EMS System Cloud

User Manual

2025/11/11

v1.0

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1. Software Overview

1.1 Overview

TCL iEnergy is an intelligent energy management system (EMS) cloud platform.

The platform supports multi-role access, including device manufacturers, channel partners, distributors, and installers. It provides comprehensive data visualization and centralized management of power plants, devices, and individual device data.

The platform supports device firmware management and remote upgrades. Users can review upgrade logs and handle related service requests. Through the Service Center, users can respond to end-user inquiries, manage device inventory, and perform account management.

TCL iEnergy is designed to deliver efficient and convenient energy management solutions for various user roles.

1.2 Functions

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Data Overview

Users can view real-time overall power plant data, device-level data within each plant, and detailed information for individual devices, enabling comprehensive monitoring of energy operations.

Power Plant Management

Centralized management of power plants and associated devices. Users can easily monitor operational status and perform timely adjustments and optimization.

Device Management

Real-time monitoring of device operating status, health condition, and key parameters to ensure optimal performance and improved overall energy efficiency.

Firmware Management & Upgrade

Centralized firmware management with support for remote upgrades. Manufacturers can upload firmware via the platform, and users can review upgrade logs to ensure devices remain up to date.

Service Support

Through the Service Center, users can respond to end-user inquiries, manage device outbound records, and handle after-sales service requests, ensuring timely and effective support.

Account Management

Administrators can create and manage sub-admins, channel users, distributors, and installer accounts, enabling flexible role-based access control.

1.3 Applicable Users

Device Manufacturer (Admin)

- Create and manage sub-admins, channel users, distributors, and installers
- View all power plants and devices
- Manage firmware versions and remote upgrades

Distributor

- Manage power plants, devices, and accounts
- Support installer account creation

Channel Partner

- Manage power plants, devices, and accounts
- Support installer account creation

Installer

- Monitor activated devices
- Manage own account

1.4 Security

The software features high performance and high concurrency while ensuring data security and confidentiality.

2. Operating Environment

This software runs on web browsers and supports the following minimum versions:

Chrome: 123 – 126

Firefox: 115, 125 – 128

Safari (iOS): 15.6 – 17.5

Safari (Desktop): 17.4 – 17.5

Microsoft Edge: 124 – 126

3. User Guide

3.1 Website Access

Contact Fuda FAE to provide the device manufacturer’ s email address. After account activation via email, a dedicated platform URL will be provided.

3.2 Cloud Platform Functions

Login

Overview

Power Plant Management & Device Monitoring

Power Plant Details & Strategy Management

Single Device Monitoring, Data Collection & Configuration

O&M (Firmware Management, Remote Upgrade, Upgrade Logs)

Service Center (User Q&A and Device Inventory)

Account Management

3.2.1 Login

Login Process

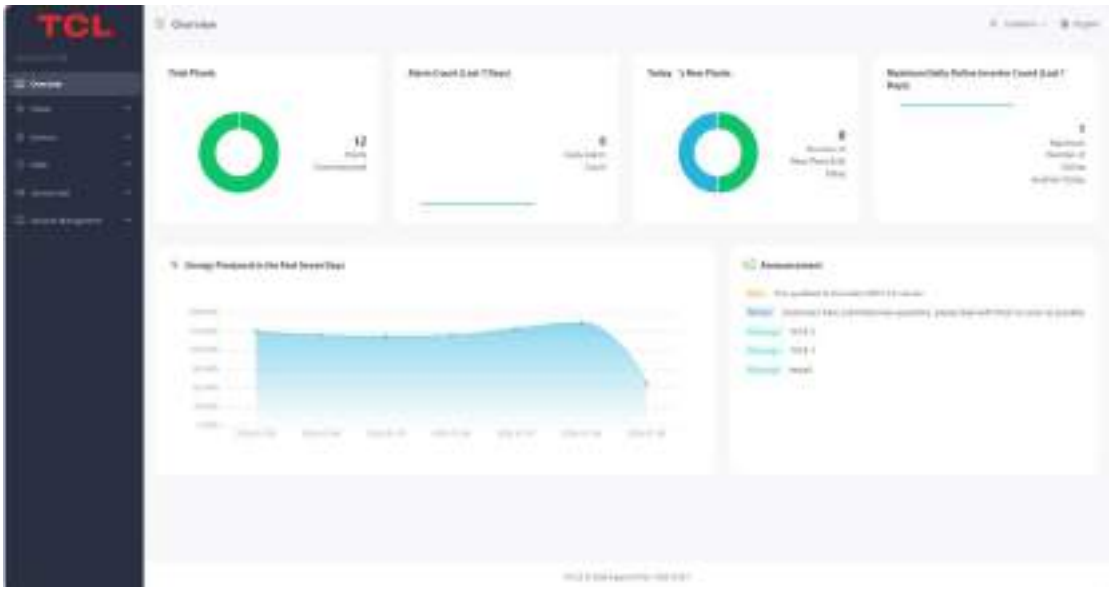
Contact Fuda → Provide manufacturer email → Fuda sends activation email →

Activate account and set password → Obtain dedicated cloud platform URL

3.2.2 Overview

1，View total number of power plants, number of alarms in the past 7 days, newly created plants on the current day, and device online statistics for the past 7 days.

2，Statistics vary by device type:BMS: Charge/discharge data over the past 7 days；INV / EMS: Discharge and charge energy over the past 7 days



