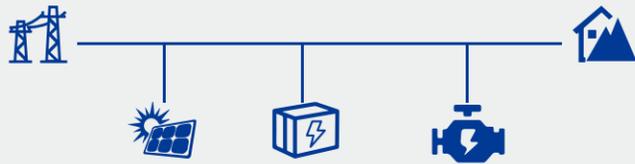


> Advantage two

According to Local Conditions, customized Scheme

Telmei Energy Storage comprehensively considers the mining geographical conditions, power grid status, customer demand, project budget and local policies, the system integrates PCS + BMS + energy storage battery + EMS energy management and network operation of photovoltaic, diesel engine and other equipment, to provide customers with the optimal customized combination scheme. Through multi-energy complementarity and intelligent control, improve the stability of electricity consumption, reduce the electricity cost of the local mining area, maximize the energy utilization efficiency, and help the mining area to increase the income.

Solution



Configuration: New energy provides main power supply / grid provides supplementary power supply / energy storage provides emergency power protection / firewood provides power supply

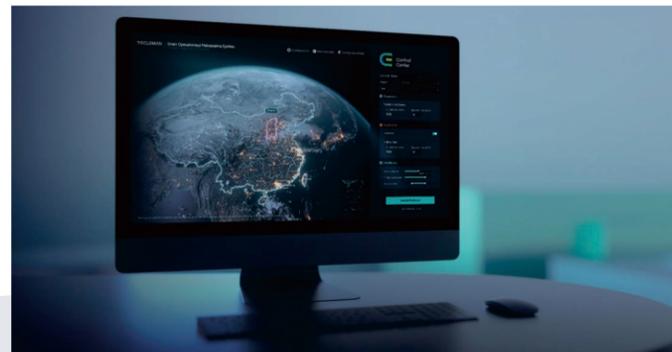
Advantages:
The time is controllable :> **0.3 h**
And off the grid switching time : **10 ms low electricity cost**
Ensure uninterrupted power supply and environmental protection The power system is highly reliable

Shortcoming:
One-time investment cost is high

> Advantage three

Digital Intelligence Security, as Stable as Mount Tai

The mining area solution for the mining enterprise deployment of energy management system (EMS) can be for the station network topology modeling, realize the station equipment realtime monitoring, control, alarm function, system response scheduling curve achieve millisecond control response, and for the station energy storage SOC, SOH maintenance, diagnosis, panoramic analysis of multi-dimensional energy management, for energy storage power station safety and continuous efficient and stable operation.



