

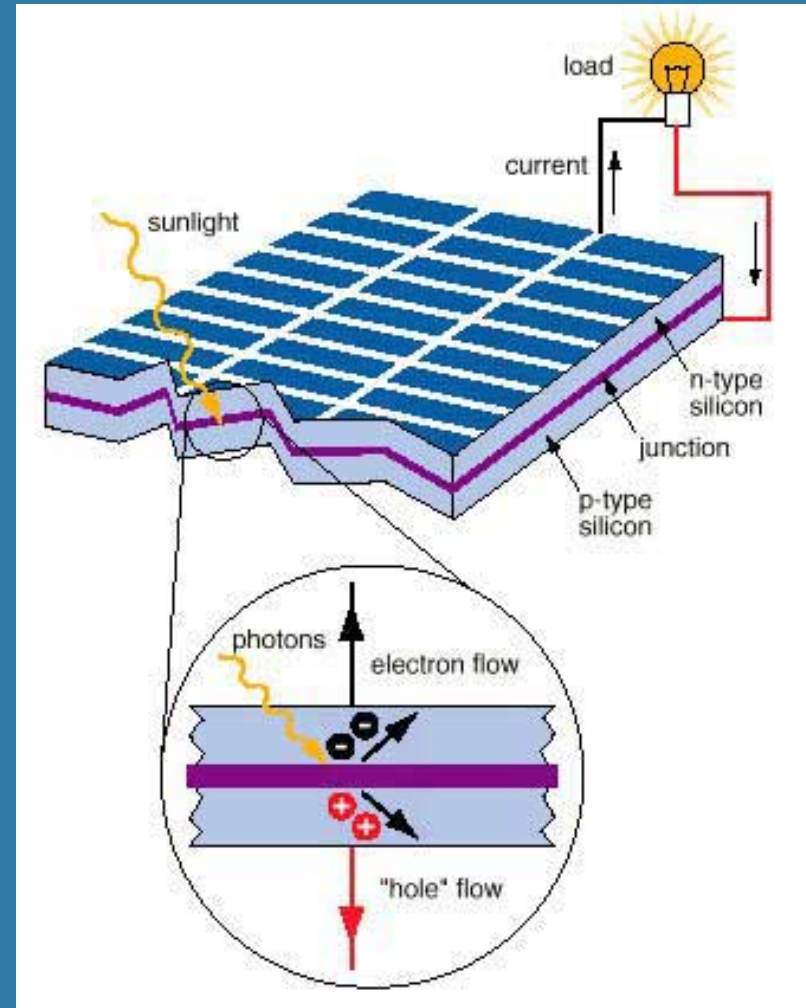
# *Solar Power Systems*



For your Home  
Presented by Woody Thompson



# Solar Panels are technically Photovoltaic (PV Modules)

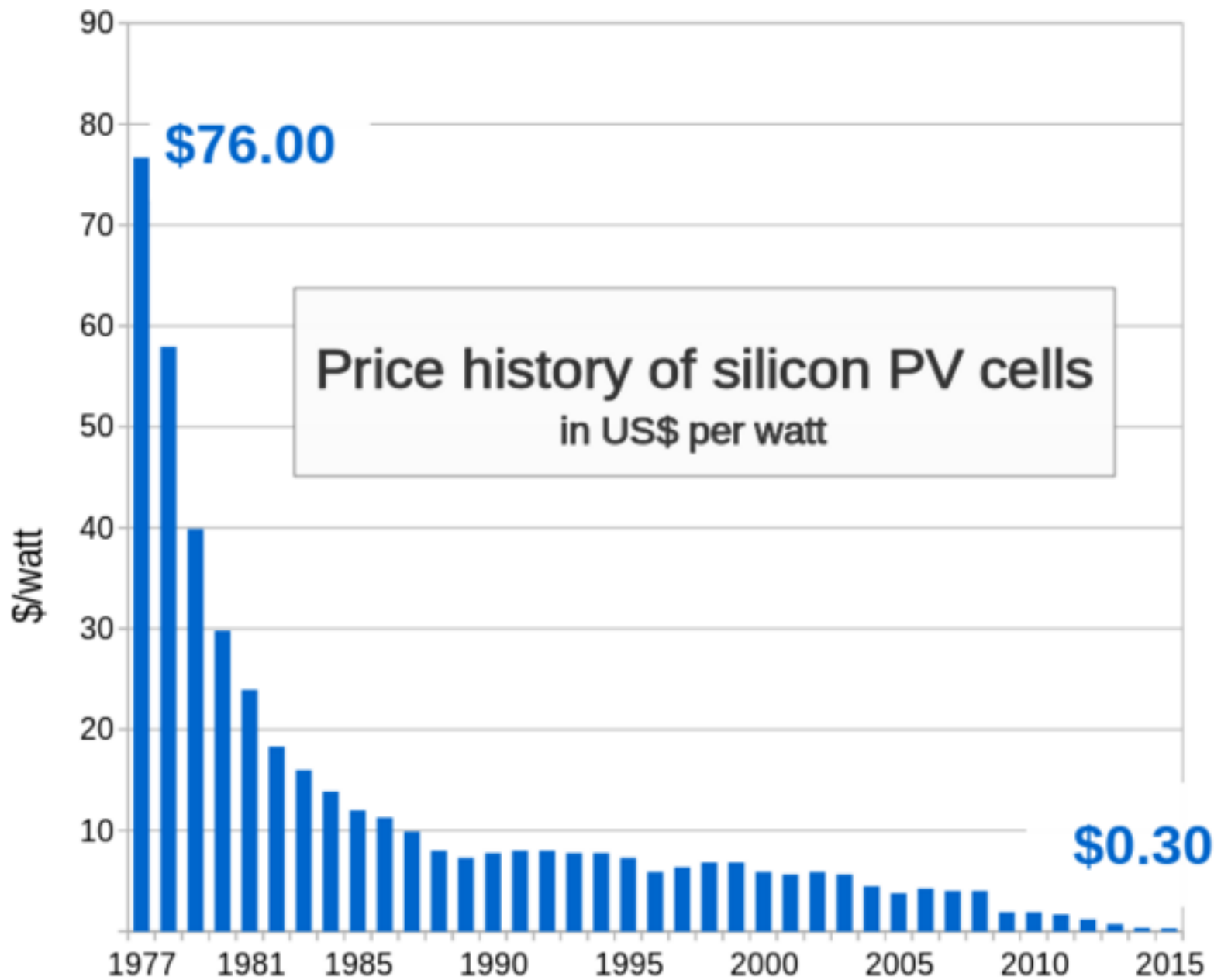












Source: Bloomberg New Energy Finance & [pv.energytrend.com](http://pv.energytrend.com)











