ASIA CLEAN ENERGY FORUM 2025

Empowering the Future: Clean Energy Innovations, Regional Cooperation and Integration, and Financing Solutions

2-6 June | ADB Headquarters, Manila





Crossing Borders: Integrated Solutions

for Net Zero-Carbon Development Policies and Practices from Low-Carbon Industrial

Parks to Zero-Carbon Industrial Parks in China

5 June 2025 | 14:00–17:35 (GMT+8)

In cooperation with





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Zhong, Li

Deputy Director General Energy Research Institute (ERI) of Academy of Macroeconomic Research

Featured Speaker



Industrial parks are a key support for high-quality carbon peaking and carbon neutrality

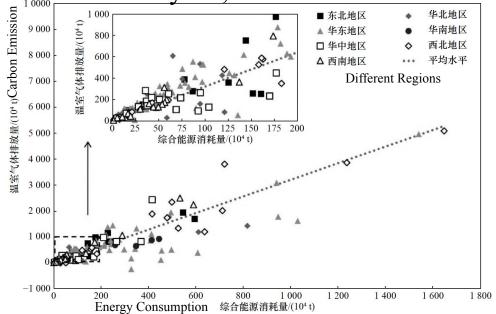
• Industrial parks are the main carrier of China's economic growth and the main source of energy consumption

• There are more than 2,500 national and provincial-level industrial parks, contributing more than half of the national industrial output value

• The amount of direct carbon emissions, indirect carbon emissions and industrial chain supply chain carbon emissions associated with industrial parks is huge

• Large differences in scale, structure and layout, and uneven levels of green and low-carbon

development





Chinese government actively promotes low-carbon development in industrial parks

2024-

2013-2024

2001-2013

Mainly focusing on the construction of eco-industrial parks and the recycling transformation of parks Mainly focusing on pilot construction of low-carbon industrial parks and demonstration pilot projects on pollution and carbon reduction

Moving from building low-carbon industrial parks to building zero-carbon industrial parks

A number of policy documents have been issued



- Outline of the 13th Five-Year Plan
 - Implementation of demonstration projects for near-zero carbon emission zones
- Implementation Program of Green and Low Carbon Advanced Technology Demonstration Project in 2023
 - Demonstration of major projects such as near-zero energy buildings, near-zero carbon emissions, and carbon capture, utilization and storage (CCUS).
- Central Economic Work Conference 2024
 - Establishing a number of zero-carbon parks, giving priority to the development of new industries with low energy consumption, low pollution and high value-addedness, maximizing the use of clean energy, and minimizing carbon emissions in the production, operation and management of the parks.
 - Supporting the development of the "green power direct supply" model and accelerating the construction of microgrids, generation-grid-load-storage integration projects.
- Report on the Work of the Government 2025
 - We will steadily advance the second batch of trials for peaking carbon emissions and establish a group of zero-carbon industrial parks and factories.

Development of zero-carbon parks in traditional industrial

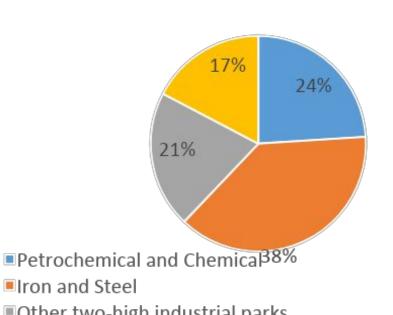


• After more than ten years of "Operation Park", the rate of enterprises in the iron and steel, petrochemical and chemical industries entering the park is close to 50%.

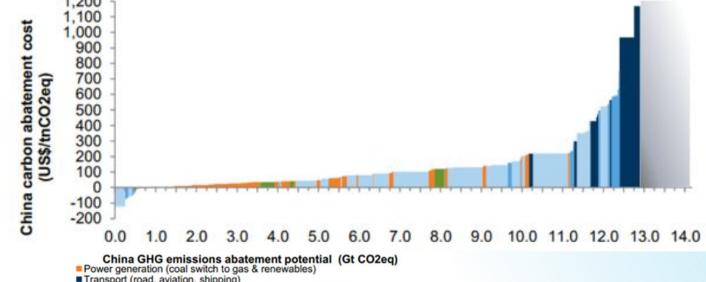
• The direct carbon emissions of the two high industrial parks account for 26% of the national total, which is the most important task in the national carbon control and carbon reduction work.

