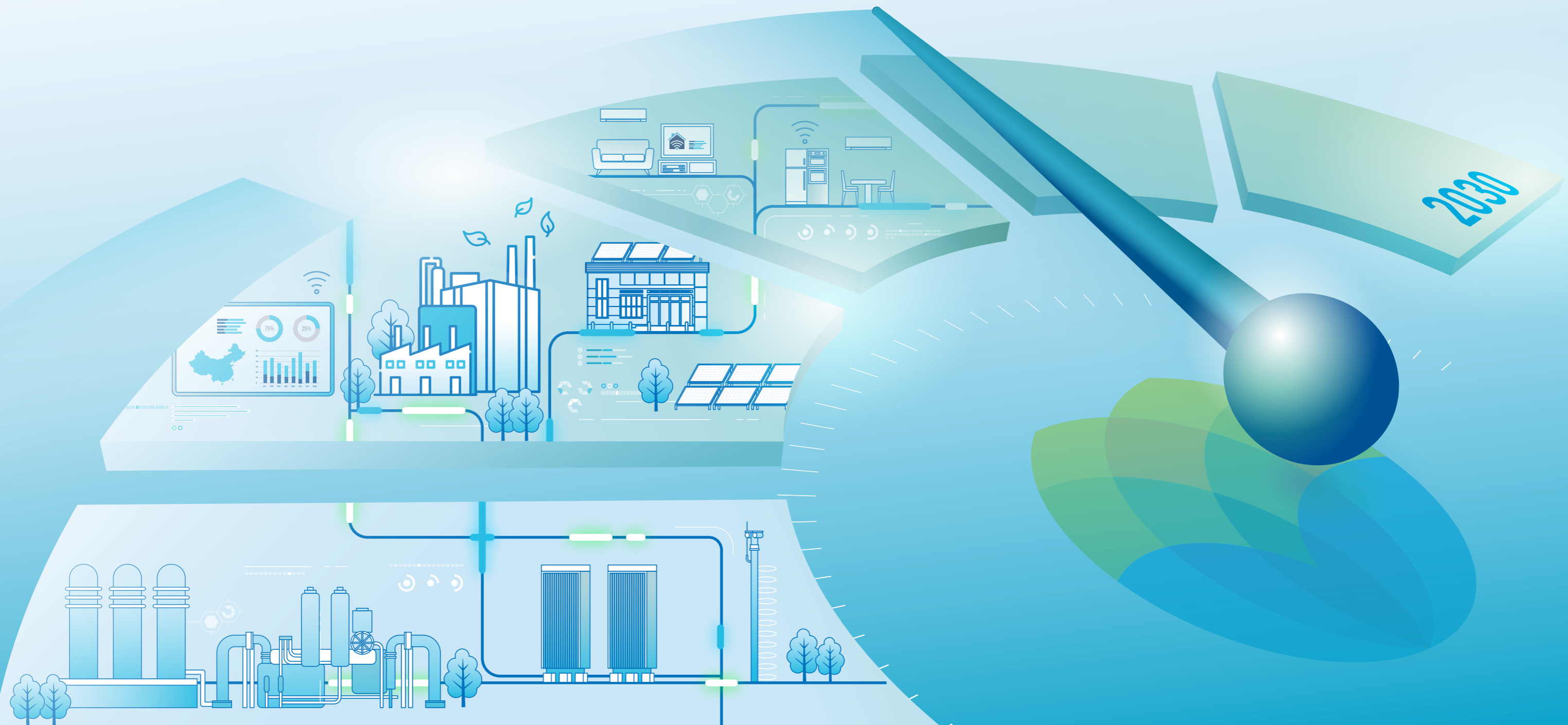


Decarbonisation Action 2030 - The Journey to **Net Zero**

2024 Edition



Contents

Decarbonisation Action 2030 Panorama 01

Introduction 02

About Us
About Decarbonisation Action 2030 -
The Journey to Net Zero - 2024 Edition

Outlook 21



Green Mission:

Striving to Pioneer Low-Carbon Development

- Following the Global Trend of Energy Transition 04
- Contributing to China's "Dual Carbon" Goals 04
- Leading Energy Consumption Structural Transition 04



Green Vision:

Strategic Blueprint towards a Zero-Carbon Future

- Net-Zero Roadmap 06
- Progress on Key Performance Indicators 08
- Whole Industry Chain Collaboration 10



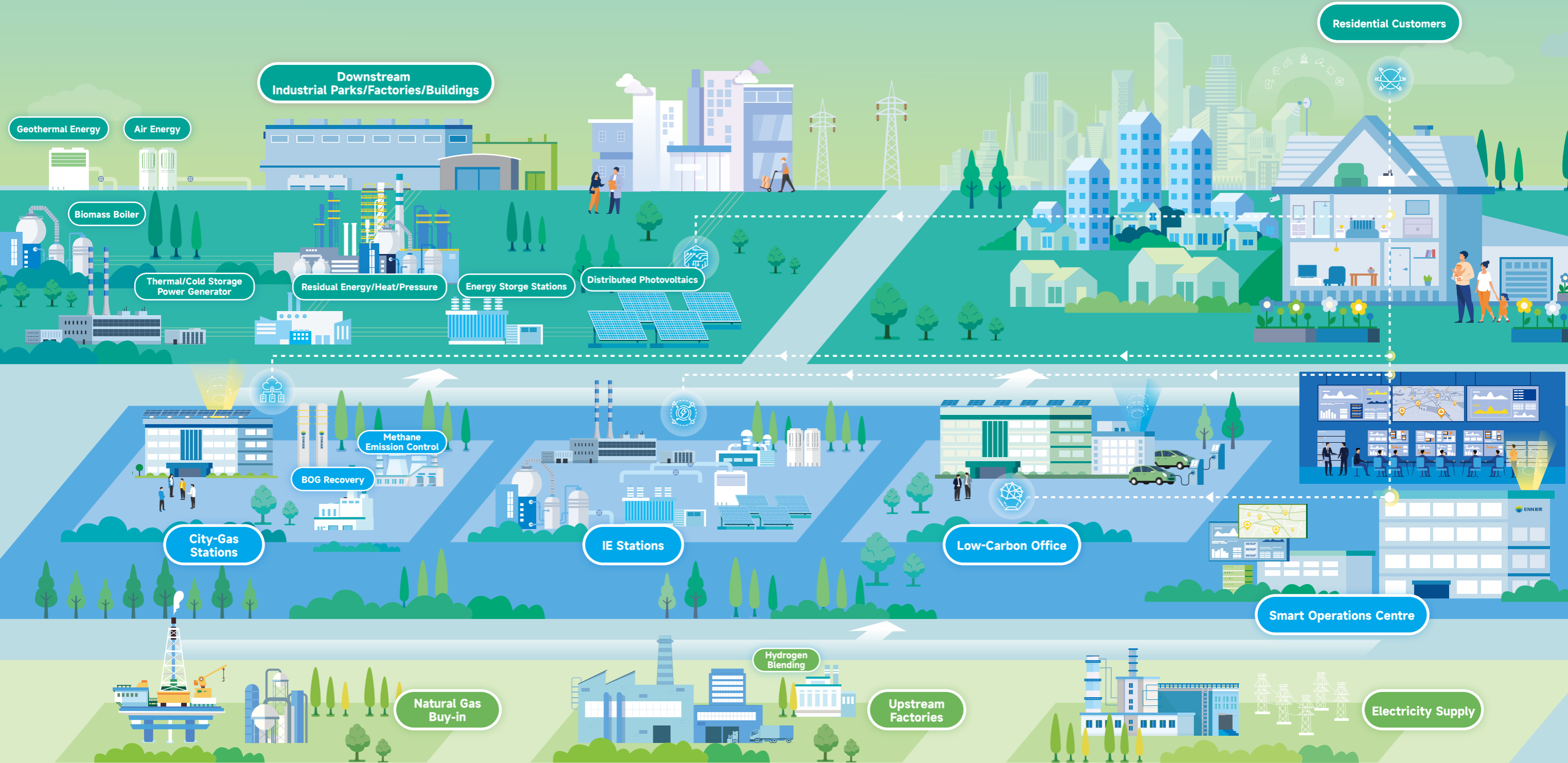
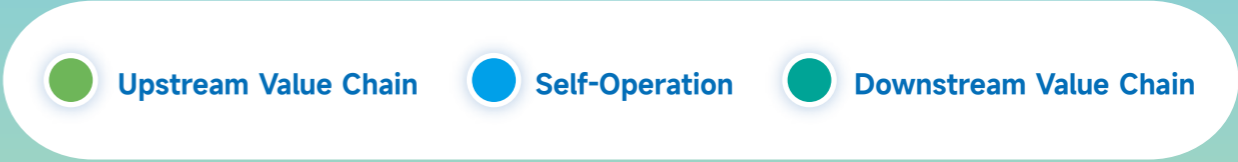
Green Action:

Low-Carbon Transition Practices Driven by Innovation

- Natural Gas Scenario — Stable Low-Carbon Energy Supply 12
- Integrated Energy Scenario — Joint Efforts to Move towards a Green Future 14
- Value Added Business Scenario — Building Smart and Green Home 19
- Low-Carbon Office Scenario — Implementing the Concept of Low-Carbon Office 20

Decarbonisation Action 2030 Panorama

Since the first release of the Decarbonisation Action 2030 – The Journey to Net Zero (hereinafter referred to as "the Decarbonisation Action (2021)"), ENN Energy Holdings Limited (hereinafter referred to as "ENN Energy", "the Company" or "We") has actively taken actions to make of the most of opportunities. For the Company's self-decarbonisation, we have been working to drive the communication and implementation of the sustainable development concept, enhance our capabilities in stimulating green business growth and achieving low-carbon transition in our daily operations. For building a low-carbon society, we have been understanding customers' insights, and relying on city-gas and integrated energy (IE) businesses to provide diversified low-carbon solutions. Meanwhile, we have been enriching the value added products and services and upgrading the digitalisation of our products to activate the value of existing customers. We continue to collaborate with the upstream and downstream business partners to support the "Dual Carbon" (carbon peaking and carbon neutrality) goals and assist the construction of a beautiful China.



Introduction

About Us

ENN Energy, one of the largest clean energy distributors in China, is engaged mainly in investing, constructing, operating, and managing gas pipeline infrastructure in China, as well as the sales and distribution of pipeline gas, liquefied natural gas (LNG), and a variety of other clean energy products. We also provide clients with digital intelligence services for comprehensive low-carbon solutions and develop diversified value added products based on clients' needs and requirements.

ENN Energy upholds our mission and vision of "Building a Modern Energy System, Co-building a Better Ecology". We have been at the forefront of exploring innovative approaches to achieve the "Dual Carbon" goals, propelling digital transformation, creating quality of life, enhancing safety management, while continuously implementing the concept of sustainable development. The Company has established an ESG Committee, which is obliged to regularly report to the Board of Directors (hereinafter "the Board"). The ESG Committee is responsible for assisting the Board in formulating an ESG strategy and supervising the implementation of ESG-related initiatives. The ESG Working Group, under the guidance of the ESG Committee, is responsible for implementing the Company's ESG strategy. In addition, the Company has tied key performance indicators for low-carbon development (such as carbon neutrality, energy conservation and emission reduction) to the remuneration of executive directors, senior management personnel, and business teams. Through this approach, we can effectively implement our sustainable development strategies and seize opportunities of the global green-oriented energy transition.



