

# China's Leading Green Fintech Products

## A Brief Introduction

2022.4.20



## Presentation Outline

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Background

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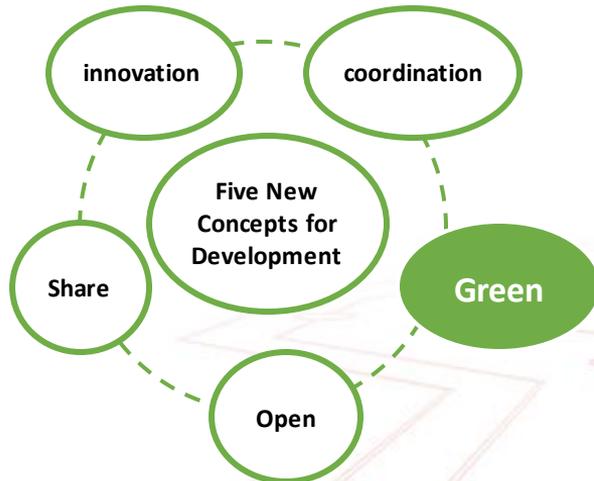
Green Fintech Services and Products



- Extreme weather and climate change are increasingly making negative impacts on human society and economic development and threaten the achievement of SDGs.
- To mitigate and adapt to the impacts of climate change, in 2015, parties at COP 21 entered into the Paris Agreement. The Agreement includes commitments from all countries and sets out a goal to hold global average temperature increase to well below 2°C.



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21·CMP11



- On 22 Sep 2020, during his UN General Assembly address, President Xi Jinping declared that “with stronger policies and interventions, China will enhance its commitment to cut emissions and strive to peak carbon emissions before 2030 and achieve carbon neutrality before 2060.”
- Over the next 30 years, China’s green investment to achieve carbon neutrality by 2060 is estimated to be **at a massive 100 trillion RMB, or even several hundreds trillions**, which will create huge opportunity for the development of green finance.

The efficient and constantly upgradable engine allows for identification against multiple standards at the same time, which effectively lowers the operational capacity required and enhances the accuracy and efficiency of the green identification.

Application	Issued by	Standards/Criteria
National	NDRC	Green Industry Guiding Catalogue (2019)
	PBOC	The Specific Statistical System for Green Loans (2020)
	CBIRC	The Statistic System for Green Finance (2013)
		The Statistic System for Green Finance (2020)
	PBOC	Green Bond Endorsed Project Catalogue (2015)
		Green Bond Endorsed Project Catalogue (2021)
	NBS	Classification of Strategic Emerging Industries (2018)
International	European Commission	EU Taxonomy Climate Delegated Act
Local	xx province/city	xx Green Standard of xxx Province/City

# Automatic Green Identification -- An Example

The intelligent green identification engine developed by UNI INCLUSIVE screens manually entered project information against various green standards that is applicable, incl. national and local ones, and automatically points out the potential alignment with the standards, assisting business teams to explore opportunities in green investment.

Chengdu Xingpu Investment Co. Ltd.

Industrial Park infrastructure upgrading project, Chengdu City, Sichuan Province  
四川省成都市园区基础设施提升改造工程 [🔗](#)  
2021-330503-35-03-062254-007

**Sector:** municipal road construction

**Descriptions:** The Chengdu park infrastructure upgrading project is a project of reconstruction and expansion, with a total investment of 696.7million RMB, of which 6.967 million RMB will be financed by the public sector in monetary through its representative and 132.373million RMB from the private sector in monetary, shareholding the SPV for 5% and 95%, respectively. The BOT model will be adopted, with a term of 12 years, incl. 2y for construction and 10y for operation. The project will mainly upgrade and renovate the infrastructures in the park, and entail construction, operation and maintenance of public goods. Key infrastructures to be upgraded include road, lighting, fire fighting and utility pipelines, such as water, electricity, heating, etc.



example

## Automatic green identification

PBOC, The Specific Statistical System for Green Loans (2019)



