中节能翼和

2024

Sustainability Report

CECEP (Hubei) SDG Industry Equity Investment Fund Limited Partnership

This report is an English translation of Chinese report, the Chinese version shall prevail.

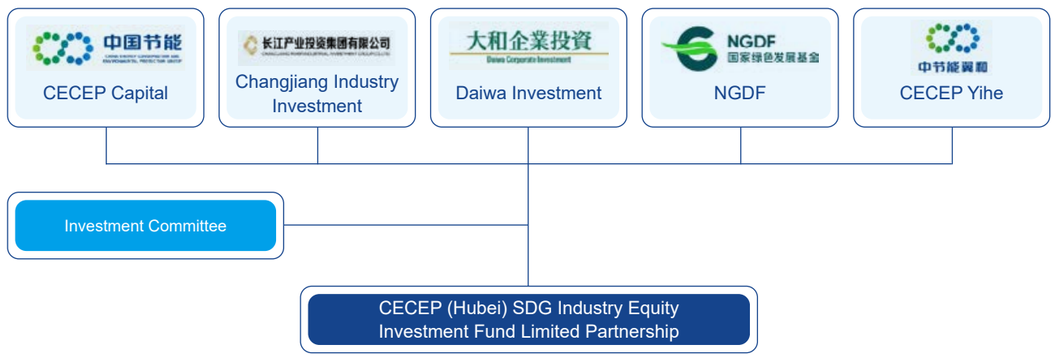
Contents

About Us

Company Profile

CECEP (Hubei) SDG Industry Equity Investment Fund Limited Partnership (hereinafter referred to as “CECEP (Hubei) Fund”) was established in Wuhan, Hubei on October 26, 2020. The fund was jointly financed by CECEP Yihe, CECEP Capital, Daiwa Investment, Changjiang Industry Investment, and NGDF. In December 2024, the company's paid-in capital increased to ￥500.00 million, with the original shareholders contributing proportionately. Additionally, the investment period was extended to six years.

Fund Structure



Fund Position

Investment Support from Central State-Owned Enterprise
- The only market-oriented private equity investment fund within the CECEP system.

Resources in Yangtze River Basin
- Changjiang Industry Investment aligns its focus with national strategies and the development of Hubei's modern industrial clusters, concentrating its investments in the Yangtze River Basin.

Sino-Foreign Cooperative Fund
- A collaborative effort between China and Japan, boasting enhanced international financing decisions and stricter compliance management.

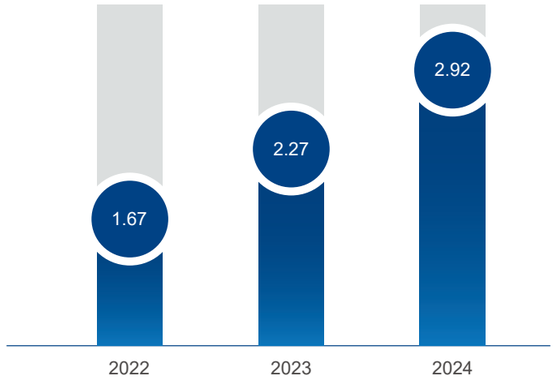
Green & Eco-Friendly
- In support of the SDGs, at least 60% of the fund's paid-in capital is allocated to projects in energy efficiency and environmental protection.

Sustainable Investment

With precise investment as its advantage and leveraging the professional advantages of financial institutions, CECEP (Hubei) Fund leads capital towards green and sustainable initiatives. On the journey of empowering the green sector, the fund continuously explores innovative models of green finance, collaborates with diverse stakeholders, and leads the way in advancing sustainable and high-quality development with a strong sense of responsibility.

By the end of 2024, the cumulative investment scale of CECEP (Hubei) Fund was ¥292 million, a year-on-year growth of 28.63%. During the reporting period, the fund invested in several green enterprises, including Changyuan Electric Power, Polycomp International, Yueyang Xingchang, Yingfa Ruineng, Yacheng New Energy, Easy-Sight, and 3R. The fund remains dedicated to exploring diverse and sustainable investment practices while continually enhancing its portfolio of financial products. Through responsible investment, the fund actively channels capital into projects aligned with sustainable development goals, fostering long-term growth for both its investees and itself.

Investment scale in green sectors, energy efficiency and environmental protection (RMB 100,000,000)



Percentage of investment size in green sectors, energy efficiency and environmental protection in 2024

100%

Note:Investment size is cumulative and excludes non-exited funds

The cumulative investment scale of CECEP (Hubei) Fund was

¥292 million

a year-on-year growth of

28.63%

Investment Philosophy

To foster harmonious development between humanity and nature, the United Nations introduced the Sustainable Development Goals (SDGs) in 2015, encompassing 17 global goals that aim to create a better and more sustainable future for all. Guided by the SDGs and aligned with the great protection of the Yangtze River strategy, CECEP (Hubei) Fund places a strong emphasis on the core principles of the SDGs during project selection and investment decision-making. The fund integrates responsible investment practices and ESG considerations into its strategic framework, diligently identifying potential projects and targeting high-quality investments that align closely with the SDGs. These projects are designed to effectively advance the coordinated development of the economy, society, and the environment. The fund remains committed to embedding the SDG philosophy throughout every stage of its investment activities.

Investment Standards

CECEP (Hubei) Fund considers the SDGs a pivotal framework and a key foundation for delivering investment services, integrates the SDGs into the whole process of investment services, and gives priority to projects that are more applicable to the United Nations Sustainable Development Goals.

Key SDGs

- SDG6 Clean Water and Sanitation
- SDG7 Affordable and Clean Energy
- SDG8 Decent Work and Economic Growth
- SDG9 Industry, Innovation and Infrastructure
- SDG11 Sustainable Cities and Communities
- SDG12 Responsible Consumption and Production
- SDG13 Climate Action

CECEP (Hubei) Fund assesses projects' contribution to the SDGs using project operation materials (include both qualitative and quantitative indicators, as well as other relevant information) provided by the invested enterprises on a regular basis.

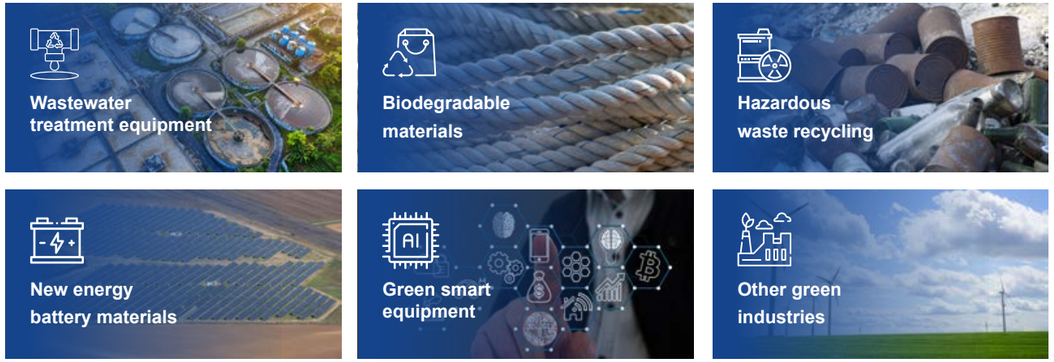
Key SDGs Goals

Investment Fields

In alignment with the great protection of the Yangtze River strategy, CECEP (Hubei) Fund has established its base in Wuhan, a key city in the Yangtze River Basin, and directed its investment focus toward the Yangtze River Economic Belt. The fund prioritizes enterprises with technological strengths in applying new technologies and materials for environmental protection, as well as those whose products or services support environmentally sustainable industries. With a clear objective of allocating no less than 60% of its paid-in capital to energy efficiency and environmental protection projects, the fund has significantly increased its investments in enterprises within the PV (Photovoltaic), wind power, and green chemical industries. These efforts aim to promote the process of the great protection of the Yangtze River.

