

# **Dubbo Firming Power Station**

**Independent Planning Commission  
Presentation – April 2024**

# Acknowledgement to Country

Squadron Energy acknowledges the Traditional Custodians on 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.





# Agenda

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# About Squadron Energy

Squadron Energy is Australia's leading renewable energy company that develops, operates and owns renewable energy assets in Australia.

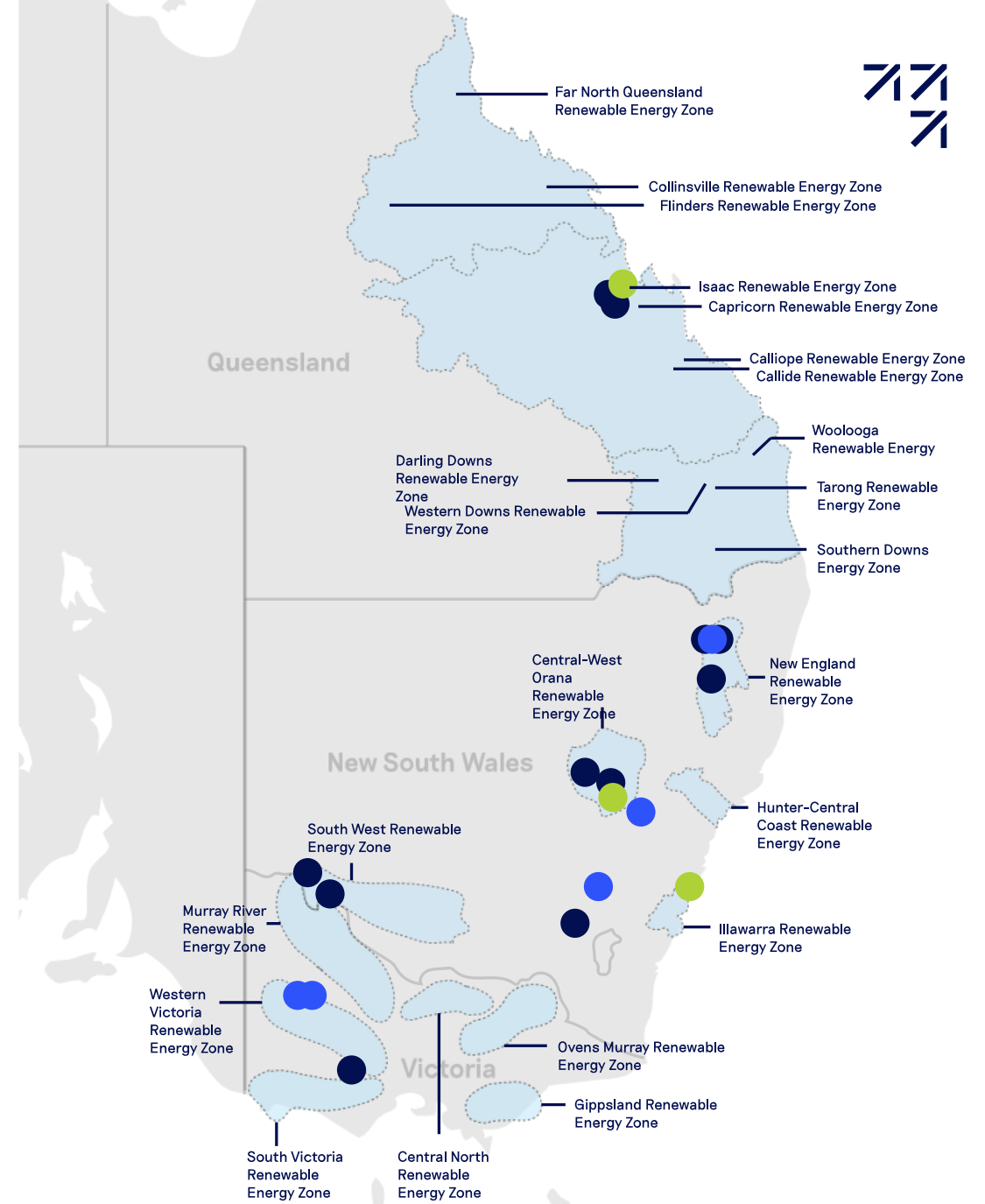
We are 100% Australian owned and have 1.1 gigawatts (GW) of renewable energy in operation and 900MW under construction.

We are committed to launching 14GW of projects by 2030, powering the equivalent of six million homes.

This will deliver one third of the renewable energy required for Australia to meet its 2030 renewable energy target of 82%.

With proven experience and expertise across the project lifecycle, we work with local communities and our customers to lead the transition to Australia's clean energy future.

