TotalEnergies H_2
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FAQs

Wak Wak Solar Farm

1. Who is TE H2?

TE H2 is a partnership between TotalEnergies and EREN Groupe (EREN) dedicated to developing large-scale renewable energy projects, with a key focus on delivering affordable and reliable energy with fewer emissions. Our goal is to decarbonise the energy sector and achieve net zero with society by 2050, recognising the pivotal role in which competitive energy helps to create a sustainable economy.

2. What is included in the Wak Wak Solar Farm development?

The project includes a solar farm of approximately 2.7 gigawatt-peak (GWp) and approximately 6 gigawatt-hour (GWh) of battery energy storage systems (BESS). The Wak Wak Solar farm will consist of solar panel arrays arranged in a grid layout integrated with inverters, transformers, and substations.

The BESS will store excess energy generated by the solar farm during peak generation periods, assisting to firm up renewable energy supply and enable the delivery of low-cost, reliable, and dispatchable renewable power. The BESS will be co-located within the Wak Wak Solar Farm footprint.

Renewable energy generated at the solar farm will be collected on-site in a network of underground and overhead reticulation feeding into up to two 33/ 330 kV step up collector substations.

The project will include a high voltage overhead transmission line (OHTL) to transport the energy to energy-intensive industries at Middle Arm and potential connection into the Darwin Katherine grid.

The OHTL is planned to run within an existing NT Government corridor current zoned Utilities. This corridor forms part of the wider proposed Territory Energy Link, which has been designated and is under active design and planning by the NT Government. As a result, the OHTL will not be part of the initial approvals sought for the Wak Wak Solar Farm and approvals will be sought separately. Community engagement on the final OHTL alignment will be undertaken separately and prior to submitting approvals.

3. How does the Wak Wak Solar Farm relate to the Darwin H2 Hub?

The Wak Wak Solar Farm will supply competitive, reliable, and dispatchable renewable electricity to existing and proposed energy-intensive industries in Middle Arm and the wider Northern Territory region. Separate to the Wak Wak Solar Farm, TE H2 propose to develop the Darwin H2 Hub, a green hydrogen production facility located at the Middle Arm Precinct (MAP) in Darwin, that will contribute to driving the progress of the NT's energy transition while enabling other industries to move toward decarbonisation.

The Wak Wak Solar Farm has the capacity to ultimately provide renewable energy to the Darwin H2 Hub as well. The Darwin H2 Hub is, however, considered a separate project and is not part of the Wak Wak Solar Farm approvals. It will be assessed separately through the strategic environmental assessment (SEA) for MAP currently being undertaken by the NT Government under both the EP Act and EPBC Act.

4. Where is the proposed project located?

The Wak Wak Solar Farm project is located approximately 48 kilometres southeast of Darwin and 8 kilometres southeast of Humpty Doo, within the Litchfield Council Local Government Area.

Most of the site is within NT Portion 4477 under a Perpetual Pastoral Lease, with some smaller areas on freehold land. The project has secured agreements for leasing and subleasing the land.

5. Is the project connecting into the electricity grid?

The project is intended to provide firm renewable energy directly to existing and future energy-intensive industries in the Middle Arm Precinct. It could also provide renewable energy into the local Darwin-Katherine Electricity System to assist with and contribute to the Northern Territory Government's objective of competitive, affordable and reliable electricity.

6. What is the expected project cost?

The expected total cost of the project is $2.8 billion AUD, 20% of which is expected to be spent locally with construction to be staged based on needs of customers.

7. What is TE H2's long term role in the development?

TE H2 will be involved in the long-term ownership of the project and will undertake all aspects of the project development and approvals, including extensive community engagement, construction and operation.

As a long-term owner operator of the project, TE H2 sees itself being part of the local community for over 30 years and values genuine and long-lasting community engagement and relationships.

8. What planning and environmental approvals are required for the Wak Wak Solar Farm?

The Wak Wak Solar farm requires multiple statutory approvals, with planning and environmental approvals at both the Northern Territory and Federal levels being the first priority.

At the Territorial level, approvals include assessment by the NTEPA, NT planning scheme, Aboriginal Sacred Sites Act and Heritage Act.

At the Federal level, the project will be referred under the Environment Protection and Biodiversity Conservation (EPBC) Act, which involves assessment of potential impacts on Matters of National Environmental Significance (MNES), including threatened species and ecological communities.