the paid-in capital proportion of energy efficiency and environmental protection projects no less than

60%



In 2024, CECEP (Hubei) Fund, a Sino-Japanese strategic fund under the CECEP Group, actively conducted industry research and analysis to provide strategic guidance for investment decisions. By performing in-depth studies of the industrial chain in the fields of energy efficiency and environmental protection, the fund compiled seven comprehensive research reports. These reports covered a wide range of industries, including sewage treatment, kitchen waste treatment, energy storage batteries, PV silicon wafers, hydrogen energy, marine transportation, and renewable energy development. The research played a crucial role in guiding the fund's investment strategy in the green industry sector. It enabled the identification of enterprises with exceptional sustainable performance in new energy, emerging technologies, and innovative industries that hold long-term growth potential. By enhancing the effectiveness and precision of green industry investments, CECEP (Hubei) Fund further advanced its commitment to responsible investment and sustainability.

2024 Response SDGs Target Results

2024 SDGs Key Performance Indicators

SDGs | Outcomes[1]

1 NO POVERTY

- Changyuan Electric Power: It established designated assistance teams to support rural revitalization, gradually expanding the scope of beneficiaries. Moreover, it increased investments in assistance funds to secure relief funds, major illness assistance, and other benefits for impoverished households.
- Polycomp International: In 2024, it actively responded to the call for supporting “Agriculture, Rural Areas, and Farmers”, contributing to rural revitalization efforts. It made donations to Huazhai Village, Dashi Township, Dianjiang County, Chongqing, to support the village's development.

2 ZERO HUNGER

- Yueyang Xingchang: In 2024, it provided donations to Shilunshan Village, with plans to build projects like the Supply and Marketing Hall, Zhiqing Courtyard Restaurant, shared supermarket, live streaming e-commerce platforms, and more, as part of its “Home of Charity” Program.
- Yingfa Ruineng: It focused on targeted poverty alleviation projects, donating over ¥**170,500** in materials and cash in the recent three years.
- Yacheng New Energy : Its poverty alleviation project in Xiangzikou Town, Ningxiang, a model town for rural revitalization in Hunan Province, has been highly recognized by the local government and cooperatives.

3 GOOD HEALTH AND WELL-BEING

- Changyuan Electric Power: Dedicated to philanthropy and actively involved in public welfare initiatives, the company has provided assistance and support to critically ill patients, individuals with disabilities, and other vulnerable groups.
- Yueyang Xingchang: It established a senior activity center in Shilun Mountain, pioneering a new “three-supports” elderly care model that integrates government funding, charitable support, and mutual assistance among seniors.
- Yingfa Ruineng: It achieved the ISO45001 certification, established and enhanced the HSE (Health, Safety & Environment) system to safeguard occupational health, and participated in public welfare initiatives, including voluntary blood donation.
- Easy-Sight: It was committed to improving urban water quality and ensuring safe drinking water for **5** million people in 2024.

4 QUALITY EDUCATION

- Changyuan Electric Power: It donated books to Wutanbang Village and, through its Dandelion Volunteer Service Team, provided assistance to nearby schools in Wuhan, Jingmen, and Jingzhou, as well as targeted poverty alleviation sites in Qichun County. For many years, it has carried out the poverty alleviation program, supporting underprivileged primary schools.
- 3R: For 11 consecutive years, it has provided financial support for teaching and scholarship programs in Yonghu Town, donating tens of thousands of yuan to Yishi Primary School for teaching equipment and campus maintenance. In 2024, 3R contributed over ¥**510,000** to benefit society.

6 CLEAN WATER AND SANITATION

- Changyuan Electric Power: Its thermal power plants have achieved ultra-low emissions of major air pollutants and zero wastewater discharge. Its Jingzhou plant has implemented comprehensive wastewater treatment and cascade utilization of water resources throughout the facility.
- Polycomp International: Wastewater generated during production undergoes a pretreatment process combining “chemical coagulation + aerobic biochemical” methods, followed by advanced treatment using an “MBR + RO” membrane system. This allows the water to be recycled back into production, achieving wastewater reuse.
- Yueyang Xingchang: Adsorption materials are extensively utilized in tail gas treatment equipment and sewage purification pools, effectively reducing sewage discharge and contributing to the protection of water resources.
- Yingfa Ruineng: By adopting technical and economic measures such as equipment upgrades, production process optimization, and enhanced water management, it has significantly improved water use efficiency, recycling **2,470.81** million tons of water in 2024.
- Yacheng New Energy: It utilizes zero-discharge technology for wastewater treatment, with the by-product ammonium sulfate recycled and sold as fertilizer, advancing the circular economy through technological innovation.
- Easy-Sight: It achieved an output value of ¥**112** million in pipeline repair materials, services, and maintenance equipment, ensuring safe and reliable water access for **5** million people.

7 AFFORDABLE AND CLEAN ENERGY

- Changyuan Electric Power: It actively implemented a new energy security strategy aligned with the “dual carbon” goals, while advancing the optimization of industrial and energy structures.
- Polycomp International: Its glass fiber reinforced composite materials can significantly reduce fuel consumption in traditional vehicles and enhance the driving range of new energy vehicles. These materials also improve power generation efficiency and support the growth of the clean energy industry. In 2024, **2** of its products obtained the world's first TÜV certification for thermoplastic solar module frames.
- Yueyang Xingchang: It focused on the R&D of new energy-efficiency and carbon-reduction technologies. In line with its development strategy of “less oil products and more chemical products”, it replaced conventional refining technologies and equipment with cutting-edge high-efficiency ones. This approach not only delivers technological leadership but also ensures significant energy efficiency and carbon reduction.
- Yingfa Ruineng: It continued to provide high-quality, high-efficiency PV cells. The test efficiency of its n-type TOPCon bifacial cells reached an impressive **26.61%**, with an annual output of high-efficiency cells reaching **19.61** GW.
- Yacheng New Energy: It achieved a production capacity of **2,316** tons of cobalt tetroxide (including trade), **1,938** tons of cobalt hydroxide, and **68,245** tons of iron phosphate. These materials contribute to generating **560,000** kWh of clean electricity, fostering the development of the new energy industry chain.

Note 1: According to the Annual Report on Development of China's Power Industry 2024 issued by the China Electricity Council, in 2023, the standard coal consumption of thermal power plants with a capacity of 6,000 kW and above was 301.6 g/kWh, the CO_2 emissions per unit of thermal power generation was about 821 g/kWh, and the emissions of soot, sulfur dioxide, and nitrogen oxides per unit of thermal power generation were 22 mg/kWh, 101 mg/kWh, and 152 mg/kWh, respectively. In this case, the generation of every 1 kWh of solar electricity may save 301.6 g of standard coal per year, and reduce CO_2, sulfur dioxide, nitrogen dioxide, and carbon dust emissions by 821 g, 0.101 g, 0.152 g, and 0.022 g respectively.

