



Bowmans Creek Wind Farm

Community Sessions - Hebden, Mount Olive

Tuesday, 12 August & Wednesday, 13 August 2025

Acknowledgement of Country

We acknowledge the Traditional Custodians of the land upon which we meet and their continuing connection to lands, waters and communities.

We pay our respects to Elders past and present.

Introductions

- Rebecca Riggs - Development Manager (Bowmans Creek Wind Farm)
- Daniel Gilbert - Project Director (Richmond Valley Solar & BESS)
- John Noonan - GIS Manager
- Logan Marcus - Graduate Engineer
- Amy Jones – Intern, NSW Development



Ark Energy

- Specialising in the development and operation of utility-scale:
 - Onshore wind and solar energy generation
 - Battery energy storage systems
 - Renewable hydrogen production.
- Team with 20+ years experience in renewables.
- Projects (12) in development in NSW, Qld. and Tas.
- 30% of MacIntyre Wind Farm
- Operation of Sun Metals Solar Farm – supplies ~25% of the Sun Metals zinc refinery's electricity needs .
- Solar assets in NT.
- Australian subsidiary of Korea Zinc, first major refiner to join RE100, committed to powering global operations from 100% renewable electricity by 2050
- Focused on decarbonising parent company Korea Zinc and other commercial and industrial customers, contributing to Australia's national electricity market.



Energy transition

- Australian Energy Market Operator (AEMO)'s roadmap for the National Electricity Market is the Integrated System Plan (ISP), updated every two years. 2024 ISP 'Step-change' scenario forecasts:
 - Coal generation will be retired by 2038.
 - Electricity consumption from the grid will nearly double by 2050.
 - Australia will require 127 GW of grid-scale variable renewable energy (six-fold increase, ~ 6 GW every year) and 49 GW of energy storage capacity by 2050.

National targets

- 82% energy in the National Electricity Market (NEM) from renewable sources by 2030.
- Emissions reduction of 43% (on 2005 levels) by 2030 and net zero by 2050 - *Climate Change Act 2022*.

Currently 40% of Australia's electricity generation comes from renewable sources (CEC 2025).

Figure 1 Coal capacity, NEM (GW, 2009-10 to 2049-50)

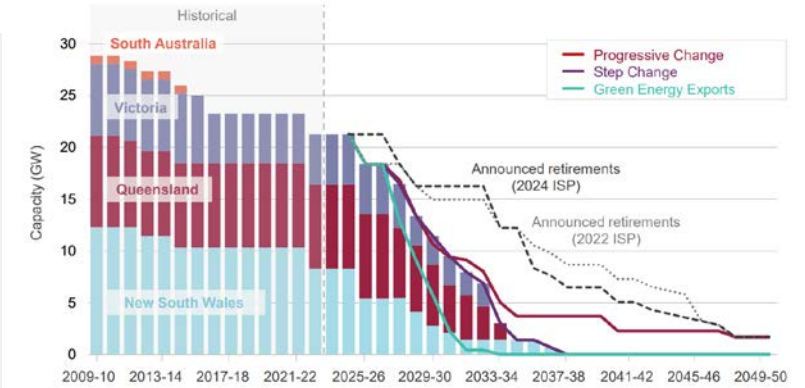
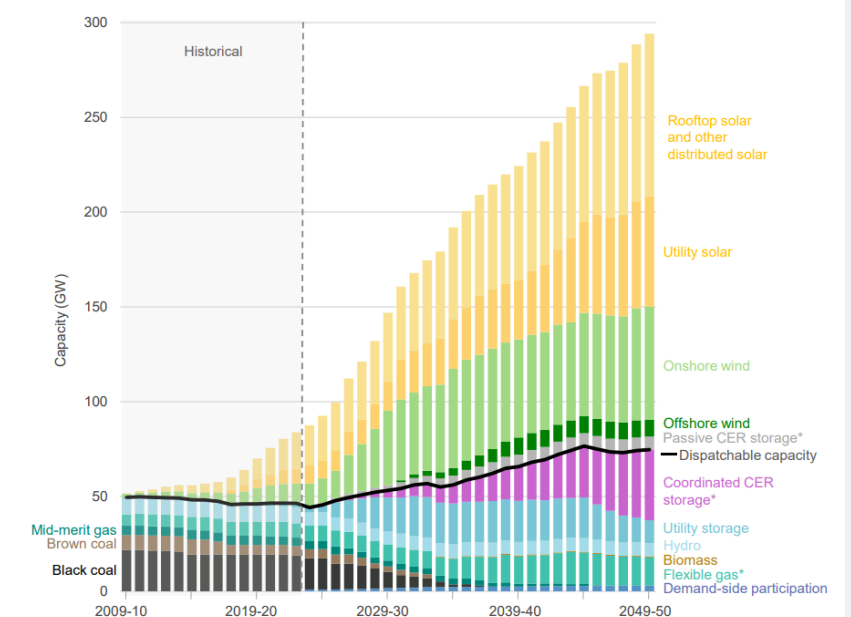


Figure 2 Capacity, NEM (GW, 2009-10 to 2049-50, Step Change)



