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ZHONGHUAN SEMICONDUCTOR

Starting a New Journey with Zhonghuan

2020

SOCIAL RESPONSIBILITY REPORT OF ZHONGHUAN SEMICONDUCTOR

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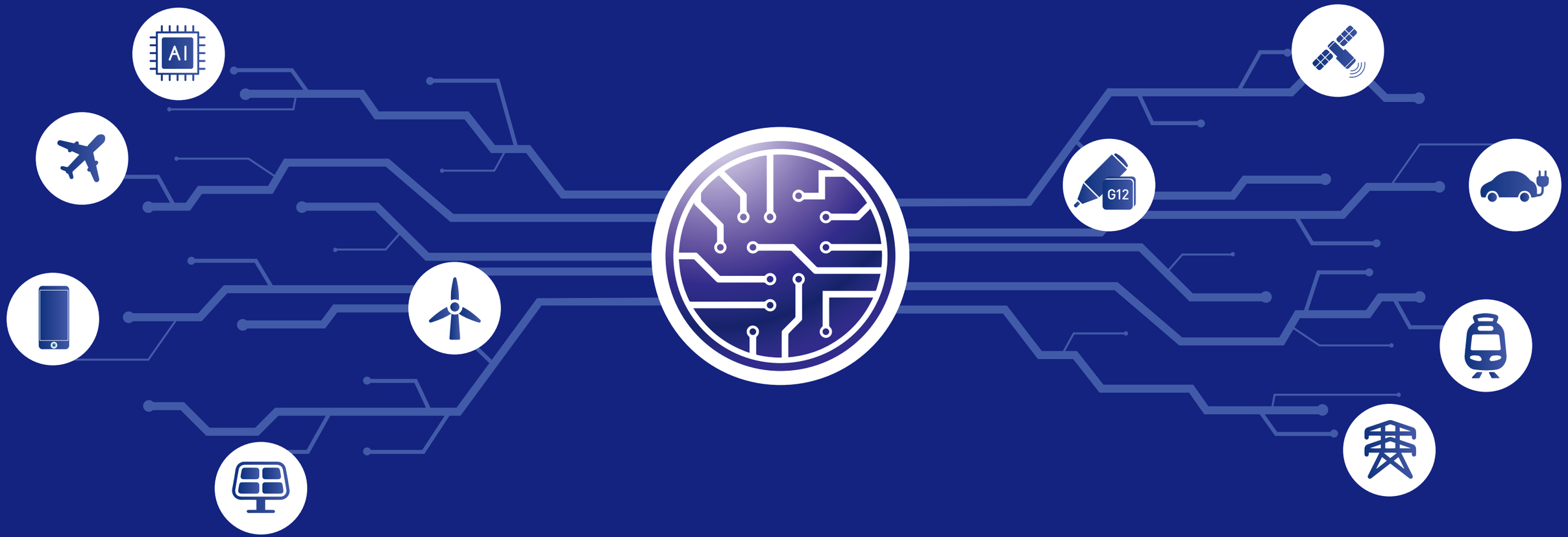
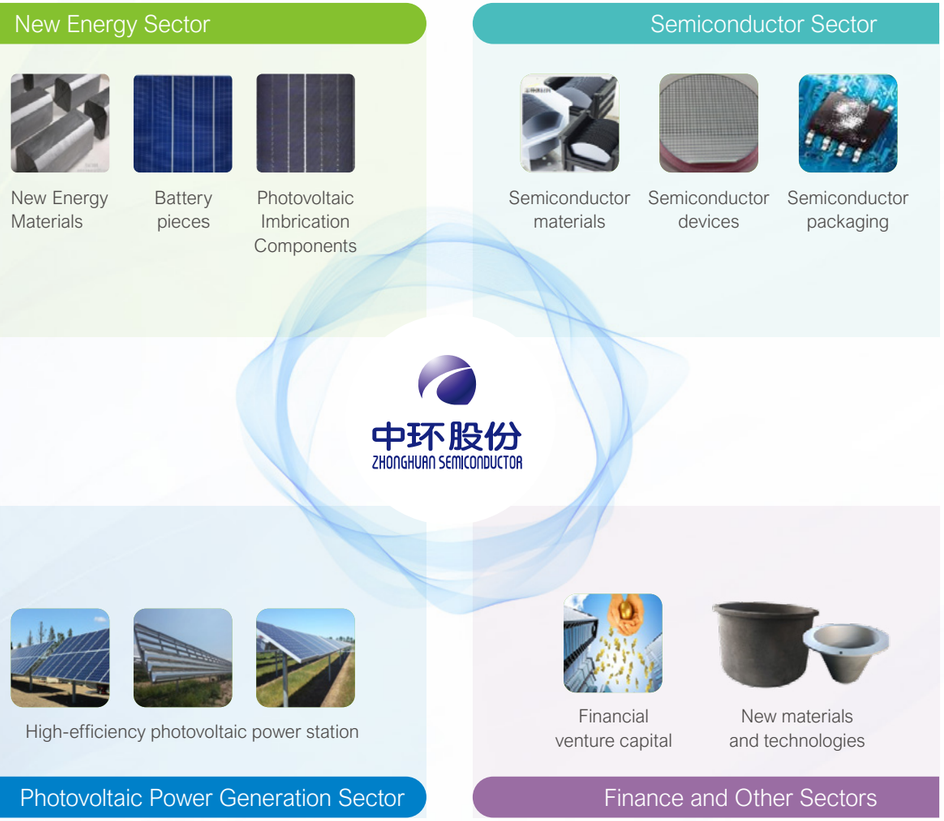


About Zhonghuan Semiconductor

Company Profile

Headquartered in Tianjin, Zhonghuan Semiconductor (stock code: SZ.002129) is a company listed on Shenzhen Stock Exchange. With 10,258 employees, it is a mixed-ownership and high-tech enterprise integrating scientific research, production, operation and venture capital. The company targets strategic emerging industry. To achieve intensive and extensive development, it focuses on four segments, namely new energy, semiconductor, photovoltaic power generation and finance, through its 68 subsidiaries. The company's products are widely used in smart grid transmission, new energy vehicles, high-speed trains, wind power inverters, integrated circuits, consumer electronics, aerospace, photovoltaic power and other fields.



The company always adheres to the corporate vision of "Environmental friendliness, Employee support, Government respect and Customer trust," and implements operation strategy of "Cross-region, Cross-sector, Multi-industry and Internationalization". Our operation also follows the idea of "financialization, capitalization and external integration to improve the company's resource efficiency." Our manufacturing business continues to maintain the concept of "lean manufacturing to increase our basic strength, embracing solid industrial competition, and developing beyond such competition through concept and technological innovation". In addition, the company actively promotes the reform of Industry 4.0 (Internet+) to further strengthen the enterprise, enhancing the enterprise vitality, development motives, anti-risk capability and market influence to ensure our sustainable development. In 2020, the total assets of the company reached RMB58.72 billion, and the aggregate operating revenue exceeded RMB19.06 billion.

Our Social Responsibility Management

Social Responsibility Philosophy

We stick to our corporate vision of "Environmental friendliness, Employee support, Government respect, Customer trust", assuring all employees and stakeholders more dignified life and work through reforming.

Benchmarking world-class enterprises, we hold advanced social value. We also embrace altruism, are willing to take social responsibility, and can create value instead of plundering values. We will uphold high standards of international business and social ethics, create value with and share value for all stakeholders as a basis to bear social responsibility and promote sustainable development of the enterprise and the society.

Our company outperforms conventional "Made in China" undertaking in manufacturing and innovation. We belong to companies that promote high-quality development as mentioned by President Xi. Sustainable development is reflected in our excellent quality, that is, focusing on our own industry with a long-term goal and the capability to develop through a cycle with industrial fluctuation.

We integrate environmental and social responsibilities into our strategic business activities, carefully manage our environmental and social risks, improve management system and supply chain performance, reduce resource consumption and environmental emissions, innovate to drive development, develop innovative talent, and promote global progress.

Social Responsibility Management System

Effective social responsibility management depends on the top-down attention from executives of the company and the establishment of the governance system. We establish the company's social responsibility to include the management participation, horizontally coordinate each functional department, vertically cover the corporate social responsibility organization system of each subsidiary company. Members of the team are personnel in charge of each functional department.

Social responsibility management framework of Zhonghuan Semiconductor

Areas of concern	Ecological environment - E	Social development - S	Corporate governance - G
Responsible department	Project Management Department, Security and Environment Protection Department, R&D Department, Production Department	Organization and Development Department, Department for Relations between the Party and the General Public	Board of directors, senior management
Project in charge	• Managing environmental risks throughout the entire value chain • Production with more extensive resources and less pollution	• Promoting employee development • Innovation and customer satisfaction • Supporting community prosperity	• Proposing corporate sustainable development vision • Developing corporate social responsibility plan • Publishing objectives and management progress
Goal	The coordinated development of economy, environment and society		

Stakeholder Communication and Substantive Issues Analysis

Drawing on the industrial experience and practice home and abroad, as well as our operation features, we identify the key stakeholders as shareholders, customers, employees, government and regulatory authorities, partners, communities and the public, and actively communicate with them through websites, media, meetings, reports, activities and other channels.

Key Stakeholders of Zhonghuan Semiconductor and Communication Methods

Key stakeholders	Issues of concern	Communication and response
Shareholders and senior management	Risk management, economic performance, industry development, customer communication and satisfaction	General meeting of shareholders, financial report, performance report, roadshow, etc.
Customers	Customer interest and information protection, product and service quality, customer communication and satisfaction	Product exhibition, customer research, technical seminar, B2B (such as E-tapeout system, WIP report, WAT report), customer service hotline, customer satisfaction survey, etc.
Employees	Employee rights and benefits, employee health and safety, employee development and training	Employee activities, employee representatives meeting activities, enterprise intranet, employee training, employee self-service system, employee manual, enterprise internal publications, etc.
Government and regulatory authorities	Compliant operation, green products, emission management, energy use	Organization investigation, official correspondence, policy implementation, information disclosure, etc.
Partners	Industry development, compliant operation, product and service quality, customer satisfaction and communication	Public bidding meetings, strategic cooperation negotiations, communication and exchange visits, etc.
Community, public, media, etc.	Green products, emission management, community development, public welfare	Community volunteer activities, public welfare projects, targeted poverty alleviation and other social cause support projects

In 2020, according to the *Sustainable Development Report Standard* (GRI Standards) and the domestic and international policies and standards, we comprehensively considered the focus of internal and external stakeholders, peer benchmarking analysis, industry features and strategic direction of the company to conduct social responsibility issue inspection.

Following the procedures of identification, assessment and selection, and supported by industrial experts, we have identified and prioritized 22 material issues for action and reporting.

Materiality analysis

Stakeholders/Priority	Low	Medium	High
Investors	Investor relations Anti-corruption Economic performance and allocation	Social responsibility management system Corporate governance	Philosophy of social responsibility Investor interest protection
Customers	Customer service Network and information security	Product quality	R&D and innovation
Employees	Employee rights and care	Occupational health and safety	Employee training and career development
Environment	Environmental management	Greenhouse gas emission and management Supplier environmental assessment	Resource utilization Discharge and wastes
Society	Public welfare	Community development	Targeted poverty alleviation

Stable Operation to Promote High-quality Development

Good Corporate Governance

Corporate Governance Structure

The company adheres to the establishment of an open, transparent and efficient corporate governance system, and elects directors in strict accordance with the selection and appointment procedures specified in the *Articles of Association*. The number and composition of the board of directors comply with the requirements of laws and regulations and the *Articles of Association*. By the end of 2020, the board of directors consisted of 9 members, including 3 independent directors and 4 female directors. The board of directors are responsible to the shareholders, report to the general meeting of shareholders, implement the resolutions of the general meeting of shareholders, and exercise the decision-making power on all major matters of the company. The audit committee, remuneration and assessment committee, strategy and investment committee and nomination committee under the board of directors all duly performed their duties during the reporting period. The corporate governance of the company in practice complies with the requirements on normative documents regarding the governance of listed companies issued by China Securities Regulatory Commission and Shenzhen Stock Exchange, and the company has not received any documents relating to administrative regulation measures adopted by regulatory authorities against the company. During the reporting period, the company held 22 meetings of the board of directors and 23 meetings of the committees under the board of directors (including 8 meetings of the strategy and investment committee, 8 meetings of the audit committee, 5 meetings of the nomination committee and 2 meetings of the remuneration and assessment committee).

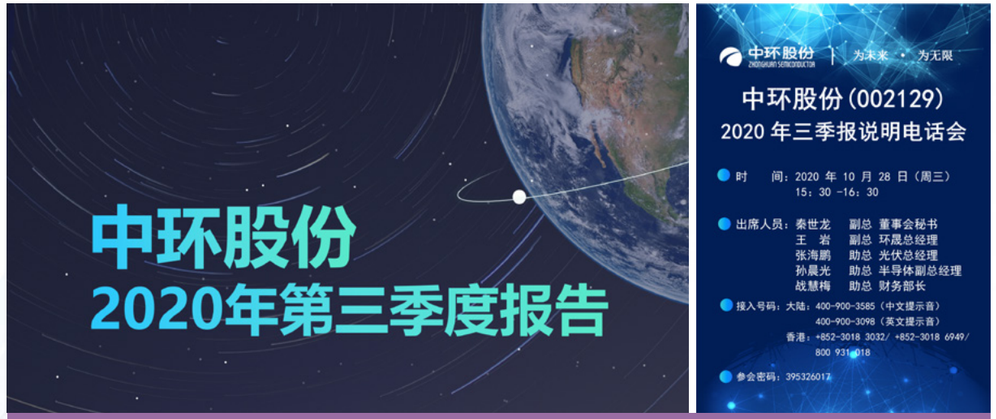
The board of supervisors consists of 3 members. In accordance with the *Procedure Rules of the Board of Supervisors*, supervisors of the company supervised and expressed independent opinions on major matters, related party transactions, financial status, performance of directors and managers of the company, to protect the rights and interests of shareholders. During the reporting period, the company held 12 meetings of the board of supervisors , and the board of supervisors had no objection to the supervision matters during the reporting period.

The senior management of the company consists of 10 members (3 of them were directors). The general manager is fully responsible for the operation of the company, and was appointed by and responsible to the board of directors.