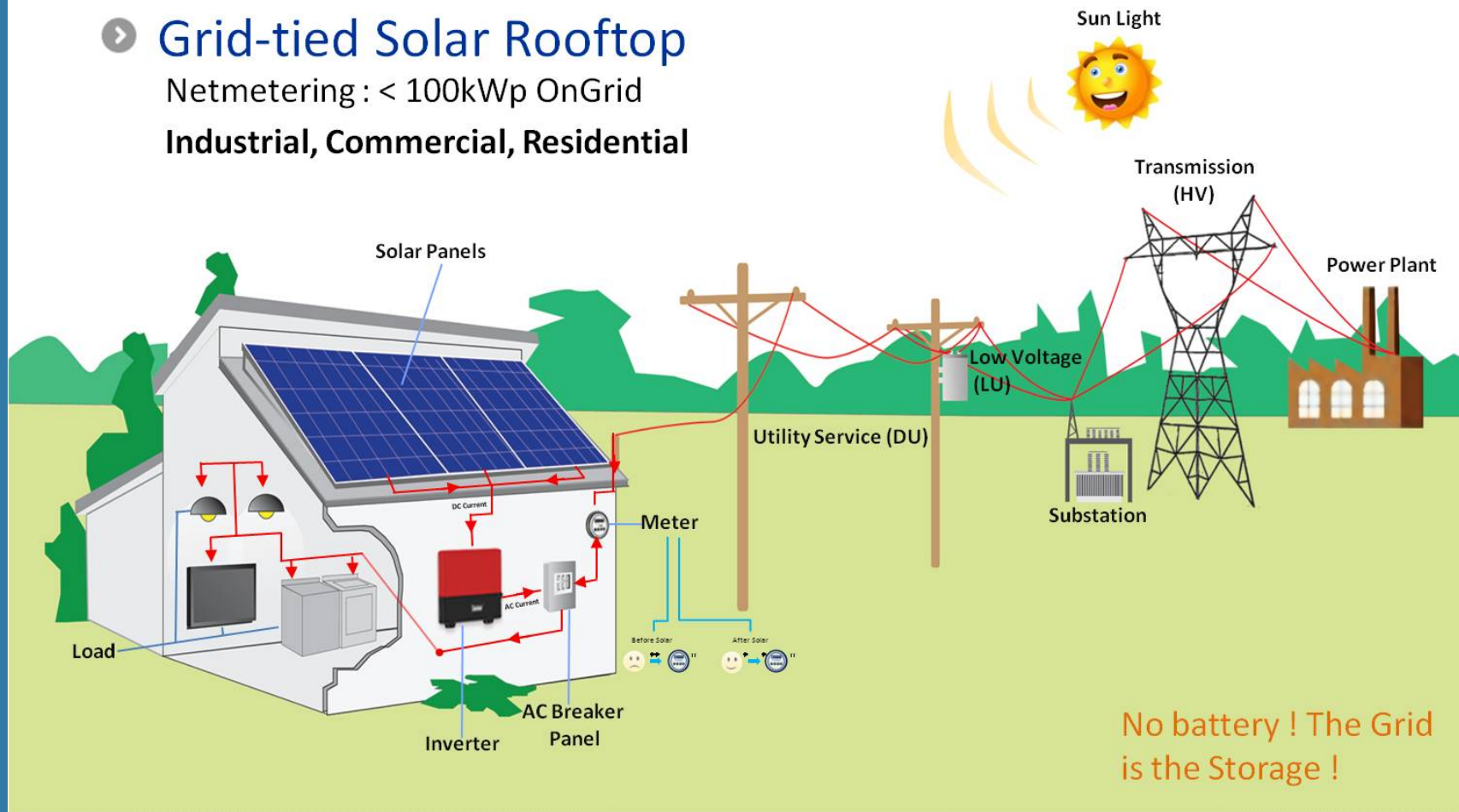




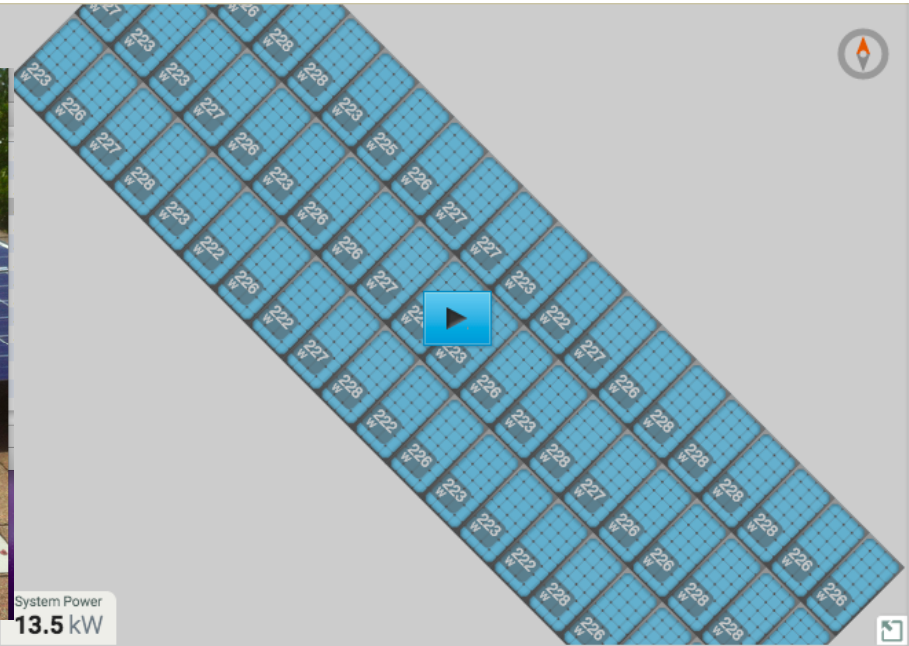
## ➤ Grid-tied Solar Rooftop

Netmetering : < 100kWp OnGrid

Industrial, Commercial, Residential

