



# 2022 Environmental, Social and Governance (ESG) Report

Arctech Solar Holding Co., Ltd.



**Arctech Solar Holding Co., Ltd.**

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# About the Report

## Report instructions

This is the first Environmental, Social & Governance (ESG) report of Arctech Solar Holding Co., Ltd. to the public, aiming to genuinely reflect the achievements and practice performance of the Company of ESG in 2022, openly report our corporate operations to our shareholders and creditors, partners, employees and other related stakeholders with an in-depth perspective of our social responsibility actions. We expect to reinforce communication with stakeholders and build consensus for sustainable development through the publication of social responsibility reports.

## Reporting period

This is an annual report covering the period from 1 January 2022 to 31 December 2022, and some of contents have been extended to enhance the comparability and forward-looking nature of the report.

## Reporting scope

The "Arctech Solar Holding Co.,Ltd" is the subject of the report, including its subsidiaries. Unless otherwise stated, the scope of this report is consistent with the scope of the Company's annual report.

## Reporting principles

- *Sustainable Development Goals*
- *Global Reporting Initiative Standards (GRI Standards)*
- *Self-Regulation Guide 1 for Listed Companies on STAR Market-Standard Operation of SHSE;*
- *Guidelines for Compilation of Chinese Corporate Social Responsibility Report (CASS-ESG 5.0) of Chinese Academy of Social Sciences;*

## Sources and Reliability Assurance

All information and data quoted in this report are obtained from official documents, statistical reports and financial reports of Arctech, internal data of each functional department and each operating unit and public information which have been counted, summarized and reviewed by the Company. Also, the currency types and amounts involved in this report are measured in RMB unless otherwise specified. In case of discrepancies between the financial data and the annual report, the annual report shall prevail.

## Assess to the report


To practice the concept of low-carbon environmental protection and sustainable development, this report can be read online or downloaded electronic version of the report at the Company's website (<http://www.arctechsolar.cn>) and SSE's website (<http://www.sse.com.cn>). For other information about the Company besides this report, please refer to the Company's annual financial report or visit the Company's website.


## Feedback

We are very concerned about your opinions on our social responsibility work and this report. If you have any ideas and suggestions about this report, please contact us as below. We sincerely thank you for your valuable comments.

Yijun Liu


Secretary of the Board of Directors  
(Representative in the disclosure of information)


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Wenxia Zhang

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## Definition of terms

In this report, for the convenience of expression and reading, the terms listed below shall have the following meanings (unless the context otherwise states):

Abbreviations	Interpretation
Arctech/Company/We	Arctech Solar Holding Co.,Ltd
CGNPC	China General Nuclear Power Group
Tracker/Tracking System	A device which increases power generation by adjusting the spatial angle of the solar module plane relative to the incident sunlight in real time to raise the irradiance of sunlight projected onto the solar module by the combined action of mechanical, electrical and electronic circuits and programs.
BIPV	Building-integrated photovoltaics is a photovoltaic power generation system that is designed, constructed and installed simultaneously with the building and integrates perfectly with the building, which not only plays the function of building materials (such as wind, rain, heat insulation, etc.) but also plays the function of power generation, making the building become a green architecture.
Back-tracking	A tracking algorithm in which the solar structure operation direction is opposite to the sun operation direction. The non-tracking optimal solar radiation angle is designed to avoid solar panel shading when the solar altitude angle is relatively low
Photovoltaic (PV) Power Generation	A power generation technology converts solar energy directly into electricity by the photovoltaic effect
Photovoltaic Modules	The core part of a solar power system is to convert solar energy into electricity and send it to the battery for storage or to drive the load
Fishery and Light Complementary	It is the combination of fishery farming and photovoltaic power generation, photovoltaic panel arrays are set up above the fish ponds, and fish and shrimp farming can be carried out in the waters below the photovoltaic panels, providing good shading for fish farming, and creating a new power generation model of " power generation above the fish pond and fish farming below it".
Agricultural and Light Complementary	It is the combination of agricultural planting and photovoltaic power generation, planting vegetables inside the shed, photovoltaic power generation outside the shed. In addition to the power generated for the use of the shed, the balance will be integrated into the public grid.
GW、 MW	Unit of power, one gigawatt (GW) equals 1,000 megawatts (MW), one megawatt (MW) equals 1,000,000 watts (W)

Abbreviations	Interpretation
IEC	The International Electrotechnical Commission, the world's first non-governmental international electrical standardization body, has a series of standards and detailed guidelines.
UL	The Underwriters Laboratories, the most authoritative private institution in the United States which engaged in safety testing and identification in the world, mainly engaged in the business of product safety certification and operating safety certification.
TÜV	The Technical Supervisory Association, an officially authorized governmental supervisory organization in Germany, conducts safety certification of industrial equipment and technical products as well as assessment and audit of quality assurance systems and environmental systems.
CE	CE marking is a mandatory safety certification mark, all products circulating freely in the EU market must be affixed with the CE mark to show that the product meets the basic requirements of the EU directive of "New Approach to Technical Harmonization and Standardization".
Intertek	Intertek, headquartered in London, is one of the world's largest consumer goods testing, inspection and certification companies, providing a comprehensive range of testing, inspection and certification services.
B&V	Black & Veatch, a global 500 design, consulting and construction firm specializing in infrastructure construction in the areas of energy, water engineering, information industry, management consulting, government and environmental projects.
EPC	Engineering Procurement Construction, the main contractor enters into a contract with the owner and contracts for the design, procurement, construction and commissioning of the entire project as agreed, and is fully responsible for the quality, progress and cost of the project, which is handed over to the owner upon acceptance of the project.
DNV · GL	A global quality assurance and risk management organization provides world-renowned testing and consulting services for the renewable energy value chain, including certification of all materials, components and systems related to the safe operation and quality of ships, offshore installations, industrial equipment and other industrial applications.
CPP	Cermak Peterka Petersen Inc.

# “ Message from the Chairman



**The past year has been an extraordinary year for Arctech.** Despite the complex and ever-changing global macro environment, Arctech has firmly committed to our corporate mission and vision with high-quality innovation as the cornerstone and with a high-level service as the grip, achieving a series of breakthroughs by upgrading our development strategy.

In 2022, we upgraded our innovation mindset to enhance product competition with high quality innovation throughout the product life cycle. We launched the world's first double-row multi-point parallel synchronous drive and linkage tracking system—Skywings in line with the needs of the times. In 2022, we improved our competitive consciousness and service competitiveness by integrating project full-cycle services into the customer value chain, and we won a series of large GW-level orders, with cumulative global shipments reaching 50GW. In 2022, we enhanced our intelligent manufacturing and scale advantages, and built a global supply chain to ensure leading corporate performance. Our joint venture factory in India was officially opened, laying a solid foundation for Arctech to further develop the international markets.

In 2023, although the global economy is gradually rebounding, it is foreseeable that we will still be in an era of uncertainty for a long time. We know that in order to realize our vision of "becoming a leading enterprise in the global targeted market segment", we must focus on our own development as well as our corporate social responsibility more than ever, and infuse green energy into the sustainable development of our Company and society.

**ESG is an essential yardstick to measure the sustainable development of enterprises, and the construction of a high-standard ESG system has become a mandatory course for outstanding enterprises.** We hope that through the following efforts, Arctech can become an excellent ESG practice company in China, promoting sustainable corporate development to make a great progress for the society.

**Growing towards the sun, strengthening the green base.** The 20th Party Congress drew a new blueprint for China's energy development, and the photovoltaic (PV) industry is ushering in a golden era. We must be determined to anchor progress, integrate global resources, innovate and develop technology and advanced manufacturing power, solidify the green color of enterprise development with technology at a deeper and higher level, empower the industrial ecology, promote industrial upgrading, and contribute to the progress of human society.

**Never forget the original intention and promote integration and win-win cooperation.** To face the new situation of world development, we should implement the core values of integrity and wisdom comprehensively, lead and drive the value creation cycle with value, always oriented to be able to provide customers with more valuable services, implement customer integration strategy comprehensively, and build a strong international brand influence.

**Adhering to people-oriented to establish a striving mechanism.** The most precious resource of an enterprise is talent, and the competition of talent is the fundamental of enterprise competitiveness. We firmly adhere to people-oriented and commit to building the contractual spirit between employees and enterprises. We insist on value-oriented and create a striving mechanism, allowing all members of Arctech to grow and realize themselves.

**Returning to the society and practicing responsibility.** As a PV enterprise, Arctech is deeply aware that enterprise, society and environment are an inseparable "community of destiny". In order to develop sustainably, enterprises not only need to grow upward, but also need to act for good. Companies must go beyond the traditional concept of profit as the only goal and focus on environmental and social contributions in the process of development. Arctech always insists on returning to the society and delivering warmth to society to achieve a dynamic balance of economic, social and environmental responsibilities of the enterprise and enhance its good reputation and image.

**In the future, we will focus on our main business, achieve combined innovation by superimposing different technologies, enhance customer value, and reduce costs and increase efficiency for photovoltaics.** Meanwhile, we are going to implement the core values of "Passion, Integrity, Persistence, Cooperation", assume social responsibility and contribute green power to social development.

# Report Overview

Arctech Solar Holding Co., Ltd.



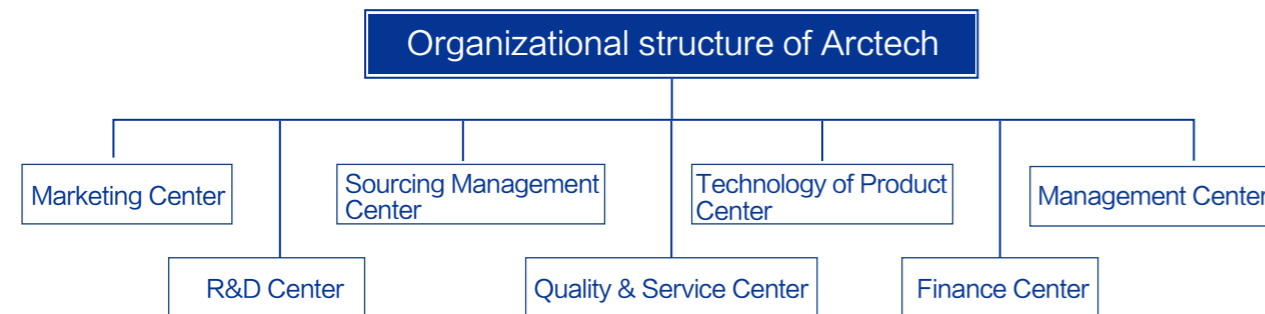
# About Arctech

## Company profile

Founded in 2009, Arctech was listed on Shanghai Stock Exchange (SSE-STAR: 688408.SH) on 28 August 2020, its headquarters is located at Kunshan, Jiangsu.

With the mission of “Empowering Technology, Leading Industry Development”, Arctech is a high-tech enterprise and a world-leading manufacturer and supplier of intelligent solar trackers, fixed structures and BIPV solutions, insisting on a global perspective, adhering to the core values of "Passion, Integrity, Persistence, cooperation", making global layout in the field of photovoltaic structures, integrating global resources and forging global competitiveness, with the main business of research and development, design, production and sales of intelligent solar trackers, fixed structures and BIPV solutions.

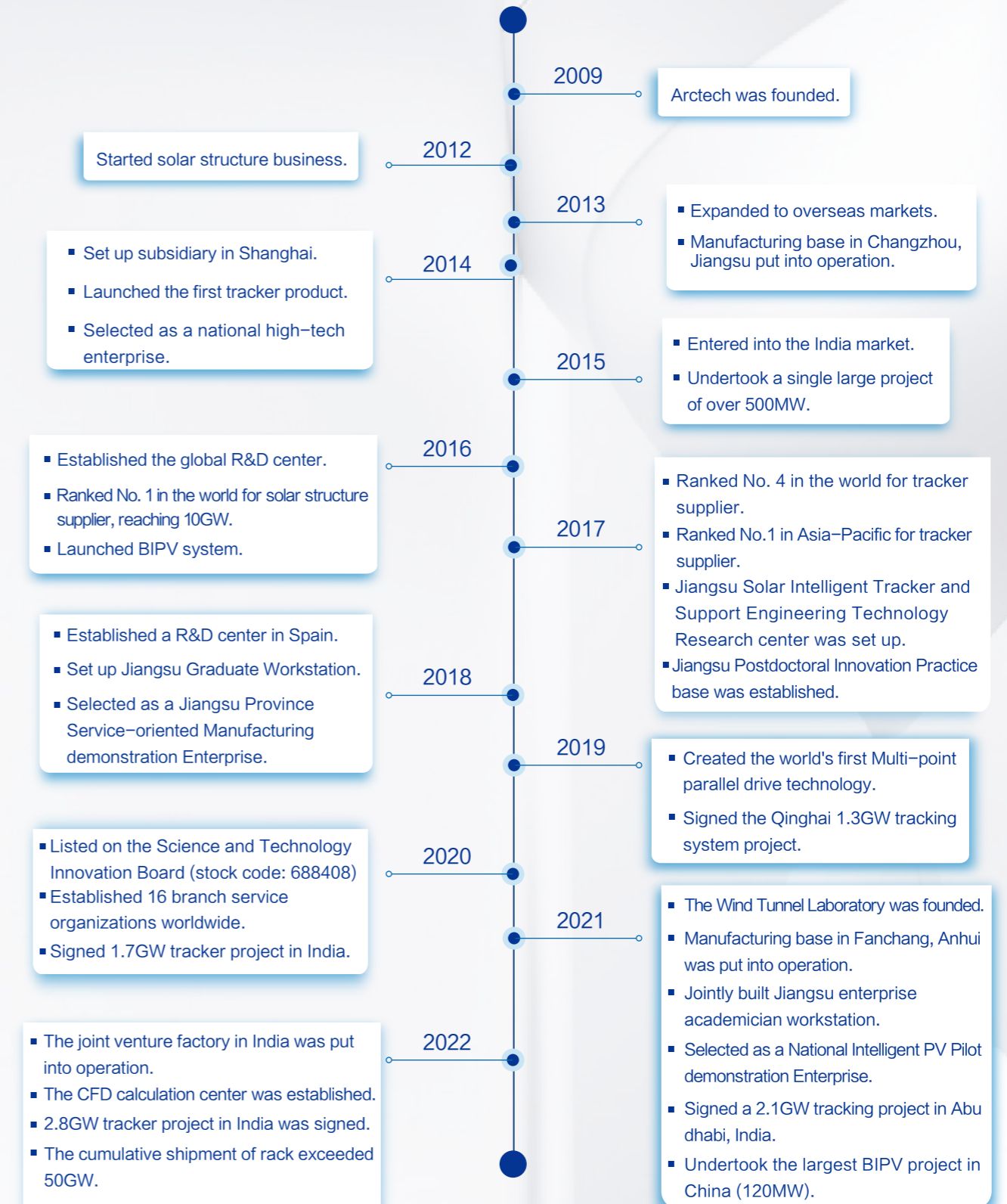
The major products and services of Company include PV power generation system trackers, fixed structure, industrial and commercial BIPV system solutions and key components supporting products etc., there are three major manufacturing bases in Changzhou, Jiangsu, Fanchang, Anhui and Gujarat, India, with an annual manufacturing capacity of over 12GW. Arctech is among the top in the world with shipments of trackers, the No. 1 in Asia Pacific for consecutive years, and the first in China for installations of large-scale BIPV commercial and industrial rooftop projects.



## Global business layout

Arctech is committed to be a leading enterprise in the global targeted market segment. As of the end of 2022, Arctech has supplied over 50GW of tracking systems to nearly 1,500 PV plants in more than 40 countries, with the rapid development, the Company has set up Subsidiaries, branches and service centers in China, Japan, India, the U.S., Spain, Australia, UAE, Mexico, Chile, Brazil, Vietnam and Argentina.

## Our history



## Products & solutions

The Company has three major product categories: PV trackers, fixed structures and BIPV solutions.

### Solar structures

The solar structure/tracker is known as the bone structure of photovoltaic power plant, its performance directly affects the power generation efficiency and investment income of photovoltaic power plant, and it is one of the main equipments of all ground photovoltaic power plants. The tracker is the core product of the Company. The tracker is significantly higher than the fixed structure in terms of technical threshold and power generation efficiency, which can achieve the effect of tracking the sun's altitude angle and azimuth angle by motor control to obtain more solar radiation and thus increase the power generation.

### Trackers/Tracking systems



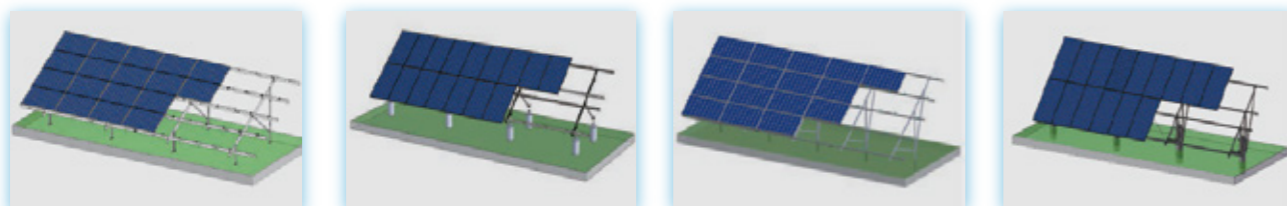
Independent row 1P tracker, single-point drive

Independent row 2P tracker, multi-point parallel drive

Independent row 1P tracker, multi-point parallel drive

Two-rows linkage tracking, multi-point parallel drive

### Fixed structures



Horizontal Dual-Pole Fixed Structure

Vertically Dual-Pole Fixed Structure

Horizontal Single-Pole Fixed Structure

Vertically Single-Pole Fixed Structure



Wireless Synchronous Seasonal-tilt Structure

Electric stepless adjustable seasonal-tilt Structure

Actuator+Circular Square Tube Seasonal-tilt Structure

Movable Arm Mechanism Seasonal-tilt Structure

### BIPV solutions

Building Integrated Photovoltaic (BIPV) is a power generation system, which is usually integrated or combined with the building structure as part of the building. BIPV can achieve the traditional purposes of sheltering the roof of a building from wind, rain, heat and water, but also play the role of photovoltaic power generation to realize the green, energy-saving and environmental protection functions of the building, continuously generate economic benefits and realize the dual carbon strategy.

