








-  **Customer:** monitoring systems integrator of diesel generator units
-  **Machinery:** diesel generators
-  **Task:** remote monitoring of operations, fuel consumption tracking
-  **Solution:** UNUM Genset telematics solution
-  **Result:** reduced specialist travel costs by 3 time

## CUSTOMER

The company has been in the market for over 15 years. Its main activities include the supply, maintenance, and repair of generator units.

The company has installed and services more than 50 diesel generators and 5 gas powered generators of various capacities.

## MACHINERY



SDEC diesel generator (left) and YAMZ diesel generator (right)

Diesel generators are used for backup power supply to remote settlements.

Generator models:

- ✓ SDEC H series generators with capacities of 60, 100, 120, 150 kW;
- ✓ YAMZ generators with capacities of 60, 100 kW.

Generators are controlled via Smartgen HGM6210 or Deif CGC 400 control panels.

## TASK

Once a week, two specialists – a mechanic and a supervisor – visit each generator. The supervisor collects data on generated energy, engine running time, records errors, and checks the remaining fuel in the tank. The mechanic inspects the generator and performs maintenance, which is typically needed every 2-3 weeks.

The generators are located hundreds of kilometers from the client's office. Each trip takes an entire day. If the weather is bad, the journey can be dangerous – there is a risk of getting stranded in a remote area or being involved in an accident.

The client decided to automate the monitoring of generator operations and fuel consumption **to reduce the number of trips and lower the maintenance costs of gensets.**



Mechanic checking the generator's technical condition

## SOLUTION

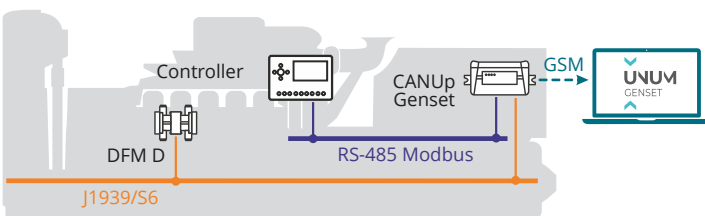
To enable remote monitoring, the **UNUM Genset monitoring system** was installed. It consists of onboard equipment and cloud software.

The onboard equipment includes **DFM D fuel flow meters and CANUp Genset telematic gateways**. Electrical parameters are transmitted from the controller to CANUp Genset via the RS-485 (Modbus) interface.

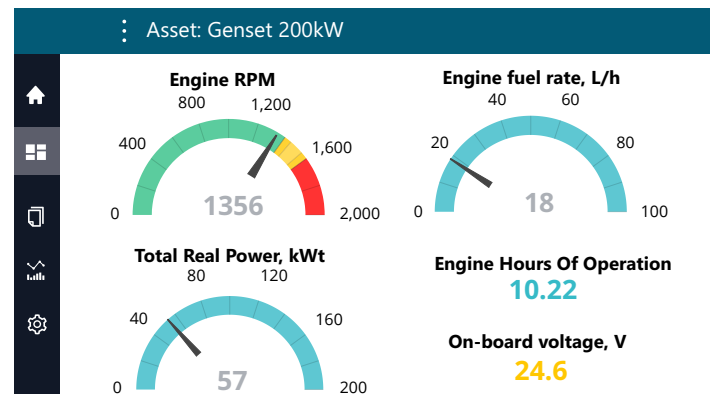
UNUM Genset transmits all necessary generator operation data to the client **on any computer via the Internet 24/7**.

- ✓ The dashboard displays engine parameters, electrical parameters, and current and total fuel consumption.
- ✓ Monitoring system generates reports for any period.
- ✓ A fault log records the time and description of issues.

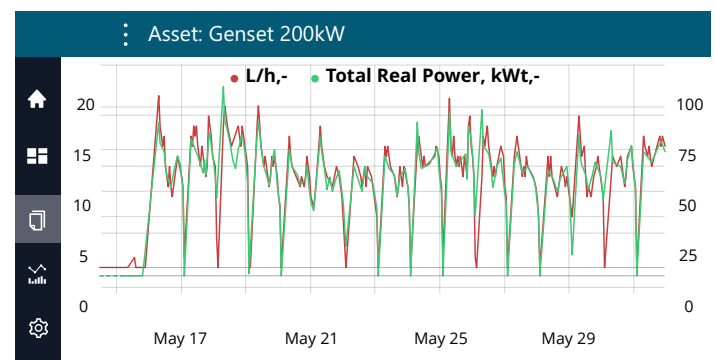
Users can select the necessary elements for the dashboard, and reports can generate graphs with parameter overlays.



Onboard equipment of UNUM Genset monitoring system



Dashboard parameter display



Fuel consumption and power reports

### Maxim Damarad, Technoton sales manager

"Technoton offered the client a **universal monitoring solution for genset – UNUM Genset**.

**Fuel consumption** is measured directly and accurately with the DFM D flow meter. The system works with various diesel engines and is **compatible with controllers from different brands**. UNUM Genset cloud software provides real-time generator monitoring and analysis of past operation periods. The system is easily and quickly tailored to the client's needs."



## RESULT

The client can remotely monitor the main generator operation parameters in real-time – fuel consumption, engine operation, and electricity generation. Errors and malfunctions are displayed.

**Employee trips for generator control and maintenance were reduced by 3 times**, significantly lowering enterprise costs and increasing profitability.

### Yuri, lead specialist of client company

"The UNUM Genset monitoring system was installed on 8 generators located in the most remote areas from our office. Installation costs were recouped within a few months.

UNUM Genset allows us to assess generator efficiency – calculating the fuel consumed per unit of generated energy. We plan to install UNUM Genset on all generators serviced by our company."