About Decarbonisation Action 2030 - The Journey to Net Zero - 2024 Edition

The *Decarbonisation Action 2030 - The Journey to Net Zero 2024 Edition* (hereinafter referred to as "this report") outlines ENN Energy's significant role in the low-carbon energy transition. It reviews and updates the roadmap of achieving net-zero by 2050 and summarises the key actions taken in recent years in the field of green and low-carbon development.

We adhere to the five principles of "Strategy Alignment, Coordinated Promotion, Results Assessment, Continuous Improvement, Regular Disclosure" to ensure that our green and low-carbon transition proceeds scientifically and rationally. We review and monitor the progress and achievements of the decarbonisation actions, and make adjustments every three years for a smooth, green and low-carbon transition.



Our Role

The green-oriented transition of energy is crucial for sustainable development and is vital to the future of the human race and our planet. Natural gas plays a significant role in the transition as it is clean, low-carbon, stable, and flexible to use. Renewable energy, as a key factor in the energy transition, is also developing rapidly. ENN Energy actively responds to and aligns itself with China's modern energy system plan. As a forerunner in low-carbon development, we are committed to building a modern energy system that is low-carbon, efficient, intelligent, and innovative.



Our Roadmap

ENN Energy reduces greenhouse gases (GHG) emissions from ourselves and our clients. We based our low-carbon green development on leading international frameworks and guidelines, including the *Oil & Gas Sector Guidance of the Transition Pathway Initiative (TPT)* and the *Emissions from Oil and Gas Operations in Net Zero Transitions of the International Energy Agency (IEA)*, it allowed us to develop a clear and orderly carbon reduction roadmap and set scientific and feasible targets.



Our Actions

- **Stable low-carbon energy supply.** Ensure the supply of natural gas as it is the foundation of our energy supply structure, control methane emissions, and explore natural gas utilisation efficiency improvement technologies and the application scenarios of hydrogen. Through these actions, we aim to achieve clean and stable energy supply.
- **Joint efforts to move towards a green future.** Deploy IE solutions according to local conditions and clients' low-carbon development needs. Expand the renewable energy supply including clean energy like photovoltaics, biomass, etc. Use digital intelligence to improve overall energy efficiency and help clients optimise their energy mix.
- **Building smart and green home.** Dive deep into residential users' needs, and build for them a smarter, safer and more sustainable home through technologies such as IoT, big data, and energy efficiency improvement products, ensuring them a quality life.
- **Work in a low-carbon office.** Integrate the low-carbon development concept into various scenarios of daily operations and operate sustainably through increasing renewable energy utilisation, improving the energy efficiency of office buildings, and building a low-carbon office system.

Green Mission: Striving to Pioneer Low-Carbon Development

The green-oriented transition of energy is a crucial path to achieving sustainable development. A core strategy of this global transition is to achieve the clean and efficient use of fossil fuels and scale up clean energy applications. Notably, natural gas plays an important role in achieving China's "Dual Carbon" goals because of its cleanliness, low-carbon, stability and flexibility. Following the national strategy of low-carbon development, we have applied renewable energy to our IE business while ensuring safe and stable energy supply, which has contributed to a modern energy system that is increasingly low-carbon, efficient, intelligent and innovative. In this way, we strive to become a pioneer in the green transition of energy consumption.

- | **Following the Global Trend of Energy Transition**
- | **Contributing to China's "Dual Carbon" Goals**
- | **Leading Energy Consumption Structural Transition**



Following the Global Trend of Energy Transition

In 2023, different countries and the private sectors put significantly more emphasis on green transition. The EU, for instance, continued to introduce policies and measures to fuel its ambitious green transition. In the *Green Deal Industrial Plan*, the EU has clearly elevated the importance of green industries in the macro industrial strategy and given policy planning support in sectors such as solar energy, which encouraged and increased financial investment to accelerate green development in these areas. According to the *Renewables 2023* annual report published by the IEA, global newly installed capacity of renewable energy in 2023 increased by 50% compared to 2022.

As the global energy transition accelerates, leading domestic and international energy enterprises have proactively seized this zeitgeist and grasped the core trends of structural changes in energy consumption. By learning from the best practices of leading peers and planning low-carbon transitions of traditional businesses, energy enterprises aim to explore new opportunities in green products and services.

Contributing to China's "Dual Carbon" Goals

As a developing country that actively responds to climate change, China has integrated climate change actions into the national strategy. Since 2021, the Chinese government has introduced a series of policies supporting the development of natural gas and clean energy. Since the first half of 2024, policies are introduced more frequently imposing increasingly stringent requirements. Under the guidance of domestic macro policies, the development trends of the energy industry and incentive measures will become an important benchmark, enabling ENN Energy to identify the areas of focus under the "Dual Carbon" goals.



Steady Development of the Natural Gas Industry

Natural gas plays the role of a "stabiliser" in the steady and orderly energy transition, contributing to complementary synergies and orderly substitution of traditional and new energy sources. The year 2024 marks the tenth year of China's in-depth implementation of the new energy security strategy featuring "four reforms and one cooperation". In the future, China's natural gas industry will continue to thoroughly implement the new energy security strategy, strengthen the supply capability, improve the market-oriented operation and institution building, and unlock the potential of new quality productive forces within the industry, so as to provide a forceful support for national energy security and green-oriented transition and accelerate the construction of a new energy system¹.

- According to *China Energy Big Data Report*², China has maintained a steady increase of natural gas production for several years by exceeding 200 billion m³ for three consecutive years since 2021.
- In March 2024, the National Energy Administration (NEA) issued the *Guiding Opinions on Energy Work in 2024*, proposing "further deepening energy utilisation methods reform" and "granting greater role to natural gas in the construction of a new energy system", which is conducive to the continuous expansion of natural gas business by gas enterprises.
- In June 2024, the National Development and Reform Commission (NDRC) issued the *Measures for the Administration of Natural Gas Utilisation*, which encourages local governments and relevant authorities to provide policy support in planning, land use, financing, finance & taxation, etc. for prioritised gas-using projects.



Favourable Policies for the Clean Energy Industry

Clean energy is a vital force in energy transition, and China has introduced an array of policies to support the clean energy development:

- In January 2022, the NDRC and the NEA jointly issued the *Plan for Modern Energy System during the 14th Five-Year Period*, which pointed out to continue promoting the green-oriented transition of energy. By 2025, the share of non-fossil energy consumption is expected to reach around 20%, and the share of non-fossil energy in electricity generation approximately 39%.
- In September 2023, six departments including the NDRC jointly issued the *Measures for Electrical Power Demand Side Management (2023 edition)*. The document pointed out to encourage enterprises to utilise renewable energy resources such as hydro, wind, solar, and biomass to develop green and low-carbon micro-grid and source-grid-load-storage integrated development.
- In September 2023, the NDRC and the NEA jointly published the *Guiding Opinions on Strengthening the Stability of the Power System Under New Circumstances*, which suggested the construction of a comprehensive energy supply system.

¹ China Natural Gas Development Report
² China Energy Big Data Report

Leading Energy Consumption Structural Transition

As a responsible clean energy distributor and solution provider, ENN Energy relies on our business experience in natural gas and IE fields to actively expand our low-carbon energy business, providing low-carbon and clean energy services for users.

Innovative Green Products and Services

Following the trends of the times, ENN Energy uses "digital intelligence, decarbonisation, and quality control" as drivers to promote the construction of a modern energy system, lead the transition towards green and low-carbon practices, and make positive social impacts. We closely follow our clients' demand for low-carbon energy and rely on our own technological accumulation to provide customised innovative green solutions for our clients.

Exploration of Innovative Technologies:

We proactively push forward methane emission reduction, explore innovative technologies such as natural gas blending with hydrogen and the production of bio-natural gas, enhancing the efficiency of natural gas.

Application of Green Technologies:

We explore innovative applications of green technologies such as photovoltaics, biomass, geothermal energy, air energy, and hydrogen, increasing the supply of renewable energy sources.

Operation with Digital Intelligence:

By virtue of digital intelligence technologies, we support the government and enterprises in building low-carbon parks and factories, promote low-carbon buildings, collaborate with residential users to create a green home environment to help our clients accelerate their low-carbon transition and build a low-carbon society together.

Green Vision: Strategic Blueprint towards a Zero-Carbon Future

ENN Energy keenly recognises that "actively promoting low-carbon practices and steadily moving towards zero carbon" is an inevitable choice and the consensus by the global community. By responding actively to the national "Dual Carbon" strategy, the Company sticks on the low-carbon energy transition. Based on our business operations, we refer to leading domestic and international low-carbon transition standards and frameworks to set environmental and corporate transition targets and blueprint a clear net-zero roadmap. By doing so, we aspire to take on the role of a navigator and lead the industry peers scientifically to move towards a zero-carbon future.

- | [Net-Zero Roadmap](#)
- | [Progress on Key Performance Indicators](#)
- | [Whole Industry Chain Collaboration](#)



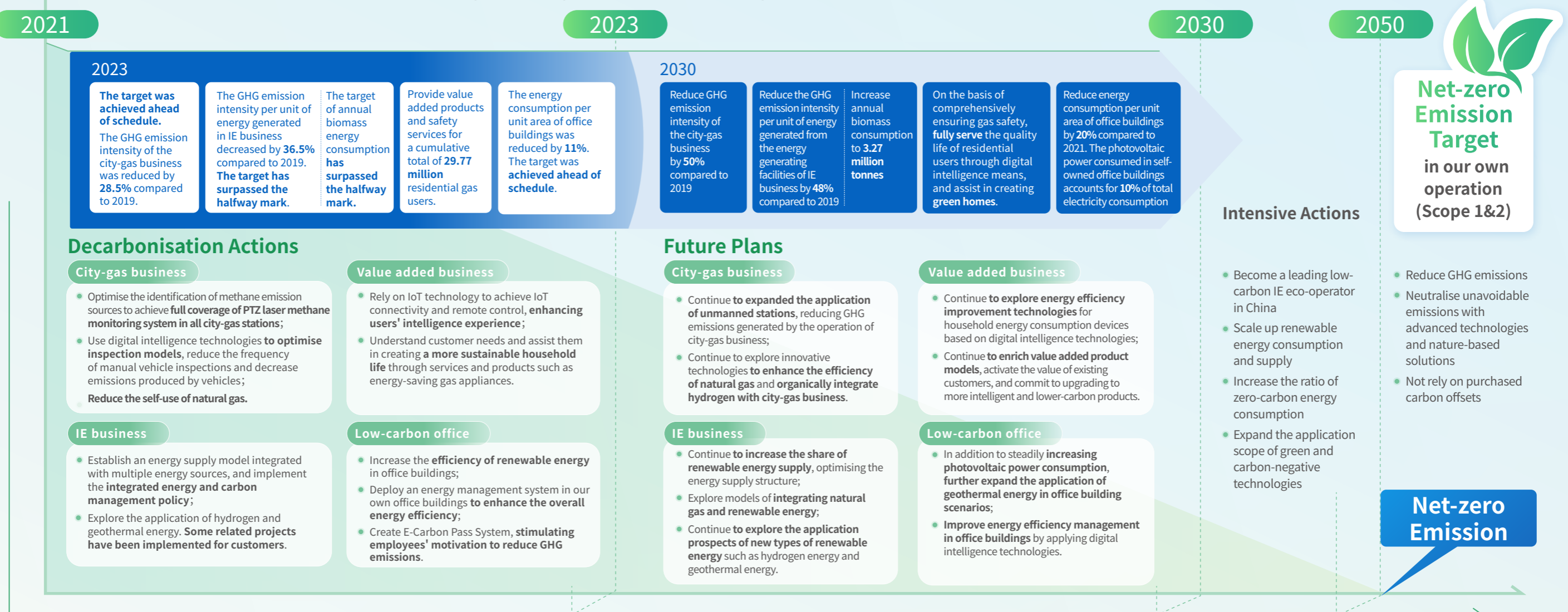
Net-Zero Roadmap

To achieve our 2050 net-zero commitment, we integrate the concept of low-carbon development into every aspect of our business. Based on scientific emission forecasting models, we have established a clear net-zero roadmap, set quantitative targets for 2030, and updated targets that have been achieved ahead of schedule. The well-defined roadmap provides guidance for the Company's energy conservation and emission reduction. In the future, we will also promote the low-carbon transition of the entire energy industry and share low-carbon development experience timely with peers.