Information Disclosure and Communication with Investors

The company attaches great importance to the information disclosure and communication with shareholders and creditors to ensure that all investors are kept informed of the major developments affecting the company's business status and gained access to the information about the company. In accordance with the provisions of the *Company Law*, the *Securities Law*, the *Administrative Measures for Information Disclosure of Listed Companies*, the *Rules on Stock Listing of Shenzhen Stock Exchange*, the *Guidelines on the Normative Operation of the SME Board of Shenzhen Stock Exchange* and other laws and regulations, the company formulated the *Administrative Measures for Information Disclosure of Tianjin Zhonghuan Semiconductor Co.,Ltd. (amended for the fourth time at the 36th meeting of the 5th board of directors on March 26, 2020)*, which stipulates the process of information disclosure of the company as well as the procedures of information collection, disclosure and confidentiality in details, and standardizes the collection management and information disclosure behaviors of major information within the company. The company issues information to investors through various meetings, publications and online platforms, including annual general meetings, extraordinary general meeting, annual reports and interim reports issued regularly, as well as announcements, update, press releases, etc. Information about the company is accessible in *China Securities Journal, Securities Times*, or on CNINFO's website at http://www.cninfo.com.cn and other platforms. During the reporting period of 2020, the company disclosed 221 announcements, the contents of which are true, accurate and complete without any misrepresentation, misleading statement or material omission, and there was no violation of or inconsistency with relevant regulations in actual operation. In terms of information disclosure in 2019, the company was graded B in annual appraisal of information disclosure of listed companies by Shenzhen Stock Exchange.

The board of directors of the company attaches great importance to the management and maintenance of investor relations, sets up a favorable IRM operation system, expands the responsibility of investor relations management to the company's controlling shareholders, the management and sponsor institutions, and deepens the scope of investor relations management to institutional investors, strategic investors, small and medium-sized investors and other investors. The company maintains continuous communication with the capital market in various forms, such as investor hotline, irm.cninfo.com.cn of Shenzhen Stock Exchange, online performance briefings and on-site reception of investor research. In 2020, the company held 4 general meetings of shareholders, or extraordinary general meeting. Meanwhile, the company held investor presentation and media briefings according to major projects, actively safeguarded investors' rights and interests, effectively communicated about major matters of the company, conducted on-site communication about major matters of the company, and answer questions from media organizations on site. We received investors to visit and research, and participated in the strategy meetings, roadshows and reverse roadshows held by securities companies. We answered 1500 calls via investor hotline, answered 391 questions from investors on irm.cninfo.com.cn, and received over 800 investors through performance briefings. In 2020, the company won the "11th Tianma Award for Investor Relations of China's Listed Companies - Best Investor Relations Award and Best New Media Operation Award" for its investor relations.



Performance Briefings

Investor strategy meeting

Awards granted

Remuneration and Equity Incentive

The company has established a sound performance assessment system and remuneration policies for senior management, whose income is directly linked with their work performance. The remuneration and assessment committee of the board of directors is responsible for conducting the year-end appraisal on the working ability, performance and completion of responsibility objectives of the senior management, formulating the remuneration scheme and submitting it to the company's board of directors for approval.

The company continues to improve the medium and long-term incentive mechanism, to improve the benefit sharing mechanism between workers and owners, achieve the consistency of the interests of the company, shareholders and employees, facilitate all parties to pay common attention to the long-term development of the company and create value for shareholders. It further improves the corporate governance structure, optimizes its long-term, effective incentive and restraint mechanism to ensure stable and healthy development in the long run. It improves the incentive system of the management in both the company's headquarters and its subsidiaries, fully motivates the initiative and creativity in employees, attracts and retains excellent management talents and core business personnel to enhance the cohesion of employees and increase the competitiveness of the company. The company formulated the *Equity Incentive Fund Plan of Tianjin Zhonghuan Semiconductor Co.,Ltd. (2018-2022)* on September 5, 2018 and made amendment on March 26, 2020.

Equity Incentive Plan

The company formulated the equity incentive plan in accordance with the regulations in the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Guiding Opinions on the Pilot Implementation of Employee Stock Ownership Plan by Listed Companies*, the *Guidelines No. 4 on Information Disclosure of Listed Companies of Shenzhen Stock Exchange - Employee Stock Ownership Plan* and other relevant laws, administrative regulations, rules, normative documents, and the *Articles of Association of Tianjin Zhonghuan Semiconductor Co., Ltd.* (hereinafter referred to as the "*Articles of Association*").

In order to deepen the three system reforms of the company and establish a long-term incentive mechanism, formulation of the *Equity Incentive Fund Plan (2018-2022)* was considered and adopted at the 15th meeting of the fifth session of board of directors and the second extraordinary general meeting in 2018.

1. According to the *Annual Incentive Fund Withdrawal and Allocation Scheme 2018* considered and adopted at the 24th meeting of the fifth session of board of directors and the annual general meeting of shareholders in 2018, the amount of incentive fund withdrawn by the company in 2018 was RMB12,839,126.54 (before tax), which was used for the incentive participants to subscribe for the employee stock ownership plan in 2019. 452 people participated in the plan, contributing a total amount of RMB23.8346 million.

2. According to the Announcement on the *Annual Equity Incentive Fund Allocation Scheme 2019* considered and adopted at the sixth meeting of the sixth session of board of directors of the company, as well as the realization of main business performance in 2019 and the results of the company's individual performance assessment, the remuneration and assessment committee under the board of directors determined that the number of participants for the incentive fund in 2019 shall not exceed 464 (excluding the reserved shares of the employee stock ownership plan). Based on this, the allocation scheme of the incentive fund in 2019 was drawn up. The allocation of the reserved shares was submitted to the board of directors for deliberation and decision by the remuneration and assessment committee under the board of directors.

Comprehensive Risk Management

Internal Control and Comprehensive Risk Management

The board of directors of the company is the highest decision-making body for internal control evaluation. The board of directors is responsible for establishing, optimizing and effectively implementing internal control, holding regular board meetings to discuss major issues in the construction of internal control and making decisions. The audit committee under the board of directors is responsible for leading the internal control work of the company, reviewing the internal control design of the enterprise, supervising the effective implementation of internal control, leading the self-evaluation of internal control, communicating and coordinating with intermediaries, etc., and authorizing the Audit Department to be responsible for the specific organization and implementation of internal control evaluation. The board of supervisors supervises the establishment and implementation of internal control by the board of directors. The management at all levels and subsidiaries are responsible for implementing internal control evaluation, as well as publicizing and encouraging the internal functional departments and all their employees to assume corresponding responsibilities and play active roles in the process of establishing and implementing internal control.

The company enhances life-cycle policy management to improve internal control system. All functional departments constantly update the rules and regulations to improve the internal control system in such ways as new compilation, revision, merger and repeal, and specified rules and regulations into the process, include them into control measures for compulsory implementation. Under the guidance of the board of directors and the audit committee, the Audit Department carries out special audit work and followes up on onrectification. In 2020, the company continuously improved the internal control system by drawing up the Authorization Manual, optimizing the business process, improving and updating the company's internal rules and regulations, and building the risk awareness among all employees.

Informatization of Internal Control Management

In combination with the company's digital transformation, the Audit Department makes every effort to promote business process optimization and risk identification, includes business risk control measures into the information system, and effectively improves the company's informatization management level of risk prevention.

At the end of 2019, the Information Center of the company carried out overall planning and collaborative construction for the company's informatization work based on the company's strategic planning, deployed and built an information system with MES as the business back structure, ERP as the business middle structure, and EC as the business front structure. By integrating such five modules in ERP as sales, procurement, planning and production, human resources, and financial management with EC system and MES system, it effectively solved the problem of "information island" and realized the end-to-end management and control of business.

In the process of implementation, the Audit Department gives full play to the functions of internal control and management, cooperates with the project team to adjust and optimize the existing business processes, fully identifies the business risks and includes the risk prevention and control measures into the information system, focusing on 7 first-level processes, 50 second-level processes and 172 third-level processes sorted out, and further improves the standardized, normalized, processed and lean management and business operation of the company, and practically enhances the company's management and control ability, risk resistance ability and sustainable development ability. It focuses on the optimization of processes in such five aspects as "finance, sales, procurement, production planning and management, and human resources", and enhances the risk prevention ability and management efficiency of the company.

During strategic transformation of the company, the board of directors conducts on-going risk assessment, and improves the internal control system to serve the demand on risk management and strategic development of the enterprise in context of the industry transformation and the company reformation. The company creates an integrated framework of risk management from the aspects of environment control, goal setting, event identification, risk response, risk assessment, activity control, information communication and monitoring, and the internal control system gradually shifted from the financial system to the company's comprehensive risk management to cope with various risk factors such as operation, finance, market and law.

Main Operational Risks and Countermeasures of the Company

Risk Categories	Risk Contents
Strategic planning risk	The company formulates strategic objectives from top to bottom, decomposes them appropriately, and implementes them into the specific business modules of the company to ensure achievement of the strategic objectives
Operative management risk	Talent reserve, sales and procurement, information security, R&D, intellectual property and engineering management
Financial risk	Capital flow, exchange rate fluctuation and foreign investment
Environment and safety	Environmental protection, safety inspection and occupational health

Internal Audit

In the internal control management and evaluation, our Audit Department adheres to the principle of "checking errors and correcting frauds" and "preventing errors and frauds" simultaneously, and gives full play to the daily supervision role of internal audit in the whole process, namely before, during and after the events.

In 2020, the Audit Department made every effort to promote business process optimization and risk identification, and included business risk control measures into the information system, in combination with the company's current construction of informatization. We assessed and evaluated the effectiveness of the design and the implementation of internal control for key business and important matters, and urged establishment of the risk control mechanism. We constantly strengthened the audit supervision over joint venture companies, and promoted companies to safeguard their legitimate rights and interests and increased investment returns. We kept audit supervision over the company's major construction projects, conducted supervision evaluation on the service level and capability of key projects and related parties, and elevated the project management. We conducted audit evaluation on the authenticity, rationality and appropriateness of management expenses of each business flow, reducing the fraud risk and expenses, improving the management efficiency and capital utilization rate, and facilitating the process optimization and system improvement.

Internal Audit Improved Effectiveness of the Internal Control System

The Audit Department supervises implementation of the internal control system at all levels of the company via special audit projects of the company and its subsidiaries, and continuously improves and optimizes the internal control system of the company based on the problems identified in the special audit, so as to realize the closed-loop management of internal control. The company penetrates the internal control into its various business processes and operational links, covering all departments and posts, to achieve three-dimensional, multi-angle and all-round risk prevention and control.

Anti-corruption and Business Ethics

The company adheres to the concept of of "addressing both the symptoms and root causes of corruption with combined measures of punishment and prevention, and giving priority to prevention", and implementes the construction of Party style and clean government and anti-corruption management. The company sets up the Discipline Inspection and Supervision Department to supervise and manage business ethics, anti-corruption and other aspects of discipline and law-abiding, and formulated a series of policies, including the *Regulations on Integrity and Self-discipline Among Leading Members*, the *Several Opinions on Standardizing Operation and Management Acts According to Law*, the *Opinions on Standardizing the Decision-Making by Leading Groups on "Three Importances and One Greatness"*, the *Implementation Measures*

for Deepening and Standardizing the Construction of Anti-Corruption in Enterprises, the *Implementation Rules for the Management of Remuneration for Duty Performance and Business Expenditure of Principals in Zhonghuan Semiconductor and Its Subsidiaries*, and the *Internal Supervision and Management System for Discipline Inspection and Supervision Cadres in Zhonghuan Semiconductor.*

For internal management cadres, in order to strengthen internal control, guard against operational and ethical risks, and promote diligence, integrity and self-discipline of personnel in key positions, the company formulates management measures for personnel in key positions. As for the management, rotation and supervision of key posts, the company focuses on supervision of leading cadres, cadres and other important personnel in key posts, and strengthens supervision over the performance of duties and arrangements for accountability investigation. 295 leaders and cadres signed the *Letter of Responsibility for Integrity Practices by Cadres* and 788 persons in key posts signed the *Letter of Commitment on Integrity*.

For external suppliers, in order to promote integrity with business partners and prevent integrity risks, the company has formulated a code of conduct for integrity in accordance with the Contract Law of the People's Republic of China, the Law of the People's Republic of China on Anti-Unfair Competition, the Criminal Law of the People's Republic of China and other specific requirements of relevant laws and regulations, and in combination with the spirit of the Eight Regulations of the Central Committee as well as relevant requirements of integrity practices. In 2020, we signed agreements on the integrity code with 240 relevant parties.

In 2020, the company continuously launched initiatives for and provide education to all employees on integrity practices. It adhered to the publicity of integrity practices, and published articles on clean government through the Intranet; organized anti-corruption training and conducted regular visits and spot checks.

Normalized Publicity and Training of Anti-corruption

1. We strictly implement the spirit of the Eight Regulations of the Central Committee, emphasize "early greeting" and "early warning" at important time points, and posted articles about integrity on WeChat at each important point.

2. We resolutely implement the policy of travel filing and official vehicle out-of-service for leading cadres on New Year's day, Spring Festival, Tomb Sweeping Day, Labor Day, Dragon Boat Festival and other holidays, and completed the prevention against and supervision over "formalism, bureaucratism, hedonism, and extravagance" in holidays in 2019.

3. We carry out the integrity training activity of "Knowing What to Respect and When to Stop While Being Upright and Responsible", and further deepen the education on the theme that "remain true to our original aspiration and keep our mission firmly in mind". In order to further improve the political standing of the company's leading cadres, strengthen the "red line" consciousness and responsibility, Professor Zhang Hongxia from the Party School of Tianjin Municipality was specially invited to give a lecture, and 270 leading cadres at all levels of the joint-stock company attended the lecture.

4. The Secretary of the Party committee of the company talked about integrity with leaders and cadres at all levels for 270 times. In order to strengthen the professional ethics cultivation of leaders and cadres at all levels of the joint venture company, the company requires them to keep a clear mind by "always keeping three points", consciously accept supervision by "treating three points correctly", always be upright and self-disciplined by "taking initiatives in three aspects", and "consciously controlling themselves in three aspects".

5. In order to further spread the integrity culture, pass on the integrity family style, create an integrity atmosphere, build a new platform for the construction of integrity culture, and actively guide Party members and cadres to "advocate, respect and uphold integrity", the company specially organized the activity of "Qingfeng Readers", which attracted a total of 37 people to upload their works.

6. 24 fans with calligraphy, painting and embroidery designs to promote integrity awareness were selected for exhibition through an art contest, an innovative awareness campaign in response to the call to correct the "formalism, bureaucratism, hedonism, and extravagance", further promote the construction of Party style and clean government and anti-corruption work, implement the construction of Party style and clean government, further promote the construction of integrity culture in the company.