3.2.3 Power Plants

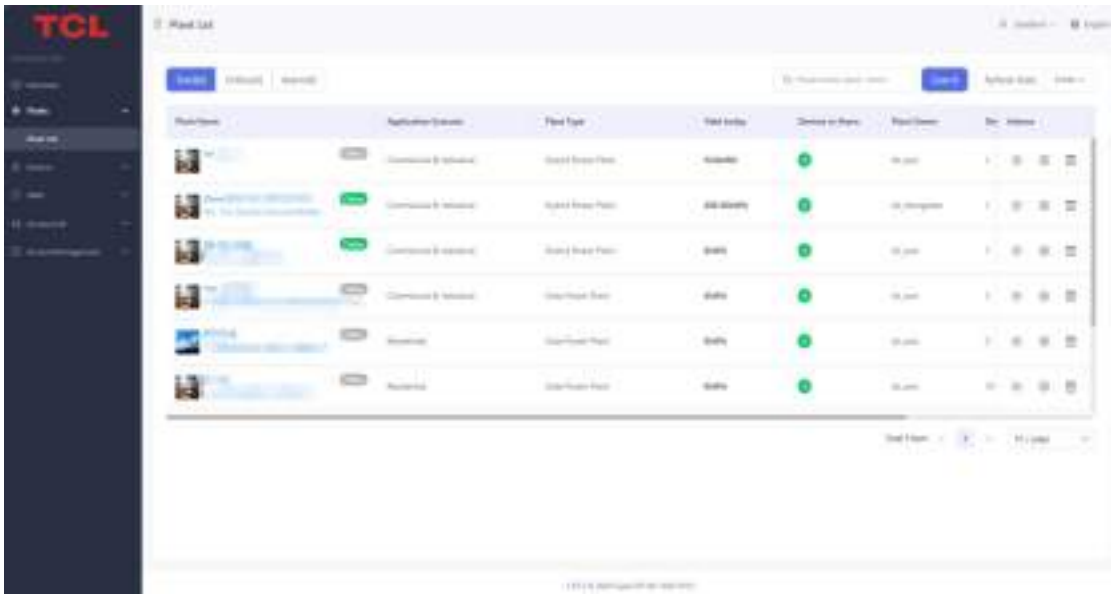
1，View user power plants,

2，Support creating new power plants

3，Click a plant name to view details

4，Support unbinding power plants and devices

5，Support deleting power plants



3.2.3.1 C&I Power Plant Details

1，Plant Overview:

View daily/monthly energy generation, revenue & performance reports, and alarm monitoring.

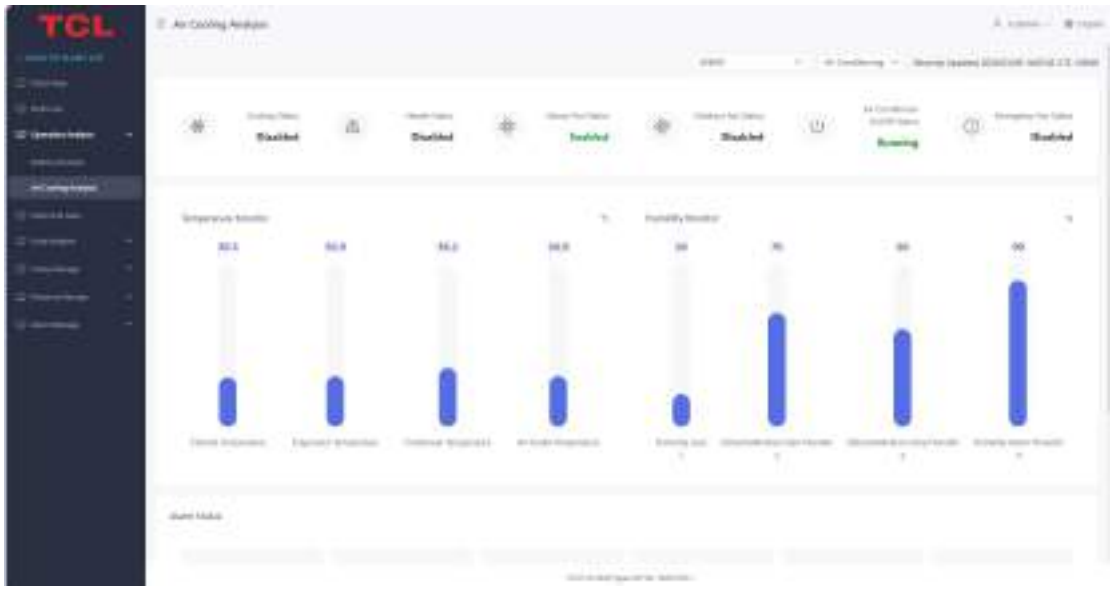
2，Device List:

View device status and data bound to the plant.

3，Operation Analysis：

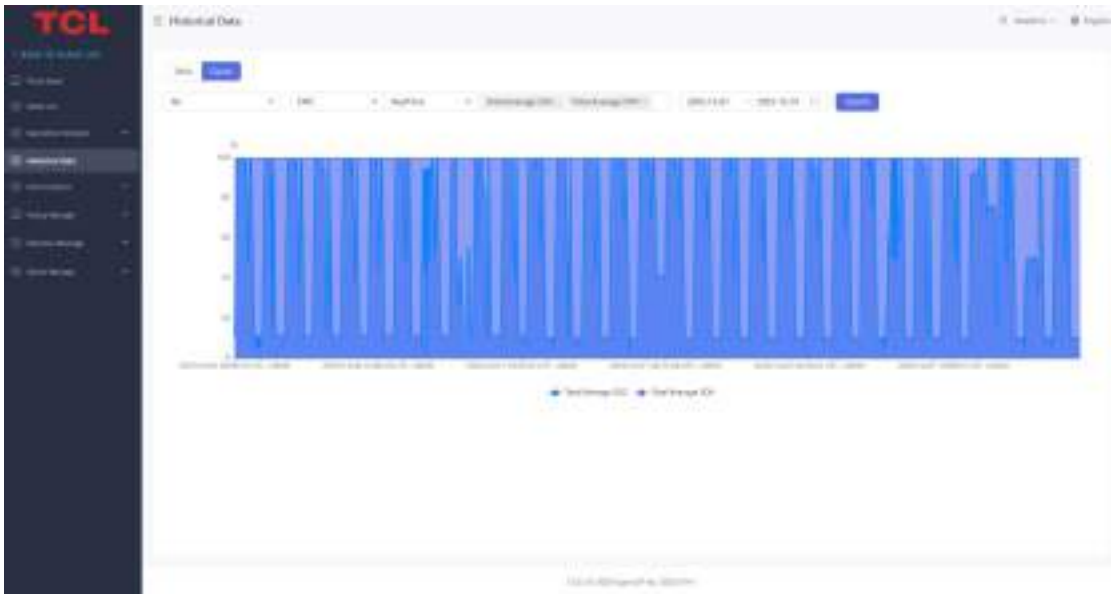
Battery analysis: charge/discharge energy, SOC, SOH, temperature，

HVAC analysis: operating status, ambient temperature, alarm status



4，Historical Data

Manually select devices to view historical data in tables or curves.



5，**Data Analysis**

View power curves, energy curves, and system efficiency data, including: PV power, AC power, load power, grid power, battery charge/discharge power.