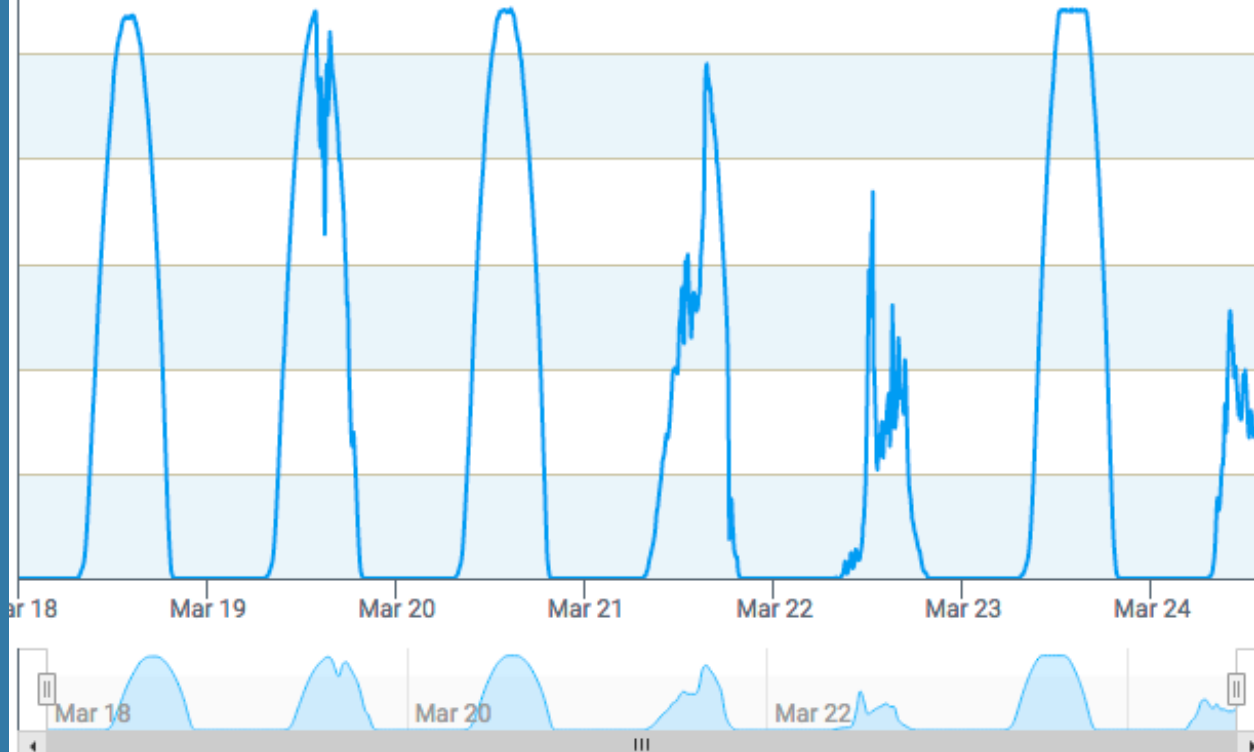






System Power  
**13.5 kW**

Thu Mar 23, 2017 12:40 PM



### Full System

Energy

Status

Today

**25.3** kWh

Peak: 6.37 kW at 10:00 AM

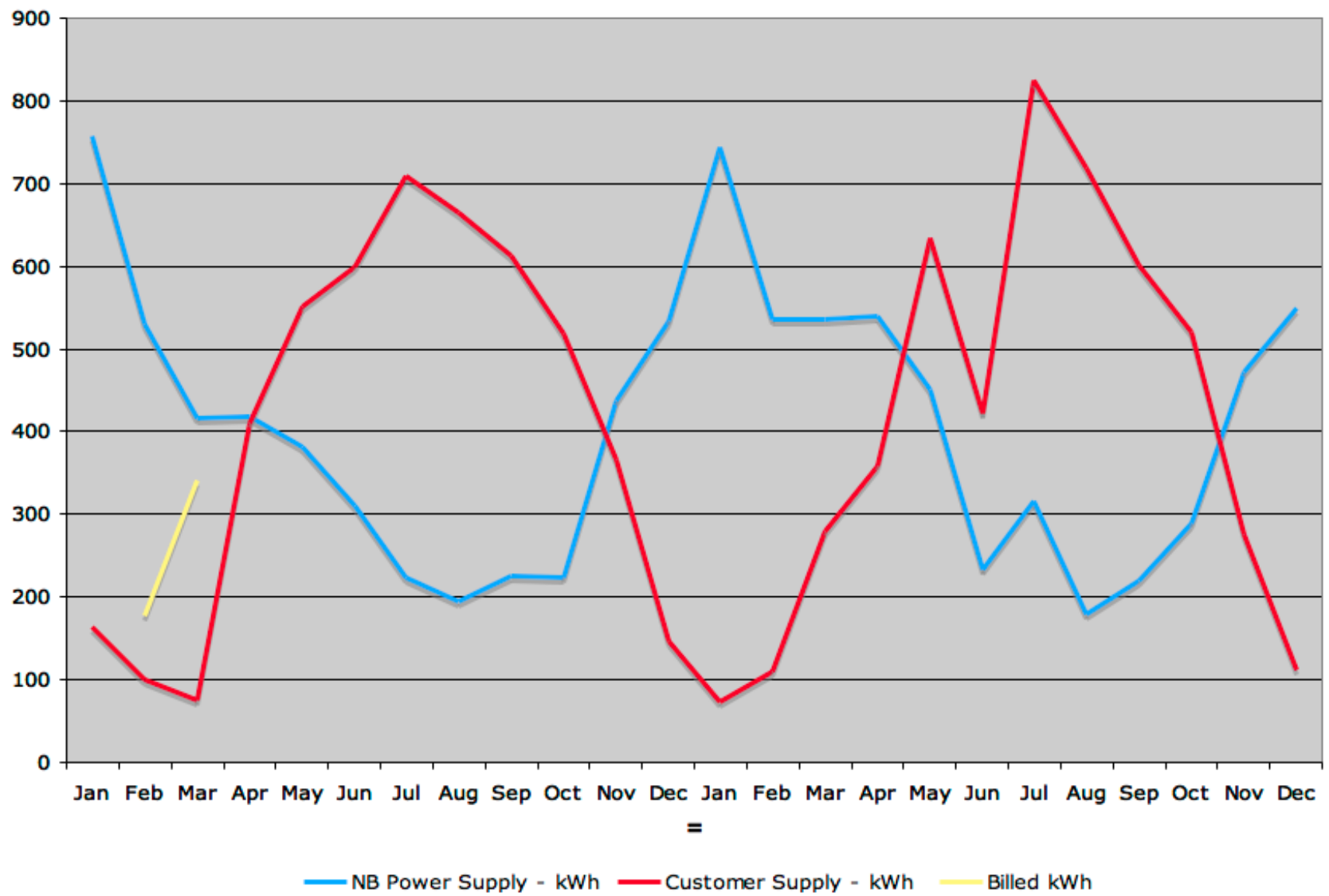