Strengthen Daily Supervision to Prevent Misuse of Corporate Vehicles

In order to strengthen daily supervision on the use of corporate vehicles and prevent misuse, the Discipline Inspection Commission of the company sorts out the use of corporate vehicles of the company and its wholly-owned and holding companies. Since 2007, the joint venture company has carried out reform on corporate vehicles, in combination with the actual development and management of the company. The company has continuously optimized and improved the management system of corporate vehicles, strengthened the management and control of daily vehicle use, and promoted the institutionalization and standardization of the use of corporate vehicles. First, we strictly implement the corporate vehicle management policy. In 2016, according to the *Guiding Opinions of Tianjin Zhonghuan Electronic Information Group Co., Ltd. on the Management Reform of Corporate Vehicles* (J.Z.D.B [2016] No. 74) , the company timely revised and improved the *Vehicle Management Regulations* in implementation. In 2017, according to the Notice of Zhonghuan Electronics Group on Further Standardizing the Reform of Corporate Vehicle System (J.Z.D.B [2017] No. 74), we further carried out the reform of official vehicles and strictly implemented the requirements of "vehicle reform". In 2019, for the company's temporary vehicles under special circumstances, the company further refined and standardized the management procedures of corporate vehicles, clearly stipulated the approval process of vehicles under emergencies, and established recording book to "plug the loopholes" in the management of corporate vehicles.

Second, we strengthen and standardize the basic management. The company assignes special personnel to check the number ofcorporate vehicles, to ensure strict control over the number of corporate vehicles and standardize the management and arrangement of the use of corporate vehicles. We strictly controll the operating cost of corporate vehicles, arrang a special person to keep the gas cards, and strictly implement the relevant regulations of vehicle travel approval, registration system, storage in holidays, etc.

Third, we strengthen the supervision and accountability. The company strictly manages the use of corporate vehicles and resolutely forbid private use of corporate vehicles. The Discipline Inspection Department carries out special inspection and supervision on the use of corporate vehicles from time to time, and resolutely punishes violations of the company's regulations on the management of corporate vehicles in accordance with the company's management regulations.

In order to standardize management of complaints and reports, the company provides such clear reporting channels as e-mail, telephone and mailbox, and encourages employees and external personnel to report to the Internal Audit Department or the audit committee on briberies, extortion, frauds, money laundering and other corruption violations in corporate operation.

Report Phone and Email of Zhonghuan Semiconductor

Reporting hotline: 23789766-3228 Reporting email: jiwei@tjsemi.com

In terms of whistle blower protection, the company is responsible for the fairness and impartiality of the reporting process and results and strictly protectes the privacy of and report contents by the whistle blowers.

Anti-corruption Supervision and Report Handling Procedures

1. Register the reported cases upon receipt.
2. Arrange special personnel or set up a special team to know about the situation, investigate and collect evidence.
3. Complete investigation and evidence collection within the specified period, draw preliminary conclusions, and report to the management.
4. Hold a special meeting to review the report contents and the investigation results, and come up with a solution.
5. Give feedbacks to the informants.

Creation and Distribution of Economic Value

Continuous Development of Main Business

As early as in 1958, the company began to manufacture semiconductor materials. Since 1981, as one of the earliest enterprises engaged in the R&D and production of solar monocrystalline silicon in China, it has formed a unique dual industry chain of semiconductor materials - energy-saving semiconductor devices and new energy materials - high-efficiency photovoltaic power station, and actively promoted the diversified and joint development of new materials and financial venture capital. Moreover, it successfully completed a number of national-level key projects, won a number of awards, and was rated as one of the most innovative enterprises in the world by Forbes in 2015.

The company takes silicon materials as its main business, focuses on the R&D and production of monocrystalline silicon. It has built a crystal R&D and manufacturing center in Inner Mongolia, a semiconductor R&D and power product manufacturing center in Tianjin, and an integrated circuit product manufacturing center in Wuxi, creating a leading silicon material R&D and production base in China and even in the world.

Taking monocrystalline silicon as the starting point and foundation, the company has positioned itself as a strategic emerging industry, made efforts to achieve intensive and extensive development, and formed such four business sectors as new energy, semiconductor, photovoltaic power generation and finance. Through the nationwide industrial layout and global commercial layout, the company has ranked the first in the country and the third in the world in terms of comprehensive strength of the semiconductor float zone crystal- silicon wafer, one of its main products; the first in terms of the market share of solar energy efficient single crystal silicon wafer in the world; and has become the representative of the differentiated and innovative development of Chinese companies as well as a strong competitor in the future market in the photovoltaic power station and photovoltaic cell - module industry. By the end of 2020, the company had realized total assets of RMB58.72 billion, operating revenue of RMB19.06 billion and net profit of RMB1.09 billion.

Profit Allocation and Dividend Distribution

The company has always been adhering to the principle of giving priority to efficiency and maximizing the interests of shareholders, and delivering the good return on the investment of shareholders. The total cash dividend of the company has exceeded RMB609 million since its listing.

2018-2020 Annual cash dividend of the company (RMB'0,000)

	2018	2019	2020
Cash dividend amount	8,355.47	8,355.47	18,197.56
Cash dividend policy	RMB0.3 per 10 shares	RMB0.3 per 10 shares	RMB0.6 per 10 shares

Making Breakthroughs and Leading Product Innovation

R&D and Innovation

The company focuses on R&D and innovation, vigorously invests in product technology R&D, continues to develop product patent network, and actively promotes the construction of intelligent factory. Through technical advantages, it continuously industrializes scientific and technological R&D achievements, and maintains its leading position in the industry.

Innovation Driving Development

With the concept of "challenging the existing technology, products and ourselves", the company devotes major efforts to product technology R&D, and strives to cultivate a high-quality and high-level R&D team with independent thinking ability, as well as familiarity with the market, R&D and application. By establishing a mechanism of connecting R&D market and application, it promotes high-quality development of the industry. In 2020, the total R&D expenditure of the company exceeded RMB900 million, accounting for 4.77% of the operating revenue.

The company has 1 national technology center, 3 provincial and ministerial R&D centers, 2 provincial and ministerial key laboratories, 8 high-tech enterprises and 1 national technological innovation demonstration enterprise. The company has a R&D team with more than 800 members, there are 7 people with senior professional titles and more than 200 people with senior and intermediate professional titles, including 4 people who enjoy the special allowance of the State Council; there are 1 people with doctor's degree or above, and 45 people which account for 23% of the technical personnel have master's degree or above; a number of international teams of experts and engineers have been employed.

The company has always attached great importance to industry-university-institute cooperation, actively established various forms of collaboration with universities and scientific research institutes, strengthened exchanges and cooperation with peers at home and abroad, effectively organized and utilized social resources to serve enterprise innovation, and promoted the development and innovation of industrial technology.

Industry-University-Institute Cooperation Projects

Building of the “Joint Research Center of High-end Semiconductor Integrated Circuits” with the Institute of Microelectronics of the Chinese Academy of Sciences

- The company has successfully developed silicon-based gallium nitride RF power devices. The products' performance is close to related products in flagship companies in this field. The products are currently in the stage of online evaluation process and engineering batch test.

Research on *IGBT Chip Technology Research* jointly with the Institute of Microelectronics of Tianjin University of Technology

- The company has independently developed chips by adopting domestic materials as well as self-developed device structures and processes. In 2020, it completed the main design part of IGBT device, single process test, back thinning process, optimized PI passivation process, engineering batch sheet, static parameter test and package test.

Industry-University-Institute Cooperation with Shandong University on process optimization of "G12 Big Silicon Wafer"

- Both sides cooperate to carry out simulation and establish a laboratory. The company verifies the simulation results, optimizes processes according to the results elicited, and optimizes the selection of parameters in the simulation based on the field test results as soon as possible.

Cooperation with Hebei University of Technology on *R&D of Silicon Crystal Growth Technology*

- The research focuses on R&D of crystal growth, single crystal defects, wafer polishing, wafer detection technology, etc.

The company is committed to promoting sustainable development of the industry, actively participates in or presides over the preparation of more than 10 relevant national standards and industry standards, serves as vice chairman, executive director or director in more than 10 industry organizations such as China Electrical Equipment Industry Association (Power Electronics Branch), China Power Semiconductor Technology Innovation and Industry Alliance, China Semiconductor Industry Association, etc., and participates in or leads the relevant industrial development activities of governments at all levels and all sectors of society.

Driving the Photovoltaic Industry into the Era of 210

In recent years, under the dual pressure of efficiency improvement and cost reduction and entry of PERC technology to the period of stagnation, the increase of silicon wafer size has become a new value growth point of the industry. In August 2019, the company announced the application of semiconductor's 12-inch crystal drawing technology in the solar energy industry, and launched G12, a large-size photovoltaic monocrystalline silicon wafer with a difference of 210mm, which was the limit size of the industry. In 2020, the annual output of G12 silicon wafers exceeded 15GW. Meanwhile, the company cooperates with the industrial chain to innovate and develop production lines, materials, supports, inverters and design schemes supporting G12, and launched G12 imbricated module with high efficiency, high reliability and high-power generation, winning the world's first new version certificate of G12 imbricated module of TÜV Rheinland. G12 imbricated module has a power capacity of 635W, efficiency of 21.1%, LWH of 2305mm × 1303mm × 35mm, and weight of 32kg. Flexible manufacturing concept was adopted in the production. The imbrication size could be adjusted according to the application scenarios and the downstream supporting facilities of the industry, so as to easily meet the development needs of the industry and contribute the wisdom of Zhonghuan to the achievement of affordable access to photovoltaic power generation.

In July 2020, the company, together with 38 photovoltaic companies, established the "600W + Photovoltaic Open Innovation Ecological Alliance", forming a more free, open and integrated large-scale ecological alliance with industry partners, and jointly opening a new era of photovoltaic industry. Up to now, the 600W + Alliance has owned more than 60 members.

Intelligent Factory Construction

Adhering to the development orientation of "centralized integration, improved innovation, shared services and collaborative intelligence", the company takes intelligentized application as the main line, actively promotes the construction of intelligent factory, strives to improve the enterprise's ability of centralized sharing, business collaboration, prediction and early warning, scientific decision-making, and achieves informatization, automation and standardization of operations, providing effective support for creating a world-class company of semiconductor materials and new energy materials.

Informatization	Through the integration of ERP system, MES system and WMS system, the company has built a platform for informatized, digitized and intelligent manufacturing management, to achieve automatic data collection, automatic equipment control and big data tracking in the whole process from order receiving to product delivery, and meet customer requirements.
Automation	Through material warehouse automation + material distribution automation + logistics transmission system + intelligent transport vehicle + intelligent visual scanning + automatic packaging of finished products, the company achieves highly integrated and flexible manufacturing, and realized the production process automation during the whole process of intelligent logistics, automatic process control, automatic product inspection and automatic information collection.
Standardization	According to the way of digitized factory, the company reorganizes the workflow, redefines the process of product realization and support, and implements standardized planning in key areas such as plant layout, process flow, process equipment, production operation, IT infrastructure and safety, production plans in the supply chain, and quality management.

In 2020, the company's phase V and G12 monocrystalline smart factory project in Hohhot, Inner Mongolia, G12 slice smart factory DW project in Tianjin, G12 imbricated module smart factory project in Yixing, Jiangsu, and semiconductor 12-inch polished wafer project were all put into operation smoothly.

Equipment Startup of the Benchmarking DW Project of Smart Factory

In May 2020, the company's equipment of the benchmarking DW project of smart factory was started up, signifying a key step for Zhonghuan Semiconductor to move towards intelligent manufacturing and reflecting the engineer culture of Zhonghuan Semiconductor. The whole factory was designed according to the Industry 4.0 system, truly realizing the smart plant model and promoting high-quality development of the industry.

Leveraging the world's leading comprehensive strength in the field of monocrystalline silicon wafers, mature production technology and the background that market demand exceeded supply, the project aims at creating the world's most advanced and automated 25GW diamond wire slice manufacturing base in Tianjin by integrating resources. Meanwhile, based on the concept of design as a new generation of intelligent plant, the factory is built with intelligent equipment, modern management and computerized information, fully reflecting the concept of "automation, fewer people and high efficiency" through the building of a benchmark factory in the solar monocrystalline silicon wafer manufacturing industry for the strategic upgrading of Industry 4.0. After completion of the factory, the production and operation efficiency will increase by more than 70%, and the labor efficiency will increase by 4-5 times, further reducing manufacturing cost.

Automatic Generation of Process Equipment in the DW Project

Intellectual Property Protection

The company attaches great importance to the protection of intellectual property rights, strengthens the utilization of patent information, improves the level of innovation, and actively implements the patent application strategy; appoints full-time personnel to be responsible for the patent work; establishes a patent management system to form effective working procedures; invests more capital and manpower in the protection of intellectual property rights, and strives to improve the quantity and quality of the enterprise's independent intellectual property rights, and forms an effective patent layout based on core technology and basic products, as well as a reasonable patent layout with core invention patents as the leading part and utility model patents as the foundation.

Referring to TS16949:2009, GB/T19001-2008 idt ISO9001:2008, GB/T24001-2004 idt ISO 14001:2004, GB/T28001-2011/OHSAS18001:2007, UL, CE and other certification systems, and according to the company's product R&D characteristics, the company has formulated a series of standardized, sound and perfect rules and regulations, including the *Technology Project Management Policy*, the *Intellectual Property Management Policy*, the *Internal Appointment Policy of Engineering Technology Sequence Posts*, the *Test Management Regulations of the Physical and Chemical Center* and the *Provisions on R&D Funds Management*.

While developing new products, the company applies for patents on the core technology points to form a patent protection layout. We also employ a patent consulting company to conduct enterprise research and training. Through the analysis of existing and industrial patents, the protection blind spots of core technologies are identified, effectively guiding the orientations of R&D and operation in the company, timely adjusting the industrial layout, and enabling us to catch up with international cutting-edge technologies. In order to encourage technical personnel to complete the work of intellectual property protection with quality and quantity, the company grants cash rewards to authorized patent writers according to patent types.

As of December 31, 2020, the company had a total of 732 authorized intellectual property rights, including 127 invention patents, 582 utility models, 20 integrated circuit layout designs and 2 software copyrights; there were 518 accepted patents, including 351 invention patents and 167 utility models.

Meanwhile, as a publicly listed company and an innovative enterprise, the company adheres to the concept of "respecting knowledge, advocating innovation, and being honest and law-abiding", and always believes that respecting intellectual property was to maintain market order. The company has formulated the *Regulations on Intellectual Property Management*, requiring that before carrying out activities concerning intellectual property such as technological innovation, marketing and management of new products, and external exhibition, the corresponding departments shall conduct novelty check to determine whether intellectual property infringement will occur; in the R&D and technological transformation of new technologies, new processes, new products, etc., patent literature shall be made full use of to formulate the correct research direction and technical route, improve the starting point of R&D, and avoid repeated development or patent infringement disputes. We fully communicate with the technology owner before using the internationally leading technology to ensure that the legitimate intellectual property rights are licensed. Since February 2017, the company has introduced SunPower's global patented high-efficiency imbricating module technology through the joint venture Huancheng Photovoltaic, becoming the only domestic manufacturer with legal intellectual property license. In 2020, the company did not infringe the patent rights of others.