### BIPV solutions



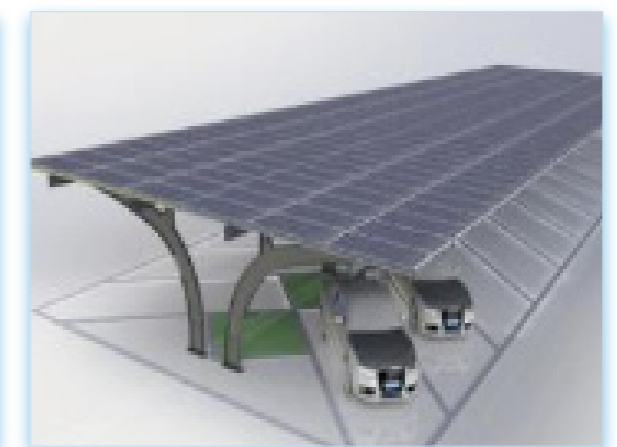
Smart Rooftop BIPV



Ruiding BIPV



Dual Rooftop BIPV



Solar Carport BIPV



## Our culture

Fair and Honest | Faith in the original aspiration | Fighting for the Future



**Mission**  
Empowered by technology, Arcotech Solar strives to lead the industry development.



**Vision**  
To be a leading enterprise in the global targeted market segment.



**Core Values**  
Passion, Integrity, Persistence, cooperation


### Honors and awards


Serial number	Award time	Honor name	Awarded by
1	Feb 2023	2022 Leading China Renewable Energy "PV Top 100" Excellent PV material/equipment enterprises	Renewable Energy Industry Association of Jiangsu
2	Feb 2023	2022 China Good Photovoltaic "Top 10 brands of PV Rack of the Year"	International Energy Network International Energy Research Institute
3	Feb 2023	2022 China Good PV "Top 10 BIPV brands of the Year"	International Energy Network International Energy Research Institute
4	Dec 2022	2022 Most Influential PV Rack Enterprise	Light Energy Cup Selection Committee
5	Dec 2022	PVBL2022 Global PV Technology Innovation Award	PVBL PV Brand Lab
6	Dec 2022	PVBL2022 Global PV Brand Top 100	PVBL PV Brand Lab
7	Nov 2022	OFweek 2022 Annual Excellence PV Rack Enterprise	OFweek Network
8	Nov 2022	OFweek 2022 Outstanding BIPV Solution Company of the Year	OFweek Network
9	Nov 2022	2022 Star PV building Integrated Photovoltaic (BIPV) Technology Leadership	The 3rd China Industrial and Commercial PV Conference Organizing Committee
10	Sep 2022	The 11th "Polaris Cup" 2022 Annual Influential PV Racking Brand	Polaris Solar PV Network
11	Sep 2022	The 11th Polaris cup 2022 Annual Influential BIPV Solution Company	Polaris Solar PV Network
12	Jul 2022	2021 China Good PV "Excellent PV Racking Supplier"	International Energy Network
13	Jul 2022	2021 Top 500 New Economy Enterprises in China	China Enterprise Evaluation Association
14	May 2022	"2021 China Renewable Energy Society Science and Technology Award	The Chinese Renewable Energy Institute
15	Jan 2022	Vice Chairman of China Photovoltaic Industry Association Photovoltaic Building Professional Committee	China Photovoltaic Industry Association Photovoltaic building Professional Committee
16	Jan 2022	2021 Hurun China Top 500	Hurun Research Institute
17	Dec 2021	2021 China Machinery Top 500	China Machinery Industry Enterprise Management Association
18	Dec 2020	The 10th Global Top 500 New Energy Enterprises	China Energy News




Honors overview

## Key Performance

Economic Performance 			
Operating income	Net profit attributable to shareholders of the listed Company	Total assets	R&D investment
<b>3,720.59</b> million	<b>44.43</b> million	<b>5,592.36</b> million	<b>127.39</b> million
R&D revenue ratio	Total granted patents	Annual granted patents	
<b>3.44</b> %	<b>413</b> Cases	<b>121</b> Cases	

Environmental Performance 		
Installed photovoltaic capacity	Environmental investment	Greenhouse gas emissions
<b>23.65</b> MW	<b>2.87</b> million	<b>15,950,988.78</b> tCO <sub>2</sub> e
Carbon emissions reduction with green electricity	Major Environmental Violations	
<b>13,014.69</b> tCO <sub>2</sub> e	<b>0</b> Case	

Social Performance 				
Total employees	R&D personnel	Proportion of R&D personnel	Employee medical examination coverage rate	
<b>1,290</b> Persons	<b>161</b> Persons	<b>12.48</b> %	<b>100</b> %	
Incidence rate of employee occupational disease	Employee training investment	Overall employee turnover rate	Employee training coverage rate	Employee satisfaction
<b>0</b> %	<b>1.20</b> million	<b>4.2</b> %	<b>91</b> %	<b>90</b> %

### 2022 Major events

#### March: Arctech's 2022 whitepaper was released

Arctech's 2022 whitepaper was released to explore the new path of "Increase PV Energy Yield with Superior Stow Parameters Enabled by Rigid Trackers".



#### April: Built the largest fishery and light complementary power plant in Shanghai



Arctech teamed up with CGNPC to build Shanghai's largest fishery and light complementary power plant, helping Chongming to build a world-class ecological island. This new project is another practice of green economy development and another benchmark case of "PV+" application of Arctech.

#### May: SkyLine II made its debuts at Intersolar Germany

The debut of SkyLine II at Intersolar Germany gained great attention from many developers, EPCs, investors and other partners in Europe and around the world. As the world's largest and most influential solar energy professional exhibition so far, Intersolar Europe gathered a lot of international well-known companies in the field, providing a great platform for Arctech to communicate with European and global customers, and more overseas customers have a more in-depth understanding of Arctech through this exhibition.



#### June: Participated in the construction of China's first tidal and light complementary power plant



China's first tidal and light complementary power plant, the 100MW tidal and light complementary intelligent PV power plant in Wenling, Zhejiang, was successfully connected to the grid, which means that China's new energy development and utilization has reached a new level. Arctech's participation in the construction of this power plant has further enriched the Company's PV tracking system solution and accumulated sufficient experience for maximizing the exploitation of marine resources in the future.

**120MW BIPV project connected to the grid in the first phase**

June

The first phase of a 120MW rooftop distributed PV project in Gaoan, Jiangxi, was successfully connected to the grid. The project not only meets the design requirements of conventional buildings in terms of leakage resistance, settlement resistance and expansion resistance, but also has various advantages such as saving roof tiles, easy module adaptation, strong anti-vibration, excellent pressure resistance, good lighting and ventilation, and high installed capacity.



**Launched SkyWings tracking system**

August

Arctech's SkyWings tracking system is the world premiere, which adopts Arctech's exclusive patented bi-directional drive design and Arctech's exclusively developed triple D torque tube. It also adopts Arctech's first multi-point parallel drive technology to explore the optimal solution for the era of large bases with higher safety, higher adaptability and higher profitability.



**India joint venture plant officially starts production**

August

Jash Energy, Arctech's first joint venture manufacturing base in Mundra, Gujarat, India, covering 16 acres of land, with an annual capacity of 3GW, is the first base in India dedicated to the production of solar trackers. The commissioning of the joint venture plant marks a new step in Arctech's global strategy and lays a solid foundation for Arctech to further develop the international market.



**R&D Center Lab was qualified by national accreditation**

October

Arctech's R&D Center Lab was awarded the laboratory accreditation certificate by China National Accreditation Service for Conformity Assessment (CNAS), which means that Lab has national and international level testing capability.



**Solar structures supplied to Latin America reached 3GW**

November

Arctech has obtained two major orders in Brazil for a total of 468 MW, and with its excellent performance and optimal solutions, Arctech is one of the leading solar structure suppliers in the Latin America reaching 3GW by the end of 2022.



**Escorted the world's largest water and light complementary PV plant**

December

Arctech fully escorted the world's largest water and light complementary project. The Yalong River hydropower plant is the world's largest and highest altitude water and light complementary power plant, Arctech provided a 430MW SkySmart II tracking system, which can ensure the stability of system operation under extreme weather (especially strong wind) conditions, and the wind resistance of a single system is effectively increased by 200%, completely solving the problem of instability of traditional 2P system in extreme weather conditions.



**2.8GW tracker project in India was signed**

December

Arctech has signed a 2.8GW supply agreement for SkyLine II tracking system with the largest project developer in Gujarat, India. With this superb order, Arctech will ship a total of 7GW of solar structures to the Indian market, while marking the Company's unquestionable leading position in the region.



# ESG Management

## ESG concept

Arctech positively implements the concept of sustainable development, continuously pursues sustainable development and contributes to the construction of China's economy. The Company ensures compliance with the law, actively fulfills our social responsibility with an altruistic heart, and insists on treating partners with an open and cooperative attitude to establish an industrial ecology of common progress and win-win situation. Our development will never be at the cost of environmental damage, and we will be a "resource-saving and environment-friendly" enterprise.

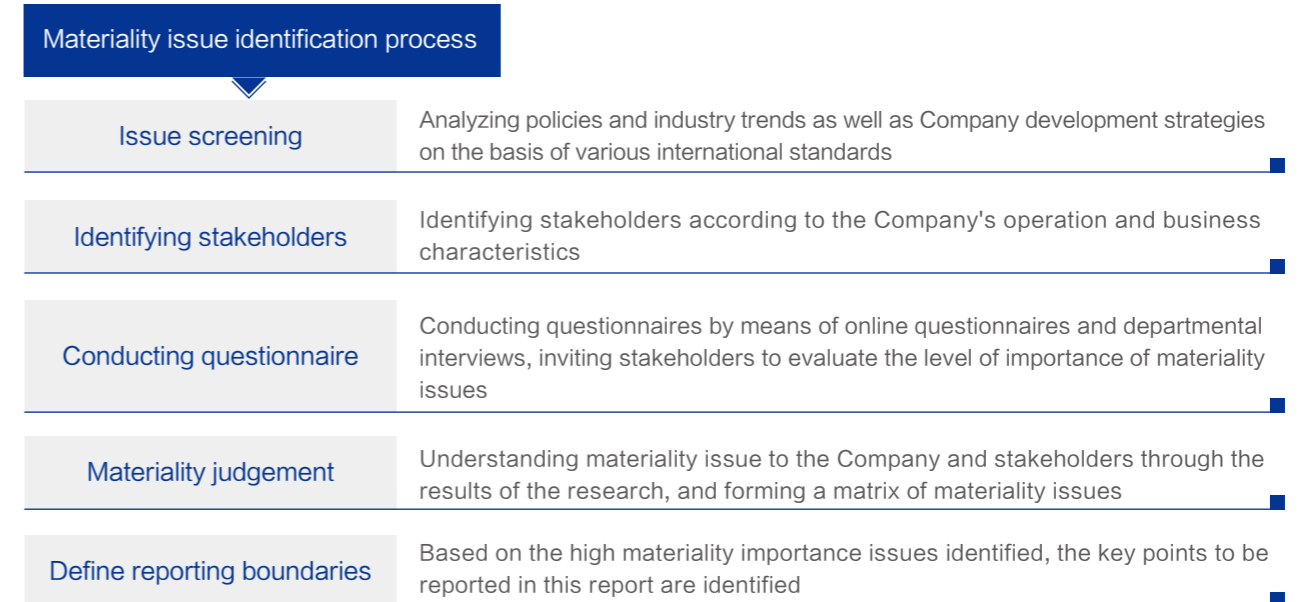
## Communication with stakeholders

The Company attaches importance to communication with stakeholders such as government, customers, employees, public, environment, partners and investors. We have built an effective communication mechanism to actively understand the concerns of our stakeholders, obtain their expectations and requirements and provide corresponding feedback, so as to jointly build a win-win industrial ecology.

Stakeholders	Concerns	Communication Format	Responses
Government	<ul style="list-style-type: none"> <li>Law-abiding and compliance</li> <li>Paying taxes legally</li> <li>Supporting development</li> </ul>	<ul style="list-style-type: none"> <li>Supervision and inspection</li> <li>Information submission</li> </ul>	<ul style="list-style-type: none"> <li>Compliant operation</li> <li>Proactive taxation</li> <li>Promoting economic development</li> </ul>
Customers	<ul style="list-style-type: none"> <li>Product quality</li> <li>Service quality</li> <li>Business ethics</li> </ul>	<ul style="list-style-type: none"> <li>Customer service system</li> <li>New product launch</li> <li>Customer visits</li> </ul>	<ul style="list-style-type: none"> <li>Providing quality services and products</li> <li>Customer satisfaction survey</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Compensation and benefits</li> <li>Basic rights</li> <li>Occupational health</li> <li>Career development</li> </ul>	<ul style="list-style-type: none"> <li>Staff congress</li> <li>Satisfaction survey</li> <li>Employee care activities</li> <li>Learning and training</li> </ul>	<ul style="list-style-type: none"> <li>Improving the compensation mechanism</li> <li>Protection of employee rights and interests</li> <li>Occupational health management</li> <li>Graded training and promotion</li> </ul>
Public	<ul style="list-style-type: none"> <li>Social participation</li> <li>Community development</li> </ul>	<ul style="list-style-type: none"> <li>Public welfare activities</li> <li>Talent development</li> </ul>	<ul style="list-style-type: none"> <li>Poverty alleviation and disaster relief</li> <li>Employment promotion</li> </ul>
Environment	<ul style="list-style-type: none"> <li>Pollution prevention</li> <li>Green and low-carbon development</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with environmental regulations</li> <li>Energy saving and emission reduction</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable development</li> <li>Reduce energy consumption</li> </ul>
Partners	<ul style="list-style-type: none"> <li>Business ethics</li> <li>Growing together</li> </ul>	<ul style="list-style-type: none"> <li>Business negotiation</li> <li>Industry seminars</li> </ul>	<ul style="list-style-type: none"> <li>Integrity building</li> <li>Leading the healthy development of the industry</li> </ul>
Investors	<ul style="list-style-type: none"> <li>Corporate governance</li> <li>Information communication</li> <li>Return on equity</li> </ul>	<ul style="list-style-type: none"> <li>Shareholders' meeting</li> <li>Information disclosure</li> <li>Investor hotline</li> </ul>	<ul style="list-style-type: none"> <li>Improving corporate governance</li> <li>Regulation of information disclosure</li> <li>Improving profitability</li> </ul>

## Materiality issue analysis

The Company carried out a materiality issue analysis to deeply understand the core expectations and demands of internal and external stakeholders on the Company's sustainable development, scientifically conducted stakeholder questionnaire surveys, and statistically analyzed and assessed sustainable development issues of significant importance to the Company.



# Party Building

The Party organization of Arctech has always been fully implementing the Party's path line, policy and guidelines, earnestly studying the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, embracing the Party building vision of "insisting on Party building to lead and empower enterprise development", continuously promoting the development of the Party organization, improving the level of Party building work, forming a Party building culture of "Passion, Integrity, Persistence, cooperation", and making continuous efforts to the Party building goal of "helping the enterprise to become a global leader in segmented areas".

Party building vision ★ Insisting on party building to lead and empower enterprise development

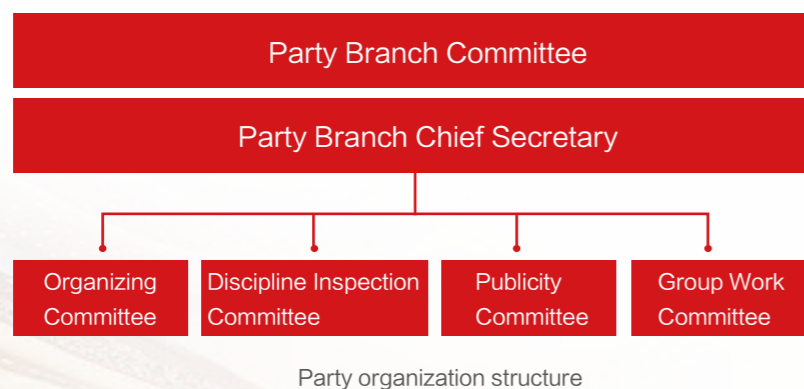
Party building goal ★ To be a leading enterprise in the global targeted market segment

Party building culture ★ Passion, Integrity, Persistence, Cooperation



# Party Building System

## Party building organization construction

The Company's Party organization set up the Arctech Party Branch Committee to organize division of labor and cooperation, promote organizational construction, play the leading role of the Party Branch Committee, and focus on building a strong organizational fighting fortress.



## Team of Party building


**10** Person
 
**25** Person

The Company's Party Branch currently has 10 Partymembers and 25 mobile members.

### Case Setting up the Party Building Alliance

In June 2022, the Company set up a Party Building Alliance with Kunshan Industrial Technology Research Institute, Kunshan Municipal Bureau of Market Supervision, Cheng Shin Tire and Lujia comprehensive Law Enforcement Bureau, adhering to the leadership of Party building, integrating and progressing the Party building work with all daily business work, helping to create a good market environment and promoting healthy development of enterprise.

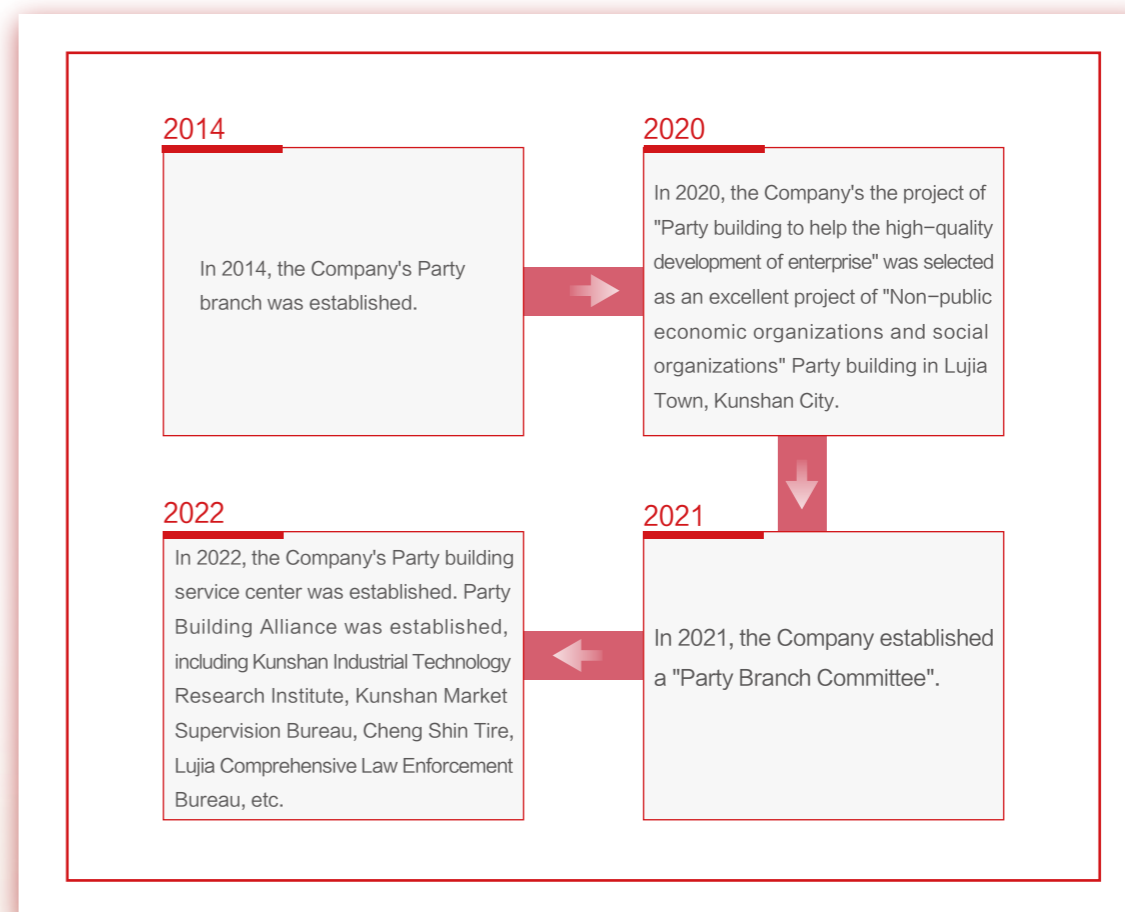


Party building alliance signing ceremony

## Party building system construction

In 2022, the Party branch of the Company focused on establishing the standard system of branch work, implementing the "Five Basic Requirements" of Party building, focusing on the "Three Meetings and One Lesson", theme Party day, organizational life meeting, democratic evaluation of Party members, heart-to-heart talks, etc., and vigorously promoting the standardization of the branch construction.