Latest: 4.47 kW at 2:35 PM

Past 7 Days

**517** kWh

Month To Date

**1.48** MWh

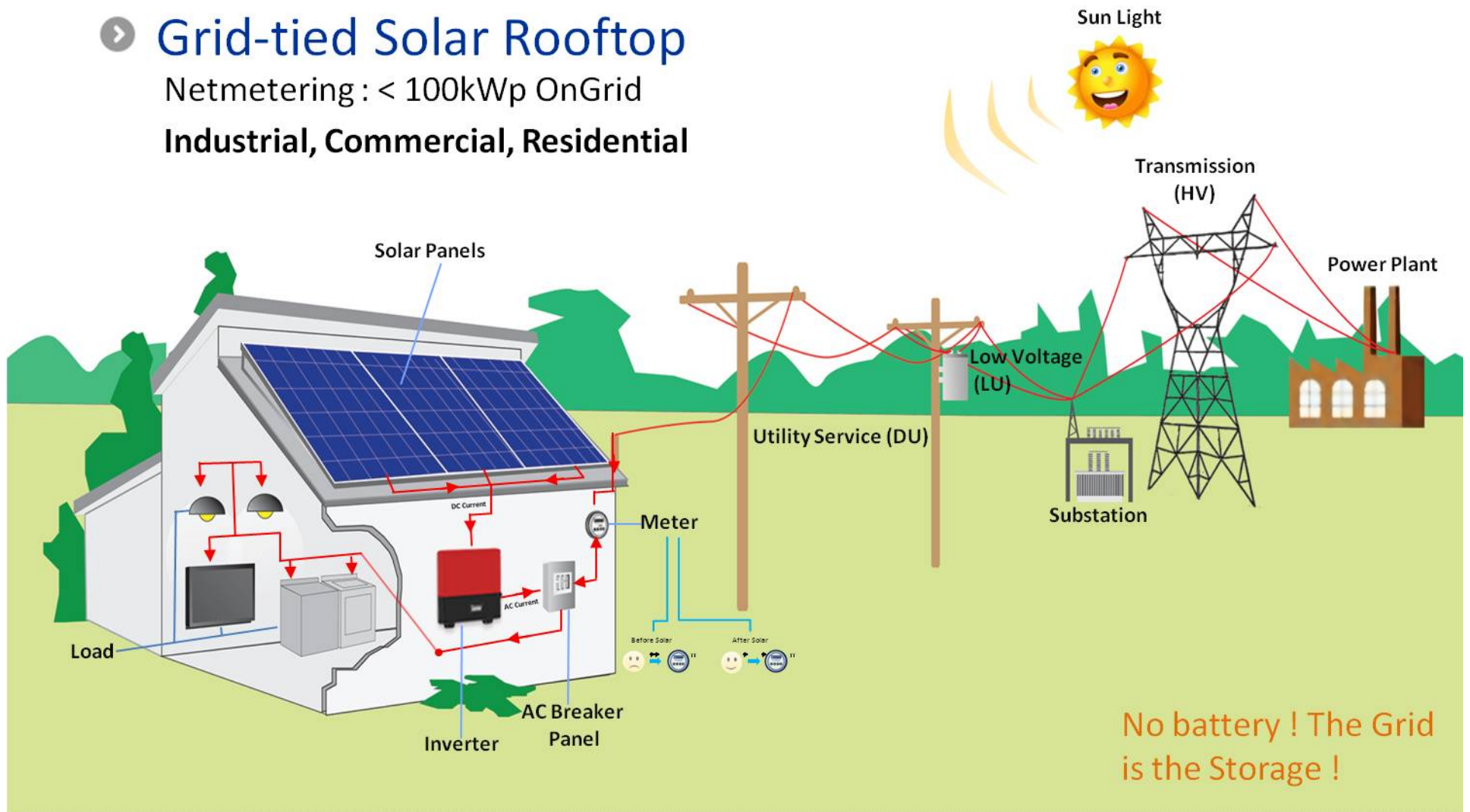




## ➤ Grid-tied Solar Rooftop

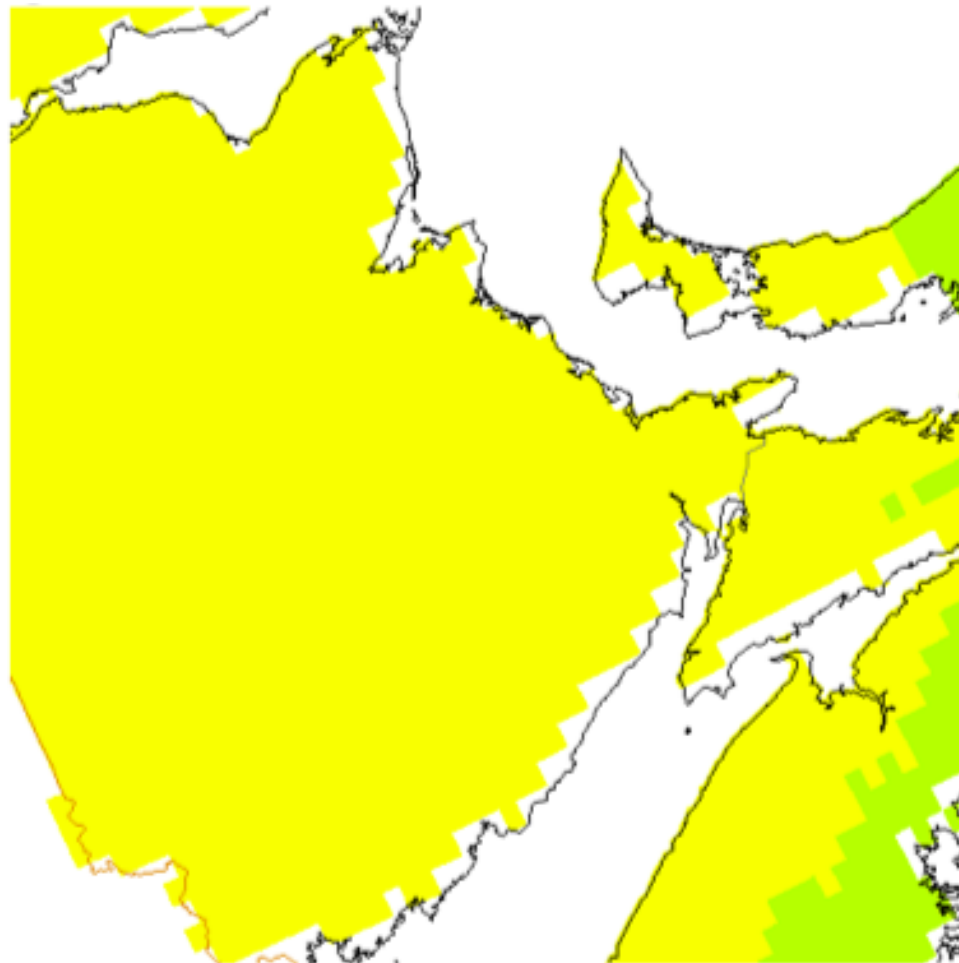
