Big Opportunities for Nordic Countries in Chinese Biogas Market:

Exploring Partnership Potential in China’ s Growing Biogas Sector

神州生物能源
Shenzhou BioCNG

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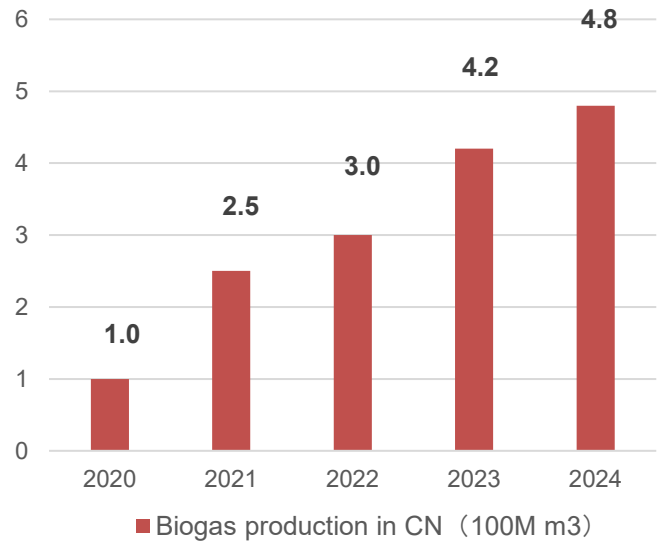

Introduction to Chinese Biogas Market

Understanding the market potential and the role of Nordic countries

Market Potential in China

The Growing Demand for Biogas in China

Growing demand for renewable energy

China is increasing its focus on renewable energy to meet energy needs and reduce carbon emissions.

Government support for biogas projects

The Chinese government offers various incentives and policies to promote the development of biogas projects.

Abundant raw materials for biogas production

China has rich agricultural and industrial waste resources, providing ample materials for biogas production.

Environmental benefits of biogas

Biogas production helps reduce waste, improve air quality, and mitigate climate change.

Nordic Advantages

What Nordic countries bring to the table

Proven technology in biogas

Nordic countries have advanced and reliable biogas technologies that can enhance the efficiency and quality of Chinese biogas projects.

Strong cooperation history with China

There is a well - established cooperation history between Nordic countries and China in various energy and environmental fields.

Experience in sustainable energy solutions

With a long - standing focus on sustainability, Nordic countries offer valuable experience in developing and implementing sustainable energy solutions.

Innovative research and development

Nordic countries are at the forefront of biogas research and development, constantly pushing the boundaries of technology and application.

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Successful Demonstration Project in Hainan

Showcasing the first - ever biogas project in China

Company Introduction

Shenzhou Environment was established in 2003 as a Sino-Swiss joint venture. It focuses on environmental protection business, including urban and rural organic waste recycling and treatment. It is the leading comprehensive service provider for biogas industry technology and operation in China.

Stock holders (%)	
Guangxi Eco Environment Investment & Consulting Co., Ltd	84.94
Pan-Asia Bio-energy Development Co. Limited (H.K.)	10
RECSAB Environmental Technology AB (Sweden)	3.28
individual (Japan)	1.78

Milestone

- 2003 – Company established
- 2007 – Guilin division sold to BASF
- 2008 – approved to build hazardous waste treatment centre in Guangxi
- 2009 – Hainan Shenzhou was established
- **2014 – Chengmai biogas plant (Hainan Project) finished construction**
- 2018 – Planning for project expansion in Guangxi Province
- 2021 – New biogas Demo plant approved for construction in Qinzhou
- **2025–Two biogas Demo projects started construction in Guangxi**

Project Overview

Key features of the Hainan Biogas Project

- **First - ever biogas project in China**
  - The Hainan Biogas project is a pioneering initiative, setting a benchmark for future biogas developments in the country.
- **Swedish technology combined with Chinese resources**
  - This project integrates Swedish advanced biogas technology with China's abundant raw material resources, achieving a successful combination.
- **Multi - feedstock business model**
  - It adopts a multi - feedstock approach, integrating different waste materials into one comprehensive package for biogas production.
- **Integration of different industries**
  - The project involves collaboration among multiple industries, promoting resource sharing and circular economy development.