-  **In development**
-  **Under construction**
-  **Operating**





# Project overview

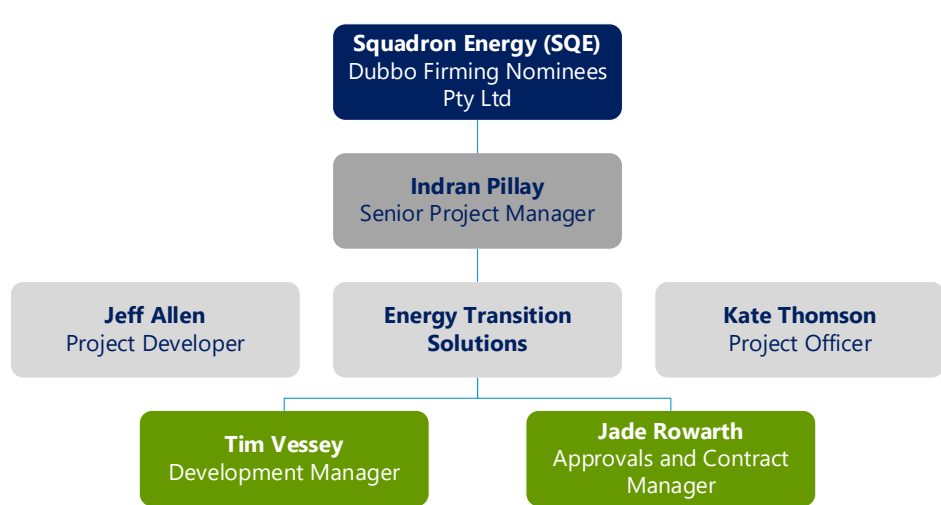
## Dubbo Firming Power Station

# Project overview

## Our team



- Dubbo Firming Nominees Pty Ltd is the proponent for the **State Significant Development Application SSD-28088034** and is a wholly owned subsidiary of Squadron Energy which is part of the Tattarang group of companies
- Squadron Energy and our development partner Energy Transition Solutions have worked together to prepare and submit an SSD application for the development of **Dubbo Firming Power Station**
- **Tattarang** is the private investment group of Andrew and Nicola Forrest – it is one of Australia’s largest private investment groups



# Project overview

## Dubbo Firming Power Station



Maximum capacity



Renewable energy firmed



Direct jobs created

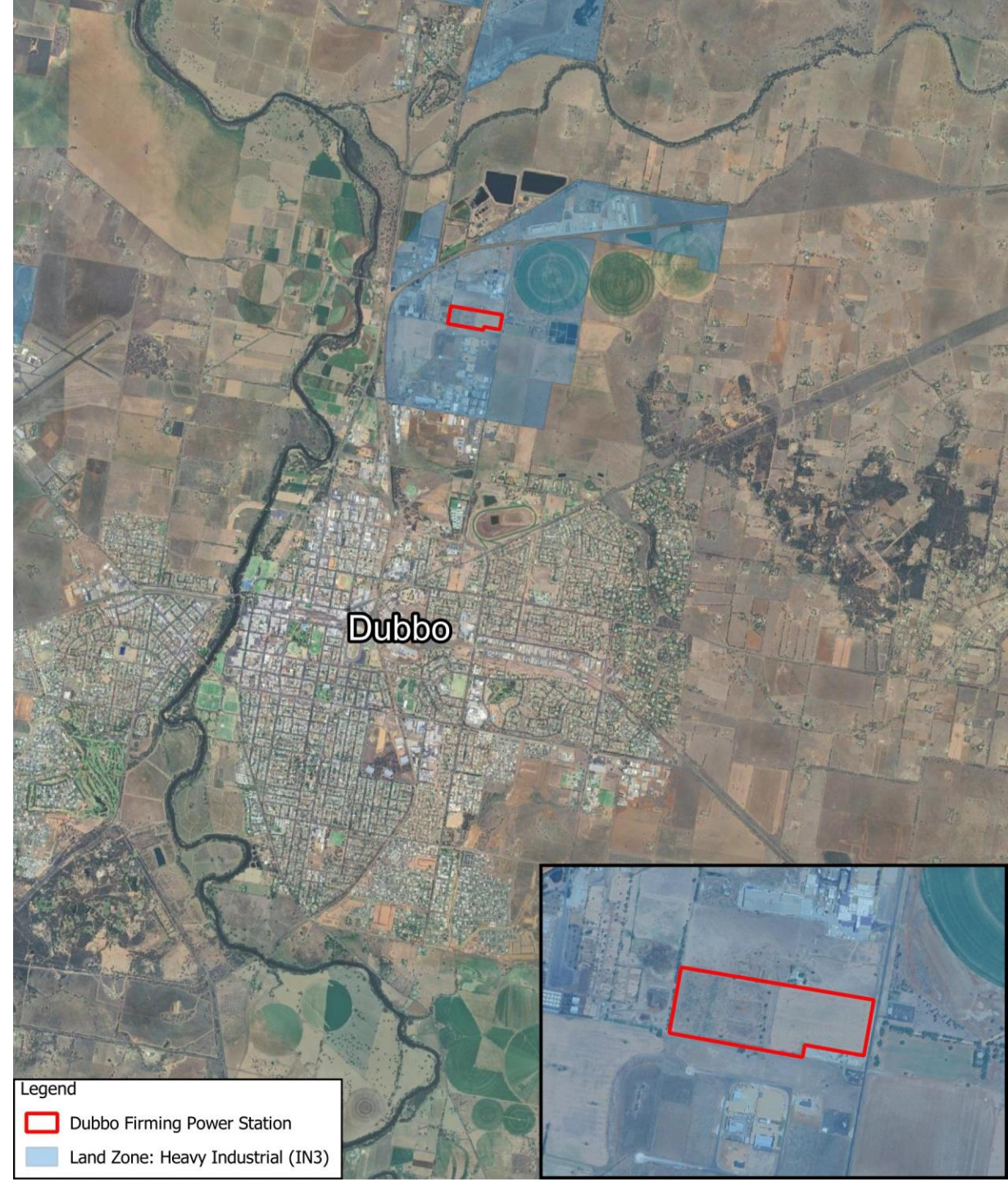
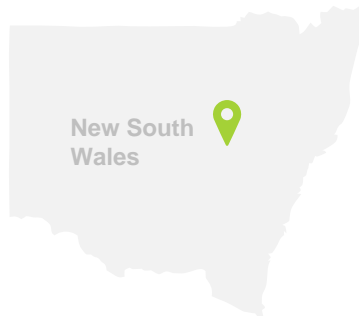


