



Esperance Power Project

Cleaner, Greener

Esperance's new power solution is combining a new, more efficient power station with a significant increase in renewables.

This is a long-term solution which will deliver cleaner electricity by reducing the carbon footprint and increasing the generation of renewable energy to provide the best outcome for the community.

Esperance's future power solution will include:



A renewables hub of:

- Two 4.5 MW wind turbines (total 9 MW)
- A 4 MW central solar farm.



A thermal power station using:

- 11 x 2 MW high efficiency gas fuelled reciprocating generating sets
- 3 x 850 kW diesel fuelled reciprocating generating sets
- A 1.9 MWh battery energy storage system.



An LNG storage and vaporisation facility.

- There will be a reduction in carbon emissions of almost 50% compared to the previous power station.
- This improved carbon footprint is equivalent to removing approximately 6,500 cars annually off the roads.
- Up to 46% of Esperance's total electricity demand will be supplied by renewable energy (solar and wind).
- The renewables hub is located at the Shark Lake Industrial Precinct north of the town and includes the solar farm and two wind turbines.
- The renewables hub allows Horizon Power to generate electricity from the sun and wind on a 24/7 basis.
- The solar farm consists of 8,900 solar panels which track the sun to achieve the highest efficiency.
- Wind power will continue to be an important part of Esperance's energy mix with two 185m wind turbines with a combined capacity of 9 megawatts.
- These new turbines will generate 61% more wind power as part of the new generation solution.

- The two new wind turbines are more efficient than the previous six wind turbines located at Nine Mile and Ten Mile Lagoon which have a combined output of 5.6 megawatts.
- The new 4 megawatt solar farm is the largest in Horizon Power's service area.
- Horizon Power is helping to create and support thriving communities through its commitment to regional development.
- Local goods and services were used wherever possible in the delivery of this project.
- Southern Ports in Esperance is now Horizon Power's largest commercial customer outside of the Pilbara region.
- Southern Ports represents approximately 25% of the annual energy demand in Esperance.
- Projected annual savings to the State Government of \$10m.
- The State Government subsidises the Esperance power supply at \$2,900 per customer per year.
- The savings will reduce the State Government subsidy which is funded by taxpayers and allow more State Government funding be spent on other renewable energy projects and electricity infrastructure upgrades.
- LNG is more suited to a power station with high renewable penetration as the daily gas demand can fluctuate with changes in weather conditions.
- Trucked LNG fuel supply has been successfully used in WA for more than a decade, in both mining and town power supply applications.
- Horizon Power's towns of Broome, Derby, Fitzroy Crossing and Halls Creek have been fuelled by trucked LNG since 2008.
- The LNG storage facility is classified as dangerous goods facility similar to bulk diesel storage.
- Opportunities are being explored to facilitate community involvement in 50% of the solar farm into the future.
- The Synergy-owned Nine Mile and Ten Mile wind farms reached end of design life in 2014.

Learn more

If you'd like to know more about this project, visit our Esperance Power Project webpage at www.horizonpower.com.au or send us an email to esperance@horizonpower.com.au.

About us

Our customers live and work across 2.3 million square kilometres, stretching from Esperance in the south to Kununurra in the north and a whole list of other incredible places in between.

This makes us responsible for delivering energy solutions across the largest geographical catchment of any Australian power provider – and it's a responsibility we take very seriously.

We work and live in the regions we serve and we work hard to make sure our customers receive safe and reliable power. Our customers face a number of different challenges across different locations and we're here to understand and help address those challenges.

We recognise we play an important role in upholding what's special about WA. This includes supporting WA businesses and communities, respecting the landscape and maintaining our commitment to our Aboriginal and Torres Strait Islander peoples.

Contact us

To find out more, please contact your local Horizon Power office.

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Find us on      horizonpower.com.au

