Project Details

![SRE-Solutions.com by Rossmann-Engineering logo]

Project details:
- Installed capacity 1.8 GW
- 1300 Solar assets in 8 countries

Key features:

- Fully customizable IoT platform based on Thingsboard, capability for hundreds of Devices
- Values are stored in a Database, historical values can be shown for anytime in the past for troubleshooting
- Live Dashboard view, values refresh without page reload
- Low running cost (Server instance: 20-50 € / Month)
- Low payload size to keep data transfer low
- All calculations and Data logging functions are done on server side
- Industry aproved Gateway to Transfer values from the field into the cloud
- In-house development of a gateway application available as open source, fully configurable via web server without programming knowledge
- Support of multiple protocols
- Comfortable Data overview via Collibellex mobile app available in Apple App store and Google Play store
- Server hosted in Europe
- Hourly or Daily reports via mail with Trace View

Network Infrastructure and cost overview

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Total estimated cost:

One time invest (per site):
Compulab IoT Gateway   140,00 €

Monthly Running cost:
SIM-Card 3GB / Month   10,00 €
Digitalocean Ubuntu Server   24,00 €

Licensing cost   None

Compulab IoT Gateway
with Linux OS

Digitalocean
Ubuntu cloud server

Thingsboard
(MQTT Broker)

ThingsBoard

Cellular, WIFI or wired

Modbus RTU Master
Modbus TCP client

Solar Power Inverter - different types
supported
(Modbus TCP Server or Modbus RTU Slave)
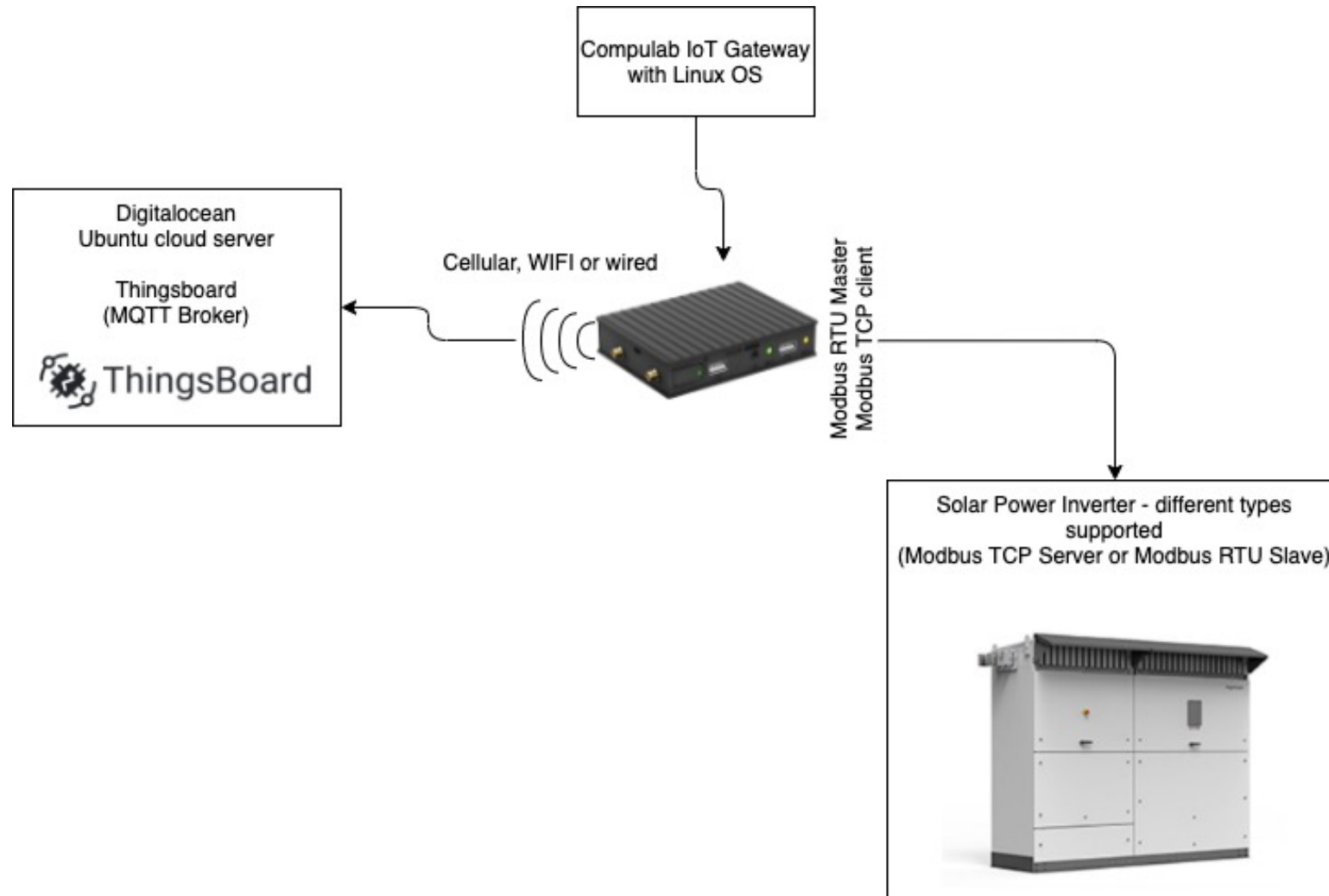
Open Source IoT Gateway application, industry approved

