



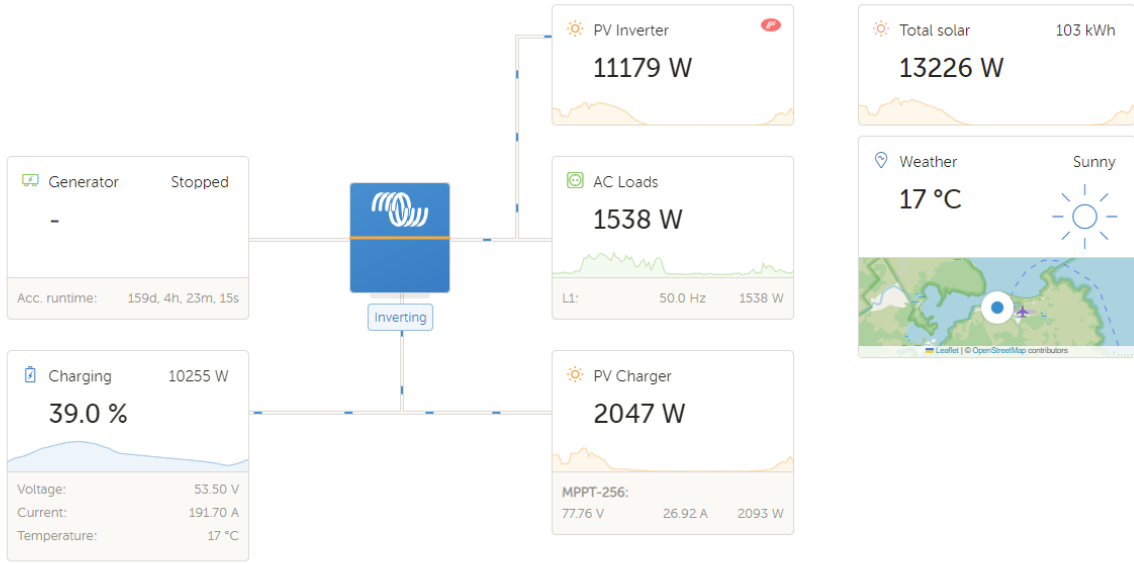
# Wilson's Meadowbank

[Hide details](#)

Last updated:  
Realtime

Status:  
OK

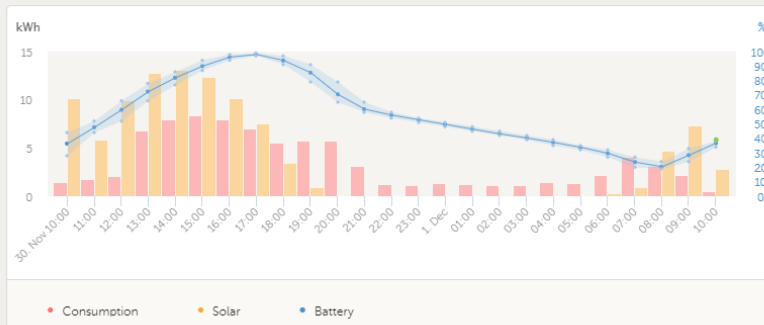
Local time:  
10:20



## Historical data

System overview

Last 24 hours



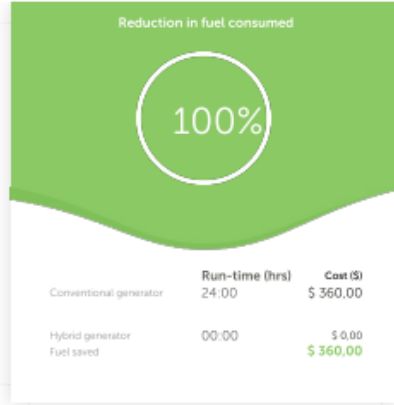
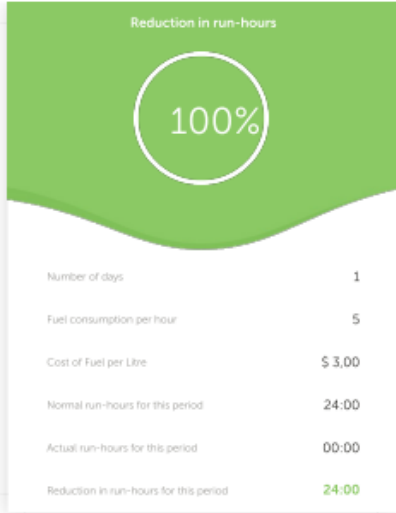
← To AC Input  
0.0 kWh

→ From AC Input  
0.0 kWh

☀ Solar  
103 kWh

🔌 Consumption  
86 kWh

Breakdown of Savings in Engine Hours and Fuel



Fuel costs saved  
\$ 360,00

CO<sub>2</sub> savings  
316.8 kg

Generator run times

Start	Stop	HH:MM	Litres consumed
<b>Total running time</b>		<b>Total use</b>	<b>0,0</b>
00:00			



# Wilson's Torrent Bay

[Hide details](#)