Green Project: Cleaner production industry – green upgrading of industrial park – centralized upgrading and pollution control

Key words: industrial park, upgrading, road



CBIRC, The Statistic System for Green Finance (2020)



Green Project: Cleaner production industry – green upgrading of industrial park – centralized upgrading and pollution control

Key words: industrial park, upgrading, reconstruction, road



PBOC, Green Bond Endorsed Project Catalogue (2021)



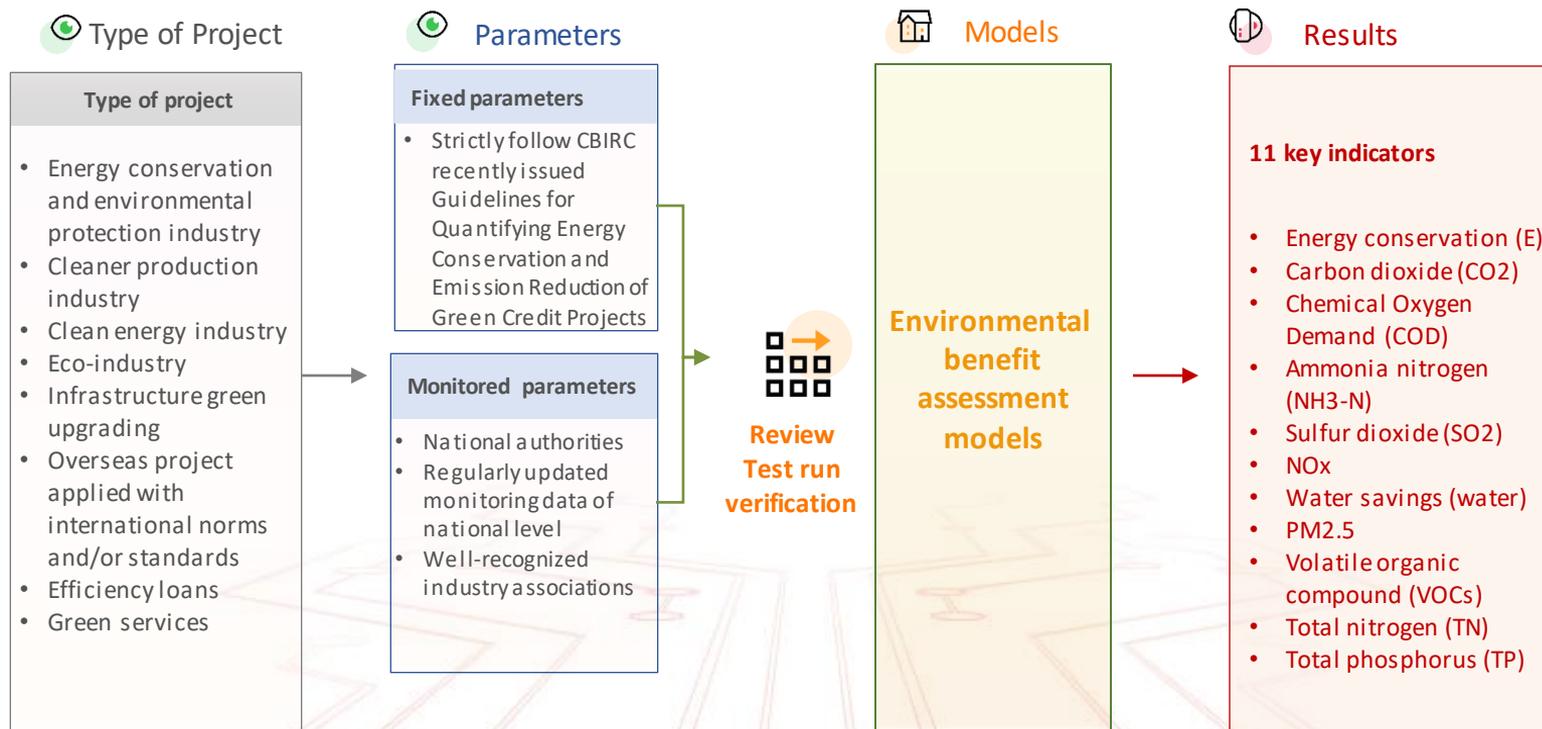
Green Project: Cleaner production industry – pollution prevention and control – industrial park pollution control – centralized upgrading and pollution control