IoT Gateway Application:

- In house development
- Available as open-source
- Industry approved in hundreds of applications
- Supports multiple protocols
  (Modbus-TCP, Modbus-RTU, Bacnet, Ethernet/IP, EnOcean)

Select Read-Order	Total AC Energy
Name	Total AC Energy
Active	True
Transport-ID	1
Absolute Threshold	0
Relative Threshold	
Data Area	Input Register
Registerintervaltime	1
Multiplefactor	1
Signed	False
Bits	32
Address	5

Latest readings

Tag name	Value
Total AC Energy	8328
Hours up and running	15978
Inverter Alarms	0
DC input voltage	734
Average input current estimation	0
Grid RMS Voltage, phase 1	237
Grid RMS Voltage, phase 2	237
Grid RMS Voltage, phase 3	237
Grid RMS Current, phase 1	0
Grid RMS Current, phase 2	0
Grid RMS Current, phase 3	0
Cos Phi	0.0
Active Power	0.0
Energy Resetable Counter	28541.4

Home   Config Import/Export   Connectivity   GW Advance Configuration   Modbus configuration   Show log   Latest Readings

Connection status

IP-Address eth0	192.168.17.251
Subnet-mask eth0	255.255.255.0
IP-Address eth1	
Subnet-mask eth1	

VPN status

Connection status	disconnected
IP-Address	172.28.62.124
Subnet mask	255.255.0.0
Version	1.6.4
Node ID	fe70b7ec50
Network-ID	error
Network-Name	error

Connect VPN

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WISE ENERGY
SMART RENEWABLE SERVICES

Open Source Widget devlopment on demand

open-source widget library for Thingsboard
https://github.com/rossmann-engineering/Collibellex-Thingsboard-Widgets
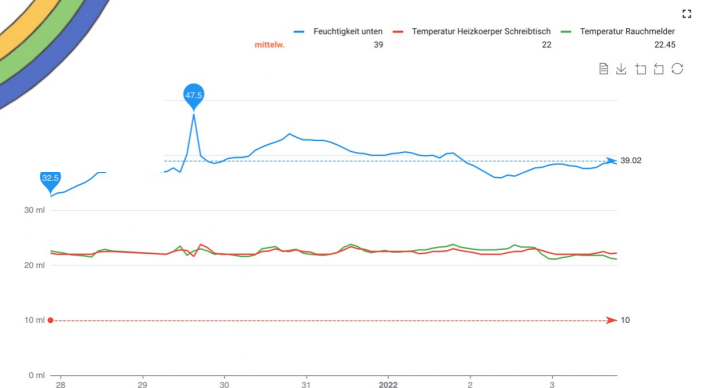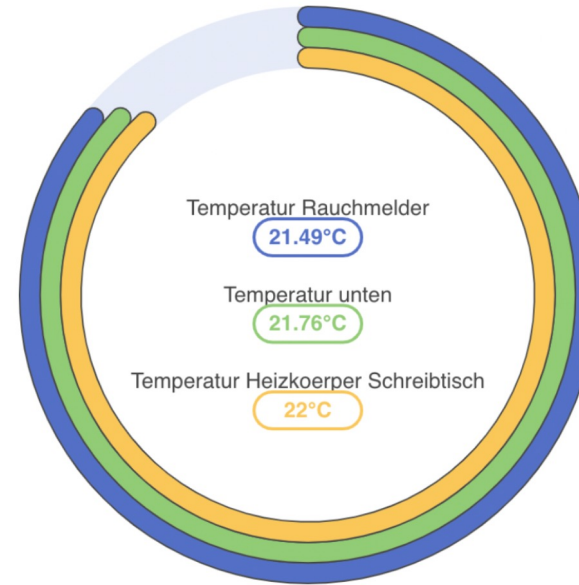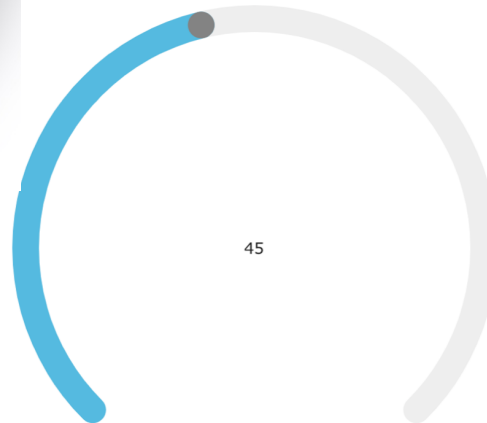
- Fully Customized Login Screen
- User Management for Customer Users
  and Tenant Administrators

