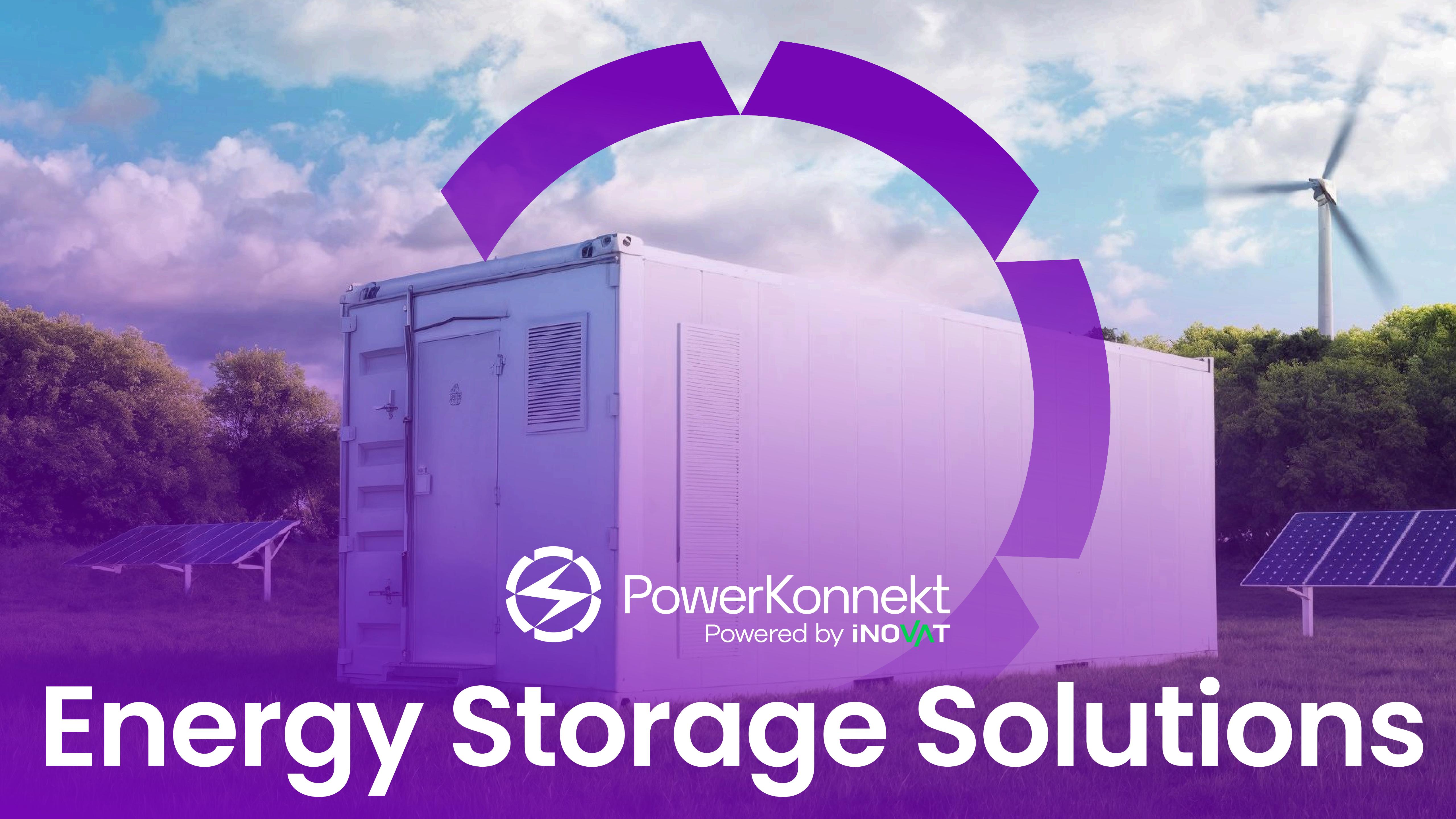


Energy Storage Solutions



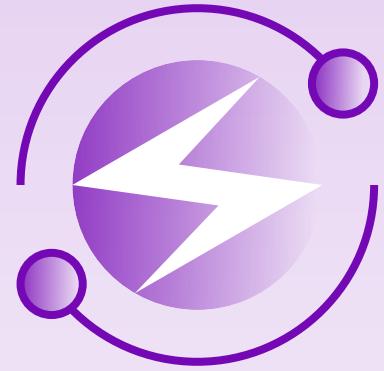
PowerKonnekt
Powered by **iNOVAT**



The PowerKonnekt Energy Management System, developed by INOVAT, is a comprehensive solution that enables energy transformation with its **“future-ready”** approach.

