

## Solar Power “Off-grid” Solution

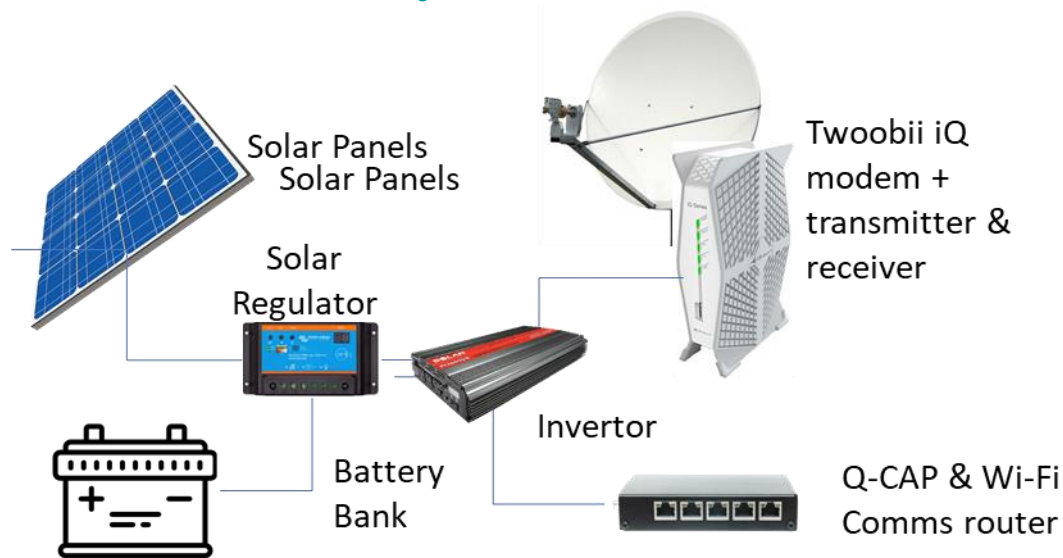
Twoobii provides “off-grid” broadband services to business and retail operation which are not reliably connected to the telco grid. Low power consumption and effective communication design enables Twoobii to also operate using a solar system and “off-grid” from the national power network.

### Requirement

For the purpose of this solar design only the communication equipment was included and the following operational requirements were considered.

Equipment Power Requirements		Solar System Operating Requirements	
• Twoobii satellite modem, RF transmitter & RF receiver	65W	• Operating voltage	12VDC
• Q-CAP WiFi and comms router	7W	• Standby days	1 day
		• Recovery days	2 days

### System Overview



### System Definition

Using the defined criteria the design is further based on 5 hour charge per day, recommended solar power systems is then as follows. Note that this design is indicative only and doesn’t include any additional user equipment.

- 2x 330W solar panels
- 3x 105Ah deep cycle batteries
- 1x 20A Solar regulator
- 1x 1000W Invertor