✉ Benutzername (E-Mail) *

Ungültiges E-Mail Format.

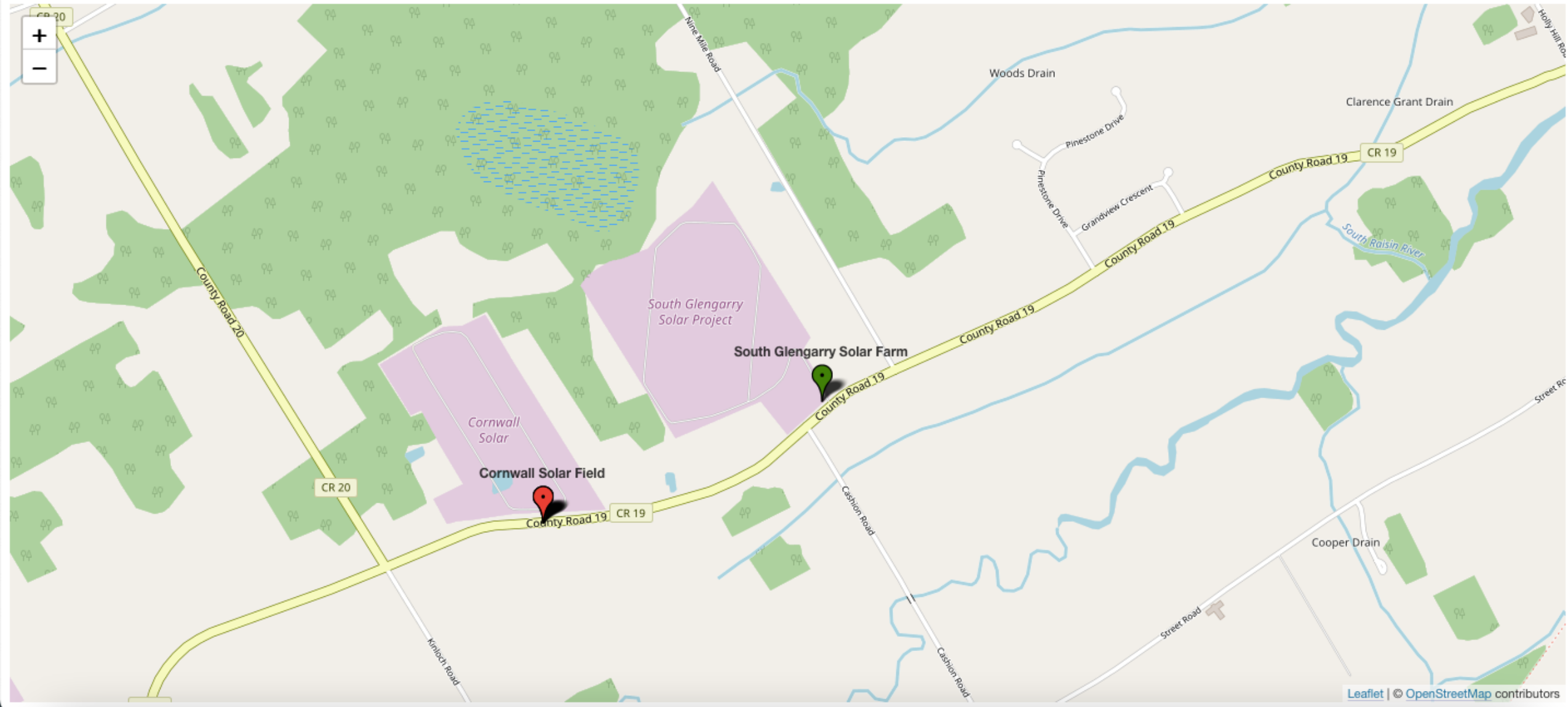🔒 Passwort   👁