Adherence to High Quality

Adhering to the quality policy of "implementing process control and enhancing customer satisfaction", the company implements Total Quality Management through all business processes including R&D, production, sales and customer services, and improves the competitiveness of products and services from such four aspects as management system, testing capability, customer services and capacity building. In 2020, one-time pass rate of the overall product is 93%.

Quality Management System

Referring to the international leading quality management concept, the company has established a quality management system covering the whole process of customer services in each production base, and formulated corresponding control procedures according to the five main factors affecting product quality, namely personnel, machinery, raw materials, methods and environment, so as to implement comprehensive quality control. By the end of 2020, the company had obtained the ISO9001 quality management system certification in nine subsidiaries, including Zhonghuan Solar, Zhonghuan Xiexin, Zhonghuan Applied Materials, Zhonghuan Huan'Ou, Zhonghuan Huanzhi, Zhonghuan Advanced Semiconductor Materials, Huanxin Technology and Huancheng Photovoltaic as well as Huancheng New Energy, etc.

Zhonghuan Advanced Semiconductor Materials Promoted the Construction of the Integrated Quality System in Three Places

As the company's semiconductor material production base, Zhonghuan Advanced Semiconductor Materials has a center in Yixing, Jiangsu Province and production bases in Tianjin and Inner Mongolia. In order to unify the quality management standards in the three places, it promoted integration of the quality system architecture in the three places in 2020, organized cross audit and LPA, and established the LLC platform. The overall customer audit pass rate in the three places reached 96.8%.

Zhonghuan Xiexin Enhanced Traceability of Product Identification

Zhonghuan Xiexin has formulated the *Product Identification and Traceability Control Procedures*, which applies to stages from product development to non-conforming product management, and key elements such as products, status, equipment, tooling and vehicles, covering product flow identification and traceability control from raw material entry, production process, inspection and testing to finished product delivery and recycled material circulation, etc., so as to prevent product confusion and misuse, prevent and reduce product loss caused by indirect production links; when abnormalities occur during production or after delivery, the formation process of product quality is traceable for identifying the causes of the problem and making improvements.

Professional Testing Capability

The company strives to improve its testing professionalism, strengthen the standardized management of laboratories in various places, maintain the accuracy and stability of testing machines through spot inspection, PM, calibration, monitoring, etc., provide timely and accurate testing support for the production line, implement relevant analysis and verification testing in coordination with production and quality, and provide reliable testing data.

The technology center of Zhonghuan Semiconductor has a complete set of physical and chemical analysis equipment and testing analysis system from semiconductor materials to semiconductor devices, and own more than 40 sets of advanced theoretical analysis equipment; the technology center in Hohhot has a complete set of processing and testing equipment required for the production of new energy solar monocrystalline silicon wafer industry chain, satisfying the needs of R&D test of relevant products as well as online tests in daily production.

A 3-pronged Team Dedicated to Customer Services

In order to implement the management concept of "customer-centered", the company sets up a 3-pronged customer service team composed of representatives from Customer Relationship, Product and Technology, and Delivery and Services, to provide customer with end-to-end follow-up services before, during and after sales.

The company has formulated the *Complaint Management Regulations* to ensure that customers' feedbacks on product quality and returned order are replied and handled in time. According to the regulations, the customer service team follow up on the internal handling process in an escalated approach based on the severity of the quality feedbacks (general, major and to be approved), classify and summarize all quality feedbacks at the end of each month by production base, product category and defect causes, and compile and distribute summary data to production bases as data reference, so as to continuously improve the quality work. In 2020, the company received a total of 1,042 quality feedbacks, including 705 general quality feedbacks, 0 major quality feedback, and 807 approval feedbacks.

Through direct communication with customers, the customer service team learn about customer satisfaction and feedbacks, measure and analyze order delivery, customer feedbacks and other information, and compile and submit analysis reports to the strategic team. Based on the analysis report, the strategic team form annual survey to assess and analyze customer satisfaction rate from such aspects as business services, pre-sales and order delivery management, quality assurance and customer services, customer demand management and technical support. According to the survey results and customer feedbacks obtained from other channels, the strategic team compile the *Customer Satisfaction Analysis Report*, put forward measures for dealing with key problems, and urge all parties concerned to organize relevant teams and personnel to take corresponding corrective or improvement measures. In 2020, the company invited 148 customers to participate in the satisfaction survey. A total of 365 questionnaires were sent out, with a reply rate of 100% and an overall score of 93.53.

Staff Ability Enhancement

The company constantly improves the ability of employees, improves product quality through quality improvement projects, optimizes process efficiency, strengthen the operation of knowledge management, shapes a learning-oriented organization; promotes the improvement of quality, efficiency and ability as well as quick service response, and constantly improves customer satisfaction.

Implementation of Quality Improvement Projects in 2020

Zhonghuan Advanced Semiconductor Materials Carried out Continuous Improvement Projects

The base has formulated rules and regulations of continuous improvement projects, publicized and promoted them throughout the factory, and coached and completed 12 improvement projects.

Huancheng Photovoltaic Launched Special Improvement Project on QCC Repair Rate

The repair rate of modules before EL affects not only the rolled throughput yield, yield rate and fragment rate of modules, but also the workshop capacity. Huancheng Photovoltaic set up a special improvement group composed of personnel from departments of quality, process, equipment, production, etc., to analyze the main factors affecting the repair rate. From the aspects of hidden cracks, fragments and cross defects in the battery chip manufacturing process, the three main influencing factors of humans, machines and materials were detailed, and corresponding measures were formulated and implemented one by one. The repair rate gradually decreased from 19.2% to 11.81%.

Guarantee for Network and Information Security

Zhonghuan Semiconductor has established a Steering Team for Network and Information Security, composed of the party secretary of the company, the deputy general manager in charge of informatization work, the main leaders of each sector, and the main heads of informatization management departments in each subsidiary. The office under the steering team is responsible for implementing the major strategies, decisions, planning, deployment and requirements of the information security organization of the superior unit; organizing and leading the company's network and information security work; studying and formulating the network and information security development planning for the company; promoting the company's construction of network and information security; coordinating, studying and solving major problems related to network and information security in various fields of Zhonghuan Semiconductor; promoting implementation of major strategies, plans and policies for network and information security in superior units.

The company constantly improves the management system files in terms of information security, and has formulated *Regulations on Network Information Security Management of Zhonghuan Semiconductor* to guide each subsidiary. Additional rules including the *Regulations on Document Security Management of Zhonghuan Semiconductor - Draft* and the *Emergency Plan for Network and Information System Security Incidents* specify the safety management regulations for the whole life cycle of all the company's working files, and apply to the processes of file classification, file establishment, file circulation, file destruction, etc., as well as the disposal of unexpected information security incidents.

In 2020, the company implemented the data security and anti-disclosure project in terms of information security and infrastructure, and DLP (document encryption), terminal management (USB management) and online behavior management system were successfully launched. The access policy security control was achieved in ERP (SAP), EC (Pan micro) and fund management system. Meanwhile, the vulnerability scanning system was deployed and launched, with which the vulnerabilities of the hosts/servers within the Intranet of the whole group could be scanned. Through construction of the core data center and enterprise network, as well as AD activity directory planning, information security risks are eliminated as soon as possible.

Launch of the Document Encryption Platform to Strengthen Information Security Management

The company has launched the document encryption platform (DLP) to realize the management functions such as encryption of the working files in the Intranet, watermarking and issuance of approval and decryption, which effectively reduced the risk of file disclosure. After the project system was officially launched, the company organized an information security publicity and training meeting to enhance users' awareness of confidentiality and security, and train their use of the encryption system.

Putting People First and Ensuring Employees' Dignity

Respect for the Rights and Interests of Employees

Protection for the Rights and Interests of Employees

The company adheres to the basic idea of putting people first, strictly abides by the *Labor Law*, *Labor Contract Law* and other laws and regulations of the People's Republic of China, formulates the *Recruitment Management Procedure*, *Employee Management Provisions* and other policies, treating the laborers of different nationalities, genders, religious beliefs and so on equally, and fully ensuring that the employees enjoy equal rights in recruitment, employment, remuneration and welfare, training, promotion and other aspects.

The company makes every effort to protect the safety and health of female workers and minors in the production from being harmed. Referring to the requirements of the *Special Rules on the Labour Protection of Female Employees* and the *Minors Protection Law* of China, the company formulates the *Administrative Regulations on Special Protection of Female Workers and Minors* to prohibit recruiting minors under the age of 16 by verifying the identity certificate of the employee via multiple ways during recruitment, onboarding review, onboarding check-in and so on, and confirm labor taboos and legal rights of female workers in special physiological stages such as menstrual period, pregnancy and lactation. The company forbids forced labor to ensure that every employee can enjoy rest days in accordance with national laws, regulations and company policies.

The company signs collective contracts and collective negotiation agreement on wages every year, covering all employees, and pays full social insurance for employees including endowment insurance, medical insurance, work injury insurance, unemployment insurance and maternity insurance. The company agreed in the collective negotiation agreement on wages signed in 2020 that "the remuneration accrued in 2020 is expected to increase by 3.17%, and the average salary of the employees increased by 7.73%".

Overview of Employment and Welfare Policy of Zhonghuan Semiconductor

Recruitment, dismissal and promotion

- Recruitment principles: openness, equality, competition, comprehensiveness, appropriateness, avoidance
- Dismissal: The termination of labor contract shall be negotiated according to the working principle of "laws and regulations compliance, reasonableness and fairness".
- Promotion process: for cadre promotion: information release, proposal, review and approval, pre-appointment publicity, and notice issuance. General staff: Promotions are based on work performance.
- Promotion channels: appointment or dismissal determined by discussion of the management committee, and promotion proposed by superior units from time to time.

Working hours and holidays

- Working hours: The standard maximum working hours are generally 8 hours per day and 40 hours per week; as required by the unit's production and operation, the working hours can be extended, generally no more than 1 hour per day; if extension of working hours is needed for special reasons, the extended working hours shall be no more than 3 hours per day and no more than 36 hours per month; comprehensive working hours: The average working hours of comprehensive working hours and average working hours per week shall be basically consistent with the legal standard working hours.
- Overtime: Employees who work overtime on legal holidays shall be paid 3 times; those who work overtime on working days shall be paid 1.5 times; those who work overtime on rest days and granted no compensatory leave shall be paid 2 times.
- Leave: Paid annual leave, marriage leave, funeral leave, maternity leave, sick leave, etc. shall be subject to state regulations.

Remuneration and benefits

- Remuneration: Salary standard shall be regularly adjusted according to the local minimum wages and wage increase guideline at each operation location.
- Incentive: The short-term incentives and the medium and long-term incentives shall be combined. Short-term incentives: positive incentives such as performance reward, phased reward, technical project award, rationalization proposal award and immediate reward, as well as negative incentives such as labor discipline, on-site safety, fire protection and environmental protection. The medium and long-term incentives include employee equity incentives.
- Health care: critical illness relief, well-being assurance plan for female workers
- Benefits and allowance: benefits for Spring Festival and Mid-Autumn Day, birthday benefits, visit of hospitalized labor union members, condolence, visit of employees in difficulties, visit of employees newly married or pregnant, and visit of employees retired.

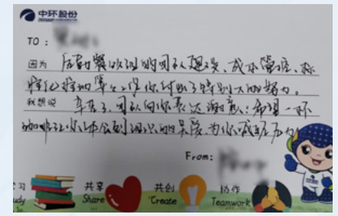
Employee Communication and Care

The company attaches importance to the voice of employees, and establishes smooth communication and feedback channels through "micro tree hole", opinion box, two-way communication mechanism, factory director reception day activities etc. It conducts annual engagement research to anonymously collect employees' real ideas, focusing on key influence factors, understanding internal and external gap and its reasons, and improving employee engagement with a definite object in view.

In 2020, based on the engagement survey results, the company implemented various improvements:

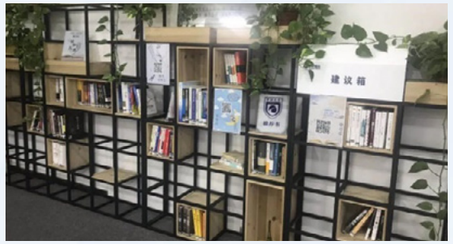
Strengthen Communication between the Superior and Subordinates through "Three Cups of Coffee"

The "Three Cups of Coffee" cultural pass-on campaign is an improvement project initiated by the company to improve the leadership mentoring support. The middle and senior management distribute three thumb-up cards to each employee every month who may give a like to positive behaviors consistent with the corporate culture orientation, creating more connections between the superior and subordinates. This campaign covers 12 companies in Tianjin, Inner Mongolia and Jiangsu. A total of 1,500 cups of coffee full of thanks, praise, sharing and achievement have delivered among employees of Zhonghuan Semiconductor.



Set up Book Bar to Build a Learning Organization

Zhonghuan took the lead in setting up "Book bars" in Yixing, Tianjin and Inner Mongolia to hold employee reading activities, and set up "English corner", cultivating learning habit by providing a learning platform to enhance their overall ability, and make efficient use of fragmented time.



Optimize Plant Facilities to Improve Employees' Experience

The Photovoltaic Wafer Unit actively follows up the employees' opinions through smooth and unobstructed feedback mechanism. Employees' dining needs are met through canteen reconstruction and adjustment of the meal suppliers. Employees' work experience is improved through workspace renovation.

The New Energy Component Unit integrates such channels as workshop billboard, official WeChat account and publicity banner to strengthen the construction of corporate culture; cups printed with the logo of the company are distributed to each employee as part of employee care; basic environmental facilities such as roads and street lamps are improved to ensure tidy and safe working environment.

New canteen of Zhonghuan Huanzhi

New self-service retail store in the factory area

In addition, the company regularly holds staff representative meetings to discuss the development of the company. In January 2020, Zhonghuan Semiconductor headquarters and its subordinate companies held a staff representative meeting to discuss and review the *Implementation Plan for Mixed Reform of the Group Company* and the *Draft Plan for Employee Placement of the Company*, and finally voted for adoption.

The company pays attention to the special needs of the employees in difficulties and female employees, identifies employees in difficulties in response to the arrangement assigned by the general labor union of the community, and set up the archives of such employees to help them in time; In combination with female high-risk diseases, the company provides the *Well-Being Assurance Plan for Female Workers* to strengthen the economic capacity of female employees against major diseases, and alleviate the economic difficulties of female employees caused by diseases.

