

TIME OF USE AND WEATHER OPTIMIZE FUNCTIONS FOR 18kPV

TIME OF USE FUNCTION

1. Real-time Price Data Integration: The inverter establishes a real-time connection with the grid and will provide live updates on current electricity prices.
2. Maximize Economic Benefits: The primary goal of this function is to maximize cost savings by flexibly adjusting the battery's usage pattern without compromising the normal operation of the system.
3. User Customization: Users can customize settings through the inverter's monitoring software based on individual needs and fluctuations in electricity prices. This customization enables the system to meet energy demands across different time periods.
4. Real-time Monitoring and Reports: Users can access real-time system status and detailed reports through the monitoring software, helping users to better understand the system's performance and economic benefits.

Operating Steps Using EG4 Monitoring

1. Complete Inverter Information: Users need to input necessary information about the inverter, such as the serial number, county, and postal code, into the monitoring system. The cloud platform automatically collects and analyzes daily electricity price data.
2. Data Transmission to Inverter: User settings are transmitted from the cloud platform to the inverter, ensuring the inverter understands the user's charging preferences and price strategies.
3. Inverter Feedback on Settings: The inverter provides feedback to the cloud platform, confirming the receipt of settings and executing charge/discharge operations according to user-specified strategies.

WEATHER OPTIMIZE FUNCTION

Our system introduces an advanced weather optimization function by collecting real-time weather data. The system offers multiple operating modes to adapt to various scenarios:

- Charge Priority Mode: This mode prioritizes battery charging to ensure stable electricity usage, making it suitable for areas with unstable power supply.
- Self-use Mode: Designed for regions with higher electricity prices, this mode allows the system to prioritize self-generated solar power to meet household electricity demands.
- Forced Charge/Discharge Mode: Applicable in time-of-use pricing areas, the system will choose to charge, or discharge based on electricity pricing.
- Intelligent Charging Control: The system automatically adjusts the state of charge to maximize the efficiency of solar energy use based on real-time weather information.
- Stable Electricity Usage: While ensuring stable electricity consumption, the system optimizes charging strategies based on weather conditions, ensuring the battery remains adequately charged.

Operating Steps Using EG4 Monitoring

1. Address Input: Users input the device's location into the system, and the cloud platform automatically collects and categorizes local weather information.

The screenshot shows the 'Maintenance' tab of the EG4 Monitoring system. It features a navigation bar with 'Monitor', 'Data', 'Configuration', 'Overview', and 'Maintenance'. Below the navigation bar, there are search filters for 'Station' and 'Add device', and a date selector for '2024-02-08'. The main content area contains two tables. The left table lists charging events with columns for Serial number, Station name, Charge Time Range, Location, and Action. The right table lists weather data with columns for Serial number, Date, Time, Weather next day, Charge Percent, Set Result, Fail Reason, and Action.

Serial number	Station name	Charge Time Range	Location	Action
1		00:30 - 04:00	X	Management
2		00:00 - 04:00	✓	Management
3		05:00 - 20:00	✓	Management
4		08:00 - 18:00	✓	Management
5		00:30 - 04:00	X	Management
6			X	Management
7			X	Management
8			X	Management
9			X	Management
10			X	Management
11			✓	Management
12			✓	Management
13			✓	Management
14			✓	Management
15			✓	Management
16			✓	Management
17			✓	Management
18			X	Management
19			✓	Management
20			✓	Management

Serial number	Date	Time	Weather next day	Charge Percent	Set Result	Fail Reason	Action
1	2024-02-08	2024-02-08 17:00:01	Broken clouds	80%	Success		View
2	2024-02-08	2024-02-08 17:00:01	Overcast clouds	95%	Success		View
3	2024-02-08	2024-02-08 17:00:05	Overcast clouds	95%	Success		View
4	2024-02-08	2024-02-08 17:00:01	Overcast clouds	95%	Success		View
5	2024-02-08	2024-02-08 17:00:01	Broken clouds	65%	Success		View
6	2024-02-08	2024-02-08 17:00:05	Overcast clouds	95%	Success		View
7	2024-02-08	2024-02-08 17:00:01	Overcast clouds	95%	Success		View
8	2024-02-08	2024-02-08 17:00:04	Overcast clouds	95%	Success		View
9	2024-02-08	2024-02-08 17:00:06	Overcast clouds	100%	Success		View
10	2024-02-08	2024-02-08 17:00:09	Overcast clouds	65%	Success		View
11	2024-02-08	2024-02-08 23:00:01	Overcast clouds	95%			View
12	2024-02-08	2024-02-08 23:00:04	Overcast clouds	95%			View
13	2024-02-08	2024-02-08 23:00:04	Snow	90%			View
14	2024-02-08	2024-02-08 22:00:05	Clear sky	30%			View
15	2024-02-08	2024-02-08 23:00:08	Broken clouds	85%			View
16	2024-02-08	2024-02-08 23:00:25		--			View
17	2024-02-08	2024-02-08 23:00:08	Scattered clouds	20%			View
18	2024-02-08	2024-02-08 23:00:02	Light rain	80%			View
19	2024-02-08	2024-02-08 23:00:14	Broken clouds	65%			View
20	2024-02-08	2024-02-08 22:00:12	Broken clouds	85%			View

2. Time and Percentage Settings: Users set charging times and percentages based on their electricity use patterns and weather conditions.

The screenshot shows the 'Edit' dialog box for configuring charging settings. The dialog has a title bar 'Edit' and a close button. It contains several input fields for configuration:

- * Serial number
- * Charge Start Time: 00:00
- * Charge End Time: 23:30
- Charge percent(%) by weather:
 - * Clear sky: 30
 - * Few(11%-25%) clouds: 65
 - * Scattered(25%-50%) clouds: 75
 - * Broken(51%-84%) clouds: 85
 - * Overcast(85%-100%) clouds: 95
 - * Light rain: 80
 - * Moderate rain: 90
 - * Heavy rain: 100
 - * Other: 90

At the bottom right, there are 'Edit' and 'Cancel' buttons. The background shows a partial view of the monitoring table with the first row selected.

3. Data Transmission: The cloud platform sends user settings to the inverter.

4. Feedback and Execution: The inverter provides feedback to the cloud platform, confirming the receipt of settings and executing charging operations according to user-defined parameters.

Weather Optimize - - 2024-02-08

Time	Charge	Discharge	Time	Charge	Discharge
00:00			00:30		
01:00			01:30		
02:00			02:30		
03:00			03:30		
04:00			04:30		
05:00			05:30		
06:00			06:30		
07:00			07:30		
08:00			08:30		
09:00			09:30		
10:00	✓		10:30	✓	

Cancel