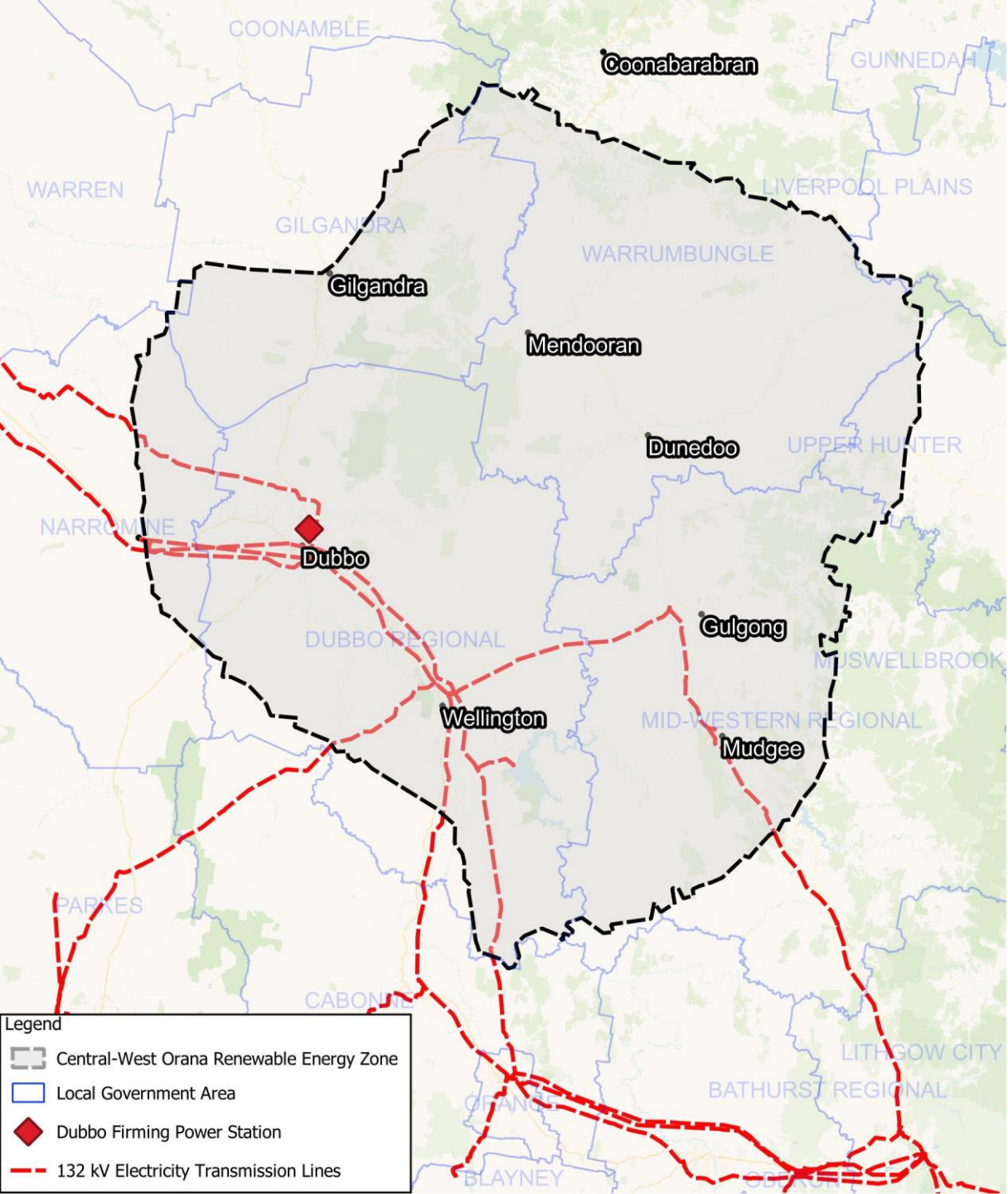
Capital investment value

SQE propose to develop a firming power station located at 28L Yarranandale Road Dubbo NSW 2830 (Project site). The project site is located approximately 4km North of Dubbo's town centre. The project site will have a nominal capacity up to 64MW comprising of generators that are capable of operating with gas and hydrogen blends. Ancillary facilities will include:

- Onsite buried gas storage pipeline approximately 2.5km long
- Gas compression and regulation facilities
- Hydrogen generation (up to 20MW), compression, storage and blending facilities
- Administration buildings and storage facilities

The power station will operate as a firming plant in support of SQE's renewable energy portfolio.





