



FACT SHEET

Project Concept Design

EnergyAustralia acknowledge that the proposed site for the Lake Lyell pumped hydro project is on the traditional lands of the Wiradjuri Peoples. We recognise their continued connection to Country and culture, and we pay our respects to Elders past, present and emerging.

About the Lake Lyell Pumped Hydro Project

EnergyAustralia is investigating the feasibility of a pumped hydro energy storage project on land it owns near Lithgow in New South Wales. The project would use water from Lake Lyell, originally built to support surrounding power stations, and existing transmission infrastructure. It would also involve a new purpose-built upper reservoir on nearby Mount Walker to operate a utility-scale energy storage facility. The project would be capable of producing up to 335 megawatts (MW) of reliable energy - enough energy to supply over 150,000 households for up to eight hours at a time¹.



Proposed capacity

335MW



Energy for homes

150,000¹



Storage duration

8 hours

The Concept Design

The Concept Design provides more detail on the project, including where key elements will be located. Key features include:

- **Upper reservoir location**
The upper reservoir's location in the gully on the southwest flank of Mt Walker responds to community feedback, ensuring it remains out of sight for the majority of Lithgow. It will be constructed from rock sourced from Mt Walker. Underground waterways will be tunnelled to connect the upper reservoir to the powerhouse.
- **Underground powerhouse**
The powerhouse will be situated underground, reducing both visual and noise impacts. Access to the powerhouse will be via two tunnels from portals built on the north side of Farmers Creek.
- **Site access roads**
Parts of Sir Thomas Mitchell Drive will be widened and improved to facilitate site access. Entering from Sir Thomas Mitchell Drive, a double-lane road on land owned by EnergyAustralia, will bring access to the project site, cross Farmers Creek and continue up Mt Walker to the upper reservoir. Most of the road will be shielded from view by the natural ridgelines.
- **Water intake and Farmers Creek diversion**
A diversion connecting the upper arm of the lake to Farmers Creek will be created to allow construction of the water intake, and to help avoid impacts on local platypus and fish. A permanent bridge to access the upper reservoir will be built across the diversion. Temporary cofferdams will be installed to enable dewatering of the intake location for the duration of construction. The water intake will be cut into the north side of Farmers Creek Arm to connect the tail race waterway tunnels to the powerhouse.

¹ Based on POE10 demand of 1.97kW for EnergyAustralia's portfolio of NSW residential customers at 335MW of generation.



Artist's impression only. Renders are for illustration purposes and may be subject to change.

- **Switchyard location**

The 330kV switchyard, connecting to existing transmission lines, will be located at the lakeside on the south side of the Farmers Creek Arm, below the entry road, largely shielded from view from Sir Thomas Mitchell Drive.

- **Material management**

Excess material from excavating the upper reservoir, tunnels and underground powerhouse will be repurposed. Some will be used to infill a section of the lake to separate the water intake from Farmers Creek, while the rest will be stockpiled and revegetated to blend with the environment.

- **Temporary accommodation**

During construction, approximately 400 workers will be housed in temporary accommodation. We are still considering the appropriate location for the camp, and community feedback will form part of that decision.

Reducing Impacts

The Concept Design demonstrates the integration of key project elements with the natural topography, to minimise visual impacts. Deliberate efforts have been made to reduce environmental impacts, with the concept incorporating changes informed by initial environmental studies. It also includes modifications made following community consultation, and ensures people will continue to have access to Lake Lyell for recreational activities.

What's Next?

EnergyAustralia will use this Concept Design to plan further studies to assess the project's environmental, social and cultural heritage impact. The Environmental Impact Statement (EIS) is now underway, and is expected to be ready for public exhibition and comment towards the end of 2024.

The Concept Design will also support the project's early engineering design work. And it will be a key feature of the project's ongoing community consultation.

Changes to the Concept Design may be made to address environmental impacts identified during the environmental assessment program and in response to further public feedback.

If the project progresses, 2029 would be the earliest we could see it in full operation.

Get in touch

✉ community@energyaustralia.com.au

☎ 1800 574 947

📍 EnergyAustralia Project HQ, 124 Main Street, Lithgow

🌐 lakelyellpumpedhydro.com.au



Supported by



Public acknowledgement and disclaimer: This project is proudly funded by the NSW Government's Pumped Hydro Recoverable Grants Program. The views expressed herein are not necessarily the views of the NSW Government. The NSW Government does not accept responsibility for any information or advice contained herein.