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Project Overview

MoU of the first China-Europe bioenergy project signed in Sweden, 2008

MoU of Hainan Project signed in Sweden, 2008

Hainan Project, 2023

Project Overview

- Phase Ⅰ (with a small scale): started running in 2014.
- Phase Ⅱ (a growing scale): diversed bio-wastes collected from urban and rural area.
- Phase Ⅲ: become a complex plant with more completed infrastractural facilities.

- Collecting bio-wastes from Haikou City and Chengmai County.
- Synergistically linked with surrounding environmental infrastrutures.
- Integrated functions of different departments.

to meet governance need and economic benefit

①: Landfill
②:Waste incineration plant
③: Wastewater treatment plant

2018

2022

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Project Overview

Photos of Hainan Project

Project Success

Sustainable operation

The project has been running smoothly and sustainably, ensuring long - term stability and reliability.

Good return for investors

Investors have received favorable returns, demonstrating the profitability of the biogas project.

Environmental impact reduction

By utilizing waste materials, the project has significantly reduced environmental pollution and carbon emissions.

SGS

Certificate

according to the Renewable Energy Directive (RED II)

Certificate Number: EU-ISCC-Cert-DE100-25155125

SGS Germany GmbH

Europa Allee 12, D-49688 Emsteк

certifies that

Hainan Chengmai Shenzhou Vehicle Biogas Co., Ltd.

South Fuyin Road 1.4KM

571024 Laocheng Economic & Development Zone - Chengmai, Hainan

CHINA

complies with the requirements of the certification system

ISCC EU

(International Sustainability and Carbon Certification)

and the requirements of the RED II.

Place of the audit:

see above

This certificate is valid from 05/05/2025 to 04/05/2026

The site of the system user is certified as:

biogas plant, Biogas upgrading plant (biomass fuels), collecting point

Emsteк, 05/05/2025

Place and date of issue

Stamp, Signature

The issuing Certification Body is responsible for the accuracy of this document.

Version / Date: 1 (no adjustments) / 05/05/2025

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Annex to the certificate:

Sustainable materials handled by the certified site

(This annex is applicable for all scopes except of Traders, Traders with storage, Warehouses, Logistic centres, MTBE and ETBE plants)

This annex is only valid in connection with the certificate:

EU-ISCC-Cert-DE100-25155125 issued on 05/05/2025

Input material		Output material		GHG values*	ISCC EU waste process applied*	SAF/FSA*
Material	Scope	Material	Scope			
manure	collecting point	manure	collecting point	1	Yes	N/A
manure	biogas plant	biogas	biogas plant	1	Yes	N/A
manure	Biogas upgrading plant (Biomass fuels)	biomethane	Biogas upgrading plant (Biomass fuels)	1	Yes	N/A
food waste	collecting point	food waste	collecting point	1	Yes	N/A
food waste	biogas plant	biogas	biogas plant	1	Yes	N/A
food waste	Biogas upgrading plant (Biomass fuels)	biomethane	Biogas upgrading plant (Biomass fuels)	1	Yes	N/A

The issuing Certification Body is responsible for the accuracy of this document.

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Hainan Project got the certificate signed by ISCC EU this May.

Contribution to local economy

The project has created jobs and stimulated local economic growth, bringing multiple benefits to the region.

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Expansion to Guangxi Biogas Market

Exploring a larger market in Guangxi

Market Scale

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The size and potential of the Guangxi biogas market

10 times bigger than Hainan market

The Guangxi biogas market is much larger, offering vast business opportunities for investors.

Significant market expansion potential

There is a huge potential for further market expansion in Guangxi due to its rich resources and growing demand.

Large - scale biogas development possibilities

Guangxi provides the conditions for large - scale biogas projects, which can have a greater impact on the energy market.

Diverse feedstock availability

With a variety of agricultural, municipal and industrial wastes, Guangxi has a wide range of feedstock options for biogas production.