Tecloman's Smart Operations and Maintenance System

- Independent R&D
- Widely Supported
- Accessible
- Data Security

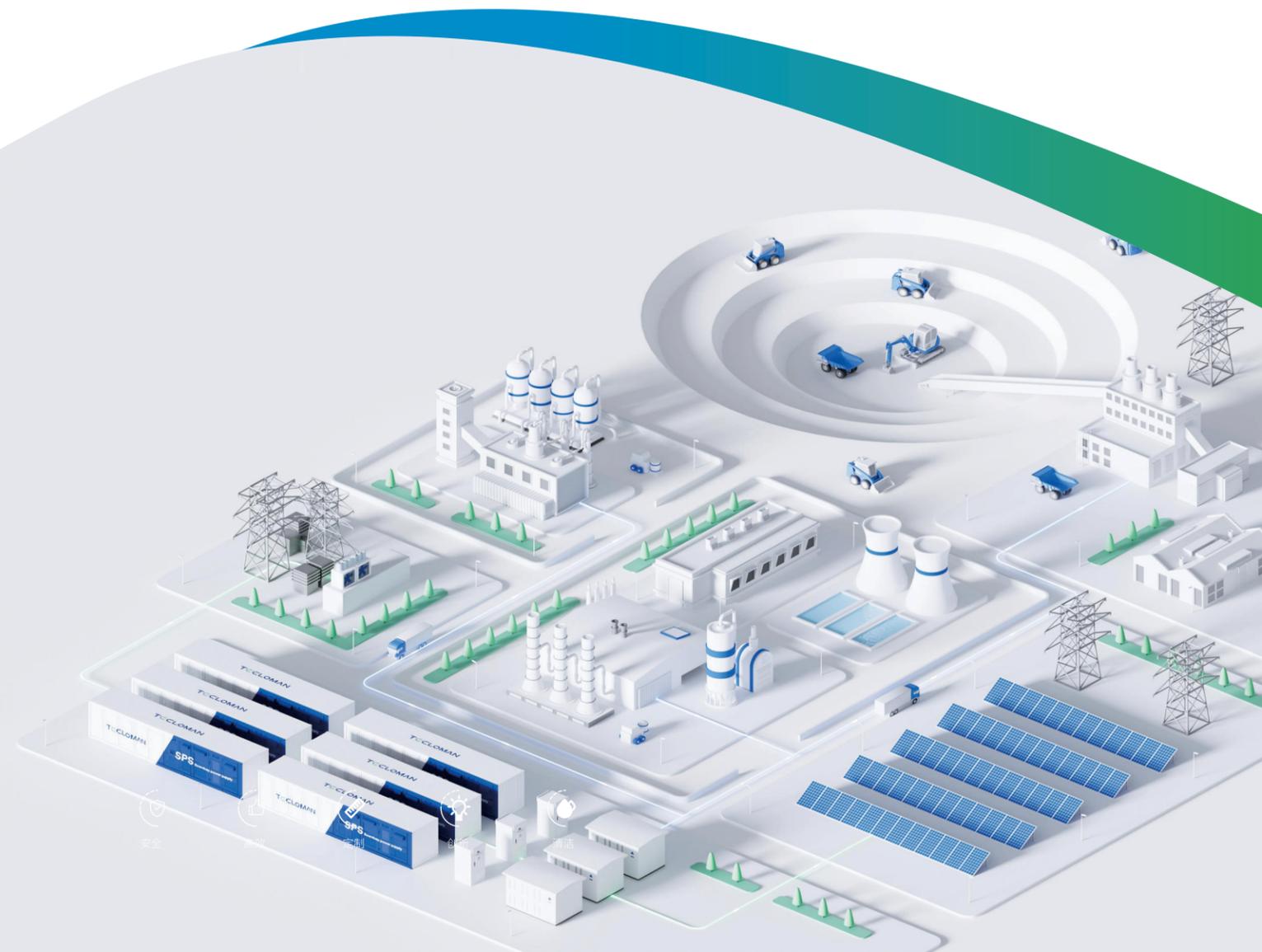


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Empowering the Global
Energy Transition

TECLOMAN

Medium Voltage SPS (Seamless Power Supply) System for Mines



Mining Area Power Supply of the Three Major Difficulties

● Low grid coverage, power shortages

The vast majority of mines are located in remote areas that are difficult to connect to the grid and cannot have a stable power supply.

● Poor infrastructure and disruption of production

Due to the aging and poor maintenance of power infrastructure, unstable power supply and extreme climate conditions, frequent power failure and voltage fluctuations, leading to production interruption and equipment damage, affecting the continuity of mineral mining and processing, and inducing safety accidents.

● High energy costs and serious pollution

Due to power shortages and inadequate infrastructure, mining companies have had to rely on diesel generators to make up for the power shortage in order to save their initial investment, with high costs, heavy pollution and high noise.

How Does Energy Storage Technology Support Mining Power Supply?

Mine owners put forward the following three "rig id needs" for mining power supply. It promotes the technical combination of energy storage system, renewable energy and hybrid microgrid to optimize the mining power supply.

1 High Reliability of Power Supply

To ensure the stable production of the mining area, the power supply must be provided continuously for a long time, requiring the power infrastructure and distribution network to have anti-interference and rapid recovery capabilities.

2 Power Supply Independence

The vast majority of mining areas cannot rely on a single public power grid, and must meet their own stable power demand through independent energy mix and energy storage systems.

3 High Energy Cost Sensitivity

Energy costs account for a large proportion of the total operating cost of the mining area. Efficient power generation and energy storage technologies reduce dependence on expensive fuels and reduce overall operating costs through optimization of energy.

Tecloman Energy Storage Mine Energy Solutions

Medium-voltage seamless power protection system in SPS mining area



Emergency Power Preservation



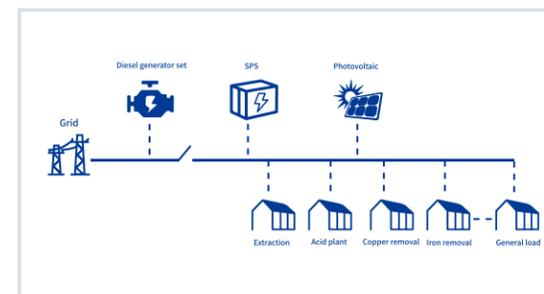
Urgency Power Preservation



Energy Alternatives

With the past experience of serving Europe, America, Asia and other demonstration mining areas, Tecloman has summarized a set of mature energy storage solutions to ensure the safe, stable and efficient power supply in the mining area. The "SPS medium voltage seamless power protection system" is one of the models.

Based on the weak infrastructure of most mining areas, and the unstable and high cost of remote power supply, the "SPS mining medium pressure seamless power protection system" customized by Tecloman can highlight the efficient and reliable emergency power protection and emergency power backup function in this scenario.



This solution to the energy storage system directly access to the medium voltage line, in the grid is abnormal by the cutting device the grid side load, by the energy storage system quickly switch to off-grid operation to provide uninterrupted power supply, the grid back to normal to grid operation for energy storage, so as to solve the problem of large load unified electricity of the scenario.

> Advantage one

10 ms Instantaneous Cut Power Protection Milliseconds

In power grid abnormal "SPS mining area voltage seam less power system" can be in 10 ms instant switch to off-grid operation, guarantee load uninterrupted operation, power grid back to normal then automatically switch to the grid state charging storage, avoid power operations shut out, equipment damage, production capacity, such as serious economic losses, to "millisecond" seam less switching technology, solve the problem of mining large load unified electricity, achieve safe, reliable, economic power supply.