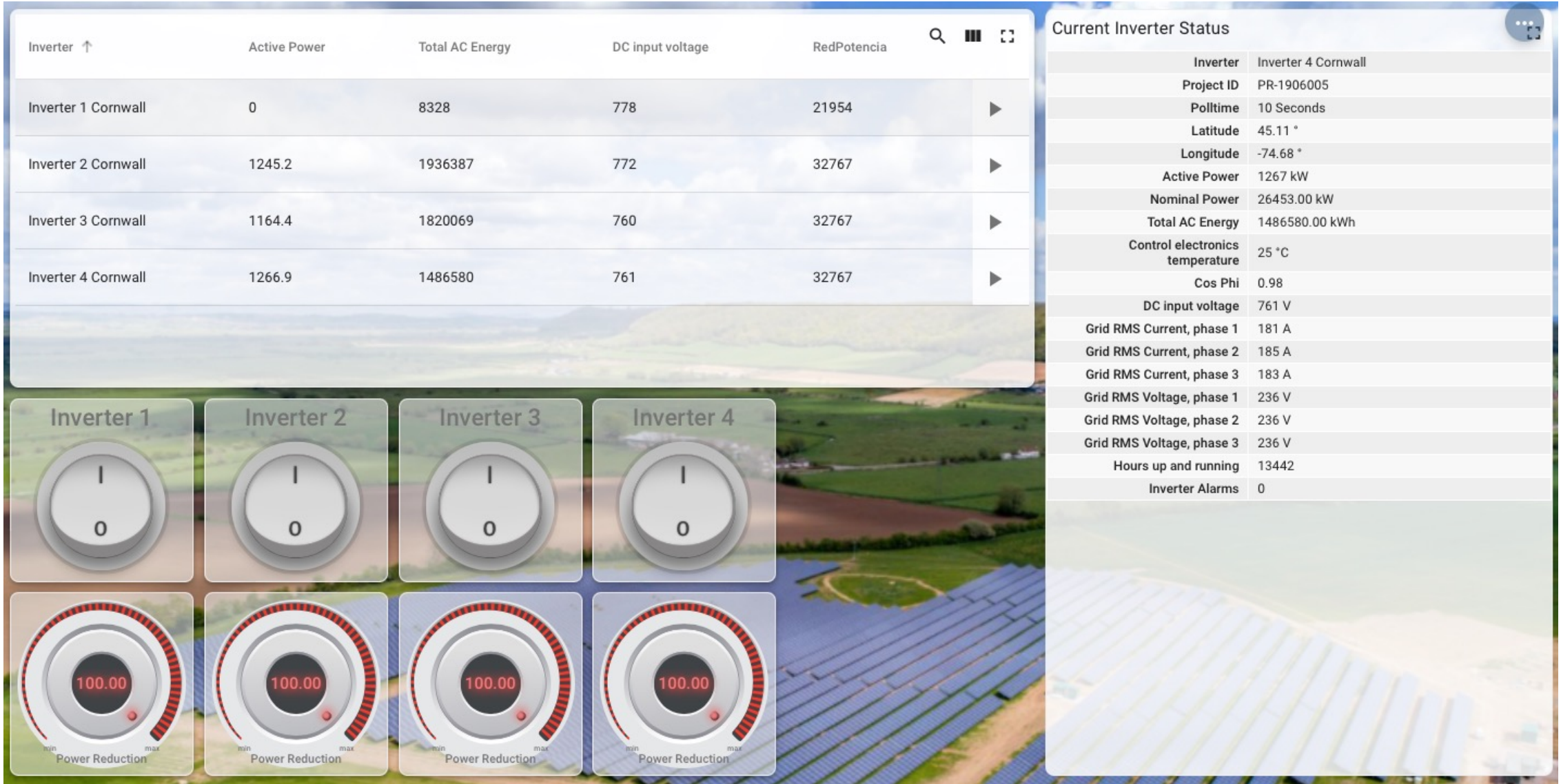
                                                    Passwort vergessen?