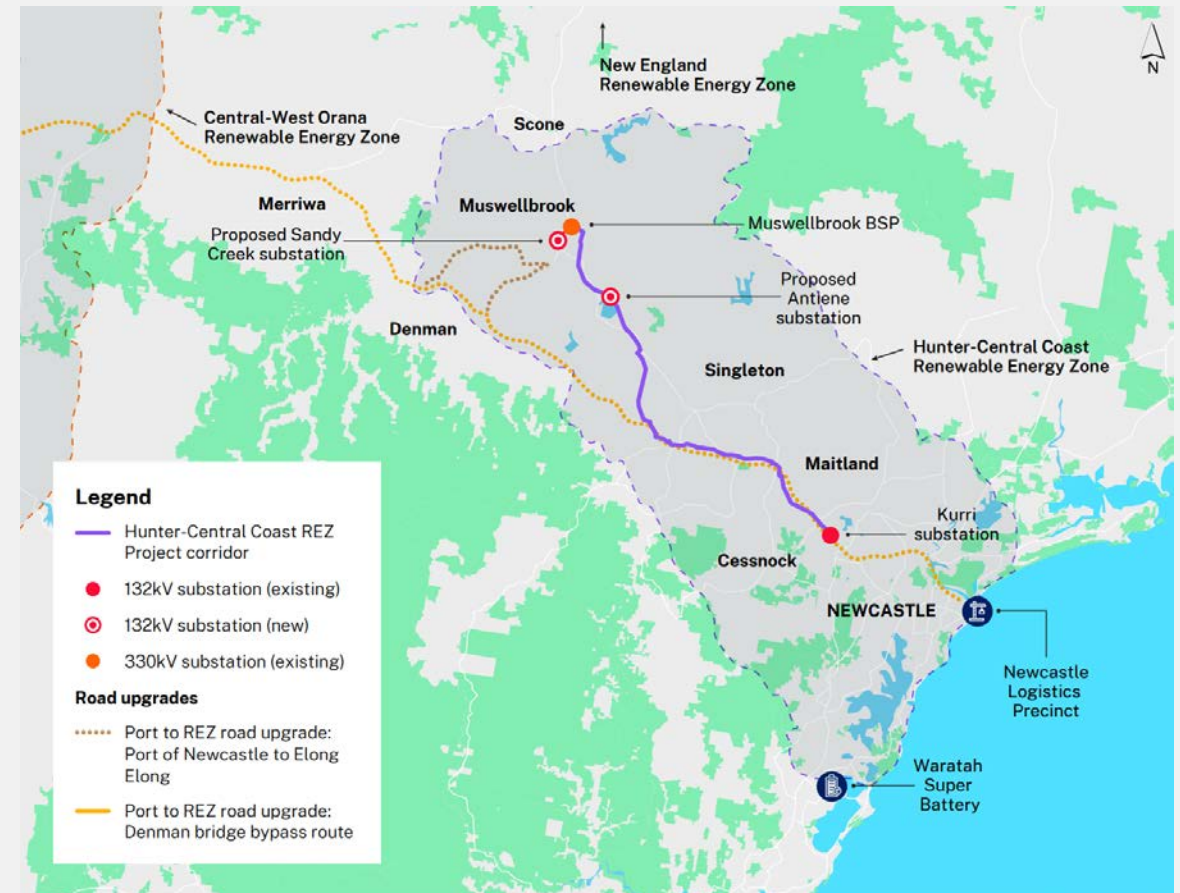
Notes: "Flexible gas" includes gas-powered generation and potential hydrogen capacity.
 "CER storage" means consumer energy resources such as batteries and electric vehicles.
 Projections for "Rooftop solar and other distributed solar" and "CER storage" are forecast based on unit costs, consumer trends and assumptions about payments received to participate in the electricity market.

Source: AEMO's 2024 Integrated System Plan (ISP)

Energy transition - NSW

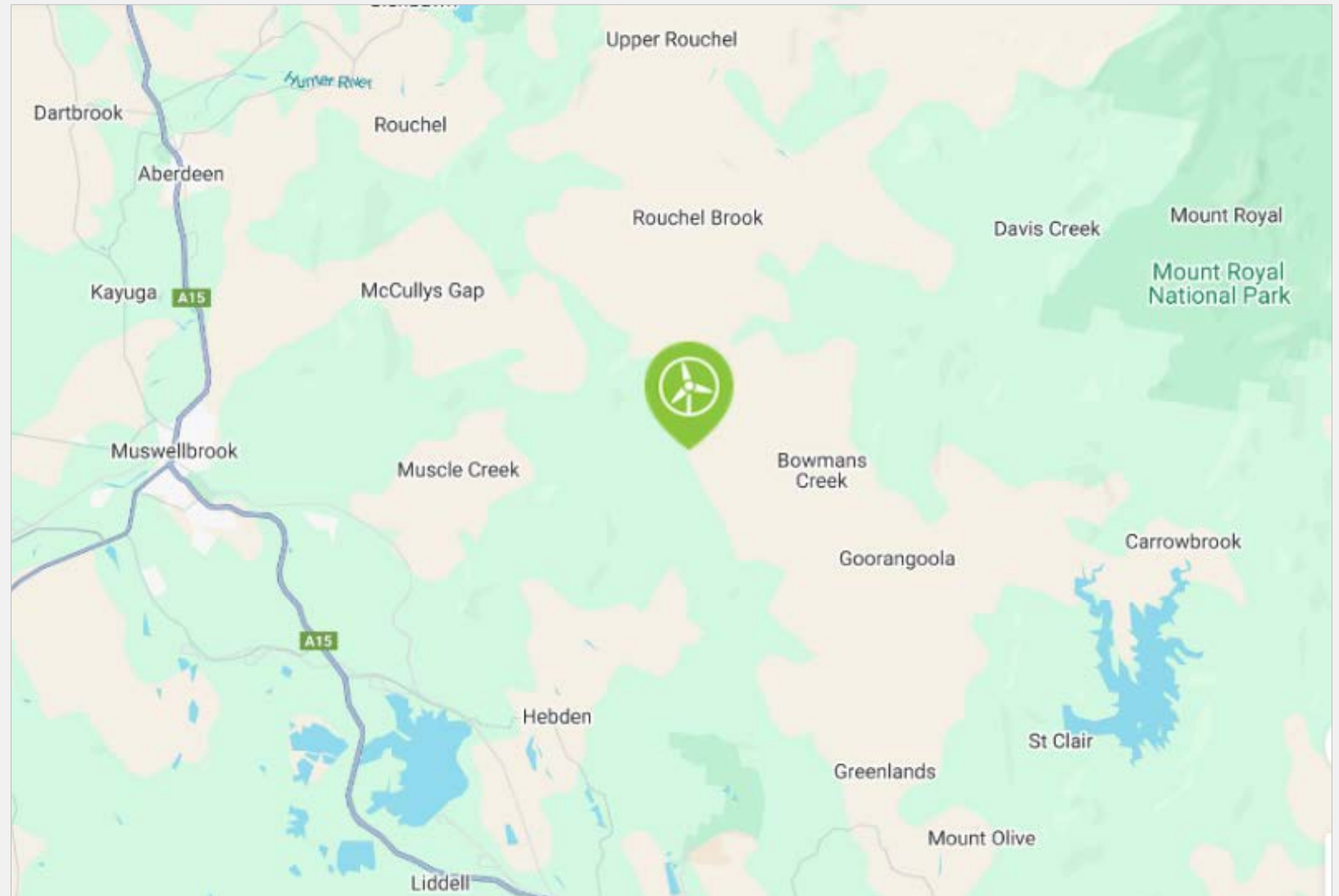
- *NSW Climate Change (Net Zero Future) Act 2023* and Net Zero Plan Stage 1: 2020-2030 - Emissions reduction (compared to 2005 levels) of 50% by 2030, 70% by 2035 and net zero by 2050.
- **NSW Electricity Infrastructure Roadmap** – 20-year plan to transform electricity system, support private sector to deliver 12 GW of new renewable electricity generation and 2 GW of long-duration storage. Expected to deliver ~\$32 b investment and support ~6,300 construction / ~2,800 ongoing jobs, by 2030.
- **Renewable energy zones (REZ):** Central-West Orana, New England, **Hunter-Central Coast**, South West and Illawarra.
- **Renewable Energy Planning Framework** - guidelines to provide more investment certainty and ensure host communities benefit.

