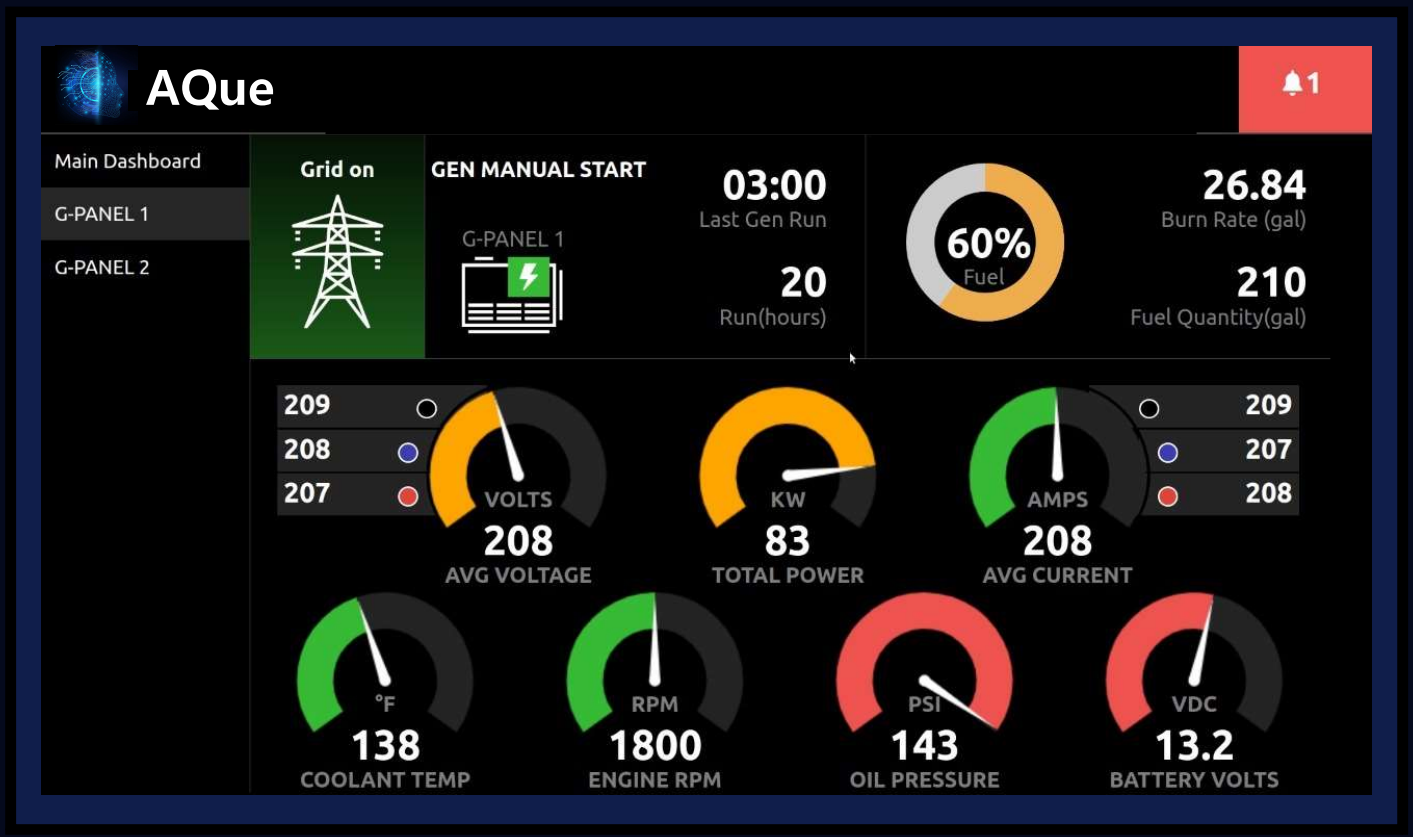
GENERATOR
REMOTE MONITORING AND CONTROL



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Generator Remote Monitoring & Control

Our Generator Remote Monitoring & Control Solution supports both intelligent and non-intelligent (Legacy) Generators including Generac, Kohler, Caterpillar, Cummins, John Deer, Deep Sea, etc. This solution helps in capacity planning based on generator load & to remotely test the generators and schedule maintenance alerts.