Last updated:  
Realtime

Status:  
OK

Local time:  
10:21



**Generator** Stopped  
Acc. runtime: 134d, 1h, 52m, 41s

**PV Inverter**  
9286 W

**AC Loads**  
2214 W  
L1: 50.0 Hz 2214 W

**PV Charger**  
828 W  
MPPT-258:  
59.72 V 14.23 A 850 W

**Charging** 7349 W  
25.0 %  
Voltage: 54.12 V  
Current: 135.80 A  
Temperature: 24 °C

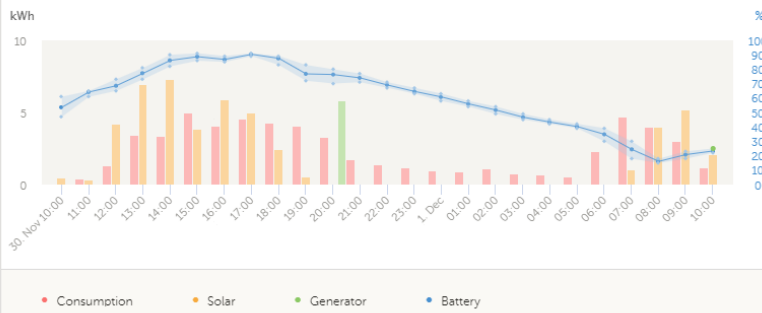
**Total solar** 49 kWh  
10114 W

**Weather** Sunny  
16 °C

## Historical data

System overview

Last 24 hours



← To AC Input  
**0.0 kWh**

→ From AC Input  
**0.0 kWh**

Solar  
**50 kWh**

Generator  
**5.8 kWh**

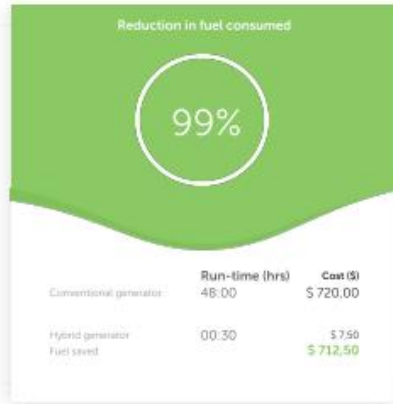
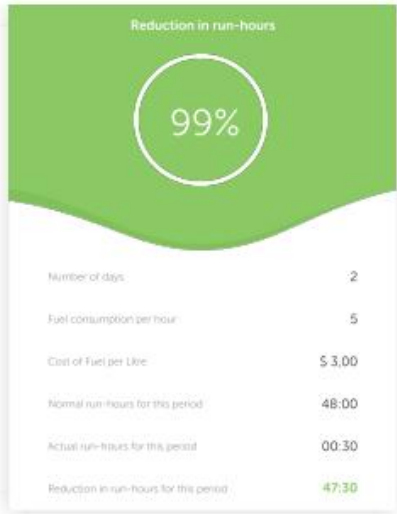
Consumption  
**59 kWh**

# Hybrid Genset report Wilsons Torrent Bay

2022-11-30 to 2022-12-01



## Breakdown of Savings in Engine Hours and Fuel



**Fuel costs saved**  
\$ 712,50

**CO<sub>2</sub> savings**  
627 kg

### Generator run times

Start	Stop	HH:MM	Litres consumed
2022-11-30 20:04	2022-11-30 20:34	00:30	2,5
<b>Total running time</b>		<b>Total use</b>	<b>0,0</b>
00:30			

Wilson Abel Tasman undertook a Ekos greenhouse gas (GHG) emissions inventory to assist in managing its response to climate change and its reduction of GHG; At this stage of our companies Zero Carbon journey Ekos and common sense guides us to invest in technology and systems to reduce our use of fossil fuels. Rather than the easy option of paying to offset.

Subsequent actions undertaken are:

- Reduction in stationary fuel usage at Lodges - Action undertaken:
  - Upgrade Solar PV arrays,
  - Double battery storage and move to Lithium-Ion Batteries
  - Upgrade hybrid power handling inverters
  - Improve remote monitoring, control and metering of power systems
  - Standardise water heating and generator fuel type to diesel, reducing heavy lpg cylinder movements.
  - Work towards deploying biodiesel as and when it is supported by plant equipment manufacturers
- Reduce Vessel fuel emissions - Action undertaken:
  - Reduce scheduled service timetable periods
  - Open services only when demand warrants
  - Codeshare with other operators in low demand periods
  - Set up a collective coach service to connect Nelson to the park
  - introduce a carbon offset levy of 20 cents per leg of travel as part of the EAF initiative
- Research and Implement a voluntary and or offsetting programme such as CarbonClick.com or similar to give an appreciation of their emissions and the option of offsetting. Travellers have had the option to offset their flights for some time now so it makes sense to do our part in the travel experience chain with transparency.

Some very interesting tech and processes to keeps the lights on and the showers hot, next stage will be telling the story better.

How it works

#### **Sunny Day - Full lodge Scenarios:**

During the day, Solar water panels heat Pre-Heat-Cylinders 3 & 4. Plus Excess Photovoltaic (PV) power supply, after batteries are charged, get directed to 2 x 3kw heating elements in Supply Cylinders 1 & 2 when water temperature reaches 70 degrees elements switch off and power gets diverted to Pre-Heat-Cylinder elements 3 & 4.

If Supply Cylinders 1 & 2 temperature is below 60 degrees Diesel Boiler will fire and wetback coil will maintain temperature at 70 degrees.

At night, Power is drawn from batteries. If their State-of-Charge demands drops to 10% generator will run until 50% SoC is reached.

**Note:** Manual backup if Diesel Boiler fails: Run generator, batteries will charge first then, Electric elements in Supply tanks will heat water tanks.

**Cloudy Day - Full lodge Scenarios:**

Battery State-of-Charge sensor activates additional generator run time as required.

Supply cylinders 1 & 2 water heating will be supplied by the Diesel boiler wet back coil.

Any Solar power output will be used to offset lodge demand and charge batteries.

**Water conservation:** during peak hot water demand periods, hot water is circulated around the lodge to reduce the wait time after hot tap is turned on, this in turn reduces water use and waste water treatment volumes.

**Our Zero carbon goal** will be achieved by switching to bio diesel as technology and supply develop.