Key words: industrial park, upgrading, reconstruction, road



# Assessment of Environmental Benefits – Embedded in 118 Professional Models Built on Calculation Methods Recommended by CBIRC

- Based on CBIRC's well-recognized environmental benefit assessment criteria and methods for green projects, a group of professional and robust models are developed to estimate project-related environmental benefits. The models are regularly calibrated with monitoring data of selected parameters.



# Assessment of Environmental Benefits – An Example

**Project background:** The CHP (combined heat and power generation) project not only has economic benefits but also demonstrated environmental and social benefits, which allow the project to be eligible for The Statistic System for Green Finance issued by CBIRC.

Project	Annual power generation			Standard coal consumption	Annual heating (cooling) generation	Coal consumption per unit product of heat supply	
CHP	2816880000 KWh/year			0.282 Kg standard coal/KWh	10623500 GJ/year	37 Kg standard coal/GJ	
Project	National averaged coal consumption for thermal power supply at the first year of operation	National averaged coal consumption per unit product of heat supply by central heating boilers	Sulfur content of Xinjiang raw coal	Coefficient between standard coal and raw coal	Co2 emission factor	National averaged SO2 emission coefficient for thermal power unit (coal-fired) (pollutant producing coefficient)	NOx producing coefficient for coal-fired thermal power unit
CHP	0.307 Kg standard coal/KWh	40 Kg standard coal/GJ	1.2%	0.7143 Kg standard coal/Kg	2.21 Kg CO2/Kg	1.7 Kg /ton	3.3 Kg /ton

example



102292.5

Energy savings (ton standard coal)



226066.425

CO2 emission reduction (ton CO2)



472.582

NOx reduction (ton)



2.921

SO2 reduction (ton)



- Technical Guidance on GHG Accounting for Financial Institutions (for trial), issued by the research bureau of PBOC in July 2021, offers financial institutions tools for GHG accounting and reporting for their own operations and financing activities.
- Based on the Guidance, a specialized model for GHG accounting has been developed with embedded formulars and emission factor database, to enable a rapid and precise accounting.



### GHG accounting model framework for borrowers of non-project financing (corporate)

#### Scope1: direct emissions

- Coal fuels, such as raw coal, anthracite coal, etc.
- Oil fuels, such as gasoline, diesel, etc.
- Gas fuels, such as natural gas, liquefied gas, etc.
- Other fuels, such as coke, petroleum coke, etc.
- Emissions generated from production process, such as from limestone production.

#### Scope2: indirect emissions

- Purchased electricity
- Purchased thermal, such as purchased steam, areas accessed to district heating, etc.

Note: Applied model varies from sector to sector.

## Borrower/corporate GHG accounting, data entry page

新增数据 > 新增数据

Year of accounting: selection  
Prime operating revenue of theyear: - enter 10,000 Yuan  
Reminder: Revenue from main business will impact the accounting results.

Select methods to be used: **Detailed energy consumption data available** Only total energy consumption data of the year available

### Direct emissions—from consuming fossil fuels

[Upload from file](#)

Coals	Oils	Gases	Others
<p>Anthracte coal: 12,132.23 ton</p> <p>Bitumastic coal: - enter ton</p> <p><a href="#">Another 4 types</a></p>	<p>Gasoline: - enter ton</p> <p>Crudeoil: - enter ton</p> <p><a href="#">Another 4 types</a></p>	<p>Natural gas: - enter ton</p> <p>LNG: - enter ton</p> <p><a href="#">Another 6 types</a></p>	<p>Coke: 12,132.23 ton</p> <p>Petroleum coke: - enter ton</p> <p><a href="#">Another 2 types</a></p>

### Indirect emissions—purchased electricity / thermal

[Upload from file](#)

Purchased thermal: 12,132.23 GJ

Purchased electricity: - enter MWh

Reminder: The corporate is served by xx power grid, according to its address.