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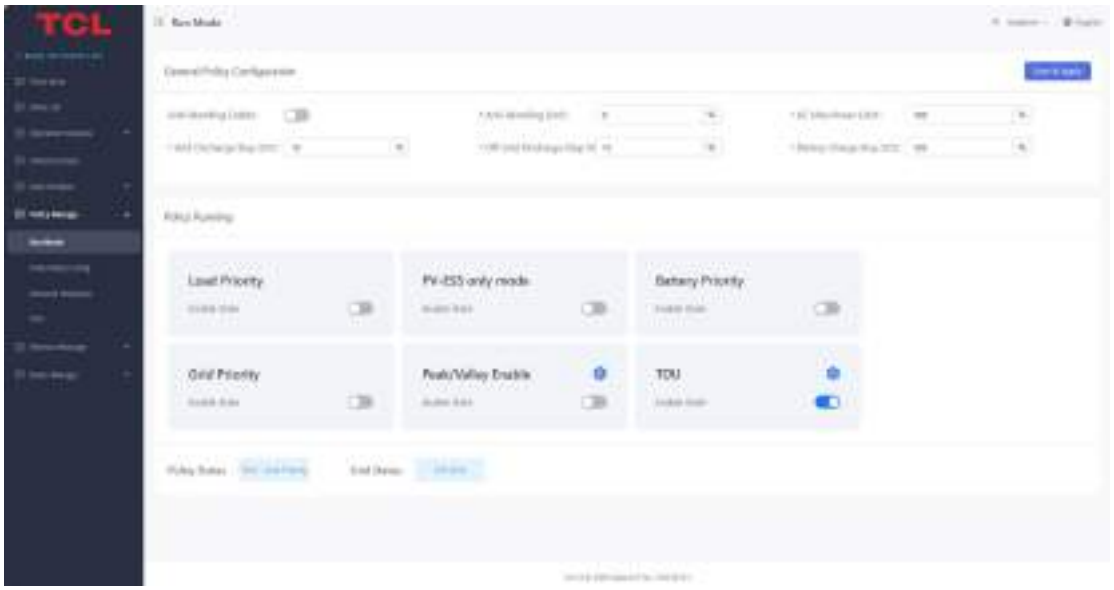
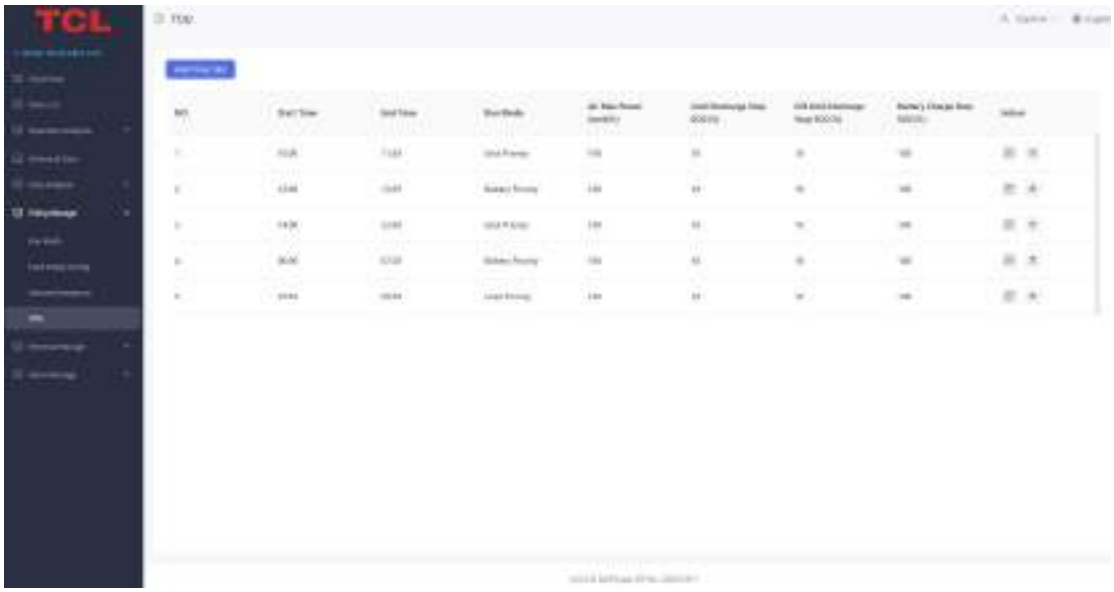
6，**Strategy Management**

Support manual anti-backflow control and other operational strategies, including:Self-consumption，PV-only with storage，Battery priority，Grid priority，Peak shaving & valley filling，TOU mode



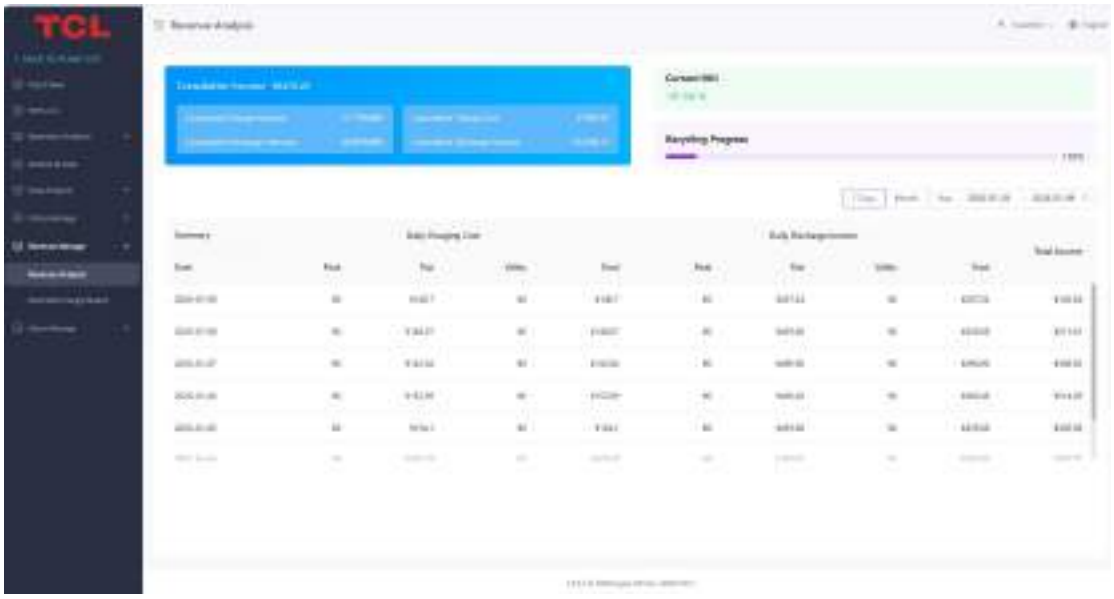


7，**Revenue Management**

Includes revenue analysis and grid-side energy reports. Revenue is

calculated based on electricity purchase/sale under different strategies.