8 DECENT WORK AND ECONOMIC GROWTH

The fund's seven invested projects in 2024 have created nearly **20,000** job opportunities. The details are as follows:

- Yueyang Xingchang: Provided **832** jobs, of which **30%** are for females.
- Yingfa Ruineng: Provided **4,165** jobs, with female employees accounting for **29%**.
- Yacheng New Energy: Provided **796** jobs, of which **19%** are for females.
- Easy-Sight: Provided **262** jobs, including **4** for people with disabilities, and **22%** for females.
- 3R: Provided **426** jobs, with female employees accounting for **18%**.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

- Yueyang Xingchang: It spent ¥**72.54** million in R&D.
- Yingfa Ruineng: Its R&D investment reached ¥**275.31** million, with R&D personnel accounting for **12%** of the workforce. It has obtained **137** patents, including **28** invention patents and **109** utility model patents.
- Yacheng New Energy: It invested ¥**35.23** million in R&D, with R&D personnel making up **13%** of the total workforce. It has secured **63** patents, including **43** invention patents and **20** utility model patents.
- Easy-Sight: Its R&D expenditures totaled ¥**11.34** million, with R&D personnel representing **18%** of the workforce. The company has obtained **157** technical patents, including **37** invention patents, **120** utility model patents; and obtained **48** design patents and **25** software copyrights.
- 3R: Its R&D expenditure amounted to ¥**23.64** million. It has acquired **58** patents, including **36** invention patents and **22** utility model patents. It also owns **13** software copyrights and has led or participated in the development of **11** national standards and **25** industry standards.

11 SUSTAINABLE CITIES AND COMMUNITIES

- Changyuan Electric Power: It promoted the use of recyclable and renewable energy for power generation, with clean energy accounting for **25.93%** of its installed capacity.
- Yingfa Ruineng: It strengthened its environmental management system, improved energy and resource utilization efficiency, reduced pollutant emissions, and invested ¥**74.4299** million in environmental protection with a year-on-year increase of **320.56%**.
- Easy-Sight: It produced **522** pieces of testing equipment, **12** pieces of repair equipment, and **120,531** meters of repair materials.
- 3R: It recovered Fe^{2+} and Fe^{3+} from waste acid through resource reutilization, producing **180,000** tons of ferric chloride, its polymer, and ferrous chloride, thereby advancing resource recycling efforts.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- Changyuan Electric Power: All its thermal power plants complied with emission standards for waste gases. The company conducted environmental impact assessments for thermal power units as well as for desulfurization, denitrification, dust removal, and ultra-low emission transformation projects, ensuring compliance with the “three-simultaneous” (environmental protection facilities are designed, constructed, and commissioned simultaneously with the main project) environmental protection standards.
- Polycomp International: It independently designed and developed proprietary refractory material processing and recovery equipment to recycle platinum and rhodium metals, advancing sustainable production practices.
- Yueyang Xingchang: It implemented waste gas treatment using electrostatic demisting combined with alkaline washing, and oil and gas treatment through condensation, adsorption, and water washing, significantly reducing pollution and delivering substantial environmental and ecological benefits.
- Yingfa Ruineng: Its Fishpond Solar Farm Project optimizes clean energy production while fostering the development of green economic industries through comprehensive spatial utilization.
- Yacheng New Energy: It employed a two-step process and innovative energy-saving techniques to diversify raw material sources, reduce the consumption of natural gas, electricity, and other resources, and enhance both the economic and environmental performance of its products.

13 CLIMATE ACTION

The fund's seven investment projects collectively reduced carbon dioxide emissions by **36.6011** million tons in 2024.

- Changyuan Electric Power: It saved approximately **1.2815** million tons of coal and reduced carbon dioxide emissions by **3.48** million tons.
- Polycomp International: It fully leveraged “top firing + pure oxygen combustion + electric melting” technology to enhance glass melting efficiency, resulting in significant energy savings.
- Yingfa Ruineng: It achieved substantial reductions, saving approximately **12.1705** million tons of standard coal. This led to a reduction of **33.12** million tons of carbon dioxide emissions, **4,075** tons of sulfur dioxide emissions, **6,133** tons of nitrogen dioxide emissions, and **887** tons of carbon dust emissions.
- Yacheng New Energy: It reduced coal consumption by **168.90** tons, cutting carbon dioxide emissions by **459** tons.
- 3R: It reduced carbon dioxide emissions by **594** tons.

14 LIFE BELOW WATER

- Changyuan Electric Power: The company is committed to protecting the ecological environment of the Yangtze River Basin, focusing on ecological restoration, fish breeding and release, and reservoir discharge monitoring.
- Yingfa Ruineng: Its Fishpond Solar Farm Project creates an innovative resource utilization model with power generation above and fish farming below. This approach not only produces clean energy but also fosters the growth of the local fishery industry.
- Easy-Sight: The company enhanced urban water quality and protected aquatic ecosystems through the development of networked, information-based urban pipeline systems, thereby creating a thriving habitat for underwater organisms.

Key SDGs: Outcomes and Actions

SDG 6 Clean Water and Sanitation

Background: The global situation regarding clean water and sanitation remains critical, with a significant shortage of clean water resources in certain regions. The *Sustainable Development Goals Report* 2024 estimates that by 2030, 2 billion people will still lack access to safe drinking water. Improving water resource efficiency and achieving sustainable water circulation remains a challenging and long-term endeavor.

CECEP (Hubei) Fund actively aligns with SDG 6 Clean Water and Sanitation. It prioritizes high-quality enterprises in the wastewater treatment and pipeline construction industries, aiming to address issues related to water efficiency, clean drinking water, and sanitation. Its investees are committed to driving product innovation and technological advancements, with significant outcomes in preventing the spread of wastewater, reducing the risk of water pollution-related diseases, and protecting the balance of the water ecosystem in the Yangtze River Basin.

Outcomes

Easy-Sight

Created an output value of

¥**112** million in pipeline repair materials, services, and maintenance equipment

Ensured healthy and safely managed water access for

5 million people

Yacheng New Energy

Achieved

0 discharge, with the by-product ammonium sulfate recycled and sold as fertilizer.

Actions

UN 2030 SDGs

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

China's Response

China has taken significant steps to ensure safe drinking water, promote the development of a water-saving society, enhance water efficiency, and actively advance the ecological protection and management of major rivers and lakes. Additionally, China has engaged in extensive international cooperation and exchanges in the field of water conservation.

CECEP (Hubei) Fund's Response Progress

The fund encouraged employees to conserve water, invested in sewage treatment projects, and enhanced background checks and management practices for wastewater treatment methods in companies with high environmental risks.

- Easy-Sight provided integrated information solutions for the operation and maintenance of smart drainage pipe networks, along with a range of detection and repair equipment and materials, to enhance the quality of urban water bodies.
- 3R applied the innovative continuous oxidation process to treat and comprehensively utilize waste acids and other industrial hazardous wastes, minimizing their impact on water resources.
- Yacheng New Energy adopted zero-discharge technology for wastewater treatment.
- Yueyang Xingchang implemented pre-treatment of wastewater using oil separation and flotation techniques to reduce pollution, while the subsidiary company Hunan Leadtech developed catalysts with superior toxicity resistance and water durability to protect water ecosystems.