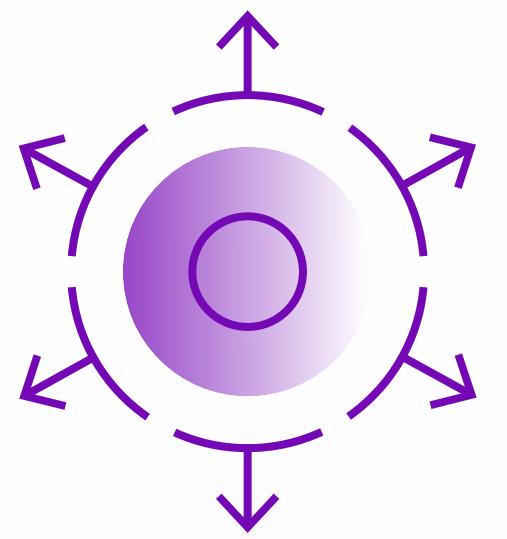


Core Architecture



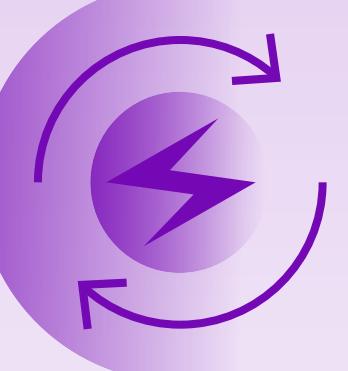
ESS Integration Experience

Developed with attention to the finest details in ESS applications.



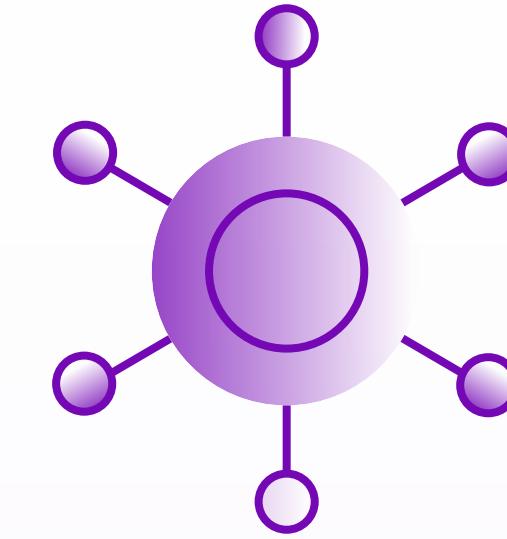
Flexible Approach

Designed to fully adapt to changes in usage.



Energy Automation

Developed with accumulated knowledge of various energy sources.



Technology Independence

Ready to implement current and future storage technologies.