Currently 36% of NSW electricity generation comes from renewable sources (CEC 2025).



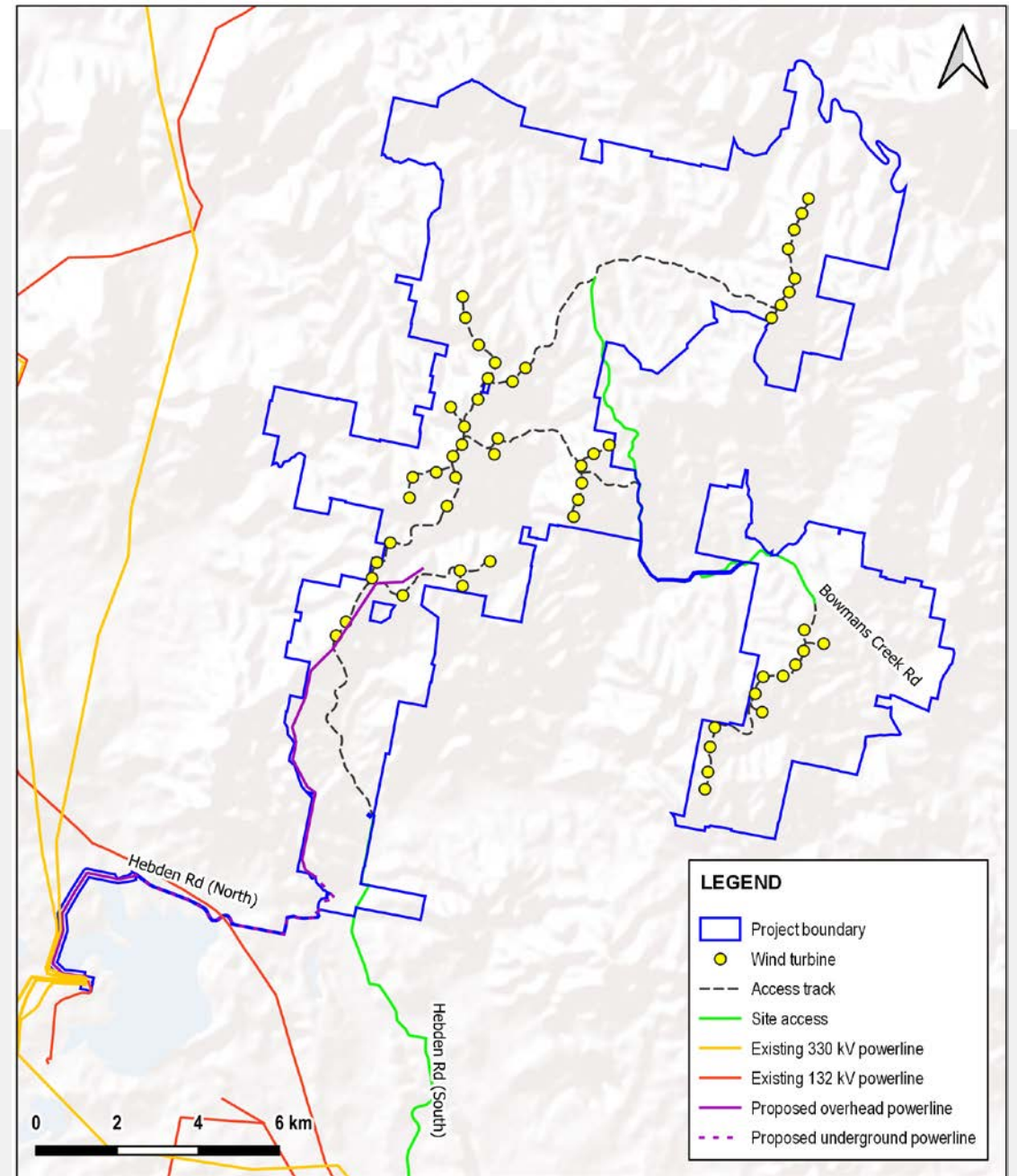
Bowmans Creek Wind Farm

- Near Bowmans Creek, about 12 km east of Muswellbrook and 30 km north of Singleton.
- Muswellbrook Shire Council, Singleton Council and Upper Hunter Shire Council areas.
- Within Hunter-Central Coast REZ.



Bowmans Creek Wind Farm

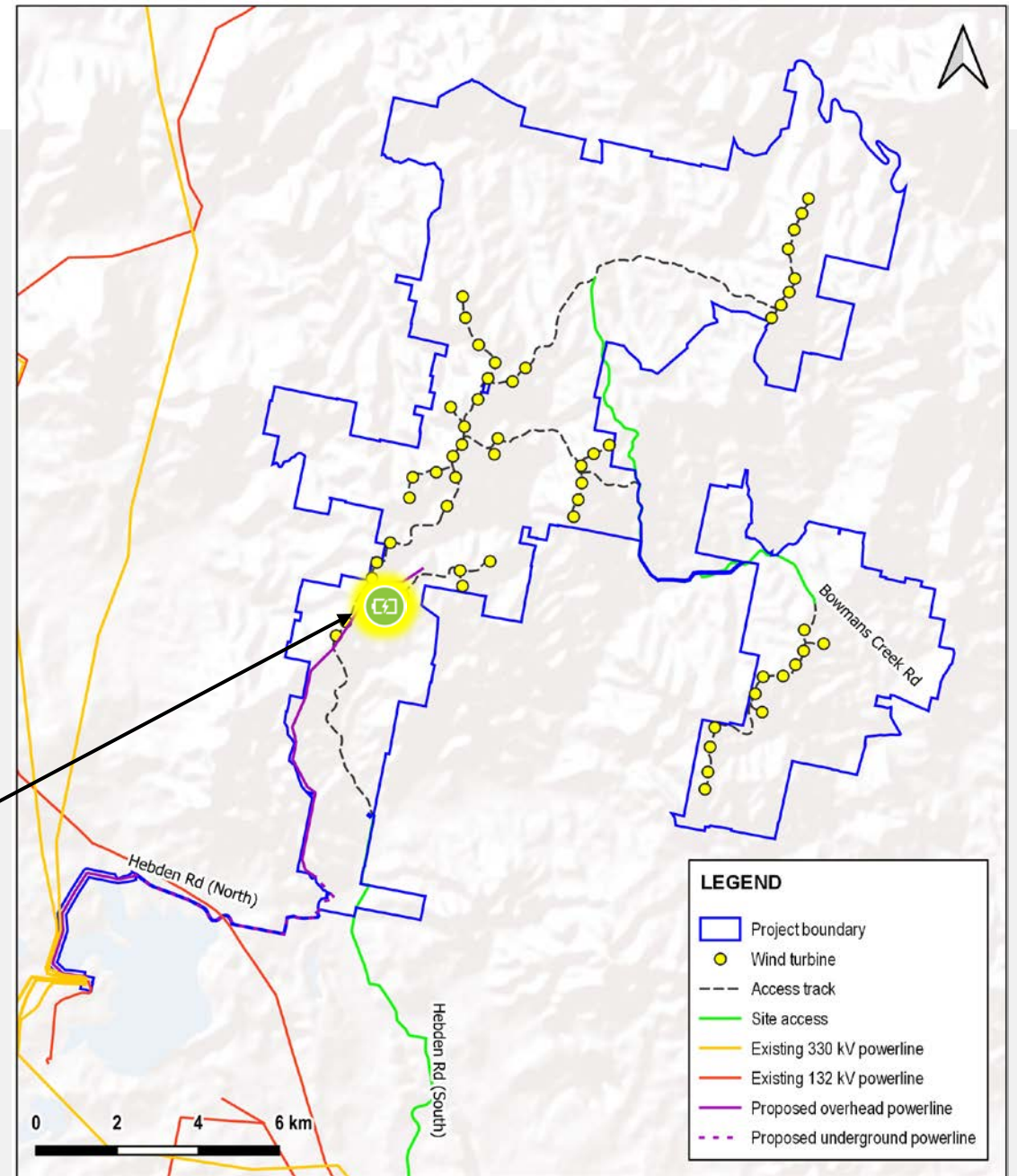
- Involves the construction, operation and decommissioning of a wind farm with up to 54 wind turbines and associated infrastructure: transmission line, grid connection to Liddell Substation.
- Generation capacity of ~ 335 megawatts.
- Approved by the NSW Independent Planning Commission in February 2024 and Australian Department of Climate Change, Energy, the Environment and Water under the *Environment Protection and Biodiversity Conservation Act 1999* in July 2024.
- Expected to generate: 200+ direct / indirect jobs in region during construction, 30 direct / indirect ongoing jobs for operation, ~\$179 million in the regional economy through direct / indirect expenditure, value-add and household income.
- Neighbour benefit program and community benefit funds for the life of the project.



Modification - BESS

Proposed modification to add a battery energy storage system (BESS).