Work-life Balance

In order to enrich employees' cultural life in spare time, labor unions at all levels of the company and interest clubs organize various forms of stylistic activities such as basketball, football, badminton, dragon boat, marathon and fun sports meetings to enhance employees' physical quality, cultivate employees' interests and hobbies through singing red songs and baking club activities; enhance communication between employees and relatives and friends through friendship activities and family open days activities, comprehensively reinforcing employees' cohesion and creating a happy environment in Zhonghuan.

Diversified Sports Activities

Ground dragon boat competition at New Energy Material Unit

Football games organized by football club of Zhonghuan Semiconductor

Fun sport game at Zhonghuan Industrial Park

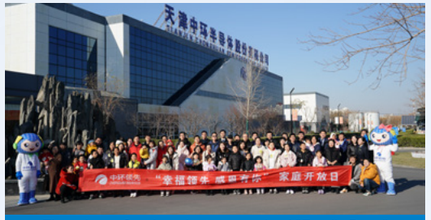
Developing Employees' Interests

Micro marathon at Zhonghuan Industrial Park

Baking club of Zhonghuan Semiconductor

Enhancing Communication between Employees and Their Families and Friends

The company held a group date and matched three pairs.

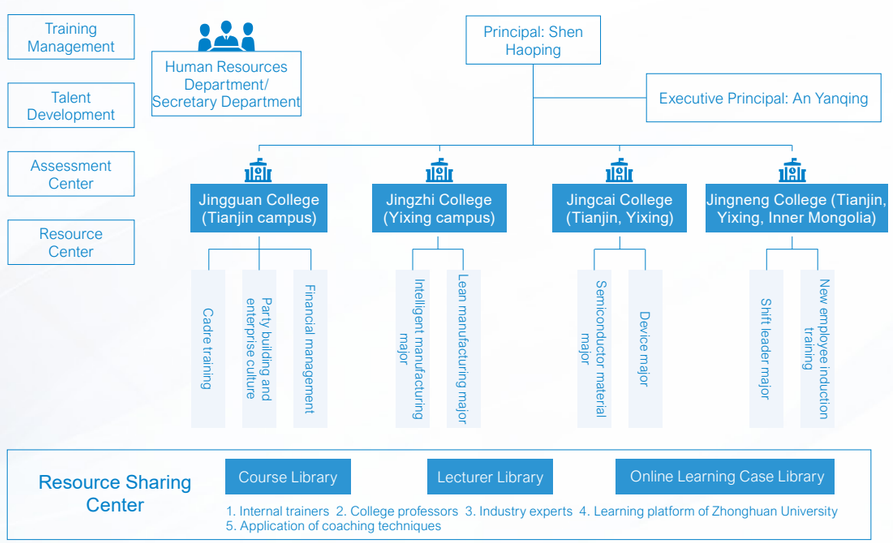


Zhonghuan Semiconductor organized "Family Days" at three facilities.

Facilitating Staff Development

The company adheres to the concept of "Everyone has to start somewhere". Oriented with staff capacity and value creation as the guide, the company designs multi-channel development path to form major arrays consisting of management, profession technology, marketing and operation. Employees matching the management, profession or technology competence may develop across arrays. Employees are encouraged to transform to versatile skilled talents.

In order to accurately and effectively improve the quality of the company's talent construction, the company has set up a Zhonghuan University with nine directions in four colleges. The university on one hand provides public courses to all employees with the aim of developing universal talents in line with the enterprise culture, and on the other hand formulates targeted teaching contents and carries out training plans for employees of different job levels and positions, so as to cultivate more professional talents for the enterprise.



The public course is divided into three modules: general skills, personal empowerment and quality system, covering 11 topics such as computer office software operation, business English, financial management knowledge and project management, which lays a solid foundation for the long-term development of employees in the company. In addition, the company invites well-known scholars and the top management of the enterprise to deliver special lectures for employees to expand their visions. In 2020, the company invited Shen Jiang, a professor and doctoral tutor in the Department of Management and Economics of Tianjin University to lecture the employees on the trend of industrial engineering development.

Each of the four colleges specializes in its own thematic courses. Jingzhi College, in line with the development strategy of the company "Industry 4.0," sets up a skill training center with VR technology to provide training support for smart manufacturing and lean manufacturing. Jingneng College focuses on the training of front-line team leader and develops seven subjects including daily management of team, work instruction of subordinates and front-line leadership skills to help front-line shift leader strengthen management skills and enhance team cohesion. In 2020, Jingzhi College conducted four lean subject courses and conducted examinations which were attended by 1,468 employees whose pass rate was 86%; Jingneng College conducted two training courses for shift leaders. A total of 61 shift leaders took part in the training and the exam pass rate was 83.6%.

In order to build a learning enterprise, the company not only improves the internal training system, but also encourages employees to improve their education and professional skills through continuing education. According to the *Employee On-the-Job Education Management Regulations*, the company supports the employee's academic education, professional qualification and professional skill certification through financial reward and tuition reimbursement.

Support category	Specific item	Applicable object
Academic education	Junior college, undergraduate	All employees
	Master, doctor	Middle-level and above employees, or employees in key positions designated by the company
Professional qualification	Patent agent	Subject to post requirements without post level limitation
	Certified Public Accountant	
	Legal professional qualification	
	Registered Safety Engineer	
	Primary registered construction engineer	
Professional skills	Six Sigma - green belt	Subject to post requirements without post level limitation
	Six Sigma - black belt	
	Six Sigma - black belt master	
	TOPIK Korean language proficiency test	
	JLPT Japanese language proficiency test	
	IELTS/TOEFL	
	BEC Business English (Vantage and Higher)	
	Internal auditor	

Eligible employees can apply through OA system. The qualified employees are paid the subsidy or tuition reimbursement according to the application record and the subsidy plan which have been announced and approved by the leaders at various levels. In 2020, the company issued a pay subsidy for on-the-job education to 23 employees ranging from department directors to general staff.

Cultivate Industry 4.0 Talents

At the workshop with four display screens, two keyboards and a piece of glass, workers are busy. Sitting at his station, Yan Xiong is monitoring data on the display screen in real time, while his hands wander between two keyboards, methodically observing the operation of 192 single-crystal furnaces. As a centralized control engineer at the Zhonghuan Semiconductor Phase IV factory, Yan has already mastered the skill of "multitasking" and keyboard operation. Originally one person operated 96 devices; today one person operates 192 devices, which is not only the progress of personal professional ability, but also the embodiment of Zhonghuan Semiconductor's adherence to the concept of Industry 4.0 over the years.

Centralized control technology is an important initiative of Zhonghuan Semiconductor in the process of promoting Industry 4.0, as well as an important embodiment of the "people first" belief behind Zhonghuan Semiconductor's adherence to industry 4.0. In the concept of Zhonghuan Semiconductor Industry 4.0, returning to human value is a very important link. It is a theme that Zhonghuan Semiconductor has been exploring that "respect and value every employee", respect blue collar workers, and enhance the contribution value sense of on-site employees like Germans. And it is also an everlasting topic how to endow every employee with a sense of participation and achievement in the process of organizational development. During the company's development, the return to human value is to "help employees master new skills to meet the requirements of future work". It's necessary to better empower employees, provide ability guarantee for employees' career, help employees and enterprises grow together, and create a "community of destiny" between employees and the enterprise. For Zhonghuan Semiconductor, the return to human value is to advocate the spirit of craftsman, encourage employees to be diligent and inquisitive in their work, and believe that every position has the possibility of becoming a craftsman.

Promoting Occupational Health and Safety

The company adheres to the safety management policy of "abiding by laws and regulations, putting people first, production safety and reducing occupational risks", implements the national laws and regulations and standards on occupational health and production safety such as Safe Production Law and Occupational Disease Prevention Law, and establishes the occupational health and safety management system according to the GB/T 45001-2020 edition standard. 7 subsidiaries have obtained the ISO 45001 occupational health and safety management system certification.

Health and Safety Management System

The company has a Safety Production Committee (hereinafter referred to as the Committee), which is composed of the General Manager, the Secretary of the Party Committee, the Deputy General Managers and the main principals of each subordinate company/functional department. The Committee holds at least one meeting every quarter to study, deploy and summarize the safety management work of the company and coordinate and solve major problems in production safety. The Committee has set up an office at the Safety and Environmental Protection Department of the company. The Director of the Safety and Environmental Protection Department is the head of the office and is responsible for the daily work of safety production.

The director of the Committee leads the team to organize holiday safety inspection to ensure stable production safety during special and sensitive period of holiday.

The company has formulated safety management manual and 27 company management regulations based on various occupational health and safety production laws, regulations and standards, determined safety production objectives, adopted process methods, and made the system operate effectively and go through continuous improvement via the monitoring and measurement of the system. In 2020, the company successfully achieved various safe production goals.

100%	100%	100%	0
Rate of employees' participation in safety trainings	Investigation and rectification of safety hazards	Rate of participation in the emergency plans for production safety accidents	Number of work-related injuries

Management of Occupational-disease-inductive Factors

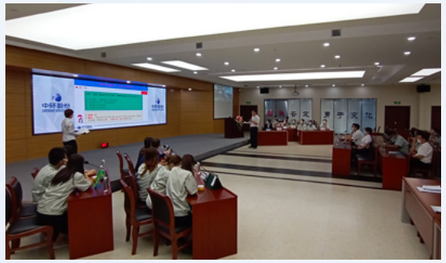
According to relevant laws and regulations, the company regularly invites third parties to inspect the occupational health and safety items to ensure the safety compliance of the Company's operations. Among them, the company carries out occupational-disease-inductive factors detection on time every year, identifies the occupational-disease-inductive factors and concentration generated by each production unit, analyzes the degree of its hazard and its impact on the health of employees, evaluates the occupational-health management status, and the occupational-disease-inductive protection measures and their effects, and suggests on the occupational-disease-inductive control measures for the systems or units that fail to meet the requirements of occupational-disease-inductive protection. According to the evaluation in 2020, the occupational-disease-inductive factors of the company mainly come from dust, hazardous chemicals, noises and power frequency electric field in the production and auxiliary production process.

The Company has formulated the *Occupational Disease Prevention Plan and Implementation Plan* which covers the production unit's occupational disease prevention responsibility system, workplace occupational disease hazard protection work, declaration of occupational disease hazard item, daily detection of occupational-disease-inductive factors, occupational health monitoring and protection, announcement and notification of occupational disease hazard and workplace hazard warning, and implements various plans and programs to normal production and operation.

According to the above scheme, the company has formulated *Safety Education and Training Regulations* which include the following contents: occupational health laws, regulations and standards, occupational health management and protection related knowledge, post occupational health operation regulations, major dangerous accidents and emergency rescue. The training objects include management personnel, new employees, on-the-job employees, employees transferred between workshops, and workers in positions with serious occupational-disease-inductive hazards. The safety education and training activity was carried out 413 times in each plant area of the company in 2020.

Corporate-wide Safety Knowledge Contest

On June 22, 2020, Zhonghuan Semiconductor held a safety knowledge contest. There were six teams participating in the contest, including sectors of crystals, wafers, modules, semiconductor materials, semiconductor devices and new energy sources. This contest not only enriched the safe production month's activity form but also enhanced the safety culture atmosphere of the company.



Front-line Occupational Health and Safety Training

In 2020, the company successively conducted training on occupational health and safety and protection for front-line management personnel and assembly line workers in each plant area, and introduced the hazards of occupational disease and basic concepts of occupational diseases, prevention methods of hazard factors, types of labor protection articles and their use.

Chemicals Management

The Company has continuously optimized the chemical management system, formulated the *Hazardous Chemicals Management Regulations*, identifying three categories of hazardous chemicals involved in the production process, namely, special-purpose gas, liquid chemicals and solid chemicals, and specifying the safety management during purchase, transportation, storage, use and disposal process of chemicals.

The company sets up separated chemical warehouses for different chemicals to avoid hazards and cross effects. The chemical supply system adopts automatic and sealed operation and transports chemical reagent through pipelines. Employees are mainly responsible for patrol inspection and material replacement, resulting in short contact time and low contact frequency, so as to reduce the exposure hazard rate of workers. Forced ventilation and discharge of toxics are carried out through mechanical fan. In the production process, it is strictly required that personal protection should be worn and the operating procedures should be followed to minimize workers' exposure to harmful substances.

In order to prevent serious and extraordinary accidents, the company has formulated *Emergency Rescue Plan for Production Safety Accidents*, which includes special emergency plan for hazardous chemical leakage, special emergency plan for acute poisoning, special emergency plan for limited space accidents, site treatment plan for high-temperature scald and low-temperature frostbite, etc., and the plan stipulates the establishment of emergency rescue command center, leading groups and their responsibilities, as well as treatment measures after the accident and emergency evacuation of personnel. In 2020, the chemical-related emergency drills were carried out for 17 times in each plant.

Emergency Drills of Subsidiaries Organized by Zhonghuan Semiconductor

In June 2020, Zhonghuan Semiconductor organized the subsidiaries to carry out emergency drills which took the fire caused by the leakage of hazardous chemicals as the hypothetical accident. The drills included the emergency treatment of the leakage, personnel evacuation and fire extinguishing, etc., so as to improve the organization, command, quick response and disposal ability of the subsidiaries in response to the emergency.

Simulated Escape Drill organized at Yixing Industrial Park

"integrated emergency rescue drill for fire accident of vacuum tail gas equipment in power center" organized at Inner Mongolia Photovoltaic Industrial Park

Emergency Plan Drill for Nitric Acid Leakage carried out by Huansheng Solar

Special-purpose gas leakage emergency drill conducted by Zhonghuan Huanxin

Building a Better Society with Sustainable Development

Building a Green Factory

Environmental Management System

With the concept of "keeping water clean and mountains green", the company has formulated the corporate vision of "environmental friendliness, employee support, government respect and customer trust". It sets up strict objectives for ecological and environmental protection, adopts the ISO14001 environmental management system, and has formulated the *Regulations on the Management of Environmental Protection* to implement the dual assessment mechanism of "objective + process" for environmental protection work. The company focuses on production management and gradually transitions to product life cycle control and risk control. It is committed to improving the environmental performance of every link in the whole process from the entry of raw materials into the factory, to the production and manufacturing, and to the waste management. In terms of supervision and management, we set up an environmental tracking system to sort out and make a list of the matters found in daily management that do not conform to environmental protection regulations, and track and record the follow-up rectification by means of regular reminders of the system.

In 2020, the company adhered to the purpose of innovative development and green development, actively took effective measures to save energy and reduce consumption, and strove to reduce waste emissions. In 2020, the company spent RMB292.2 million on comprehensive energy management, environmental protection, etc, and realized clean production through various group activities of energy conservation and emission reduction.

Through the company's internal self-examination as well as the database of Shanghai Qingyue Environmental Protection Center, by the end of the reporting period, no environmental pollution incidents, punishments on the relevant environment or major environmental problems occurred in the company and its combined reporting subsidiaries.

