OwlEye

Owleye Telecom Energy Monitoring System

Power • People

OwlEye

About 3Tech

3Tech Corporate Limited was established in 2002, formerly known as 3Tech (Hong Kong) Corporate Limited, established in 1998. In the early stage of its establishment, 3Tech mainly engaged in the supply and after-sales service of diesel generator sets in the Greater China region. In 2002, 3Tech began to establish a local electrical and mechanical engineering team in Hong Kong, and participated in electrical and mechanical engineering projects of the Hong Kong SAR Government, public institutions and various major private institutions. Since 2003, 3Tech has actively developed its business in the overseas telecommunications industry. It has its own product brand LionRock and intelligent management platform OwlEye.LionRock's products have developed from diesel generator set products to energy solutions for communication base stations, actively participated in the booming 5G communication infrastructure construction, and extended from energy products to edge computing infrastructure products. OwlEye is the basic platform of the future Internet of Things (IoT), and its products have been widely used by different multinational operators in the world.

Our Mission

Digitize energy use for all industries.

Our Vision

To become a comprehensive and innovative world-class supplier of Telecom Energy Solution.

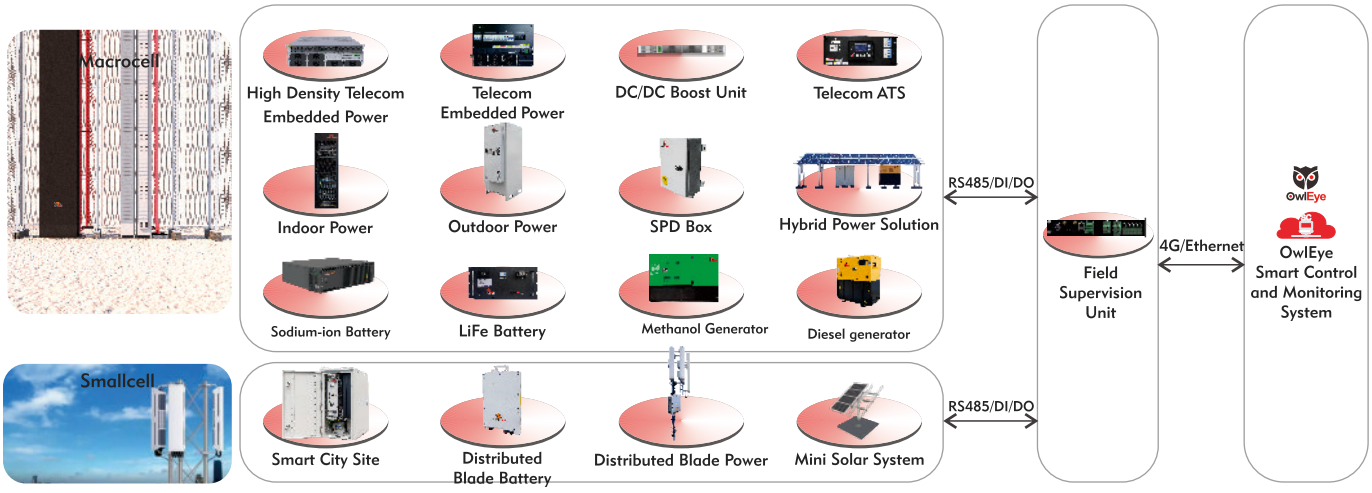
Manufacturing Facilities

3Tech Power (Dongguan) Corporation Limited

Located in Dongguan, the most developed manufacture and industrial area in China. Certified as High-Tech Enterprise, with a plant area of 12,000m^2, over 150 employees. Annual output over 5000 units.

Overview

The OwlEye Application Release 2 is an IOT platform that is applied in various scenarios like Telecom Energy, Green Energy and Data Cage etc can significantly lower the risks of site shutdown and equipment shutdown, drive down the operational cost, and improve the energy efficiency by Hybrid Solution of Solar, Mains, Battery and Diesel Generator combined. Apart from supervision of real-time parameters and alarms, the OwlEye solution provides users with Proactive Maintenance, Energy Network KPI Monitoring, Energy Statistics and Analysis, Reporting, Data Analysis, Data Visualization by Graphics, Remote Control, Modification and Reset to name a few. It can help to reduce the unnecessary site visits and ensure continuous power supply, extend asset lifetime and allow users to be aware of site energy usage.



Benefits

Energy Statistics
to analyze energy proportion and usage, optimize the energy usage by adjusting the ratio and reduce carbon emission.

Highly Efficient Operation and Maintenance
able to conduct O&M with Trouble Ticket, Proactive Maintenance to improve efficiency.