SDG 7 Affordable and Clean Energy

Background: While some progress has been made in advancing global sustainable energy, the utilization of renewable energy still requires significant improvement. According to the United Nations *Sustainable Development Goals Report 2024*, achieving the goal of widespread access to clean energy by 2030 will require increased investment in renewable energy, enhanced energy efficiency, and comprehensive transformation and development across the energy sector.

CECEP (Hubei) Fund actively aligns with SDG 7 Affordable and Clean Energy. The fund focuses on innovative enterprises with advantages in new processes and materials within the environmental protection sector and invests in companies with strong core competitiveness and growth potential across the environmental protection industry chain. By strengthening post-investment empowerment, the fund supports the clean energy industry through diverse initiatives such as technical R&D assistance, market resource integration, and management experience sharing. These efforts aim to drive the growth of the clean energy sector and accelerate the global energy transition.

Outcomes

Yingfa Ruineng

Produced

20.79 GW of cells

A year-on-year increase of

124.27%

Yacheng New Energy

Achieved a production capacity of

2,316 tons of cobalt tetroxide (including trade)

1,938 tons of cobaltous hydroxide

68,245 tons of iron phosphate

Actions

UN 2030 SDGs

7.1 By 2030, ensure access to affordable, reliable and modern energy services.

China's Response

Since 2015, China has actively pursued a clean, low-carbon, safe, and efficient energy system. Through consistent optimization of its energy production and consumption structures, it has significantly improved its energy efficiency.

CECEP (Hubei) Fund's Response Progress

The fund has been a strong advocate for clean new energy, while using traditional energy sources adhering to principles of rationality, necessity, and cost-effectiveness.

- Changyuan Electric Power pursues diversified, rapid, large-scale, efficient, and scientific development of new energy sources. In addition to aggressively promoting centralized PV systems, it has also steadily expanded high-quality distributed PV systems.
- Yingfa Ruineng adopts cutting-edge equipment and testing lines to continually enhance the production efficiency and quality of battery cells. In 2024, it was ranked among the top 20 global PV cell manufacturers, achieving an impressive tenth place.
- Polycomp International, relying on its independently developed glass fiber and sizing agent formulas, has occupied a wind market share exceeding 25%, with high- and ultra-high-modulus products leading the world by volume.
- Yacheng New Energy adopts cutting-edge ammonia-based processes to increase production capacity while reducing energy consumption costs, effectively driving growth across the new energy industry chain.

SDG 9 Industry, Innovation and Infrastructure

Background: The world faces an urgent need for industrial adjustment and acceleration. According to the *Sustainable Development Goals Report 2024*, the growth rate of the manufacturing sector stagnated at approximately 2.70% between 2022 and 2024. This calls for increased capital investment, faster innovation, the promotion of high-tech manufacturing, the establishment of a comprehensive industrial chain, and the advancement of industrial innovation.

In response to SDG 9 Industry, Innovation and Infrastructure, CECEP (Hubei) Fund has formulated targeted industrial development plans. It prioritizes support for strategic emerging industries, including new energy, new materials, artificial intelligence, and high-end equipment manufacturing. By investing in innovative manufacturing industries related to new energy, the fund actively promotes industrial development and innovation while addressing the broader social needs for infrastructure construction.

Outcomes

Yueyang Xingchang

Invested
¥**72.54** million in R&D

Easy-Sight

Invested
¥**11.34** million in R&D

Yingfa Ruineng

Invested
¥**275.31** million in R&D

3R

Invested
¥**23.64** million in R&D

Yacheng New Energy

Invested
¥**35.23** million in R&D

Actions

UN 2030 SDGs

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

China's Response

China has taken active steps for the goal, including developing safe, efficient, intelligent, green, and interconnected infrastructure; promoting industrial transformation and upgrading to achieve more inclusive and sustainable industrialization; and implementing the innovation-driven development strategy to strengthen capabilities in innovation and sustainability.

CECEP (Hubei) Fund's Response Progress

The fund encouraged investment in new energy-related projects, fostering industrial growth and advancing infrastructure development.

- Changyuan Electric Power mobilized funds to develop PV projects while providing comprehensive energy services for Hubei, accelerating the region's low-carbon transition.
- Polycomp International, in collaboration with the Institute of Chemistry of the Chinese Academy of Sciences, achieved a breakthrough in “thermoplastic nylon-based continuous glass fiber composite material technology”. This innovation marked a milestone in the application of pultruded solar module frames and earned the world's first thermoplastic module frame certificate.
- Yueyang Xingchang established a New Materials Research Institute, which comprising a Research & Development Center and an Innovation Base. The R&D Center focused on fundamental research in advanced technologies such as high-end polyolefins, specialty phenols, and energy-saving environmental protection. And the Innovation Base undertook pilot-scale verification of these technologies. Ultimately, industrialization was achieved through the company's supporting production facilities, forming a fully integrated technological capability spanning R&D, technical validation, and commercialization. This further strengthened the company's innovation capacity and sustainable development capabilities.
- Yacheng New Energy was included in the sixth batch of National level Specialized, Elaborative, Characteristic and Innovative “Little Giant” Enterprises selected by the Ministry of Industry and Information Technology. It also received the prestigious 2023 “National High-tech Enterprise” certificate, marking its entry into the ranks of national high-tech enterprises for the tenth consecutive year.
- Yingfa Ruineng focuses on the R&D of high-efficiency crystalline silicon solar cells. It has established state-of-the-art laboratories and achieved significant breakthroughs in PERC and TOPCon technologies. The test efficiency of its n-type TOPCon bifacial cells reached an impressive 26.61%, setting a new industry record and securing a leading position in efficiency rankings.
- Easy-Sight collaborated closely with top universities both domestically and internationally to develop a first-class, integrated R&D system that seamlessly combines enterprises, universities and research institutions.

SDG 11 Sustainable Cities and Communities

Background: As global urbanization accelerates and urban populations continue to grow, cities are facing significant challenges in resource capacity, environmental sustainability, and social services. According to the *Sustainable Development Goals Report 2024*, urban development accounts for approximately 78% of global energy consumption and generates more than 60% of greenhouse gas emissions. Additionally, urban expansion often leads to the degradation of natural ecosystems. There is an urgent need to develop inclusive, safe, resilient, and sustainable cities and communities.

In response to SDG 11 Sustainable Cities and Communities, CECEP (Hubei) Fund has embraced a proactive approach. Staying true to its commitment to environmental protection and energy efficiency, the fund practices green operations, supports rural revitalization initiatives, and drives the construction of sustainable cities and communities. By doing so, it helps advance cities toward a new path of balanced economic, social, and environmental development.

Outcomes

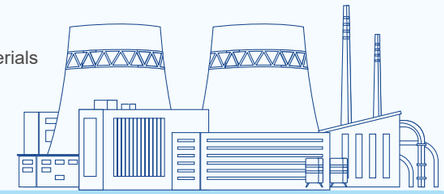
Easy-Sight

produced

522 pieces of testing equipment

12 pieces of repair equipment

120,531 meters of repair materials



3R

It leveraged resource reutilization to produce

180,000 tons

of ferric chloride, its polymer, and ferrous chloride, thereby advancing resource recycling efforts.

Actions

UN 2030 SDGs

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

China's Response

China has achieved historic milestones in housing and urban-rural development, adhering to the principle of people-centered new urbanization. With increasing capabilities in housing security, public service and urban environmental governance, China is making urban living more sustainable.