ENN Energy Net-Zero Roadmap - 2024 Edition

The roadmap outlines the 2030 interim targets and the progress by the end of 2023 for Scope 1 and Scope 2 emissions in city-gas operations, IE production facilities, and offices, detailing the Company's net-zero performance in the current stage.

Release the Decarbonisation Action (2021), clarifying ENN Energy's pathway to achieving net-zero emissions by 2050.



Serve and Progress
Low-carbon and Clean
Development of the Society

Low-Carbon Industrial Parks and Factories

Continue to focus on providing customers with clean energy solutions tailored to their actual needs, and work together with customers to build a low-carbon society.

Low-Carbon Buildings

Continue to expand the application scope of clean energy technologies, explore the energy consumption characteristics of buildings in different application scenarios, popularise intelligent energy management platforms, and create greener building energy-saving solutions and services.

Green Home

Continue to respond to the needs of residential users, provide comprehensive solutions by digital intelligence technologies, and lead users towards a more energy-efficient, environmentally friendly, and intelligent lifestyle.

Low-Carbon Office

Continue to implement the low-carbon operation concept and facilitate low-carbon development of our own operations from several dimensions, including cleaner energy utilisation, energy management improvement in office buildings, low-carbon transportation, and the construction of a low-carbon office system.

To ensure the rationality of our net-zero roadmap, we pay close attention to the latest industry trends and refer to leading international industry standards. Such action fully demonstrates ENN Energy's determination and ambition to effectively advance on the path to low-carbon transition. The reference standards are as follows:

- The overall industry's carbon intensity reduction targets for all operations in *Emissions from Oil and Gas Operations in Net Zero Transitions*³ published by IEA.
- *Net Zero Standard for Oil & Gas*⁴ published by Institutional Investors Group on Climate Change (IIGCC).
- Requirements mentioned in the *TPT Oil & Gas Sector Guidance* published by the TPT in April 2024⁵: The entity should thoroughly and prudently consider reducing their own carbon emissions, enabling carbon reduction across the entire value chain, and taking into account climate-related risks and opportunities when formulating low-carbon transition plans.
- The latest development and specific requirements in guidelines for the oil and gas industry updated by the Science Based Targets initiative (SBTi)⁶. We will supplement the specific work items in the roadmap at the appropriate time based on the refinement of relevant guidelines.

While marching steadily towards to our 2050 net-zero goal, ENN Energy has conducted a scientific review and updated the targets set in the Decarbonisation Action (2021).

Over the past three years, the targets set in the Decarbonisation Action (2021) have been progressing smoothly. Since some targets have been achieved ahead of schedule, we have set more ambitious new targets. Due to the changes in policies, market development, technological updates and other factors, the background and assumptions of some targets were changed and became no longer applicable. So we have made corresponding updates and supplements towards these goals.

By the end of 2023, we have made significant progress in reducing GHG emissions and optimising our energy mix. The details are as follows:

The target of GHG emission intensity reduction of city-gas business was *achieved ahead of schedule*.

Through continuously optimising methane control management and promoting energy conservation and emission reduction, the GHG emission intensity of the city-gas business was reduced by **28.5%** compared to 2019, surpassing the target of a 20% reduction by 2030 and achieving this significantly ahead of schedule.

The progress of target for reducing GHG emission intensity per unit of energy generated in IE business has surpassed the halfway mark.

The GHG emission intensity per unit of energy generated in IE business decreased by **36.5%** compared to 2019 through continuous exploration and promotion of renewable energy and diversification for a cleaner energy mix. The Company is making progress toward the target of a 48% reduction by 2030.

The target of reducing the energy consumption per unit area of office buildings was *achieved ahead of schedule*.

By improving the energy efficiency of office buildings and implementing energy conservation measures, the energy consumption per unit area of office buildings was reduced by **11%**, exceeding the target of a 10% reduction by 2025.

Climate-Related Financial Disclosure Report was released

In December 2023, ENN Energy released its **first** Climate-Related Financial Disclosure Report, which disclosed its progress in terms of governance, strategy, risk management, and metrics & targets by referring to the Task Force on Climate-Related Financial Disclosures (TCFD) framework.

The progress of the annual biomass consumption target has surpassed the halfway mark.

As of June 30 2024, the annual biomass consumption has reached **1.87 million tonnes**, up by 273.5% from 0.5 million tonnes in 2021. We are progressing towards the 2030 target of 3.27 million tonnes.

Green Finance

The updated investment and financing requirements and performance management methods for key green industry projects were included in the 2024 ENN Energy Green Finance Framework⁷, **which obtained an independent second-party opinion and certification provided by S&P Global in 2024.**

³ *Emissions from Oil and Gas Operations in Net Zero Transitions*, IEA, for more details please check: Emissions from Oil and Gas Operations in Net Zero Transitions

⁴ *Net Zero Standard for Oil & Gas*, IIGCC, for more details please check: Net Zero Standard for Oil & Gas

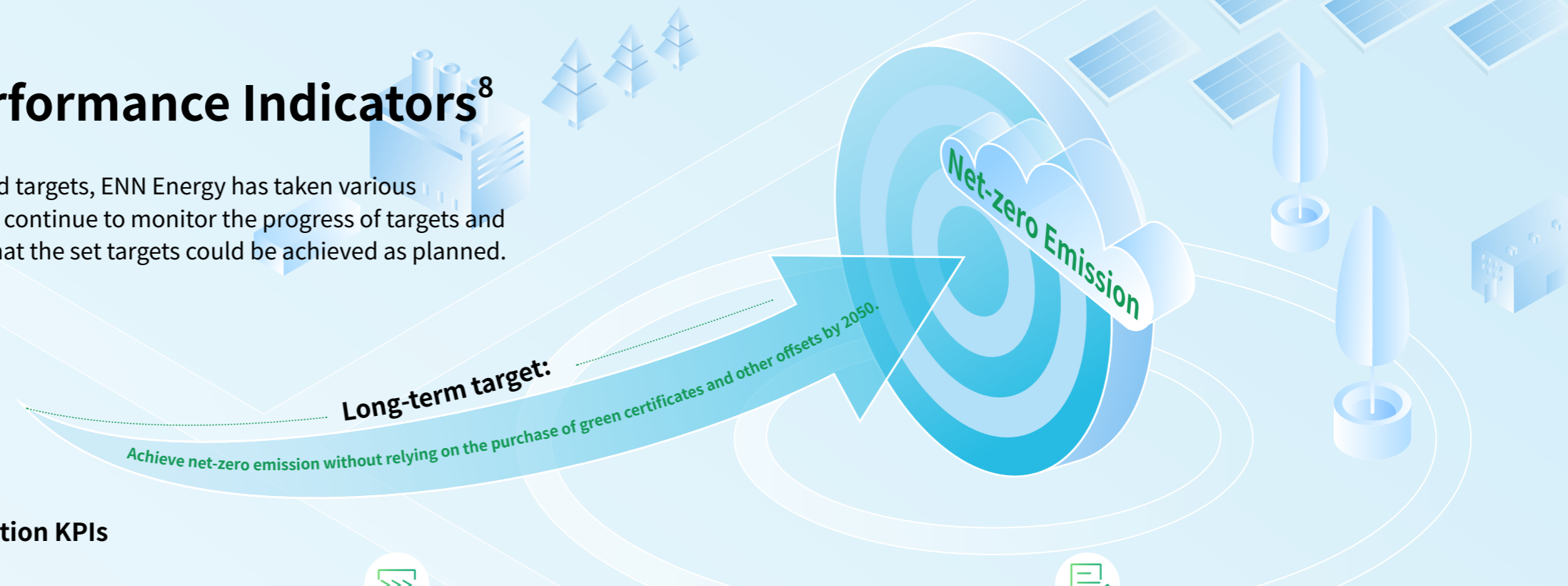
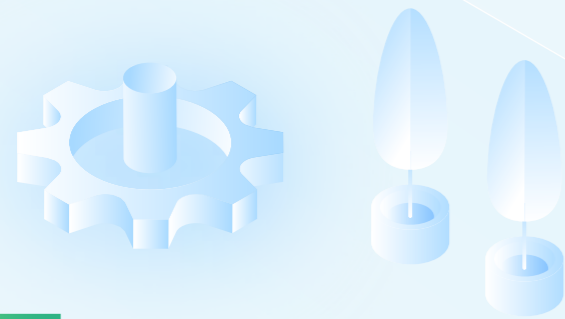
⁵ *Oil & Gas Sector Guidance*, TPT, for more details please check: TPT Oil & Gas Sector Guidance

⁶ As of the public release date of this report, the industry guidelines formulated by the SBTi for net-zero carbon targets in the oil and gas industry are still under revision. <https://sciencebasedtargets.org/sectors/oil-and-gas#company-commitments-removed-from-the-sb-ti-website-under-the-policy-update>

⁷ 2024 ENN Energy Green Finance Framework

Progress on Key Performance Indicators⁸

Oriented by key performance indicators and targets, ENN Energy has taken various decarbonisation measures and actions. We continue to monitor the progress of targets and improve the performance while ensuring that the set targets could be achieved as planned.



City-Gas Business Decarbonisation Action KPIs

S/N	Targets	Progress and Updates	Actions
1	<ul style="list-style-type: none"> By 2030, reduce GHG emission intensity of the city-gas business by 20% compared to 2019. 	<ul style="list-style-type: none"> The goal has been achieved ahead of schedule, with GHG emission intensity reduced by 28.5%. The goal has updated to: reduce GHG emission intensity of the city-gas business by 50% by 2030 compared to 2019. 	<ul style="list-style-type: none"> Regularly inspect the integrity of the pipeline network to prevent methane leaks. Optimise the identification of methane emission sources to achieve full coverage of Pan-Tilt-Zoom (PTZ) laser methane monitoring system in all city-gate stations. Expand the application of unmanned city-gas stations to significantly reduce the electricity consumption. Apply digital intelligence technology to optimise inspection models, reducing the frequency of manual vehicle inspections and decreasing vehicle emissions. Continue to reduce the self-consumption of natural gas.
2	<ul style="list-style-type: none"> By 2025, incorporate methane control into the GHG emission development plan, and strive to work with the partners from the China Oil and Gas Methane Alliance to achieve the goal of "reducing the average methane emission intensity of natural gas production process to less than 0.25% by 2025". 	<ul style="list-style-type: none"> ENN Energy paid close attention to the methane control initiatives of the Alliance, striving to work with the members from the Alliance to achieve the target. 	<ul style="list-style-type: none"> As one of the founding members of the China Oil and Gas Methane Alliance, we actively participate in the Methane Roundtable, and the meetings organised by the Methane Guiding Principles (MGP).
3	<ul style="list-style-type: none"> Use low-carbon fuels for self-owned transportation vehicles completely by the end of 2025, and promote energy conservation and emissions reduction of ecological partners in trade and transportation.⁹ 	<ul style="list-style-type: none"> The goal has been achieved ahead of schedule, with 100% self-owned transport vehicles using low-carbon fuels. 	<ul style="list-style-type: none"> Actively phase out old diesel vehicles and use transportation vehicles fueled by natural gas. Urge our partners in trade and transportation to carry out the replacement of vehicles with clean energy, and increase their awareness of energy conservation and emission reduction.

