Micro Power Systems
Safe and reliable energy for rural families and businesses
Horizon Power is offering selected customers in the greater Esperance region an advanced stand-alone power system. This will provide more reliable electricity than some areas of the traditional poles and wires network - and reduce bushfire risks – at no extra cost to customers.

After almost three years of successfully trialling stand-alone power systems, Horizon Power is offering selected Esperance customers a safe and more reliable source of electricity. Micro Power Systems (MPS) are the next generation of advanced technology specially designed for Horizon Power. MPS units provide rural customers with much more reliable electricity than old power lines which run through bushland and are easily damaged by storms, floods and wildlife.

MPS units use solar and battery technology to generate and store electricity without the need to be connected to the overhead electricity network. Using solar panels, batteries, inverters and a back-up diesel generator, the system supplies continuous power 24 hours a day, regardless of the weather. Horizon Power has identified sections of its network in the greater Esperance region where, using this MPS technology, we can provide customers with safer and more reliable power than the traditional poles and wires network. In addition to the many benefits to you, Horizon Power will also be able to reduce the cost of delivering energy by installing these systems instead of rebuilding more costly poles and wires.

Living in rural WA, we are faced with unique challenges.

At Horizon Power, we're making sure access to safe and reliable power isn't one of them.

Your property could transition to a MPS solution.
The solution

The MPS energy management system is configured to maximise energy generation from renewable sources.

Solar panels are the main source of power. They generate electricity when the sun is out.

Batteries provide power at night and when the sun isn’t shining for long periods of time.

The low noise back up generator will kick in, on occasions when more power is needed than what the solar panels and batteries can provide.

Delivering reliable clean power to your property.
How you can benefit from a Micro Power System

There is no additional cost to you
You will pay the same unit price for electricity as you would if you remained connected to the overhead power network.

Maintenance is taken care of
Management of the system including all maintenance services are fully provided by Horizon Power at no cost to you.

Designed for you
The MPS is designed specifically to meet your individual energy requirements.

Safe, reliable power
The MPS provides more reliable power supply because it is less affected by outages caused by line maintenance and weather events such as floods, wildlife and bushfires.

Reduced risk with no poles and wires
The removal of poles and wires eliminates the risk of injury and damage to people, network and property, caused by farming activities and reduces bushfire risk. There is also a significant reduction in the need for Horizon Power crews to access farmland to patrol power lines that traverse your property.

Benefit from clean energy
The MPS offers an energy efficient solution harnessing the latest renewable energy technology and reduces greenhouse gas emissions.

Long term peace of mind
The MPS is designed and installed to the latest standards. When components need replacing then Horizon Power will undertake this at no cost to our customer.
The process

Your property has been identified as a property that could transition to a MPS solution.

✓ When all customers in a certain area are supplied with a MPS, we can then remove the poles and long wires that connect you and your neighbours’ properties to power. We encourage you to discuss this opportunity with Horizon Power’s local Retail and Community Manager.

✓ Once you have confirmed an interest in transitioning to a MPS, Horizon Power will provide you with a customer agreement which guarantees the same level of service, reliability and tariff you had while connected to the overhead network. You will need to sign this if you would like us to go ahead with the MPS.

✓ We will then conduct an energy audit, using data gathered from the advanced meter at your property, combined with the information you provide to us, to better understand your power usage to design a MPS solution that is tailored to your specific requirements.

✓ With your permission, our Horizon Power team will conduct a site inspection at your property to identify potential locations for the MPS and gather information to finalise a design and layout that meets your needs.

✓ You will be provided with the final location, layout, and confirmation of your specific requirements for your final approval.

✓ Once approved, we will work with you to arrange access to your property for installation and to connect the power supply to your home.

✓ Removal of the poles and wires will allow a safer, more productive use of your property.

✓ After that, everything is monitored remotely, including the diesel required for the back-up generator, by the Horizon Power team.

We will work with you every step of the way. Our goal is to make this process as easy as possible so your transition to a MPS is seamless.
The system
How does it work?
The solar panels create electricity during daylight hours. If you aren’t using as much electricity as the solar cells are generating, the excess electricity will charge the battery until it is full. When the sun goes down and the solar panels can’t generate electricity, the battery provides power to your home. The diesel generator will provide backup power if you need more energy than what is generated by the solar panels and stored by the batteries. This combination ensures your power is uninterrupted rain, hail or shine.

Who can get a MPS?
At this point in time only selected properties will be given the opportunity to have a MPS installed. Other properties may be considered where it makes economic sense for Horizon Power to install a MPS and remove the overhead connection.

What’s the cost?
There is no cost for the MPS. All costs associated with design, installation and maintenance are covered by Horizon Power. You will continue to be billed for your electricity usage, in line with the tariffs and fees set for Horizon Power.

Who owns the MPS?
The MPS is owned and operated by Horizon Power.

Does installation of a MPS require participation from all customers on the line?
On the most part, yes. However this really depends on your location along the power line. If you are the customer at the end of the line, you most likely will be able to transition to a MPS regardless of whether other customers on the line wish to participate. However, if there are other customers between you and the end of the spur line who do not wish to participate, it is unlikely you will be able to transition to a MPS.