Don't know now? Try to fill below areas

Purchased steam: 12,132.23 ton

Purchased hot water: - enter ton

Area with heating: - enter m2

[Cancel](#) [backward](#) [Submit for calculation](#)

example

## Borrower/corporate GHG accounting, results

新增数据 > 新增数据

Name of project	XXXXX Ltd.	Project ID:	1928373737373739
Status:	XXXXX	Project type:	XXXXX
Financed sector	XXXXX	Green project:	Yes
Year of accounting	2020年	Average financing amount per month:	1,000.00 万元 10,000 Yuan.
* Total annual investment of the project	2,234.76 万元 10,000 Yuan.		

Financed total emissions

**54,323.23 tCO<sub>2</sub>**

Financed total emission reduction

**4,323.23 tCO<sub>2</sub>**

[Borrower's emissions with details](#) [Borrower's emission reduction with details](#)

**Total emissions of the borrower** **2,358.27 tCO<sub>2</sub>**

### Direct emissions—from consuming fossil fuels

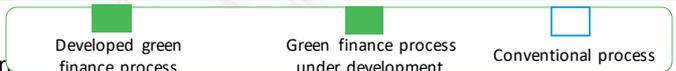
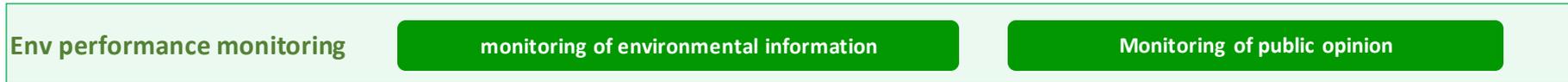
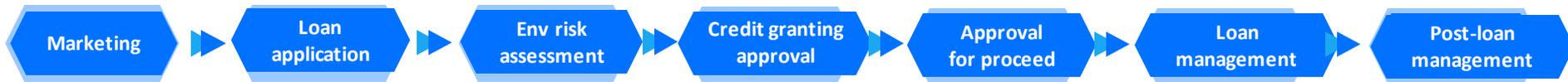
Coals	Oils	Gases	Others
Anthracte coal: 2,132.23 tCO <sub>2</sub>	Gasoline: 2,132.23 tCO <sub>2</sub>	Natural gas: 2,132.23 tCO <sub>2</sub>	Coke: 2,132.23 tCO <sub>2</sub>
Bitumastic coal: 2,132.23 tCO <sub>2</sub>	Crudeoil: 2,132.23 tCO <sub>2</sub>	LNG: 2,132.23 tCO <sub>2</sub>	Petroleum coke: 2,132.23 tCO <sub>2</sub>