⁸ Except as otherwise specified, the data in this section is up to December 31, 2023.

⁹ Due to the adjustment of the Company's business structure and the fact that this goal has been completed ahead of schedule, it will no longer be disclosed separately in subsequent Decarbonisation Action.

IE Business Decarbonisation Action KPIs

S/N	Targets	Progress and Updates	Actions
1	<ul style="list-style-type: none"> By 2030, reduce the GHG emission intensity per unit of the IE productive business by 48% compared to 2019. 	<ul style="list-style-type: none"> The GHG emissions intensity of IE productive unit has been reduced by 36.5%. The progress toward the goal has passed the halfway mark. Phased progress has been achieved and the goal will be constantly monitored. 	<ul style="list-style-type: none"> Continuously increase the supply of renewable energy. Establish an energy model that integrates multiple clean energy sources and implement the integrated energy and carbon management policy. Explore the application of hydrogen and geothermal energy, and used them in some client projects.
2	<ul style="list-style-type: none"> The total installed capacity of photovoltaic projects will reach 9,900 MW by 2030¹⁰. 	<ul style="list-style-type: none"> The evaluated investment capacity reached 1,238 MW and the in-construction & grid-connected reached 688 MW. The goal will be constantly monitored. 	<ul style="list-style-type: none"> Keep expanding photovoltaic and energy storage business based on IE microgrid project to build integrated photovoltaic-energy storage projects.
3	<ul style="list-style-type: none"> Annual consumption of biomass will increase from 0.5 million tonnes in 2021 to 3.27 million tonnes in 2030. 	<ul style="list-style-type: none"> As of 30 June, 2024, the installed capacity of 21 biomass projects reached 618 MW, with an annual consumption of 3.74 million tonnes of steam and 1.87 million tonnes of biomass. The goal will be constantly monitored in the future. 	<ul style="list-style-type: none"> Continue to promote biomass projects according to the local conditions.
4	<ul style="list-style-type: none"> The share of hydrogen and geothermal energy consumption will account for 3% of the energy mix of IE business by 2030. 	<ul style="list-style-type: none"> Due to current technical limitations, there are few instances of hydrogen and geothermal energy applications. ENN Energy has already carried out some hydrogen and geothermal projects and will disclose detailed progress when appropriate. The goal will be constantly monitored in the future. 	<ul style="list-style-type: none"> Integrate hydrogen energy with natural gas business and implement some hydrogen projects to achieve concurrent development of hydrogen and natural gas. Explore the application prospects of geothermal energy and incorporate it into the clean energy supply system step by step.
5	<ul style="list-style-type: none"> Increase the proportion of renewable energy (including photovoltaic, biomass, geothermal, geothermal, air, and hydrogen energy) and zero-carbon energy to 36% by 2030. 	<ul style="list-style-type: none"> The supply proportion of renewable energy (including photovoltaic, biomass, geothermal, air, and hydrogen energy) and zero-carbon energy increased to 21%. The goal will be constantly monitored in the future. 	<ul style="list-style-type: none"> Integrate energy and carbon and build an energy system that integrates multiple clean energy sources according to the local conditions. Adjust the proportion of different clean energy sources by fully considering the characteristics of the project operation locations.
6	<ul style="list-style-type: none"> Help clients build 50 green factories and 50 low-carbon industrial parks by 2025. 	<ul style="list-style-type: none"> The goal has been achieved. The Company will no longer disclose this goal separately and will continue to monitor the goals for low-carbon industrial parks and green factories up to 2030. 	<ul style="list-style-type: none"> Build green factories and low-carbon industrial parks according to local conditions based on clients' needs.
7	<ul style="list-style-type: none"> Help clients increase the number of green factories and low-carbon industrial parks to 200, respectively, by 2030. 	<ul style="list-style-type: none"> We have signed contracts with 201 green factories as of June 30, 2024. The goal will be constantly monitored in the future. 	<ul style="list-style-type: none"> Visualise clients' energy consumption and effectively enhance energy efficiency through digital intelligence and IoT technologies.
8	<ul style="list-style-type: none"> Strive to establish Carbon Capture, Utilisation and Storage (CCUS) pilot projects for IE business practices before or by 2025 and widely use this technology in the IE business practices, in a bid to neutralise 5% of GHG emissions generated from natural gas consumption annually after 2025. 	<ul style="list-style-type: none"> As CCUS is still evolving and there is a lack of unified guidance, ENN Energy will continue to assess the feasibility of CCUS in IE business practices and put it into use when appropriate. 	<ul style="list-style-type: none"> Assessing the CCUS implementation in key IE business practices such as industrial parks, factories, and buildings.
9	<ul style="list-style-type: none"> By 2030, further increase the overall energy efficiency of energy production facilities in the IE business by 5% based on the current level of about 90%, through such measures including carrying out continuous technical transformation, optimising operation strategy, and improving core technology of the Serlink Smart Energy Management Platform. 	<ul style="list-style-type: none"> The Serlink system has been upgraded to a brand-new system through technical innovation. 	<ul style="list-style-type: none"> Upgrad the Serlink system through continuous technical innovation. Collect data to optimise calculation methods of energy conservation and emission reduction capacity of the new system.

¹⁰ In recent years, the photovoltaic industry has been developing rapidly, amid a continuous stream of policies, increasingly fierce market competition, and more rapid technological iterations. The background and assumptions when the Company sets this goal have undergone significant changes. Therefore, some adjustments have been made to the disclosed indicators in this goal. In the future, ENN Energy will continue to focus on photovoltaic projects and provide clients with reliable renewable energy.

Low-carbon Office Decarbonisation Action KPIs

S/N	Targets	Progress and Updates	Actions
1	<ul style="list-style-type: none"> Reduce energy consumption per unit area of office buildings by 10% by 2025 compared to 2021. 	<ul style="list-style-type: none"> The goal has been achieved ahead of schedule with the energy consumption per unit area of office buildings reduced by 11% The Company has updated the goal as set out below: reduce energy consumption per unit area of office buildings by 20% by 2030 compared to 2021. 	<ul style="list-style-type: none"> Replace traditional lighting fixtures with energy-saving lamps in self-sustaining office buildings to reduce energy consumption. Actively promote paperless office, saving 1,500 tonnes of paper per year. Deploy energy management system in self-sustaining office buildings to enhance the overall energy efficiency. Create Carbon Pass System and open personal carbon accounts for employees. Scientifically distributed carbon coins to employees to stimulate their self-motivation to reduce GHG emissions.
2	<ul style="list-style-type: none"> The photovoltaic power generation of self-sustaining office buildings will account for 5% of the total electricity consumption by 2025. 	<ul style="list-style-type: none"> The photovoltaic power generation of the self-sustaining office building accounted for 4.4% of the total electricity consumption. Phased progress has been achieved. The goal will be smoothly achieved by 2025 according to the current progress. The Company has updated the goal as set out below: the photovoltaic power generation of self-owned office buildings will account for 10% of the total electricity consumption by 2030. 	<ul style="list-style-type: none"> Continuously increase the usable photovoltaic area of the workspace by virtue of strong technical advantages of IE business, improving the photovoltaic power generation of the self-sustaining office building.
3	<ul style="list-style-type: none"> Replace 50% of staff shuttles, park shuttles and patrol vehicles with new energy vehicles before 2025 to reduce direct GHG emissions. 	<ul style="list-style-type: none"> The ratio of new energy vehicles in ENN Energy's office vehicles has reached 60%. The goal was achieved ahead of schedule. The Company has updated the goal as set out below: replace 100% self-sustaining office vehicles with new energy vehicles by 2030. 	<ul style="list-style-type: none"> Make procurement channels diversified and standardised based on plentiful research and careful selection. Optimise vehicles scheduling through digital management platform. Strengthen internal communication and external advertisement to cultivate the consciousness of low-carbon transportation.

Whole Industry Chain Collaboration

To achieve key decarbonisation action goals and enhance its performance in sustainable development, ENN Energy is improving its own operational management. At the same time, we are focusing on building a collaborative model across the entire industry chain. We work hand in hand with upstream and downstream partners in the industry chain to achieve energy conservation and emission reduction in multiple dimensions:

We maintain close communication with upstream natural gas enterprises to jointly advance carbon reduction initiatives. We have been conducting low-carbon innovation practices in gas supply products and services. We tap carbon reduction potential in low-carbon transportation, pipeline networks, and gas filling stations, aiming to achieve higher energy efficiency and supply cleaner energy.

We also closely cooperate with downstream clients to explore diverse scenarios of low-carbon energy utilisation. We have been keeping an eye on the latest development of low-carbon technologies in the fields of hydrogen application, energy storage, CCUS, photovoltaics, geothermal energy, and biomass energy. Furthermore, we explore models for integrating renewable energy technologies with our business to meet the needs of clients and society for low-carbon transition.

The path of green transition is long and arduous. ENN Energy always pays close attention to the strategic insights of the national energy transition. We aim to promote the optimisation and upgrading of the national energy consumption structure through our leading practices. We also promote more applications of clean energy and technical innovation and aim to work towards a zero-carbon future together with industry partners.

Green Action: Low-Carbon Transition Practices Driven by Innovation

As a pioneer in the low-carbon transition, ENN Energy strives to promote the green development of industry and society through continuous innovation of our technology and business models. Through establishing an energy supply system based on natural gas and complemented by a variety of renewable energy sources, the simultaneous development of low-carbon energy and zero-carbon energy is expected to be realised. In addition, the company has built whole-chain, customised energy solutions in City-gas business, IE business, value added business, and Low-carbon Office according to local conditions.

ENN Energy is attaching importance to the low-carbon development in our business. Since 2021, we have established guidance for energy conservation and emission reduction in green IE projects with constant optimisation in line with business development. We have integrated ESG-related indicators in our decision-making process before launching projects and planned the client-oriented pathway to achieve "Dual Carbon" goals. We have been keeping watch on the carbon reduction performance from our projects, updating and optimising carbon reduction efficiency and the carbon emission intensity per unit of GDP in accordance with business development. We hope to join hands with stakeholders to build a low-carbon society, achieving our low-carbon transition and the industry's green development simultaneously.

- **Natural Gas Scenario — Stable Low-Carbon Energy Supply**
- **Integrated Energy Scenario — Joint Efforts to Move towards a Green Future**
- **Value Added Business Scenario — Building Smart and Green Home**
- **Low-Carbon Office Scenario — Implementing the Concept of Low-Carbon Office**



Natural Gas Scenario — Stable Low-Carbon Energy Supply

With a commitment to providing clients with higher quality and cleaner natural gas, ENN Energy fully leverages the important role of natural gas in the national energy transition. We are also exploring the technologies and applications of natural gas and hydrogen energy to assist our clients in achieving a green-oriented transition of energy and moving towards net zero.