CECEP (Hubei) Fund's Response Progress

The fund actively encourages employees to participate in environmental protection initiatives, fostering a cleaner and healthier environment for work, life, and the shared protection of communities.

- Easy-Sight provides integrated digital solutions for the operation and maintenance of smart drainage pipe networks, along with a range of advanced detection and repair equipment and materials, significantly improving the quality of urban water bodies. The company won the second prize of the 2023 Huaxia Construction Science and Technology Award for its contributions to enhancing infrastructure and promoting urban development through technological innovation.
- Polycomp International's “5G + Industrial Internet” demonstration project was included in the 2023 Industrial Internet “5G Factory Pilot” Demonstration List by the Ministry of Industry and Information Technology.
- Yingfa Ruineng's subsidiary Yingfa Dekun secured investment from the Sichuan Green and Low-carbon Industry Development Fund to further strengthen its efforts in green, low-carbon, and PV industries, contributing to improved urban energy efficiency.

SDG 12 Responsible Consumption and Production

Background: Significant progress has been made in the global management of hazardous waste and chemicals; however, unsustainable consumption and production patterns persist. According to the *Sustainable Development Goals Report 2024*, the rapid development of information technology has led to a sharp increase in global electronic waste, yet only 22% of it is being recycled. As the volume of waste and consumables generated by daily human activities continues to rise, there is an urgent need for advancements in waste management and treatment technologies.

In alignment with SDG 12 Responsible Consumption and Production, CECEP (Hubei) Fund actively addresses these challenges by focusing on the waste disposal capabilities of its investment project companies. The fund emphasizes the importance of supervising safe production processes, minimizing waste emissions during manufacturing, and fostering cleaner, greener production practices to promote sustainability.

Outcomes

Changyuan Electric Power

Disposed more hazardous wastes and improved their recycling rate.

Yacheng New Energy

Released the *Yacheng Cobalt Supplier Standards*.

Actions

UN 2030 SDGs

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

China's Response

China remains steadfast in its commitment to an ecological priority and green development pathway. Through optimizing industrial, energy, and transportation structures, and encouraging green consumption, China has taken concrete steps towards green, circular, and low-carbon development, accelerating the adoption of sustainable production and lifestyles.

CECEP (Hubei) Fund's Response Progress

The fund adheres to a highly responsible approach toward waste management. It has established a comprehensive management system with clear waste reduction targets and conducted in-depth industry research on “Food Waste Treatment”, actively promoting waste recycling and reuse.

- Changyuan Electric Power ensured that all its thermal power units comply with emission standards, and all its waste gas treatment and emission reduction processes have passed environmental impact assessments and performed stable operation. These outcomes ensured compliance with the “three-simultaneous” environmental protection requirements, consistently reducing projects' negative environmental impact.
- CPIC has independently designed and built state-of-the-art refractory material processing and recovery equipment, enabling the recycling of precious metals like platinum and rhodium. This initiative promotes resource circulation while delivering significant economic and environmental benefits.
- Yueyang Xingchang employs advanced waste gas treatment technologies, such as “electrostatic demisting + alkaline washing” and “condensation + adsorption + water washing” for oil and gas treatment. These methods effectively address pollutants, ensuring sustainable production practices.
- Yingfa Ruineng's innovative Fishpond Solar Farm Project maximizes resource efficiency while fostering the development of green economy industries.

SDG 13 Climate Action

Background: Global greenhouse gas emissions continue to rise, exacerbating the frequency and intensity of extreme weather events and other natural disasters, which negatively impact ecosystems worldwide. In April 2024, the United Nations Development Programme (UNDP) launched the “2025 Climate Commitment” initiative, urging nations to take decisive climate action and work collectively to strengthen ecological protection.

In alignment with SDG 13 Climate Action and China's “dual carbon” strategy, CECEP (Hubei) Fund proactively integrates climate change strategies and mitigation measures into its investment framework. By conducting thorough due diligence, the fund aims to minimize the environmental and climate impacts of its investment portfolio while enhancing resilience to climate challenges.

Outcomes

Changyuan Electric Power

Reduced carbon dioxide emissions by **3.48** million tons

Yacheng New Energy

Reduced carbon dioxide emissions by **459** tons

Yingfa Ruineng

Reduced carbon dioxide emissions by **33.12** million tons

Reduce sulfur dioxide emissions by **4,075** tons

Reduce nitrogen dioxide emissions by **6,133** tons

Reduce carbon dust emissions by **887** tons

3R

Reduced carbon dioxide emissions by **594** tons

Actions

UN 2030 SDGs

13 Take urgent action to combat climate change and its impacts.

China's Response

China has integrated its carbon peaking and neutrality goals into the overarching framework of ecological civilization and its broader economic and social development strategy. At the 29th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP29), China officially released the *Action Plan on Early Warning for Climate Change Adaptation (2025-2027)*. This plan adopts a coordinated approach that targets both pollution reduction and carbon reduction, aiming to promote the comprehensive green transformation of economic and social development, and driving new advancements in addressing climate change.

CECEP (Hubei) Fund's Response Progress

The fund employed various tools to thoroughly assess the impact of climate change on its strategies and business operations and has formulated effective and forward-thinking measures to address such impact.

- Changyuan Electric Power implemented an annual carbon emission trading strategy, successfully coordinating the carbon quota and CCER quota trading for its Hanchuan, Qingshan, and new energy subsidiaries. Moreover, it organized experts to conduct carbon emission management research at its Suizhou subsidiary, urging them to standardize management processes promptly. Its Jingzhou and Qingshan subsidiaries have successfully obtained CNAS certificates.
- Yingfa Ruineng actively developed PV system components and participated in large-scale PV station projects, resulting in annual savings of approximately 12.1705 million tons of standard coal.
- Yacheng New Energy adopted the ammonia method to replace outdated processes for producing lithium battery cathode material precursors and other related products, reducing emissions equivalent to 168.90 tons of standard coal. In addition, it has further reduced its carbon footprint by implementing green electricity, solar panels, and other sustainable practices.

Progress on Key Investment Projects in 2024

Project 1: CHN Energy Changyuan Electric Power Co., Ltd.

Company Overview

Changyuan Electric Power specializes in thermal power, hydropower, renewable energy generation, and electricity sales. Guided by its corporate mission to serve as “Ballast of Energy Supply and Pioneer in Energy Revolution”, the company upholds its core values of “Promoting Green Development and Pursuing Excellence”. Adhering to its operational principles of being “practical, innovative, big, and strong”, Changyuan Electric Power remains committed to sustainable development.

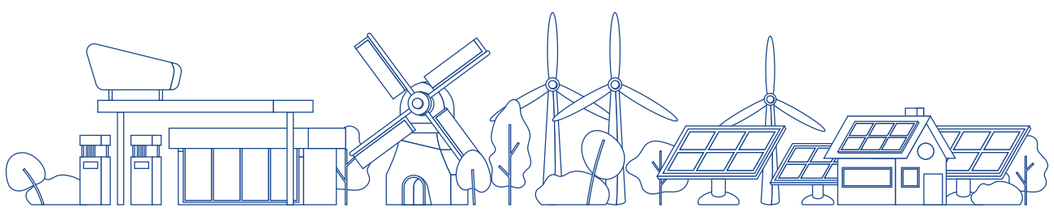
The company has established a robust ESG target management system, developed an ESG work plan, and implemented a dedicated ESG management framework. Its efforts have earned widespread recognition, including the “Most Responsible Listed Company in Hubei”, the “ESG Top Bull Award - ESG Newcomer Enterprise”, the “ESG Carbon Neutrality Top 50”, the “ESG Whale & Bull Award - ESG Governance Pioneer”, and inclusion in the “Central SOE ESG Pioneer 100 Index”. Notably, in 2024, Changyuan Electric Power was once again recognized on the “Central SOE ESG Pioneer 100 Index”, solidifying its reputation for excellence in sustainable development and earning broad acclaim for its practices.

