



**GO ON LINE**  
and check your Real time **OPEX**

A UNIQUE ALL IN ONE SOLUTION  
INCLUDING COMMUNICATIONS GATEWAYS,  
SECURE HOSTING SERVERS AND  
WEB USER INTERFACE

## How eVo Remote Managment works

**EVO** is a system designed to **monitor and control** all **BioWatt** MC4 cards via the Internet. The system continuously exchanges data with the cloud server using GPRS communication.

Using a PC, Netbook, I-Pad, tablet, smartphone or any device that can access the Internet, you can connect to the **cloud server** and display **all the available parameters, see charts, display alarms, historical data, information and the satellite position where the system is installed.**

When an alarm occurs, the system will generate an email and send a text message to alert the user immediately. To connect to the server, just enter the username and password that **BioWatt** will provide at the time of activation. The system has a **high safety level** with an administration controller to regulate access and protect the privacy.



Example of a typical EVO System architecture



Example of a typical web-based dashboard EVO System

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## Hybrid system

DESIGN FOR TELECOM SYSTEM

SMART OFF GRID SYSTEM FOR  
FLEXIBLE AND RELIABLE POWER SOLUTION  
TO SAVE CAPEX AND OPEX.



**Autonomy System without  
Maintenance and refuelling:  
UP TO 7000 HOURS / 294  
DAYS OR 10 MONTHS**



Autonomy System without Maintenance and refuelling:  
up to **7000 Hours /294 days or 10Months**



**LOW FUEL CONSUMPTION**

**LOW OPERATING COST**

**LOW EMISSION**

### Reducing Operating costs with remote Managment



**Hybrid system Architecture**



**EVO System Instant access**  
to power generators from any location putting you in control 24/7!

*\* preconfigured for*



Autonomy System without Maintenance and refuelling:  
up to **7000 Hours /294 days or 10Months**

The Hybrid Genset provides <b>48V DC</b> to telecom applications
A full time 230V 50Hz AC power supply is also available as well as an Auxilary 230V 50 Hz AC supply that is available when the engine is running.
Power @48V DC from 1 to 4,5 kWatts
Voltage Min/Max 46,5 – 58 V
Power available @230V AC 1500-3000Watts
Power available @230V AC during 100% battery charging with genset running 1500-3000Watts
Nr. of battery: from 1 to 3 Nickel/Sodium 48V Nominal 200 Amp-hours (C4)
Autonomy Battery 48V DC load from 5 to 15 hours DOD 40% 3 cycle per day. Performance value guaranteed 5Years
Estimated battery lifetime. 15 Years.
Charging time to full charge: <3 hours. Fuel consumption approximately 13ltrs/day
System autonomy without Maintenance: up to 7000Hours /294 days or 10Months
Built in fully bunded fuel tank up to 4350Litres System autonomy without refilling 7000Hours /294 days or 10 Months.
Intergrated double wall tank up to 4350 lt
Engine: Deutz, Diesel in oil cooled system .
Alternator: 230V 50 Hz 3kW - 48VDC 4,5Kw
Battery chargers. Integrated in the battery
Genset controller with satellite positon by GSM modem

SAMPLE CASES

48 Vdc LOAD	kW	1	1	2,5	2,5	4,5	1	1	2,5	2,5	4,5
48V PACK BATTERIES LOAD	kW	2	4	2	4	4	2	4	2	4	4
AC LOAD (AIR COND AND OTHERS)	kW	3	3	3	3	3	3	3	3	3	3
		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Cycles per days	N'	3,5	2,3	5,3	4	5,1	3,5	2,3	5,3	4	4
Cycles per battery live per Unit	N'	5300	5300	5300	5300	5300	5300	5300	5300	5300	5300
200 Ah Battery C4	N'	1	2	1	2	2	1	2	1	2	2
Genset Work hours Per Day	Hour	10,6	6,8	16	12	15,3	10,6	6,8	16	12	15,3
Service Interval Maintanance	Day	107	150	65	98	65	214	300	130	196	130
Integrated Tank in double wall	Liter	2290	2290	2290	2290	2290	4350	4350	4350	4350	4350
Refuelling Interval	Day	149	174	82	96	53	283	331	156	182	101
System Working Autonomy	Hour	3576	4176	1968	2304	1272	6797	7951	3738	4370	2434
Fuel Consumption per Hrs	Liter	1,6	2,0	1,8	2,3	2,8	1,6	2,0	1,8	2,3	2,8
Fuel Consumption per day	Liter	17	13	29	28	43	17	13	29	28	43
Fuel Consumption per Year	Liter	6359	4884	10682	10217	15702	6359	4884	10682	10217	15702