Lower Operating Expense
Less site visits and patrolling by remote control and modification in the platform, shorten maintenance time.

Prolong asset lifespan
extend assets lifespan and reduce the possibility of site down by corrective actions.

Improve Site Power Reliability
Real-time monitoring power source operation status with proactive maintenance, remote control, PAV and so forth to minimize the downtime.

Product Highlights

Rapid deployment:

Support both on premises and on cloud solutions. Able to support batch sites copy and site location quick modification in the platform, device configuration data modification;

Better User Interface:

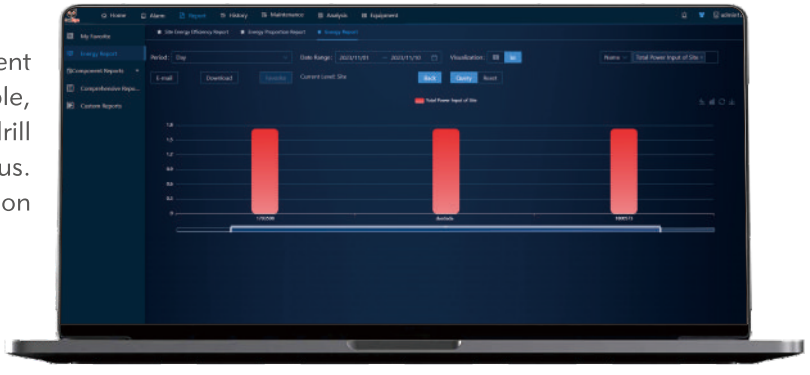
With updated user interface that incorporates data visualization, it provides users with better data interpretation with charts, dashboards, tables and so forth;

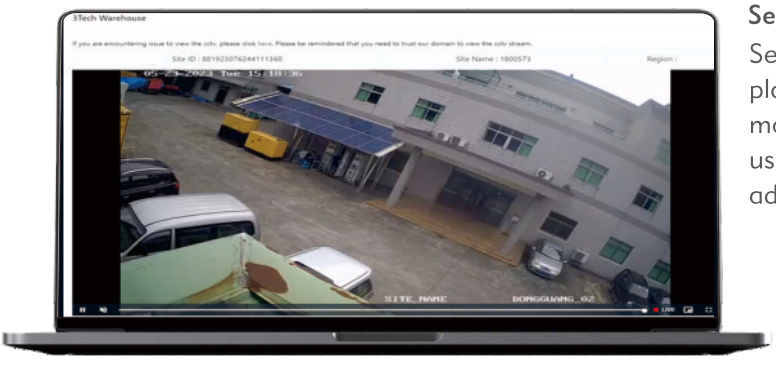
Proactive Maintenance:

Proactive maintenance improves asset reliability, extends lifespan, and reduces downtime risks through platform features like generator filter alarms, abnormal fuel level decline alerts, battery backup time, lithium-ion cycle count, generator runtime, and refuel dates.

Report Management:

Report management includes Energy, Component Level, Comprehensive, and Alarm Reports in table, bar chart, and line chart formats. Users can drill down from root to region to site to view KPI status. Custom reports can also be generated based on user needs.





Security Management:

Security management ensures site, asset, and platform security through features like CCTV monitoring, door alarms, E-lock monitoring, user monitoring, login time management, IP address management, and password policies.

Product Highlights

Fuel Management:

Fuel Management is employed to allow users to monitor the current fuel level and track the historical fuel trend for analysis, calculate average fuel consumption. Moreover, estimated next refuel date and generator estimated runtime, abnormal fuel level alarm can substantially avoid generator power failure when it needs to start, and extend its service life.

Energy Statistics:

Statistics and analysis on energy generation and consumption. Optimize and save energy by adjusting the energy

System integration:

System integration is needed by users. The OwlEye platform provides North Bound Interface for system integration with third party system such as SNMP and Web Service for further analysis;

Compatible with devices from multiple manufacturers:

With flexible structure, the OwlEye platform is compatible with devices from multiple manufacturers and they can be quickly integrated, which can shorten the time and enable users to quicker monitor the devices operation status

Site Outage Analysis:

Statistics and analysis of site outages, providing outage trends, outage time and frequency statistics

Shared Site:

The shared site function helps to monitor energy consumption of each tenants, ensuring fair billing and cost allocation based on their actual energy usage.