- Most Responsible Listed Company in Hubei
- ESG Top Bull Award - ESG Newcomer Enterprise
- ESG Carbon Neutrality Top 50
- ESG Whale & Bull Award - ESG Governance Pioneer
- Central SOE ESG Pioneer 100 Index

Contribution to Sustainable Development

Changyuan Electric Power mainly contributed to the following SDGs:

- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action



Sustainable Development Cases

Case: 100 MW PV Project in Yanduhe Town, Badong County, Hubei Province

SDGs Contribution:

- Drive industrial innovation and upgrade, advancing green and low-carbon sectors
- Committed to addressing local employment challenges and advancing holistic rural revitalization
- The first phase of the project is estimated to save 38,500 tons of standard coal, and reduce carbon dioxide emissions by 93,000 tons

Project Progress:

This project is located in the Enshi Tujia and Miao Autonomous Prefecture in Hubei Province, an area rich in solar energy resources with excellent conditions for resource utilization. The project has a planned installed capacity of 100,000 kilowatts, and upon completion, it is expected to achieve approximately 962 equivalent full-load operation hours annually. In March 2023, it was included in the third batch of new energy projects for 2022 in Hubei Province. The project adopts the “agricultural-PV complementarity” model, which integrates solar power generation with agricultural development. Leveraging the unique characteristics of eroded low mountain terrains and undulating landscapes, it maximizes the use of solar energy while supporting agricultural activities. The project demonstrates significant environmental, social, and economic benefits. Once operational, it is expected to generate 118 million kilowatt-hours of clean electricity annually, save 38,500 tons of standard coal, and reduce carbon dioxide emissions by 93,000 tons. This initiative contributes to accelerating the development of Badong and Hubei's PV industry clusters, enhancing the overall competitiveness of Hubei's PV sector, and promoting green, low-carbon industries while fostering high-quality economic growth.

Case: 200 MW Fishpond Solar Farm Project in Haokou Town, Qianjiang City

SDGs Contribution:

- Innovative Fishpond Solar Farm Project, combining power generation above water with fish farming underwater
- An annual generation of 270 million kWh of clean electricity
- Expected to save 81,400 tons of standard coal and reduce carbon dioxide emissions by 221,700 tons

Project Progress:

The project is located in Wangtianhe Village and Xingfu Village, Qianjiang City, Hubei Province, covering an area of approximately 4,200 mu (approx. 281.4 ha.). The Fishpond Solar Farm Project integrates PV power generation, modern efficient fishery breeding, and ecological tourism. With a total investment of ¥1.02 billion and an installed capacity of 200,000 kilowatts, the project is expected to save 81,400 tons of standard coal and reduce carbon dioxide emissions by 221,700 tons.

The innovative Fishpond Solar Farm Project, combining power generation above water with fish farming underwater, achieves fishery-PV complementarity. This technology forms a new power generation model of "Power Generation on Water, Fish Farming Underwater", promoting the cross-integration of clean energy, agricultural production and aquaculture. It achieves the organic integration of triple benefits in power generation, fisheries, and ecology, driving the development of a circular economy.

Project 2: Chongqing Polycomp International Corporation

Company Overview

Polycomp International is a high-tech enterprise engaged in R&D, production, and sales of glass fiber and composite materials. Glass fiber is characterized by its high mechanical strength, excellent insulation, superior corrosion resistance, light weight, and exceptional strength. Glass fiber-reinforced composite materials offer outstanding performance, making them an ideal replacement for various traditional materials such as steel, aluminum, wood, cement, and PVC. These materials find broad applications across numerous industrial sectors and serve as a vital component of the strategic new materials industry.

In collaboration with the Institute of Chemistry, Chinese Academy of Sciences, Polycomp International successfully developed thermoplastic nylon-based continuous glass fiber composite material technology for use in pultruded solar module frames. This breakthrough marked a significant milestone, earning the world's first certification for thermoplastic solar module frames. Additionally, the results of its "5G+ Industrial Internet" demonstration project were selected for the 2023 Industrial Internet "5G Factory Pilot" demonstration list announced by the Ministry of Industry and Information Technology, contributing to the construction of foundational information infrastructure and innovative industries.

Contribution to Sustainable Development

Polycomp International mainly contributed to the following SDGs:

- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action

Sustainable Development Cases

Case: Low Dielectric Low Loss Glass Fiber Project for 5G High-Frequency Communication

SDGs Contribution:

- Promoting innovation-driven R&D to foster high-quality industrial development
- Driving local employment and supporting high-quality regional economic development

Project Progress:

Polycomp International has successfully achieved mass production of its independently developed 5G low-dielectric glass fiber, a material protected by the company's own intellectual property rights. This cutting-edge material has been applied in flagship mobile phones of leading domestic brands, as well as in critical wave-transmitting components for 5G high-frequency communications and other advanced products. Notably, the company's “5G + Industrial Internet” demonstration project was recognized by the Ministry of Industry and Information Technology, earning a spot on the 2023 Industrial Internet “5G Factory Pilot” Demonstration List.

The demand for low-dielectric, low-loss materials is critical in the advancement of 5G high-frequency communications. Traditional glass fiber materials often hinder dielectric performance, whereas Polycomp International's low-dielectric glass fiber significantly reduces dielectric constant and loss. Additionally, this innovative material is lighter in density, which effectively reduces product weight. Relying on product R&D and technological innovation, Polycomp International constantly improves its commercial value while driving industry advancement. It also delivers significant social benefits, contributing to regional economic development.

Case: "Thermoplastic Nylon-based Continuous Glass Fiber Composite Material Technology" Project

SDGs Contribution:

- Promoting innovation-driven R&D to foster high-quality industrial development
- Exploring green materials and circular economy practices

Project Progress:

The thermoplastic nylon-based continuous glass fiber composite material, jointly developed by Polycomp International and the Institute of Chemistry of the Chinese Academy of Sciences, has been successfully applied to solar module frames. This innovative material has passed rigorous testing by the globally renowned certification organization, TÜV Rheinland, achieving a major milestone as the first thermoplastic solar module frame to receive certification from the agency.

This thermoplastic composite material employs a weather-resistant special resin system designed with a novel molecular structure as its matrix and is manufactured using an innovative pultrusion molding process. This process integrates reaction polymerization, fiber impregnation, and reinforced composite technologies. The resulting material boasts exceptional weather resistance, superior mechanical properties, and the added benefits of being lightweight and recyclable. Thanks to these attributes, the material offers significant environmental and economic advantages. While it is ideal for solar module frames, it also has broad application potential in areas such as doors, windows, and pipelines. Furthermore, it plays a crucial role in supporting energy efficiency improvements, environmental protection, carbon emission reduction, and other key technologies related to industrial construction.

Project 3: Yueyang Xingchang Petro-Chemical Co., Ltd.