# Project overview

## Strategic context



The project site has been selected as the prefer site due to its strategic location within the Central West Orana Renewable Energy Zone. The CWO REZ will initially look to unlock at least 4.5 gigawatts of new network capacity by the mid-2020's. Dubbo Firing Power Station will provide 'firming' services to renewable energy developments within the REZ. The project site is located within the heavy industrial zone which also provides key supporting infrastructure requirements including:

- Proximity to existing gas transmission pipelines and facilities;
- Proximity to existing high voltage electricity network and;
- Access to major roads and highways

**“** ...or there are significant maintenance outages or surges in demand for electricity, firming electricity supply is required to maintain stability in the grid. **”**

Source: Dubbo Firing Power Station, State Significant Development Assessment Report (SSD-28088034)





# DPHI Assessment Report

Squadron Energy feedback

# SQE Assessment Report Feedback

## Project scope and land tenure

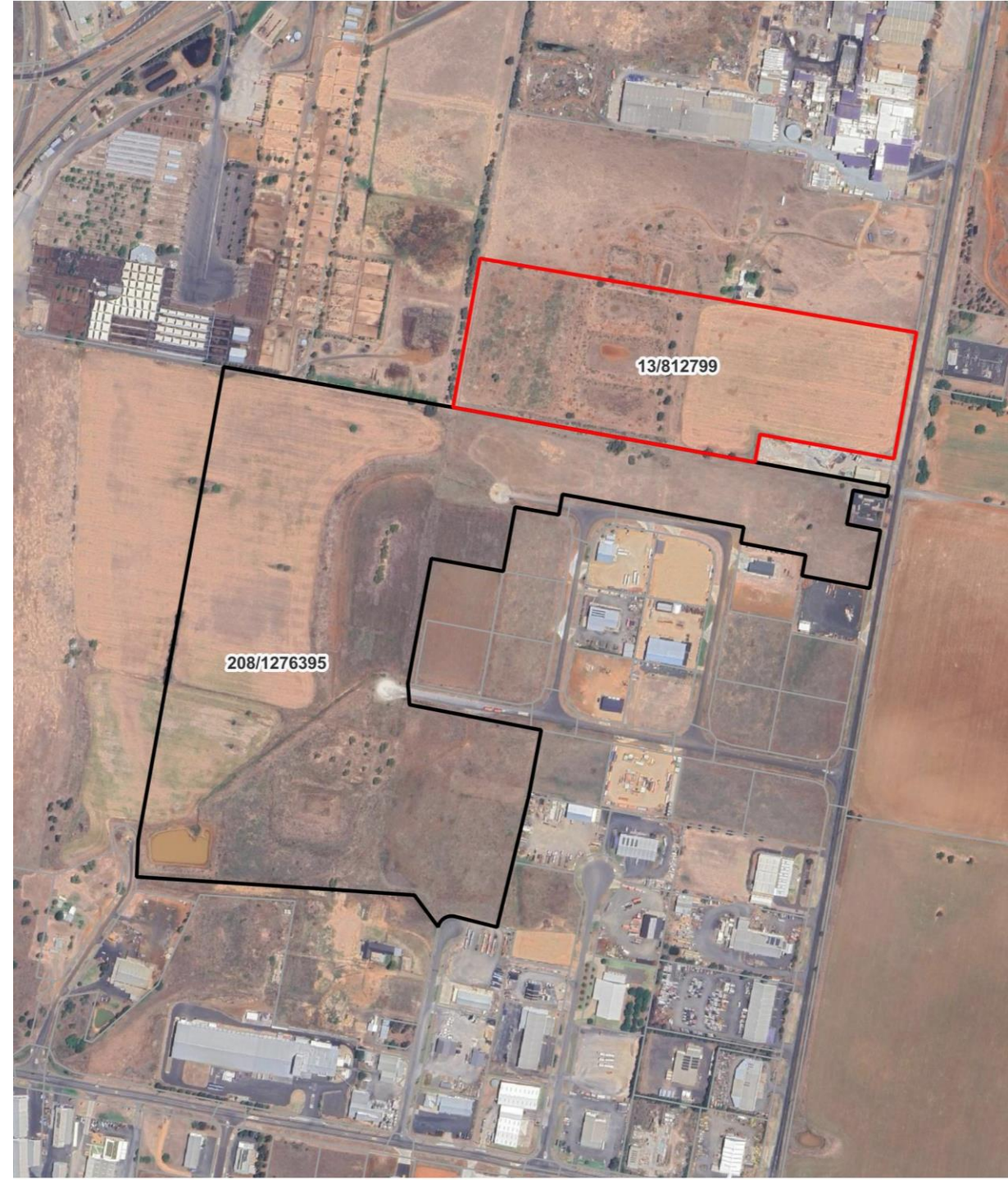
Development consent pursuant to Division 4 of the EP&A Act is sought for:

- The construction and operation of the Project at the Project Site on Lot 13 of DP812799
- The construction and operation of the gas connection pipeline within land parcel Lot 208 of DP1276395

No development consent is sought for the installation of the electricity transmission line connecting the Project to the Yarrandale Substation because those works will be separately assessed under Part 5, Division 5.1 of the EP&A Act under a process to be managed by Essential Energy (as a determining authority under that Act).

