
utl
POWERING THE FUTURE

MORE THAN ENERGY

Company Introduction

At Unbound Technology Limited (UTL), we are a forward-thinking company dedicated to the development and implementation of innovative solutions for sustainable energy generation, management, and distribution.

Our mission is to leverage cutting-edge technologies such as energy storage, automation, and artificial intelligence to create a more reliable, efficient, and secure energy infrastructure. We specialize in providing tailored solutions to address the specific challenges faced by our clients, supporting them in achieving their goals during the energy transition.

UTL's vision is to become a reliable partner in the energy industry, driving the modernization and sustainable development of global energy systems. We believe that through technological innovation and practical applications, the energy sector can achieve unprecedented progress.

Our commitment lies in delivering solutions that meet future demands while supporting our clients in reducing energy costs and minimizing carbon emissions. Not only do we focus on addressing current energy challenges, but we also aim to pave the way for the future, creating a more sustainable and efficient energy ecosystem.

In terms of values, UTL upholds three core principles: innovation, integrity, and collaboration. Innovation serves as our key driving force as we continuously explore new methods to solve energy problems. Integrity is at the heart of our operations; we build long-term, trust-based relationships with our clients, partners, and stakeholders. Collaboration is essential to our philosophy, as we believe that progress in the energy industry can only be achieved through collective efforts.

Our Technical Team

UTL is a pioneering R&D company focused on sustainable energy innovation, headquartered in Hong Kong. UTL's leadership team is composed of two seasoned and visionary individuals - Dr. Sage LEI and Mr. Alfred LIU.

Dr. Sage LEI Sheng Jie, the Head of Engineering at UTL, holds a strong academic background and extensive research experience in the field of energy systems. He obtained his Master's degree in Aeronautics and Astronautics from Nanjing University of Aeronautics and Astronautics, where he specialized in measurement and control technology and instrumentation.

After completing his postgraduate studies, Dr. Sage LEI went on to demonstrate his exceptional technical expertise through his work at the 705th Research Institute of the China Shipbuilding Industry Corporation. During his time there, he made significant contributions to the development of advanced engineering methodologies, leading major research projects that achieved industry-leading results both domestically and internationally. His efforts were recognized with 8 invention patents and a Second-Class Science and Technology Progress Award from the group company.

Dr. Sage LEI's strong academic and technical foundation has enabled him to contribute significantly to the development of UTL's cutting-edge engineering solutions. His expertise lies in designing and optimizing energy systems to improve efficiency and reliability, ensuring that UTL's products and services are both technologically advanced and practical for real-world applications. With his deep understanding of complex engineering challenges, Dr. LEI plays a crucial role in driving UTL's mission to deliver innovative, efficient, and sustainable energy systems to its clients.

Mr. Alfred LIU, the Chief Technical Officer (CTO) of UTL, complements this expertise with his extensive professional experience in working with multinational manufacturers. Over the years, Mr. LIU has gained a profound understanding of the operational challenges faced by global industries, particularly issues related to power quality. His role has involved identifying the pain points in manufacturing operations caused by inconsistent or suboptimal power supply, and developing tailored solutions that address these challenges effectively, ensuring both operational continuity and enhanced efficiency.

Mr. Alfred LIU's ability to bridge technical innovation with practical industry needs has been instrumental in positioning UTL as a trusted partner for clients seeking reliable energy solutions. His world-wide logistics and supply chain experience, as well as his background in factory management, have enabled him to be acutely aware of power efficiency and alert to waste issues. Mr. LIU can always understand the pain points of clients and suggest customized solutions, while also following through on the local implementation. This ESG-focused mindset, combined with his industry insights, complement.

Dr. Sage LEI's research expertise, jointly driving UTL to achieve its mission of delivering innovative, efficient and sustainable energy systems to customers. Together, Dr. Sage LEI's strong research acumen and Mr. Alfred LIU's industry-focused expertise form a synergistic leadership dynamic that drives UTL's mission to address critical energy challenges and deliver impactful solutions.

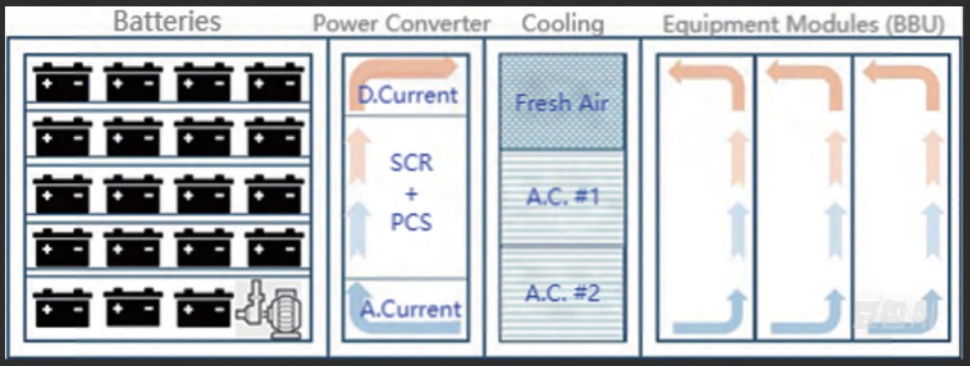
Product Overview

1. HiveCloud*

HiveCloud is UTL's exclusive energy storage and management solution, designed to optimize energy usage and ensure uninterrupted power supply. Leveraging advanced battery technology and AI-powered control systems, HiveCloud provides seamless integration with renewable energy sources, grid infrastructure, and critical load management.

HiveCloud has been successfully deployed in various applications, including supporting China Mobile's 5G network in Zhuhai, China, ensuring reliable and efficient power supply for their mission-critical operations.

