



ODASCO Solutions for Telecom Sector

Asset Management, Energy/OPEX Reduction and Energy Management Solutions

▼ ODASCO LLC

ODASCO (Odeh Asalem Co), leaders in the Automation, Power industry & Smart city infrastructure, harness more than 25 years of experience in electrical design and contracting, as well as controls and automation to provide intelligent and sustainable energy solutions mainly in the following services :

- Industrial Automation & SCADA.
- Renewable Energy & Offgrid Solutions.
- Electrical & Low Voltage Contracting.
- Telecommunication & Managed Service.



Our wide range of activities has covered several countries in the middle east region.

▼ Area Served

- UAE – Dubai
- UAE – Abu Dhabi
- Kuwait
- Oman - Muscat
- Jordan – Amman
- Ukraine - Poltava

❖ HQ Location : Dubai – UAE

❖ Started : 1994

❖ CEO : Mr. Saad Odeh

❖ Number of Employees : 200++

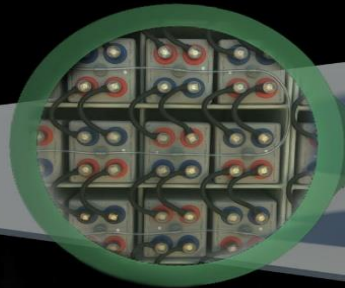




OFF-Grid Solar Solution



FUEL MANAGEMENT



BATTERY MANAGEMENT



POWER METERING



GENSET MANAGEMENT



COOLING MANAGEMENT



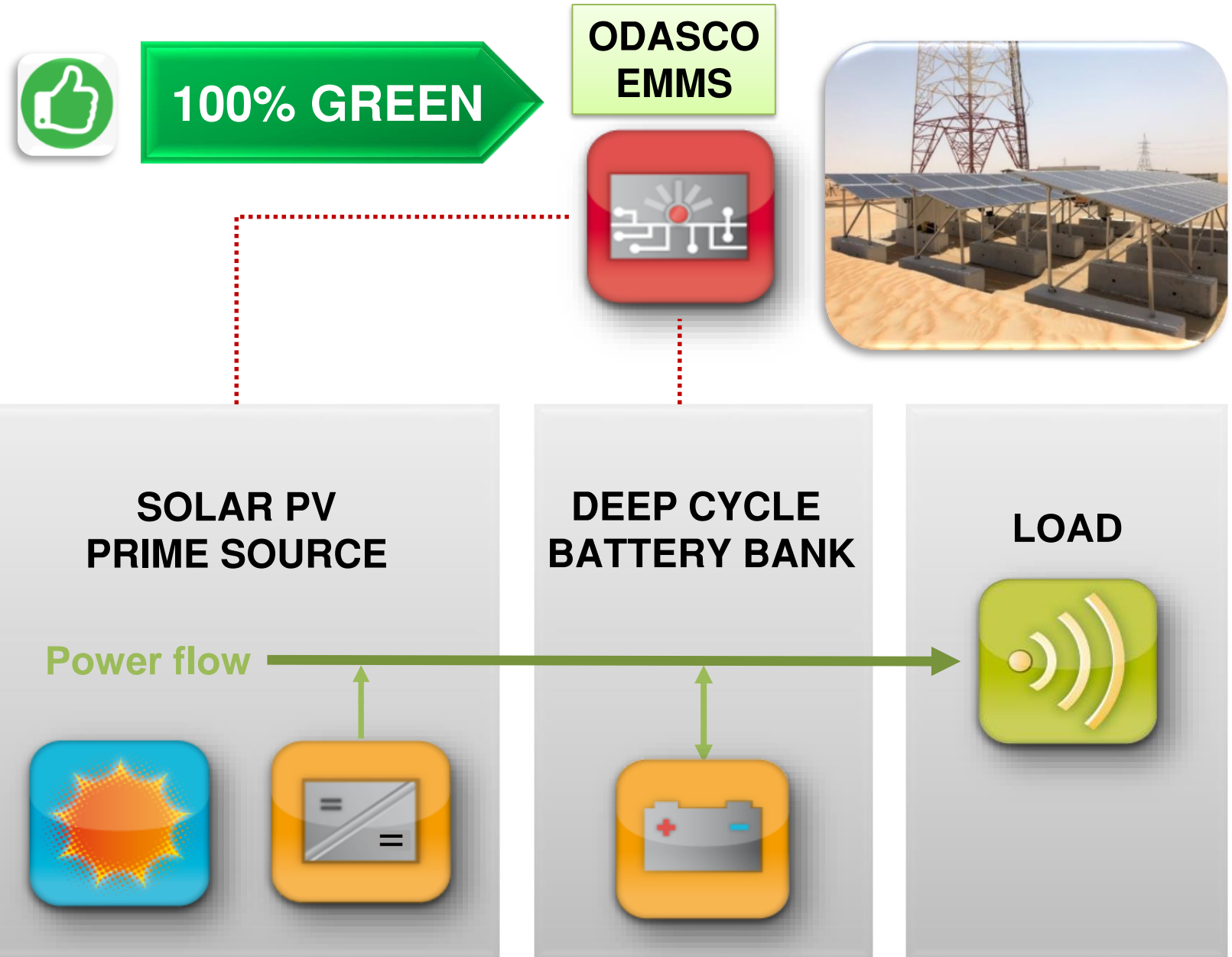
SITE SECURITY

ADVANTAGES:

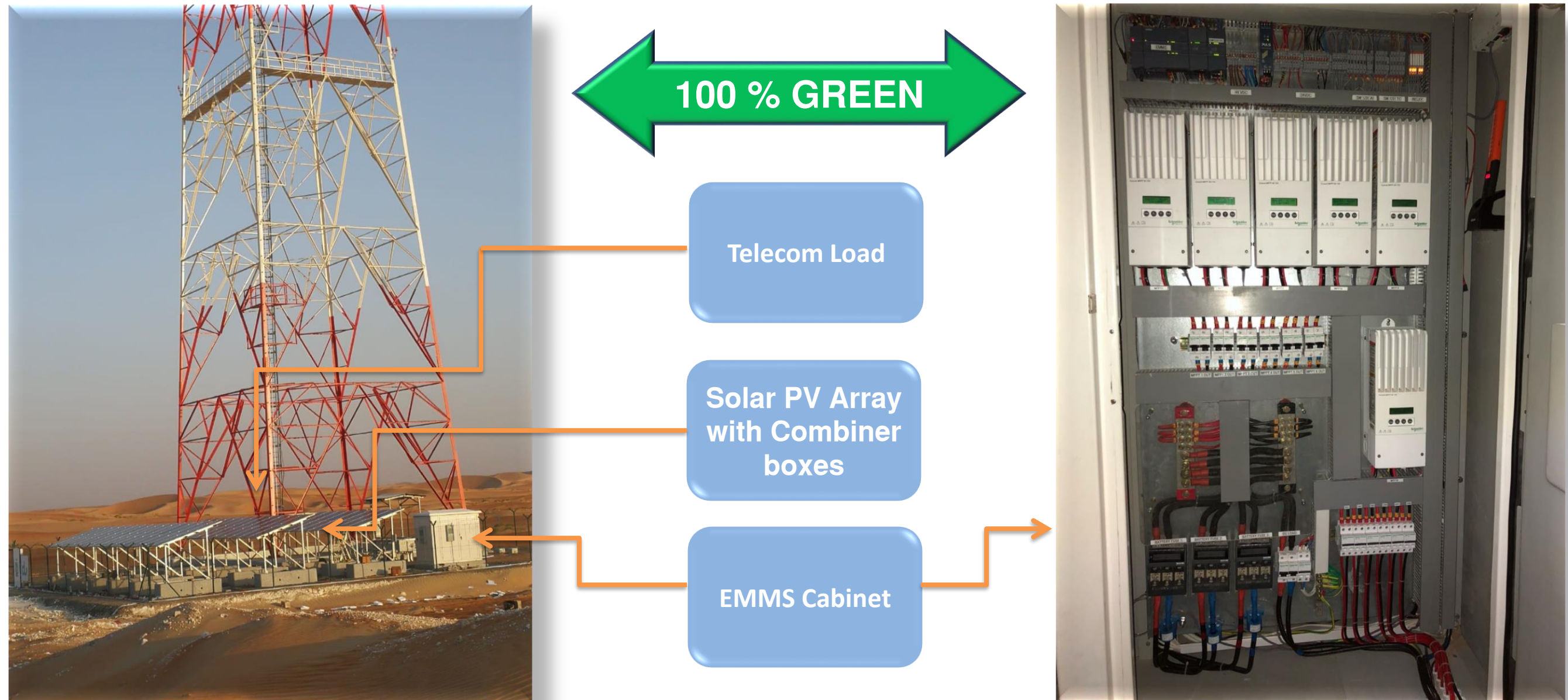
- ✓ Independent
- ✓ Lower OPEX
- ✓ Reliable
- ✓ Renewable