Energy Management System

Consumption Points

Grid

Energy Sources

BMS

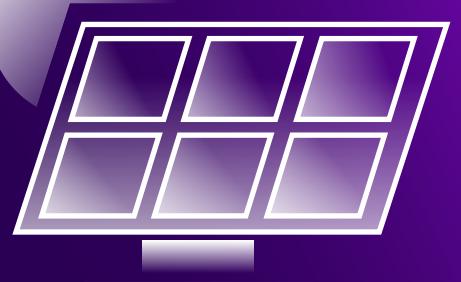
PCS

Temperature

HVAC

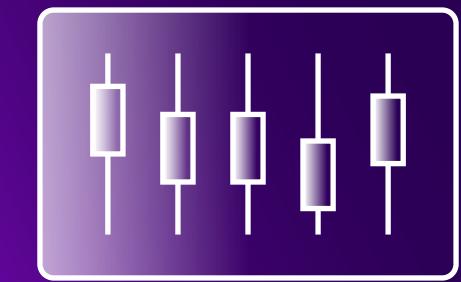
Battery

Fire Protection

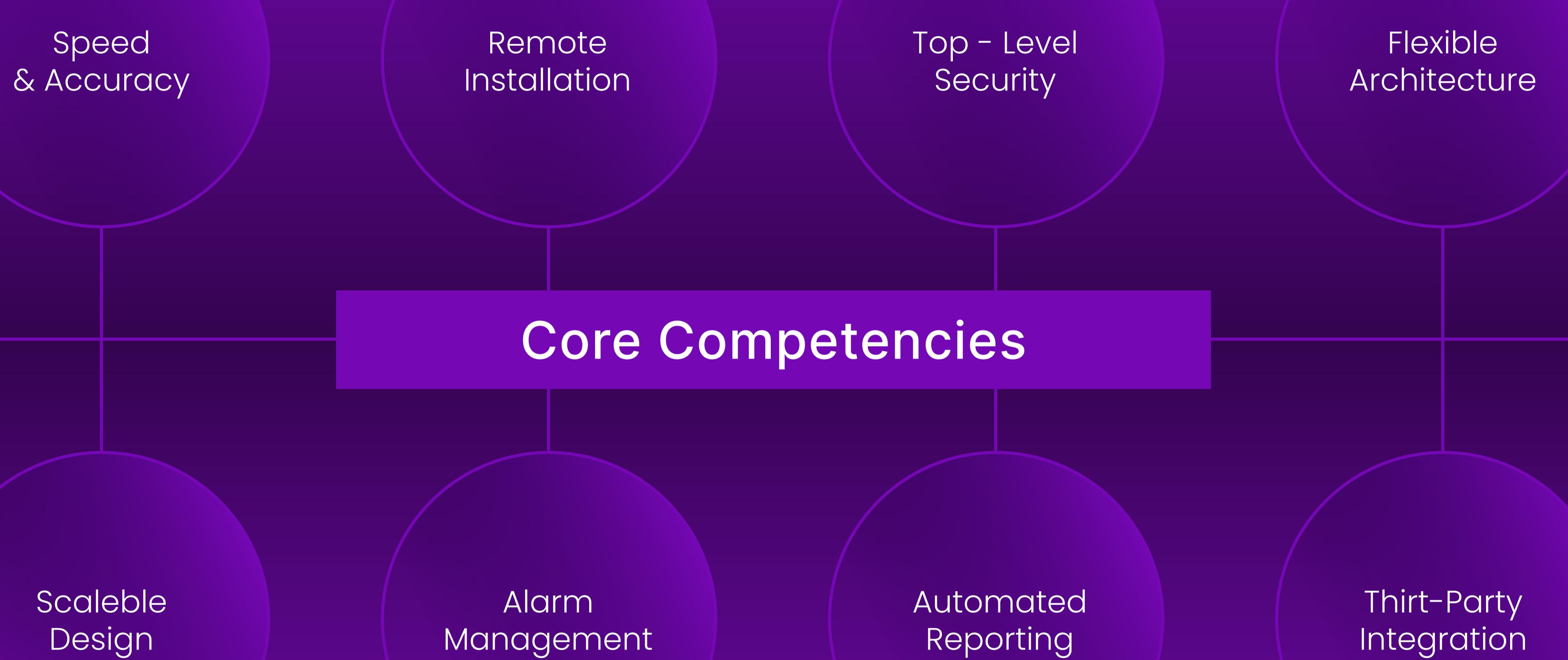


Algorithmic Trading Platform

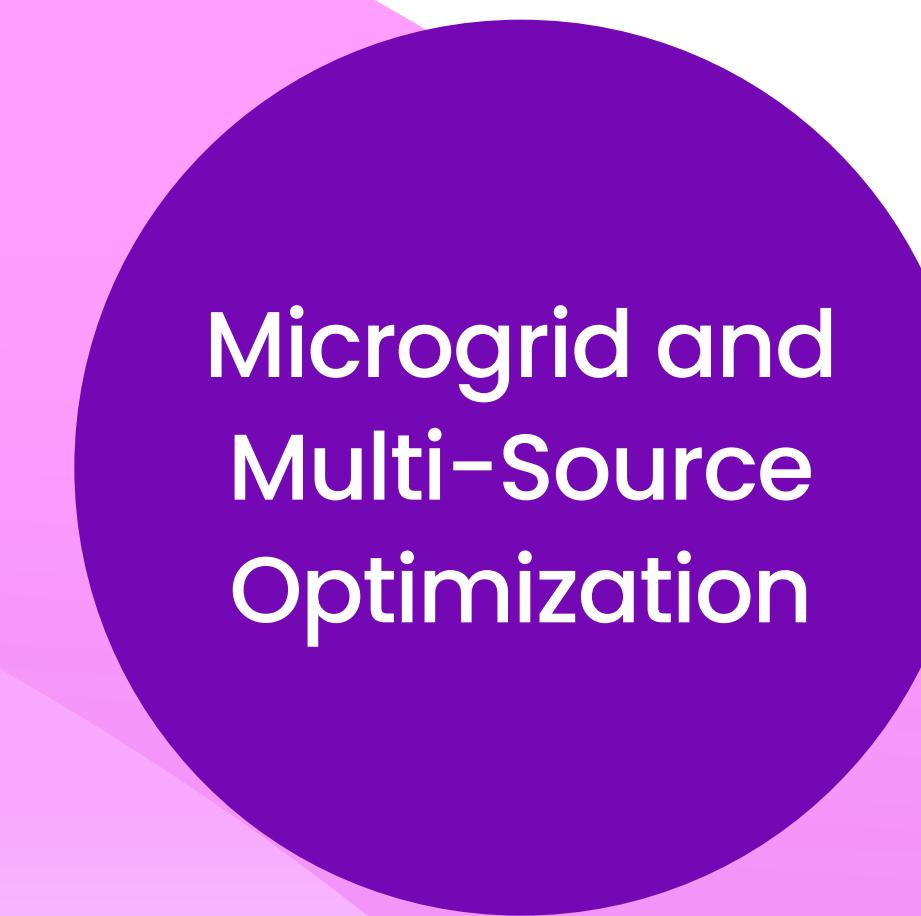
Energy Market Price Data



Core Competencies



Integrated Management Function



Scope

Ancillary Services and Grid Support

- Frequency Control
- Reactive Power Support
- Load Pick-Up /
Shedding Scenarios
- Contribution to Grid Stability

Renewable Energy Integration

- Compatibility with solar and wind power plants
- System adaptation based on variable generation profiles
- Load shifting/charging and carbon-free energy optimization

Energy Trading and Market Integration

- Automated energy trading algorithms
- Real-time price-based trading
- Integration with energy markets (DA, ID, DGP, etc.)

Imbalance and Flexibility Management

- Participation in balancing
- Ability to operate in sync with the grid
- Charging/discharging scheduling and load balancing
- Scenario-based smart rules

Aggregation

- Pooling distributed energy systems into a single platform
- Centralized Control
- Collective Reporting and Monitoring
- Management of corporate consumer fleets

Time-of-Use Tariffs

- TOU (Time-of-Use) optimization
- Battery discharge during peak hours and low-cost charging during off- peak
- Smart scheduling based on billing scenarios

Demand Response

- Response based on grid congestion
- Converting demand flexibility into profit
- Automatic signal reading and reaction
- Reducing energy costs for industrial users

Commercial & Industrial Uses

- Protection of critical loads
- Peak shaving
- Grid-independent operation

PowerKonnekt Edge

1

Active Power Management

Dynamic control of active power to regulate system frequency and balance energy supply with real-time demand.

2

Energy Quality Management

Regulation of voltage using reactive power and frequency using active power to maintain overall energy quality.

3

Planned Charging / Discharging

Battery charging and discharging cycles are managed according to system goals.

4

Production Optimization

Losses caused by overproduction and curtailment are prevented, creating value.