OwlEye FSU (Field Supervision Unit)

To employ the OwlEye Solution, the FSU shall be wired with devices so as to fetch data from them and pass data to the OwlEye platform by either Ethernet cable or 4G. Below are the FSU selections:

FSU Micro Version

Features

- Compact design with lightweight and ease of installation
- Power Supply: -48VDC
- 4G wireless communication module
- Support ethernet transmission
- Support backup battery inside
- Support local debugging and remote software upgrade

FSU Standard Version

Features

- Built-in 4G wireless communication module
- Support Ethernet transmission
- Multiple RS485 ports, integrate protocols including switching power, gensets, air cons, BMS, rectifiers and so forth
- Multiple AI/DI/DO
- Support multi-satellite systems: GPS, BeiDou
- EMI, EMS, Lightning Surge Protection
- Power Supply: -36 - 72VDC
- 1U Size
- Support firmware upgrade

FSU Lite Version

Features

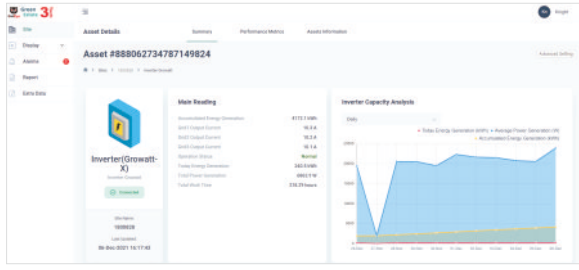
- Built-in 4G wireless communication module
- Support Ethernet transmission
- Self-Protocol Conversion: able to convert various protocols into the Modbus / BACnet standard protocols
- Built-in web based configuration page
- Configure alarms based on data points
- Power Supply: DC 9 - 36V

More Applications and Functions

Green Energy

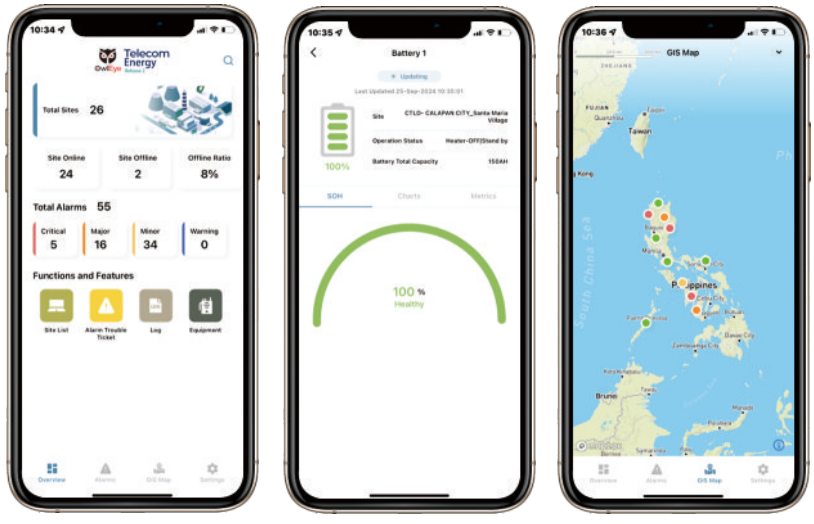
As a derived version of OwlEye, Green Energy is specially designed for the on grid solar only system in Hong Kong. However, it can also be used in similar application of other countries. Green Energy allows user to visualize the instant and cumulative solar energy production, system operating status and parameters. Both real time and historical data are available as well as alarm and report statistic.

(Green Energy APP is also available to download in APP Store.)

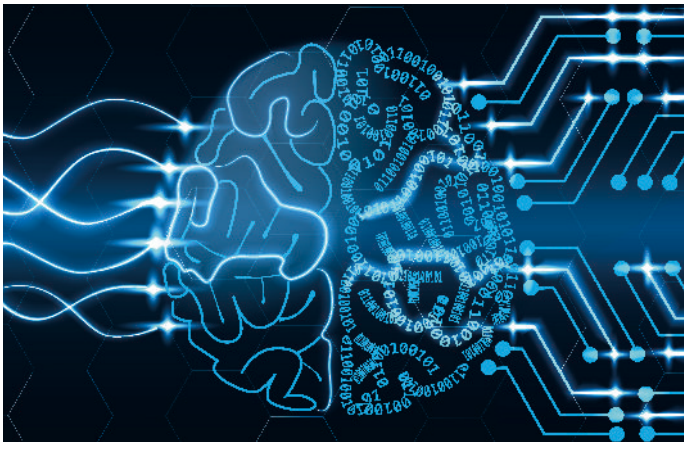


OwlEye Mobile APP

OwlEye mobile app that makes O&M whenever and wherever enhances productivity of field workforce by making remote site data available at their fingertips and also empowering them with facilities to remotely control assets, receive work order, alarms and so forth. It helps O&M personnel quickly solve the issues.