System Explanation in Brief

System Schematic in Brief



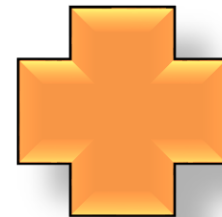
Solar Solution for Off-Grid BTS Sites



▼ Hybrid Solar Systems in Telecom Applications



Diesel
GenSet



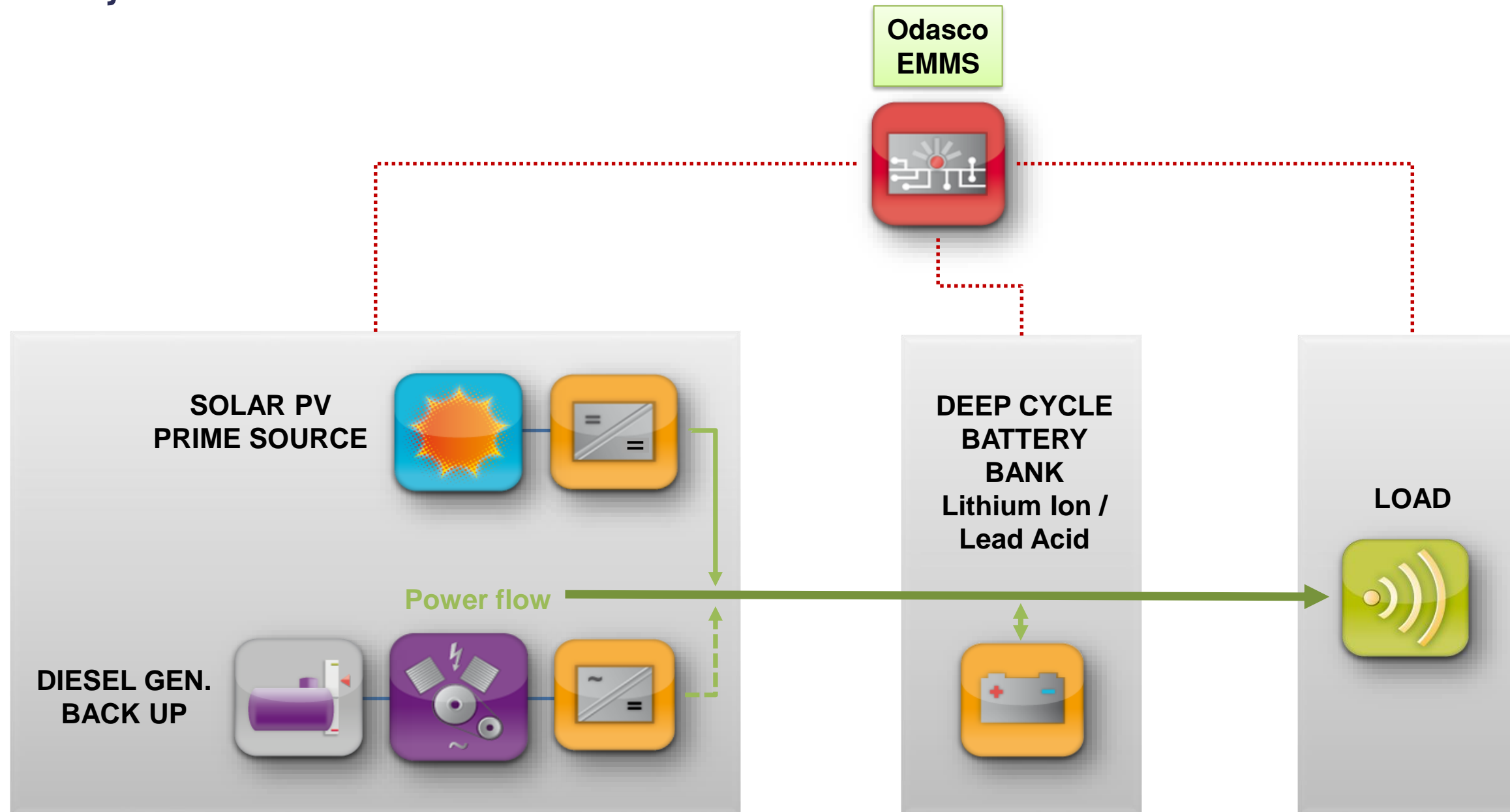
Solar

ADVANTAGES:

- ✓ Seamless Transition between Sources
- ✓ Reliable
- ✓ Fewer Maintenance expenses
- ✓ Efficient Fuel Management