Certification about Environmental Responsibility

Corporate name	Certification name	Time of recent adoption	Certification authority
Tianjin Zhonghuan Semiconductor Co., Ltd.	ISO14001:2015 Environmental Management System	June 18, 2018	CESI Certification Co., Ltd.
Zhonghuan Advanced Semiconductor Materials Co., Ltd.	ISO14001:2015 Environmental Management System	July 24, 2020	CESI Certification Co., Ltd.
Tianjin Zhonghuan Advanced Material Technology Co., Ltd.	ISO14001:2015 Environmental Management System	August 03, 2018	CESI Certification Co., Ltd.
Tianjin Huan'Ou Semiconductor Materials Technology Co., Ltd.	ISO14001:2015 Environmental Management System	January 24, 2020	CESI Certification Co., Ltd.
Tianjin Huanxin Technology&Development Co.,Ltd.	ISO14001:2015 Environmental Management System	April 16, 2020	CESI Certification Co., Ltd.
Inner Mongolia Zhonghuan Solar Material Co.,Ltd.	ISO14001:2015 Environmental Management System	September 07, 2020	CESI Certification Co., Ltd.
Huansheng Solar (Jiangsu) Co., Ltd.	ISO14001:2015 Environmental Management System	September 26, 2020	DEKRA Testing & Certification (Shanghai) Ltd./ Hangzhou DEKRA Certification Co., Ltd.
Wuxi Zhonghuan Applied Materials Co., Ltd	ISO14001:2015 Environmental Management System	May 01, 2020	CESI Certification Co., Ltd.

The subsidiaries Huanxin Technology, Tianjin Zhonghuan Advanced Semiconductor Materials, Tianjin Huan'Ou, Zhonghuan Solar, Zhonghuan Advanced Semiconductor Materials, Huansheng Solar and Zhonghuan Applied Materials are all key pollutant discharge units announced by the local environmental protection department. They strictly comply with relevant regulations, high standards and strict requirements in terms of construction and operation of pollution prevention facilities, and thoroughly deploy environmental protection.

Identification Table of Main Environmental Factors of Zhonghuan Semiconductor

Value chain link of products	Operating subject involved	Whether a provincial key pollutant discharge unit
Mining and processing of raw materials	—	—
R&D and design, production and manufacturing, warehousing and transportation	Huanxin Technology (Tianjin City)	Yes
	Tianjin Zhonghuan Advanced Semiconductor Materials (Tianjin City)	Yes
	Tianjin Huan'Ou (Tianjin City)	Yes
	Zhonghuan Solar (Inner Mongolia Autonomous Region)	Yes
	Zhonghuan Advanced Semiconductor Materials (Jiangsu Province)	Yes
	Huansheng Solar (Jiangsu Province)	Yes
	Zhonghuan Applied Materials (Jiangsu Province)	Yes
Use, recovery and recycling of products	—	—
Management and sales	Headquarters	No

Note 1: For specific environmental risk factors and the components, please refer to appendix 3. A listed company may fill out this form based on its own operation situation and this table may also be split into two tables.

Analysis Table of Main Environmental Factors of Zhonghuan Semiconductor

Name of subsidiary/base	Main resources	Main pollutants
Huanxin Technology	Energy: electric energy, thermal energy, and natural gas Water source: municipal water supply Raw materials: silicon wafers Packages: foam boxes	Exhaust gas: particulate matter, sulfur dioxide, nitrogen oxides, VOCs, other characteristic pollutants (hydrogen chloride, ammonia, sulfuric acid mist, fluoride, chlorine, Ringelman blackness, nickel and its compounds) Waste water: COD, ammonia nitrogen, other characteristic pollutants (total nitrogen, total phosphorus, pH value, BOD5, fluoride, petroleum, total nickel, total silver, and animal and vegetable oils) Harmless wastes: waste pellets and silicon wafers Harmful wastes: waste mercury lamp, waste photoresist, waste activated carbon fiber mat, waste alkali bag, waste oil, nickel-containing waste liquid, nickel-containing sludge, mixed acid waste liquid, empty glass reagent bottle, lead-acid battery, organic waste liquid and contaminated waste
Tianjin Zhonghuan Advanced Semiconductor Materials	Energy: electricity, heat, natural gas Water source: Municipal water supply Raw material: silicon material Packages: foam boxes and cartons	Exhaust gas: NOx, VOCs, other characteristic pollutants (hydrogen fluoride, hydrogen chloride, ammonia, toluene, and odor concentration) Waste water: COD, ammonia nitrogen, other characteristic pollutants (total nitrogen, total phosphorus, pH value, suspended solids, BOD5, flow, fluoride, and petroleum) Harmless waste: sludge Harmful wastes: mixed acid waste liquid, acid mist washing tower packing, waste 200L plastic barrel, 5L and below plastic barrel, waste 20L plastic barrel, empty glass reagent bottle, waste absorbing cotton, waste absorbing sand, waste oil, waste rubber, mixed acid waste liquid (including hydrofluoric acid), waste 200L iron barrel, waste polishing wax waste liquid, waste activated carbon, contaminated waste, chromium-containing waste liquid and chromium-containing waste water

Name of subsidiary/base	Main resources	Main pollutants
Tianjin Huan'Ou	Energy: electric energy, thermal energy, and natural gas Water source: municipal water supply Raw materials silicon rods Packages: foam boxes and cartons	Exhaust gas: particulate matter, SO2, NOx, VOCs, and other characteristic pollutants (fluoride, hydrogen chloride, Ringelman blackness) Wastewater: COD, ammonia nitrogen, other characteristic pollutants (total nitrogen, total phosphorus, pH value, suspended solids, BOD5, flow, fluoride, and petroleum) Harmless waste: waste steel wire Harmful wastes: waste rubber, waste rubber barrel, contaminated waste, mixed acid, waste chemical packaging barrel, waste carbon fiber, waste washing solution
Zhonghuan Solar	Energy: electricity, heat, natural gas Water source: municipal water supply Raw material: silicon material Packages: foam boxes and cartons	Exhaust gas: particulate matter, nitrogen oxides, VOCs, and fluoride Waste water: COD, ammonia nitrogen, other characteristic pollutants (total phosphorus, pH, suspended solids, BOD5, and fluoride) Harmless wastes: waste plastics, waste iron, waste wood, waste paper, and sludge Harmful wastes: waste mineral oil, waste oil sludge
Zhonghuan Advanced Semiconductor Materials	Energy: electric energy, natural gas, and thermal energy Water source: municipal water supply Raw materials: silicon wafers Packages: foam boxes and cartons	Exhaust gas: particulate matter, NOx, VOCs, other characteristic pollutants (chlorine, ammonia, hydrogen chloride, silane, alkali mist, fluoride, sulfuric acid mist, and non-methane total hydrocarbon) Waste water: COD, ammonia nitrogen, other characteristic pollutants (fluoride, total nitrogen, total phosphorus, suspended solids, and pH) Harmless wastes: waste crystal silicon fragments, waste battery pieces, combustion powder, fluorine-containing sludge, sludge originating from domestic sewage treatment, and evaporative crystalline salt Harmful wastes: ammonia-containing waste liquid, alkali velvet waste liquid, pickling waste liquid, etching waste liquid, alkali washing waste liquid, HPO3-containing cleaning waste liquid, waste activated carbon fiber and waste adsorbent
Huansheng Solar	Energy: electric energy, natural gas, and thermal energy Water source: municipal water supply Raw materials: silicon wafers Packages: foam boxes and cartons	Exhaust gas: particulate matter, NOx, VOCs, other characteristic pollutants (chlorine, ammonia, hydrogen chloride, silane, alkali mist, fluoride, sulfuric acid mist, and non-methane total hydrocarbon) Waste water: COD, ammonia nitrogen, other characteristic pollutants (fluoride, total nitrogen, total phosphorus, suspended solids, and pH) Harmless wastes: waste crystal silicon fragments, waste battery pieces, combustion powder, fluorine-containing sludge, sludge originating from domestic sewage treatment, and evaporative crystalline salt Harmful wastes: ammonia-containing waste liquid, alkali velvet waste liquid, pickling waste liquid, etching waste liquid, alkali washing waste liquid, HPO3-containing cleaning waste liquid, waste activated carbon fiber and waste adsorbent
Zhonghuan Applied Materials	Energy: electric energy, and thermal energy Water source: municipal water supply Raw materials silicon rods Packages: foam boxes and cartons	Exhaust gas: particulate matter, other characteristic pollutants (non-methane hydrocarbon, and ethanol) Waste water: COD, ammonia nitrogen, other characteristic pollutants (total nitrogen, total phosphorus, suspended solids, and pH) Harmless wastes: waste filter element, waste RO membrane, waste catalyst, waste crystalline silicon rod, waste battery pieces, waste diamond wire, waste resin board, filter cake and sludge originating from sewage treatment Harmful wastes: waste activated carbon, waste dust-free paper, and waste ion exchange resin

Resource Utilization Management

The energy consumed by the company mainly includes electric energy, thermal energy, and natural gas (and a small amount of gasoline and diesel), and water sources consumed mainly includes municipal water supply, reclaimed water, etc.

The company and its subsidiaries have formulated a full set of policy: the *Regulations on Management of Energy conservation and Consumption Reduction*, the *Regulations and Manual of Energy Management*, and the *Water Conservation Management System*, etc., which define the principles of energy and water management in line with the principle of energy conservation and consumption reduction. The company carries out source control and continuous improvement while meeting and improving the production rate, and reduces production costs and promoted sustainable development in harmony with the environment while reducing the environmental impact.

Zhonghuan Semiconductor has also formulated the Responsibility Statement on Energy Saving and Consumption Reduction, and issued the energy saving index for 2020: 222 tons of standard coal, equivalent to 1.81 million kilowatt-hours of electricity, and increasing by 12 tons over the 210 tons of standard coal in 2019. Around this goal, the subsidiaries and production bases carried out a variety of improvement measures for energy saving and consumption reduction technology.

Zhonghuan Huanzhi Energy Saving Projects

[Use of Renewable Energy and Technology Transformation]

Installed photovoltaic power station on the factory roof and parking lot, which generated 120,000 kwh/ month, accounting for 0.7% of the monthly power consumption (18 million kwh).

[Air Conditioning Improvement at Purification Area]

The purification area needs cooling all year round, but it is very easy to freeze and crack the air conditioning coil to pump fresh air in when the external temperature is low in winter. It is also a waste of energy to cool down the heated up fresh air.

Zhonghuan Huanzhi closes the fresh air valve and opens the door to the air conditioning unit, so that the air conditioner can directly pump the air from the air conditioning room into the workshop, to save the heat consumption of the coil in the preheating section. In addition, the factory drains the water from the air conditioning coil and directs fresh air into the workshop. The improvement can reduce about 40 MW heat load consumption per day.

Water Saving Projects at Subsidiaries

[Water Saving Project of Inserted Machine at Zhonghuan Applied Materials Huanbo]

Zhonghuan Applied Materials has set a cost reduction target of water resource at RMB0.0021 per slice. On average, Huanbo uses 41 tons of water to clean an inserted machines every day. The overflow of the plug-in circulating pump on both sides is directed to the sewage station. The overflow water is transformed to effectively utilize the circulating water resources and reduce the tap water consumption and sewage treatment capacity.

In December 2020, the subsidiary completed theoretical test, and 15 inserted machines were transformed. The average daily water consumption has been reduced from 2,187 tons to 1,535 tons, saving an average of 648 tons per day.

Meanwhile, the subsidiary also carries out such projects as the formulation of and supervision on workshop water standards, the pure water transformation and recycling, and the replacement of spraying with degumming overflow, reducing the tap water consumption by 773,189 tons, and the sewage discharge by 532,169 tons.

Water Saving Projects at Subsidiaries

[Zhonghuan Huanzhi : Transformation Scheme for Sink 0 Water Inlet of Cleaning Machine]

The overflow water of Sink 4 was used in the Sink 0 of the cleaning machine, and the water inlet temperature was 50℃ . Due to the high water inlet temperature, the motor bearing temperature was high and fault frequency was high. In order to reduce the equipment failures, the Sink 0 of pure water was opened to fill the overflow flow of 5L/min, leading to serious waste of water.

Zhonghuan Huanzhi took the water of the inserting machine as the water supply source of Sink 0, led the water supply pipeline from the inserting machine to the water supply pipeline of the Sink 0, and added a ball valve in the middle. The original pipeline of the equipment was still retained as a standby water supply pipeline. It not only solved the problem of high temperature in Sink 0, but also saved 12,000 tons of tap water per month and reduced the tap water cost by RMB 100,000.

[Inner Mongolia Solar Pan Bin: Transformation Scheme for Water Storage Tank Pipelines in Huanbo]

At present, Huanbo cleaning machines adopted two ways of pure water overflow. One is supplied by hot water from slow pulling tank for inserting piece, and the other is supplied by overflow from rinsing tank of cleaning machine. Under the premise of satisfying the normal operation of the insert machine and the cleaning machine's overflow, in order to reduce the energy consumption cost, now the pure water in the storage tank of liquid tank in Huanbo has been changed to tap water for heating and then used by inserting piece machine, so as to reduce unit price of water consumption. Save a tank of pure water overflow, save 11.52 tons of pure water per day per machine, and reduce the monthly consumption of pure water from 4,838 tons to 2,419 tons per unit (the overflow flow of the tank is 480L/h).

Emission Reduction

The company and its subsidiaries have formulated complete systems such as the *Measures for Reduction of Exhaust Gas Emission,* the *Waste water Discharge Standards, the Management Regulations on Maintenance of Waste water Treatment Equipment, the Management Regulations on Outsourcing of Waste water Station, and the Measures for Reduction and Treatment of Waste water Discharge*, the *Types and Disposal of Harmless Wastes*, and the *Regulations on Types and Disposal of Harmful Wastes and Management of Harmful Wastes Warehouse*, and organized employees to learn solid waste law.

In terms of pollutant prevention and control, we have implemented environmental protection regulations and relevant requirements. In view of the exhaust gas emissions including sulfuric acid mist, hydrogen chloride (HCl), nitrogen oxides (NOx), ammonia (NH3), volatile organic compounds (VOCs) in the production process, we have established the exhaust gas treatment system, all of which meet the management requirements of standard emission, and the designed removal efficiency of VOCs reaches more than 90%. In terms of waste water discharge, the company has implemented GBT 31962-2015 (water quality standard for sewage discharged into urban sewers) class B standard since 2017, and reduced the discharge through recycling of the cleaning water produced in the factory.

In terms of pollutant discharge monitoring and information publicity, the company implement online waste water monitoring, and the relevant data are available on the government's environmental information platform to ensure transparent environmental information disclosure.