Key features include:

- ATS Control
- Block Heater Control
- Block Temperature
- Fuel Monitoring and alerts
- Generator Run Hours
- Generator Battery Monitoring
- Generator Failure Alerts
- Maintenance Alerts
- Mains Power failure
- Remote Exercise & Remote ON/OFF

Our Generator Monitoring & Control Solution also provides remote visibility of utility and generator power starters including:

- Power
- Fuel
- Battery
- Load status
- Generators capacity utilization

Some of the benefits seen by customers who are using our Generator Remote Monitoring and Control Solution

Reduction in Diesel Generator Battery Repair/Replacement spend	45%
Reduction in Fuel & Power Cost	66%

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Generator Remote Monitoring & Control



PLC Controller / Gateway

Connectivity Options

- Wi-Fi
- IP/Ethernet
- LTE

Comprehensive multiple Generators (mix and match) control and monitoring for both Intelligent and Non-Intelligent Assets

Intelligent Assets (including Portable Generators)



KOHLER



GENERAC



CATERPILLAR

Cummins

FG WILSON

and more...

Non-Intelligent Assets (including Portable Generators)

ATS



Start/Stop



Battery





Fuel



Block Heater

JOHN DEERE

SANDAV
powering ahead

PRAMAC

and more...

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Generator Remote Monitoring & Control

Key Features

- ATS Control
- Block Heater Control
- Block Temperature
- Fuel Monitoring (Propane and Diesel)
  - Average fuel consumption
  - Fuel alerts
  - Fuel level
  - Fuel quantity
  - Low Fuel Alarm
  - Fuel addition alert/report
  - Fuel leak alert/report
- Gen. Control & Battery
  - Real Time Battery Voltage and trending
  - Low/High battery voltage
- Generator failure alert
- Generator run hours
- Remote On/Off Generator
- Remote exercise/testing
- 5 mins delay + Audible/Flash alerts for remote operation of generator
- Maintenance alert
- Mains power failure
- Remaining run time

- Connectivity & Integration
  - INPUT
    - Modbus TCP
    - Modbus RTU
    - SNMP
    - CAN bus
    - BACnet
  - OUTPUT
    - Modbus TCP
    - SNMP v1, v2, v3
- Network Connection
  - Wired Ethernet
  - Wi-Fi
  - LTE
- Security
  - https
  - RADIUS
  - TACACS
- Alarms
  - Hard wired Alarms
  - Soft Alarms

INTELLIGENT ASSETS

Kohler: DEC550, DEC6000, DEC3+, ….
Generac: C Panel, G Panel, E Panel, H Panel….
CATERPILLAR and others

Non - INTELLIGENT ASSETS

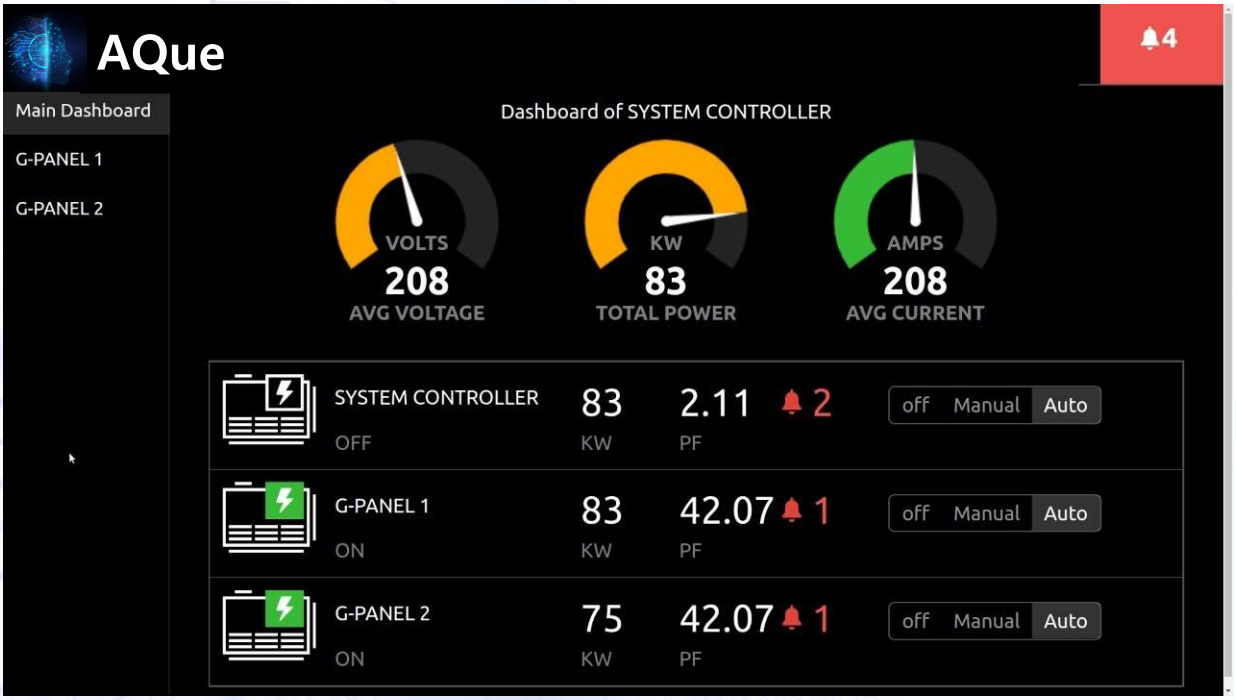
John Deere
PARAMAC
Sandav
and others....

