Kurnell Battery Energy Storage System

Ampol is investigating a Battery Energy Storage System (BESS) at Kurnell as part of our *Future Energy and Decarbonisation Strategies*.

We are exploring how we can better support our customers, employees, and the communities in which we operate through playing a leading role in Australia's energy transition.

The proposed BESS would consist of multiple interconnected batteries in containers that would connect directly into the Ausgrid Kurnell South Substation on Captain Cook Drive.

The project would be delivered in stages:

- **Stage 1** includes construction of a 250 MW battery and is likely to consist of lithium-ion technology.
- **Stage 2** includes construction of a battery up to 550 MW and may consist of lithium-ion, sodium-ion, flow battery technology or a mix of these technologies.

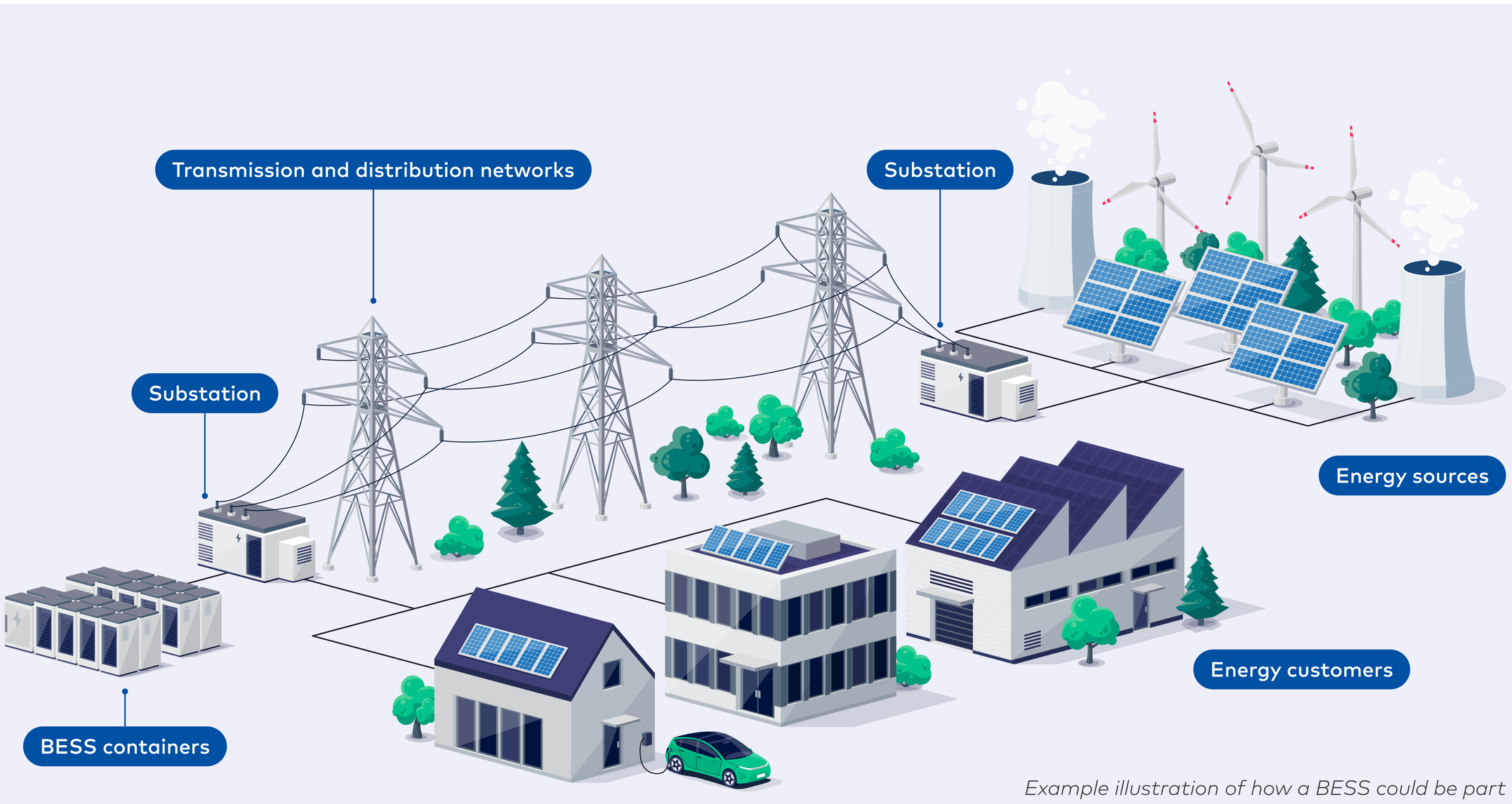
Artist impression of both Stage 1 and Stage 2. (Not to scale)

Ampol Kurnell Battery Energy Storage System (BESS)

How does a BESS work?