- Energy saving by precision cooling system ↓40%
- Maintenance labour cost ↓60%
- Reducing space occupation by over 60% and therefore minimize rental expenditure
- Electricity cost ↓20% by peak-valley tariff optimization
- Installation on site only takes as little as 8 hours



*This product is designed and developed in-house by our UTL technical team.

2. Industrial & Commercial Energy Storage and Uninterruptible Power Supply

UTL's commercial and industrial energy storage solutions offer scalable and modular designs to meet diverse power requirements, from compact cabinet-based units to large-scale container-based systems.

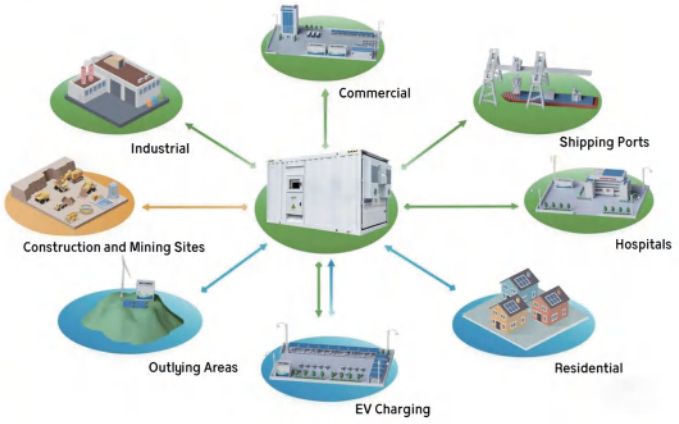
At the core of our systems are high-quality lithium-ion battery packs featuring excellent consistency, extended lifespan, and superior stability. Advanced thermal management capabilities, including both air cooling and liquid cooling options, ensure reliable operation in demanding environments while meeting the strictest safety standards.

Our energy storage systems can seamlessly integrate with renewable energy sources, such as photovoltaic (PV) systems, as well as traditional power generation equipment like diesel generators. This versatility allows our clients to reduce grid dependence, improve power supply quality, and ensure the reliable operation of critical loads, even during grid outages.

By incorporating sophisticated energy management systems, our solutions optimize system performance and efficiency. This includes intelligent load management, predictive analytics, and real-time monitoring capabilities, enabling our clients to maximize the value of their energy storage investments and achieve their sustainability goals.

Whether it's precision manufacturing, chemical processing, commercial buildings, or remote communities, UTL's commercial and industrial energy storage solutions deliver reliable, efficient, and eco-friendly power to a wide range of applications.

UTL also provides Uninterruptible Power Supply (UPS) systems. The most frequent applications for UTL are hospitals, data centers, and telecommunications equipment, where unexpected power disruptions could cause injuries, fatalities, serious business disruptions, or data loss.



3. PowerStabilizer*

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PowerStabilizer is UTL's exclusive voltage dip mitigation solution, engineered to protect sensitive equipment and critical processes from sudden voltage fluctuations. Combining advanced power electronics and intelligent controls, PS ensures seamless power quality and grid stability, even in the face of grid disturbances.

The PowerStabilizer has been successfully deployed in a chemical plant of a Hong Kong-listed company in Zhuhai, China, delivering reliable power quality and safeguarding their mission-critical operations.

- Operates in a standby state with low power consumption(efficiency>=99.5%);
- Switches to active mode quickly and seamlessly(within 20ms) when voltage dips occur, preventing production disruption and machine damange;
- Designed for a service life of up to 15 years, enabling maintenance-free operation;
- Rich human-machine interface available for remote monitoring and management;
- Compact design with a small footprint

4. Electric Vehicle Charging

UTL offers a comprehensive range of electric vehicle charging solutions, from standard charging piles to mobile charging units. Our team works closely with clients to design and implement the best fit charging infrastructure, even in older carparks or parking lots without modern power infrastructure.

To further enhance the sustainability and reliability of our EV charging solutions, we have integrated photovoltaic (PV) solar energy technology into our product offerings. By incorporating solar panels, our charging stations can generate renewable energy on-site, reducing reliance on the grid and minimizing carbon emissions. This PV integration also provides backup power during grid outages, ensuring uninterrupted charging service for our clients' electric vehicles.

We manage the entire process, from manufacturing to delivery, ensuring seamless integration and maximum efficiency for our clients' EV charging needs. Our in-house R&D team continuously innovates to improve the performance, cost-effectiveness and user experience of our EV charging solutions.

5. BatteryGuardian*

BatteryGuardian is UTL's exclusive battery management and monitoring solution, designed to optimize the performance and lifespan of lead-acid battery. Utilizing advanced algorithms and real-time data analytics, BatteryGuardian provides intelligent diagnostics, predictive maintenance, and remote monitoring capabilities.

BatteryGuardian has been deployed by China Southern Grid, empowering their energy storage assets with enhanced reliability and efficiency.

- Reduce operational labour costs and minimizes downtime by system automation;
- Enhance occupational safety during battery discharging and testing;
- Extend the service life of batteries(from 3 years to 6 years);
- Discharged energy being recycled and enhance overall system reliability

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Collaboration Opportunities

At UTL, we welcome a wide range of collaboration opportunities beyond direct sales. Whether you are an agent, distributor, or a company seeking co-R&D or joint research, we are eager to work with you to adapt our existing power quality solutions to meet local compliance and market requirements.

We also encourage businesses and incubation parks facing power quality challenges to engage with us. Our one-stop portfolio, spanning industrial/commercial energy storage and machine-specific voltage dip mitigation, has been successfully deployed to address diverse client needs. By turning bespoke solutions into scalable, standardized products, we are uniquely positioned to deliver reliable, efficient, and sustainable energy systems tailored to your requirements.

SCAN ME

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