## History of Party organization development



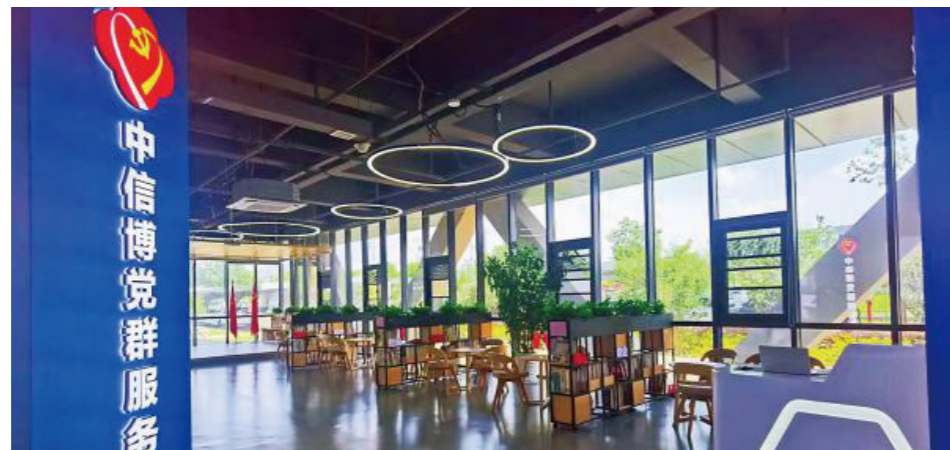
# Party Building Practice

## Party building sites construction

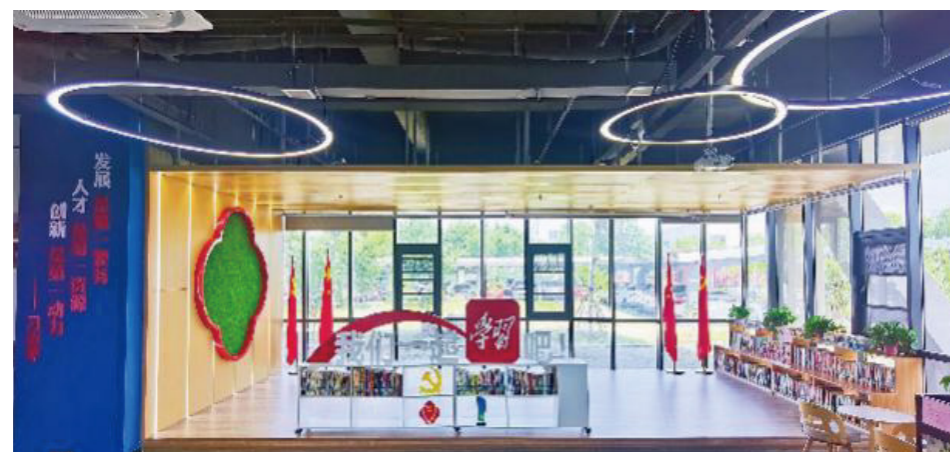
In 2022, the Party branch of the Company carried out the construction of Party building sites and many Party building learning and education activities, insisted on leading the development of the enterprise with Party building, and promoted the deep integration of Party building and business.

### Case The construction of the exhibition hall of the Company's Party Group Service Center

In March 2022, the hardware decoration construction was completed in the exhibition hall of the Party service center of the Company. There is a book reading bar in the exhibition hall, and the books are from the cooperation between book subscription and book rental cooperation with Lujia Library. The exhibition hall was officially opened for trial operation on July 1.



Party Service Center Exhibition Hall



Book Reading Bar

## Party building learning and education activities

In 2022, the Company's Party branch continued to recommend the standardization of branch construction, putting forth effort on the implementation of the basic system such as the theme Party day, adhering to the study of Party building theory, holding the regular branch Party meetings and theme Party day activities, organize Party members to strengthen theoretical learning, enhance the combination of centralized learning and individual self-study of Party members and cadres, combine political learning with business and management, summarize the experience, and promote continuous innovation of ideas and working concepts.

### Case 1 Regularly held branch Party meetings

On 9 Jan, 2022, the Party branch of the Company held a Party members conference to organize the learning of General Secretary Xi's Speech at the Summary Meeting of Party History Learning and Education. The conference implemented the spirit of the Second Plenary Session of the 13th Suzhou Municipal Party Committee, and the Second Plenary Session of the 14th Kunshan Municipal Party Committee and the Economic Work Conference of the Municipal Party Committee.

On 20 Feb 2022, the Party branch of the Company held a Party meeting to organize the study of General Secretary Xi's speech of Keeping making our digital economy stronger, better and bigger.



Party Branch Conference Study

### Case 2 Regularly held theme Party day activities

On 23 Mar, 2022, the Party branch of the Company held a theme Party day activity to organize the study of General Secretary Xi Jinping's speech of "Striving to become a pillar of great use and be able to bear heavy responsibility".

On 25 May, 2022, the Party branch of the Company held a theme Party day activity and organized to study the spirit of General Secretary Xi's "Important Speech during the Inspection at Renmin University of China".

On 16 Jun, 2022, the Party branch of the Company held a theme Party day activity to organize the study the speeches of General Secretary Xi's "Promoting the high-quality development and sustainable development of China's social security" and "Accelerating the construction of a strong science and technology country to achieve a high level of scientific and technological self-reliance and self-improvement", in addition, the participants visited the exhibition hall of the Party group service center, and Wang Zongxing, secretary of the Party branch, explained the content and equipment of the exhibition hall.



Party Branch Activity Site



# Governance & Operation

## Our philosophy

Arctech operates in compliance with the law and in good faith, with the core values of "Passion, Integrity, Persistence, cooperation" to protect shareholders' rights, maximize corporate value and create benefits for economics and society.

## Our actions

- Corporate Governance
- Investor Relations
- Risk Management
- Compliance Management
- Anti-corruption

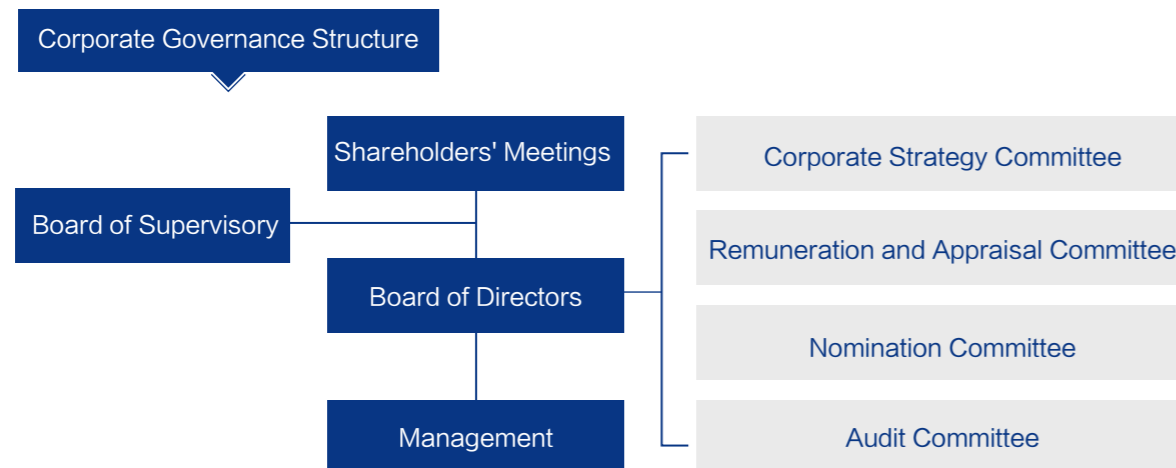
## SDGs





# Corporate Governance

Arctech strictly complies with the laws, regulations and regulatory requirements such as *the Company Law of the People's Republic of China (Company Law)*, *the Securities Law of the People's Republic of China (Securities Law)*, *the Code of Corporate Governance for Listed Companies in China and Shanghai Stock Exchange Rules for Listing Shares on the Science and Technology Board (Rules Governing the Listing of Shares)*, standardizes and optimizes the corporate governance system, continuously improves the corporate governance structure consisting of the Shareholders' Meetings, the Board of Directors, the Board of Supervisory and the management, and enhances the management of information disclosure and investor relations. The Company's Shareholders' Meetings, Board of Directors, Board of Supervisory and management are clear about their duties and responsibilities, and coordinate with effective balance to ensure the standardized operation of the Company and the scientific, standardized and transparent corporate governance.



## Shareholders' Meetings

The Shareholders' Meetings is the highest authority of the Company. During the reporting period, the Company held Shareholders' Meetings in accordance with the relevant provisions of the *Company Law*, the Articles of Association and the Rules of Procedure for Shareholders' Meetings of Shareholders, and facilitated shareholders' participation in Shareholders' Meetings as far as possible. We protect the equal rights of all shareholders (especially minority shareholders) and allow all shareholders to exercise their right of access to information and participation in corporate matters in accordance with the law.

Number of Shareholders' Meetings	Total deliberated proposals	2022
8	43	

## Board of Directors & Specialized Committees

The Board of Directors is the decision-making body of the Company and is accountable to the Shareholders' Meeting. The Board members attend the meeting of the Board of Directors, carefully consider the proposals and carry out its work diligently and conscientiously in strict accordance with the requirements of the *Company Law*, the Articles of Association, the Rules of Procedure of the Board of Directors and the Working System for Independent directors. The independent directors perform their duties independently, actively safeguard the overall interests of the Company and its shareholders and express independent opinions on relevant matters.

Number of Board of Directors	Number of independent directors	Number of female director	2022
7	3	1	
Number of board meetings	Percentage of board attendance	Number of considered proposals	2022
14	100%	75	

The Board of Directors is the decision-making body of the Company and is accountable to the Shareholders' Meeting. The Board members attend the meeting of the Board of Directors, carefully consider the proposals and carry out its work diligently and conscientiously in strict accordance with the requirements of the *Company Law*, the Articles of Association, the Rules of Procedure of the Board of Directors and the Working System for Independent directors. The independent directors perform their duties independently, actively safeguard the overall interests of the Company and its shareholders and express independent opinions on relevant matters.

Number of Strategy Committee meetings	Number of Compensation and Appraisal Committee meetings	Number of Nomination Committee meetings	Number of Audit Committee meetings	2022
3	3	2	6	

## Board of Supervisory

The Board of Supervisory is the supervisory body of the Company. In accordance with the *Company Law*, the Articles of Association and the Rules of Procedure of the Board of Supervisory, the Board of Supervisory conscientiously performs its duties and effectively supervises the Company's material matters, related party transactions and the lawfulness and compliance of the directors and senior management in the performance of their duties, and actively safeguards the relevant interests of the Company and its shareholders.

Number of Board of Supervisory memberf	Number of employee supervisor	Number of female supervisor	Number of supervisory meetings	Number of deliberated proposals	2022
3	1	1	12	43	

# Investor Relations

## Information disclosure

The Company strictly complies with laws, regulations, and regulatory requirements such as the *Securities Law and the Stock Listing Rules*, truthfully, accurately and completely fulfills information disclosure obligations, without any false records, misleading statements, or significant omissions, ensuring that all investors have fair access to the Company's information. Meanwhile, the Company has formulated the Information Disclosure Management System, Insiders Registration Management System and other systems to regulate the work of disclosure and confidentiality before disclosure of the Company information.

Number of disclosed periodic reports	Number of interim reports	2022
4	64	

## Investor communication

The Company has formulated and strictly followed the Investor Relations Management System and carried out investor communication, and has maintained communication with investors through holding performance briefings, receiving specific targets for research and on-site visits, answering investor hotlines, setting up investor columns on the Company's official website and the "SSE e-interaction" platform to enhance investors' understanding and recognition of the Company.

Number of financial performance presentations	Received about calls from investors	Number of interactions on "SSE e-Interaction" platform	Response rate on on the "SSE e-Interaction" platform	2022
2	56	18	100%	



Live Meeting



Receiving Institutional Investors

## Shareholders' return

The Company strictly implements the profit distribution policy as stipulated in the Articles of Association. Meanwhile, the Board of Directors has formulated the "Dividend Return Plan for Shareholders for the Next Three Years (2022–2024)" based on the actual situation. This plan has taken into account the long-term interests and sustainable development of the Company, kept the principle of continuity and stability of profit distribution policy, and fully considered the reasonable investment return for investors. Independent directors can solicit the opinions of minority shareholders to put forward dividend proposals. Before considering the profit distribution proposal at the Shareholders' Meetings, the Company will take the initiative to communicate and exchange views with shareholders, especially minority shareholders, through various channels to listen to their views and demands and effectively protect legitimate rights and interests of minority shareholders. Since being listed, the Company has continuously implemented cash dividends every year, distributing a total of RMB 76.00 million in cash dividends, with a cumulative dividend distribution rate of 22.03%.

### Company's cash dividends for the last 3 years

	2022	2021	2020
Cash dividend per share (RMB)	0.10	0.03	0.43
Total cash dividend payout (RMB million)	1,357.15	407.15	5,835.77
Percentage of net profit attributable to shareholders of the listed Company in the consolidated statements (%)	30.55%	27.08%	20.44%

# Risk Management

## /// Risk management system

Focusing on the two themes of "Risk and Efficiency", the Company has built a risk management system with risk control and improvement of organizational efficiency as the core, comprehensively monitoring the Company's business activities to avoid business risks, including but not limited to environmental risks, occupational health and safety risks, product quality risks and implementing risk prevention. The Company has formulated the Procedures of Risk and Opportunity Response Measures Management, which clarifies the responsibilities of each department, risk identification, assessment and response processes to reduce the probability of risk occurrence and minimize losses.



## /// Crisis management

The Company has established the early warning system, crisis prevention plan and rapid response mechanism. In the event of major emergencies caused by various reasons that affect the Company's image or encounter losses due to unavoidable risk, we will be the first to take effective measures to stop losses and reduce the scope of risk impact.

## /// Audit and inspection

During the reporting period, the members of the Audit Committee of the Company had professional knowledge and business experience capable of performing the work duties of the committee, and they are dedicated and diligent in their duties. The Audit Committee has an audit department, which conducts internal audit and supervises the design and implementation of internal control of the Company under the guidance of the Audit Committee.

The audit department monitors the authenticity, legality and efficiency of business activities, checks the work effectiveness of each departments and business units, reviews, verifies and evaluates the scientificity and effectiveness of various systems. We execute special audits for key risk control, businesses and departments, and conduct in-service and out-service audits of senior management and personnel in important positions.

## Compliance Management

Arctech continuously strengthens compliance management, constantly improves and implements rules and regulations, clarifies compliance responsibilities and compliance management processes, and carries out compliance publicity and training on a regular basis to form a compliance culture that abides by the law and emphasizes the system and to promote sound corporate development.

The Company's legal department is responsible for acquiring and managing compliance matters related to quality, environment and occupational health and safety management of the Company, and identifying and confirming their applicability together with relevant departments, registering and issuing the applicable compliance obligations in a unified manner, and each department of the Company is responsible for the implementation of relevant laws, regulations, standards and other requirements, as well as self-evaluation of their compliance, and the legal department is responsible for setting up an evaluation team to evaluate the overall compliance with applicable laws, regulations and other requirements of the Company as a whole, so that non-compliance can be detected and thus effectively controlled.

Arctech strictly abides by all national tax laws and regulations, including the *Corporate Income Tax Law of the People's Republic of China*, and follows the principle of "operating in accordance with the law and paying taxes in good faith" to pay taxes in full and on time. At the same time, Arctech constantly improves the Company's tax management level and does a good job in all taxation work to avoid tax risks. During the reporting period, the Company and its subsidiaries were not involved in any tax-related penalties. In 2022, the Company paid tax amounted to RMB77.49 million.

In 2022, the Company paid tax amounted

**77.49** million



## Anti-corruption

The Company strictly abides by the *Anti-Unfair Competition Law of the People's Republic of China*, *Temporary Provisions on Prohibition of Commercial Bribery* and other laws and regulations, attaches importance to the construction of anti-corruption system, puts integrity management throughout the Company's business process, and is committed to creating a working atmosphere of "compliance, integrity and honesty".

### /// Anti-corruption prevention mechanism

The Company builds a corruption prevention system and has formulated rules and regulations such as *Measures for the Management of Employee Complaints and Appeals* and employee manuals to clearly regulate the process of employee complaints and appeals and the rules of supervision, rewards and punishments. At the same time, the Company regularly conducts anti-corruption training to cultivate employees' awareness on anti-corruption and promote the healthy development of the Company.

### /// Supervision and prosecution mechanism

The Company has established a supervision and prosecution mechanism by setting up a whistle-blowing lines, e-mail and suggestion box as the channel to report and expose actual or suspected fraud cases. The Human Resources Department of the Company is responsible for receiving and investigating complaints and appeals raised by employees, coordinating with relevant departments for discussion and improvement, and providing feedback on the processing results. If the complainant disagrees with the processing result, the feedback can be sent to the highest level – President's Office to ensure that the complaints and appeals are handled effectively. After the conclusion of the complaint and grievance is obtained, the human resource department follows up and monitors the implementation of the conclusion.

### /// Punishment and rewards

The Company takes a "No Tolerance" attitude to strictly investigate and deal with corruption and fraud. Employees who commit fraud, accept bribes or commissions, conceal and shelter or do not report fraud when they know the relevant personnel have evidence of fraud, or neglect to supervise and cause the relevant personnel to commit fraud will be punished, and those who are serious will be dismissed.



Anti-corruption and prevention training session for private enterprise



# Environmental Protection

## Our philosophy

Protecting the environment is our responsibility, our development will never be at the cost of environmental damage, firmly striving to be "resource-saving and environment-friendly" enterprises, and building a bright green future with photovoltaic development.

## Our actions

- Environmental Management System
- Energy & Resource Management
- Prevention & Control of Pollution
- Green Operation
- Green Goals

## SDGs



# Environmental Management System

## Environmental policies

Arctech strictly adheres to the relevant national environmental laws and regulations, establishes, implements and improves the environmental management system in accordance with the ISO14001:2015 standards, and has obtained the ISO14001 environmental management system certification.

We follow the environmental management guidelines of "Energy saving, pollution prevention, and leading green photovoltaic", develop and implement the Management Manual and a series of environmental systems. By setting environmental objectives, identifying significant environmental factors and regulating the operation, monitoring and control of activities related to the Company's significant environmental factors in order to achieve a closed-loop control environmental management system and the construction of a green and beautiful homeland. During the reporting period, the Company had no serious environmental accidents and was not subject to any significant complaints or penalties related to the environment.

Key control areas	Environment-related system procedures	Main content
Identification of significant environmental factors	Management Procedures of Environmental Factors	Each department conducts the identification and evaluation of significant environmental factors and forms the Environmental Factor Summary Evaluation Form, etc.
Operation and control of activities related to important environmental factors	Management Procedures of Environmental Operation Planning and Control	Each department carries out environmental management activities based on the environmental objectives and management plans, environmental management requirements and environmental management procedures issued by the Company, and keeps corresponding records.
Management of environmental monitoring and measurement	Management Procedures of Environmental Monitoring and Measurement	Each department records the implementation of its environmental objectives, targets and management programs and conducts self-inspection and self-correction on a quarterly basis. Meanwhile, the Administration Department inspects the implementation of environmental management in each department as well as the compliance with applicable laws and regulations, etc., and supervises the relevant departments to make corrections.

Amount of environmental protection input  
**2.87 million**

The Company's total greenhouse gas emissions were approximately  
**15,950,988.78 tCO<sub>2</sub>e**

The Company's use of green power reduced carbon emissions  
**13,014.69 tCO<sub>2</sub>e**

compared to last year, an increase of  
**9.59%**



Certificate of Environmental Management System Certification

## Environmental emergency management

The Company has formulated the Emergency Preparation and Response Management Procedures, Emergency Response Plan Guideline for Emergencies, Accident Management Regulations and other systems according to the actual production to clarify the responsibilities of environmental accident emergency related parties and emergency work matters such as prevention and warning, emergency response, emergency measures, as well as emergency training and drills, to continuously improve the environmental emergency management system and regularly carry out emergency drills for environmental emergencies, so as to effectively prevent, reduce and resolve the hazards of sudden environmental accidents and protect the green homeland.



# Energy & Resource Management

Arctech adheres to the resource usage policy of "source saving and pollution control, compliance with the law, continuous improvement and green development", and has formulated the Guideline on Energy Resource Management to standardize the procedures of internal energy and resource saving management and conduct daily supervision and inspection to continuously improve the efficiency of resource usage and contribute to the sustainable development of the enterprise.

## Energy management

The Company abides the relevant provisions of the *Law of the People's Republic of China on Energy Conservation*. In our daily operation, the Company exerts our best efforts to control electricity consumption and improve energy efficiency. The Company's main production processes include stamping, sawing, welding, molding, automated packaging and inspection, which mainly consume energy of electricity, water and natural gas. Electricity and water required for the Company's production are supplied by the relevant departments of the Company's business location.