Pollutant Discharge Management

Category		Treatment method
Exhaust gas	Acid and alkaline exhaust gas	After purification and absorption through a washing tower, discharge up to the standard, generate the waste water and let it enter the sewage treatment system
	Alkaline exhaust gas (mainly ammonia)	Purification through a washing tower
	Organic exhaust gas	After adsorption or concentration by means of activated carbon, carry out purification through catalytic combustion treatment
	Dust and exhaust gas (mainly fine particulate matters of silica)	Removal by dust removal device
Waste water	PH, COD, ammonia nitrogen, fluorine ion, etc.	After reaching the standard after being treated with the sewage treatment system, discharge into the designated urban sewage pipe network
General solid waste	Sludge originating from sewage treatment	Entrust a qualified unit to treat (compost or landfill)
	Waste products (silicon mud, waste silicon wafer, waste silicon rod, etc.)	Entrust a qualified unit to treat (recycling)
	Consumables (diamond wire, waste crucible, etc.)	Entrust a qualified unit to treat (recycling)
Harmful wastes	Acid-containing waste liquid	Entrust a qualified unit to treat (neutralization and materialization)
	Waste packaging materials (empty barrels, etc.)	Entrust a qualified unit to treat (recycling)
	Waste filler (waste activated carbon, etc.)	Entrust a qualified unit to treat (landfill, incineration and regeneration)
	Rubber-containing wastes (waste rubber, rubber barrel, etc.)	Entrust a qualified unit to treat (incineration)
	Oily-containing wastes (waste engine oil, mineral oil, etc.)	Entrust a qualified unit to treat (incineration and recycling)

Construction of Responsibility Value Chain

Development of Energy Saving and Environmental Protection Products

Huansheng Solar is committed to the development and integration of G12 large-size silicon wafer technology and high-efficiency imbricated module technology, to build the world's leading imbricated module products with high power and efficiency. Meanwhile, it is engaged in enhancing more reliable and cost-effective manufacturing capacity, and relying on excellent product value to bring higher return to customers.

On June 18, 2020, Huansheng Solar successfully launched its first G12 high-efficiency imbricated modules off assembly line. The new generation of G12 imbricated modules that have been launched off assembly line for this time integrate with the G12 large-size silicon wafer technology as well as the high-efficiency imbricated module technology, which realized stronger product performance after reaching the target output. The module efficiency was more than 21%, and the maximum output power was more than 600W, far ahead of the industry level.

Supplier Management

The company's suppliers include those providing carborundum, chemicals, special gas and auxiliary materials, etc. The company has formulated the *Supplier Management System*, the *Supplier Audit Management System*, etc. to standardize the management and process of supplier introduction, review, quality management and improvement, etc. The company's Strategic Management Department, Procurement Department, and manufacturing company share clear roles and responsibilities, and jointly participate in supplier management and review.

In daily operation of the company, all the procurement businesses of the company are subject to compliance monitoring throughout the process through relevant approval procedures, including price approval, contract approval and payment approval. Every quarter, the company's Strategic Management Department conducts sampling inspection on the procurement business, and carries out compliance walk-through test of relevant business. The Audit Department conducts annual review to ensure that all work is in strict compliance with the requirements.

During supplier review, the company focuses on the suppliers' performance in quality, delivery, cost, as well as environment, employment safety, etc. For new suppliers, in the supplier admittance review, the company reviews whether the suppliers are certified by ISO14000, OHSAS18000 and other environmental and employee occupational safety systems, as well as the management of harmful substances; for existing suppliers, the company carries out annual supplier review and special quality review, and requires that the A-level material suppliers receive on-site reviews at least once every three years.

Suppliers that fail to meet the environmental or labor requirements required to rectify. If the supplier fails to meet the company's management requirements within the rectification period, the company will terminate cooperation with the supplier.

In 2020, the company conducted on-site review on 31 qualified suppliers, involving their compliance with relevant laws and regulations on environment, labor and ethics, their quality management systems, their management of toxic and harmful substances, etc., and no serious violation of relevant laws and regulations was found. Among them, 6 suppliers had non-compliance items in terms of environmental management system. Upon rectification as required by the company, they all met the relevant system requirements and the company's management requirements.

In addition, the company has set up an R&D mechanism process for the reverse integrated product development (IPD), and established the relationship of joint R&D and revenue sharing for the core materials of new technologies and standards with strategic suppliers, so as to achieve win-win situation between the company and suppliers.

Win-win Cooperation with Suppliers

1. By cooperating with strategic suppliers, the company developed and produced industry-leading and commonly used thin wire products (Wire 45) on a large scale in early 2020, so as to reduce the overall cost of silicon wafers.

2. By cooperating with strategic suppliers, they jointly developed the long-life quartz crucible, which could increase the service life of quartz crucible by more than 30% in the process of single crystal production, thus effectively reducing the production cost of single crystal.

Conflict Minerals Management

The company is a semiconductor manufacturer. The types of raw materials provided by suppliers may involve mineral materials contained in conflict minerals. Suppliers are required to fill in the *Form of Basic Information of Suppliers*. Suppliers of minerals that overlap with the type of conflict minerals are required to investigate whether the source of mineral conforms to the RMI requirements as per the RMI website.

The company only works with one tin supplier, which is required to provide the certificate of origin of its tin products. The investigation shows that the materials are all produced in China from mining to processing, and no non-compliant supplier has been found.

Contribution to Social Prosperity

The year 2020 marked the end the fight against poverty. In the fight against poverty, Zhonghuan Semiconductor continuously leverages its business advantages. By promoting the construction of photovoltaic power stations, it drives the development of human and material resources in poverty-stricken areas, and realizes the combination of poverty alleviation and development with new energy utilization, energy conservation and emission reduction.

The company actively implements such policies as the *Notice of the State Council on Printing and Distributing the Plan for Poverty Alleviation During the 13th Five-Year Plan Period*, the Opinions of the China Securities Regulatory Commission on Giving Play to the Role of Capital Market to Serve the National Poverty Alleviation, the *Opinions of the National Development and Reform Commission on the Implementation of Photovoltaic Power Generation Poverty Alleviation*, and the *Guiding Opinions on Implementation of the 13th Five-Year Plan for the Development of Renewable Energy,* and carries out photovoltaic poverty alleviation projects in Inner Mongolia, Hebei, Yunnan, Sichuan and other regions. According to the industrial characteristics and resource advantages of different regions, Zhonghuan Semiconductor selects the poverty-stricken areas with photovoltaic construction conditions to actively carry out photovoltaic poverty alleviation projects, promoting local development in a scientific and effective manner. On the one hand, it makes comprehensive use of land resources and light resources for power generation to improve the regional environment and power supply structure. On the other hand, it subsidizes the poor with power generation income and helps the regions out of poverty. Meanwhile, in line with the principle of "employing people nearby", the company introduces local graduates and professionals majoring in electric power, numerical control, etc. to undertake such technical jobs as power station operation and maintenance; employs local people with financial difficulties but labor ability to weed and clean photovoltaic panels in power stations, so as to solve some local employment problems according to local conditions.

As of the end of the reporting period, the company installed 6 ground centralized power stations as poverty alleviation projects, with a lumpsum investment of RMB1,055.8124 million. The projects have helped 6,901 households without working capability, each one gaining a poverty alleviation income of about RMB3,000 per year, ensuring a 20-year sustainable income for low income family.

The photovoltaic poverty alleviation projects carried out by the company have achieved the effect of "killing more birds with one stone" in the aspects of steadily driving the poor to increase their income and get rid of poverty, effectively protecting the ecological environment, and actively promoting the supply-side structural reform in the energy field.

Completed Photovoltaic Poverty Alleviation Projects

Qinhuangdao Photovoltaic Station

Lincang Photovoltaic Station

Anmeng Photovoltaic Station in Inner Mongolia

Hohhot Photovoltaic Station

Completed Photovoltaic Poverty Alleviation Projects

Tianjin Photovoltaic Station

Zhangjiakou Photovoltaic Station

Zhangjiakou Photovoltaic Station

Zhangjiakou Photovoltaic Station

"Complementation of Agriculture and Light" Enhanced Economic and Social Benefits

In the photovoltaic poverty alleviation project in Xiangzhulin Village, Mengyong Town, Gengma Dai and Va Autonomous County, Lincang City, Yunnan Province, the company actively created a new idea of "complementation of agriculture and light", and utilized the spare land between photovoltaic power station arrays to plant crops suitable for growing on the project site, such as economic crops, forages and Chinese herbal medicine. Given the characteristics of solar photovoltaic power generation of having neither pollution nor emission, and in combination with grass planting, the company set up and installed photovoltaic solar power generation devices on the ground, and planted grass on the land under the photovoltaic supports, which not only had power generation capacity, but also could provide suitable growth environment for grass and maximize the use of land value, thus creating better economic and social benefits.

In addition, the company actively contributes to the cause of science education. Zhonghuan Semiconductor donated RMB 100,000 to Jiangsu University of Science and Technology, its cooperative unit, for the scholarships and practice cultivation of excellent students majoring in new energy science and engineering. Moreover, it donated a small power station to facilitate scientific research of the University.

Key Performance Indicator

Topics	Quantitative disclosures	Unit	2020
Economy	Total assets at the end of the period	RMB'00,000,000	587.2
	Operating revenue	RMB'00,000,000	190.57
	Net profit	RMB'00,000,000	10.89
	Earnings per share	RMB'/ share	0.3770
	Cash dividend amount	RMB'0,000	18,197.56
	Cash dividend scheme		RMB 0.6 per 10 shares
	R&D investment	RMB'0,000	90,921.98
Corporate governance	Number of Board members	Person(s)	9
	Number of female directors in the Board	Person(s)	4
	Proportion of female directors in the Board	%	44
	Number of independent directors in the Board	Person(s)	3
	Proportion of independent directors in the Board	%	33
	Number of general meetings of shareholders	Times	4
	Number of Board meetings	Times	22
	Number of meetings of the board of supervisors	Times	12
	Number of meetings of various special committees of the Board	Times	23
Anti-corruption	Number of finalized corruption cases brought against the issuer or its employees	Piece(s)	0
	Number of persons trained on anti-corruption	Number of persons	270
R&D Innovation	Proportion of total R&D expenditure to operating revenue	%	4.77
	Proportion of R&D personnel	%	8.64
	Total number of patents	Piece(s)	732
	Invention patent	Piece(s)	127
	Utility model patent	Piece(s)	582
	Patent under processing	Piece(s)	518
Product quality	First-time pass rate of the overall product	%	93
	Quality feedback	Time(s)	1,042
	General quality feedback	Time(s)	705
	Significant quality feedback	Time(s)	0
	Feedback completed for approval	Time(s)	807

Topics	Quantitative disclosures	Unit	2020
Employment	Total number of employees	Person(s)	10,258
	Proportion of male employees	%	79.26
	Proportion of female employees	%	20.74
	Proportion of female executives	%	30
	Proportion of employees under 30 years old	%	47.81
	Proportion of employees of 30-50 years old	%	51.04
	Proportion of employees above 50 years old	%	1.15
	Proportion of Han ethnic	%	93.31
	Proportion of minority ethnics	%	6.69
	Average wage growth rate	%	9.18
	Visits to employees in difficulties	Number of persons	33
Employee training	Percentage of employees trained in the company's employees	%	24.3
	By gender		
	Male employees	%	76.3
	Female employees	%	23.7
	By work nature		
	Management	%	41.6
	Profession	%	2.5
	Technology	%	24.2
	Marketing	%	1
	Operation	%	30.7
	Average training hours per person for all employees	Hour(s)/person	26.8
	By gender		
	Male employees	Hour(s)/person	26.2
	Female employees	Hour(s)/person	28.9
	By work nature		
	Management	Hour(s)/person	33.4
	Profession	Hour(s)/person	22.3
	Technology	Hour(s)/person	24.2
	Marketing	Hour(s)/person	28.2
	Operation	Hour(s)/person	20.3
	Total courses on online learning platform	Courses	910
	Person-times of online learning	Person-time(s)	84,968

Topics	Quantitative disclosures	Unit	2020
Health and safety	Coverage rate of physical examination	%	100
	Work-related deaths	Person(s)	0
	Work-related injuries	Time(s)	27
	Total days lost due to work-related injuries	Day(s)	1977
	Safety education and training activities	Time(s)	413
	Emergency drill	Time(s)	112
Resource usage	Total electricity consumption	Megawatt hour(s)	3,067,424.01
	Natural gas consumption	Cubic meter(s)	806,550.70
	Steam consumption	Cubic meter(s)	27,594,561.30
	Total water consumption	Cubic meter(s)	14,195,157.56
	Of which: municipal water supply	Cubic meter(s)	7,299,259.31
	Recycled/reused water	Cubic meter(s)	16,774,292
	Total amount of packaging materials used for the shipment of finished products	Ton(s)	7,670.47
	Amount of recycled packaging materials used for the shipment of finished products	Ton(s)	185.4
Emissions	Total exhaust emission	0,000 cubic meters	499,187.54
	Nitrogen oxide (NOx) emission	kg	16,464.16
	Sulfur dioxide (SO2) emission	kg	408.35
	Greenhouse gas emission	Ton(s) of CO2 equivalent	0
	Total wastewater discharge	0,000 cubic meters	941.901
	Total amount of harmless waste 1	Ton(s)	67,020.49
	Total amount of harmful waste	Ton(s)	2,968.88

Honors

Excellent Board Award among the 15th "Golden Round Table" Award for the Board of Directors of Listed Companies in China

"High-quality Development Pioneer", "Best Board of Directors" and "Best New Media Operation Award" for 10th Tianma Award for Investor Relations of Listed Companies in China

Best New Media Operation Award for Investor Relations of Listed Companies in China

Best Board of Directors Award for Investor Relations of Listed Companies in China

Top 10 Enterprises in Terms of Photovoltaic Product Quality (Photovoltaic Raw Materials and Accessories)

2019 Asia Photovoltaic Innovation Enterprise Award

Director of Strategic Alliance for Technological Innovation in Integrated Circuit Materials Industry, 2019-2022

Top 10 Semiconductor Material Enterprises in China's Electronic Materials Industry (the Third Session) (2019)

Top 50 Enterprises in China's Electronic Materials Industry (the Third Session) (2019)