Netmetering: < 100kWp OnGrid

**Industrial, Commercial, Residential**









**Legend**

**Photovoltaic potential (kWh/kW) South-facing, tilt=latitude-15° Annual**

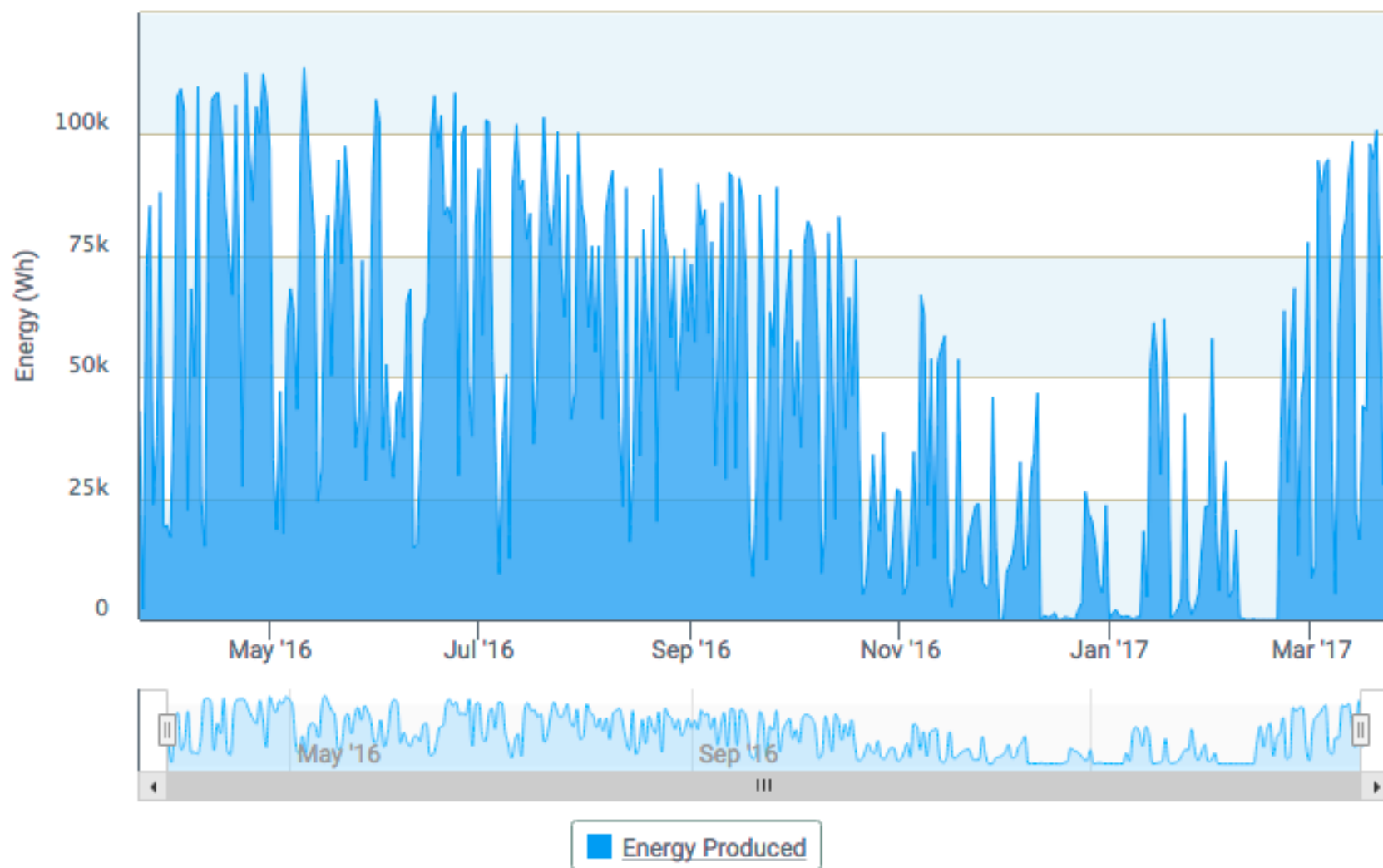
- 0 - 500 kWh/kW
- 500 - 600
- 600 - 700
- 700 - 800
- 800 - 900
- 900 - 1000
- 1000 - 1100
- 1100 - 1200

My solar resource Vs energy consumption in my home.

To be NET ZERO:

Annual Energy Consumption = Annual energy generation

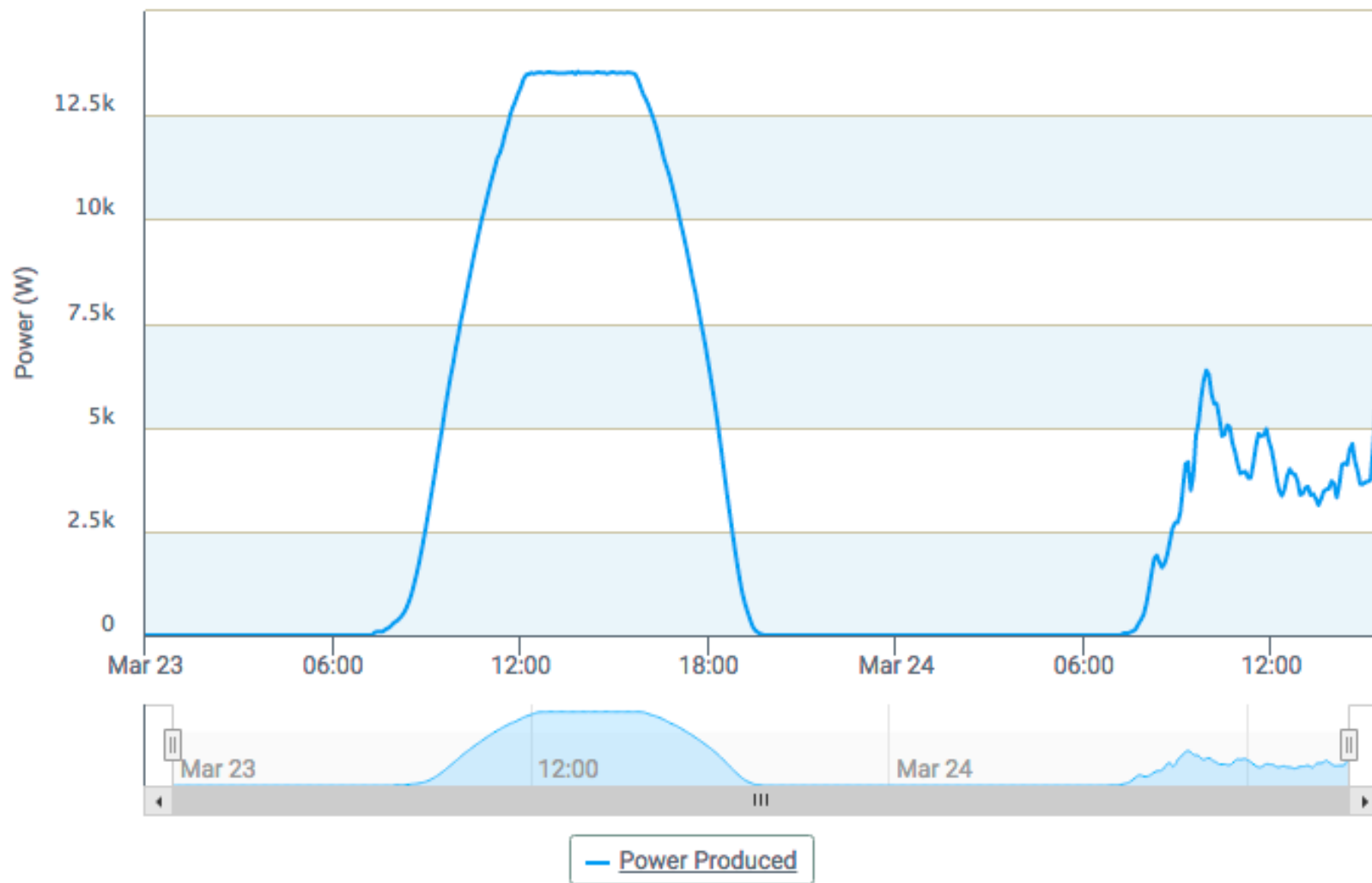
APEGNB: 15kW Installed, 17,700 kWh Generated = 11.8kWh/year per kWh installed