Hybridized Solar Schematic

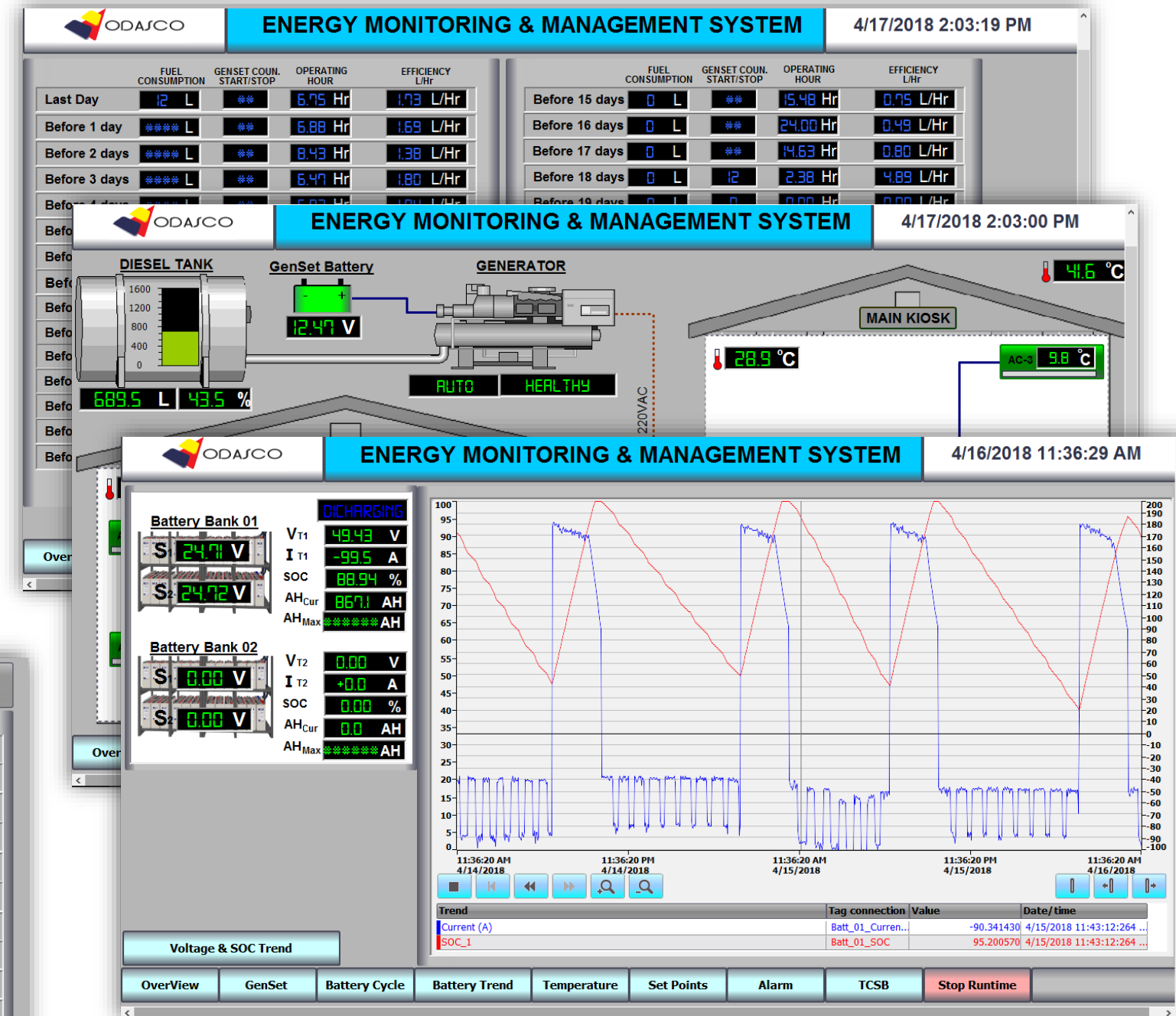
▼ HYBRID System Schematic



Energy Management and Monitoring System (EMMS)

ODASCO's EMMS solution is built on **non-proprietary**, German tier-1 automation hardware (Siemens) for maximum flexibility, reliability and functionality while guaranteeing availability across the globe.

- ✓ Remote management and monitoring
- ✓ Easy custom report generation
- ✓ Battery lifetime optimization



CHARGING / DISCHARGING CYCLE FOR BATTERY RACK-01						
CYCLE	TYPE	COMPLETED	DURATION	VOLTAGE	CURRENT	AH
01	CHARGING	YES	3.40 Hr	56.70 V	+89.4 A	540.9 AH
02	DICHARGING	YES	9.87 Hr	46.30 V	-89.5 A	583.3 AH
03	CHARGING	YES	3.42 Hr	56.70 V	+89.2 A	548.8 AH
04	DICHARGING	YES	6.98 Hr	46.20 V	-101.7 A	515.8 AH
