SDGs	
	13.3 Build knowledge and capacity to meet climate change.
	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
	12.6 ... adopt sustainable practices and integrate sustainability information into their reporting.



Build Resilience



Key Initiatives

- Understand and manage the risks and opportunities for our business associated with climate change and align with the TCFD
- Invest in smart technology to help us manage environmental factors across our assets
- Strengthen our IT security


Our Targets

- 
 >90% of training, drills and exercises in our business resilience framework completed by due date
- 
 All material climate related risks identified and embedded in organisational risk registers

SDG Target Alignment

Key SDGs

13 CLIMATE ACTION



13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters.

13.3 Build knowledge and capacity to meet climate change.

Support Thriving Communities



Key Initiatives

- Continue to engage with and invest in our local communities
- Promote reconciliation with local Aboriginal and Torres Strait Islander peoples
- Support and develop our staff and provide a safe and healthy workplace
- Uphold human rights in the supply chain

Our Targets

- Establish a social impact monitoring and evaluation framework
- >90% of safety actions closed by due date
- Maintain an employee engagement score of more than 75%

SDG Target Alignment

Key SDGs

- | | |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8
DECENT WORK AND ECONOMIC GROWTH
 | 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking.

8.8 Protect labour rights and promote safe and secure working environments for all workers. |
| 5
GENDER EQUALITY
 | 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making. |
| 10
REDUCED INEQUALITIES
 | 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. |

Our Purpose

Keep Australia's economy moving

Our Vision

Be a world class port and logistics manager driving sustainable growth

Our Values



Care



Collaboration



Passion



Integrity



Accountability

Issues most material to our business' sustainability

Navigating shifts in global trade
Securing key land and transport corridors to optimise supply chain efficiency

Championing the clean energy transition

Building resilience in a changing environment
Investing in technology to strengthen port capacity, efficiency

Safeguarding our social license to grow
Creating a safe & healthy work environment for people

Strategic priorities

Steward forecast growth

Champion decarbonisation

Build resilience

Support thriving communities

What success looks like

Our ports and intermodal terminals are fit for purpose, sustainably managed assets now and into the future.
Our stakeholders are informed about our strategic role in society and are collaborating with us to create a sustainable port supply chain.



We have decarbonised our own operations.
We are effectively collaborating on the decarbonisation of our broader port and intermodal terminal precincts



We have the systems, processes and relationships in place to enable our business to withstand and adapt to changing conditions and to recover positively from shocks and stresses.



Our communities feel engaged, positively impacted by our business and are invested in our success.
Our workplaces are safe, healthy, diverse and inclusive environments that support the wellbeing, professional development and engagement of our people.



Key initiatives

1. Update sustainable development code
2. Advocate for the protection of strategic transport corridors and industrial lands
3. Implementation of rail strategy to shift greater proportion of goods from road to rail

1. Invest in renewable energy
2. Implement sustainable procurement plan
3. Develop decarbonisation roadmaps for our precincts

1. Complete Transition Risk study
2. Align with TCFD
3. Invest in smart technology
4. Strengthen IT security

1. Community engagement and investment
2. Reconciliation action
3. WHS program
4. Professional development program
5. Uphold human rights in the supply chain

Targets

100% of development projects comply with our sustainable development code & Environmental Management Plans.
No loss of industrial zoned land surrounding our ports and intermodal terminals.
Year-on-year increase in freight on rail.

Net zero scope 1 & 2 emissions by end of FY25.
Define and measure our scope 3 emissions and work with our customers & suppliers to reduce these.
100% renewably sourced electricity.

>90% of training, drills & exercises in our business resilience framework completed by due date.
All material climate-related risks (physical and transition) identified and embedded in organisational risk registers by end of FY25.

Establish new social impact monitoring & evaluation framework.
>90% of safety actions closed by due date.
Maintain an employee engagement score of >75%.