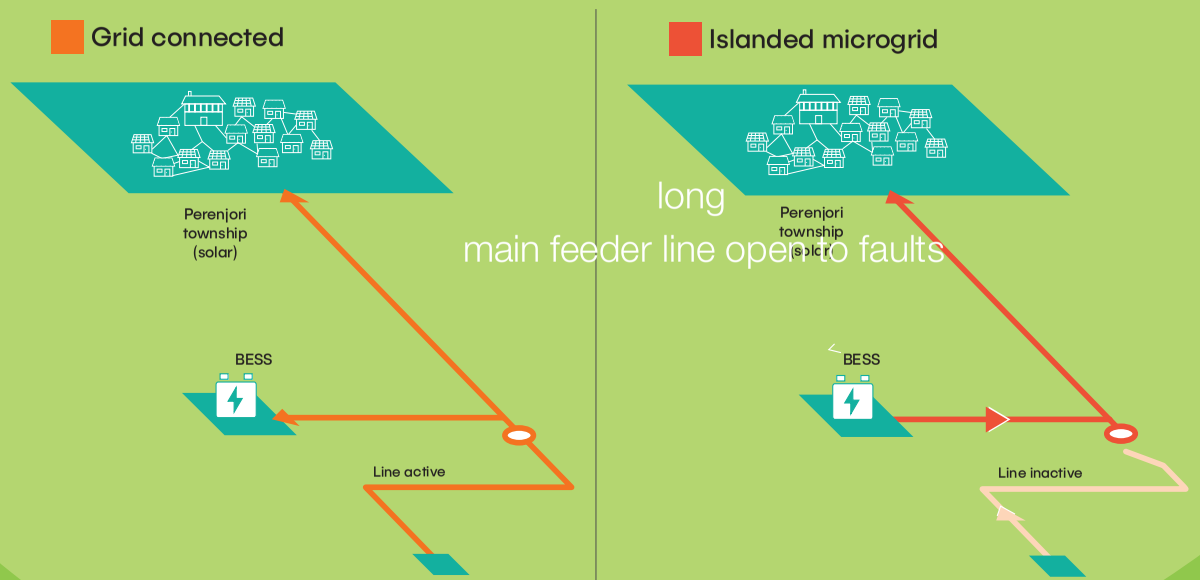
Perenjori Microgrid

A microgrid is a small part of the network that can work independently if needed, for example, if the main feeder line is out of action.



long
main feeder line open to faults

People in the town of Perenjori have a microgrid.

77km
long main feeder line

1MWh
BESS battery total capacity

Estimated to eliminate **80%** of outages

Intelligent monitoring equipment willswitch from network supply to battery supply in **1/10 of a second**

Perenjori is **1 of 4** microgrid trials either in operation or planned on Western Power's network.

The battery is made up of: **5** racks of **32** modules

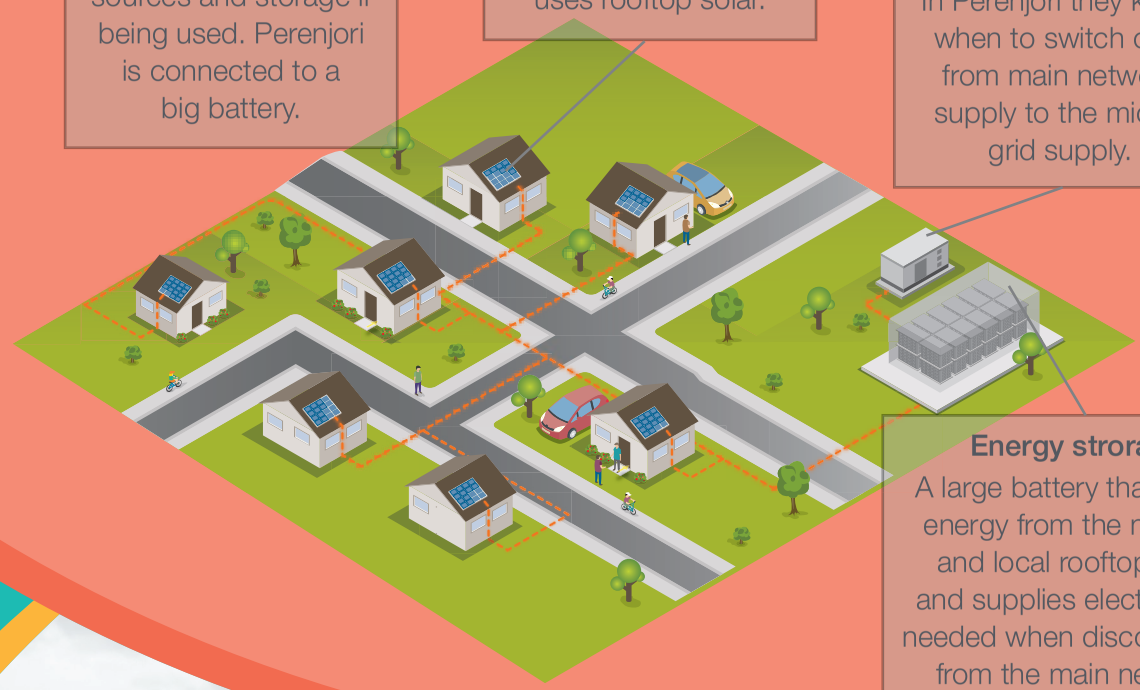
Each module has **8** cells, totalling **1280** Lithium ion cells.

A microgrid needs:

Connections
Circuits connecting the local generation sources and storage if being used. Perenjori is connected to a big battery.

Electricity generation
Local sources of electricity such as wind turbines or diesel generator. Perenjori uses rooftop solar.

Smart Systems
Computers that monitor and control the independent system. In Perenjori they know when to switch over from main network supply to the micro-grid supply.



Energy strorage
A large battery that stores energy from the network and local rooftop solar and supplies electricity as needed when disconnected from the main network alongside local rooftop solar.