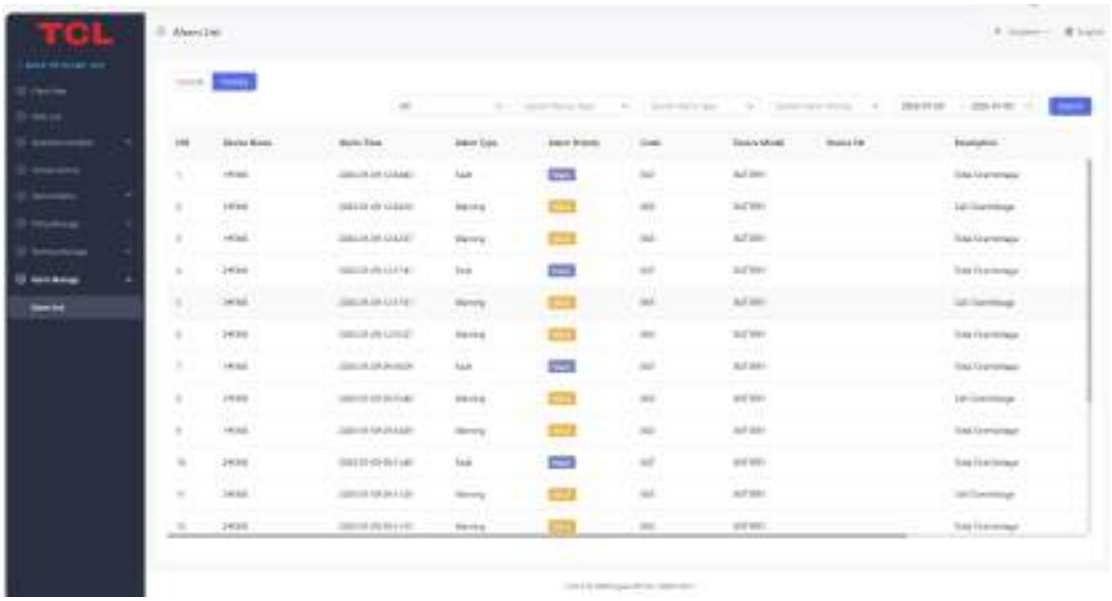
Grid-side reports show daily, monthly, and yearly charge/discharge data.



8，**Alarm Management**

Includes alarm dashboard and alarm list.Dashboard: total alarms, daily alarms, critical alarms, average processing time, with 7-day/month/year

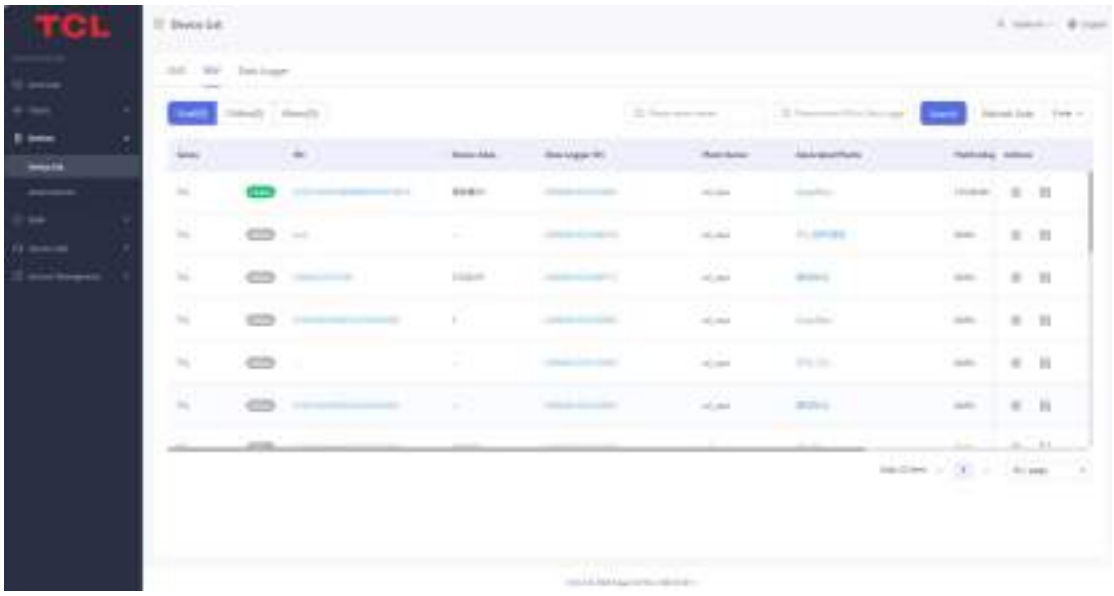
trend curves，Alarm list: view current and historical alarms with filtering by device, alarm type, and severity



3.2.4 Device List

Monitor operating status and issue control commands for bound devices.

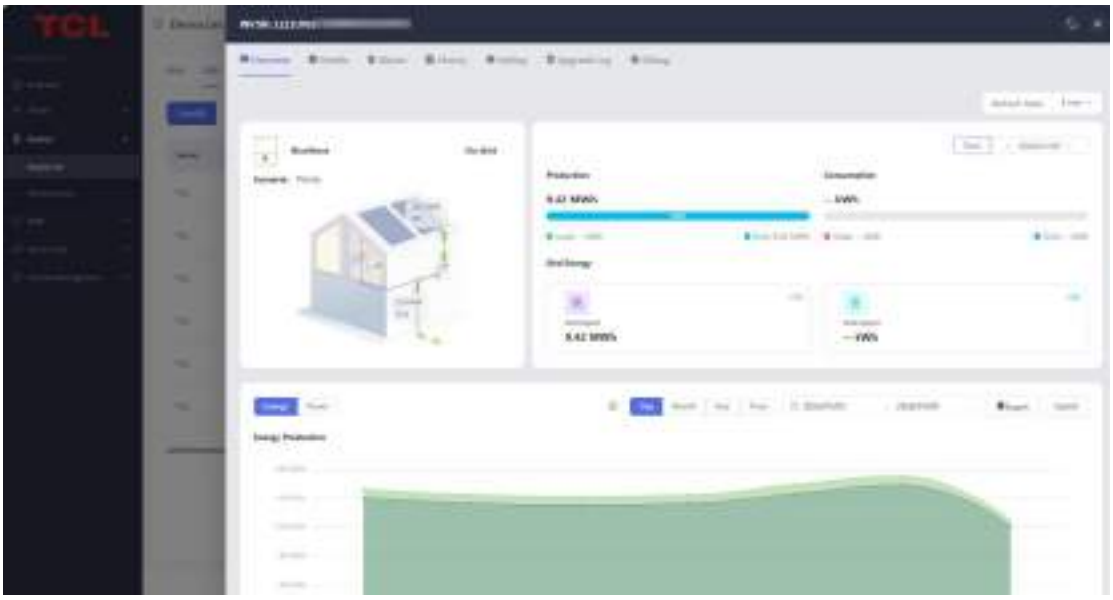
Currently supported devices: **BMS / INV / Data Logger**