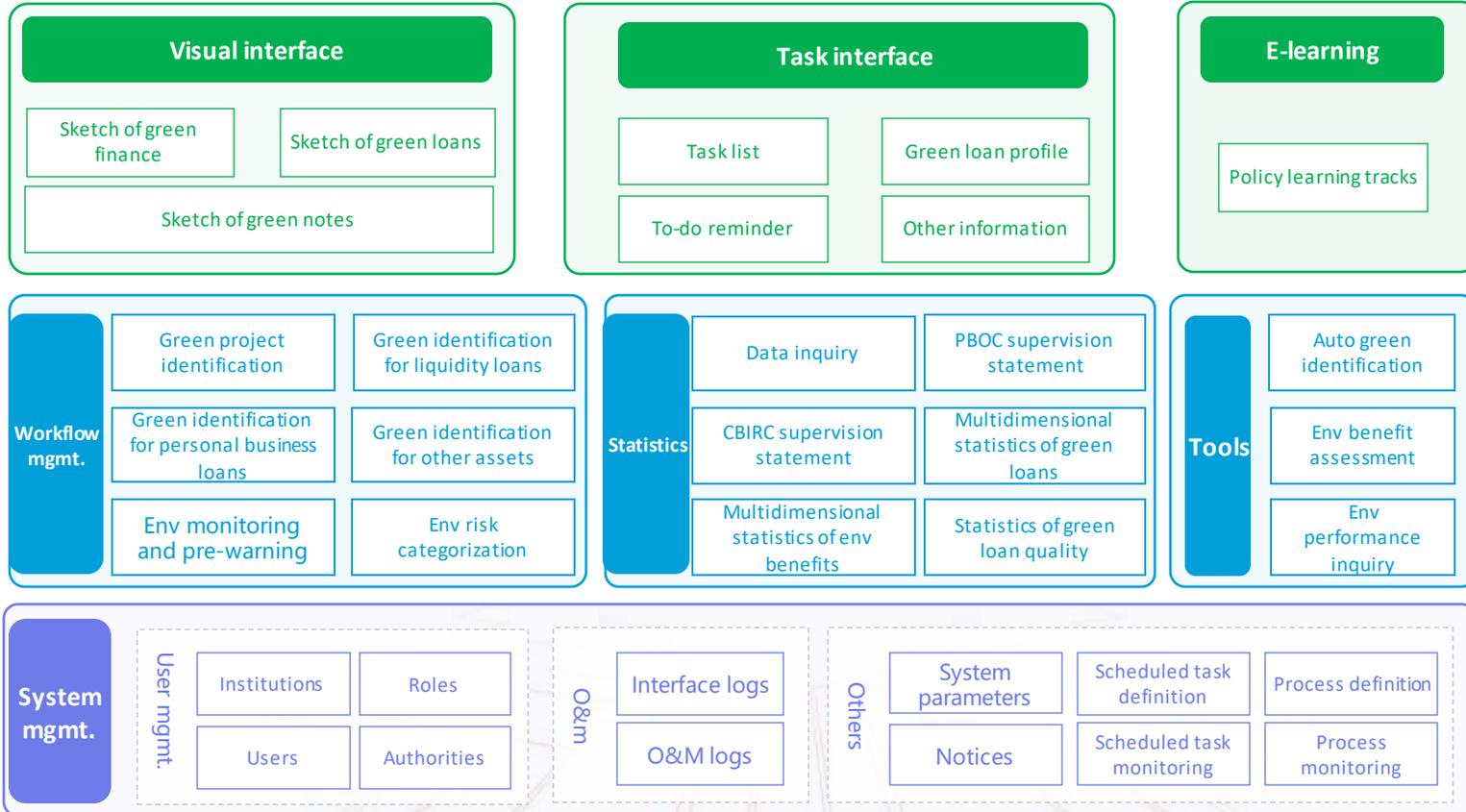
### Indirect emissions—purchased electricity / thermal

