



## Case Study

### Challenge

Pitstop Lodge is a multi-layered and eco-conscious restaurant located at an off-grid location along the scenic Clarence Drive near Gordon's Bay. Eskom have been unable to extend the existing electricity grid to Pitstop Lodge's location. Therefore, they had become reliant on a small solar PV system, meaning that they did not have enough capacity to supply their energy requirements.

### Solution

To address this challenge, Pitstop Lodge opted to install a hybrid-microgrid. This solution was the most cost effective option that would supply sufficient electricity to meet the demands of the facility. A 70kWp combination roof- and ground-mounted solar photovoltaic system was installed, complemented by a 100kVA generator and a 178kWh battery pack. With this solution, Pitstop Lodge has constant electricity supply to its facility, with the generator only being operational for two hours per day.

### Business benefits

Through their new microgrid system, Pitstop Lodge has offset their carbon by 104 tCO<sub>2</sub> per year, while their energy savings have equated to ~105 014kWh per year, at a nominal cost. They have also negated the impacts of load shedding.

<b>Offset of carbon</b>	<b>104 tCO<sub>2</sub> per year</b>
<b>Energy savings</b>	<b>105 014kWh per year</b>



2020

## Hybrid-Microgrid - Alternative energy solutions for businesses

**Pitstop Lodge**  
Clarence Drive, Gordon's Bay

Pitstop Lodge's Hybrid-Microgrid has allowed the company to address their energy supply constraints and avoid the current load shedding crisis in South Africa.

### Lessons learned and future plans

Pitstop Lodge's previous solar PV system was too small to meet their needs and left them vulnerable to electricity shortages. The system upgrade has resulted in far fewer power outages, their business has improved and the transition to the bigger system has been effortless. The key lessons have been to increase the size of their system to match their electrical demands and to diversify their power sources. The investment has made total business sense.

### For your business to also benefit from available energy options...

1. Visit GreenCape's website [www.greencape.co.za](http://www.greencape.co.za) and explore the business case for solar PV
2. Find an accredited installer, visit the South African Photovoltaic Industry Association (SAPVIA) PV webpage: <https://www.pvgreencard.co.za/customers/>. The South African PV GreenCard is a safety certification, a quality assurance standard, and training programme for solar PV installers.