A BESS can charge and store electricity during periods of high energy production and low demand, and releases energy during periods of high demand.

A BESS can manage electricity network variations created by different energy sources including renewable energy, such as solar and wind which can be affected by changes in weather conditions.

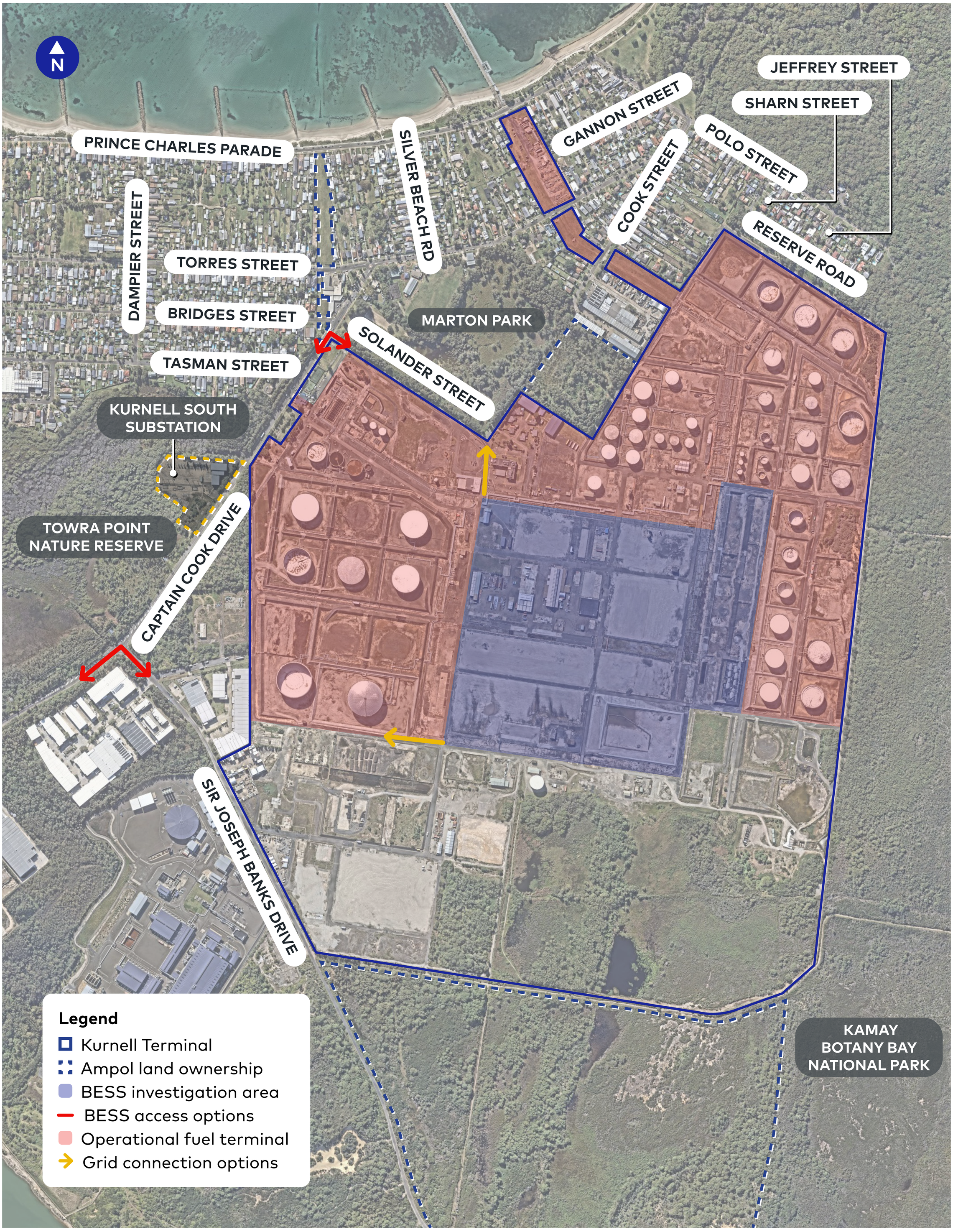


Example illustration of how a BESS could be part of the energy network. Illustration is not to scale.

How would a BESS work at Kurnell?

- Currently electricity is transferred from an external energy source through the electricity network to the Kurnell South Substation, and then on to the community.
- If a BESS is built at the Kurnell Terminal, it can charge with electricity from the Kurnell South Substation during periods of low energy demand and excess generation, from sources such as rooftop solar systems. When the energy from the BESS is needed, it can be transferred back to the Kurnell South Substation and distributed to energy customers.
- A BESS is ideally located near to electrical networks, making Kurnell a suitable location for a BESS given the existing high voltage substation and proximity to areas with high energy needs.
- Large scale batteries, such as the BESS proposed at Kurnell, will provide future capacity and resilience for the NSW energy network.

