



-  **Customer** Bank branch (Nigeria)
-  **Machinery** 4 Cummins diesel generators
-  **Task**
 - fuel consumption monitoring
 - generator operating time tracking
 - fuel level monitoring in tanks
-  **Solution**
 - DUT-E fuel level sensors
 - DFM Marine and DFM D fuel flow meters
 - CANUp telematics gateway
 - UNUM Genset telematics service
-  **Result** 16% reduction in fuel costs

CUSTOMER

The Central Bank of Nigeria branch in Ibadan serves as a key operational link between the headquarters and financial institutions in southern Nigeria. The branch supports on-site regulation and supervision, cash distribution, and other core operational functions.

It serves as a key link between the headquarters and financial institutions in southern Nigeria, supporting on-site regulation, supervision, and operational functions of the bank.

 **240** employees

 **8,1 million** people in the service area

MACHINERY



The site uses four open-frame Cummins diesel generators installed in a dedicated generator hall:

- ❶ 2× Cummins C1100D5B (rated 1,029 kVA) – engine KTA38-G14, V12, 38 L.
- ❷ 1× Cummins C500 D5 (rated 500 kVA) – engine QSZ13-G5, inline-6, 13 L.
- ❸ 1× Cummins C110D5 (rated 100 kVA) – engine 6BTA5.9-G5, inline-6, 6L.

All generators are of open-type design and operate in a generator hall. Fuel is supplied from four external tanks: 42,000 L; 2× 26,000 L; and a 400 L.

TASK

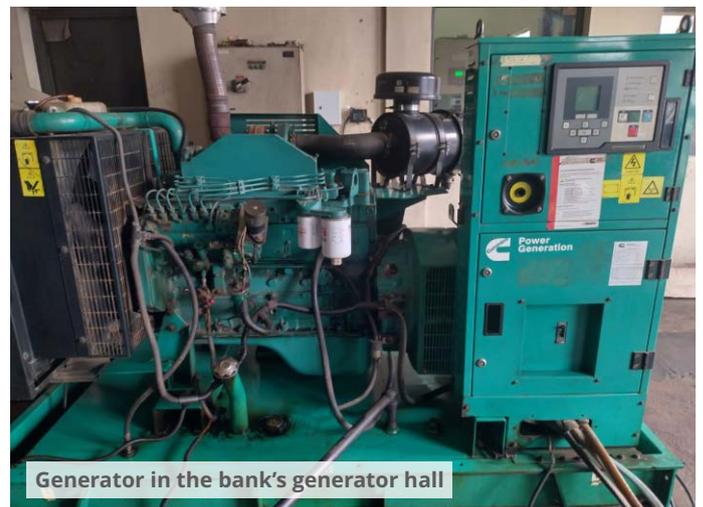
For the bank, uninterrupted power supply is mission-critical, as it directly affects payment systems and daily operations. Any power failure can result in significant financial losses.

The facility runs a rotating configuration: one generator supplies the load while the others are offline for maintenance or inspection. A 100 kVA unit is kept as an emergency backup.

Fuel levels were checked manually with dipsticks, and consumption was estimated from engine run hours. These methods are approximate, don't reflect real operating conditions, and provide no reliable view of actual consumption or remaining fuel.

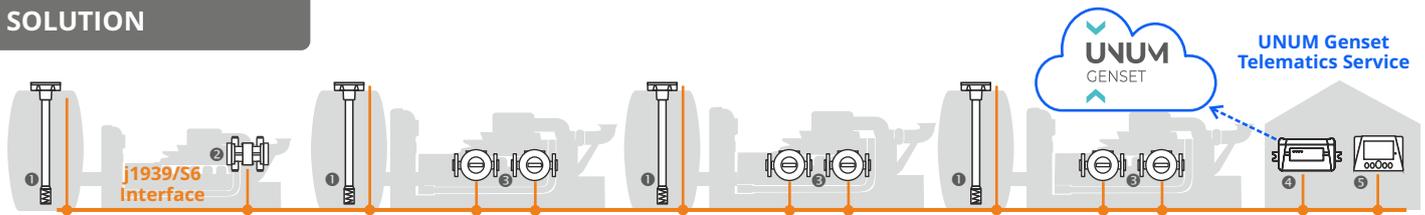
Critical challenges requiring immediate resolution:

- ✓ **Accurate monitoring of fuel levels in tanks to prevent fuel theft.**
- ✓ **Reliable accounting of actual fuel consumption by the generators.**



Generator in the bank's generator hall

SOLUTION



Monitoring system components: ① DUT-E fuel level sensors; ② DFM D fuel flow meter; ③ DFM Marine fuel flow meters; ④ CANUp Genset telematics gateway; ⑤ MasterCAN Display

Each tank is fitted with a DUT-E sensor that measures fuel level and volume with better than 1% accuracy. Fuel consumption and engine run time are captured (recorded) using fuel flow meters.

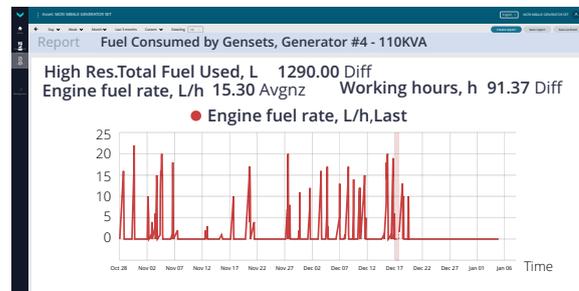
A DFM D differential flow meter was installed on the backup generator. The other generators use two DFM Marine meters (supply and return lines) each.

All components are connected via the J1939/S6 interface using standard cabling. MasterCAN Display provides on-site, real-time



visibility of key fuel parameters. CANUp Genset collects and processes the data and transmits it to the UNUM Genset telematics service.

Date	Tank 1, L	Tank 2, L	Tank 3, L	Tank 4, L
11 No	11720.00	24850.00	2040.00	345.00
12 No	10770.00	25310.00	3020.00	393.00
13 No	10710.00	25730.00	2790.00	393.00
14 No	10710.00	26050.00	2770.00	393.00
15 No	10530.00	25810.00	2300.00	378.00



Yuliya Martishevskaya, account manager, Technoton

«I would like to express my gratitude to our partner in Nigeria. Their specialists inspected the installation site in advance, carried out the necessary measurements, and selected the right equipment for the site. Solution based on the J1939 / S6 telematics interface enabled fast installation and commissioning. Our partner particularly appreciated the ease of configuring assets in the UNUM Genset telematics service. They plan to expand their use of the service and, in the future, to purchase a software license.»



RESULT

The customer has real-time access to accurate fuel consumption data for each generator, receives alerts on refueling and fuel draining events, and generates detailed fuel reports. Genset refueling can be planned accurately (based on actual consumption data). Fuel theft incidents were eliminated.

As a result, the risk of generator downtime has been minimized, fuel deliveries were optimized, and **fuel costs were reduced by 16%**. Bank plans to deploy the monitoring system across generators at other branches (over 100 units in total).



Mechanical engineer, Technoton partner company in Nigeria

«Three reasons for choosing the Technoton monitoring system:

- **100% compatibility** of all onboard hardware and software, ease of configuration, and reliable system operation.
- **Wide range of equipment** addresses fuel monitoring needs for both stationary fuel tanks and generator engines.
- **Flexible pricing model** of UNUM Genset allows customers to pay only for the functionality they need and quickly adapt the service package to current requirements.»

* Details are withheld to comply with GDPR requirements. Additional information may be disclosed upon signing an NDA.