Company Overview

Yueyang Xingchang is an innovation-driven petrochemical enterprise dedicated to advancing the fields of new chemical materials, clean energy, and energy efficiency and environmental protection. Committed to driving the upgrade of the petrochemical industry, the company strives to be a leading supplier of high-quality products and services. As a comprehensive petrochemical enterprise integrating R&D, production, and sales, Yueyang Xingchang operates across three major sectors: energy & chemicals, new chemical materials, and finished oil retail. Its core products include propylene, liquefied petroleum gas, MTBE, and industrial isooctane, which serve a wide range of industries, including medical, food, textiles, industrial material manufacturing, modified materials, and civilian fuels.

Contribution to Sustainable Development

Yueyang Xingchang mainly contributed to the following SDGs:

- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 11: Sustainable Cities and Communities
- SDG 13: Climate Action

Sustainable Development Cases

Case: Annual 300,000-ton High-end Polyolefin Project, Exploring Circular Economy Practices

SDGs Contribution:

- Greatly increasing production capacity
- By-product recycling

Project Progress:

This project is located in the New Materials Industrial Park in Huidong County, Huizhou City. , with a total investment of 1.19 billion yuan. It adopts the SPG-II polypropylene process technology, utilizing specialized catalysts for polyolefins and proprietary integrated technologies for high-performance polyolefin products. Key construction components include polypropylene resin polymerization production units, R&D center, and supporting utilities and auxiliary facilities.

The production output encompasses polypropylene toughened modified specialty materials, polypropylene injection molding materials, and polypropylene fiber materials, with an annual production capacity of 300,000 tons. By integrating upstream green propylene and enabling recycling and reuse, the project advances the development of a circular economy and has obtained International Sustainability and Carbon Certification (ISCC). This project addresses the critical bottleneck issue within the metallocene polyolefin industry chain. It drives innovation to significantly increase polyolefin production capacity, and advance the high-end polypropylene industry, contributing to circular economy development.

Case: Innovation Base and R&D Center—Promoting Regional Technological Innovation

SDGs Contribution:

- Promoting innovation-driven high-quality corporate development
- The innovation base is dedicated to nurturing professional talent and has achieved significant milestones across the company and its subsidiaries, including a total of 50 intellectual property rights (39 valid patents, 6 trademarks, and 5 copyrights), and the completion of 26 R&D projects in 2024

Project Progress:

The company has established a New Materials Research Institute, comprising a state-of-the-art R&D center and an innovation base. This institute serves as an integrated platform for cultivating research talent, advancing research activities, and driving the commercialization of technological achievements. Internally, it aligns with the needs of the entire R&D value chain, while externally, it explores collaboration on technological R&D and project incubation. This approach effectively accelerates the commercialization of technological achievements, optimizes resource utilization, drives technological innovation, and strengthens the competitiveness of the industrial value chain.

The innovation base spans a total construction area of 16,839 square meters, with an investment of approximately ¥150.00 million. Equipped with multiple pilot units, it is the region's only specialized, platform-based facility for integrated pilot-scale verification. One of the company's landmark achievements is the independently developed “special polyolefin catalyst technology,” a historic breakthrough that has significantly advanced domestic polyolefin technology and disrupted the monopoly held by foreign high-end polyolefin producers. Together with earlier developed “special polyolefin new product development” technology, these innovations empower the entire industry chain from catalyst raw materials to finished products.

The R&D center is dedicated to developing innovative processes focused on low carbon emissions and efficient energy utilization, aiming to enhance resource efficiency. Additionally, it fosters professional talent together with the innovation base, creating local employment opportunities while delivering significant social and economic benefits.

Yueyang Xingchang Innovation Base and R&D Center Project

Project 4: Anhui Yingfa Ruineng Technology Co., Ltd.

Company Overview

Yingfa Ruineng specializes in the design, R&D, manufacturing, sales, installation, and services of PV cells, with a commitment to becoming an industry leader in cell innovation and excellence. The company's primary products are high-performance solar cells, featuring advanced monocrystalline cell technologies based on PERC and TOPCon, which serve as the core components of the PV industry chain.

In 2024, Yingfa Ruineng was named among the Top 20 Global PV Cell Companies by 365 Solar and other leading institutions. Additionally, the company was honored with the title of “Top 10 PV Cell Brands of 2024”, further solidifying its brand awareness and reputation as a trusted name in the industry worldwide.

Contribution to Sustainable Development

Yingfa Ruineng mainly contributed to the following SDGs:

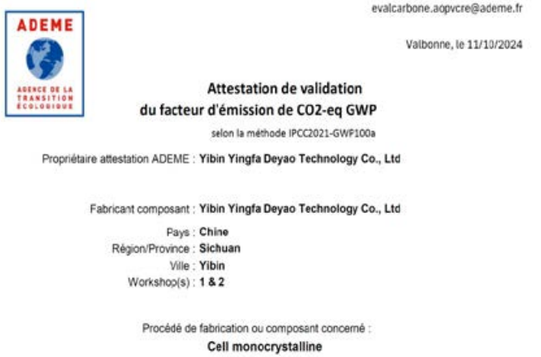
- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 11: Sustainable Cities and Communities
- SDG 13: Climate Action

Sustainable Development Cases

Case: Yingfa Deyao Obtains French Carbon Footprint Certification, Leading the Green Development of the PV Industry

Project Progress:

In October 2024, Yingfa Deyao took a significant step toward advancing the green development of the PV industry. Its solar cell products successfully obtained the French Carbon Footprint PPE2 certification, issued by the French Energy Regulatory Commission, earning the “golden key” for PV products to access the French and broader European markets. Introduced in 2023, the PPE2 certification sets a higher standard for the green performance of PV products, raising the bar for energy efficiency and sustainability. Yingfa Deyao's solar cell products met these stringent requirements through their low energy consumption and environmentally friendly, low-emission manufacturing processes, securing a strong foothold in the European market.



ADEME

AGENCE DE LA TRANSITION ÉCOLOGIQUE

evalcarbone.aopvcre@ademe.fr

Valbonne, le 11/10/2024

Attestation de validation
du facteur d'émission de CO2-eq GWP

selon la méthode IPCC2021-GWP100a

Propriétaire attestation ADEME : **Yibin Yingfa Deyao Technology Co., Ltd**

Fabricant composant : **Yibin Yingfa Deyao Technology Co., Ltd**

Pays : **Chine**
Région/Province : **Sichuan**
Ville : **Yibin**
Workshop(s) : **1 & 2**

Procédé de fabrication ou composant concerné :
Cell monocrystalline

France Carbon Footprint PPE2 Certificate

Case: Yingfa Ruineng Yibin Base Phase IV Factory 8.64 MW Distributed PV Power Generation Project

SDGs Contribution:

- Promoting regional PV industry and sustainable economic development
- Generating 33.40 million kWh of clean electricity per year once completed
- Expected to save 9,360 tons of standard coal and reduce 25,800 tons of carbon dioxide emissions per year

Project Progress:

The project represents a key milestone in the local PV industry development. In September 2024, the fourth phase of the Yingfa Ruineng Yibin Base — an 8.64 MW distributed PV power generation project — was officially connected to the grid, marking another significant step in the journey toward green and low-carbon energy solutions. This follows the successful grid connection of the 29.25 MW distributed PV power generation project from the first and second phases in March of this year.