Additionally, Native Title considerations are critical, requiring engagement and agreements with Traditional Owners to respect and protect Indigenous heritage and land rights.

Together, these regulatory frameworks ensure the project meets environmental sustainability, cultural heritage protection, and community consultation standards necessary for its development and operation.

Approvals for the overhead transmission line to connect the project to Middle Arm will be sought separately as part of the NT Government shared utility corridor to Middle Arm.

9. What studies or assessments has TE H2 undertaken to date for the Wak Wak Solar Farm?

The studies and assessments for the Wak Wak Solar Farm cover a wide range of environmental, planning, topographical and hydrological factors to ensure project viability and site suitability. These include evaluations of the local environment such as land quality, ecosystems, water systems, and climate change impacts. Detailed reports and a comprehensive list of studies undertaken to date can be viewed in the referral documentation.

The assessments also consider social and economic effects on nearby communities and thorough exploration of cultural and heritage values.

The project details, including location, key components, and site design alternatives, have been carefully reviewed. Additionally, regulatory and community consultation processes are being undertaken to ensure compliance and community engagement.

These comprehensive studies help ensure the project is planned and managed responsibly for sustainable development and environmental protection. Further environmental and technical studies will be undertaken in 2026 as part of detailed design and project approvals.

10. How are impacts to flora and fauna being managed?

TE H2 have undertaken over two years of extensive environmental and technical studies. To assist with understanding the project's next steps and approvals pathway, TE H2 will be submitting a project referral under the Environment Protection Act 2019 (NT).

TE H2 recognises the importance of protecting both regional and local biodiversity and wildlife habitats in the Wak Wak region. The proposed solar farm has been carefully sited and designed to avoid areas of identified high quality ecosystems within the project footprint, avoiding riparian ecosystems and threatened or endangered ecological communities/species to

the greatest extent possible. This is a result of comprehensive onsite surveys undertaken across the proposed project site since 2022.

To this end, the proposal area avoids and buffers sandsheet heath and riparian vegetation. There is therefore no habitat for Cleome insolata or Utricularia dunstaniae within the proposal area. The design of the proposal area also avoids areas with a high abundance of Typhonium praetermissum. Relevant to the proposal area, the highest density patches of Darwin Cycad are in, or immediately adjacent to, buffered areas that have been removed.

After comprehensive survey effort, the following threatened fauna species were detected within the wider project area, but have been largely avoided as the project area has been revised and minimised:

- Black-footed Tree-rat (Mesembriomys gouldii gouldii)
- Bare-rumped Sheath-tailed Bat (Saccolaimus saccolaimus nudicluniatus)
- Northern Blue-tongued Skink (Tiliqua scincoides intermedia)
- Northern Brushtail Possum (Trichosurus vulpecula arnhemensis)
- Mertens' Water Monitor (Varanus mertensi)
- Mitchell's Water Monitor (Varanus mitchelli)
- Partridge Pigeon (Geophaps smithii smithii)
- Howard River Toadlet (Uperoleia daviesae).

The project will also comply with the Northern Territory Environment Protection Authority (NTEPA) requirements and, where applicable, the Environment Protection and Biodiversity Conservation (EPBC) Act 1999. Ongoing monitoring will be implemented to ensure that mitigation strategies are effective and that local wildlife is protected throughout the project lifecycle.

TE H2 is committed to transparency and will share outcomes of environmental assessments and ongoing monitoring with the community as the project progresses.

11. How much vegetation will be removed to build the solar farm?

The Wak Wak Solar Farm referral is seeking formal approval for a total solar footprint of up to 2,500 ha. The project will be built in stages and the 2,500 ha represents the maximum total area that could potentially be cleared if all the stages are developed and the full extent of the solar farm built. The footprint varies in density and vegetation type, all of which has been assessed to be of low quality and significance both locally and regionally. The ultimate footprint will be decided as part of the NTEPA and EPBC referral process. In selecting the proposed project location and designing infrastructure layouts, TE H2 has taken into careful consideration biodiversity values, threatened species habitats, and proximity to conservation and flora reserves.

TE H2 is committed to retaining existing vegetation wherever practicable. Before any clearing activities take place, a comprehensive vegetation assessment will be undertaken in consultation with qualified arborists, ecologists, and affected landowners to identify measures to avoid, minimise, or offset potential impacts.