05	CHARGING	YES	3.43 Hr	54.00 V	-38.7 A	546.4 AH
06	DICHARGING	YES	9.77 Hr	48.20 V	+22.3 A	491.5 AH
07	CHARGING	YES	3.43 Hr	54.20 V	-36.1 A	560.2 AH
08	DICHARGING	YES	8.23 Hr	48.20 V	+24.6 A	512.9 AH
09	CHARGING	YES	4.98 Hr	54.50 V	-34.5 A	611.8 AH
10	DICHARGING	YES	8.45 Hr	48.20 V	+21.2 A	442.7 AH
11	CHARGING	YES	3.22 Hr	53.70 V	-35.7 A	515.8 AH
12	DICHARGING	YES	7.08 Hr	48.20 V	+22.4 A	433.7 AH
13	CHARGING	YES	8.87 Hr	53.70 V	-40.8 A	513.6 AH
14	DICHARGING	YES	0.00 Hr	48.20 V	+24.0 A	454.4 AH
15	CHARGING	YES	3.35 Hr	53.70 V	-38.9 A	536.0 AH
16	DICHARGING	YES	6.98 Hr	48.10 V	+20.0 A	462.3 AH
17	CHARGING	YES	3.33 Hr	53.70 V	-41.9 A	525.2 AH
18	DICHARGING	YES	8.92 Hr	48.20 V	+20.1 A	455.8 AH
19	CHARGING	YES	3.27 Hr	53.80 V	-34.7 A	520.1 AH
20	DICHARGING	YES	7.50 Hr	48.20 V	+25.1 A	449.6 AH