### Total energy consumption

Indicator	Unit	2022	2021
diesel	Ton	166.05	140.26
Natural gas	10000 cubic meters	738,100.36	627,385.30
Electricity used by purchased plants	kWh	6,194,522.00	7,019,507.00
Annual photovoltaic power usage	kWh	15,642,660.58	14,273,864.33

### Clean energy production

Indicator	Unit	2022
Photovoltaic power generation	kWh	22,640,100.00

Note: "Annual photovoltaic power generation" is the statistical data of the power generation of three self-built power stations in 2022, including Kunshan headquarters distributed photovoltaic power station, Changzhou photovoltaic power station and Fanchang photovoltaic power station.

## Water conservation

We strictly comply with the *Law of Water of the People's Republic of China* and other laws and regulations, advocate the concept of water conservation, establish the consciousness of conservation among all employees, and continuously improve the efficiency of water recycling. We have built water-saving facilities in our headquarters plant and office building, adopted water-saving appliances, and designed rainwater utilization facilities.

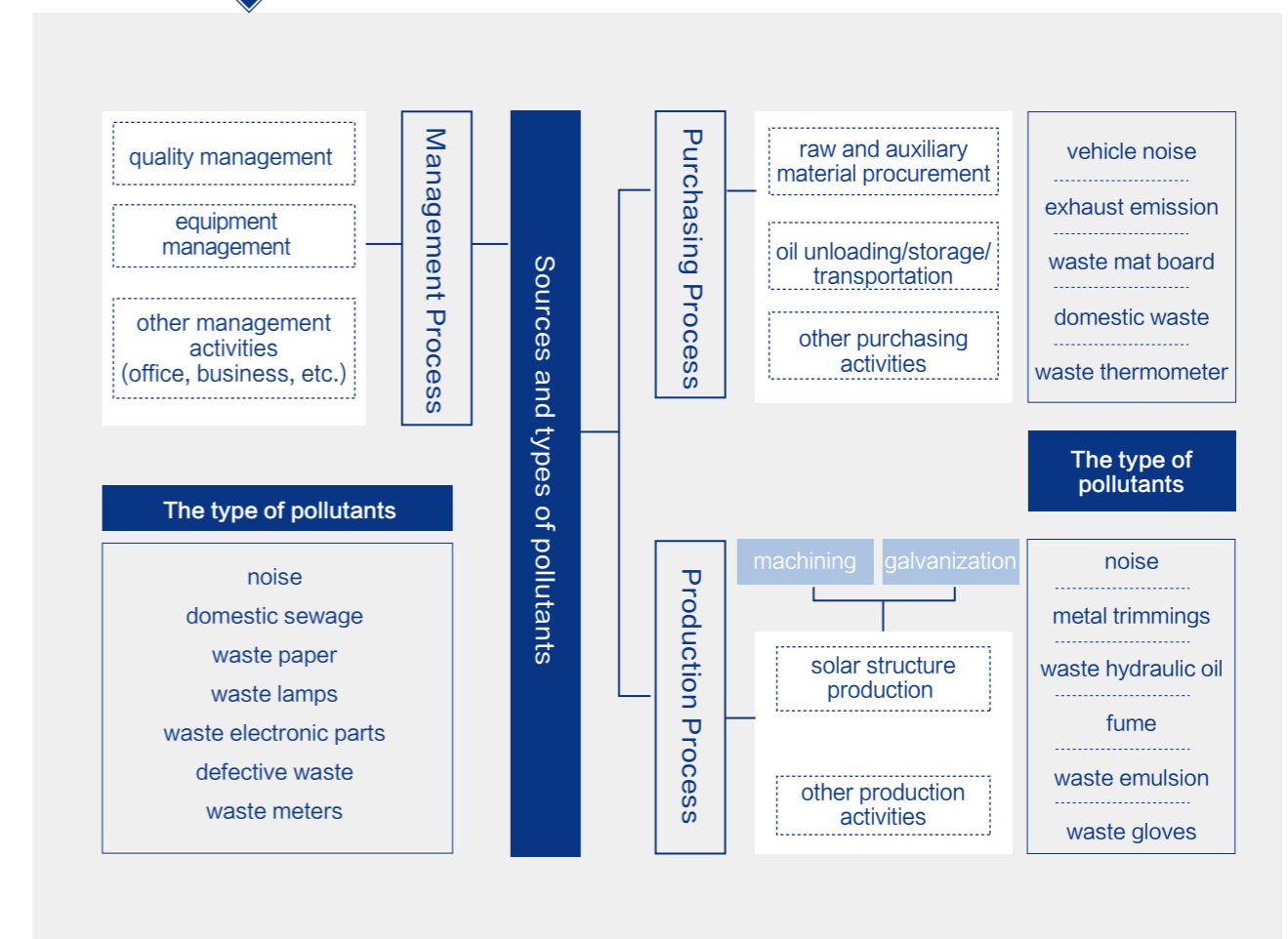
### 2022 Water Usage

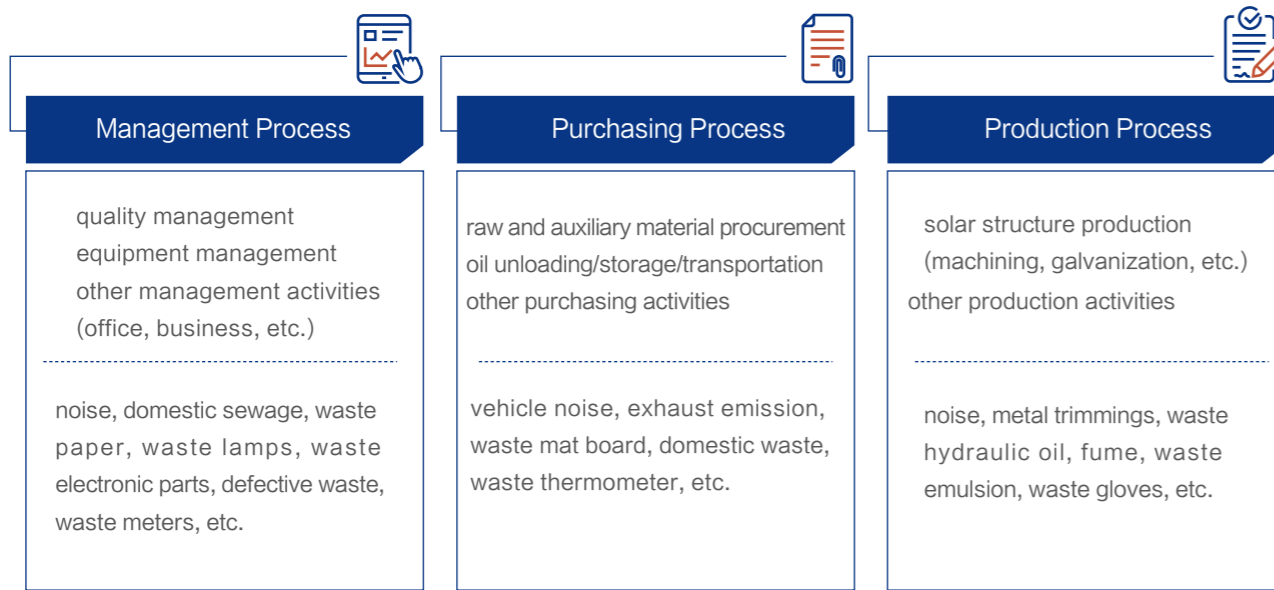
Office water consumption	Total water consumption
<b>11,469.70</b> Tons	<b>215,094.30</b> Tons

# Prevention & Control of Pollution

Arctech strives to regulate the emission and management procedures of waste. The main pollutants involved in the production and operation of the Company are waste water, waste gas, noise and solid waste. The waste water is mostly domestic sewage; the waste gas is mainly welding fume and canteen oil smoke; the noise is generated from the operation of molding machines, punching machines, sawing machines and air compressors; the solid waste is largely domestic garbage, metal trimmings from machining and galvanizing processes, waste hydraulic oil, waste emulsion and waste gloves. The Company strictly controls and handles the pollution generated from production and operation, implements routine monitoring of pollutants and commissions CMA-qualified third-party institutions to monitor, and continuously improves the management of waste water, waste gas and solid waste discharges to ensure the sustainability of production and operation.

### Sources and types of pollutants



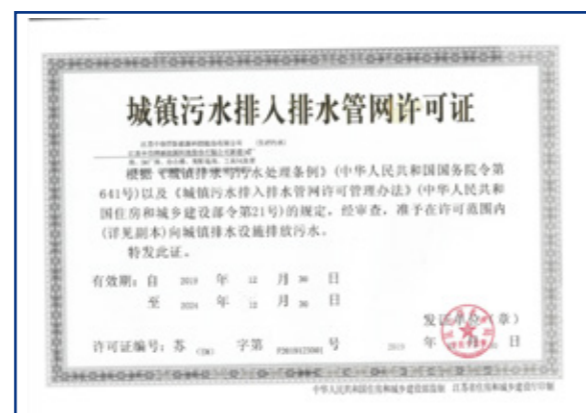
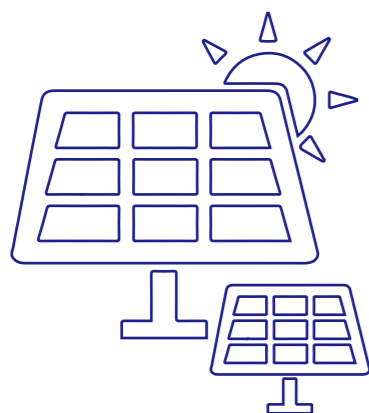


Sources of pollutants produced, The type of pollutants

## Wastewater management

The Company strictly follows the relevant provisions of the *Law of Water Pollution Prevention and Control of the People's Republic of China*, applies for sewage discharge permits and pays sewage charges in accordance with the requirements of national and local governments, and strictly implements sewage declaration and registration.

The Company implements the mode of "rainwater and sewage diversion", rainwater is discharged into the regional rainwater pipe network; restaurant wastewater is discharged into the municipal sewage pipe network after treatment by grease trap, and domestic sewage is discharged into the municipal sewage pipe network after treatment by sedimentation tank to meet the standards and is discharged into the sewage treatment plant through the sewage pipe network. In 2022, we commissioned a third-party qualified organization to test the four domestic wastewater outfalls, and the domestic wastewater of each outfall was passed the testing.



Sewage Discharge Permit

Types of Discharges	Discharges Concentration of Company	Attainment of Standards	Implementation Standards
PH value	7.2~7.4	Attainment	Integrated Wastewater Discharge Standard (GB8978-1996)
Suspended matter	12~23	Attainment	
Chemical oxygen demand	21~61	Attainment	
Animal and vegetable oils	0.06~0.23	Attainment	
Ammonia Nitrogen	2.96~5.30	Attainment	
Total phosphorus	0.26~0.64	Attainment	

Unit: mg/L (pH dimensionless)

Note: Data from the Company's environmental testing report ( 26 July 2022)

## Waste gas management

The Company strictly abides by the *Law of Prevention and Control of Air Pollution of the People's Republic of China* and regulates the management of waste gas emissions. We introduce cloth bag dust removal facilities and mobile welding fume purifier to treat the waste gas dust and welding fume mainly generated in the production process, which are discharged after purification. For canteen fumes, they are treated by degassing fume hood and discharged through special flue to meet the standards. In 2022, we commissioned a third-party qualified organization to test the Company's waste gas, and the disorganized waste gas emissions were tested to meet the relevant standards.

Types of Emissions	Emission Concentration of Company	Unit	Attainment of Standards	Implementation Standards
Non-methane total hydrocarbons	1.02~2.86	mg/m <sup>3</sup>	Attainment	Air pollutant comprehensive emission standards GB 16297-1996
Total suspended particulate matter	0.151~0.208	mg/m <sup>3</sup>	Attainment	
Volatile organic compounds	1.90~8.90	μg/m <sup>3</sup>	Attainment	

Note: Data from the Company's environmental testing report ( 26 July 2022)



## Solid waste management

The Company strictly complies with the provisions of the *Law of Prevention and Control of Solid Waste Pollution of the People's Republic of China* and has formulated the Solid Waste Management System, which follows the principles of reduction, resourcefulness and harmless disposal to standardize the process of handling general solid waste and hazardous solid waste in the production process of the Company and reduce the impact of generation of solid waste and its pollution to the environment.

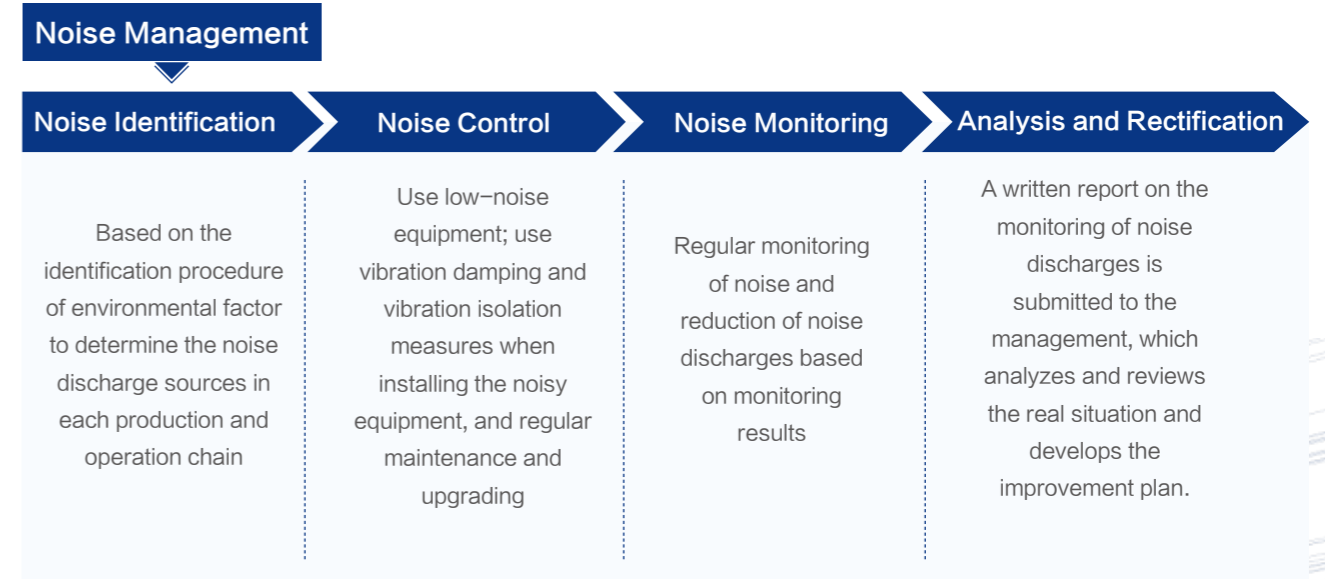
We dispose of waste by different categories such as recyclable industrial waste, non-recyclable industrial waste and hazardous waste, and set up hazardous waste signs in obvious locations, establish waste dumps separately. We stipulate that the disposal of solid waste should be recorded in the solid waste disposal sheet, and the storage and disposal of solid waste should be checked quarterly by the Safety and Environment Department to maximize the recycling of recyclable resources.

In 2022, the Company disposed of domestic waste with **36 Tons** the solid waste disposal rate **100%**

Scope of Discharges	Types of Discharges	Disposal
Recyclable general solid waste	Metal trimmings, waste cartons, waste wooden boxes, glass bottles and cans, waste plastics, waste paper	Recyclable waste will be sorted by each unit and resold to the material recovery department
Non-recyclable general solid waste	Construction waste, household waste	Transported by the sanitation department to the landfill for disposal
Hazardous solid waste	Waste emulsion, waste hydraulic oil, waste ink cartridges, waste sun drums, waste batteries, waste pen refills, waste ink cartridges, waste pens, waste copy paper, waste paper with ink, waste correction fluid, waste fluorescent tubes, etc.	Collected in categories and delivered to qualified organizations for disposal
	Waste discs, waste disks and other waste electronic products	Specially gathered and handled by our Company
	Drug waste from first aid kits	Handed over to the pharmacy for processing

## Noise control

Arctech strictly follows the provisions of the *Law of Prevention and Control of Noise Pollution of the People's Republic of China* and formulates the Guideline on Noise Management to reduce noise pollution and protect the interests of the public by identifying, controlling, monitoring and analyzing and rectifying noise. During the reporting period, the daytime noise of the Company's factory boundary was tested by a qualified third-party to meet the standards and comply with the Noise Discharge Standards for Industrial Enterprises and Factory Boundary (GB 12348-2008).



# Green Operation

## Green products

As a promoter and leader of clean energy solutions and a faithful practitioner and promoter of carbon emission reduction actions, Arctech is positively launches internal energy conservation and emission reduction, while using its own clean energy properties in the photovoltaic industry to provide solutions for corporate customers to achieve low-carbon emission transition and make contributions to the national goal of "carbon peak and carbon neutrality" and build up a new electricity system.

### Supporting zero carbon emission building by building BIPV rooftop power station on factory area and BIPV carport

#### Case

The Company adopts the way of building BIPV rooftop power station and BIPV shed on the roof of its own production plant to reduce the Company's electricity consumption of standard coal and help the Company's production and operation to achieve carbon emission reduction.

BIPV (building Integrated Photovoltaic) entirely integrates buildings and photovoltaic power generation to create a combination of low-carbon emission buildings and energy-saving buildings, and can efficiently popularize the use of clean energy. Photovoltaic carport is an important application of distributed photovoltaic with the characteristics of no additional land occupation, short construction period and low investment, self-generation and self-consumption through simply transforming the existing parking space, the surplus power is integrated into the national grid, and optional charging piles can be installed to effectively solve the daily charging problem of electric vehicles, creating a green cycle of system power consumption and realizing a low-carbon and environmentally friendly energy pattern.



Exterior view of the BIPV roof of the plant



Inside the BIPV roof of the plant



Headquarters carport



The Company has always adhered to the concept of "technology-enabled green building", using its own BIPV photovoltaic technology advantages, responding to the national carbon emission reduction development trend, in-depth understanding of the customer's needs for low-carbon development and the sustainable development of the use of clean energy, to create a circular economy industrial base for customers, to help more enterprises to achieve zero carbon transformation, effective implementation of energy saving and emission reduction action.

### case Jiangxi Gaoan pottery base (Phase I) project creates a "circular economy" demonstration

In June 2022, the first stage of the Jiangxi Gao'an pottery base (Phase I) project was successfully connected to the grid for power generation. This project adopted the BIPV intelligent top solution from Arctech, taking the basic functions and power generation needs of the building into account, achieving a perfect integration of the building and photovoltaic technology. The installed capacity of the project is 120MW with an annual PV green power generation of nearly 120 million KWH, which will become the world's largest single capacity BIPV project after completion. After the project is connected to the grid, it is expected to reduce carbon dioxide emissions by nearly 120,000 tons per year and save over 43,000 tons of standard coal, which will promote the optimization of energy structure and green low-carbon development, and help the country achieve the goal of "carbon peak and carbon neutrality" .



Jiangxi Gaoan pottery building base project

### case Low carbon action, Arctech supports China's first tidal-photovoltaic complementary intelligent photovoltaic power plant

On June 8, 2022, Arctech was invited to participate in the completion and operation ceremony of the 100MW tidal-photovoltaic complementary intelligent photovoltaic power project in Wenling, Zhejiang of Longyuan Power of National Energy Group.

Arctech, the provider of the PV rack system for this project, has been overcoming various terrain constraints and optimizing the construction plan to ensure the project is put into operation. It is the first new energy power plant in Zhejiang Province to implement "photovoltaic + energy storage" combined with frequency control technology, and is another important practice of Arctech to promote green economy. Compared to thermal power plants of the same capacity, the plant can save 31,654 tons of standard coal and reduce 84,479 tons of CO2 emissions per year.

