

# BALLADONIA MOTEL GOES SOLAR



**Balladonia** is a small roadhouse community located on the Eyre Highway in Western Australia. It is the first stop east of Norseman on the long journey east across the Nullarbor Plain. Between Balladonia and Caiguna is a 146 kilometre stretch of the highway which is one of the longest straight stretches of road in the world.



The owners of the Roadhouse Motel chose Perth-based **Regen Power** to supply a solar/diesel generator hybrid system without storage, with the company also being responsible for the system design, documentation and installation.

The hybrid system consists of 40kW (160\* 250W) Canadian solar panels, 2\* 20kW SMA grid connected solar inverters and a custom built innovative Zero Export Controller (ZEC) from Magellan Power. The ZEC system works in conjunction with the solar inverters to monitor the actual usage of the motel and control the solar power output to suit. It also protects the diesel generator from reverse power from the inverters and prevents low partial load operation of the generator. The system is supplying more than 50% of the daytime site load saving \$800-900/month on diesel cost. The system would have been fully paid off within the first 5 years.



Rooftop solar panel installation

*“The idea behind the project was to come up with a low cost system that minimised consumption of diesel fuel while controlling and maximising the use of solar power generation. Capital cost is minimised without energy storage by improving solar penetration to >50%”* said Srini Lakshmanan, Regen Business Development Manager who is also currently doing his PhD at Curtin university.





SMA grid connected solar inverter



Zero Export Controller (ZEC)

## Live Monitoring

A low cost energy dashboard display – showing the live electricity consumption and the solar power generation in the main building- was also developed. [Click here](#) to view live monitoring status.