Anmelden

Overview showing all available devices (depending on the user permissions)
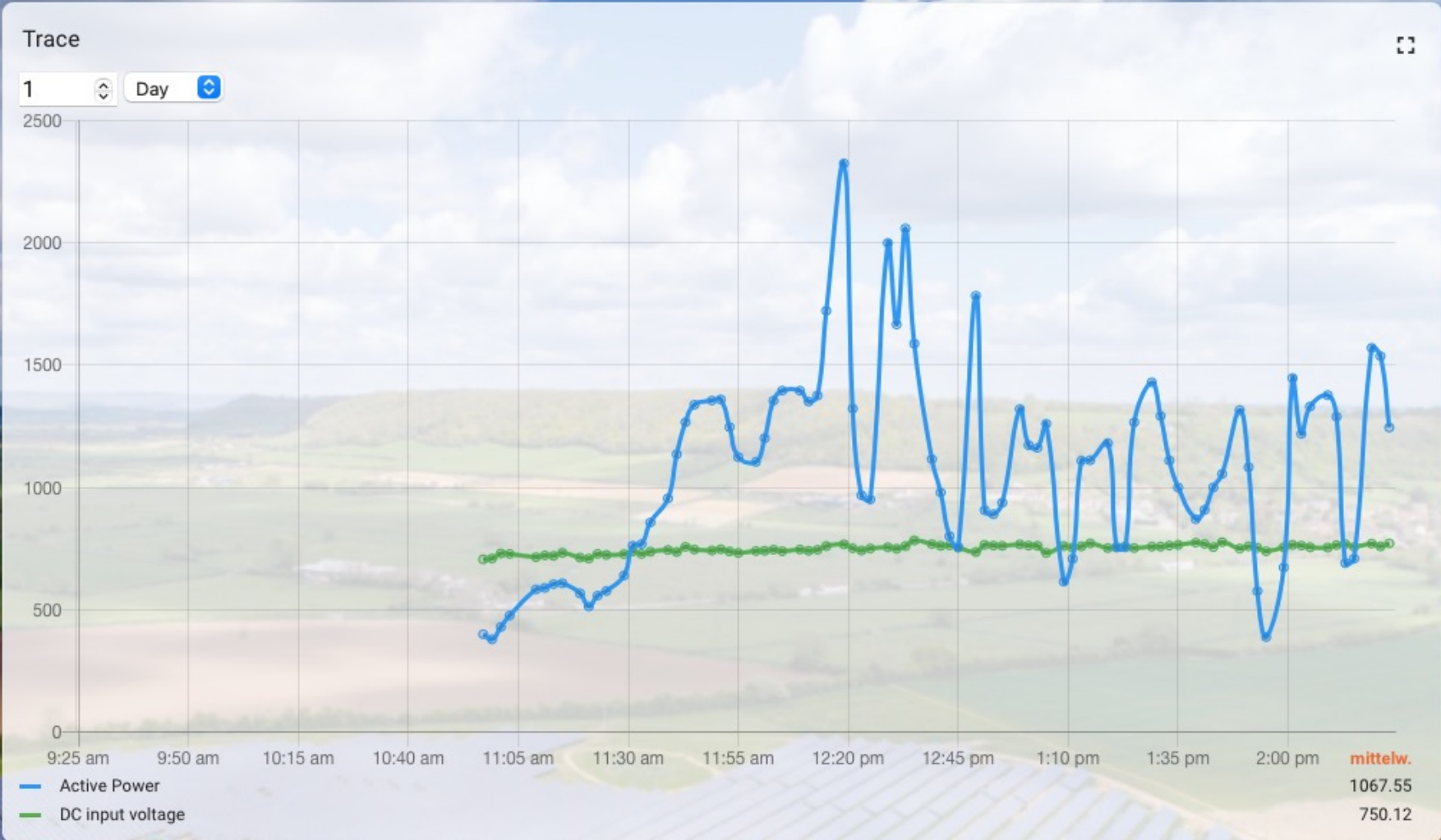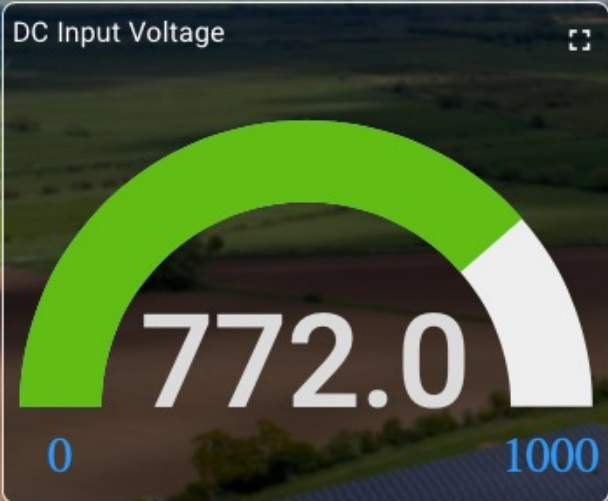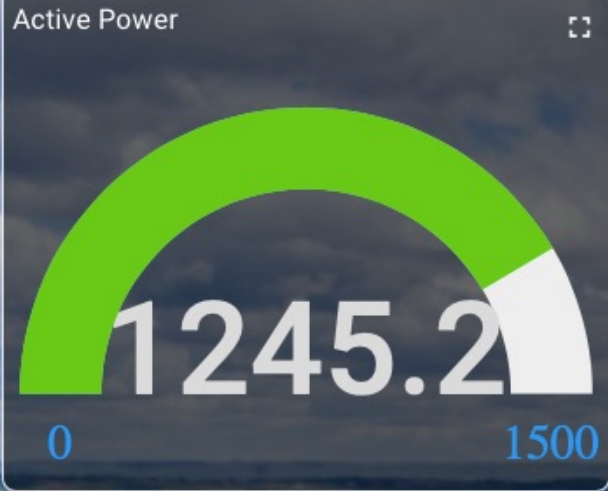## Map view and list view with most important values