Arctech always adheres to the national green and low-carbon development strategy, insists on innovation and R&D in the field of new energy, and continuously implements and contributes to green initiatives to accelerate China's energy restructuring and industrial upgrading.



Project completion and operation ceremony



Tidal and light complementary photovoltaic power plant



CCTV news related reports

## Green office

The Company has formulated the Office Area Environmental Safety Management Guideline to standardize and control the environmental management of the office area in order to reduce the sources of pollution in the office area, decrease the emission of pollutants in the Company, protect the environment of the office area, effectively practice the concept of green office and realize green operation.

Electricity-saving	<ul style="list-style-type: none"> <li>When lighting up the office area, it is appropriate to adjust brightness to meet the work needs and choose to open and close the light;</li> <li>Turning off all power switches at the end of office hours;</li> <li>Turning off the power consciously after finishing the meetings;</li> <li>Turning off the power after the projector has cooled down after use.</li> </ul>
Paper-saving	<ul style="list-style-type: none"> <li>General document records are used on both sides, and when writing documents for drafts, scrap paper is used whenever possible;</li> <li>Keeping a monthly count of the amount of paper used and submitting requests in advance for projects that use large amounts of paper in order to consider savings options;</li> <li>Faxes are collected electronically to the extent possible;</li> </ul>
Air conditioner-using	<ul style="list-style-type: none"> <li>Follow the Vienna convention for the Protection of the Ozone Layer and establish a special management system for air conditioners;</li> <li>Reasonably control of air conditioner opening and closing timing and wind speed, and reasonable selection of temperature differences;</li> <li>When air conditioner units are renewed, priority is given to fluorine-free air conditioners.</li> </ul>
Photocopier-using	<ul style="list-style-type: none"> <li>Place the copier as close to a door or window for ventilation as possible;</li> <li>Operators avoid facing the ozone emission site;</li> <li>Avoid continuous mass copying.</li> </ul>

## Green initiatives

We focus on strengthening the awareness of environmental protection, advocate the concept of environmental protection, and take active action to build a clean and beautiful environment and low-carbon world.

### Case Arctech joined the "carbon peak and carbon neutrality" service federation in Suzhou

On 15 November, 2022, the first group of member units of Suzhou "carbon peak and carbon neutrality" service federation (hereinafter referred to as "the Federation") was held as scheduled. The conference approved the list of representative units for the first group of member units of the Federation, and Arctech became the first group of members of the Federation.

Arctech will follow the six principles of "government-led, market-led, equal consultation, innovative cooperation, complementary advantages, mutual benefit and win-win cooperations" in the future work of "carbon peak and carbon neutrality" and continue to help build a service platform covering information exchange, trade management, technological innovation, talent training and international cooperation, etc. We will actively make an exemplary effort to drive the green and low-carbon transformation of enterprises, promote the green and low-carbon cycle of industrial development, and contribute to the realization of the goal of "carbon peak and carbon neutrality".

### Case Online environmental protection promotion

We actively carry out online environmental protection publicity activities to undertake the responsibility of environmental protection and practice the concept of environmental protection. In 2022, we conducted public awareness campaigns for Arbor day, World Earth day, Earth Hour and World Environment day, to call for all to contribute to a green home together.



Environmental protection publicity on official account

## Green Goals

We actively fulfill our environmental responsibilities, set up monthly environmental targets for waste gas and noise, as well as annual environmental targets for the standardized disposal rate of solid waste and energy conservation and consumption reduction, to organize training related to environmental targets, and ensure that employees are aware of environmental targets, the contribution of various employees to environmental targets and the consequences of deviating from environmental targets, to promote the sustainable development with our own practices and reduce our inordinate demands on the earth and the damage to environment. We will continue achieving harmonious coexistence between human beings and nature.

Department	Target Name	Specific Objectives
EHS	Waste gas and noise 100% meet the standards	Waste gas and noise emissions in accordance with national standards
EHS	Solid waste management and disposal rate	100%
Comprehensive Management Department	Energy saving and consumption reduction	0.02%

### Company-wide environmental objectives

Daytime noise	Noise at night	Domestic sewage discharge meets the requirements of the local environmental protection bureau
<b>65</b> db	<b>55</b> db	



# Products & Sourcing

## Our philosophy

Artech provides high quality products to customers without sacrificing quality, gathers global partners with an open and cooperative attitude, empowers the strategic ecological chain with technology, and works together to build a sustainable ecological chain and share the value of development.

## Our actions

- Product Quality
- Customer Service
- Responsible Sourcing

## SDGs



# Product Quality

Arctech firmly follow the path of high quality development, carry out quality management, adhere to the quality strategy of whole life cycle management and quality management of all employees, commit to creating a quality culture of all employees' participation and continuous improvement and cultivating all employees' quality awareness, while strengthening the control of quality factors and the control of production process to enhance product quality.

**Quality Goal of the Company**

Customer satisfaction rate	Settlement rate of customer complaint
<b>90%</b>	<b>90%</b>

## Quality management system

The Company strictly abides by the laws and regulations such as the *Law of Product Quality of the People's Republic of China*, and follows the quality management policy of "quality-oriented, constantly surpass, and ensure customer satisfaction". We have established a sound quality management system in accordance with the ISO9001:2015 standard and obtained the ISO9001 quality system certification. We have formulated quality management systems such as Quality Operation Planning and control Management Procedures, Product and Service Release Management Procedures and unqualified Product Management Procedures, implemented project life-cycle management and quality management for all staff, and continuously pursued new breakthroughs in product quality.

The Company formulates quality plan based on the specific conditions of the project, continuously monitors the quality target status during the implementation of the quality plan, strictly executes inbound material inspection, operation inspection, manufacturing process inspection and outbound inspection, in order to continuously strengthen product quality inspection and control the unqualified output, including isolation, restriction, return or suspension of the provision of products and services, obtaining authorization for concession acceptance, etc.. The Company regularly conducts annual quality management system operation review, and sets up a continuous improvement project team for retrospective rectification, steadily realizes the cycle of product quality improvement, and creates high-quality products with craftsmanship.

The Flow Chart of Arctech's Quality Management System



The Company's product qualification rate was	Compared with last year, increase of	2022
<b>95.4%</b>	<b>2.5%</b>	

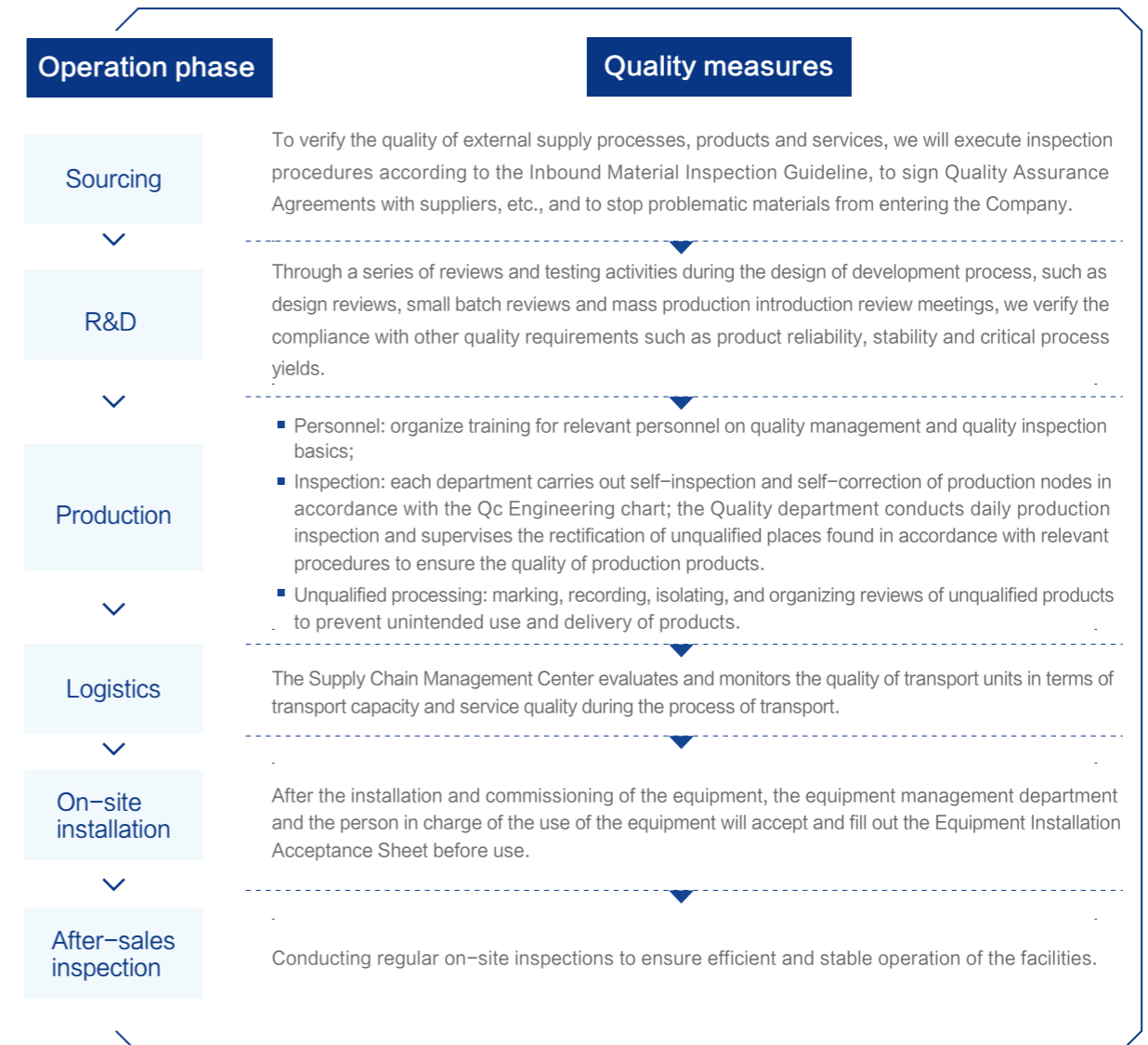


Quality management system certification

## Quality management measures

### Whole life cycle quality management

We continue strengthening the control of product quality, quality management through the understanding of customer needs, research and development, process, procurement, production until the end of the product life, to effectively ensure product quality.



### Construction of quality culture for all employees

Arctech always holds that quality is a key component for all links and departments of the value chain and is the common responsibility for all employees. The Company is committed to building quality management system for all employees, continuously strengthening quality training, creating a quality culture of full participation and continuous improvement, embedding the concept of quality in the heart of every employee, effectively taking responsibility for quality and ensuring product quality.

All personnel	<ul style="list-style-type: none"> <li>Legal and regulatory training (such as product quality law training)</li> <li>Quality objective training</li> </ul>
Management	<ul style="list-style-type: none"> <li>Quality management knowledge training</li> </ul>
Inspection personnel (including measurement personnel, product quality inspection/testing, etc.)	<ul style="list-style-type: none"> <li>Training on quality management, quality inspection basic knowledge</li> <li>Training related to quality, environment and occupational health and safety</li> </ul>

the Company conducted 4 quality inspection **4 times** with 100% of correction rate **100%**

### Qualifications and honors of products

After many years of efforts, market expansion and R&D investment, the Company and its main products have obtained several authoritative international certifications, including CE, UL, TüV, CPP, DVN-GL, B&V, Intertek, etc. Especially, B&V financing certification is the threshold for overseas market access in various countries.



Overview of product certification qualification



"Skysmart Tracking System" was certified by B&V



CE certification



Tü V certification



ULcertification

In 2022, the Company won a series of awards in the industry for its excellent product and brand power. These awards are the affirmation of Arctech's products, but also the encouragement for the future of Arctech.



The 17th China International Solar Energy Conference, Arctech obtained the award of "2022 China best Rooftop Energy System Solution Provider"



Arctech won the awards of "2021 Excellent PV Racking Supplier" and "Top 10 BIPV Supplier" at the 2022 PV Industry Development Forum.



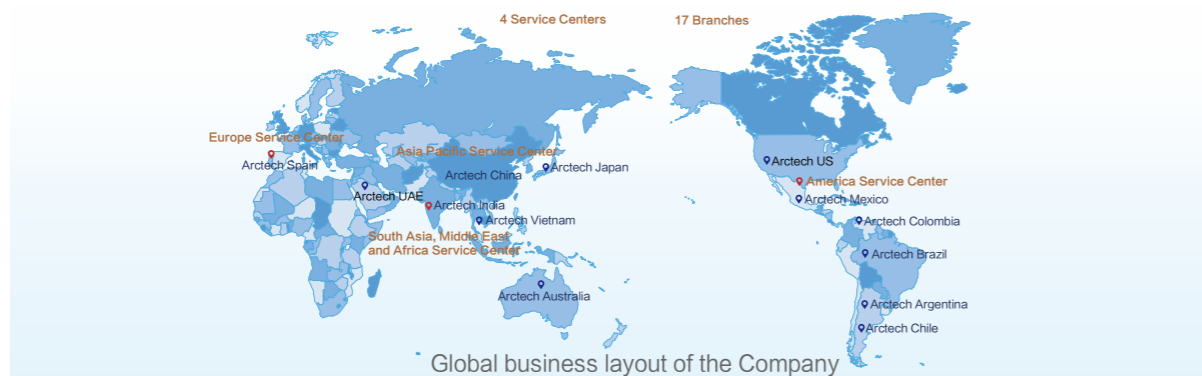
Arctech won the awards of 2022 "Polaris Cup" Influential PV Racking Brand and "2022 Influential BIPV Solution Company"



Arctech won the awards of "Cup-OFweek 2022 Outstanding PV Racking Company" and "Cup-OFweek 2022 Outstanding BIPV Solution Company"

# Customer Service

Arctech committed to providing quality services to global customers, Arctech has actively established a global service network, there are 4 service centers in Asia Pacific, Europe, America, and South Asia, Middle East and Africa, and 17 branches to serve more global customers with stable and quality products.



## Whole life-cycle services

The Company has formulated the Procedures of Product and Service Requirements Management and established a sound triangle service system for pre-sales, in-sales and after-sales. We keep optimizing the whole life cycle service system covering six links of service support, solution design, quality assurance, delivery guarantee, installation and construction, and operation and maintenance guarantee, establishing the consciousness of wholeheartedly serving customers and polishing the product quality in order to continuously improve the service experience of customers and gain their trust.

Provide 24/7 response for urgent request.

<p>Pre-Sales Support</p>	Technical proposal	We make an in-depth analysis of project requirements such as project topography, soil conditions, array layout, inverters, and communication conditions, and provide a design solution that can meet both technical and commercial needs.
	On-site research	Engineers are requested by the customers to visit the project site to conduct field research in order to provide targeted technical solutions.
	Financial analysis	We will recommend the best design solution to the customers after comparing the economic benefits of different technical solutions.
<p>In-Sales Service</p>	Multiple training	Engineers will provide on-site, Internet, and teleconference training for the installation, operation, and maintenance of the tracking system.
	Field support	Engineers visit the construction site to guide the work of construction workers to ensure the project progress.
	Intelligent monitoring cloud platform	The intelligent monitoring cloud platform developed independently by Arctech can provide real-time feedback of operation and maintenance data, diagnose system operation status and carry out remote operation and maintenance through intelligent tracking system on site.
<p>After-Sales Service</p>	Regular return visits for inspection	Return to the project site for inspection after delivery to ensure proper operation of the equipment.

### case Arctech received a pennant from Huanghe Hydropower Development Co., Ltd.

As the main supplier of tracker for the project, Arctech provided nearly 1.3GW of trackers and solutions for the extra-high voltage transmission base power configuration project in Hainan, Qinghai Province. In order to ensure the progress of the project, the senior management of Arctech was directly involved in the formulation of the plan at the beginning of the project, and designed the skyline tracking system to match the special terrain. After the arrival of the tracker on schedule, 8-10 technical engineers are always maintained at the project site to give installation guidance, continuously helping the project to be connected to the grid as scheduled.

Arctech was awarded a pennant of appreciation from the Engineering Company of Huanghe Hydropower Development Company of State Power Investment Group for "high quality and efficiency, excellent service", thanking for keeping the delivery time, providing efficient service and ensuring the project to be connected to the grid as scheduled.



Arctech received a pennant of appreciation



Project site

## Customer satisfaction survey

The Company attaches great importance to the customer satisfaction survey and has formulated the Procedures of Customer Satisfaction Information Management, the marketing center is responsible for collecting information related to customer satisfaction, the investigation of customer satisfaction information and in-depth understanding of customer needs. Based on the results of the survey to track and improve their own products and services, we continuously improve customer satisfaction.

### Customer satisfaction information management

Customer satisfaction rate  
**85%**

- Create a register of customer feedback on processing of delivering products or services
- Occasional customer visits and meetings
- Send Customer Satisfaction Information Questionnaire to the customers and conduct statistical analysis
- Obtain information on customer satisfaction through market share, warranty claim analysis, etc.
- Analyze the performance statistics of distributors and agents around the world

## Customer feedback processing

We take customer feedback seriously, actively communicate with customers to formulate Customer Complaint Management Guideline and Client Return Guideline, clarify the responsible departments and customer complaint handling process to guide relevant departments to deal with customer complaints and rectify unqualified products, and protect customer rights and interests.

Number of received complaints <b>238</b>	With an decrease of <b>2%</b>	With a complaint response rate of <b>100%</b>	With a complaint handling rate of <b>96.64%</b>
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2022

# Responsible Sourcing

## Supply chain management

Arctech insists on responsible procurement, implements the open procurement strategy and localized procurement strategy, integrates the concept of sustainability into the whole process of procurement, develops a series of systems and procedures such as Procedures for the Management of Process Products and Services Provided by External Suppliers, Procedures for the Management System of Supplier Development and Procedures for the Management of Procurement Audit to standardize the procurement process, establish and improve the supplier management system, and build a sustainable supply chain together with its suppliers.

Systems	Aims
Procedures for the Management of Process Products and Services Provided by External Suppliers	Control the external suppliers and the processes, products and services they provided to ensure that the processes, products and services provided by external suppliers meet the specified requirements
Procedures for the Management System of Supplier Development	Regulate the selection of suppliers to ensure the quality of products and cost reduction as well as the stability of the supply of goods and the selection of reliable suppliers
Procedures for the Management of Procurement Audit	Strengthen the management of the procurement of the Company and the subsidiaries and branches, regulate the procurement behavior, manage the procurement price, reduce the procurement cost, plug the loopholes in the procurement process, and safeguard the legitimate rights and interests of the Company

## Standardizing supplier management

Arctech persists in integrating the concept of sustainable development into the management of suppliers. By standardizing the supplier development process and strengthening supplier assessment and re-assessment, Arctech works together with reliable suppliers to build and maintain a good business environment and share green value.

### Supplier development

The Company strictly implements the relevant supplier system, incorporates the supplier's product quality, personnel capability, effectiveness of its own control, impact on the environment, occupational health and safety system, etc. into the indicator system to be considered for supplier development, implements the supplier development process and selects qualified suppliers, and counts them in the Qualified Supplier List. For new qualified suppliers, a small trial period is required before they can be transferred to normal procurement. By the end of 2022, the total number of suppliers of the Company was 2,376.

## Supplier classification

The Company classifies external suppliers into three categories based on the classification of the purchased products and after the initial selection of external suppliers.

Supplier categories	Products offered	Re-evaluation of qualified suppliers
Category A	External suppliers of key critical raw materials (e.g. steel) and key critical components (e.g. rotary motors) to the Company	Re-evaluated annually
Category B	External suppliers of purchased products for the Company other than those in categories A and C	Re-evaluated annually
Category C	External suppliers who provide the Company with auxiliary materials or processes that are not directly used in the product, such as packaging materials, ancillary services, etc.	Exemption from re-evaluation

## Supplier evaluation

We evaluate and re-evaluate qualified external suppliers in accordance with regulations, with the aims of reducing supplier risk and improving delivery capability. The types of external supplier assessment include sample inspections, performance assessments, capability or qualification surveys and on-site evaluations.