### Proposed new condition

This consent applies to the construction and operation of the Power Station, the Hydrogen Plant and the Gas Connection Pipeline to be undertaken on the Site (Lot 13 of DP812799 and part of Lot 208 DP1276395). This consent does not apply to the construction and operation of the electricity transmission line shown as 66kV Powerline from EE Substation on Appendix 1 which is to be separately assessed by Essential Energy under Part 5, Division 5.1 of the EP&A Act.



# Feedback on DPHI Assessment Report



## Recommended Condition of Consent: Appendix 2 – General Terms of Applicants VPA Offer

Dubbo Regional Council (DRC) sets the policy position for planning agreements in the Renewable Energy Benefit Framework. SQE has been working with DRC to frame the key terms of the planning agreement. An updated offer has been provided to DRC which proposes the commercial terms for the planning agreement is a lump sum payment of 0.5% of the project CIV value (confirmed via email 11/04/24).

Condition A10 provides for a payment of \$1,425,000 (adjusted annually for CPI) from the commencement of construction. This amount has been calculated by applying 0.75% to the capital investment value (CIV) set out in the EIS of \$190,000,000. SQE propose an amendment to Appendix 2 as referred to in Condition A10 to align with the current offer made to DRC.

### Current Condition: Appendix 2 – General Terms of Applicants VPA Offer

Council	Payment details
Dubbo Regional Council	Payment of \$1,425,000 (adjusted annually for CPI), from the commencement of construction.

### Proposed Condition Amendment

Council	Payment details
Dubbo Regional Council	Payment of a total amount of \$950,000 paid at the commencement of construction.

# Feedback on DPHI Assessment Report

## Recommended Condition of Consent: Air Quality; Final Design Verification



- SQE is committed to ensuring that the Project complies from the first day of operation with the emissions limits set out in the *Clean Air Regulations* and its engagement with prospective turbine suppliers has always been on this basis
- SQE seeks a minor amendment to the opening sentence of Condition B4 by the following amendment (confirming outcomes of assessments to date and compliance with the Clean Air Regs).

### Current condition

B4. Unless otherwise agreed by the Planning Secretary, a revised air quality impact assessment for the final plant design must be prepared.

### Proposed amendment

B4. Unless otherwise agreed by the Planning Secretary, a revised air quality impact assessment for the final plant design must be prepared to **confirm the air emission performance of the power station.**