Maximum  
Produced  
**114 kWh**

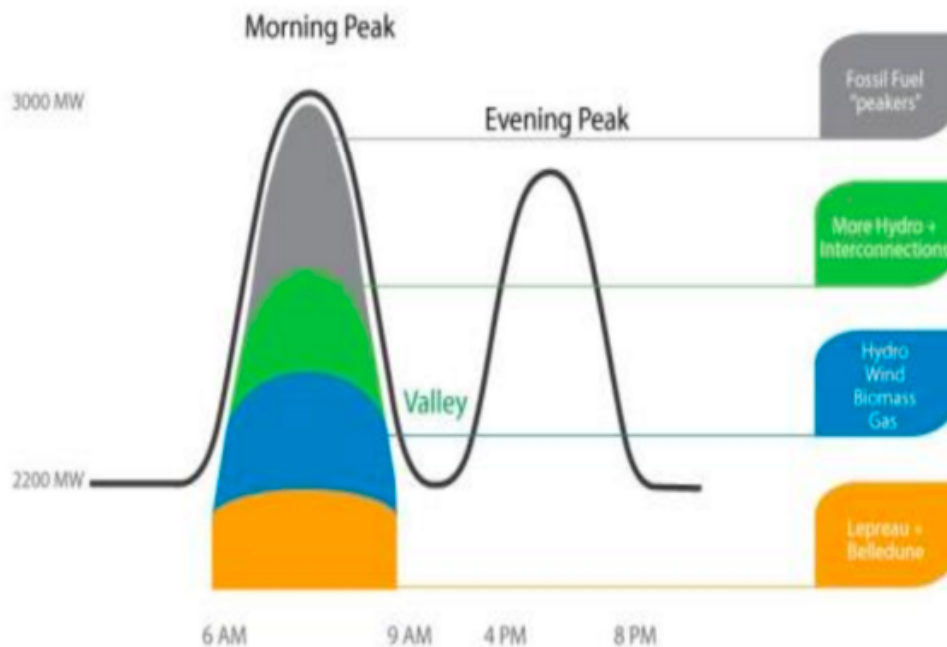
Total  
Produced  
**17.7 MWh**





# NB Power's 10-Year Plan

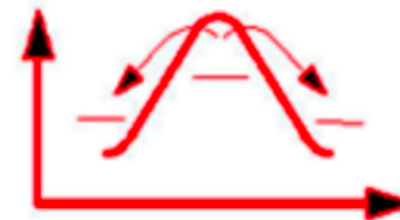
Fiscal Years  
2016 to 2025



## Demand Response



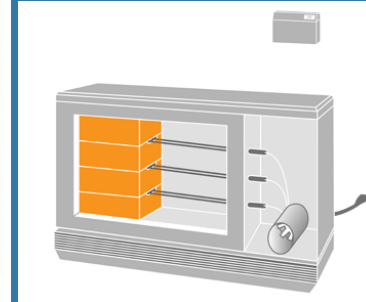
**Peak Clipping**



**Load Shifting**



- Load Shifting can be accomplished by:
  - Activating Thermal Loads during off-peak hours



- Changing energy use patterns



- Charging devices during off-peak hours



- Shifting Demand



In the event of a power outage the grid tied inverters will continue to energize the sub panel and charge the batteries VIA the inverter.

Power in from  
Mains



**MAGNUM DIMENSIONS**



Power out to Loads  
heating, hot water,  
electric range...

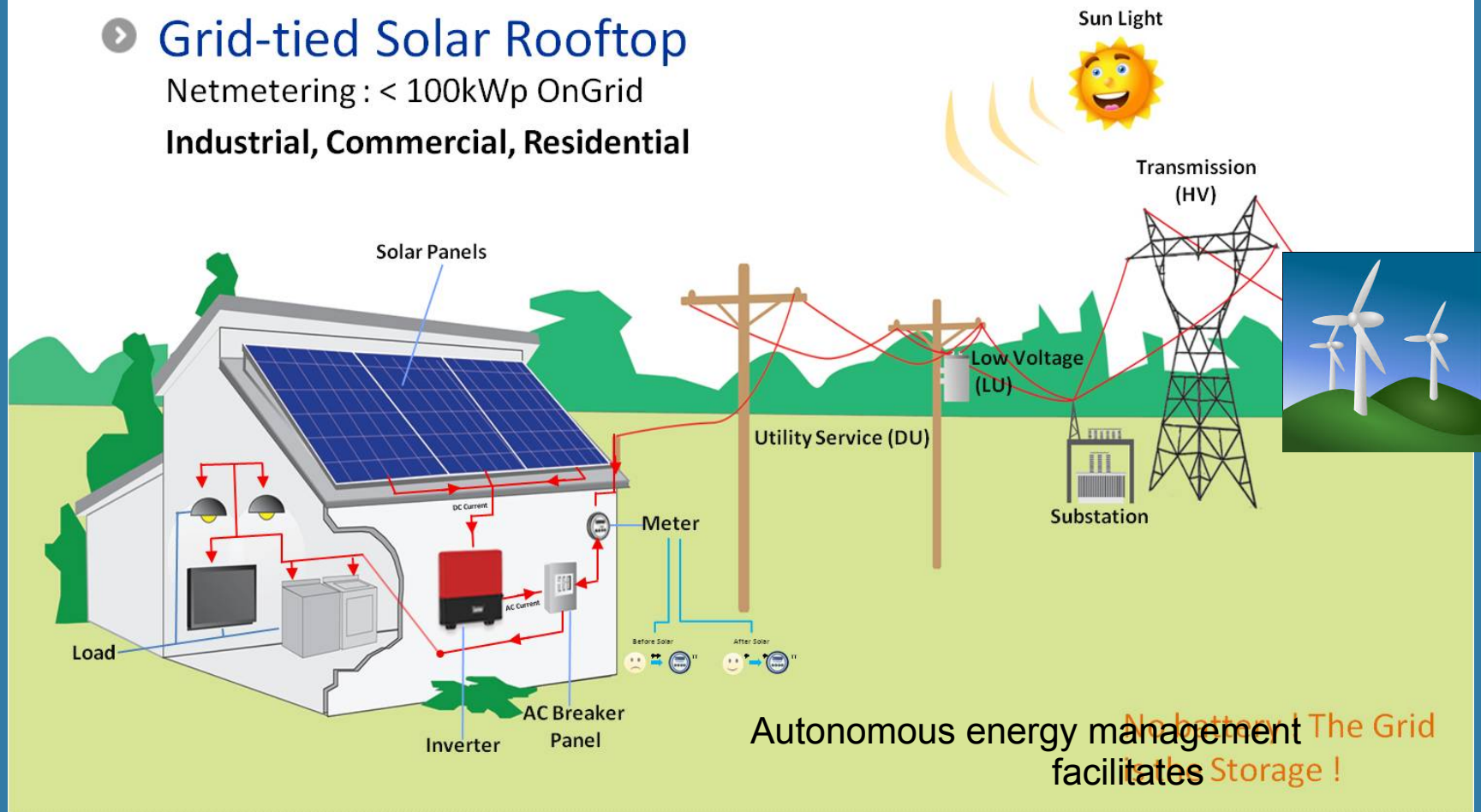


Power out to Critical  
Loads  
Lights, Water,  
Refrigeration

## ➤ Grid-tied Solar Rooftop

Netmetering : < 100kWp OnGrid

Industrial, Commercial, Residential



How do we get there from here?

Variable pricing based on energy availability. The market will do the rest.