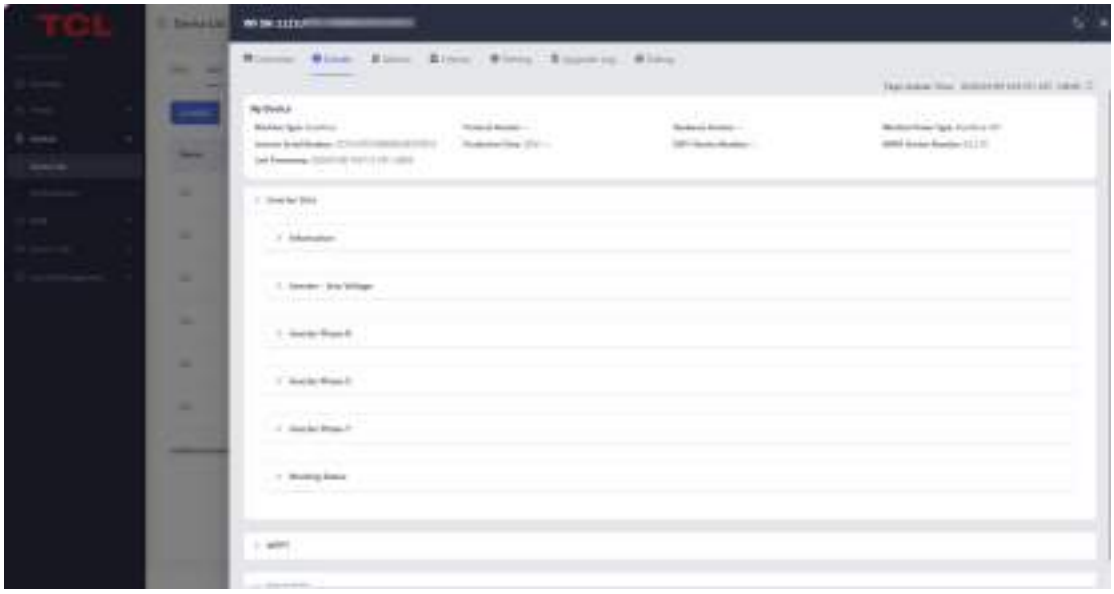
3.2.4.1 Device Monitoring Details

1，Monitor operating status and energy data

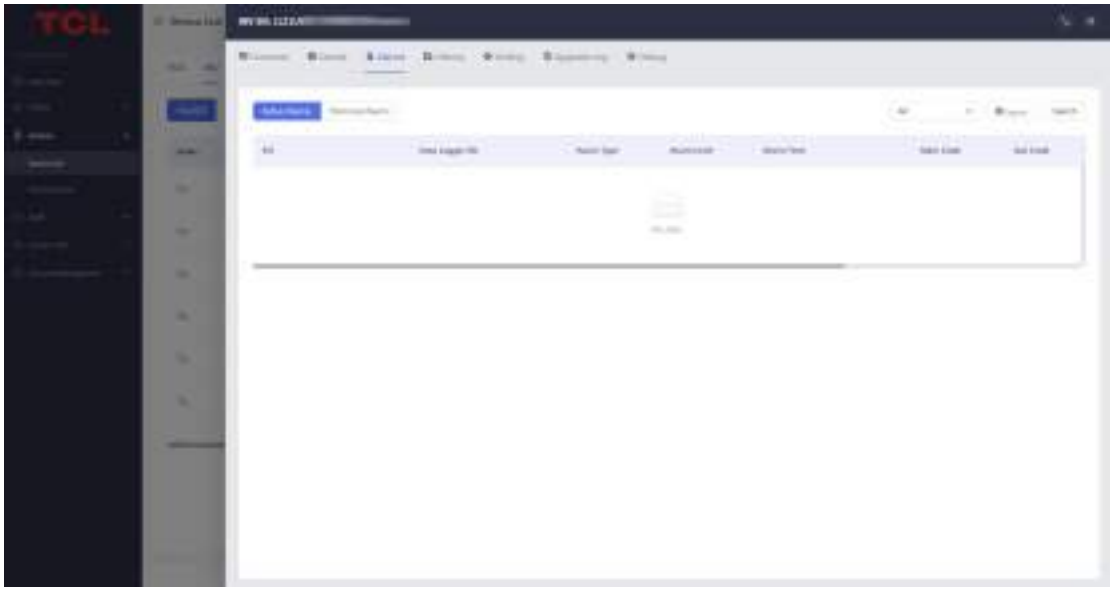
INV



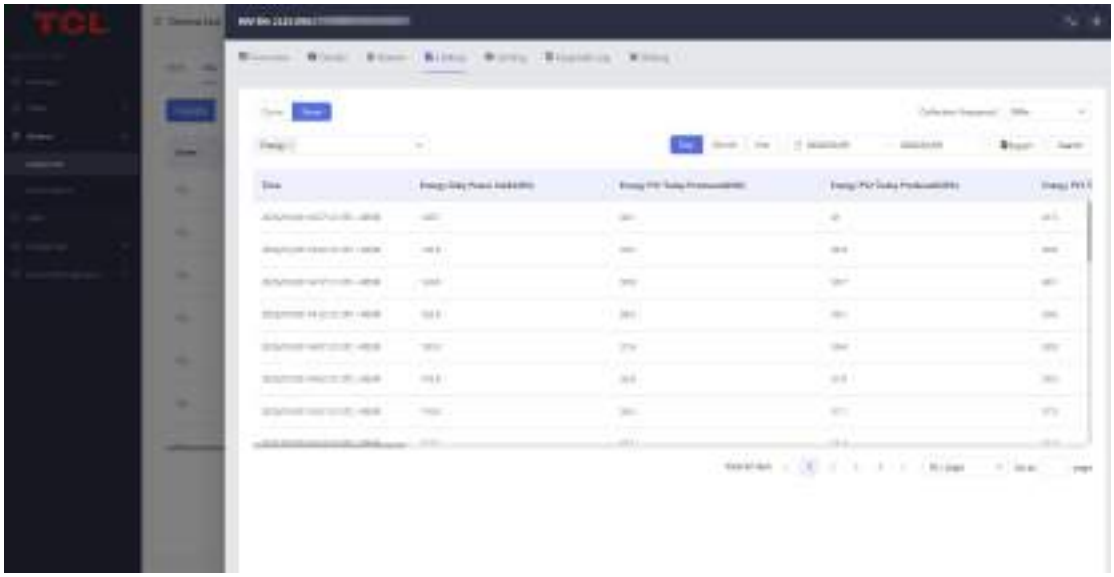