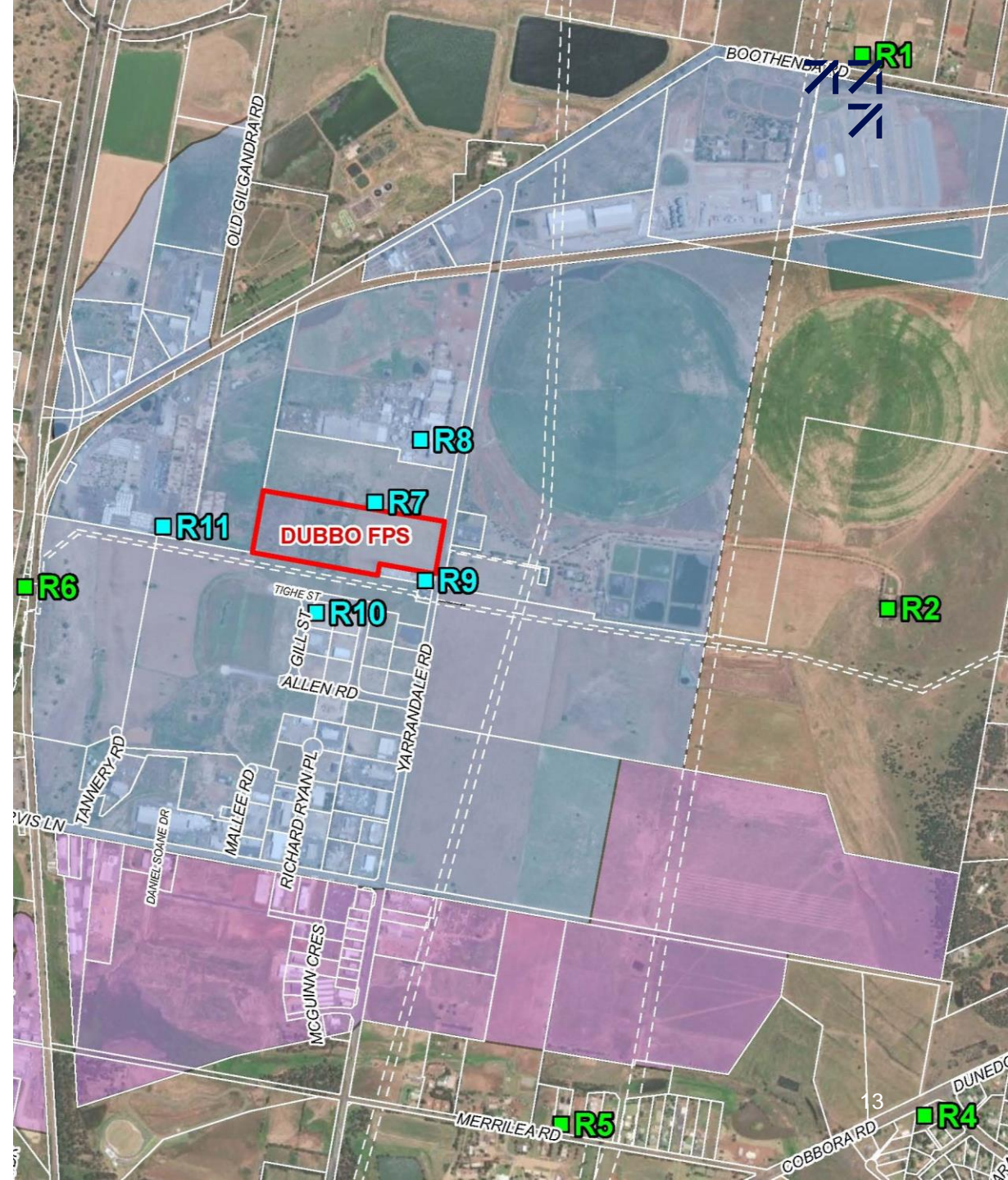
# Feedback on DPHI Assessment Report

## Recommended Condition of Consent: Operational Noise B.21

The Noise Impact Assessment for the Project selected the suburban category for receivers R1-R3 and R5 and the urban category for R4 and R6 based on Table 2-3 of the NSW Noise Policy for Industry 2017.

Condition B21 has applied criteria relevant to the suburban category for receiver R4.

Squadron Energy proposes an amendment to this condition to ensure that R4 is correctly categorised in the urban category.



# Feedback on DPHI Assessment Report

## Recommended Condition of Consent: Operational Noise B.21



The project noise trigger levels (PNTLs) were established in accordance with the principles and methodologies of the NSW Noise Policy for Industry (EPA 2017). These principles indicate that the PNTLs for Residential – Urban are: Day **57**; Evening **48**, Night **43** with Sleep Disturbance **58**.

### Current condition

B21. Noise generated by the development must not exceed the criteria at the residences identified in Table 1.

Table 1: Operational noise criteria dB(A)

Residences <sup>a</sup>	Day L <sub>Aeq</sub> (15 min)	Evening L <sub>Aeq</sub> (15 min)	Night L <sub>Aeq</sub> (15 min)	Sleep Disturbance L <sub>AFmax</sub>
R1, R2, R3, R4, R5	40	35	35	52
R6	40	38	38	52

<sup>a</sup> The locations of the residences referred to in Table 1 are shown in the figure in Appendix 3.

### Proposed amendment

Squadron Energy proposes an amendment to these limits to align with the PNTLs set out in Table 5-2 of the Noise Impact Assessment appended to the EIS (refer to Appendix 3)

Residences	Day L <sub>Aeq</sub> (15 min)	Evening L <sub>Aeq</sub> (15min)	Night L <sub>Aeq</sub> (15 min)	Sleep Disturbance L <sub>AFmax</sub>
R1,R2,R3,R5	40	45	35	52
<b>R4, R6</b>	<b>57</b>	<b>48</b>	<b>43</b>	<b>58</b>

# Thank You

Any Questions?