Appendices

Index of Social Responsibility Standards

Shenzhen Stock Exchange Social Responsibility Instructions to Listed Companies

Contents of *Shenzhen Stock Exchange Social Responsibility Instructions to Listed Companies*	Corresponding Chapters
Chapter I General Provisions	
Article 2	Our Social Responsibility Management
Article 3	Our Social Responsibility Management
Article 4	Comprehensive Risk Management
Article 5	Our Social Responsibility Management
Chapter II Protection for the Rights and Interests of Shareholders and Creditors	
Article 7	Good Corporate Governance
Article 8	Good Corporate Governance
Article 9	Good Corporate Governance
Article 10	Creation and Distribution of Economic Value
Article 11	Good Corporate Governance
Article 12	Good Corporate Governance
Chapter III Protection of Employee Interests	
Article 13	Respect for the Rights and Interests of Employees
Article 14	Respect for the Rights and Interests of Employees
Article 15	Promotion of Occupational Health and Safety
Article 16	Respect for the Rights and Interests of Employees
Article 17	Respect for the Rights and Interests of Employees
Article 18	Facilitation of Staff Development
Article 19	Respect for the Rights and Interests of Employees

Contents of *Shenzhen Stock Exchange Social Responsibility Instructions to Listed Companies*	Corresponding Chapters
Chapter IV Protection for the Rights and Interests of Suppliers, Customers and Consumers	
Article 20	R&D Innovation Adherence to High Quality
Article 21	Adherence to High Quality
Article 22	Adherence to High Quality
Article 23	Construction of Responsibility Value Chain
Article 24	Comprehensive Risk Management
Article 25	Guarantee for Network and Information Security
Article 26	Adherence to High Quality
Chapter V Environmental Protection and Sustainable Development	
Article 27	Green Factory Construction
Article 28	Green Factory Construction
Article 29	Green Factory Construction
Article 31	Green Factory Construction
Chapter VI Public Relations and Social Welfare Services	
Article 32	Contribution to Social Prosperity
Article 33	Contribution to Social Prosperity
Article 34	Contribution to Social Prosperity
Chapter VII Institutional Building and Information Disclosure	
Article 36	Instructions for Report Preparation

GRI Sustainability Reporting Standards (GRI Standards)

GRI Standard Content Index			Reference Sections in the Report
General Disclosures	102-1	Name of organization	Company Profile
	102-2	Activities, brands, products, and services	Company Profile
	102-3	Location of headquarters	Company Profile
	102-4	Location of operations	Company Profile
	102-5	Ownership and legal form	Company Profile
	102-6	Markets served	Company Profile
	102-7	Scale of the organization	Company Profile
	102-8	Information on employees and other workers	Company Profile
	102-12	External initiatives	Our Social Responsibility Management
	102-13	Membership of associations	Our Social Responsibility Management
	102-16	Values, principles, standards, and norms of behavior	Our Social Responsibility Management
	102-18	Governance structure	Good Corporate Governance
	102-20	Executive-level responsibility for economic, environmental, and social topics	Our Social Responsibility Management
	102-21	Consulting stakeholders on economic, environmental and social topics	Our Social Responsibility Management
	102-22	Composition of the highest governance body and its committees	Good Corporate Governance
	102-29	Identifying and managing economic, environmental, and social impacts	Our Social Responsibility Management
	102-30	Effectiveness of risk management processes	Comprehensive Risk Management
	102-31	Review of economic, environmental, and social topics	Our Social Responsibility Management
	102-32	Highest governance body's role in sustainability reporting	Our Social Responsibility Management
	102-33	Communicating critical concerns	Our Social Responsibility Management
	102-35	Remuneration policies	Good Corporate Governance
	102-36	Process for determining remuneration	Good Corporate Governance
	102-37	Stakeholders' involvement in remuneration	Good Corporate Governance
	102-38	Annual total compensation ratio	Good Corporate Governance
	102-39	Percentage increase in annual total compensation ratio	Good Corporate Governance
	102-39	Percentage increase in annual total compensation ratio	Good Corporate Governance
	102-40	List of stakeholder groups	Our Social Responsibility Management
	102-41	Collective bargaining agreements	Our social responsibility management Putting People First and Ensuring Employees' Dignity
	102-42	Identifying and selecting stakeholders	Our Social Responsibility Management
	102-43	Approach to stakeholder engagement	Our Social Responsibility Management
	102-44	Key topics and concerns raised	Our Social Responsibility Management
	102-45	Entities included in the consolidated financial statements	Instructions for Report Preparation
	102-46	Defining report content and topic Boundaries	Instructions for Report Preparation
	102-47	List of material topics	Our Social Responsibility Management
	102-48	Restatements of information	Instructions for Report Preparation
	102-49	Changes in reporting	Instructions for Report Preparation
	102-50	Reporting period	Instructions for Report Preparation
	102-51	Date of most recent report	Instructions for Report Preparation
	102-52	Reporting cycle	Instructions for Report Preparation
	102-53	Contact point for questions regarding the report	Instructions for Report Preparation
	102-54	Claims of reporting in accordance with the GRI Standards	Instructions for Report Preparation
	102-55	GRI content index	Sustainability Reporting Standards (GRI Standards)
Management Methods	103-1	Explanation of the material topic and its Boundary	Creation and Distribution of Economic Value
	103-2	The management approach and its components	Creation and Distribution of Economic Value
	103-3	Evaluation of the management approach	Creation and Distribution of Economic Value
Economic Performance	201-1	Direct economic value generated and distributed	Creation and Distribution of Economic Value
	201-2	Financial implications and other risks and opportunities due to climate change	Creation and Distribution of Economic Value
	201-3	Defined benefit plan obligations and other retirement plans	Creation and Distribution of Economic Value Putting People First and Ensuring Employees' Dignity
Anti-corruption	205-1	Operations assessed for risks related to corruption	Comprehensive Risk Management
	205-2	Communication and training about anti-corruption policies and procedures	Comprehensive Risk Management
	205-3	Confirmed incidents of corruption and actions taken	Comprehensive Risk Management
Management Methods	103-1	Explanation of the material topic and its Boundary	Green Factory Construction
	103-2	The management approach and its components	Green Factory Construction
	103-3	Evaluation of the management approach	Green Factory Construction
Materials	301-1	Materials used by weight or volume	Green Factory Construction
	301-2	Recycled input materials used	Green Factory Construction
	301-3	Reclaimed products and their packaging materials	Green Factory Construction
Energy	302-1	Energy consumption within the organization	Green Factory Construction
	302-2	Energy consumption outside of the organization	Green Factory Construction
	302-3	Energy intensity	Green Factory Construction
	302-4	Reduction of energy consumption	Green Factory Construction
	302-5	Reductions in energy requirements of products and services	Green Factory Construction
Water Resources and Sewage	303-1	Interactions with water as a shared resource	Green Factory Construction
	303-2	Management of water discharge-related impacts	Green Factory Construction
	303-3	Water withdrawal	Green Factory Construction
	303-4	Water discharge	Green Factory Construction
	303-5	Water consumption	Green Factory Construction

GRI Standard Content Index			Reference Sections in the Report
Discharge	305-1	Direct (Scope 1) GHG emissions	Green Factory Construction
	305-2	Energy indirect (Scope 2) GHG emissions	Green Factory Construction
	305-3	Other indirect (Scope 3) GHG emissions	Green Factory Construction
	305-4	GHG emissions intensity	Green Factory Construction
	305-5	Reduction of GHG emissions	Green Factory Construction
	305-6	Emissions of ozone-depleting substances (ODS)	Green Factory Construction
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Green Factory Construction
Sewage and Wastes	306-1	Water discharge by quality and destination	Green Factory Construction
	306-2	Waste by type and disposal method	Green Factory Construction
	306-3	Significant spills	Green Factory Construction
	306-4	Transport of hazardous waste	Green Factory Construction
	306-5	Water bodies affected by water discharges and/or runoff	Green Factory Construction
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	Green Factory Construction
Management Methods	103-1	Explanation of the material topic and its boundary	Construction of Responsibility Value Chain
	103-2	The management approach and its components	Construction of Responsibility Value Chain
	103-3	Evaluation of the management approach	Construction of Responsibility Value Chain
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Construction of Responsibility Value Chain
	308-2	Negative environmental impacts in the supply chain and actions taken	Construction of Responsibility Value Chain
Management Methods	103-1	Explanation of the material topic and its boundary	Putting People First and Ensuring Employees' Dignity
	103-2	The management approach and its components	Putting People First and Ensuring Employees' Dignity
	103-3	Evaluation of the management approach	Putting People First and Ensuring Employees' Dignity
Employment	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Putting People First and Ensuring Employees' Dignity
	401-3	Parental leave	Putting People First and Ensuring Employees' Dignity
Occupational Health and Safety	403-1	Occupational health and safety management system	Putting People First and Ensuring Employees' Dignity
	403-2	Hazard identification, risk assessment and incident investigation	Putting People First and Ensuring Employees' Dignity
	403-3	Occupational health services	Putting People First and Ensuring Employees' Dignity
	403-4	Worker participation, consultation, and communication on occupational health and safety	Putting People First and Ensuring Employees' Dignity
	403-5	Worker training on occupational health and safety	Putting People First and Ensuring Employees' Dignity
	403-6	Promotion of worker health	Putting People First and Ensuring Employees' Dignity
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Putting People First and Ensuring Employees' Dignity
	403-8	Workers covered by an occupational health and safety management system	Putting People First and Ensuring Employees' Dignity
	403-9	Work-related injuries	Putting People First and Ensuring Employees' Dignity
	403-10	Work-related ill health	Putting People First and Ensuring Employees' Dignity

GRI Standard Content Index			Reference Sections in the Report
Training and Education	404-1	Average hours of training per year per employee	Putting People First and Ensuring Employees' Dignity
	404-2	Programs for upgrading employee skills and transition assistance programs	Putting People First and Ensuring Employees' Dignity
Diversified and Equal Opportunities	405-1	Diversity of governance bodies and employees	Putting People First and Ensuring Employees' Dignity
Anti-discrimination	406-1	Incidents of discrimination and corrective actions taken	Putting People First and Ensuring Employees' Dignity
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Putting People First and Ensuring Employees' Dignity
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	Putting People First and Ensuring Employees' Dignity
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Putting People First and Ensuring Employees' Dignity
Local Community	413-1	Operations with local community engagement, impact assessments, and development programs	Contribution to Social Prosperity
Social Assessment of Suppliers	414-1	New suppliers that were screened using social criteria	Win-win Cooperation and Growth with Partners
		Negative social impacts in the supply chain and actions taken	Win-win Cooperation and Growth with Partners

Instructions for Report Preparation

Report Basis

The report is prepared based on the *Guidelines on Social Responsibility Reporting* issued by Shenzhen Stock Exchange, refers to the main board rules *Main Board Information Disclosure Business Memorandum No. 1 - Matters Related to Periodic Report Disclosure*, and quotes some indicators of *GRI Standards 2016* (see the Index Table for details).

Scope of the Report

Scope of organization: This report covers Tianjin Zhonghuan Semiconductor Co., Ltd. and its subsidiaries, which is consistent with the scope of the consolidated financial statements in the annual report of Zhonghuan Semiconductor.

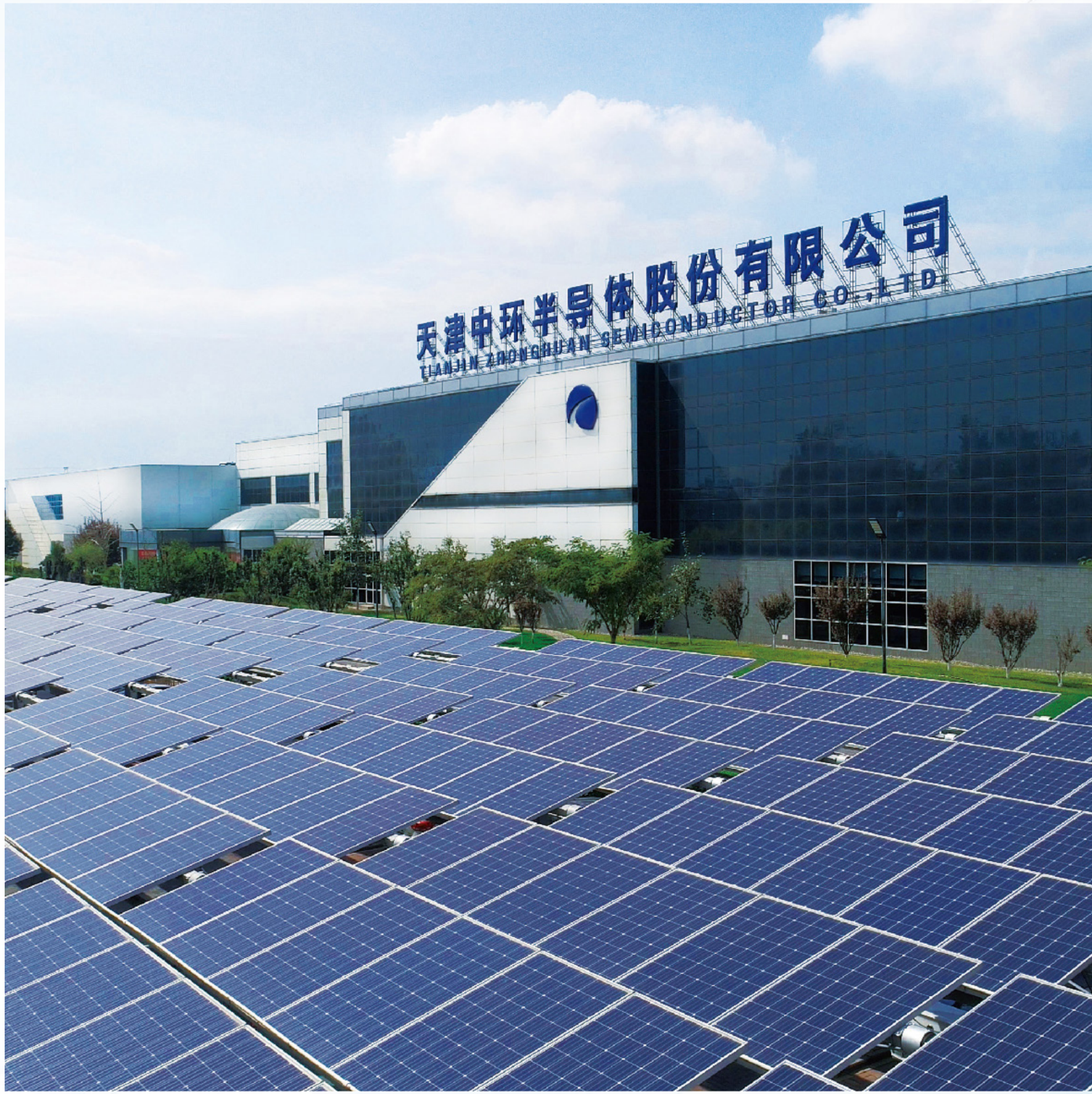
Time: January 1, 2020 - December 31, 2020

Data Description

The data and cases in this report are derived from the original records or financial reports of the company's daily operation.

Reliability Assurance

The board of directors of the company guarantees that there is no misrepresentation, misleading statement or material omission in the report.



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