Methane Emission Control

Natural gas, compared to other traditional fossil fuels, has the lowest emissions per unit of calorific value, making it a cleaner energy. In addition, natural gas is more energy-efficient and stable than renewable energy, reinforcing its significant strategic value as a "stabiliser" for national energy transition. ENN Energy's city-gas business is committed to supplying safe and stable natural gas to society. We are constantly improving our methane emission control initiatives and exploring innovative technologies to further enhance the energy efficiency of natural gas. In this way, we aim to fulfil the transition to low-carbon energy.

The International Energy Agency (IEA) released the *Global Methane Tracker 2024*¹¹ in March 2024, pointing out that methane, the world's second largest greenhouse gas, is responsible for 30% of the rise in global temperatures, with the energy sector producing 40% of all anthropogenic methane emissions. The Chinese government also attaches importance to *methane emission control* and issued the *Methane Emission Control Action Plan*¹² in 2023, which explicitly called for "strengthening the comprehensive utilisation of methane" and "popularising the application of leak detection and repair technologies".

As one of the founding members of the China Oil and Gas Methane Alliance, ENN Energy attaches great importance to methane emission control. To this end, we have, in response to the national policies, taken the following measures at the management and operation levels:

Management level:

We incorporate methane management into daily operations, and gradually integrate methane emission control into performance evaluations, tying it to the compensation of relevant department managers.

Operation level:

We optimise methane monitoring methods by identifying potential emission sources in the daily operations of city-gas business. Based on the characteristics of key business scenarios such as city-gate station, pipelines and ancillary facilities, and indoor settings, we take targeted control and emission measures:

- **City-gate station:** We deploy PTZ laser at all city-gate stations to strictly monitor the methane leakage; in addition, we actively recover methane emissions unavoidably generated during LNG storage, transportation and use, with an annual BOG¹³ recovery volume of 22.48 million m³ and a reduction in carbon emissions of 449,696 tonnes in 2023. We also implement standardised operating procedures and carry out special employee training and regular inspections, so as to reduce methane emissions during operations.
- **Pipelines and ancillary facilities:** We upgrade old pipeline networks in a timely manner and use simulation technology to identify potential sources of methane escape and timely identify leakage risks.
- **Indoor settings:** We make more efforts in indoor safety inspection, using indoor gas alarms and shut-off valves to eliminate methane leaks.



22.48 million m³
BOG Recovery Volume in 2023

449,696 tonnes
carbon emission reduction

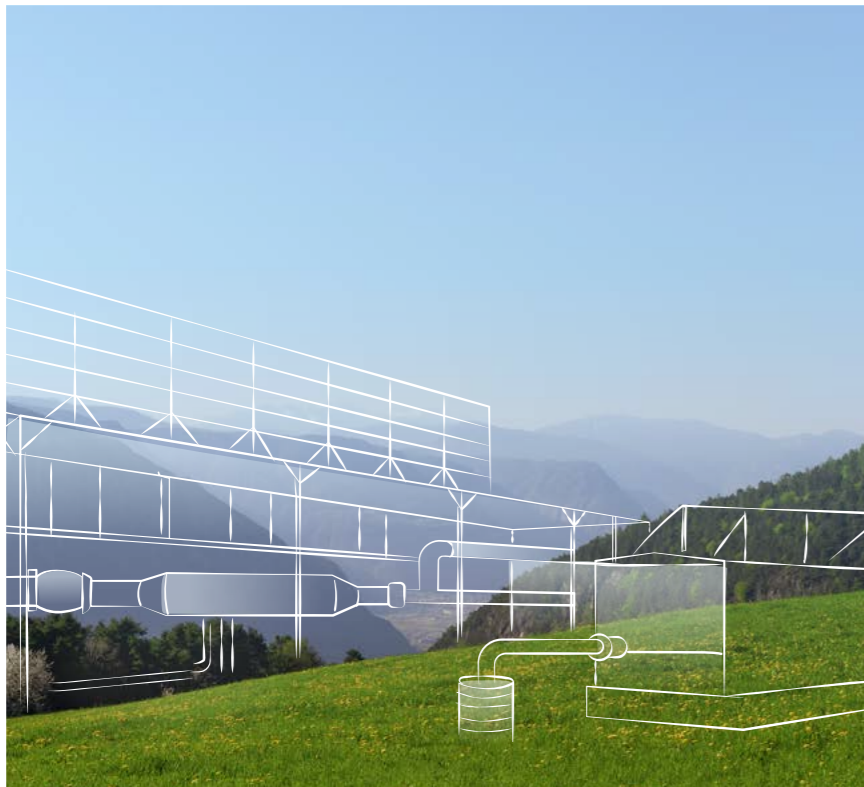
¹¹ *Global Methane Tracker 2024*

¹² *Methane Emission Control Action Plan*

¹³ *BOG (Boil Off Gas) It is the LNG volatile gas inevitably produced in LNG production, storage, transportation and use.*

Hydrogen Energy Technologies Application

ENN Energy is exploring the application prospects of natural-gas-based hydrogen energy projects while steadily expanding the scale of city-gas business and strictly preventing methane leaks. Hydrogen energy has innate advantages and broad application prospects in the energy field in the future due to its carbon-free property and renewability. We actively leverage our strengths in the natural gas business to explore models that organically combine natural gas with hydrogen energy. Blending hydrogen into existing natural gas pipelines is considered as one of the important methods to improve the combustion efficiency of natural gas and reduce carbon emissions¹⁴. The *Hydrogen Energy Industry Development Plan (2021-2035)*¹⁵, which was released in 2021, also indicates that the blending of hydrogen into natural gas pipelines is a crucial part of "coordinated advancement of hydrogen energy infrastructure construction". Following the latest policies, ENN Energy has built the first hydrogen blending station in collaboration with clients at the project operation location, achieving the simultaneous development of natural gas and hydrogen. In addition, the Company also innovates hydrogen energy application technologies. Through improving the tail gas combustion process, we aim to effectively reduce pollutant emission, striving to achieve the efficient energy utilisation and continuous environmental improvement.



Natural Gas Pipeline Hydrogen Blending Technology Application Project

CASE

Project Profile:

Located in the Taixing Economic and Development Zone, the project is a technical renovation project to reduce carbon emissions from the existing natural gas pipeline by blending hydrogen. ENN Energy provided natural gas for commercial and industrial users in the Taixing Fining Chemical Industrial Park through a connecting pipeline to blend hydrogen into its natural gas network. This pipeline is built based on the hydrogen supply capacity and natural gas distribution capacity at the project operation location, while strictly following relevant technical standards and specifications. In doing so, the stability and cleanliness of natural gas supply are effectively enhanced.

Highlights:

This project is an important technical innovation in terms of the efficient use of clean energy by ENN Energy, demonstrating our commitment to exploring and implementing innovative applications of natural gas. It also provides a model for the subsequent expansion of business models of hydrogen energy projects on the basis of natural gas business.

Values for the Client:

This project effectively enhances the overall peak-shaving capacity of the natural gas pipeline network, significantly reducing client's carbon emissions.

Values for the Society:

This project effectively reduces carbon emissions from the use of natural gas, making energy much cleaner, with short-term carbon emissions reduced by 6,430 tonnes per year and long-term carbon emissions reduced by 10,930 tonnes per year.



6,430 tonnes/year

Short-term carbon emissions reduction

10,930 tonnes/year

Long-term carbon emissions reduction

Hydrogen-rich Tail Gas Combustion Project

CASE

Project Profile:

The tail gas generated in the manufacturing process of a photoelectronic technology company contains a large amount of hydrogen and a small amount of ammonia, which may result in environmental issues and pose potential risks to employees and residents in surrounding areas. At the same time, the hydrogen contained in the tail gas not only poses potential safety risks to the client's production activities, but also leads to the waste of thermal energy. With this in mind, we installed a tail gas collection system to capture the hydrogen-containing tail gas. The collected hydrogen was used to drive the steam boiler with appropriate amount of natural gas added to assist combustion. The resulting tail gas was also properly processed to meet the environmental standards.

Highlights:

Currently, hydrogen utilisation is still under exploration. This project is a successful example of integrating hydrogen energy into the existing business, and also provided valuable practical experience. Moreover, a clear guidance was provided to expand the scale of hydrogen applications and explored more scenarios for hydrogen utilisation in the future.

Values for the Client:

This project prevents the direct emission of tail gas into the atmosphere while effectively recycling the residual energy contained in the hydrogen-rich tail gas in reliance on the natural gas, significantly improving the energy efficiency for clients.

Values for the Society:

The tail gas combustion boiler in this project is expected to provide 14,130 tonnes of steam annually, which is equivalent to saving 411 tonnes of standard coal and reducing carbon dioxide emissions by 807 tonnes. This project helps clients increase the energy efficiency significantly while pursuing low-carbon development.

14,130 tonnes

Annually steam providing

411 tonnes

Equivalently standard coal saving

¹⁴ China Gas Association (CGA), *Feasibility Study on Hydrogen Blending in Natural Gas Pipeline and Terminal Utilisation*

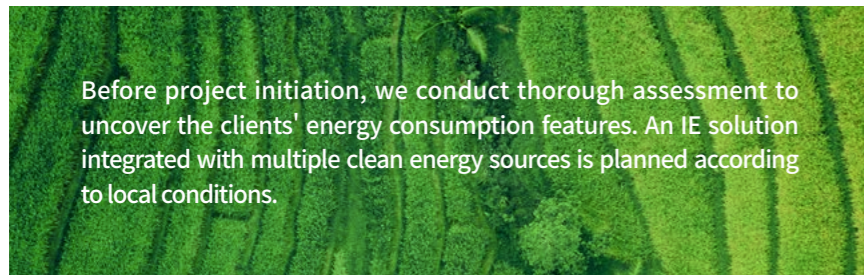
¹⁵ *Hydrogen Energy Industry Development Plan (2021-2035)*

Integrated Energy Scenario — Joint Efforts to Move towards a Green Future

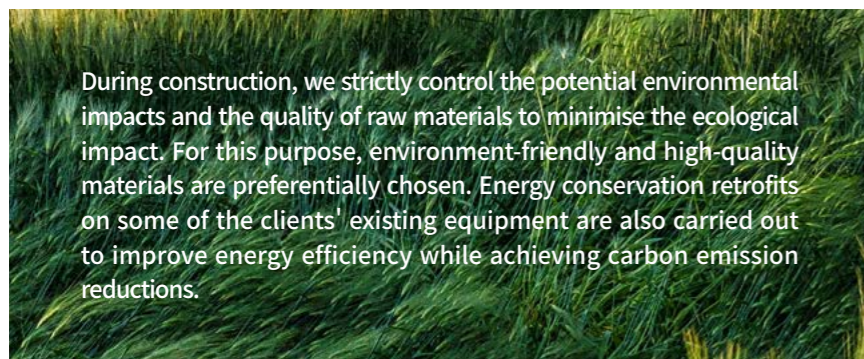
Relying on self-developed clean energy technology, ENN Energy is committed to conducting customised IE solutions to meet clients' needs. We provide IE solutions throughout the lifecycle of a project, including design, construction, and operation. For this purpose, we aim to build an energy supply system that integrates various clean energy sources with natural gas dominating the energy mix.