- For efficient storage of excess energy generated during peak production for use during low production periods or high demand, improving reliability and reducing energy costs.
- Within Singleton Shire Council area.
- Nominal power capacity of up to 250 MW.
- Nominal storage capacity of up to 2,000 MWh over eight (8) hours.
- Proposed to be installed in the south-western section of the project.



Modification - BESS - Assessment

Modification application made under s4.55(2) of the *Environmental Planning and Assessment Act 1979* :
“substantially the same development”.

Likely to require the following **stand-alone specialist studies**:

- **Biodiversity** – Biodiversity Development Assessment Report (BDAR)
- **Heritage (Aboriginal)** – Aboriginal Cultural Heritage Assessment Report (ACHAR)
- **Noise and Vibration** – Preparation of Noise and Vibration Impact Assessment (NVIA)
- **Preliminary Hazard Analysis (PHA)** – Preparation of a PHA incorporating a Level 1 Qualitative Risk Analysis

Will also require consideration of other matters including:

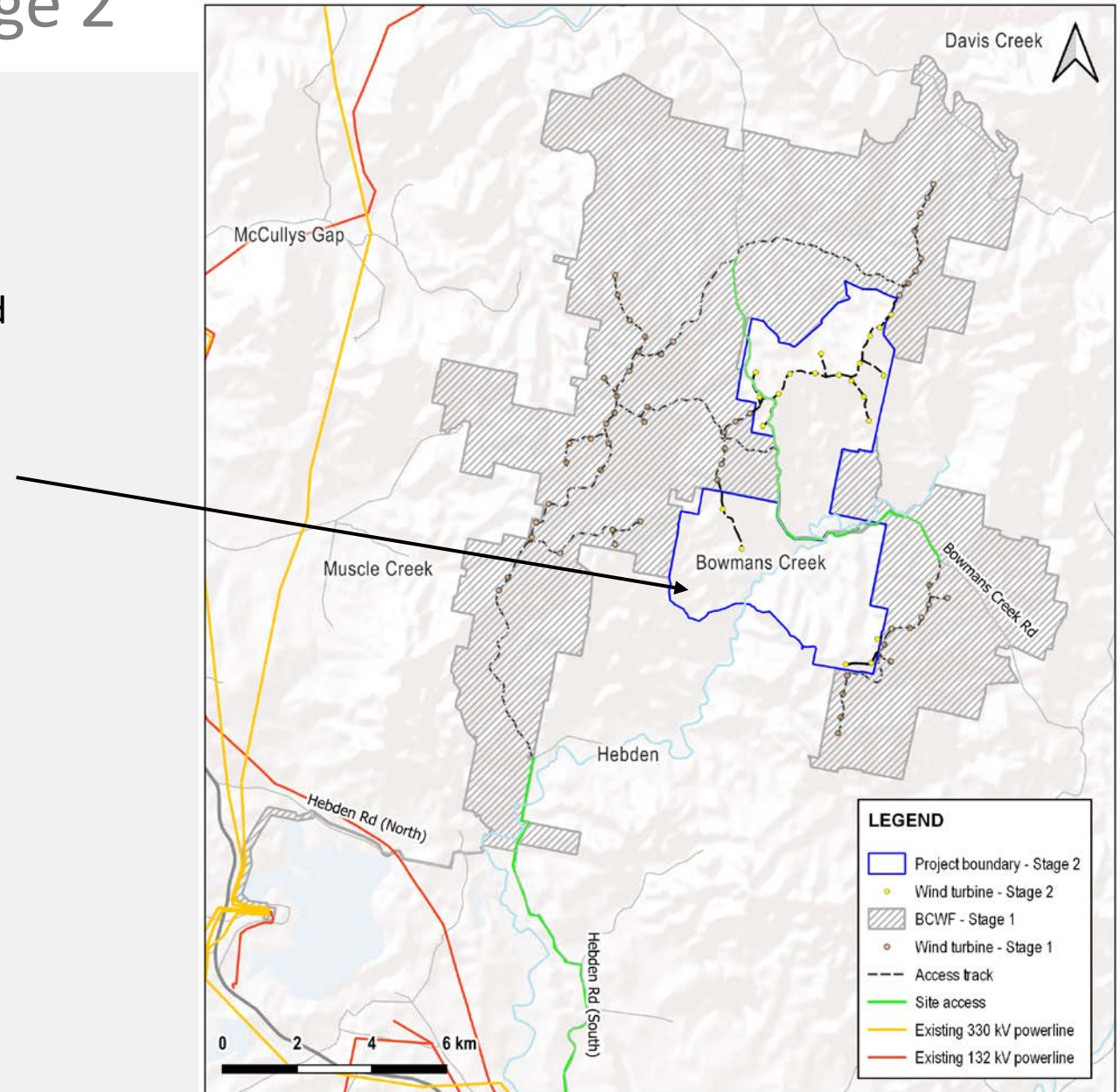
- Visual amenity
- Heritage (historical)
- Traffic and transport
- Land use