2，View basic device information



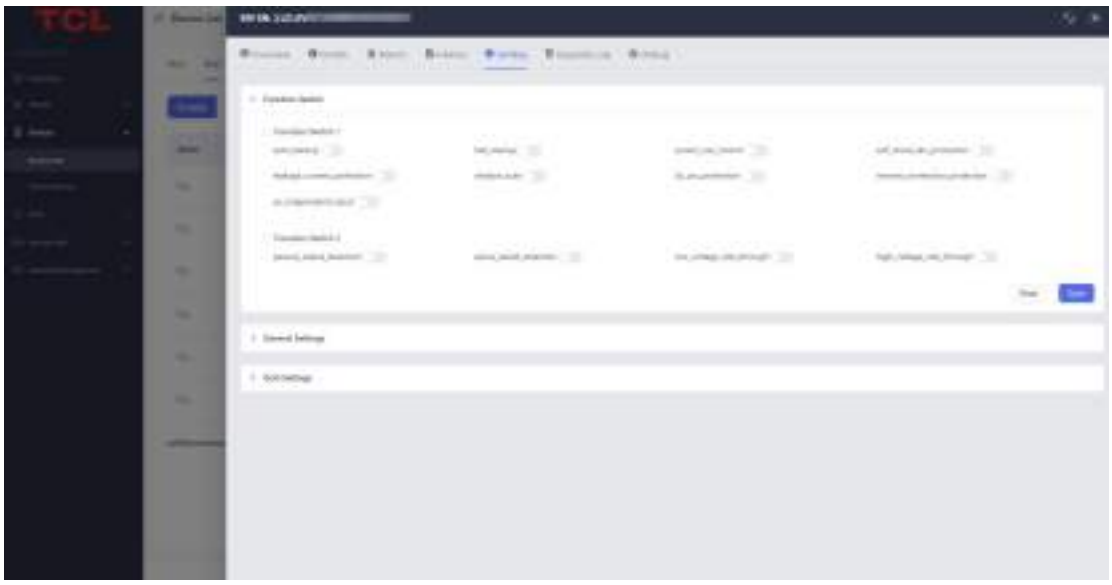
3，Monitor alarm information



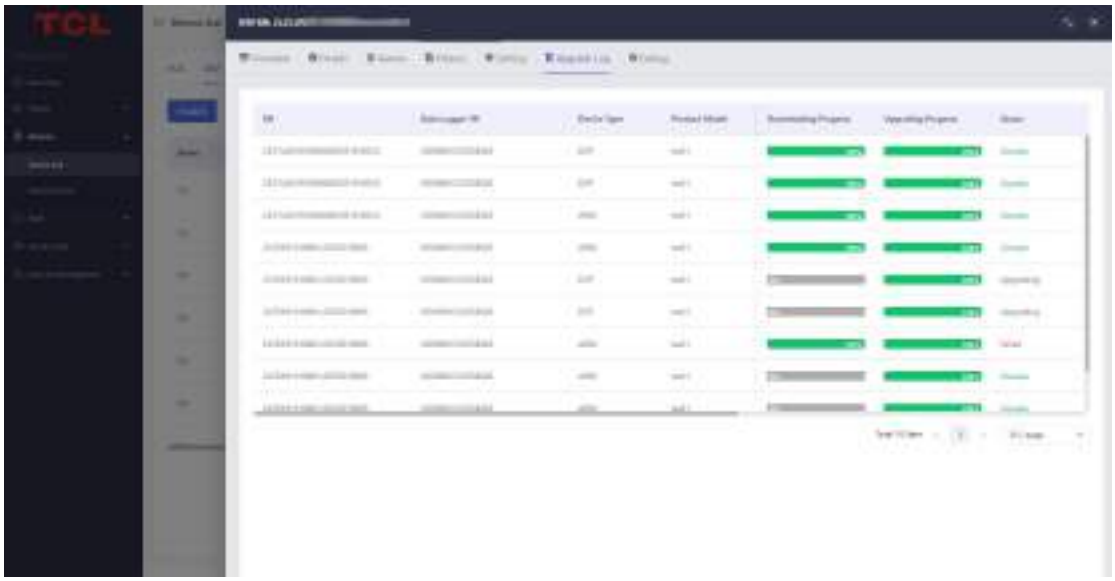
4，View historical data (curve and table formats supported)