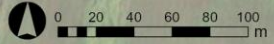
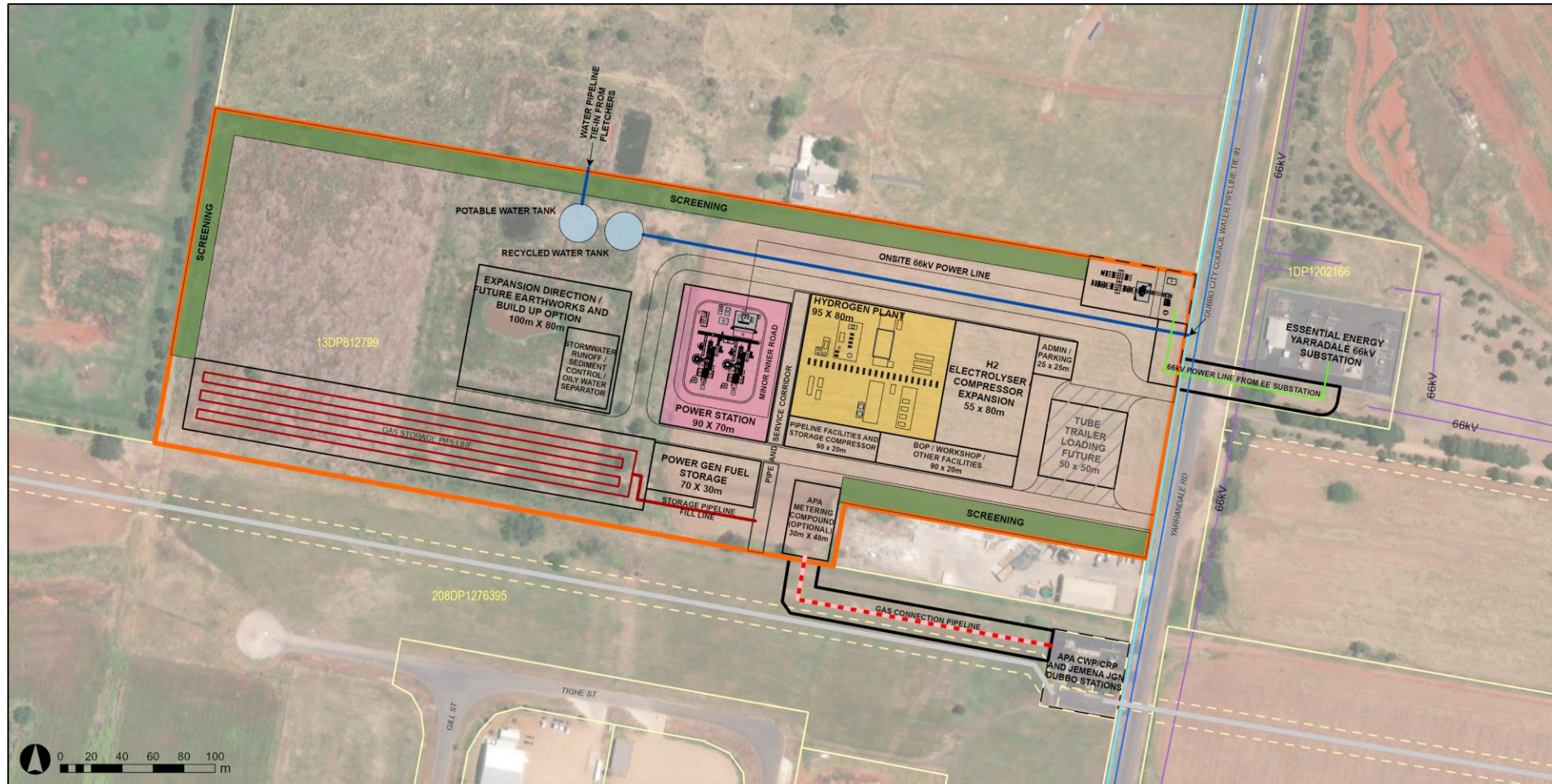
[WWW.SQUADRONENERGY.COM](http://WWW.SQUADRONENERGY.COM)

# Appendix 1

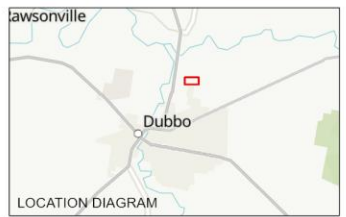
Project site map



# Dubbo Firming Power Station



Disclaimer: Energy Transition Solutions Pty Ltd makes no warranty in relation to the accuracy, reliability, completeness or suitability of the data and does not accept liability for any loss, damage or costs, including consequential damage, in relation to any use of the data in this map.



- LEGEND**
- PROJECT SITE
  - SUBJECT LAND
  - POWER STATION
  - HYDROGEN PLANT
  - 66kV POWER LINE
  - GAS STORAGE PIPELINE
  - WATER PIPELINE
  - GAS CONNECTION PIPELINE
  - EXISTING POTABLE WATER MAIN
  - EXISTING RECYCLED WATER MAIN
  - EXISTING TRANSMISSION LINE
  - EXISTING APA PIPELINE
  - CADASTRAL BOUNDARY
  - EASEMENT

PROJECT <b>Dubbo Firming Power Station</b>		
TITLE <b>INDICATIVE SITE LAYOUT</b>		
DATE 25/01/2024	STATUS APPROVED	PRODUCED MVC
DATUM GDA2020 MGA Zone 55	APPROVED TV	
FILE EIS Indicative Site Layout D	REV C	

# Appendix 2

## Noise Impact Assessment

# Dubbo Firming Power Station: Environmental Impact Statement



## Noise Impact Assessment: Table 5-2

Table 5-2: Project Noise Trigger Levels (PNTL) for Operational Activities, dB(A)

Receiver	Type of Receptor	Time of day	Rating background noise level	Project intrusiveness noise level $L_{Aeq, 15 \text{ minute}}$	Recommended amenity noise level $L_{Aeq \text{ period}}$	Project amenity noise level $L_{Aeq, 15 \text{ minute}}^3$	PNTL $L_{Aeq, 15 \text{ minute}}$	Sleep Disturbance $L_{Amax}$
R1-R3, R5	Residential – Suburban	Day	35 <sup>1</sup>	<b>40</b>	55	53	<b>40</b>	<b>52</b>
		Evening	30 <sup>1</sup>	<b>35</b>	45	43	<b>35</b>	
		Night	30 <sup>1</sup>	<b>35</b>	40	38	<b>35</b>	
R4, R6	Residential – Urban	Day	52 <sup>2</sup>	<b>57</b>	60	58	<b>57</b>	<b>58</b>
		Evening	48 <sup>2</sup>	53	50	<b>48</b>	<b>48</b>	
		Night	43 <sup>2</sup>	48	45	<b>43</b>	<b>43</b>	
R7-R12	Industrial	When in use	-	-	70	<b>68</b>	<b>68</b>	-

Notes:

- 1) The RBLs have been set to the minimum RBL based on the noise levels at logger 1 (NSW Noise Policy for Industry Section 2.3).
- 2) The RBLs have been chosen based on the results of attended location 3.
- 3) These levels have been converted to  $L_{Aeq, 15 \text{ minute}}$  using the following:  $L_{Aeq, 15 \text{ minute}} = L_{Aeq \text{ period}} + 3 \text{ dB}$  (NSW Noise Policy for Industry Section 2.2).