5

Real-Time Data Processing

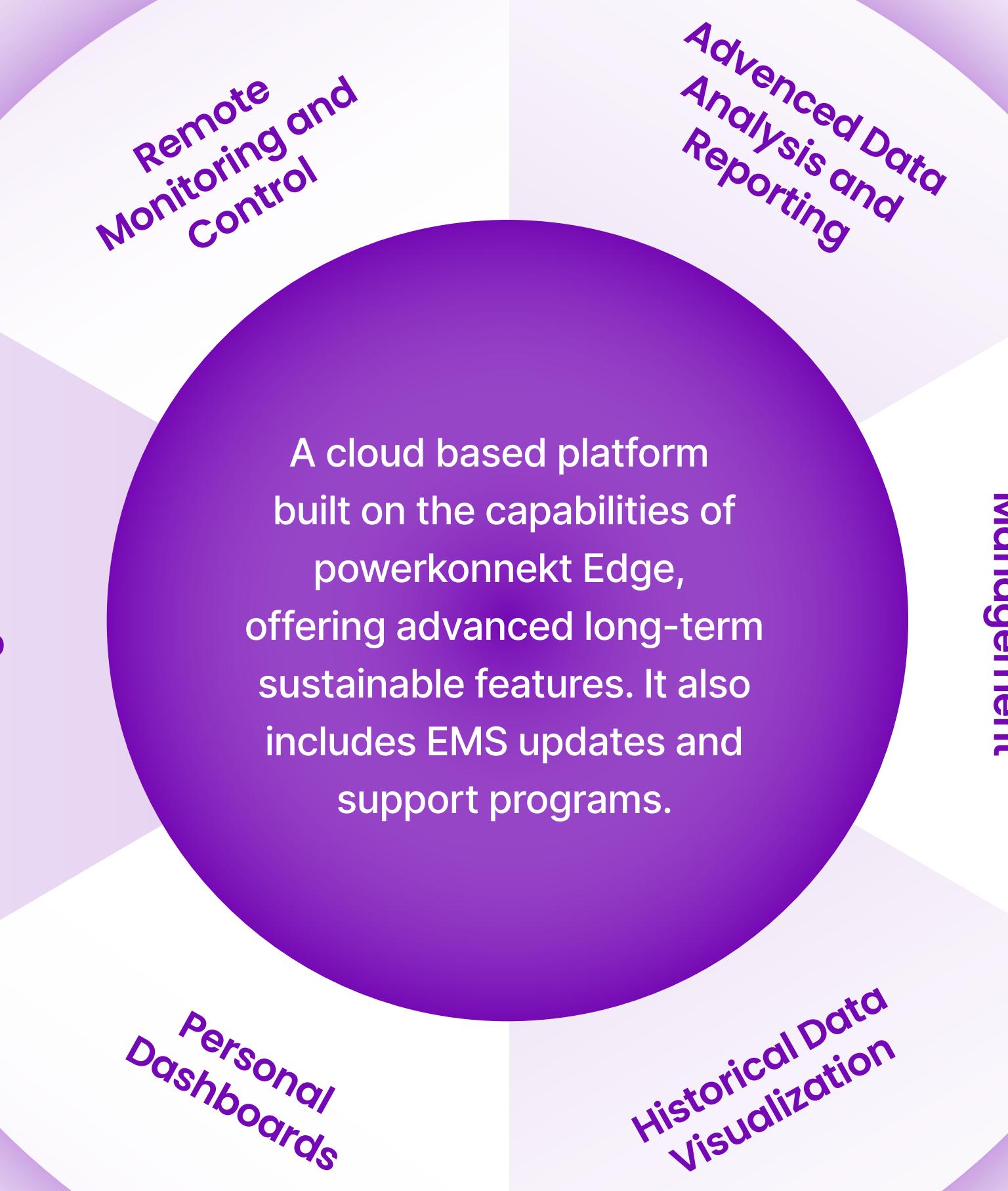
Millions of data points are processed with zero latency.

