Tallawang Solar Hybrid

Frequently Asked Questions

This image is indicative of a Battery Energy Storage System (BESS) project.

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Project Overview

	Question	Answer
Project Overview	**What is the project?**	The Tallawang Solar Hybrid Project will comprise of the construction and operation of a 500 megawatt (MW) Solar Farm and a 500 MW Battery Energy Storage System (BESS). With over 1,000,000 photovoltaic (PV) modules and associated infrastructure including a substation, site office, storage facilities, access road and other related equipment.
	Where is it located?	The project is located around 8km Northwest of Gulgong, in between Castlereagh Highway and Puggoon Road, New South Wales. This is to align with the CWO REZ 330kV transmission line and switching station connecting the project to the Sandy Lane energy hub.
	Why was the location chosen?	The location of the project site has an excellent solar resource and sits at the southern end of the Central West Orana Renewable Energy Zone providing connection to the national grid via a new high voltage electricity transmission network via central energy hubs. The project site consists of previously cleared agricultural land, with favourable topography for the installation of PV modules capturing solar irradiation through the year.
	How big would the project be?	The project has a capacity of up to 500 MWac, and two hours energy storage with possible extension of up to eight hours to supply stored daytime energy into evening hours. Once completed, the project area will cover an area of around 1000 ha with solar PV modules being spaced 6 to 7 meters apart, allowing for sheep grazing. The battery cabinets are usually fitted within standard 20ft containers and will be around 2.5 meters tall. Battery containers are located next to solar inverters installed at locations between solar modules.

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Project Overview

	Question	Answer
Project Overview	**What technology would be used for the project?**	The photovoltaic solar panels are bifacial modules which absorb light irradiance from above and reflected from the ground. Solar modules are mounted around 1.5m off the ground and track the sun's path from east to west every day. The BESS infrastructure would consist of 20ft shipping containers which are fitted with the battery units and control equipment and located adjacent to solar inverters. Power transformers, HV substation and control buildings form part of the operation and control system on site. The project would be directly connected to the CWO REZ switching station located within the project site and connecting the project to the national grid via the energy hubs.
	What is the investment value of the project?	The construction of the project would have an estimated value of ~ $1 Billion
	What's the status of the project?	The Tallawang Solar Hybrid project is approved as a State Significant Development in accordance with the Environmental Planning Assessment Act 1979. The Approvals set out conditions that must be complied with in undertaking the development. The conditions cover construction, operation, decommissioning, and administrative requirements. Earlier in 2026, two modifications have been submitted to the NSW Department of Housing and Infrastructure (DPHI) seeking alternate access to the site and an increase for the approved battery energy storage capacity at point of connection to 4,000Wh, enabling stored energy discharge duration to increase from two to eight hours. Construction is expected to commence in mid 2027.
	Who approved the project?	The approval of the project is the responsibility of the NSW Department of Housing and Infrastructure (DPHI). The approval process ensures that the project complies with local and state regulations, environmental standards, and community considerations. Consultation with relevant Local Government Departments is being undertaken during the development process and consultation is progressing with relevant project stakeholders, including Councils, neighbours, First Nations stakeholders, and community organisations.

Tallawang Solar Hybrid

Project Ownership

	Question	Answer
Project Ownership	**Who owns the project?**	Potentia Energy is the owner of the Tallawang Solar Hybrid project.
	Who is Potentia Energy?	Potentia Energy is a joint venture entity co-owned by Enel Green Power and INPEX. The company is currently operating over 1.1 GW of renewable energy assets across Australia. Potentia Energy has rights secured for a development pipeline of over 9 GW across Australia and is committed to an ambitious growth agenda, targeting a significant increase to its installed capacity across wind, solar, storage and hybrid projects across Australia. Potentia Energy is committed to accelerating Australia's energy transition, driving the potential for a sustainable future.
	Who owns the land where the project is situated?	The land is owned by local landholders. Long term arrangements are in place for the construction and operation of the project.

Project Construction

	Question	Answer
Project Construction	**Who would construct the project?**	Potentia Energy would manage the construction phase of the project and would be engaging with EPC (Engineering, Procurement, Construction) contractor to undertake the construction works. Local subcontractors will be prioritised whenever possible.
	How long would it take to construct the project ?	Construction of the Tallawang Solar Hybrid Farm would take around 2.5 to 3 years including mobilisaiton and commissioning of the project.
	How many jobs would be created during construction?	Approximately 150 core construction staff are anticipated with estimated peak work force of approximately 400 personnel. Potentia Energy key focus is to closely work with the Engineering, Procurement, and Construction (EPC) contractor to identify and engage local capability and capacity for construction roles and prioritise local engagement where possible.
	Will there be apprenticeships and traineeships available during the construction phase?	Potentia Energy will work closely with the the Engineering, Procurement, and Construction (EPC) contractor to identify on site trainee and apprenticeship opportunities where possible.
	What transmission infrastructure will be built for the project?	A high-voltage substation would be constructed on the project site, alongside a new interconnection transmission line from the project site to Sandy Lane Energy Hub substation to be built, maintained, and operated by ACEREZ.

Project Operation

	Question	Answer
Project Operation	**Who would operate the project?**	Potentia Energy would manage the operational phase of the project, mainly remotely. An Operations & Maintenance (O&M) contractor will be engaged to manage the operations and maintenance activities on site.
	When will the project start operating?	Full operation of the project is targeted to commence in early 2030 with full export of solar energy and battery storage capacity deployment.
	How long will the project operate for?	Total operational life of the project is 35 years. Solar modules are warranted for 30 to 25 years with lifetime expectations of 40 years. Current battery technologies typically carry warranties of 20–25 years. Over this period, they are expected to retain most of their capacity and may continue to operate beyond the warranty term, subject to market conditions and other influencing factors.
	What will happen at the end of the lifecycle of the project?	Potentia Energy will comply with all relevant environmental legislation in effect at the time. Our primary efforts will focus on reusing, recycling, or donating materials whenever it is safe to do so. At the end of operation, the site will be restored to its original condition, and all materials used will be removed and treated appropriately.

Project Benefits and Impacts

	Question	Answer
Project Benefits and Impacts	**What benefits will there be for the local community from the project?**	Potentia Energy has a Voluntary Planning Agreement (VPA) with Mid-Western Regional Council. This commitment will ensure contributions from Potentia Energy will be shared with local community through projects and initiatives as coordinated by Council. Potentia Energy follows a Creating Shared Value (CSV) approach during construction and operation of renewable energy assets. CSV means Potentia Energy intends to work closely with the local community to enhance the economic and social conditions in the local area to the project and proactively share benefits within the local community. Potentia Energy's overall objective is for the project to be considered as an integrated and valued component of the social and economic fabric of the local community. Potentia Energy is committed to local sourcing where feasible. It's anticipated the project will create local employment and supply opportunities, with approximately 400 construction staff anticipated to be on site during construction peaks; and a small operational and maintenance team for the operational phase.
	What impacts will the project have on the local community and environment during construction?	The project would have minimal impacts on the local area during the construction period. Environmental, noise and construction impacts will be assessed by the relevant regulators during the planning and approvals phase of the project. The planning approvals set out conditions for the project, including management plans. Management systems will be in place to ensure compliance with all conditions.

More Information

Visit the project webpage or contact the Community and Stakeholder Engagement Team

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