Bowmans Creek Wind Farm Stage 2

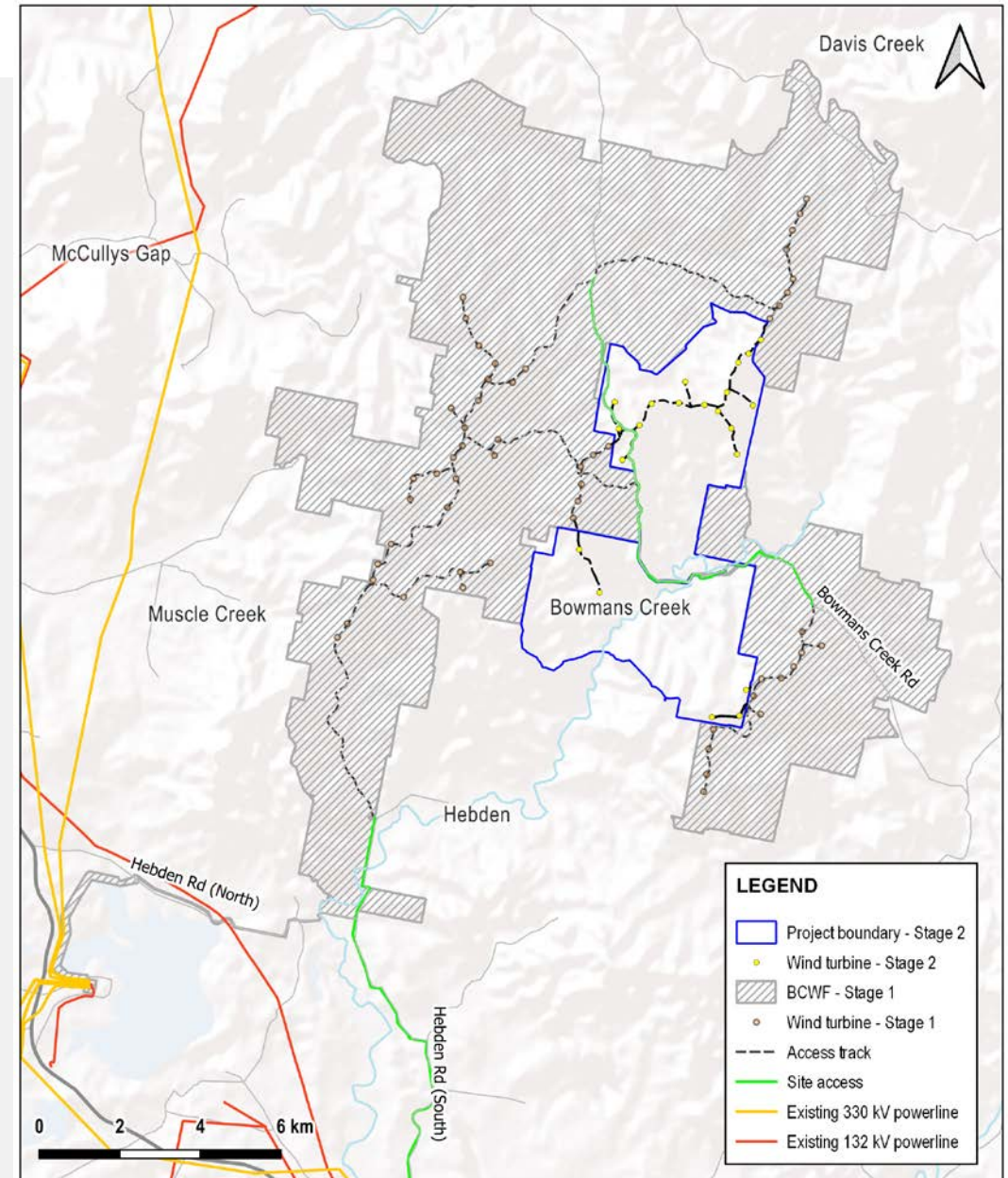
Separate development application (DA) - SSD-73123714 and will require its own Environmental Impact Statement (EIS).

- Proposal for additional 21 wind turbines to be installed on land in the centre of existing project area
- Within Muswellbrook Shire LGA.
- Take advantage of planned construction and infrastructure for approved Stage 1.
- Add ~120 megawatts generation capacity.
- Additional employment and economic benefits:
 - Expected to generate up to 156 jobs during construction and 15 jobs for operation.
 - Economic boost for the region.
 - Community benefit funding.