Location of the BESS



Planning and approval process

Following feedback from the Kurnell community and other stakeholders, Ampol submitted a Scoping Report and a request for Secretary's Environmental Assessment Requirements (SEARS). This step is part of the Department of Planning, Housing and Infrastructure's (DPHI) State Significant Development (SSD) application process.

In line with the SEARS, the project team is currently undertaking environmental assessments which will form part of an Environmental Impact Statement (EIS).

The purpose of an EIS is to document the assessment of relevant environmental, social, and economic impacts of a project. It helps the community, councils, government agencies, and the consent authority get a better understanding of a project and its impacts so they can make informed submissions or decisions on the merits of the project.

In the EIS, we will assess the potential construction and operational impacts of the project and outline mitigation measures to minimise impacts on the community. The EIS will include assessments for both stages of the project.

ONGOING COMMUNITY CONSULTATION AND ENGAGEMENT

Early investigation and strategic review and community consultation
2022 – 2023

Scoping report and Secretary's Environmental Assessment Requirement (SEARS)
END 2023

Environmental Impact Statement (EIS) preparation and community consultation
2024
WE ARE HERE

EIS exhibition and submission period with community consultation events
EARLY 2025

Response to submissions
MID 2025

Project determination
LATE 2025

Stage 1 construction
EARLY 2027

Stage 1 operation
LATE 2027

Ampol Kurnell Battery Energy Storage System (BESS)

Environmental assessments

Geology, soils, groundwater and contamination

Geotechnical, groundwater and soil investigations have been completed to help confirm the location of the BESS within the Kurnell Terminal. Remediation activities previously approved by NSW Environment Protection Authority continue at the Kurnell Terminal.


Geotechnical investigations at the BESS investigation area

Hazard and risk

Bushfire risk

Ampol Australia takes the safety of the local community and our workers seriously. Identifying strategies to avoid, mitigate and manage potential risks is an important part of the assessment process for the BESS project.


Ampol's fire management equipment at Kurnell Terminal

Biodiversity

Heritage (both Aboriginal and Non-Aboriginal)

Marton Park, Kamay Botany Bay National Park and the Towra Point Nature Reserve are in close proximity to the Kurnell Terminal. An ecological assessment is being undertaken to help determine if any ecological impacts are likely and if present, how they can be avoided. Consultation with Registered Aboriginal Parties is underway and heritage investigations are taking place.

Other impacts

Other matters will also be investigated and considered in the EIS. These include visual amenity, socio-economic considerations, water, air quality (including dust and odour), aviation, electro-magnetic fields, waste management and relevant cumulative impacts.

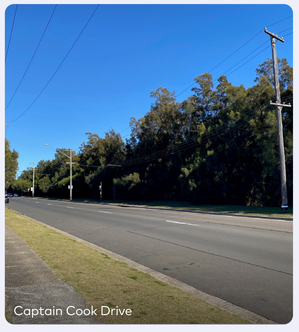
Noise and vibration

Noise impact assessments are under way, and include consideration of the potential noise impacts on the residential and commercial properties during the construction and operation of the BESS. Assessments will also identify mitigation measures to avoid or minimise significant impacts on the nearby community.


Baseline modelling in the Kurnell area has been undertaken

Traffic, transport and access

A traffic, transport and site access assessment is being prepared. It will consider vehicle movements during both construction and operation of the proposed BESS and assess traffic impacts. The assessment will also determine mitigation measures and how potential impacts can be minimised.


Captain Cook Drive

Surface water quality and flood risk

Understanding surface water quality, flows and flood risk is part of the environmental assessment process.

Stay in touch

Ampol has proudly been part of the Kurnell community for 70 years and we value and respect our local relationships. We will continue to engage and share with the Kurnell Community in a variety of ways and provide opportunities to submit feedback and ask questions to help inform our decisions throughout all phases of the project.

We will also continue to engage with relevant stakeholders as environmental assessments progress.

Talking with the community helps us understand what is important to you and we thank you for participating and providing your important feedback today.

Fast facts

**One cycle involves charging and discharging the entire battery once*

- Equivalent to the energy needs of 32,000 houses for 2 hours per cycle*
- Can power around 100,000km of electric vehicle driving per cycle* (enough to drive Sydney to Perth and back 13 times)
- Expected to create up to 250 jobs during construction of each stage
- Around 12 months construction for each stage
- Operational life of 20 to 30 years

Visit our new website and get in touch

We have a new website where you can find the latest information on the project. Please visit our website and contact us if you have any questions.

ampol.com.au/kurnell

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