### Qualified suppliers evaluation

The Company conducts capability qualification surveys and on-site evaluation of suppliers, as well as inspection or testing of samples or specimens provided by suppliers, and records the results on the Qualified Supplier Assessment Record, which is submitted to the management representative for approval before being added to the list of qualified suppliers.

### Re-evaluation of qualified suppliers

The Company keeps statistics on the performance and quality compliance of former qualified suppliers in terms of price of supply, timeliness of delivery, degree of cooperation, etc. and records the results on the External Supplier Performance Statistics Form, which is submitted to the management representative for approval before re-entry into the list of qualified suppliers.



Grade				
Score	≥90 points	≥80 points	≥60 points	<60 points
Grades	A	B	C	D
Meaning	Excellent	Good	Defective	Poor
Measures	Preferential procurement for equal price and service	Encouragement of further improvement	Notification of suppliers of targeted improvements and provision of improvement reports	Elimination as a result of three consecutive D grades or a cumulative total of five D grades in a year

		2022
Number of supplier evaluation	Number of evaluated supplier	
<b>52</b>	<b>48</b>	
Number of passing supplier(evaluation)	Number of passing supplier(re-evaluation)	
<b>43</b>	<b>5</b>	

### Supplier elimination

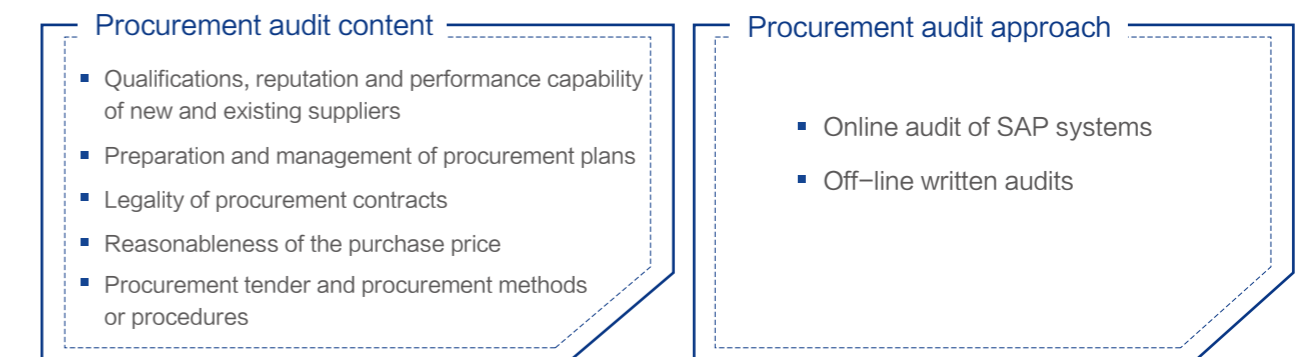
For external suppliers with serious failures or continuous failures, the Company will issue Supplier Correction Order and ask them to analyze the reasons and take measures to improve the quality, and if the quality does not improve significantly after issuing the order twice, they will be eliminated from the list of qualified external suppliers. In addition, the Company will eliminate any supplier who has received three consecutive D grades in the supplier evaluation or five D grades in a year.



## Implementing sunshine sourcing

Arctech actively practices the concept of sunshine procurement and incorporates it into its procurement strategy, insisting on transparency in every aspect of the procurement plan, procurement information, procurement process and procurement results, and eliminating all hidden operation risks.

We conduct procurement audit in accordance with the procurement audit key points set out in the Audit Management Procedures for Procurement to ensure that the procurement process is fair, just and open.



## Strengthening supply chain construction

Arctech continues to steadily promote the construction of a global supply chain, effectively identifying and linking supply resources that match Arctech's brand and quality system, continuously improving and optimizing the global supply chain ecology, and relying on the global supply chain to build up a strong global delivery capability.

We are committed to laying out a strategic supply chain, actively building a strategic supplier system, clarifying the criteria for shortlisting strategic suppliers, communicating with suppliers in advance to promote the procurement of key materials and strategic significance, conducting supplier conferences and inviting over 110 supplier representatives to attend the conferences to discuss future strategic planning, with a view to establishing a strategic partnership with suppliers for win-win cooperations, co-management and mutual growth, and focusing on achieving sustainable development.

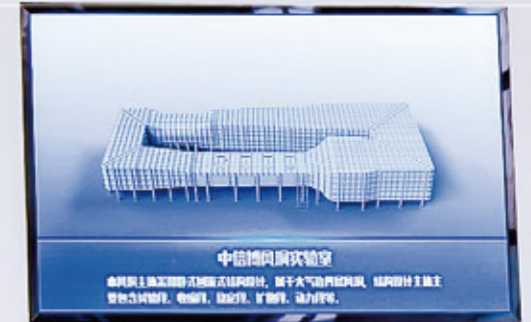




# 中信博风洞实验室

## ARCTECH Wind Tunnel Laboratory

哈尔滨工业大学土木工程学院  
研究生实践基地



# R&D and Innovation

### Our philosophy

Arctech is based on the R&D principles of being close to the market, customer, process and production, and essence; enhancing product competitiveness and promoting low-cost advantages with high-quality innovation throughout the product life cycle; and enhancing customer satisfaction and adhesion with innovation in efficient management and service throughout the project delivery cycle.

### Our actions

- R&D System Building
- Achievements & Protection
- Values Creation Initiative

### SDGs



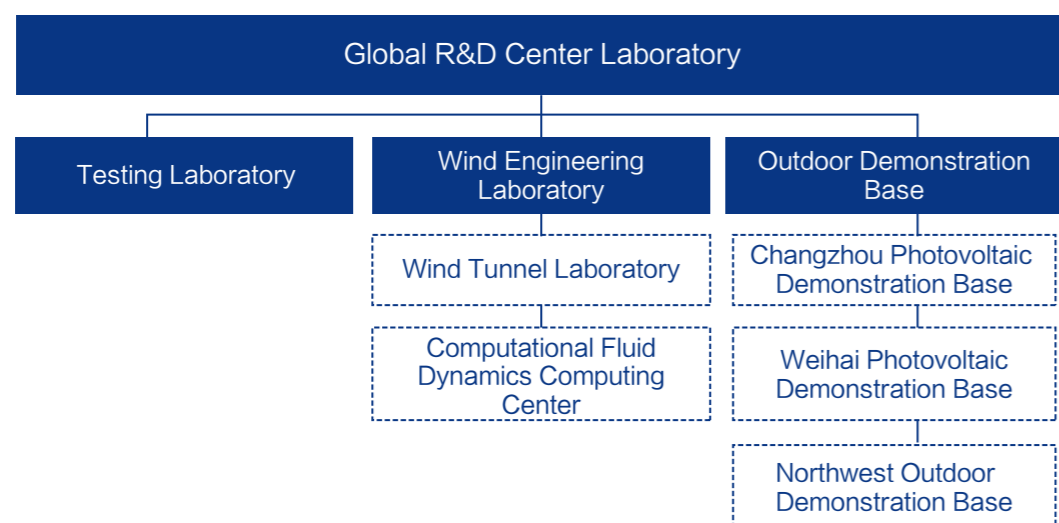
As a high-tech enterprise, as well as a specialized and sophisticated enterprise that produce new and unique products, Arctech continues maintaining a high level of R&D investment in the field of trackers, fixed structure and BIPV, continuously improves the Company's R&D management system, devotes itself to building a global leading R&D innovation platform, sustains to nurture R&D personnel, deeply participates in industry-university-research cooperation, leads or participates in the formulation of standards, and other multiple measures to improve the quality of R&D.

# R&D System Building

## R&D innovation platform

Established in 2016, Arctech Global R&D Center Lab provides functional and reliability testing for the Company's solar fixed structure, adjustable fixed structure, BIPV structural components, flexible structure and tracker components and systems, including three parts: the Testing Laboratory, Wind Engineering Lab and Outdoor Demonstration Base.

Arctech Global R&D Center Lab has been accredited by authorities at the provincial and municipal level respectively. Also it has been obtained the TMP Lab Accreditation issued by TÜV SÜD and the Lab Accreditation Certificate issued by CNAS.



R&D Center Lab Organization Structure

### Testing Laboratory

The testing laboratory has been established and continuously and effectively operates a quality management system in strict accordance with the requirements of CNAL/Ac01 "Accreditation Guidelines", strictly implements the relevant systems, procedures, methods and protocols, and continuously improves the overall quality and level of testing technology and equipment. It can independently complete the testing of the three major international testing and certification standards for PV tracker systems: safety standard UL2703, UL3703 and functional standard IEC62817. The testing laboratory was qualified by CNAS in October 2022.



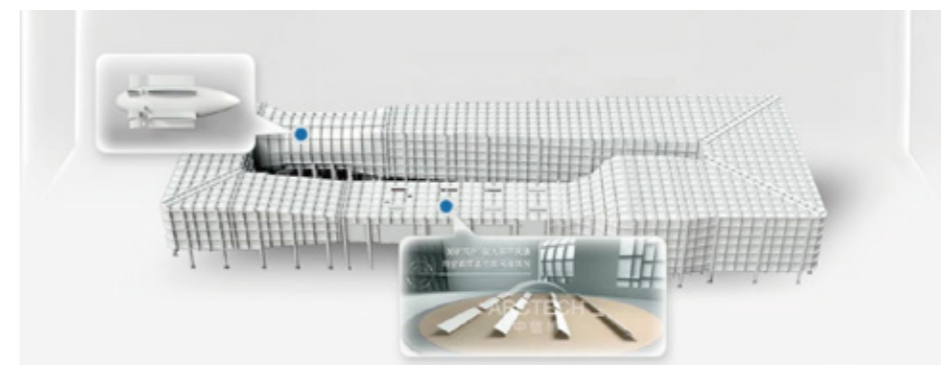
China National Accreditation Service for Conformity Assessment Lab Accreditation Certificate

Notes: ①UL2703: Safety standards used for installing system of tablet PV modules and solar panel, installation equipment, jigs/fixtures and grounding connector. ②UL3703: Design review standard for solar tracking system. ③IEC62817: Safety standard for solar trackers.

### Wind Engineering Laboratory

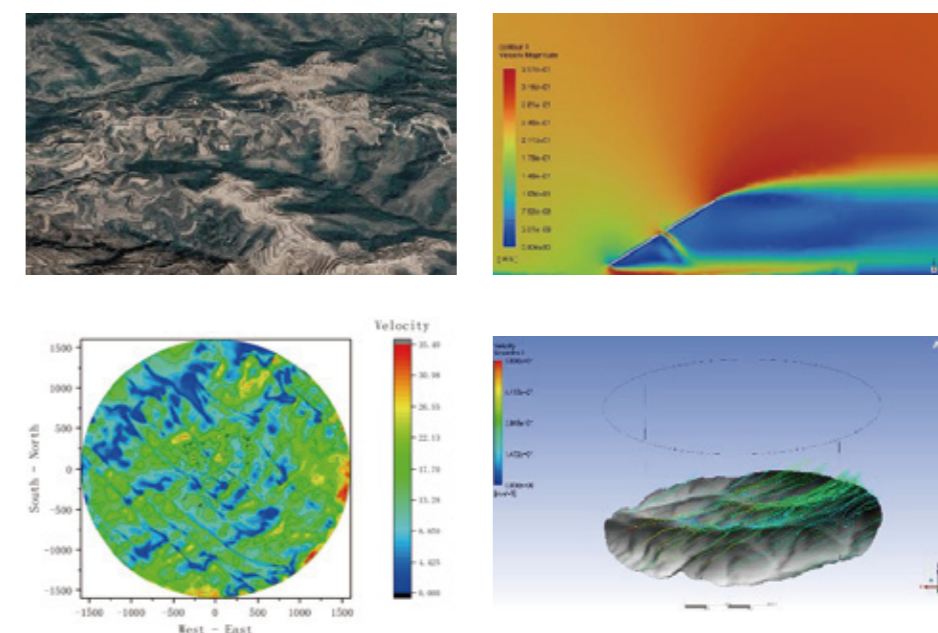
The Wind Engineering Laboratory includes Wind Tunnel Lab and CFD (Computational Fluid Dynamics) Computing Center which provide theoretical support for the optimization and upgrading of the Company's existing products and the design of new products. Arctech is the first Company in the global PV industry to invest in a Wind Tunnel Lab and a CFD Computing Center.

The Wind Tunnel Lab is equipped with advanced wind speed, pressure and displacement measuring instruments to conduct wind tunnel testings on rigid and aeroelastic models. The wind pressure and vibration displacement data obtained from the testings are used to analyse the stresses and aerodynamic stability of PV structures to guide the design of PV products.



Wind Tunnel Lab

The CFD presents the results of the "wind tunnel" in a visual and illustrative way by constructing a calculation model with the same dimensions as the actual product and combining it with graphic display technology. And it enables specific data such as wind pressure coefficients to be obtained and the aerodynamic stability of the PV structure to be assessed. At the same time, it is a very effective research tool for the simulation of wind fields in complex terrain for PV matrices.



CFD analysis of PV power plants in complex terrain

## R&D personnel resources

Arctech continues strengthening its R&D capability, reinforcing the construction of internal and external talents, integrating global R&D technology and R&D personnel resources, and building an international first-class R&D team.

### Attracting and developing technological talents to improve the professionalism of all staff.

Every year, we introduces newly graduated university students for internship and training in relevant positions as reserve personnel training, and strengthens cooperation with universities and plans to strengthen the professional skills and academic knowledge of in-service technological talents by the form of concentrating on academic knowledge upgrading classes.

### Industry-University-Research integration for technological talent training and product innovation

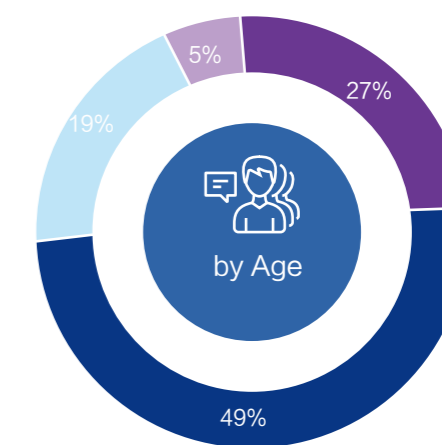
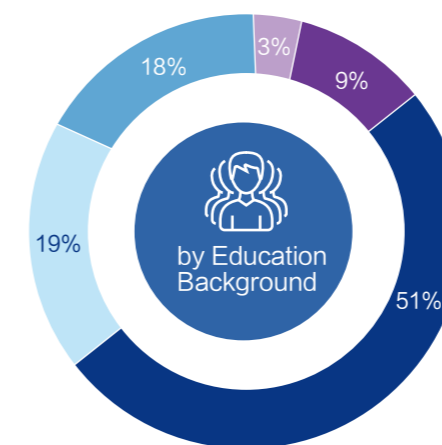
We actively cooperate with universities in depth, providing a platform for the cultivation of scientific and innovative talents through the establishment of postgraduate practice bases and joint laboratories, and we also cooperate with universities in special activities for new product development and innovation. For example, we cooperate with Harbin Institute of Technology to develop flexible structure products, and carry out wind tunnel testing and research with Hunan University and Polytechnic University of Madrid, Spain.

### Introducing external experts and promoting scientific and technological innovation through industry experts and project leaders

We have signed expert consulting contracts with experts in the industry, such as structural, electronic and new energy batteries, to carry out joint innovation activities. We cooperate with the team of the Shen Xueji, an academican of Chinese Academy of Sciences and jointly establish the academican workstation in Jiangsu Province. Relying on this platform, the Company gives full play to the resource advantages of academican experts and their scientific research team and continuously carries out cooperation in technical consultation and guidance, scientific research project cooperation and research, high-level talent team building and technical achievement introduction and transformation. The Company also establishes Jiangsu Province Postdoctoral Innovation Practice Base to attract highly educated and qualified talents for scientific research and innovation.

### Conducting R&D innovation incentives to stimulate innovation of R&D personnel

Through the establishment of the R&D Center Special Bonus Implementation Management System, we rewards the R&D projects which are carried out by R&D personnel according to the completion of the projects and the creation of efficiency, and gives incentives to them through special bonuses for publishing papers, participating in the development of standards and declaring patents. At the same time, the Company actively carries out innovative activities such as "Innovation Competition" to stimulate the innovation enthusiasm of R&D personal.



Doctor Master Bachelor  
Junior College High School and below

Under 30 years old  
30-40 years old  
40-50 years old  
50-60 years old

### Case Arctech conducted in-depth cooperation with Northwestern Polytechnic University

In August 2022, the Company signed a cooperation agreement with Northwestern Polytechnic University, which will be based on Joint Wind Tunnel Lab cooperation, and will provide in-depth cooperation in wind engineering PV industry applications, wind tunnel testing technology, PV rack wind resistance design, as well as innovative applications and capacity building, joint research, and personnel training.

After the establishment of the Joint Wind Tunnel Lab, the Northwestern Polytechnic University School of Mechanics and Civil Engineering and Construction Postgraduate Practice Base was also set up, through the school-enterprise collaborative education method to break through the school-enterprise barrier, truly achieve the deep industry-university-research integration, and improve the cultivation of practical high-level talents.



Northwestern Polytechnic University Joint Wind Tunnel Lab

R&D investment	The proportion of R&D expenses to total operating revenue	R&D personnel	Percentage of R&D personnel	2022
127.39 million	3.44%	161	12.48%	

# Achievements & Protection

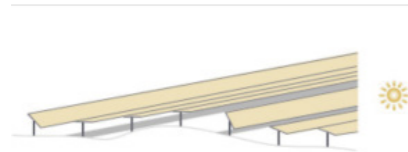
## R&D leadership

Supported by the R&D system and the R&D investment, Arctech continues to innovate in R&D, accumulating core technologies and occupying the technological heights of the industry.

### Case The Next Generation of AI Solar Tracking Solutions

Arctech takes the lead in putting forward AI solar tracking solutions in the PV industry. In order to help PV tracking power plants adapt to different conditions like various module technologies, various weather conditions, various terrains and various topographies, Arctech has developed a new generation of AI solar PV tracking solutions, which can improve power generation of solar PV plants by up to 7%.

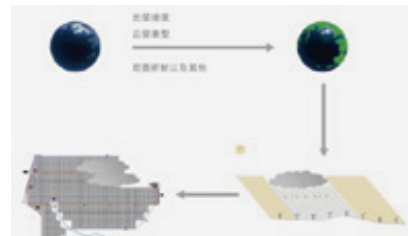
Arctech has invited DVN-GL, an accredited certification body, to conduct a technology assessment of the simulation and empirical power generation data, and the result showed that Arctech's estimates were consistent with DVN-GL's energy simulation and previous experience.



Tracking control strategy under real terrain conditions (an increase of 0-6%):

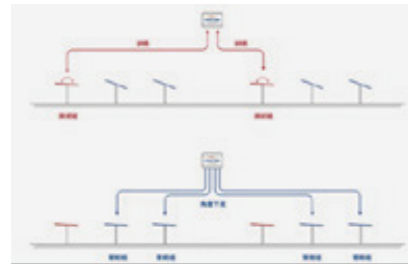
- Analyze terrain undulation and tracker layout
- Optimize the backtracking algorithm
- Avoid shadows between arrays and maximize light collection

人工智能跟踪算法



Cloud strategy based on real-time weather data (an increase of 0.5-2%):

- Establish a weather database combined with real-time weather data
- Obtain the cloud image in real time and predict the cloud projection area
- Identify the projection area and manage the tracking methods of different irradiation areas



Bifacial strategy for bifacial modules & trackers:

- Set up testing groups to capture the best tracking tilt in real time through rapid rotation
- Combine advanced search algorithms, machine learning algorithms, and deep neural networks
- Perform centralized search and distributed feedback on irradiation and obtain and judge the best tracking tilt for the bifacial modules



Control strategies base on sharing parameters with inverters:

- Use of real-time IV characteristics of PV arrays as the feedback signal to realize the AI tracker control strategy
- Analyze the PV modules/strings energy yield performance and Pyranometer/Albedometer

The Next Generation of AI Solar Tracking Solutions overcomes the limitation that traditional tracking system and is only applicable to "flat land + sunny day + single-sided module". In May 2022, Arctech was awarded the "2021 Technology Award of the China Renewable Energy Society" for this technological innovation project.