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Generator Remote Monitoring & Control

Key Features

Comprehensive customizable Dashboards for multiple Generators



Comprehensive customizable dashboard for single Generator



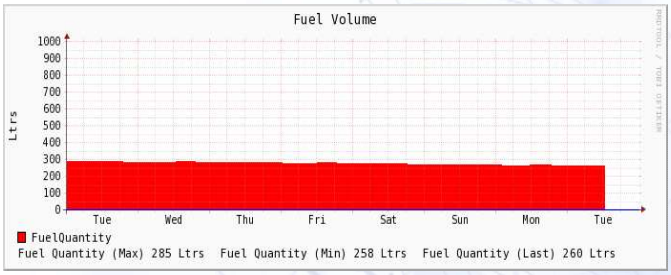
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Generator Remote Monitoring & Control

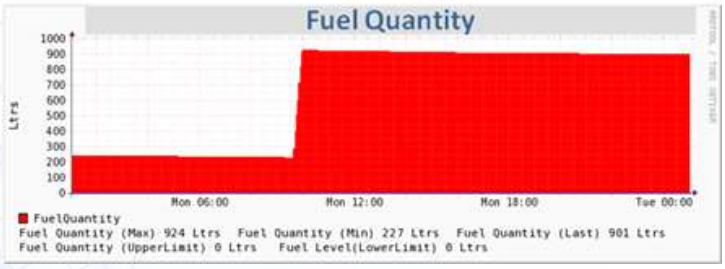
Key Features

Comprehensive Fuel Monitoring

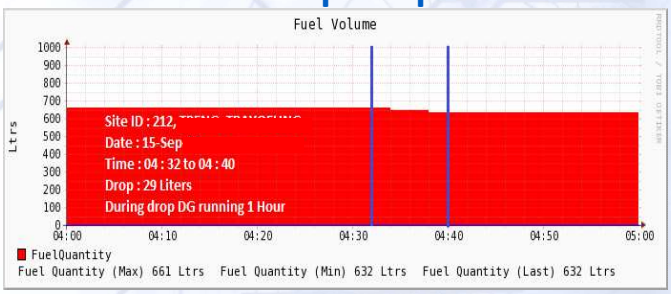
Fuel Volume Graph



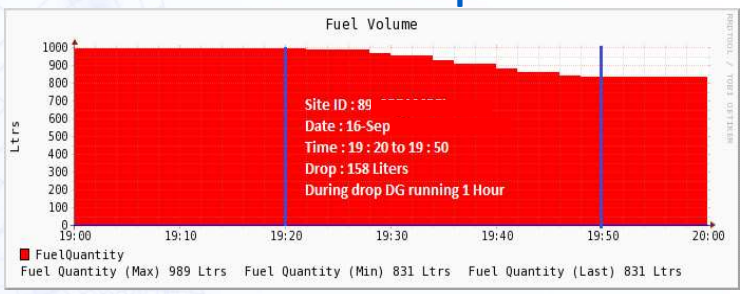
Fuel Addition Graph



Fuel Drop Graph

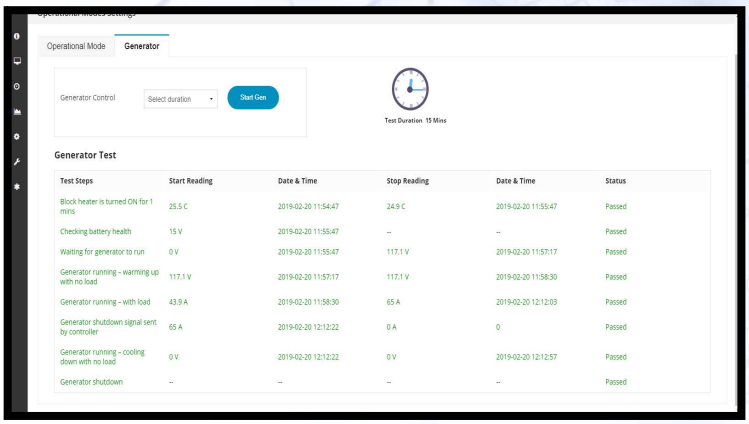


Fuel Theft Graph

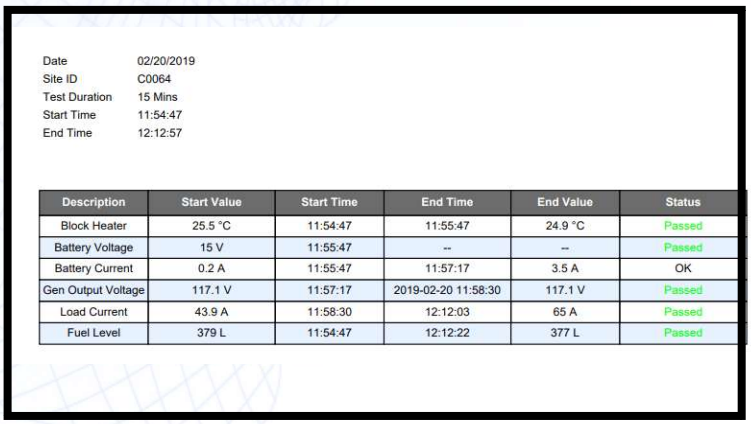


Comprehensive Reporting

Genset Exercise



Generator Test Report



Date 02/20/2019
Site ID C0064
Test Duration 15 Mins
Start Time 11:54:47
End Time 12:12:57

Description	Start Value	Start Time	End Time	End Value	Status
Block Heater	25.5 °C	11:54:47	11:55:47	24.9 °C	Passed
Battery Voltage	15 V	11:55:47	--	--	Passed
Battery Current	0.2 A	11:55:47	11:57:17	3.5 A	OK
Gen Output Voltage	117.1 V	11:57:17	2019-02-20 11:58:30	117.1 V	Passed
Load Current	43.9 A	11:58:30	12:12:03	65 A	Passed
Fuel Level	379 L	11:54:47	12:12:22	377 L	Passed

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Generator Remote Monitoring & Control

CHOICE OF CONTROLLERS & COMMUNICATION GATEWAYS



TULIP – IVT Gateway



TULIP – IVT OD Gateway



MAPLE EDGE Gateway



TCU800 Controller

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PLC Remote Monitoring & Control Overview