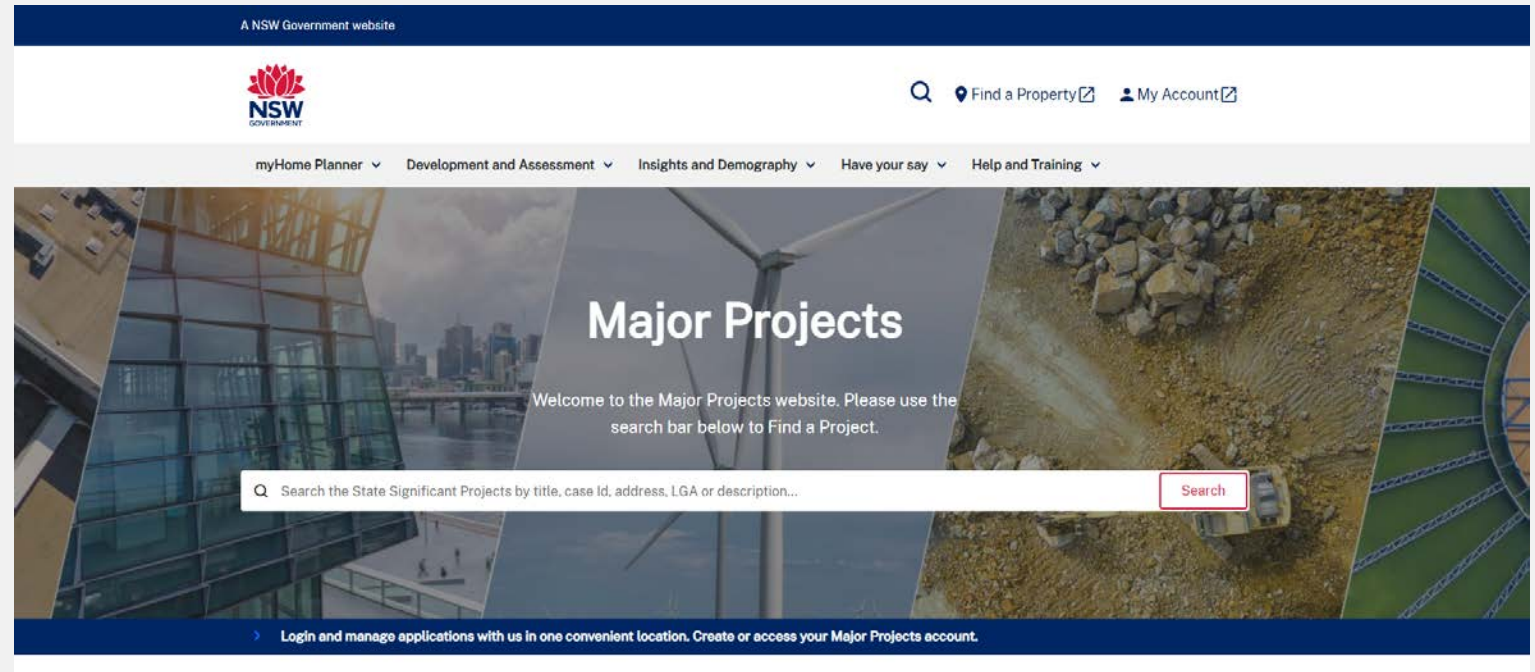
Bowmans Creek Wind Farm Stage 2

- Planning Secretary's Environmental Assessment Requirements for the EIS issued in May 2025.
- Referred to Australian Department of Climate Change, Energy, the Environment and Water for review under Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.
- Work for EIS is underway and includes assessments for:
 - Landscape and Visual
 - Noise and Vibration
 - Biodiversity
 - Cultural Heritage
 - Transport
 - Water and Soils
 - Land
 - Hazards and Risks, such as aviation safety, telecommunications, bushfire and blade throw.
 - Social Impact
 - Economic
 - Waste



Bowmans Creek Wind Farm Stage 2 - Assessment

- State Significant Development to be assessed by the NSW Government.
- After EIS has been lodged and deemed adequate, it will be placed on public exhibition for submissions (online).
- Ark Energy must respond to submissions.
- Proposal will then be assessed and determined by the NSW Department of Planning, Housing and Infrastructure under *Environmental Planning and Assessment Act 1979* (NSW) or NSW Independent Planning Commission.



Bowmans Creek Wind Farm

Bowmans Creek Wind Farm

SSD-10315

Approved by NSW IPC and DCCEEW for 54 wind turbines and associated infrastructure, generation capacity of 335 MW.