5，Send control commands

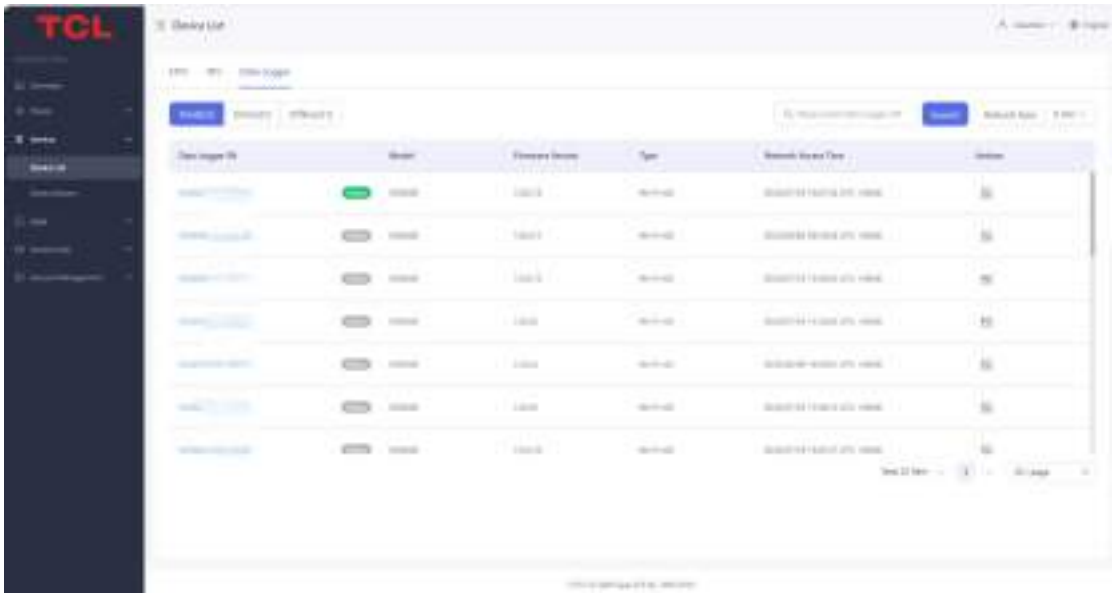


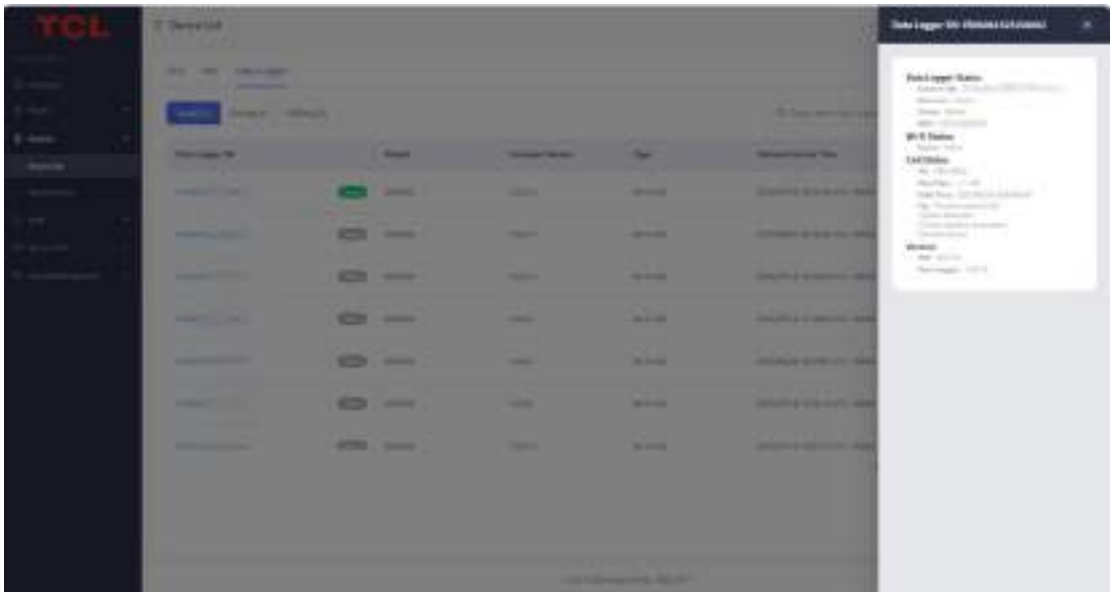
6，View firmware upgrade logs



3.2.4.2 Data Logger Details

View detailed operating status of the data logger





3.2.5 O&M

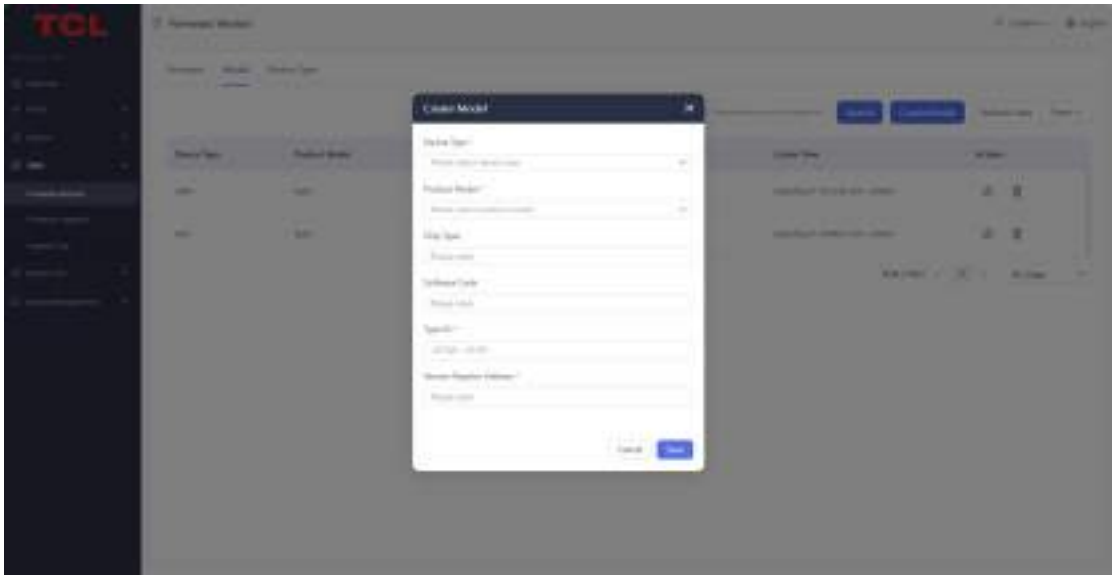
3.2.5.1 Firmware Version Management

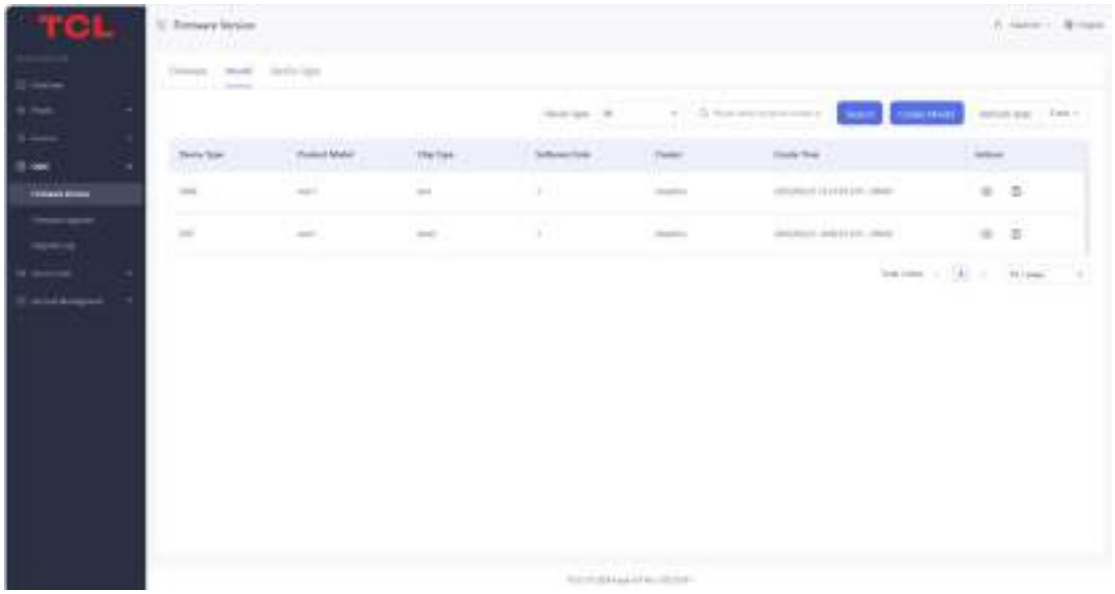
1，Users can manage device firmware versions and perform remote upgrades or Bluetooth upgrades via App.