Biogas Programme in Guangxi

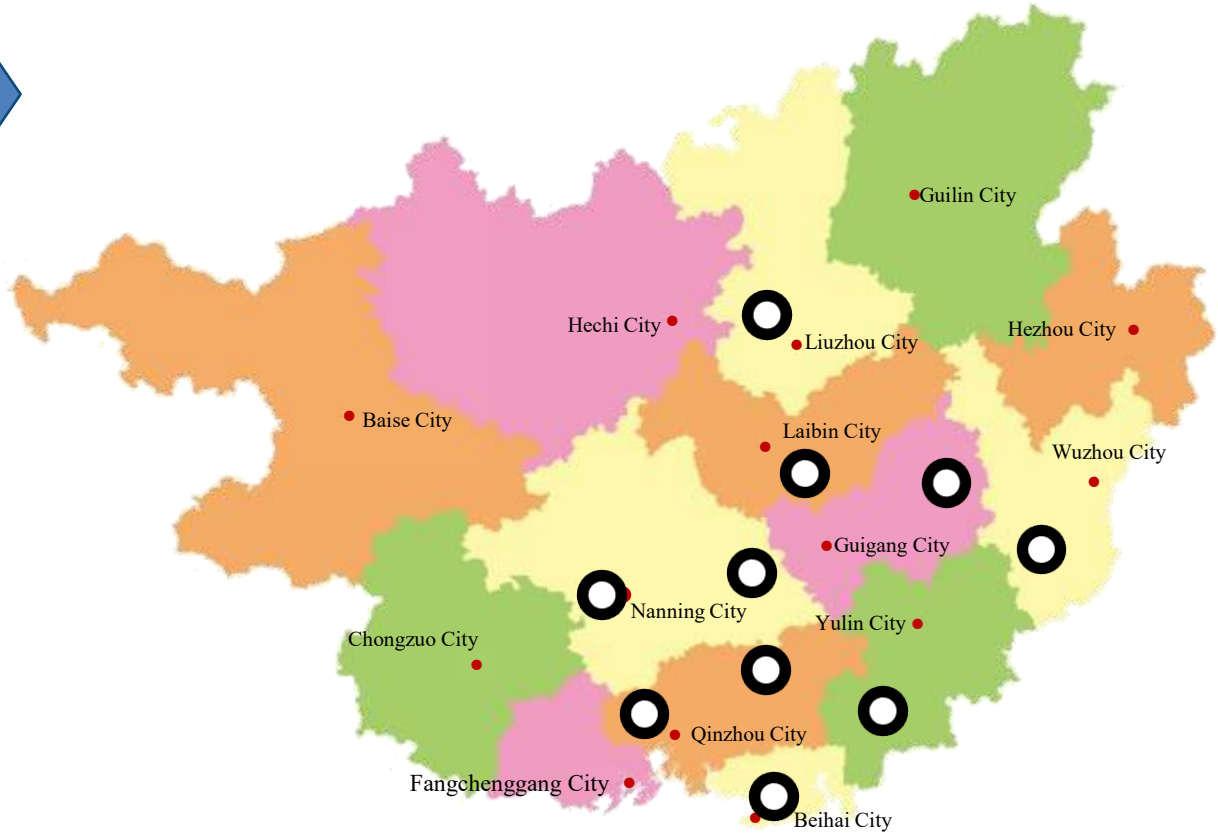
Goals for 2025-2030

2025-2027
Demonstration Phase

3-4 biogas plants under construction or on operation

2028-2030
Expansion Phase

10⁺ biogas plants under construction or on operation



Projects under Construction

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The demonstration phase: Pingnan (Guigang City) Project

Projects under Construction

The demonstration phase: Binyang (Nanning City) Project

Expansion Benefits

Advantages of expanding to Guangxi

More investment opportunities

Expanding to Guangxi opens up more investment channels and projects for Nordic companies.

Broader market influence

It allows Nordic companies to increase their market share and influence in China's biogas market.

Greater impact on climate change

A larger - scale biogas market in Guangxi can contribute more to global climate change mitigation efforts.

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Opportunities for Nordic Countries

How Nordic countries can benefit from the Chinese biogas market

Ways of Partnership

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Different cooperation models for Nordic countries

Technology cooperation and technical support

Collaborate on technologies and providing technical support, such as feedstock pretreatment, production processes and equipment maintennance.

Joint venture or sole proprietorship of project

Establish joint ventures with local companies or as a sole proprietorship to occupy the market share.

Carbon trading and carbon asset management services

For example, on the well-established carbon system of EU, carbon asset development and carbon finance services of the Guangxi projects.

Benefits of Cooperation

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The rewards of working in the Chinese biogas market

Direct benefits from investment

Gain direct financial returns from biogas project investments based on the successful Hainan project experience.

Contribution to global climate goals

Help China achieve its climate goals and contribute to global environmental protection.

Indirect benefits from projects

Benefit from carbon credits and contribute to global climate change efforts through these biogas projects.

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Thank you !

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