MOD – Battery Energy Storage System

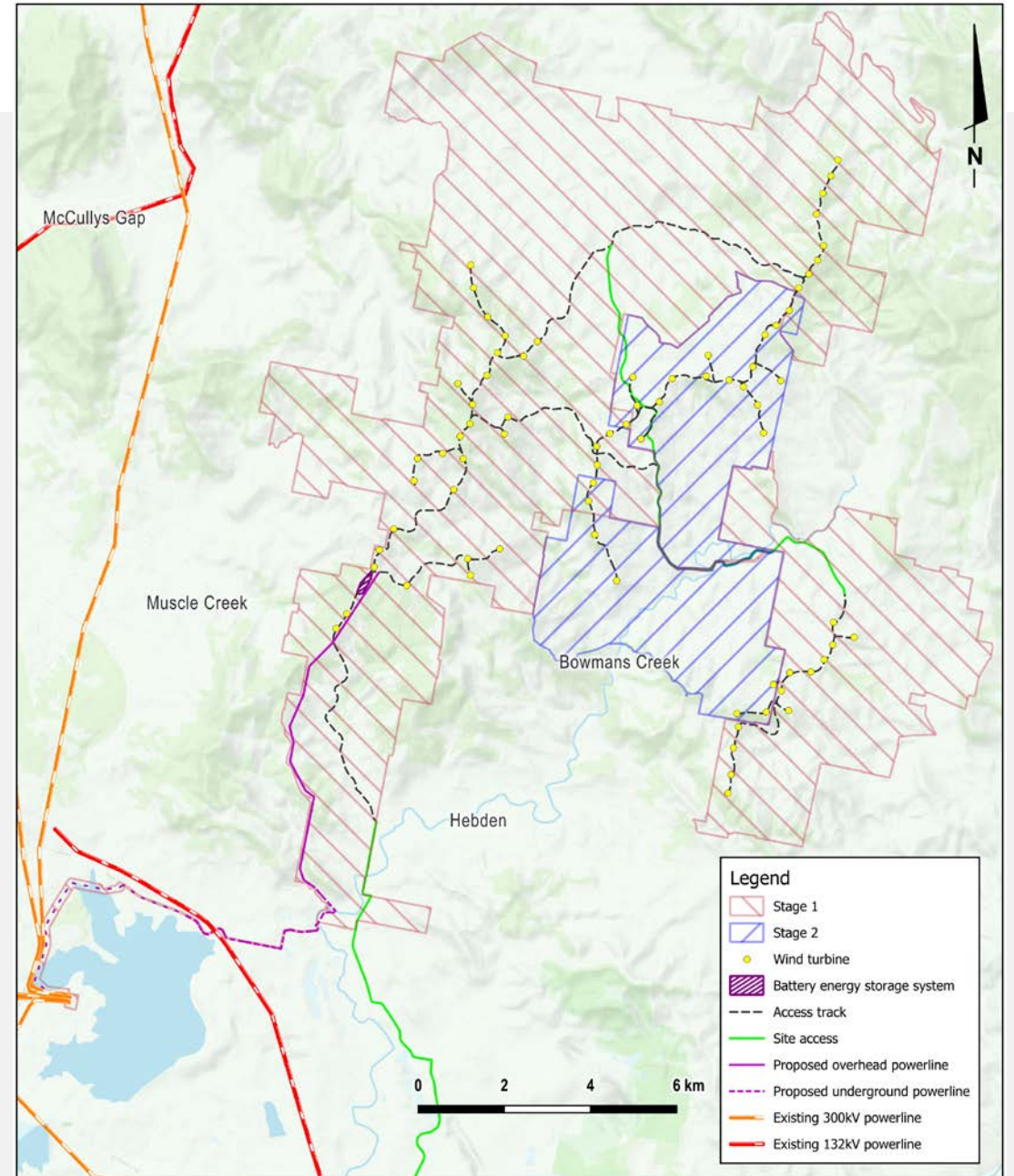
SSD-10315-Mod-1

Modification Report being prepared, to be assessed and determined.

Bowmans Creek Wind Farm Stage 2

SSD-73123714

DA and EIS being prepared, to be assessed and determined.

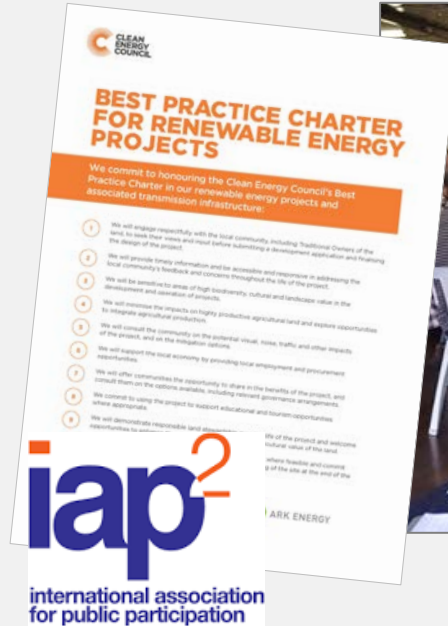


Community engagement

- Guided by the International Association for Public Participation (IAP2), leading practice and tailored plans.
- Signatory to Clean Energy Council's *Best Practice Charter for Renewable Energy Projects* - voluntary commitments to engage respectfully with communities, be sensitive to environmental and cultural values, and make a positive contribution to the regions in which we operate.
- Open, accessible, responsive, transparent.
- Multiple, ongoing channels: dedicated email, 1800 number, public local sessions, participation in community events and networks, 'Feedback' and 'Supplier' forms on the website.

Focused on:

- Providing opportunities for participation.
- Maximising meaningful benefits and outcomes.



- Input from community members is welcome and valued, and where practicable incorporated into project design to improve outcomes and benefits.



Next steps - estimated timings

Geotech work underway for detailed designs for the entire site.

BESS Modification Report

- Submission of Modification Report – Q4 2025
- Exhibition of Modification Report (if required) – Q1 2026
- NSW Department of Planning, Housing and Infrastructure (DPHI) collates public submissions (if required)
- Approval – Q2 2026

Stage 2 Development Application

- Submission of DA and EIS by early 2026
- Public exhibition of EIS in early 2026
- Response to submissions and further information (if required) – Q2 2026
- Assessment by DPHI or IPC.
- Assessment report and recommendation to DCCEEW.
- Final determination by DCCEEW
- Approvals – Q3-4 2026



Contact details, information, feedback

- Website - www.bowmanscreekwindfarm.com.au - past newsletters, feedback and supplier forms.
- Direct contact details, anytime -
E: info@bowmanscreekwindfarm.com.au
Tel: 1800 731 296.
- Newsletters -
Email - <http://arkenergy.com.au/mailling-list-details>
Post - provide mail (post) address to the project team.

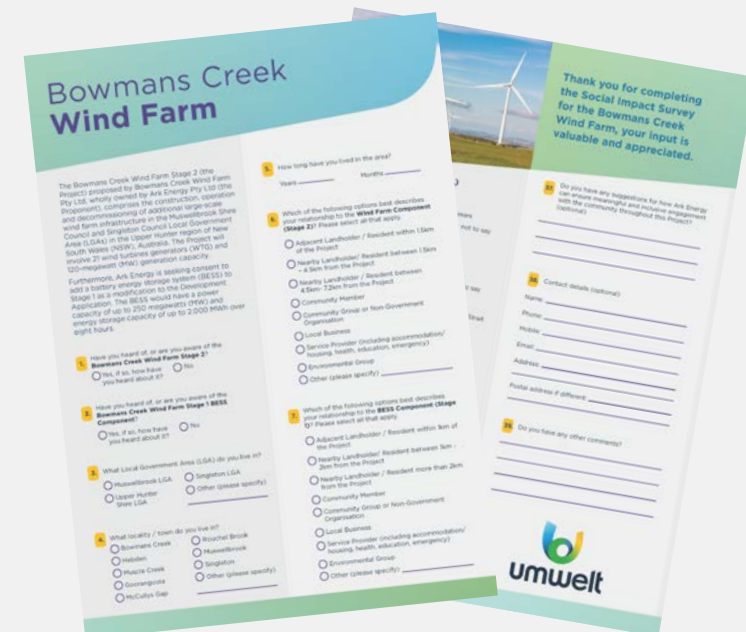


Please complete Umwelt's Social Impact Assessment Survey

For the BESS Modification and Stage 2

Printed copy with reply-paid envelope or online at www.research.net/r/BOW2

Responses due Thursday, 9 October 2025.



Thank you

Bowmans Creek Wind Farm

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