Future of OwlEye



Big Data and Artificial Intelligence technologies open up many possibilities by using data collected by the OwlEye system. By capturing and analyzing data from various sources, AI is able to find relationship between random data and obtain valuable information for work and development planning. Such technology is able to predict fault and allow preventive action to be planned before actual occurrence.

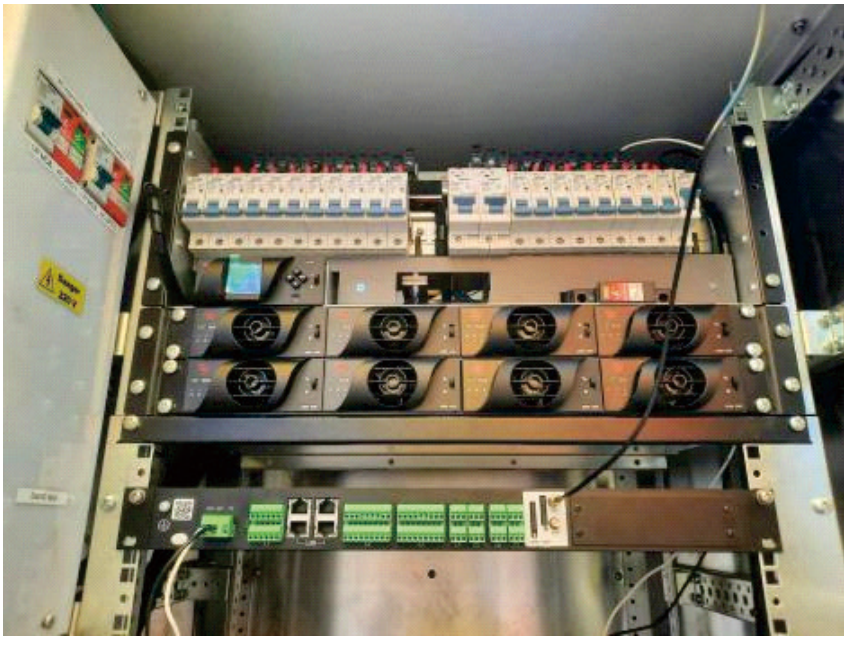
Project

Moov Togo Project

- Supply of 32 sets of Energy Cabinets and FSUs for equipment monitoring and energy statistics; Data transmission via Fiber;
- DG + Lithium-ion battery + Grid;
- The solution provides with dynamic energy flow that allows users to better understand the site real-time operation status.

Philippines Project

- Supply of 38 sets of FSUs, and platform quick integration with 3rd party equipment;
- The OwlEye solution is flexible to integrate with 3rd party equipment and achieve monitoring and energy statistics;
- By using 4G data transmission, it reduces unnecessary network cabling and improves site deployment efficiency;



Micronesia Project

- Customer has multiple sites to be monitored and managed;
- DG + Smart Lithium-ion battery + Solar + Grid;
- By using OwlEye solution, the system makes full use of Solar energy to generate as much energy as possible to save 40% energy.

Project

Algérie Télécom Mobilis (Algeria)

- LRYZ28 LionRock standby genset
- Lead Carbon battery of 2600Ah
- Solar panel of 21kW capacity

Zain (Middle Eastern countries)

- Outdoor Cabinet IP55, 42U equipped with 2000W DC Aircon
- 5*High-grade Lithium Battery 48V 150Ah
- Rectifier modules with 6*3KW

Globe (Philippine)

- LRP13.5D LionRock DC genset with oil cooled engine
- 24 x 2V 1000Ah battery
- DC power generation up to 16kW

DITO (Philippine)

- 67 x LRXC33XS LionRock diesel genset with enclosure
- 94 x LRXC28XS LionRock diesel genset with enclosure
- 143 x LRXC22XS LionRock diesel genset with enclosure

The Hong Kong People Engineering Wonders in the 21st Century – Renewable Energy Project

- Off-grid 180kW solar-wind hybrid system
- 100 pieces of 200W panel (phase I)
- Combined use of wind turbines (2nd phase)
- Data logging and on-site operation monitoring
- Minimize maintenance costs
- Annually reduction of Greenhouse gas emissions by 70tons

DataCage (Botswana)

- A fully integrated mobile data centre meeting tier III standard
- 2 * 96kW rectifier system 1+1 redundancy, installed in the customer room
- 2 * 72kW rectifier system 1+1 redundancy
- 2 * 2000Ah intelligent lithium battery system
- OwlEye intelligent management platform

3Tech Corporate Limited

Unit 904, 9/F., Fu Hang Industrial Building, 1 Hok Yuen Street East,
Hung Hom, Kowloon, Hong Kong.

Tel: +852 2766 9787
Email: info@3tech.net

3T/250427-V2

www.3tech.net