Vertical Solar Solutions



100% GREEN

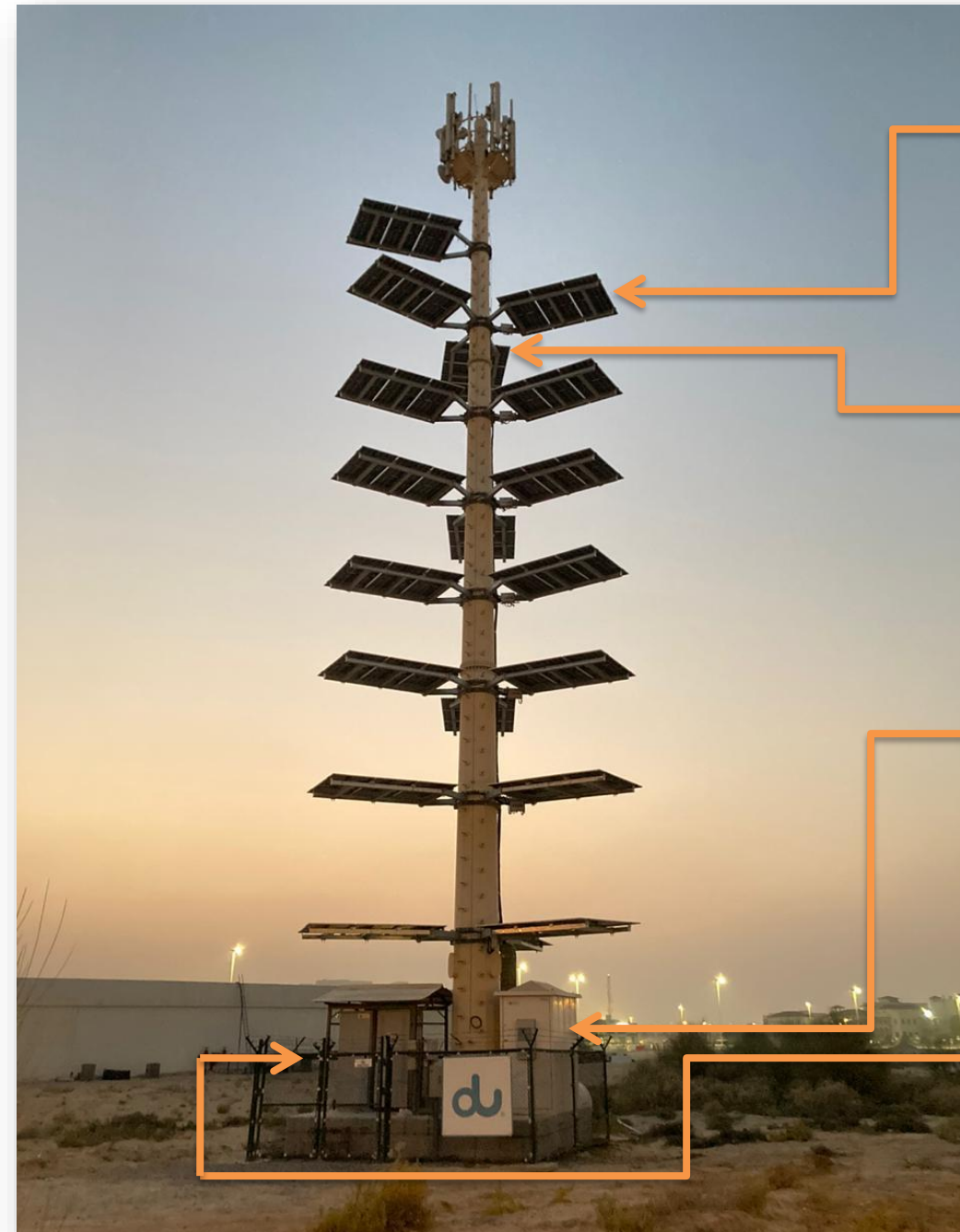
PATENT PENDING TECHNOLOGY

ADVANTAGES:

- ✓ Independent
- ✓ No Land Space required
- ✓ Reliable
- ✓ Renewable
- ✓ Clean

5G

Applicable for 5G loads



Solar Panels vertically Integrated

Combiner Box Integrated at each layer

AC Cooled Battery GRP Cabinet

ODASCO's In-House EMMS systems

▼ ON-Grid Vertical Solar Solutions

The same Vertical Solar solution can be incorporated with an On Grid site. Hence benefiting from FIT or feed in tariff on a BTS structure and reducing huge utility bills without the requirement of a traditional huge space for Solar system.