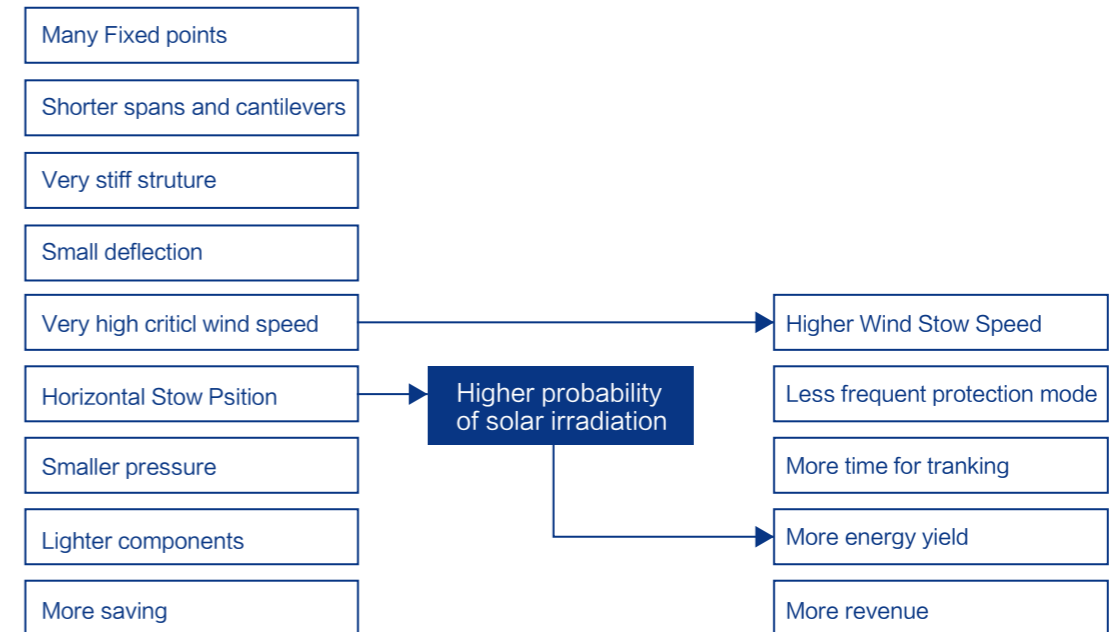


2021 Technology Award of the China Renewable Energy Society

### Case Increase PV Energy Yield with Superior Stow Parameters Enabled by Rigid Trackers

In pursuit of lower LCOE, PV cells and PV modules have increased in size these years. However, these large modules pose many challenges to the traditional solar trackers, which are flexible structures by nature. Arctech was the first supplier who upgraded both their 2P and 1P tracker lines to a truly rigid design through an innovative "multi-drive" mechanism to cope with those challenges.

These optimized stow parameters can also help prevent energy losses and increase energy generation and revenue to a considerable extent.



The stiff tracker can improve the project financial performance

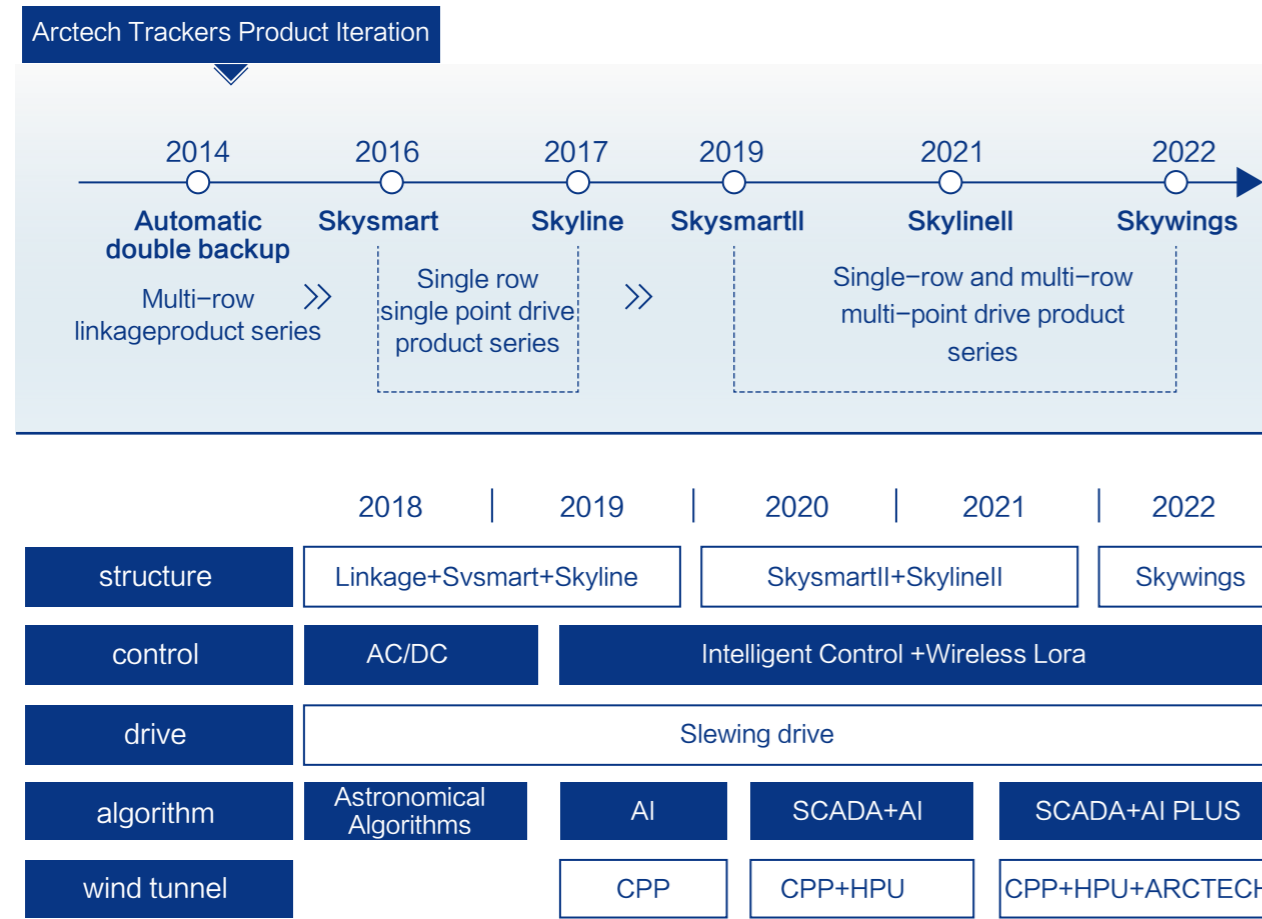
## Products upgrades

### Solar structures

Cost reduction and efficiency improvement are the main themes of continuous innovation of solar structures technology and products. In line with the development trend of PV technology, Arctech continues to carry out technological innovation, and has continuously launched a series of market competitive solar structures products to promote the reduction of costs and improvement of efficiency of PV power plants.

Arctech has achieved full coverage in the field of solar structures from fixed structures and adjustable fixed structures to independent row 1P tracker and linked multi-row linked tracker, and has achieved breakthroughs and upgrades in all aspects of structure, control, drive, algorithm and wind tunnel.

During the reporting period, Arctech has successfully launched its latest solar tracking solution, SkyWings, which is the world's first 1P multi-point parallel drive + linkage combination of trackers, safe operation wind speed up to 22m/s, reduce the frequency of high wind protection start, effective power generation time longer. At the same time, the SkyWings is more flexible in expansion, optimizing the layout of the site, achieving higher installed capacity in the same area, and effectively reducing the number of columns installed, reducing the overall cost of the system.



The SkySmart II and Skyline II with multi-point drive technology have been widely used in the construction of many domestic and international PV projects. These include the 2.1GW in Abu Dhabi, Egypt, 2.8GW in Adani, India and 1.5GW in ASb1, Saudi Arabia, which are global benchmark projects.

### Case The current world's largest single tracker application project

Among a number of globally renowned tracker suppliers, China Machinery Engineering Corporation, the main contractor for the Abu Dhabi tracker application project, has selected Arctech as the tracker supplier for the project. The project uses Arctech's flagship product, the Skysmart II.

The project site is rich in sunshine resources, but it has a large area of sand dunes formed by wind and sand, with high average humidity and shallow groundwater and a high corrosion rating. The project site is designed for a maximum wind speed of 45m/s, which requires a high level of safety and stability and overall operation and maintenance of the stand.

Arctech has made a customized solution design for this project, all of which adopt concrete pile foundation to improve installation stability. The rack corrosion grade c4 uses advanced magnesium aluminum zinc plating material to improve corrosion resistance. For different styles of components, we optimize the tracking system design, optimize the adaptability design and installation deployment with the cleaning robot, and make the later operation and maintenance more convenient.



PV Plant in the Abu Dhabi Tracker Application Project

### BIPV solutions

To develop low-carbon and green buildings and optimize the energy consumption structure of enterprises, the combination of PV and buildings is bound to become the first choice for industrial buildings. In line with the tenet of "Technology Empowering Green Buildings, Let Rooftops Become PV Power Stations", Arctech has been developing and exploring BIPV system solutions since 2016, and has launched "Smart Rooftop", "Dual Rooftop" and "Ruiding" solutions for different types of roofs, and also developed the solution for PV carport – Solar carport to meet the needs of different customers.



Arctech obtained Building Integrated PV (BIPV) Technology Leadership Award on November 2022

### Intellectual property management

Arctech attaches great importance to the global layout and comprehensive protection of its own intellectual property. We have clearly defined our IP policy and objectives, formulated a series of IP management systems, such as IP Brochure, IP Management System, Patent Application Incentive System and Confidentiality Management Control Procedures, and set up a management department for IP work, specifically coordinating IP application, protection, process monitoring and regular evaluation. We have passed the GB/T29490-2013 intellectual property management system. We encourage employees, especially R&D personal, to apply for patents to protect technical achievements and at the same time enhance the awareness of not infringing others' intellectual property. In 2022, we have obtained 121 new patents.



GB/T29490-2013 Certification of Intellectual Property Management System

Key Performance	Annual granted patents (cases)	Total granted patents (cases)
Invention patents	14	45
Utility model patents	58	297
Design patents	3	20
Software copyright	46	51
<b>Total</b>	<b>121</b>	<b>413</b>

### Some of the patents display



A forward design method for steel frame structure of PV panel



A parameter calculation method for bifacial module system



The invention relates to an intelligent tracking method and system of PV support based on strong wind environment



Anchoring device for PV module and solar tracker

# Values Creation Initiatives

## Leading standard setting

Arctech plays an important role in drafting and revising international and national tracker standards to ensure durability, reliability, flexibility and performance of solar trackers. Arctech has led and participated in the formulation of 1 international standard and 2 national standards, 1 industry standard and 2 group standards.

In the field of BIPV, Arctech has jointly edited the “Technical Specification for Application of Integrated Roofing Panels for PV Buildings” with Tongji University, which mainly solves the fire resistance and structural problems of PV modules for use as roofs and has made outstanding contributions to the development of BIPV standardization in China.

Number	Standard name	Standard type	Participation method
1	PV systems – Requirements for design qualification of solar trackers	International standard	Leading
2	Sun tracker safety requirements	national standard	Leading
3	Design requirements of horizontal single-axis tracker	national standard	Participation
4	Guidelines for supervision of PV power station tracking system and support	Industry standard	Leading
5	Technical requirements for local frame for crystalline silicon PV modules	Group standard	Leading
6	Technical specification for application of integrated roofing panels for PV buildings	Group standard	Leading

## Rural revitalization

Arctech actively responds to the national development strategy, strengthens scientific and technological innovation, and positively undertakes its mission. *The Implementation Opinions on Accelerating the Transformation and Development of Rural Energy for Rural Revitalization* issued by the National Energy Administration, the Ministry of Agriculture and Rural Affairs and the National Rural Revitalization Administration proposes to take green and low-carbon energy development as an important foundation and driving force for rural revitalization, encourage the construction of PV + modern agriculture, and actively cultivate new energy + industry. Arctech has responded positively and joined hands with many partners to promote and implement various "PV+" projects in agriculture, forestry, animal husbandry and fishery, contributing to the transformation of rural energy development on the road to "rural revitalization and common prosperity".

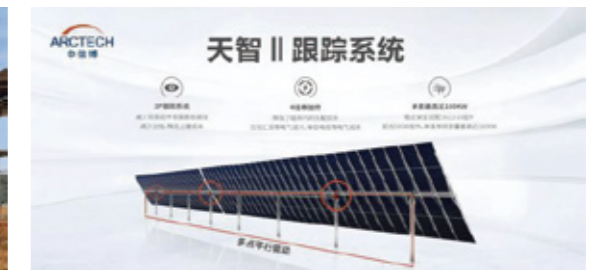
### Case Cooperation with Sungrow for fishery and light complementary solar power plant

In 2022, Arctech and Sungrow Power Supply Co., Ltd. ( “Sungrow” ) completed the delivery of a 60MW tracking system for aquaculture-complementary solar power station. With its excellent performance, the SkySmart II tracking system becomes the preferred tracker for this project.

As one of the “PV+” industries, the fishery and light complementary model forms an intensive development mode of "power generation above the fish pond and fish farming below it", "one resource, two industries", which can achieve the effect of "1+1 > 2". The solar panels can also reduce evaporation from the water surface, inhibit algae reproduction and protect water resources, thus achieving a multi-win situation in terms of social, economic and environmental benefits.



Fishery and Light Complementary Solar Power Station



SkySmart II Tracking System

### Case Partnering with Guangxi Yuchai to create 250MW "PV+" to help rural revitalization

In 2022, Arctech and Guangxi Yuchai New Energy Co., Ltd ("Guangxi Yuchai") reached a simultaneous agreement to cooperate on 2 “PV+” projects with a total installed capacity of 250MW, namely 150MW Guigang Pingnan project and 100MW Liuzhou Rong'an project.

150MW Guigang Pingnan project would be installed with a combination of Skyline I and Skyline II systems. 100MW Liuzhou Rong'an project is a project of "fishery-solar complementary + agriculture-solar complementary", 70MW of flat single-axis tracker systems and 30MW of fixed structure systems are planned to be provided.

As always, relying on complementary resources and playing to its own strengths, Arctech is actively responding to the national policy call to "accelerate the transformation and development of rural energy to help rural revitalization" and exploring a new path for China's “PV+” industry to grow bigger and stronger.



Guigang Pingnan Project Site



Liuzhou Rong'an Project Site





# Employee Development

## Our philosophy

Arctech values its employees and is committed to becoming the best stage for them to realize their value in life, creating greatness, growing together and sharing the benefits with them, encouraging them to make continuous progress, realizing their dreams and continuously improving their quality of life through striving.

## Our actions

- Employee Employment & Structure
- Employee Rights & Protection
- Training & Career Development
- Employee Care & Welfare

## SDGs



# Employee Employment & Structure

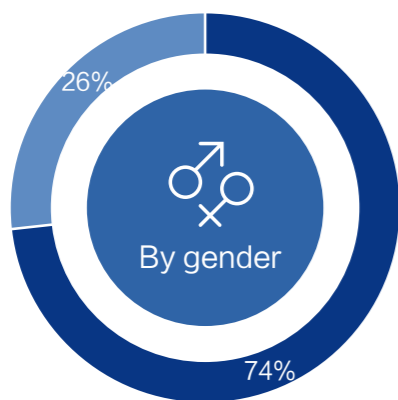
## Employment opportunities

Arctech strictly abides by *Labor Law of the People Republic of China and Labor Contract Law of the People Republic of China*, and constantly improves the relevant human resource management. We persist in the principles of openness, equality, competition and merit, and absorb outstanding talents from all over the world through diversified recruitment channels, while strictly prohibiting the recruitment and use of child labor and forced labor. All employees sign labor contracts with the Company on a voluntary basis, and we insist on treating employees of different countries, nationalities, ages, genders and religious beliefs equally in the processes of recruitment, training and promotion and in remuneration systems. During the reporting period, we have never experienced any incidents of human rights violations such as child labour, discrimination, harassment and forced labour.

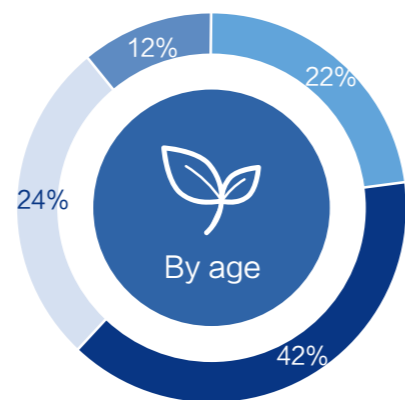
As of 31 December 2022

Total employees	Percentage of foreign employees	Percentage of ethnic minority employees
<b>1,290</b>	<b>2.6%</b>	<b>2.2%</b>
Percentage of disabled employees	Employment contract signing rate	
<b>0.31%</b>	<b>100%</b>	

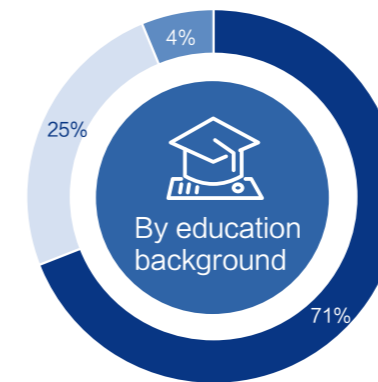
## Employee structure



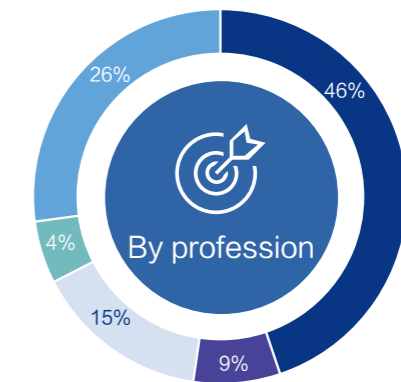
■ Male employee  
■ Female employee



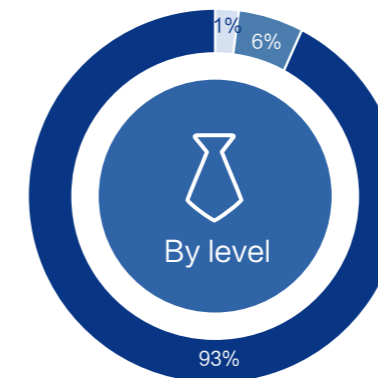
■ Under 30 years old  
■ 31-40 years old, 41-50 years old  
■ 41-50 years old  
■ Above 50 years old



■ Junior college or below  
■ Bachelor  
■ Master and above



■ Production ■ Sales ■ Technical  
■ Financial ■ Administrative



■ Senior management  
■ Middle management  
■ General employees

## Employee turnover

2022

New employees	Social recruits	Campus recruits
<b>735</b> persons	<b>725</b> persons	<b>10</b> persons
Resigning employees	Overall employee turnover rate	
<b>622</b> persons	<b>4.2%</b>	

# Employee Rights & Protection



Social insurance coverage rate



Employee satisfaction rate



Expenditure of basic welfare

## Working hours and holidays

Arctech complies with the relevant labour laws and regulations, formulates a reasonable attendance system, regulates the working hours of employees and ensures that employees work and rest reasonably. The Company implements a five-day, eight-hour work schedule. In case overtime is required under special circumstances, employees need to apply for overtime work according to internal procedures.