PLC Group offers a complete suite of Remote Monitoring and Control solution catering to various industries' requirements including monitoring and control of Energy, Generators, HVAC, Tower Light and more.





- Lower TCO
- Enhanced Visibility
- Operational Efficiency
- Predictive Planning

Focus Industries

- Telecom
- Data Center
- Tower Companies
- Critical Facilities
- Oil & Gas
- Commercial Real estate

Monitoring & Control

Fuel/Tank	Battery	Surveillance
Water leaks	Energy	Environmental
Security	Power	Smoke & Fire

Generator	Alarm	Tower Light
Access	HVAC	
ATS	Lighting	

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ABOUT PLC GROUP

PLC Group provides a portfolio of Remote Monitoring & Control IoT solutions, Network Management Platform and Artificial Intelligence based Facilities Modular Planning & Capacity Management Solution to Mission Critical Facilities, Telecom Companies and Data Centers.

PLC portfolio is designed with the objective to reduce facilities CAPEX & OPEX through predictive maintenance, "right sizing" cooling and energy capacity in facilities, and faster turnaround on facilities design & capacity planning using real-time sensor data and machine learning.

PLC stands true to its founding vision "to be world's leading unification platform, enabling customers with Actionable Intelligence".

Enabling
Mission Critical Facilities,
Data Centers, Telecom & Cable Operators to
"Do More With Less"

www.plcgroup.com

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