# Appendix 3

About Us

# We are Squadron Energy



Australia's leading renewable energy company



Five operational projects delivering 1.1GW of renewable energy and 900MW currently under construction



Launching 14GW of projects by 2030 - powering the equivalent of six million homes



Critical, advanced stage, gas import terminal to firm renewables with no new gas fields



# Our Impact



**1.78m**  
HOMES  
POWERED\*



**7m**  
TONNES OF  
EMISSIONS  
AVOIDED\*



**2,100**  
DIRECT  
JOBS  
CREATED\*



**\$350m**  
REGIONAL  
INVESTMENT\*

\* to date

# Our climate policy

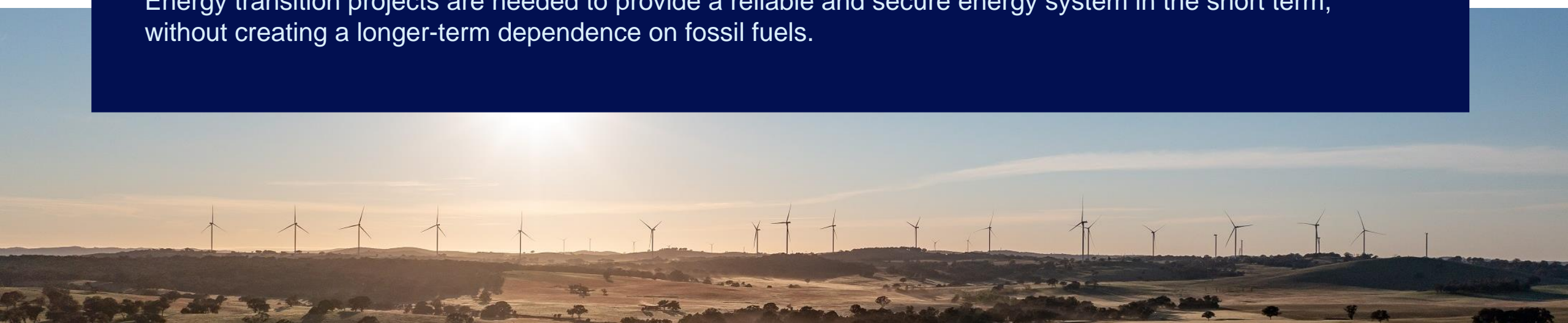
Human-made climate change is real. But we can do something about it. We want Australia to transition to a zero-carbon economy. Quickly.



Squadron Energy is focused on enabling more rapid decarbonisation. We invest in renewable generation and firming such as batteries, power stations and Australia's first energy terminal. These firming assets will complement renewable power generation when solar or wind power generation isn't available or sufficient.

We will invest in energy transition projects such as dual fuel (gas and green hydrogen) power generation that has a pathway to 100 per cent green hydrogen.

Energy transition projects are needed to provide a reliable and secure energy system in the short term, without creating a longer-term dependence on fossil fuels.



# First Nations engagement



We are committed to working closely with First Nations communities in a respectful and culturally sensitive way, to ensure that we understand the cultural issues surrounding our projects and deliver lasting benefits.

Our actions include:

- establishing First Nations Engagement and Stakeholders Facilitators based in each REZ
- improving employment outcomes by increasing First Nations recruitment, retention and professional development
- increasing First Nations supplier diversity to support improved economic and social outcomes.





# Regional economic development

Creating long-term value for the local economies and communities



Direct jobs created



Injected into regional communities

**Renewable energy will be a major source of employment as Australia transitions away from coal.**

Many of our own people have successfully moved from industries such as mining, to apply their project management, environment or safety skills to our renewable projects.

The requirement for learning workers and apprentices on REZ projects will ensure we develop the next generation of renewable workers.

## Community Investment Fund

We offered Australia's first, large-scale, public, community investment into a utility-scale wind farm.

The Sapphire Wind Farm Community Co-investment has allowed members of the local community to invest in Sapphire Wind Farm.

## Squadron Link Internet

Landholders constantly tell us there are multiple benefits of having access to a reliable internet service.

Squadron Link is a new internet service that will provide access to telehealth, agricultural technology, television services, in-paddock phone service improvement, work from home capability and access to online education.

## Skills uplift

We have partnered with TAFE NSW to develop an online "Introduction to the Wind Energy Industry" course.

The course will be made available to people from across Australia via TAFE NSW's online learning platform. This course is especially relevant for people upskilling or cross skilling into renewable energy.