More Efforts into Green Service

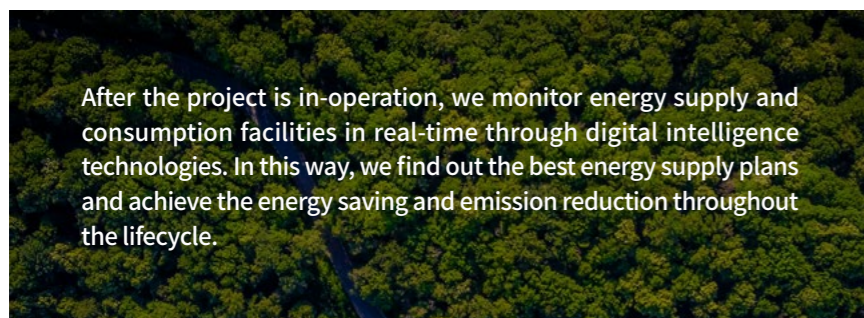
ENN Energy taps the emission reduction potentials for clients and is committed to building client-oriented IE solutions to maximise energy conservation and emission reduction efficiency. Starting from the main scenarios of industrial parks, factories, and buildings, we keep up with the latest policies, implementing energy conservation and emission reduction throughout the lifecycle of the project, with an aim to implement the low-carbon development.



Before project initiation, we conduct thorough assessment to uncover the clients' energy consumption features. An IE solution integrated with multiple clean energy sources is planned according to local conditions.



During construction, we strictly control the potential environmental impacts and the quality of raw materials to minimise the ecological impact. For this purpose, environment-friendly and high-quality materials are preferentially chosen. Energy conservation retrofits on some of the clients' existing equipment are also carried out to improve energy efficiency while achieving carbon emission reductions.



After the project is in-operation, we monitor energy supply and consumption facilities in real-time through digital intelligence technologies. In this way, we find out the best energy supply plans and achieve the energy saving and emission reduction throughout the lifecycle.

Low-Carbon Industrial Parks and Factories

In response to the *14th Five-Year Plan for Industrial Green Development*¹⁶, ENN Energy commits itself to building low-carbon factories and industrial parks while providing much cleaner energy to promote clients' low-carbon transition in industrial energy use. Meanwhile, we make efforts in tapping carbon reduction potential in industrial parks and factories. Technologies like environment-friendly retrofitting of equipment, residual heat recovery are adopted to further reduce environmental impact during clients' production activities. By doing so, we aim to achieve sustainable development.

Low-Carbon Industrial Park Multi-Energy Complementary Project

CASE

Project Profile:

This project is located in the Zhejiang National Economic Development Zone. Due to the industrial structure transition in the client's industrial parks, the traditional energy structure dominated by fossil fuels has been gradually phased out. In view of this, ENN Energy designed a full-chain IE solution based on the client's needs. We helped to gradually utilised more renewable energy and implemented energy conservation retrofits on various equipment. In this way, we aim to build a green and low-carbon park.

Highlights:

This project integrates residual heat recovery technology into the clean energy supply system. While implementing various energy-saving measures, we treat exhaust gas in an environmentally friendly manner, realising energy conservation and emission reduction simultaneously. The valuable experience gained from this project provides a clear guidance on how to better serve industrial parks and factory clients in the future.

Values for the Client:

Multi-energy integration

ENN Energy made full use of the client's rooftop area to create an integrated photovoltaic-energy storage project. We also introduced air-source heat pumps in the office areas, which were expected to save approximately 30%-40% of energy. This approach improved the park's energy mix effectively, achieving a supply system that integrates multiple energy sources.

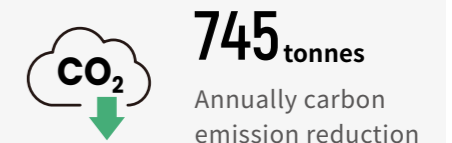
Flue gas residual heat recovery

A flue gas treatment and residual heat recovery device was installed in the boiler exhaust system to ensure that the flue gas is treated in an environmentally friendly manner while recovering the residual heat effectively. Such device can save approximately 600,000 m³ of natural gas annually.

Through the various equipment upgrades in the park, we save RMB 520,000 of energy costs for our clients each year.

Values for the Society:

By retrofitting the existing steam boilers in the park in an environmentally friendly manner, ENN Energy further reduces the pollutants in the boiler combustion, ensuring that the flue gas emissions are much lower than national standards. Additionally, this project achieves an annual carbon reduction of 745 tonnes.



¹⁶ 14th Five-Year Plan for Industrial Green Development

Low-Carbon Factory Process Upgrading Project

CASE

Project Profile:

This client engages in the printing and dyeing business. During the preliminary research, ENN Energy identified weaknesses in the factory, such as singular energy mix, high comprehensive energy consumption per unit of product, low level of digital intelligence, and lack of effective operational management measures. To address these challenges, ENN Energy customised an IE solution for the client: optimise energy mix and enhance digital intelligence, which released the client's potential for energy saving and emission reduction.

Highlights:

ENN Energy provides the client with integrated solutions through a variety of measures, including replacing traditional energy with clean energy, changing heating methods of the dye vat, and enhancing digital intelligence, so as to satisfy the client's demand on operational management and energy-saving optimisation.

Values for the Society:

With easy installation of equipment and strong replicability, this project has the potential for industry-wide use. Through its efficient IE solutions, ENN Energy provides an exemplary case for peer companies and leads the industry in the process of energy saving and emission reduction.

Values for the Client:

Energy Mix Optimisation

By replacing municipal steam with natural gas and upgrading the heating methods of dye vats from steam heating to direct firing, the client can avoid the drawbacks of unstable municipal steam and high heat loss from long-distance transportation, thereby enhancing the energy efficiency of the dye vat.

Digital Intelligence Enhancement

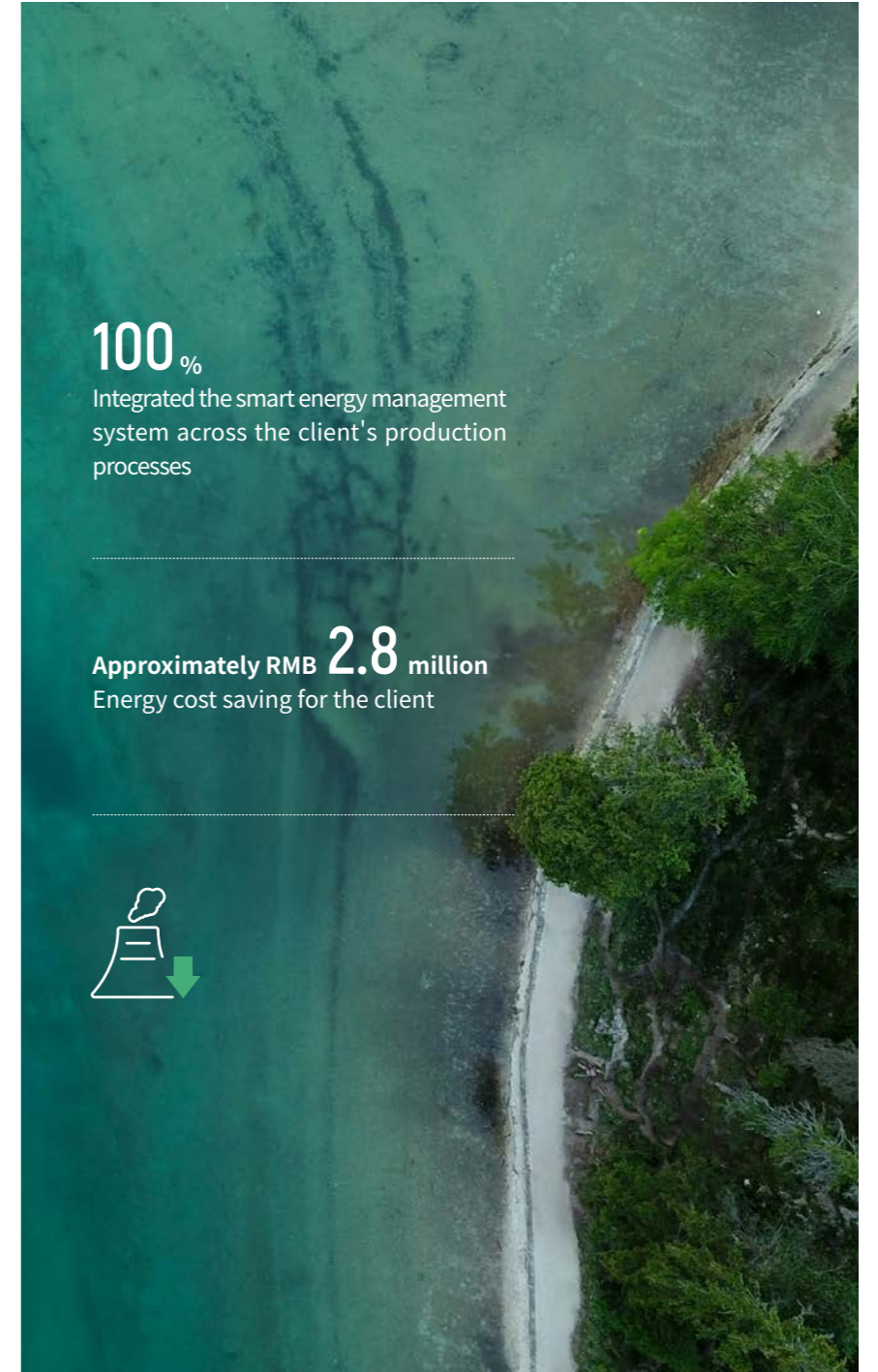
By synchronising the status of dye vat to the smart energy management platform through IoT devices, production staff can quickly access information on daily production, energy consumption, and equipment operation. In addition, AI algorithms are used to optimise the temperature control of the dye vat, thus effectively enhancing the operational stability of the dye vat and preventing energy waste caused by over-heating in traditional processes.

This project fully integrated the smart energy management system across the client's production processes, saving approximately RMB 2.8 million in energy cost each year.

100%

Integrated the smart energy management system across the client's production processes

Approximately RMB **2.8** million
Energy cost saving for the client



Green Buildings

In the *14th Five-Year Plan for Building Energy Efficiency and Green Building Development*¹⁷ issued by the Ministry of Housing and Urban-Rural Development of the People's Republic of China in 2022, the basic principles for implementing green buildings were clearly outlined, including "focusing on peaking emissions and reducing emissions" and "considering local conditions and making overall plans". ENN Energy closely follows policy and leverages extensive experience in building services management to provide customised building energy-saving solutions. Based on the scale and energy consumption characteristics of clients, we effectively assist in creating low-carbon buildings by addressing issues on energy supply, energy consumption, and intelligent energy management.

Green Building IE Project

CASE

Project Profile:

ENN Energy, through comprehensive preliminary research, learnt that a large commercial building complex adopted a singular energy mix with large energy consumption. With a low level of digital intelligence, it is challenging to achieve refined energy management and thus leading to energy waste. Based on the client's actual conditions and needs, ENN Energy tailored a low-carbon solution throughout the lifecycle of energy usage.

Highlights:

ENN Energy, starting with energy production equipment, planned a "three-step" approach to upgrade green buildings for the client, covering energy supply, energy consumption, and digital energy management. This project is designed to be fully integrated into the client's operation, showcasing the advantages of ENN Energy in digital technology and blueprinting the upgrade plan for green buildings.

