

# One-Stop Zero Carbon Solution Across The Full Life Cycle

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# Development Goals in the Context of Carbon Neutrality



# Clean Energy

Zero carbon energy supply Energy structure optimization



# Low Carbon

Dual control of carbon emission Low carbon products



# Digital Intelligence

Intelligent Internet of Things
Digital operation



# Approach Towards Zero Carbon

### **Zero Carbon Energy Supply**

Power supply

Cooling supply

Compressed air supply

Heating supply



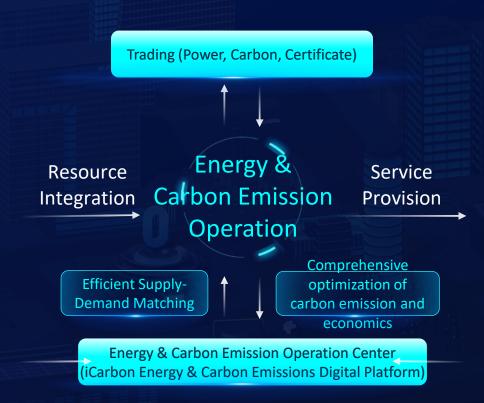
#### **Advanced Technologies**

Low carbon

ΑI

nformation

Energy storage



#### **User Side**

**Basic Energy Services** 

One-stop supply of cooling, heating, water, power, and compressed air

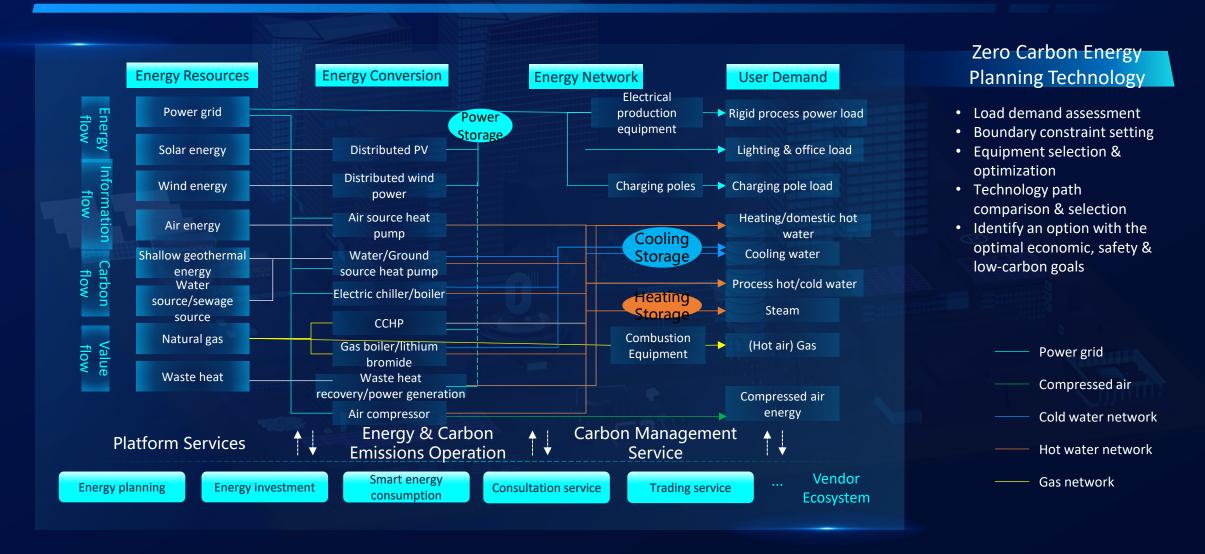
Value-Added Energy & Carbon Emission Services

Energy & carbon emission
diagnosis
Carbon emission consultation
Energy conservation & emission
reduction
Virtual power plant

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# Establishing a Zero Carbon Energy Supply System Featuring Multi-Category Integration & Supply-Demand Interaction





### Full Scenario Smart IoT Visualizing the Entire Energy and Carbon Flow





# Clean Energy Supply Integrated Wind-PV-Storage-Charging Largely Improving Clean Energy Usage

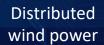
PV & Wind Power

#### Maximized installed capacity



5% - 20% more power generation







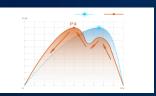
Rooftop PV power station



PV carport



Landscape PV station



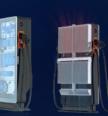
Widely applied and fully adapted to local condition

Energy Storage



#### Safe & high return

Peak-valley price arbitrage Demand optimization Multiple benefits Charging



Highly integrated & maintenance-free

Improving utilization by 30%+

Service life >10 years





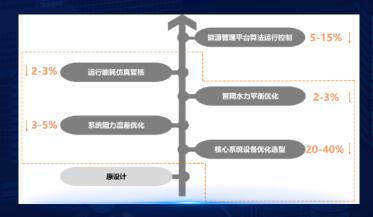
# **Efficient Cooling/Heating Station**

Integration & Hierarchical Multi-energy Complementation
Minimizing cooling/heating costs & maximizing carbon reduction effects

Efficient equipment room

Efficient equipment room technology across the full life cycle

Optimized cooling/heating systems



Peak load shifting with energy storage technology



### Full Life Cycle Management

System energy efficiency

EER ≥ 5

Saving energy by

30% to 50%

Reducing power distribution and unit capacity
Reducing initial investment by

10% to 30%

Intelligent and reliable
Intelligent operation Automatic
load adjustment





# **Smart Compressed Air Supply**

### Higher quality compressed air, lower carbon emission

- Efficient IoT unit
- System level coordination & optimization

#### Hardware Upgrade

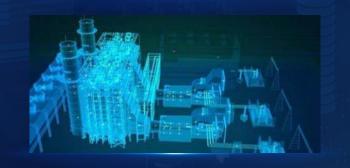


Improving energy efficiency by

20%~35%

- Coordinated supply-demand balance across multiple units
- Narrowband constant-pressure technology
- Intelligent start/stop Intelligent diagnosis

#### **Intelligent Control**



Improving energy efficiency by

10%~15%

- Addressing universal purposes
- Cascade utilization of waste heat

#### **Waste Heat Utilization**



Recovering 60%~70% of energy





One Stop Workbench
Integrated Energy & Carbon Emissions
Management

Real Time Tracking of Carbon Emissions
Panoramic Visualization of Energy &
Carbon Data

Data-Intelligence Enabled Operation
Supporting Management Decisionmaking

Operational efficiency 20%+

Carbon emissions 5%+

Energy Cost

8%+



## AI-Enabled Source-Grid-Load-Storage Optimization



# Extra Revenue from Virtual Power Plants



Linked to the Electricity-Carbon-Certificate Market



100%

Green power consumption

100%

Response success

11%+

Increase of return per kWh

Increasing overall revenue by  $13_{\%+}$ 





# Core Objectives: Lower Cost, Higher Return, Lower Carbon Emissions

#### Value added by services

Global carbon management and carbon trading service capabilities Leading virtual power plant and power trading strategies

#### Innovative solutions

Multi-energy complementation;
coordinated cooling, heating, water,
power, and compressed air supply
Integrated energy and carbon emissions
operation One-stop services

### Digital empowerment

iCarbon Energy & Carbon Emissions Digitalization Platform











Reducing energy cost by 10-50%



Improving overall energy efficiency by 15%+



Improving operational efficiency by 20%+



Increasing revenue by >13%+

Technological Leadership