2，Steps:

01，Add device type → Enter device type name → Save

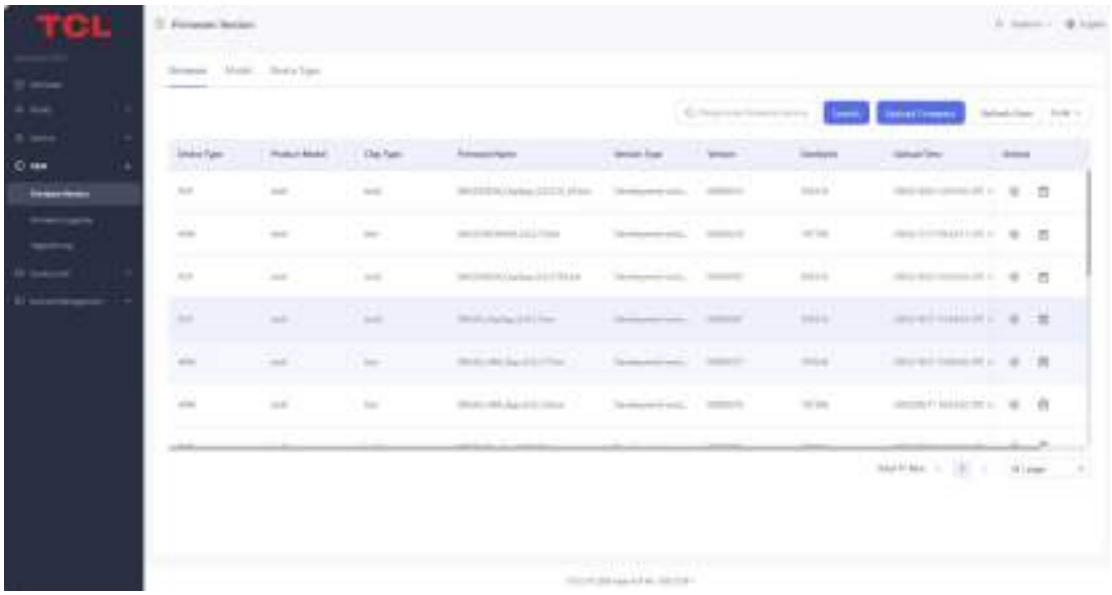
2，Create model → Fill in model information → Save





3，Upload firmware (optionally assign to specific channel users) →

Save

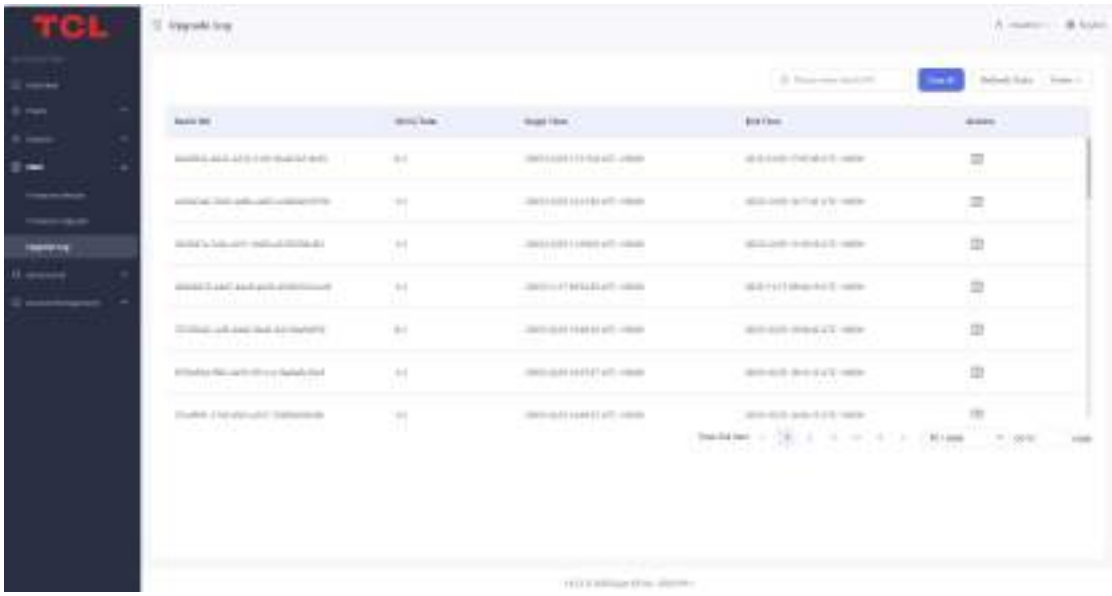


3.2.5.2 Firmware Upgrade

Perform remote firmware upgrades by selecting target devices and initiating the upgrade.

3.2.5.3 Upgrade Logs

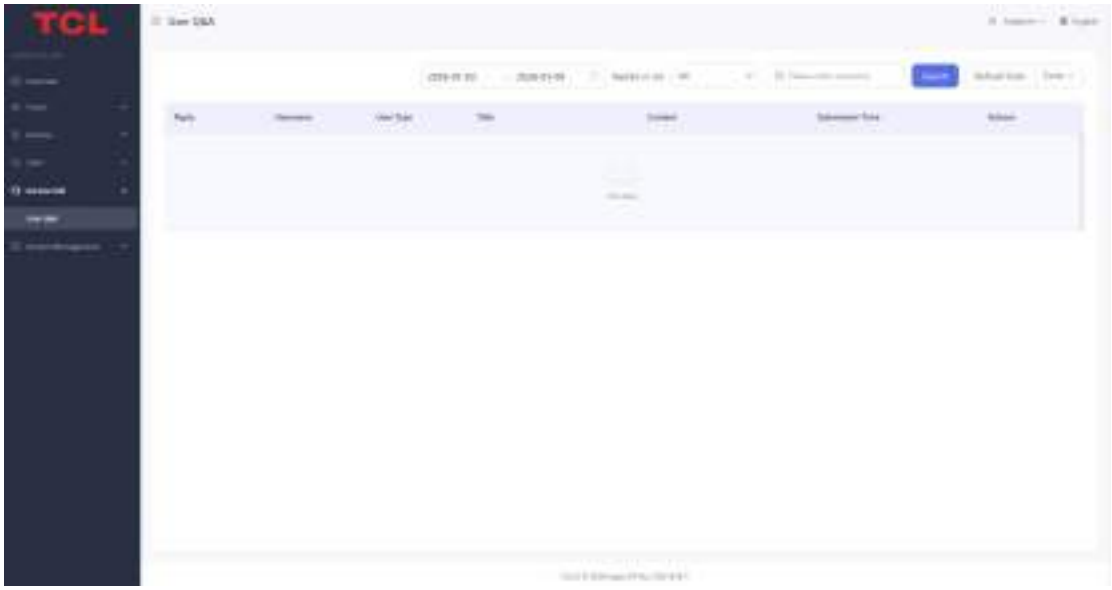
View firmware upgrade logs.



3.2.6 Service Center

3.2.6.1 User Q&A

End-user device issues are displayed here and responded to by the device manufacturer.



3.2.7 Account Management

1，Device manufacturers can create Sub Admin, Channel, and Distributor accounts

2，Channel users can create Sub Channel and Installer accounts

3，Distributor users can create Sub Distributor and Installer accounts

Note: Devices activated and power plants bound via sub-accounts will appear in the Power Plant List and Device List.

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