Values for the Client:

Step 1: Energy Supply Upgrading

ENN Energy adopted a two-pronged approach to enhance the digital intelligence from the production end and increase the supply of renewable energy. In terms of enhancing digital intelligence, ENN Energy upgraded energy supply equipment through technological means, thereby achieving intelligent regulation and demand-based energy supply with an estimated 15% increase in energy efficiency. Regarding the increase in renewable energy supply, we installed photovoltaic power generation devices on the client's rooftop and in carport areas, with an estimated annual power generation of 1.15 million kWh.

Step 2: Energy Consumption Upgrading

ENN Energy developed a digital intelligence system of energy control to align consumption with production, so as to further increase energy efficiency, and it is expected to enhance energy savings by 20%. Additionally, we designed the ice thermal storage equipment to store cold energy at night and release it during the day, with an expected annual electricity cost saving of RMB 120 thousand.

Step 3: Comprehensive Energy System Upgrading

By connecting building energy equipment to the energy management system with IoT, the client can track and monitor the energy consumption of the building in real time. The system also automatically optimises energy supply methods to improve energy efficiency and achieve energy saving as well as emission reduction.

Values for the Society:

The project fully utilises existing renewable energy within the building and increases energy efficiency through technological means, significantly reducing carbon emissions from purchased electricity and heat. It is estimated that the project can reduce carbon emissions by 836 tonnes annually.



836 tonnes

Annually carbon emission reduction

Green Building Air Energy Project

CASE

Project Profile:

ENN Energy, through comprehensive preliminary research, identified that a large commercial building faces high energy supply pressure and low level of digital intelligence. To meet the client's demand, we deployed multiple air source heat pumps for high-efficient air energy utilisation, thereby alleviating the energy supply pressure of the building. Meanwhile, we used IoT devices to connect various energy equipment in the building to the smart energy management platform, and optimised the energy supply plan with AI, achieving refined and visualised building energy management.

Highlights:

Using air source heat pumps in buildings represents a significant step for ENN Energy, which expands the clean energy supply business model. This project also lays a solid foundation for incorporating air energy into a multi-clean energy complementary supply system in the future.

Values for the Client:

The application of air source heat pumps and digital intelligence in the building effectively enhanced energy supply capacity, and enabled the client to reduce use of purchased heat, thereby reducing the energy cost and improving energy efficiency.

Values for the Society:

This project not only led to a substantial carbon emission reduction, but also provided valuable reference for the application of air energy technology in similar scenarios.

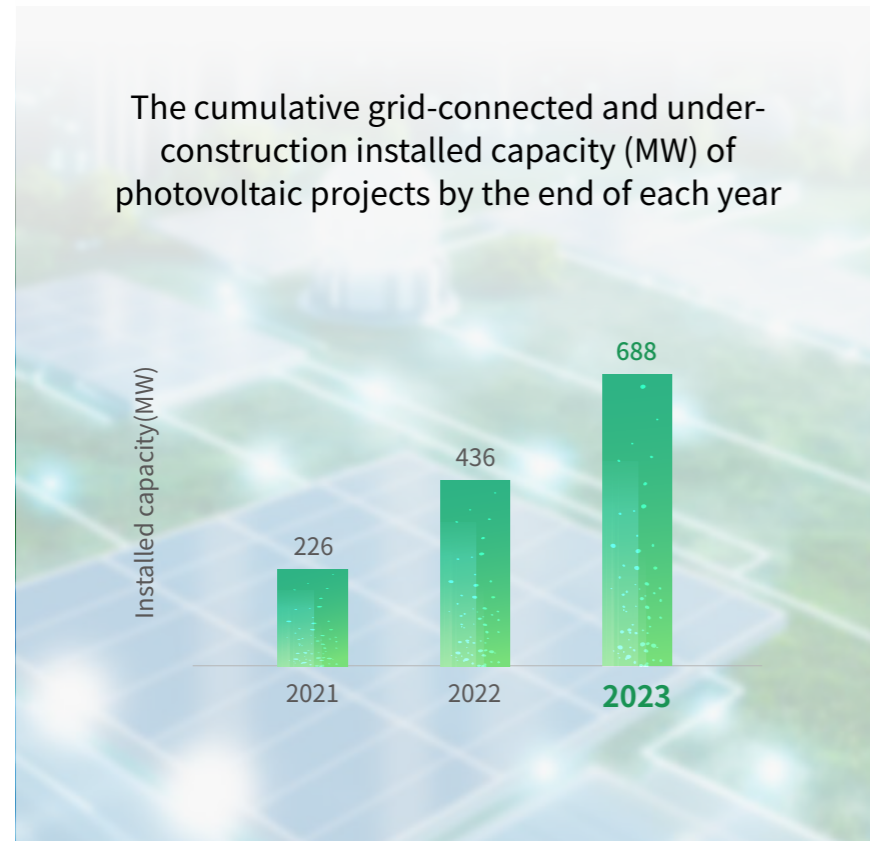
¹⁷ 14th Five-Year Plan for Building Energy Efficiency and Green Building Development

Expanding Clean Energy

ENN Energy deeply engages in zero-carbon energy supply. With photovoltaics and biomass energy as our mainstay, we possess the capabilities to adapt to different resource conditions and the potential to tap into zero-carbon energy. We introduce advanced energy storage technologies to optimise energy consumption and efficiency, ensuring a stable and efficient energy supply.

Photovoltaics

The NDRC has clearly pointed out in the *14th Five-Year Plan for Modern Energy System*¹⁸ that, rooftop areas in industrial parks, economic development zones, and public buildings should be utilised when building distributed photovoltaic projects to achieve "multi-scenario integrated development" and promote the integrated development of new energy and energy storage technologies. Guided by national policies, ENN Energy is building an integrated photovoltaic-and-storage project based on clients' energy usage characteristics.



Distributed Photovoltaic Project

CASE

Project Profile:

To meet the needs of a large cultural tourism park for efficient and sustainable energy supply, ENN Energy pitched photovoltaics to help the client design and plan an IE solution that combines photovoltaics with smart energy management. For energy supply, we utilised approximately 90,000 square metres of rooftop area in the park to build a 13.5 MW distributed photovoltaic power station that suits client's needs. For energy consumption, we deployed a smart energy management platform to help the client achieve real-time energy consumption monitoring and optimisation.

Highlights:

Taking the IE concept as the guidance, ENN Energy relies on digital intelligence technology to customise a distributed photovoltaic & storage project based on the client's needs. This project, as a typical case of ENN Energy's photovoltaic projects, serves as an example for us to carry out similar business.

Values for the Client:

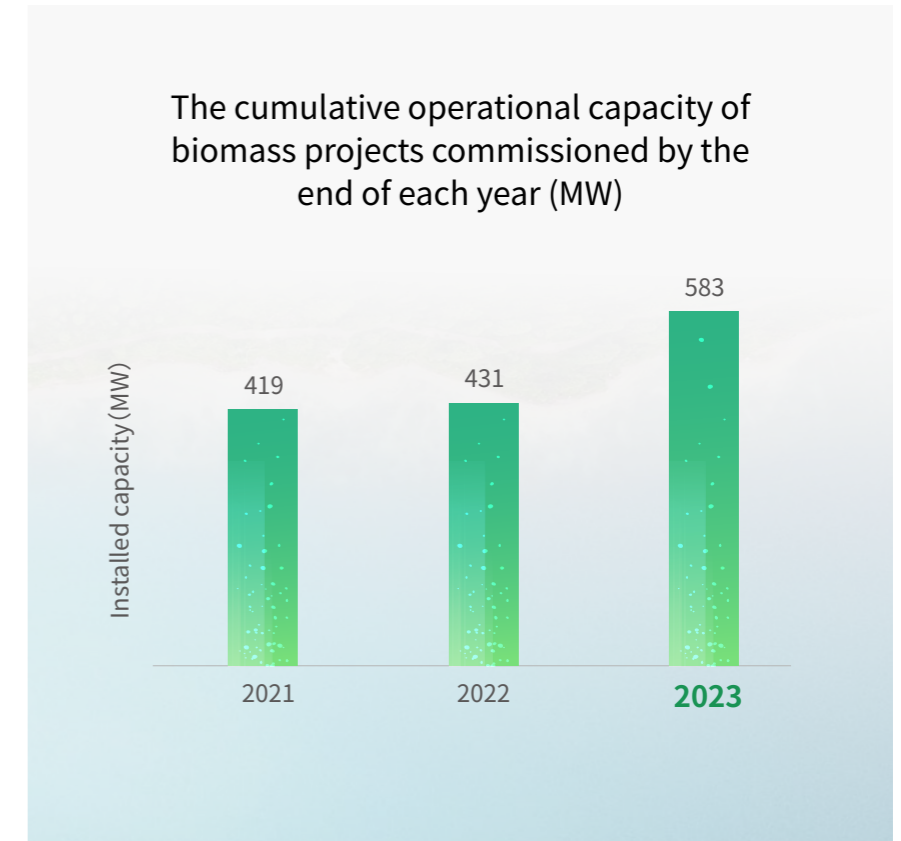
Starting with distributed photovoltaics, this project also provides other services such as clean and low-carbon heating and smart power operations, to effectively help the client practice the low-carbon development concept from aspects of carbon reduction, clean energy, and digital intelligence. With a projected generation of 6.59 million kWh of electricity and an expected reduction in carbon emissions of 3,758 tonnes in the first year, this project is expected to save RMB 2.6 million for the client in electricity costs annually.

Values for the Society:

As a benchmark for green buildings in the cultural and tourism industry, this project fully influences the surrounding areas. It advocates the concept of low-carbon development among peer companies, leading a greener and smarter industry.

Biomass

China's NEA has outlined in the *Guiding Opinions on Energy Work in 2024*¹⁹ to "steadily promote the diversified use of biomass energy". ENN Energy follows the policy and accelerates the development and construction of biogas projects. Taking a forward-looking approach in the field of biomass energy with practices, we have introduced low-carbon business models such as direct combustion of biomass for energy supply and biomass conversion to biogas. Furthermore, we explore the potential of biomass resources in the project location and provide tailored low-carbon energy solutions to clients through technology and model innovation to achieve efficient conversion of biomass resources.



¹⁸ 14th Five-year Plan for Modern Energy System

¹⁹ Guiding Opinions on Energy Work in 2024

Waste Storage Biogas Fermentation Project

CASE

Project Profile:

The client, a renewable energy company, treats 1,500 tonnes of waste daily and incinerates a large amount of biogas generated from waste storage, which causes environmental pollution and severe energy waste. Taking into account the client's energy usage scenarios, ENN Energy leveraged the technology of biogas production from biowaste. We invested in the construction of biogas desulphurisation, purification and pressurisation units, as well as the supporting pipeline system, to convert the biogas generated from waste storage (about 2 million m³/year) into bio natural gas (BNG).

Highlights:

Built upon the IE business model, this project provides clean energy for downstream users by utilising biogas and integrating the obtained natural gas into its own gas pipeline system. This project is also our attempt to produce natural gas from biomass, laying a solid foundation for the Company to broaden the biomass business and create innovative biomass projects.

Values for the Society:

In addition to relieving environmental pressure, this project has also improved local environmental conditions, building a more socially responsible image for the client.

Values for the Client:

Compared with direct biogas emissions, this project enabled the client to complete biogas recycling efficiently. Each year, this project is expected to generate additional biogas sales revenue of approximately RMB 3 million and reduce carbon emissions by 72,574 tonnes.