6

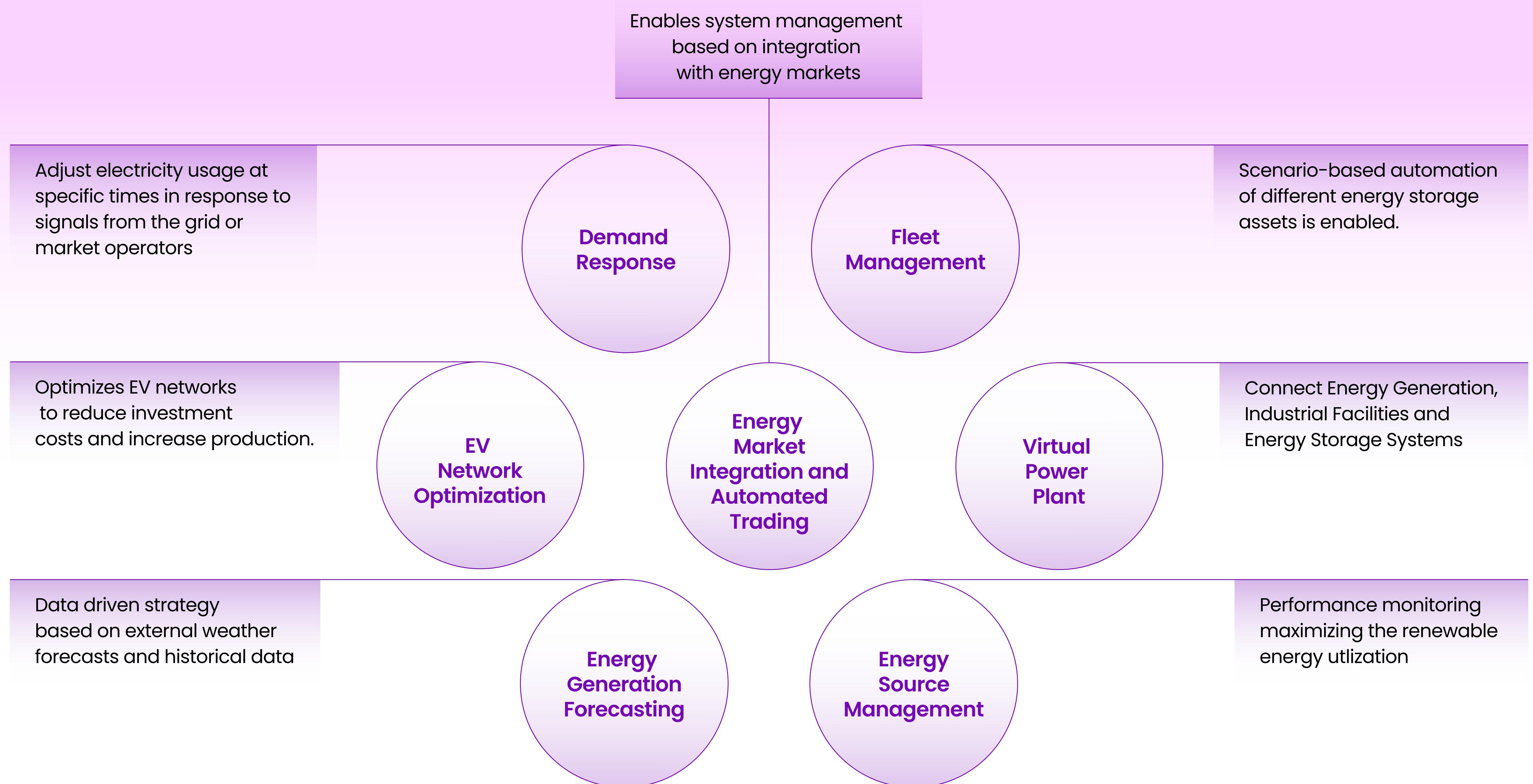
Battery Performance Optimization

System goals are balanced with long-term battery performance.

Cloud Platform



Advanced Functions



PowerKonnekt Support



Support

Remote Configuration

24/7 support

Periodic Updates

Remote Monitoring

Training

Use Case Adaptations

Dashboard



Plans

Plans

EDGE

- ⌘ Local Monitoring
- ⌘ Direkt Charge / Discharge
- ⌘ Scheduled Charge / Discharge
- ⌘ Load Following
- ⌘ Peak Limiting
- ⌘ Battery Monitoring
- ⌘ Voltage Regulation
- ⌘ Power Factor Correction
- ⌘ Reactive Support

Platform

- ⌘ EDGE Functions
- ⌘ Cloud Access
- ⌘ Remote Monitoring and Control
- ⌘ Advanced Data Analytics
- ⌘ Advanced Alarm Management
- ⌘ Automated Reporting
- ⌘ Customizable Dashboards
- ⌘ API Integration
- ⌘ Automated Updates

Custom Functions

- ⌘ Platform Functions
- ⌘ ESS Fleet Management
- ⌘ Virtual Power Plant
- ⌘ Energy Market Integration
- ⌘ Automated Trading
- ⌘ EV Charge Network Optimization
- ⌘ Generation Forecasting
- ⌘ Energy Resource Integration
- ⌘ Custom Development

- ⌘ Advanced Monitoring
- ⌘ SoH Tracking
- ⌘ Microgrid
- ⌘ Ancillary Services

- ⌘ Standard Features
- ⌘ Advanced Features

References

SUNGROW

AEG POWER
SOLUTIONS

epcpower
excellence in power conversion

INDRIVETEC
Innovative Drive Technologies AG



JinKO
ESS

narada

 **Rolls-Royce**[®]

SINEXCEL

SAMSUNG

 **POWER ELECTRONICS**

 **LG**

CATL

 **POWIN**



The background of the image features a dynamic, abstract design composed of overlapping triangles. The triangles are primarily a vibrant green color, with some areas transitioning into a deep purple or black. They are arranged in a way that creates a sense of depth and movement, resembling a stylized landscape or a futuristic city skyline. The overall effect is modern and energetic.

iNOVAT



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PowerKonnekt

Konnekt With The Future