Further information about the project's vegetation management, landscaping, and replanting initiatives will be made available to the Community as part of ongoing environmental and project communications and publicly available referral documents.

12. How will you protect culturally or historically significant areas?

During the project planning and approval stages, the TE H2 team has and will continue to engage qualified experts to conduct a range of technical and site assessments aimed at identifying culturally and historically significant areas within the Wak Wak Solar Farm site. These assessments may include field inspections with local or technical specialists, Traditional Owners, reviews of land use history, desktop research, and aerial surveys.

13. How long will it take to build the Wak Wak Solar Farm?

Wak Wak Solar Farm will be built in stages. The first stage of roughly up to 900 MWp will take approximately 4 years to build. TE H2 will keep the local community up to date with all construction activities and stages.

14. Will residents be able to see the solar farm?

Local residents may only see small parts of the solar farm areas as it will be screened from most public viewpoints through the retention of existing vegetation around the project. and within the private Pastoral station. However, visual impact assessments currently being undertaken will quantify and minimise visual impacts where possible.

15. Will there be reflections or glare from the solar panels?

Solar panels are designed with non-reflective coatings to reduce glare and maximise sunlight absorption. For this project, due to its remote location and design, significant glare impacts are not anticipated. As an example, there are many solar arrays located adjacent to airport runways and along high traffic roads and train-lines,

currently there are no known issues with glint/glare on those operations.

15. How will you manage fire risk?

Fire risk management includes using fire-resistant materials, maintaining clear vegetation buffers to reduce fuel loads, implementing emergency response plans, and monitoring fire risk conditions. These measures help to prevent the propagation of fires and enable rapid response if needed. The detailed design will be undertaken to incorporate an approved Bushfire Management Plan in consultation with DPEWS and Bushfires NT.

15. Will the project have any risks to groundwater or nearby river systems?

Solar farms generally have low risks to groundwater or rivers because they have no chemical emissions and minimal soil disturbance once constructed. Optimised site design and erosion control measures protect water quality and reduce runoff risks. There are no plans to extract groundwater for operations or construction, and a detailed Erosion and Sediment Control Plan will be prepared and approved based on the final infrastructure layout and detailed construction plans.

16. How many people will the Wak Wak Solar Farm employ?

TE H2 aims to maximise benefits to the local economy by engaging local workers and suppliers wherever possible in its projects, recognising their knowledge of the land, relevant skills, and strong commitment to getting the job done.

The first stage of the Wak Wak Solar Farm project is estimated to generate up to 900 local jobs during construction, and up to 50 local jobs during the up to 30 years of operation. The proposed project will not only create direct employment opportunities during construction, but also through increased demand for local products, materials and services.

To submit your interest in providing goods or services, or in direct employment, visit the Wak Wak Solar Farm website.

17. How will you engage with the local community?

TE H2 is dedicated to inclusive and genuine community engagement on all aspects of the project.

Each stage of the development approvals process will have opportunities for feedback from the community, as well as opportunities to make submissions under statutory approvals processes. Feedback from the community may shape specific aspects like a community grant program, visual amenity, and traffic management plans. At each stage of the project, TE H2 will ensure your feedback is heard and explain how it is being considered.

The project has dedicated Development Managers and a Community Engagement team who will listen and capture your feedback and local insights to help shape the project to benefit the local area.

18. Will there be a community benefits program?

The Wak Wak Solar Farm project has committed to implementing a community benefits program aligned with its stakeholder and community development goals. The project will undertake extensive community engagement, including with First Nations groups, to ensure benefits are tailored to local needs. These benefits are expected to include support for local infrastructure, education, employment initiatives, and long-term community development through collaboration and consultation. The project aims to create jobs (up to 900 during construction and up to 50 operational), support skills and training, and contribute to sustainable regional growth.

TE H2 proudly sponsors Palmerston Christian College since 2024 in the annual Horizon Hydrogen Grand Prix (H2GP). Students from the school participate in a 6-month global school-based science and engineering program, where they learned to design, build and race a remote-controlled car powered by a hydrogen fuel cell before they compete in an endurance race against other schools.

The project is dedicated to maintaining proactive relationships with local communities and sharing economic, social, and environmental benefits over the long term.

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