The first phase of the project was connected to the grid in early 2022, delivering an annual power generation capacity of approximately 110 million kWh upon full operation. Once the entire 300 MW capacity is operational, annual power generation is expected to reach 350 million kWh. The fourth phase is strategically located on the roof of the factory building, covering a total area of 51,400 square meters. It involves the installation of approximately 17,700 PV modules and 2.55 million cells, with an expected annual power generation capacity of 7.8 million kWh. To date, the Yingfa Ruineng Yibin Base has connected 37.89 MW of distributed PV power generation projects to the grid, achieving an annual power output of around 33.40 million kWh. This is equivalent to saving 9,360 tons of standard coal and reducing 25,800 tons of carbon dioxide emissions annually.

Yingfa Ruineng Yibin Base Fourth-Phase 8.64 MW Distributed PV Power Generation Project

The Yingfa Ruineng Yibin Base Fourth-Phase 8.64 MW Distributed PV Power Generation Project is a key public initiative aimed at supporting the goals of “carbon peaking and neutrality”. This project integrates fishery farming with PV power generation, creating a new resource utilization model that maximizes efficiency by generating electricity above while supporting aquaculture below. This approach not only ensures comprehensive space utilization but also promotes the sustainable development of a circular economy.

Project 5: Hunan Yacheng New Energy Co., Ltd.

Company Overview

Yacheng New Energy, established in 2007, is a national high-tech enterprise that integrates production, academia, and research. It has also been recognized as a National level Specialized, Elaborative, Characteristic and Innovative “Little Giant” Enterprise at the national level. The company focuses on research, development, production, and sales of lithium battery cathode material precursors, including iron phosphate, ferromanganese phosphate, cobalt additives, and cobalt tetroxide.

Currently, Yacheng New Energy operates three intelligent production bases located in Hunan and Guizhou, with two additional bases in the Ningxiang Economic Development Zone. The company holds numerous national invention patents and has been accredited as an Enterprise Technology Center in Hunan Province and a National High-tech Enterprise. As a leader in China's iron phosphate sector, Yacheng New Energy is steadily advancing toward its goal of becoming a world-class supplier of lithium battery cathode material precursors.

Contribution to Sustainable Development

Yacheng New Energy mainly contributed to the following SDGs:

- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action

Sustainable Development Cases

Case: The Fourth-generation High Compaction Density Iron Phosphate Pilot Production Project — Achieving the Goal of Becoming a World-Class Lithium Battery Cathode Material Precursor Supplier

SDGs Contribution:

- Embracing low-carbon and environmentally friendly principles to foster intelligent and safe production
- Driving the growth of the new energy sector and other green, low-carbon industries
- Supporting and enhancing local employment opportunities

Project Progress:

The company places a strong emphasis on innovative R&D, supported by a dedicated R&D team of over 100 professionals. Its core R&D force is composed of experts from prestigious universities, including the University of Manchester, Dalhousie University, Zhejiang University, Central South University, and Hunan University. Currently, Yacheng New Energy boasts a production capacity of 15,000 tons of cobalt products and 110,000 tons of iron phosphate.

In 2024, the company successfully initiated trial production of its fourth-generation high compaction density iron phosphate products. Compared to traditional iron phosphate, these advanced products feature an increased density, offering significant performance enhancements when used in cathode materials for batteries. The project integrates intelligent digital factories and fully automated production lines to improve both quality and efficiency. Its state-of-the-art 50,000-ton iron phosphate production line relies on complete machine automation, from raw material feeding to finished product output, thereby establishing an innovative, information-driven green supply chain.

This endeavor is underpinned by stable production processes and cutting-edge technologies. Through continuous innovation, the company has built a comprehensive green production system for high compaction density iron phosphate, effectively advancing clean and sustainable production practices while fulfilling its environmental responsibilities. In addition, Yacheng New Energy remains committed to enhancing product quality through ongoing technological innovation to meet increasingly stringent market demands. The company has established industry-leading research institutes and testing centers and has successfully obtained certifications from the China National Accreditation Service and the Hunan Enterprise Technology Center.

Project 6: Wuhan Easy-Sight Technology Co., Ltd.

Company Overview

Easy-Sight is a high-tech enterprise specializing in the R&D and production of technologies, equipment, and materials for the detection, evaluation, maintenance, and repair of water supply and drainage networks. The company has successfully developed a range of pipeline detection, maintenance, and repair products, along with information platforms, all of which are protected by independent intellectual property rights. These innovations are widely applied across various fields, including geophysical exploration, urban construction, municipal administration, national defense, water resource management, hydropower, and other critical infrastructure sectors. The company has made significant advancements in pipeline information technology, achieving continuous breakthroughs. By integrating GIS technology with cloud computing, the Internet of Things, and other cutting-edge technologies, Easy-Sight has effectively consolidated spatial base information of drainage networks. This has resulted in the development of a unique and replicable urban drainage network geographic information system.

Contribution to Sustainable Development

Easy-Sight mainly contributed to the following SDGs:

- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 11: Sustainable Cities and Communities

Sustainable Development Cases

Case: Donghu Basin Swan Lake Catchment Demonstration Area Information System Project — Promoting Sustainable Urban Construction

SDGs Contribution:

- Ensuring drinking water and water ecosystem safety
- Leveraging innovation to drive urban infrastructure construction

Project Progress:

The company's smart drainage solution is designed to address the comprehensive needs of drainage management processes by leveraging advanced technologies such as Geographic Information System (GIS), 3D modeling, Global Positioning System (GPS), mobile Internet, and Internet of Things (IoT) communication. As a demonstration project for Easy-Sight's smart drainage solutions, the system integrates all elements related to its facilities and networks and the geographical distribution of lakes and rivers, to systematically enhance regional sewage collection, treatment, drainage, and other related functions, thereby elevating the quality of urban infrastructure. Moreover, through integrated rainwater and sewage diversion, pipeline repair, and the identification and remediation of errors and leaks, the project significantly increases sewage collection rates and inlet concentrations at treatment plants. It also reduces sewage overflow and odor emissions, ensuring safe water use for residents and contributing to an improved quality of life for the local population. Furthermore, the project plays a critical role in advancing sustainable urban development.

"Kunpeng" Smart Drainage Platform

Abbreviation Table

Full Name	Abbreviation
CECEP (Hubei) SDG Industry Equity Investment Fund Limited Partnership	CECEP (Hubei) Fund
CECEP Yihe (Hubei) Private Equity Fund Management Co., Ltd.	CECEP Yihe
CECEP Capital Holding Co., Ltd.	CECEP Capital
China Energy Conservation and Environmental Protection Group Co., Ltd.	CECEP
Daiwa Corporate Investment Co., Ltd.	Daiwa Investment
Changjiang Industry Investment Group Co., Ltd.	Changjiang Industry Investment
Hubei High-tech Industry Investment Group Co., Ltd.	Hubei High-tech Investment
National Green Development Fund Co., Ltd.	NGDF
Hubei Wings Investment Management Co., Ltd.	Wings Investment
CHN Energy Changyuan Electric Power Co., Ltd.	Changyuan Electric Power
Chongqing Polycomp International Corporation	Polycomp International
Yueyang Xingchang Petro-Chemical Co., Ltd.	Yueyang Xingchang
Wuhan Easy-Sight Technology Co., Ltd.	Easy-Sight
3R Environmental Technology Co., Ltd.	3R
Anhui Yingfa Ruineng Technology Co., Ltd.	Yingfa Ruineng
Hunan Yacheng New Energy Co., Ltd.	Yacheng New Energy

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