• High-energy-consuming and high-emission industrial parks have heavy responsibilities,

difficulties and challenges in deep



parks



■ Transport (road, aviation, shipping)

Industry (industrial combustion, process emissions, waste)

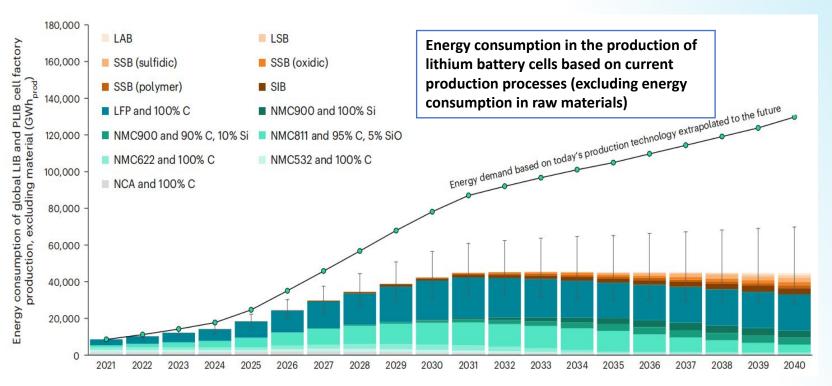
Buildings (residential & commercial)

Agriculture, forestry & other land uses (AFOLU) Non-abatable at current conservation technologies

Development of zero-carbon parks in emerging industrial parks



- Clean energy-related emerging industries use mainly electricity, but also face continued pressure to reduce carbon emissions.
- Studying the model of "producing green equipment with green electricity" to promote the high-level development of new industrial parks.



参考资料:

^{1.} IEA, Special Report on Solar PV Global Supply Chains

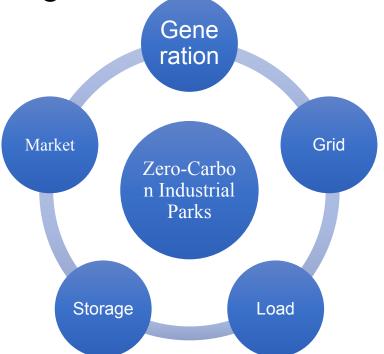
^{2.} Energy consumption of current and future production of lithium-ion and post lithium-ion battery cells

Power system transformation enables zero-carbon industrial ADB parks

• "Green power direct connection" is usually carried out in conjunction with smart microgrids and source-grid-load-storage integration projects, with parks being a typical application scenario.

• Taking "green power" as an entry point, promoting the construction of zero-carbon parks empowered by green power, targeting each link of

"Generation-grid-load-storage-market".



Successful Cases: Ordos Zero-Carbon Industrial Park



- The Ordos Zero-Carbon Industrial Park, jointly developed by Inner Mongolia Xinyuanjing Group and the Ordos Mengsu Economic Development Zone, is setting a benchmark for energy transition and green manufacturing.
- Eight key innovations, including a full green energy supply, an intelligent carbon management platform, international net-zero industrial park standards, and a comprehensive "wind-solar-hydrogen-storage-vehicle" net-zero industry chain.
- These efforts are projected to generate approximately 300 billion yuan (\$41.40 billion) in green industrial output, create 100,000 jobs, and reduce annual carbon dioxide emissions by around 100 million metric tons.



Successful Cases: Sino-German Ecological Park in Qingdao ADB

- Sino-German Ecopark is the first demonstrative cooperation project for sustainable development jointly developed by the Chinese and German governments. It is situated in Qingdao West Coast New Area, the 9th national new area of China.
- The park is forming a healthy, economic, and low-carbon lifestyle by applying zero-carbon concepts in construction, energy, transport, finance, and culture.

• By building a diversified clean energy supply system, the park focuses on the development of solar PV, wind, geothermal, and other renewable energy to promote energy transformation, distributed photovoltaic installed capacity has reached 16 megawatts, supplying nearly 1

million square meters of energy area.



Thank you for your attention!