Approximately RMB **3 million**

Additional revenue from biogas sales

72,574 tonnes/year

Carbon emission reduction



Biomass Project Phase I/II in a Hainan Low-Carbon Industrial Park

CASE

Project Profile:

In response to the Hainan government's call to build a "Clean Energy Island", this client actively sought opportunities for energy transition. ENN Energy used local plants as biomass fuel and selected specific boiler energy supply solutions based on their combustion characteristics. In 2024, as the client's energy demand further increased, ENN Energy initiated the construction of Biomass Project Phase II to meet the growing energy needs and to assist the client in further expanding biomass application.

Highlights:

Considering the client's needs and local conditions, we integrated the excellent local biomass resources, adopted biomass as the main source and other clean energies as the supplementary sources, leveraged IoT technology to achieve cascade steam utilisation at different pressures and temperatures. The project provided ENN Energy with valuable practical experience in exploring local biomass application and clear guidance in implementing biomass projects in different locations.

Values for the Client:

Phase I and Phase II can provide the client with a total steam production capacity of 1.966 million tonnes, equivalent to 0.292 million tonnes of standard coal, effectively saving energy costs and assisting the client in achieving clean and efficient utilisation of energy.

Values for the Society:

Phase I is expected to reduce annual carbon emissions by 0.7 million tonnes, and the Phase II is expected to contribute an additional 66,000 tonnes of carbon reduction. ENN Energy works together with the client to achieve the national "Dual Carbon" goals through practical low-carbon solutions.



Value Added Business Scenario — Building Smart and Green Home

ENN Energy consistently focuses on the needs of residential users and is committed to providing comprehensive smart home solutions. With insights on data of energy utilisation and daily lives of residential users and our advantages on IoT and big data, we accurately respond to users' needs by providing "intelligent, low-carbon, and safe" products and services. We aim to lead users towards a more energy-efficient, environment-friendly, and intelligent lifestyle.

With the advancement of digital intelligence technology and the growing demands for smart home solutions, we continuously explore innovative service solutions to improve user experience. The basic

gas service becomes more intelligent through digital intelligence technologies. We also actively promote energy-saving gas appliances to help residential users improve energy efficiency. In addition, safety devices such as household natural gas devices and safety products were digitalised to achieve IoT connectivity and remote control, enhancing users' intelligent experience. ENN Energy will continue to provide value added services for residential users, effectively enhancing service experience and ensuring high-quality gas supply for our users.



Smart Community Project

CASE

Project Profile:

Gas safety, indoor safety, and public safety have always been the core concerns of residential users. ENN Energy has tailored Smart Community Solution that integrates "IoT device + Intelligent platform + Onsite services", and achieved comprehensive safety control across all community scenarios through digital intelligence. We also developed value added products based on digital intelligent technologies and strived to improve the quality of life for residential users while satisfying personalised needs at the same time.

Highlights:

Deep understanding of residential users' needs, advanced IoT devices and a smart platform made this project achieve gas safety and community safety and improve the quality of life, forming a unique value added business model. It laid a foundation for building a more energy-efficient, environment-friendly, and intelligent community service model.

Values for the Client:

The project achieved an upgrade from single-scenario safety control to full-scenario community safety control, meeting the core safety needs of users. From safe living to quality living, the project met needs of improving life qualities for users through smart home technologies.

Values for the Society:

The project significantly enhanced the household gas safety and provided safer natural gas supply for the public. Also, the application of digital intelligence improved energy efficiency and created a low-carbon living space with ENN Energy's innovation.

Low-Carbon Office Scenario — Implementing the Concept of Low-Carbon Office

As a green development pioneer, ENN Energy has always been committed to low-carbon operation, to promote low-carbon development among stakeholders and the society. We approach this from several dimensions, including the cleaner energy utilisation, optimised energy management in office buildings, low-carbon transportation, and the construction of a low-carbon office system. We ensure that every business partner knows the value of low-carbon office practices. The measures we have taken include but are not limited to:



Cleaner energy utilisation

We continue to increase the distributed photovoltaic coverage in self-owned office buildings, and adopt the "self-generated electricity for self-use, and the surplus electricity for grid feed-in" mode to reduce purchased electricity. The potential application of geothermal energy in office building was also investigated, and we have implemented the geothermal energy projects in some office buildings.



Optimised energy management in office buildings

Real-time energy consumption tracking was realised in office buildings through digital technologies. Meanwhile, the energy supply strategies were also optimised through AI technology to improve energy efficiency. We also promote measures such as paperless office and reclaimed water recovery to reduce corresponding resource consumption.



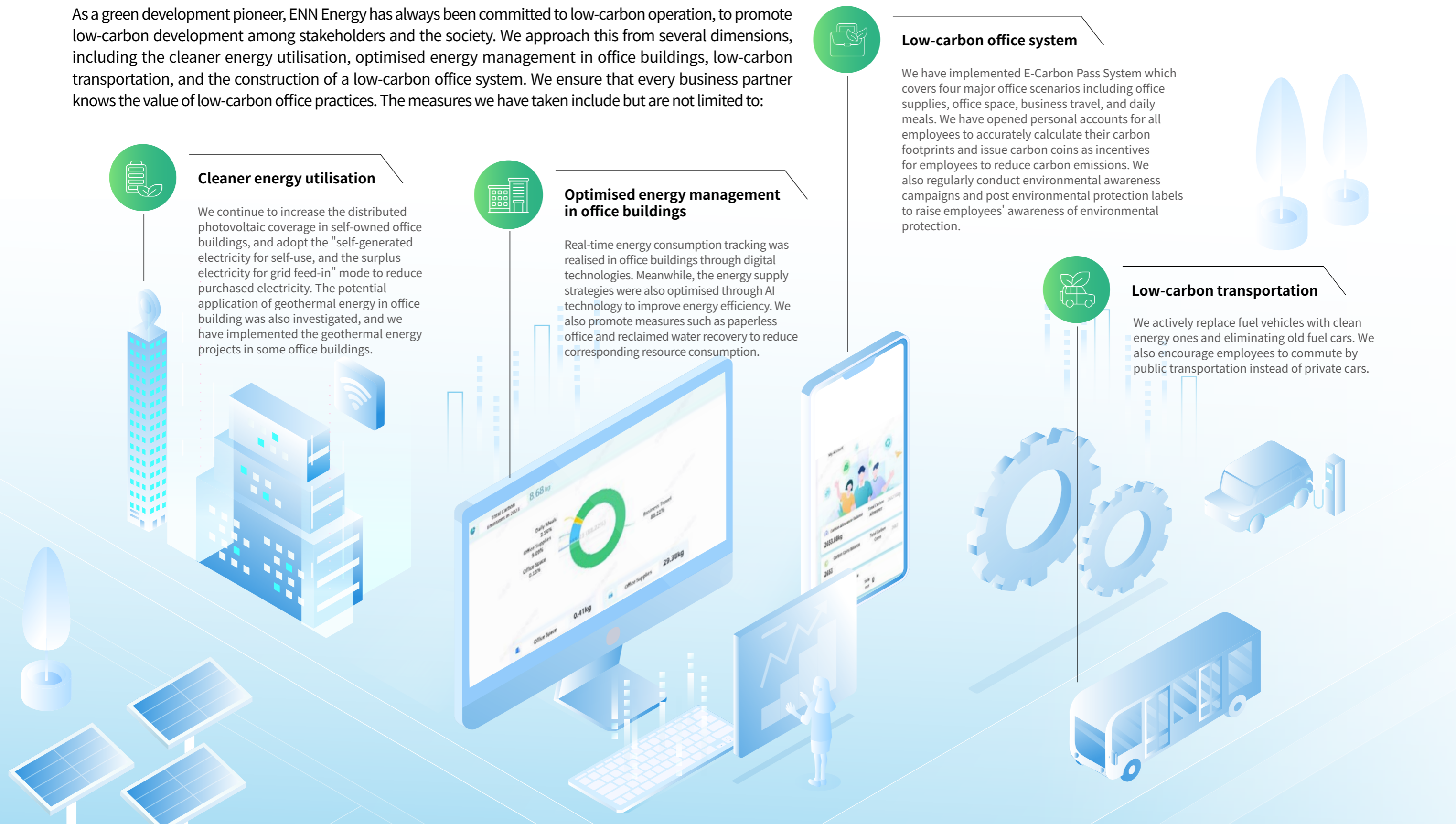
Low-carbon office system

We have implemented E-Carbon Pass System which covers four major office scenarios including office supplies, office space, business travel, and daily meals. We have opened personal accounts for all employees to accurately calculate their carbon footprints and issue carbon coins as incentives for employees to reduce carbon emissions. We also regularly conduct environmental awareness campaigns and post environmental protection labels to raise employees' awareness of environmental protection.



Low-carbon transportation

We actively replace fuel vehicles with clean energy ones and eliminating old fuel cars. We also encourage employees to commute by public transportation instead of private cars.



Outlook

Regardless of how long or difficult as the journey is, sustained actions will be taken by us to arrive at the destination. We firmly believe that a zero-carbon future will be ultimately achieved through our collaboration.

Amidst the three-year evaluation of our Decarbonisation Action, the publication of *Decarbonisation Action 2030 - The Journey to Net Zero* (2024 Edition) reaffirms our mission and resolution for development. Taking "achieving the coordinated development of our own carbon reduction and the green upgrading of business, co-promoting high-quality social development" as the foundation, ENN Energy acts on customers' green energy consumption demands, innovates products and services as well as promotes industrial intelligent upgrading through technologies. By developing green solutions for new business models and new scenarios, we will strive to realise low-carbon development and keep moving to a zero-carbon future.

In the future, ENN Energy will keep integrating the low-carbon concept into product and service system. We will accurately implement the Decarbonisation Action Plan, and work towards green and low-carbon development together with the whole society:

Proactive layout to build a green product service system. With the safe and stable supply of natural gas as the cornerstone of our product and service system, we will promote and innovate the IE service model, which includes natural gas and various renewable energy projects. Performance on carbon reduction of products and services will be an important consideration for the innovation and evaluation of the service system.

Safety and stability to provide residential users with quality life. We will focus on ensuring high-quality gas supply for all residential users to improve service quality and efficiency, expand coverage of traditional business relying on IoT devices and provide more innovative services for residential users in new scenarios and of new demands.

Steady and scientific approach to promote carbon reduction along the value chain. Marching towards the green-oriented transition of energy, we will benchmark the core 2050 Net-Zero Goal, develop a carbon reduction pathway in line with advanced international standards, provide comprehensive green products and services which adapt to different stages of transition. In addition, we will assess carbon reduction achievements regularly, and strive to continuously innovate new development models together with key enterprise partners and important stakeholders across the entire value chain.

A green ecosystem for the whole society to achieve win-win cooperation. ENN Energy takes on the mission of becoming a low-carbon leader. We will actively share green products, services, as well as effective practices and leading experiences in the low-carbon value chain development, in order to facilitate communication across different parts of the value chain.

Limitation of forward-looking statements

This report contains forward-looking statements based on the expectations, best estimates, and assumptions as of issuance of this report. For example, the predictive information is based on publicly available, official, and authoritative statistics and scientific assumptions. These expectations, best estimates, and assumptions might be probably affected by external factors, including but not limited to, actual energy demands, market conditions, regulations and policies, technological developments, and the overall economic situation. Therefore, Forward-looking statements are not guarantees, predictions or forecasts of future performance or outcomes, and are subject to both known and unknown risks, other uncertainties and may involve elements of subjective judgement and assumptions.