Dashboard overview for the selected site showing all relevant latest values and control elements

Inverter ↑	Active Power	Total AC Energy	DC input voltage	RedPotencia	
Inverter 1 Cornwall	0	8328	778	21954	▶
Inverter 2 Cornwall	1245.2	1936387	772	32767	▶
Inverter 3 Cornwall	1164.4	1820069	760	32767	▶
Inverter 4 Cornwall	1266.9	1486580	761	32767	▶

Current Inverter Status

Inverter	Inverter 4 Cornwall
Project ID	PR-1906005
Polltime	10 Seconds
Latitude	45.11 °
Longitude	-74.68 °
Active Power	1267 kW
Nominal Power	26453.00 kW
Total AC Energy	1486580.00 kWh
Control electronics temperature	25 °C
Cos Phi	0.98
DC input voltage	761 V
Grid RMS Current, phase 1	181 A
Grid RMS Current, phase 2	185 A
Grid RMS Current, phase 3	183 A
Grid RMS Voltage, phase 1	236 V
Grid RMS Voltage, phase 2	236 V
Grid RMS Voltage, phase 3	236 V
Hours up and running	13442
Inverter Alarms	0

Inverter 1 — 0

Inverter 2 — 0

Inverter 3 — 0

Inverter 4 — 0

Power Reduction 100.00

Power Reduction 100.00

Power Reduction 100.00

Power Reduction 100.00

Historical Values for the selected inverter

Message Log

Letzte Störungen

Timestamp ↓	Stoerung
2022-08-01 08:55:31	
2022-08-01 08:55:11	
2022-08-01 08:54:31	
2022-08-01 08:54:11	
2022-08-01 08:53:21	
2022-08-01 08:53:11	
2022-08-01 08:46:21	
2022-08-01 08:45:11	
2022-08-01 08:39:01	
2022-08-01 08:38:41	

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Access via Collibellex-App – Fully customizable