According to the Company's operation situation and the different responsibilities of the employees, it is stipulated that the standard working hours employees (production first line persons) can enjoy the statutory standard multiplier overtime fee when they work on their rest days. The work responsibility system employees (director-level (inclusive) or below persons) can apply for the same time off according to the work situation, but statutory holidays overtime is calculated at 3 times the overtime charge, and they can apply for overtime allowance if it is unable to arrange a transfer at the specified time.

The Company legally ensure that all employees to enjoy statutory holidays, and all female employees are entitled to maternity leave, lactation leave, parental leave and other leave entitlements, while male employees are entitled to nursing leave.

## Democratic management

Arctech attaches importance to the role of democratic management, participation and supervision of employees, and has built a variety of communication channels between the Company and its employees. Employees' congress is the basic form of implementing democratic management and it is the organization through which employees exercise their right to democratic management. The Company gives full play to the rights and roles of Employees' congress assembly in considering major decisions, supervising the managerial personnel, and safeguarding the rights and interests of employees. The Company establishes and constantly improves the System of Employees' Congress Assembly, strictly regulates the democratic management and democratic supervision mechanism, holds regular Employees' congress, and fully respects the employee's rights to information, participation, expression and supervision.

The Company held employees' congress **1** time

2022

## Female rights

We adhere to the implementation of the *Law on the Protection of Women's Rights and Interests* and the *Labor Protection Regulations*, we prioritize the legitimate rights of female employees and strictly prohibit the arrangement of female employees in pregnancy, breastfeeding and special periods to engage in state-prohibited work or reduce their basic salary, and effectively carry out in the health care of female employees and arrange medical examination for female employees at least once every two years for women's diseases.

## Employee health

We attaches importance to the occupational health and safety of our employees, establish a sound occupational health and safety management system, actively implement the responsibility system for prevention and control of occupational disease hazards, and are committed to creating a healthy and safe working environment for our employees, starting from various aspects such as occupational health risk assessment, risk control, personal protection, and publicity and training.

### The prevention of occupational diseases

The production process of PV rack mainly involves processing of columns, main beams, purlins, welded parts and other mechanical processing as well as galvanizing, corresponding production processes are mainly divided into cold-forming, punching, welding, sawing, slitting, and they generate equipment noise, radiation, bright light stimulation, smoke and inhale airborne dust and chemical exposure hazards during the hot-dip galvanizing process.

#### Occupational disease prevention measures

<b>Training on occupational disease protection</b>	<ul style="list-style-type: none"> <li>Training on occupational disease prevention before and during employment.</li> <li>Setting warning signs and warning instructions in conspicuous locations.</li> <li>Supervising employees in the use of labor protective equipment.</li> </ul>
<b>Regular monitoring of occupational hazards</b>	<ul style="list-style-type: none"> <li>Conducting pre-employment, on-the-job, off-the-job and emergency medical examinations, and establishing occupational health monitoring files.</li> <li>Assessing the Company's positions with high occupational disease hazard and establishing files and accounts.</li> <li>Regularly commissioning qualified companies to monitor occupational disease hazards and taking measures.</li> </ul>
<b>Reducing the risk of occupational disease exposure</b>	<ul style="list-style-type: none"> <li>Undertaking technical transformation of positions where occupational disease hazards exist to reduce them to a minimum level.</li> <li>Ensuring that the purchased labor protection supplies, equipment and facilities comply with regulations and are regularly repaired, maintained and updated.</li> <li>Improving the management of toxic and hazardous, dust and noise operations to reduce the risk of occupational disease exposure.</li> </ul>

Key Performance	2022	2021	Unit
Safety production investment	118.41	1.23	million
Physical examination coverage rate	100	100	%
Incidence of occupational diseases among employees	0	0	%
Number (s) of safety accidents	8	18	Case (s)
Number (s) of work-related deaths	0	0	Person (s)
Number (s) of work-related injuries	8	18	Person (s)
Lost days due to work injury	335	523	Day (s)

# Training & Career Development

Arctech has a sound education and training management system for employees, providing continuous and targeted training for their career development, and is committed to enhancing the quality and capability of employees at all levels. During the development and implementation of training programs, the Company pays attention to the needs of different categories of personnel at different levels, combines internal training with external training, and provides targeted training for different categories of personnel at different levels, such as induction, professional and management, through lectures, on-site operations, case sharing and other forms of instruction.

## Training System for Arctech Employee

Type	Content
Pre-job	New Employee Orientation Company basic education: Introduce the Company's development history, organizational structure and responsibilities, the Company's business objectives, the tasks of current stage, the Company's rules and regulations and staff discipline, as well as safety and environmental awareness, corporate culture, team spirit, etc. Basic education for each department: Learning the basic knowledge necessary for the work of the department, mainly including the Company's management procedures, job responsibilities, internal and external relations of the position, etc., and teaching the relevant technical knowledge.
	Transfer Training Training on the job skills and responsibilities required by employees after transfer.
During the Post	Public Course Training The training that all employees are required to receive includes quality training, cost management training, corporate management philosophy and values training, execution and time management training, etc.
	Professional Course Training Training aimed at improving employees' professional skills and work efficiency.
External Training	Training for cutting-edge technologies/knowledge, etc. that cannot be met internally.


2022


Employee training investment	Number of training sessions	Number of employees accepted training
<b>1.20</b> Million	<b>180</b> Session	<b>1,300</b> Person time
	Training coverage	Number of hours for training per person
	<b>91%</b>	<b>16</b>


# Employee Care & Welfare


We value the development of team spirit and a sense of belonging among our employees. We advocate that the Company and the employees make progress together and strive to provide good working conditions, a healthy living environment and a broad space for development for our employees, and organize a variety of activities to safeguard their physical and mental health. We provide our employees with good dormitory conditions and a staff canteen at our head office, we also have a basketball court, a badminton court and a gymnasium in our office area to enrich our employee's spare time. Our employees are entitled to national holidays and annual leave, and can enjoy birthday packs, holiday gifts and year-end awards and other welfare benefits.

## Welfare System for Arctech Employees

-  **Employee insurance**

The Company pays basic social insurance for employees in accordance with national regulations.
-  **Vacation benefits**

Employees are entitled to legal holidays, annual leave, wedding leave, bereavement leave, maternity leave and other paid leave.
-  **Health examination**

The Company regularly organizes health check-ups for employees.
-  **Benefit allowance**

Employees can enjoy birthday packages, holiday gifts, staff dormitories, staff canteens and other welfare benefits.



# Safety Operations

## Our philosophy

Arctech adheres to the safety principle of "safety first, prevention oriented and comprehensive management", attaches importance to employee safety education, continues to improve the safety production system, consolidates the foundation of safety production, and promotes the safe, healthy, rapid and coordinated development of the Company.

## Our actions

- Production Safety System
- Safety Emergency Response
- Safety Inspections & Governance
- Safety Education & Training

## SDGs



# Production Safety System

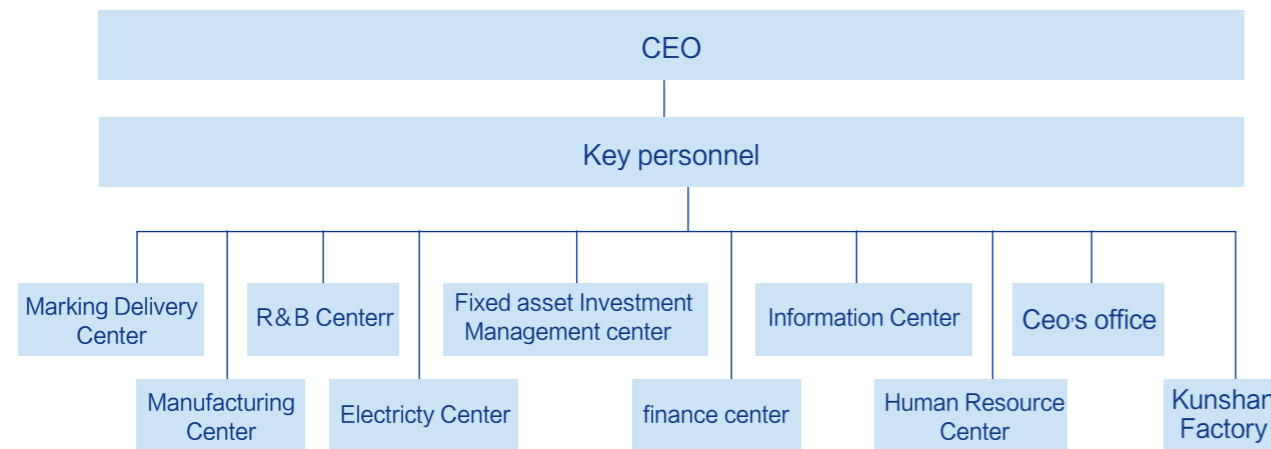
Arctech strictly abides by the and other laws and regulations as well as international conventions on occupational health and safety. The Company refers to the requirements of ISO45001 standard, continues to build a comprehensive safety production system with guaranteed system, guaranteed organization, risk control and staff obligation. The Company has been improving a series of safety production management systems, such as the Safety Production and Occupational Health Policy and Target System, Safety Production "Five Simultaneous" Management System, and Safety Inspection and Hidden Danger Investigation Management System. At the same time, in order to strengthen the management of the safety production system, the Company's safety and environment department is responsible for organizing the review and revision of the safety production system once a year to ensure the appropriateness and effectiveness of the safety production system. We have obtained the GB/T45001-2020/ISO45001:2018 Occupational Health and Safety Management Certification.



Occupational Health and Safety Management Certification

## Organization structure

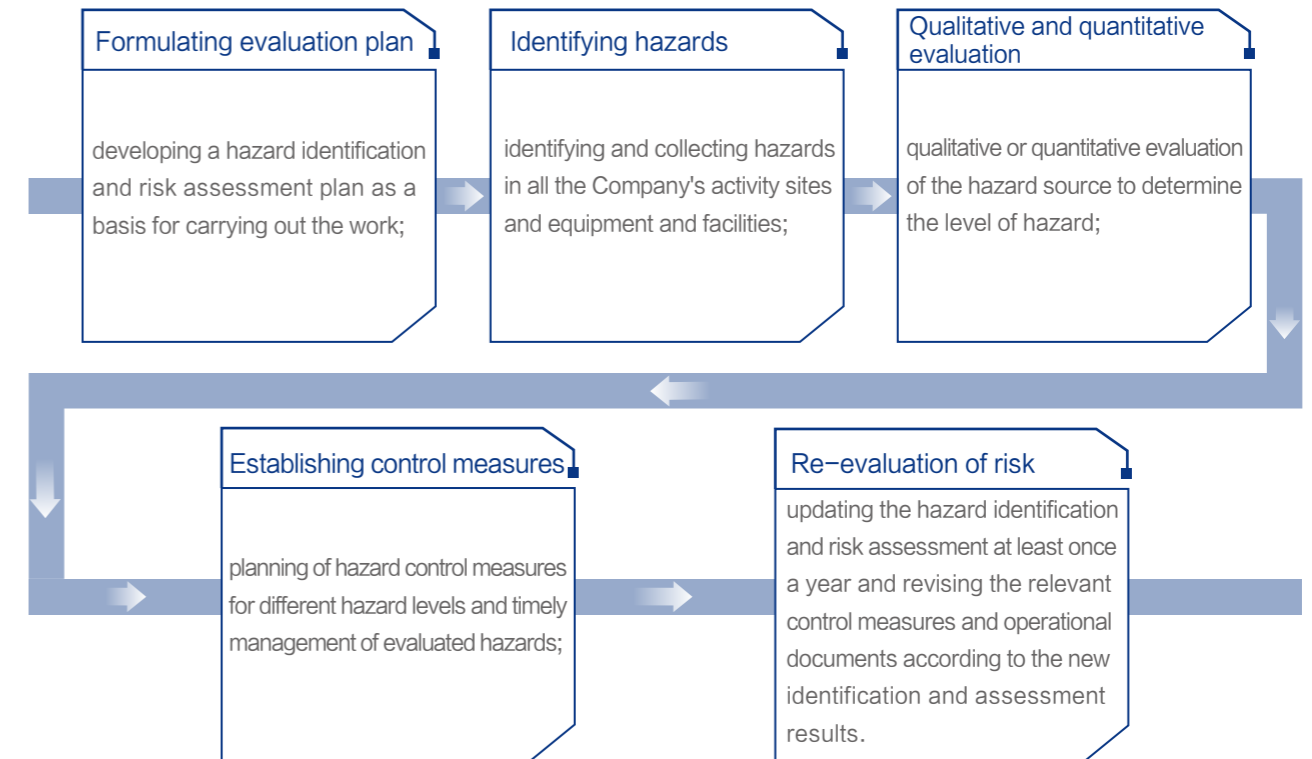
The Company sets up a Production Safety Committee, with the CEO as the chair of the Production Safety Committee, and at the same time sets up the Safety and Environment Department as the safety management organization, which is responsible for the Company's production safety management, and also sets up a Safety Management Leading Group, which is responsible for formulating the production safety related system and organizing and guiding the production safety work of all departments of the Company.



Safety Management Organization Structure

## Risk management

The Company has developed a Safety Risk Management System in accordance with the relevant standards to identify hazards, assess risks and plan management for all activities, products and services of the Company. The Company's risk management process mainly includes:



## Responsibility implementation

The Company strictly implements the responsibility of safety supervision, and carries out a full production responsibility system in which all workers are involved and are responsible for the work of safety. The responsibility for safety in production is implemented into the individual system, thus constituting a three-dimensional responsibility network system with clear responsibilities, rights and benefits.



# Safety Emergency Response

The Company attaches great importance to the emergency management of production safety accidents and has formulated the Accident Emergency Rescue Management System, Accident Management Regulations and other related systems, and sets up a production safety accident emergency rescue leading group, with its office located in the Safety and Environment Department, which is responsible for the drafting of the system, implementation and daily management of emergency drills and emergency training. Through the implementation of the system, the Company fully prevents and controls the occurrence of potential accidents or emergencies and minimizes the possible accidents.

## Workflow of safety emergency response



Operating mechanism

- Early warning for potential accidents.
- Timely reporting of accident information and pre-emptive handling after a safety incident happened.
- If the initial treatment is not effective in controlling the situation, the emergency plan is activated in a timely manner.
- Releasing job closing information when the emergency response to the accident is over.



Recovery and reconstruction

- Emergency mobilization of materials, compensation for casualties in emergencies and other aftercare work.
- Investigation and assessment of the causes, effects, responsibilities, lessons learned and rehabilitation of work safety incidents.
- Organizing and implementing the recovery and reconstruction work according to the accident recovery and reconstruction plan.



Emergency protection

- All departments according to the division of responsibilities and relevant plans shall do well with the work of production safety accidents in terms of human, material, financial, transport, medical and health care and communication security to ensure the needs of emergency rescue work.



Supervision and management

- Conducting at least one safety emergency response plan drill for every six months.
- The Safety and Environment Department is responsible for organizing safety and emergency training.
- Implementing a system of accountability, commending collectives and individuals who have made outstanding contributions to the management of emergency work, and punishing or administratively disciplining those responsible persons with dismissal or deceased acts.

## Case 2022 Fire Drill

In June 2022, the Company organized an emergency evacuation and fire-fighting drill for all staff in accordance with the 2022 Safety Work Plan. The drill basically achieved the expected results. The staff understood the emergency response procedures and members of each team took up their responsibilities and actively participated in the drill.

The drill explained to staff the use of fire extinguishers and precautions and allowed them to implement fire fighting drills so that all staff would use the fire fighting equipment correctly to ensure that they would respond positively in crisis and emergency situations to avoid fire accidents.



Personnel evacuation drill



Gathering and head-counting



Explaining and demonstrating how to use the fire extinguisher



Staff fire-fighting drills

# Safety Inspections & Governance

In accordance with the *Law on Work Safety of the People Republic of China, Interim Provisions on the Investigation and Control of Safety Accidents* and other laws and regulations, Arctech has formulated the Management System for Safety Inspection and Hidden Danger Investigation to identify, evaluate, rectify and control safety hazards, so that the safety conditions of production sites can be gradually improved.

The hidden danger inspection adopts a combination of comprehensive inspection, special inspection, seasonal inspection, holiday inspection, supervision inspection and daily inspection, and mainly investigates and manages the hidden dangers in process system, infrastructure, technical devices, operation environment, means of prevention and control, personnel behavior, as well as the weakness in production safety system mechanism, system construction, safety management organization, responsibility implementation, labor discipline, site management, accident investigation and handling. In 2022, the Company spent RMB398,700 on safety hazard identification, assessment, monitoring and correction.

2022 safety inspection activities	Number of problems	Correction rate	2022
Production site and storage site inspection for R&D center project & control box production project	21	100%	Safety hazards <b>3 cases</b>
Level 2 Safety Standardization Pre-Assessment Site Inspection	12	100%	Safety hazard correction rate <b>100%</b>

# Safety Education & Training

Arctech follows the laws and regulations such as *Law on Work Safety of the People Republic of China* and *Code of Occupational Disease Prevention of People Republic of China*, and has formulated the Management Regulations on Occupational Health and Safety Education and other related regulations to actively carry out safety education and training. The Human Resources Center summarizes the needs of education and training each year, formulates annual education and training plans, and organizes the implementation and supervision of safety education and training, co-ordinates training satisfaction surveys and assessments, and proposes rectification measures for problems found in the process of assessments.

The Company's training is mainly divided into training for new entrants to the plant at three levels, three positions of personnel (main person in charge, safety manager, special operators) training, daily training, training for outsiders and training for accidents, and assessment of internal safety training. In 2022, the Company's total investment in safety education and training was RMB 6,400.

Safety training investment	Number of safety training sessions	Number of participants in safety training
<b>6.4</b> Thousand	<b>31</b> Sessions	<b>587</b> Persons
Total hours of safety training	Safety training coverage rate	
<b>1,823</b> Hours	<b>100 %</b>	

2022

## Case 1 Watching production safety accident educational video

On 12 May 2022, the Company organized employees to watch the "2022 Kunshan Production Safety Accident Educational Video". The education training involved 24 employees and the safety awareness of the staff was improved.



Watching production safety accident educational video

## Case 2 Safety training after the National day

On 8 October 2022, the Company organized safety training for personnel who resumed work and production after the National day. The training mainly demonstrated the importance of safe production work and explained safe operation, etc.



Safety training after the National Day



# Future Prospects

In the future, Arctech will continue upholding its mission of the “empowerment of technology leads the development of industry”, focusing on three dimensions of horizontal and vertical integration of solar structures, horizontal integration of PV and advantages of related industries, through different technology overlay combination of innovation, to reduce costs and increase efficiency for PV, enhance value for customers, and contribute to the green power for a harmonious future of human beings and nature.

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	Party Building Practice	/	/
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# Feedback Form

Dear Readers:

Thank you very much for reading this report. We value and look forward to hearing your feedback on this report. Your comments and suggestions are important for us to continuously improve the level of corporate ESG disclosure and promote corporate ESG management and practice. We welcome and sincerely appreciate your valuable comments!

1. Your overall assessment of our ESG performance is:

Very Good  Good  General  Not good  Poor

2. Your overall assessment of this report is:

Very Good  Good  General  Not good  Poor

3. How well do you think we are doing in terms of stakeholder communication?

Very Good  Good  General  Not good  Poor

4. How well do you think we are doing in terms of product liability?

Very Good  Good  General  Not good  Poor

5. How well do you think we are doing in terms of environment, safety and occupational health?

Very Good  Good  General  Not good  Poor

6. How well do you think we are doing in terms of employee responsibility

Very Good  Good  General  Not good  Poor

7. How well do you think we are doing in terms of ESG?

Very Good  Good  General  Not good  Poor

8. Do you have any comments or suggestions on our performance of ESG and this report?

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You can contact us through the following methods:

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