Is the MPS safe?
The MPS will meet the relevant Australian Standards for its components and installation (for example, AS 3000, AS 4509.1: 2009), including environmental regulations for diesel storage. These systems do not emit any higher electric and magnetic fields (EMF) than common household appliances such as microwave ovens and any EMF emissions will be undetectable within the home.

The operations
Is the reliability of the electricity expected to improve with the MPS compared with the overhead network connection?
Yes. MPS is not affected by severe weather or wildlife in the same way the overhead network is.

How often will the back-up diesel generator run?
The back-up generator will run automatically when required, based on your energy usage and the availability of solar and battery energy. Some people with MPS will rarely need to use their back-up generators. For others, the generator may kick in a few times a week and run for up to a few hours to recharge the batteries if you need more energy than what is generated by the solar panels and stored by the batteries.

Will I be able to hear it, or smell diesel?
The back-up diesel generator will emit audible noise when operating, but these will be lower than the relevant State regulations for the intended use. It will produce emissions at levels similar to diesel vehicles on the road. In order to comply with noise and emission regulations, the diesel generator is manufactured with a low-noise enclosure and it will be installed at the required minimum distance from your home.

What if it’s overcast for long periods of time?
Don’t worry – you’ll still have power. The battery will be sized to ensure it can meet your energy needs for a typical 24 hour period without any solar input. If it’s overcast for a long period of time, the backup generator will kick in to recharge the batteries.

Will the system cope if I need substantially more power?
Horizon Power will cover the cost of upgrading the meter box, main switchboard and consumer mains, if required, to ensure they are compliant. Any electrical work that may be required behind the main switchboard will need to be undertaken by a qualified electrician at your own cost.

How much power will it produce?
If you are currently on a 10kVA transformer connection, the system you can expect to receive will have a 20kVA back-up diesel generator and 11kW solar battery system. A solar battery system of this size has the capacity to supply up to 14kW for 30 minutes or up to 16kW for 5 minutes before starting the 20kVA backup generator if a longer period is required. This means approximately 40% more power than an overhead connection with a 10kVA transformer.

The maintenance
What happens after you’ve installed the MPS?
Am I left to fend for myself?
No, not at all. You remain a Horizon Power customer and our Esperance team will continue to support you with the backing of the rest of our business. Once the MPS is installed and operational, we will monitor the system remotely, including the diesel levels in the back-up generator, to ensure your lights stay on.
What happens if my MPS stops working?
In the same way you report a fault if your power goes out now, report it to the fault line on 13 23 51. A 24/7 fault management service will be provided just like all other Horizon Power customers.

What happens if the generator runs low on diesel?
Will it be refilled for me or do I need to arrange the diesel and pay for it myself?
Our local Horizon Power team will take care of this for you. We will be remotely monitoring the diesel tank in the generator and if it is running low, our local Esperance team will be dispatched to refill it.

The location
What will my MPS consist of and how big is it?
How much area will it take up on my property?
The MPS is modular and can be sized to suit your requirements. We will work with you to determine the optimal configuration of the MPS to maximise solar and battery storage and minimise generator run times.

The fenced area required for the MPS will be approximately 300 square metres. The solar panels are ground-mounted and the inverters and batteries will be located inside a pod to protect them from weather.

Where will the MPS be situated on my property?
How close will it be to my house?
We will work with you to identify the most suitable location for the MPS, taking into consideration a number of factors. Most importantly, we should avoid any shady areas to ensure we get the most from the solar panels.

How does access to the MPS work?
Will Horizon Power own that part of my property?
To ensure we can carry out routine maintenance of the MPS, we will require the creation of an easement in gross to allow access and use of the parcel of land on which the unit is located. This agreement is similar to the rights Horizon Power has in relation to overhead powerlines and poles on private land.

Can my livestock graze around the MPS or does it need to be fenced?
For safety reasons, the MPS will be securely fenced. Ideally, it is preferable to install the MPS in an area on your property free of livestock.

The average number of panels is 32 and is usually stacked in two rows, with 16 per row. However different configurations can be applied. We will consult you as to the most suitable arrangements for your property.

What do our customers say?
“We were one of the first customers in Western Australia to be connected to a micro power system and we have no regrets about our decision. We have been supplied with a state of the art system, made up of a bank of solar panels, lithium batteries stored in an air-conditioned pod, and a back-up diesel generator. We are no longer affected by power outages from storms or lighting that affect other farmers from time to time. Throughout the very long and cold winter in Esperance, the solar panels and batteries have supplied sufficient power for our home and farm.

We are now completely self-sufficient, but with the advantage of having Horizon Power on hand to maintain and service our system.

Horizon Power worked closely with us to ensure we were consulted every step of the way and if we needed, were just a phone call away. It is very comforting to have a local office for support and know that someone will be dispatched immediately if there is a problem. I have no hesitation in recommending a micro power system to my fellow farmers in the region.”

John and Val Locke, beef farmers
Merivale east of Esperance in Western Australia
Contact us
We will work with you every step of the way during your transition to a MPS. If you have any questions please contact:

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