Applicable
for 5G loads

100% GREEN

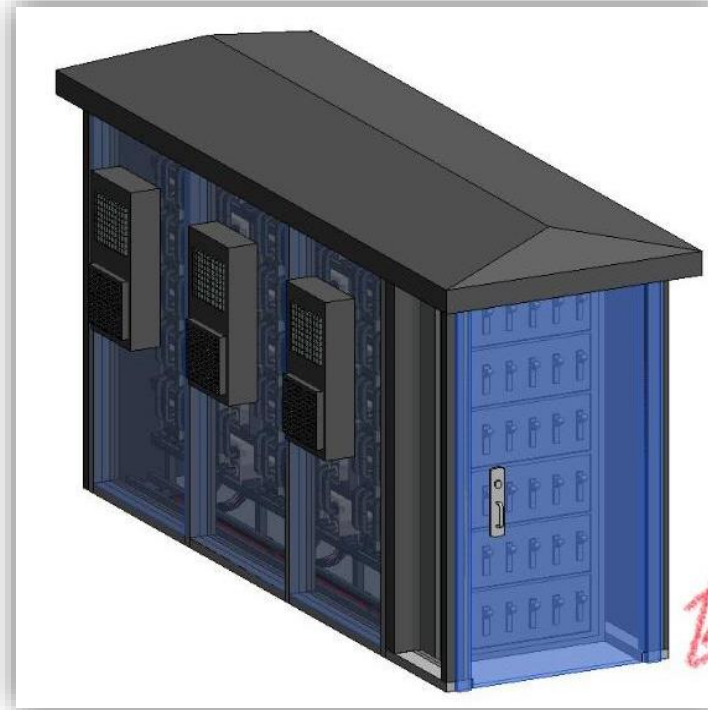
**PATENT PENDING
TECHNOLOGY**

ADVANTAGES:

1. Seamless Transition between Utility Source and Solar system
2. No Land Space required
3. Reliable
4. Renewable
5. Massive savings in terms of Utility Bills



EPC services and Site set-up for BTS towers



Commercial Solution / Telecom Asset Management

▼ SOLUTION COMPARISON

Choosing the right solution depends on a multitude of variables and circumstances – of both the site and the client. Not every solution fits every situation. ODASCO will propose the most suitable and financially viable option.

Item	Genset	Genset + Solar + Battery	Solar + Battery
Initial Investment	\$	\$\$	\$\$\$
OPEX	\$\$\$\$	\$\$	\$
Genset Runtime	high	medium	-
Fuel Consumption	high	low	-
Battery Lifetime	-	long	long
Risk of Blackout	high	very low	very low

▼ LONG-TERM LEASE & BUY LEASE BACK ASSET

To minimize the financial burden, ODASCO can offer **long-term rental** and **lease-to-own contracts** which help clients to realize capital intensive projects while preserving the \$ Bottom Line \$

Option applies to all turn-key solar + battery hybrid systems and Solar on Tower Solutions. Rented and leased system also contain our sophisticated Energy Management and Monitoring System for better control and transparency. **(All lead to a reduced OPEX)**

Long Term Lease (Reduced OPEX based on BOT)	Buy & Lease back assets + Reduced OPEX
Up to Date Efficient Energy Practice	
Worry-free	
Lease OPEX periods between 5 and 15 years	Lease OPEX periods between 10 and 25 years
Reduces Cost drastically	Gives capital back to client + cost effective
Transfer of ownership for greater savings (BOT basis)	Runs on BOO basis
Performance Guarantee	

Worldwide Track record in Telecom Sector

Reference projects with telecom clients – through JV partners



▼ Du telecom – UAE

More than 300 ++ sites of solar PV and Diesel generator saving solutions

▼ Indonesia and Myanmar

137 Turnkey Genset Efficiency solutions

▼ Mozambique

Remote telecom data towers energy monitoring and auditing for more than 400 sites.

▼ Solar Solution for Off-Grid BTS Sites in UAE

Client: Emirates Integrated Telecommunications Company, PJSC (du)

Location: UAE

Project Size: 1.5MW of Solar System – 8.4 MWH of storage capacity





BTS station in Dubai, UAE

CUSTOMER VALUE

Reduction of diesel consumption and genset maintenance costs.

CUSTOMER

Emirates Integrated Telecommunication Company PJSC („du“); Dubai, UAE

DESCRIPTION

du is an innovative, dynamic telecommunication services provider. With a rapidly increasing market share and a total of 4,993,600 active mobile subscribers it is the fastest growing telecom company in the UAE.

PROJECT

Genset hybridization to increase efficiency and decrease runtime along with O&M costs. A separate battery shelter with an independent cooling solution was customized to fit the UAE environment.

REALISATION

Already installed
350 Turnkey GenSet Efficiency Solutions
75 Energy Management Systems

For more information, please contact

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