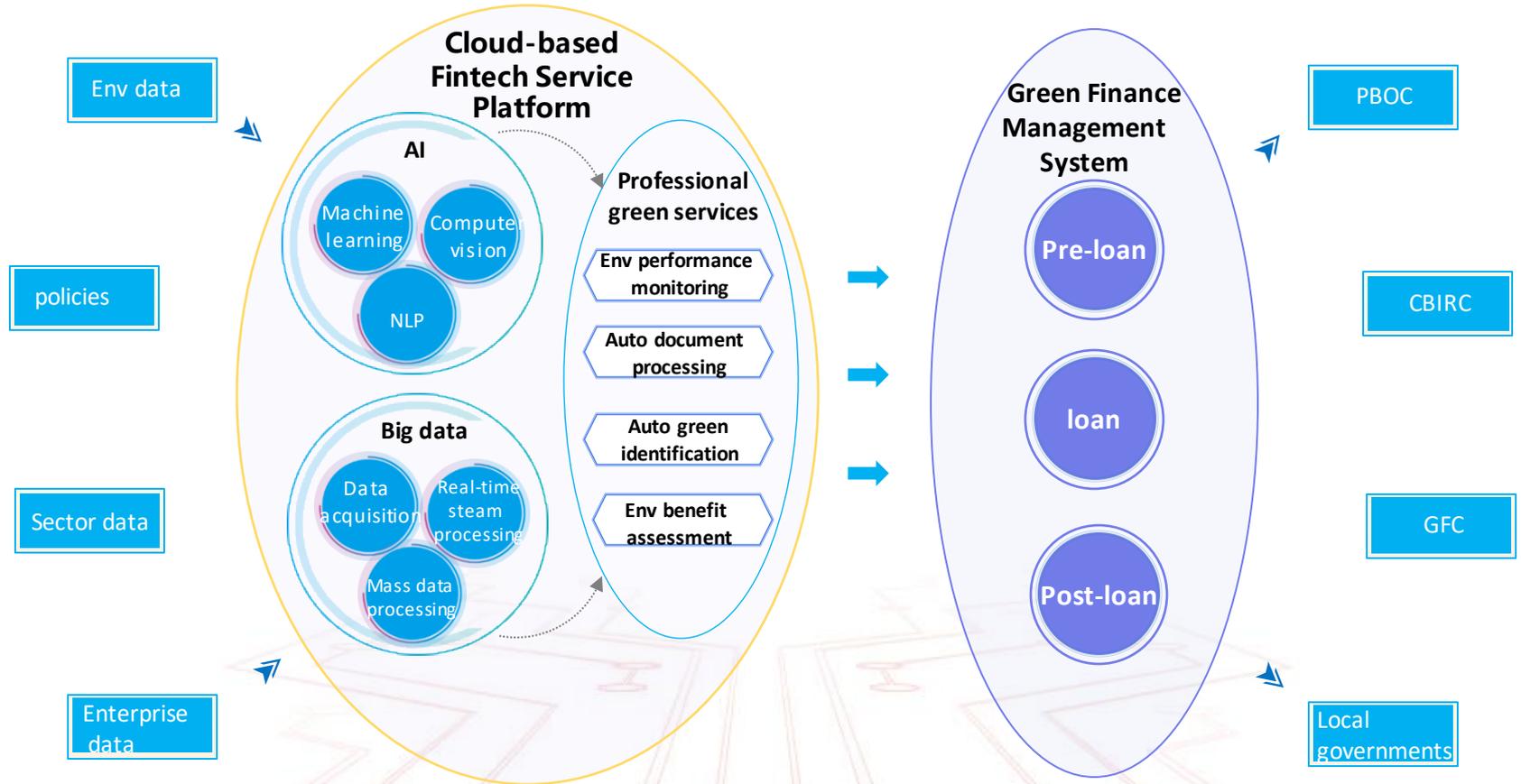
Purchased thermal:	2,132.23 tCO <sub>2</sub>	Purchased electricity:	2,132.23 tCO <sub>2</sub>
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[Edit](#)

# Whole Process Green Finance Management







Stech of green finance Stech of green loans Stech of green notes

Data as of 31 Dec 2021 (end of last month)



### Statistics of env benefits



### Env risk categorization



### Equator principles



### Performance of green operation



example

## Visualized GHG Accounting for FIs

As of 25 Oct 2021 | 8:03:28

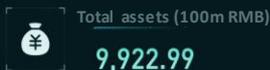
Period: May 2021

Data overview

Performance of green finance

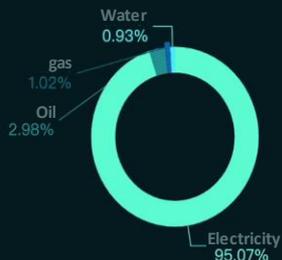
Carbon footprint

Performance of low-carbon operations



### Graphic displace of consumptions

单位: 千克



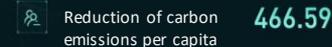
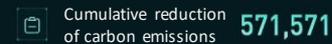
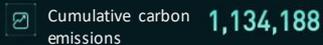
### 绿色金融成效

单位: 亿元



### Performance of low-carbon operations

Unit: Kg



**THANK YOU.**

**Bring us your problems,  
let's find a solution together!**

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