



# 2020 Sustainability Report



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## **Message from the Chairman**

In 2020, we faced more uncertainties than ever. Despite the devastating global health crisis, numerous medical practitioners fought against the disease heroically, protecting the people against the pandemic. Numerous individuals and communities united as one and worked together to support the society navigate through the pandemic. We were deeply convinced that the uncertainties brought by the pandemic are sure to die down.

The pandemic once again pointed out to us that we had a long way to go in building a human community with a shared future. When we shift our attention to another crisis, that is, climate change, we can see that we need a more sustainable development path.

In 2015, the United Nations released the Sustainable Development Goals for 2030. We can clearly see that vigorously developing renewable energy and promoting the global carbon neutrality process has become the inevitable choice for mankind to mitigate climate change and achieve sustainable development. The major form of the energy revolution is going to be the clean and efficient use of a diversified energy structure including PV power, energy storage, and hydrogen energy.



As the world's most valuable solar technology company, LONGi has been contributing green power to a human community with a shared future.

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In the past 20 years, LONGi has been working on reducing the cost of PV power generation. I am very happy that PV has become the most economical source of electricity in many parts of the world thanks to the joint efforts of the industry, including LONGi. Some areas in China now have access to the electricity rate of 0.1 yuan per kWh for PV solar power, which lays a solid foundation for utility-scale PV application.

In 2015, we began the "clean energy generation powered by clean energy" program in Yunnan, China and Kuching, Malaysia and proposed "Solar for Solar", a "PV-powered PV solar power generation" concept to contribute to clean energy.

In 2020, we became the first Chinese company to join RE100, EV100 and EP100. We joined the Science Based Targets initiative (SBTi), responded to the climate change questionnaire of CDP Global Environmental Information Research Center for the first time, and

incorporated the four initiatives into our strategic blueprint for the implementation of the "Zero Carbon LONGi" goal. We are committed to promoting green development. Including: the use of renewable energy, the popularization of electric vehicles, and the improvement of energy efficiency, We set up well-grounded greenhouse gas emissions reduction targets and work with upstream and downstream to build a green ecological chain. Awkward phrasing in this sentence. We call on more businesses to join in the climate action and contribute our solutions to climate issues.



The extraordinary year of 2020 marked the 20th anniversary of LONGi. A person is considered an adult when he or she turns 20. Although the 20th year of LONGi has not been easy, I am proud that we demonstrated our resilience and vitality amid tough challenges and complex changes.

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The front conversion efficiency of our PERC bifacial solar module increased to 22.38%, once again setting a new world record. We released new products, namely Hi-MO 5 and LONGi Roof, and upgraded the LONGi Smart Pro<sup>+</sup>5.0 system, our clean energy solution. Our financial performance remains stable and reliable. Our production capacity grew steadily and our brand value exceeded 14.137 billion yuan. We rose in a number of rankings and became the only AAA-rated module supplier in PV ModuleTech Bankability Ratings Report four consecutive times.

We could not have achieved these results without the support and trust of our employees, partners, local governments, communities, and other stakeholders. We have also always adhered to the corporate value of "Reliable, Value-added, Delighted" to add value to stakeholders while creating business value, which includes providing an inclusive and caring environment, creating a fair and mutually beneficial business environment, and contributing to environmental protection.

In 2020, the Corporate Social Responsibility Report was upgraded to Sustainability Report to reinforce our commitment to sustainable development. I am well aware that in the context of climate change, sustainable value creation is our foundation as well as our mission. Looking to the next 20 years, we will embrace a global vision and harbor lofty ambitions. We will surpass ourselves and maximize solar energy with ground-breaking monocrystalline technologies. We will work with all stakeholders to ensure that everyone benefits from technological advances. We will promote global cooperation in new energy and renewable energy for a green future for mankind.



Chairman of LONGi Group

## **About LONGi**

LONGi Green Energy Technology Co., Ltd. (LONGi Group) was founded in 2000 and went public on the Shanghai Stock Exchange in April 2012 (SH.601012). As the most valuable PV manufacturer worldwide, LONGi is dedicated to being the most valuable solar technology company. LONGi specializes in the research and development (R&D), production, and sales of monocrystalline silicon ingots, wafers, cells, and modules, as well as the provision of PV solutions for various application purposes. LONGi has a number of manufacturing bases in China, Vietnam, Malaysia and other countries and regions, and branches in the United States, Japan, Germany, India, Australia, United Arab Emirates, Thailand, etc. LONGi provides products and services to more than 150 countries and regions across the globe.

Production baseMarketing centerWarehouse

03

## **Function distribution**

**17** production bases in China

overseas production bases

warehouses

LONGI

marketing centers



## **Capacity layout**

- Monocrystalline Factory
  - Yinchuan Monocrystalline Factory
  - · Zhongning Monocrystalline Factory
  - Baoshan Monocrystalline Factory
  - · Lijiang Monocrystalline Factory
  - · Huaping Monocrystalline Factory
  - · Tengchong Monocrystalline Factory
  - Kuching Monocrystalline Factory
  - Wafer Slicing Factory
  - Xi'an Wafer Slicing Factory
  - · Yinchuan Wafer Slicing Factory
  - Wuxi Wafer Slicing Factory
  - · Chuxiong Wafer Slicing Factory
  - Lufeng Wafer Slicing Factory
  - · Qujing Wafer Slicing Factory
- Kuching Wafer Slicing Factory

#### 7 Cell Factory

- Xi'an Aerospace Cell Factory
- Cell Factory in Gaoling District, Xi'an
- Yinchuan Cell Factory
- Hefei Cell Factory
- Taizhou Cell Factory
- Kuching Cell Factory
- · Vietnam Cell Factory

## **11** Module Factory

- Xi'an Module Factory
- · Xianyang Module Factory
- Datong Module Factory
- Chuzhou Module Factory
- · Taizhou Module Factory
- · Jiangsu Module Factory Quzhou Module Factory

## **Number of** employees

46,631

## **Business segments**

LONGi specializes in monocrystalline photovoltaic technology and provides four main businesses, namely, monocrystalline silicon wafers, monocrystalline cells and modules, distributed photovoltaics, and ground photovoltaic solutions, to meet customers' needs for diverse products and solutions.

Monocrystalline silicon wafer

Monocrystalline silicon wafer capacity 85GW

Monocrystalline cell, monocrystalline module

- Monocrystalline cell capacity 30GW
- Monocrystalline module capacity









Industrial and commercial distributed PV power station solutions

Jiaxing Module Factory

Yinchuan Module Factory

Kuching Module Factory

Vietnam Module Factory

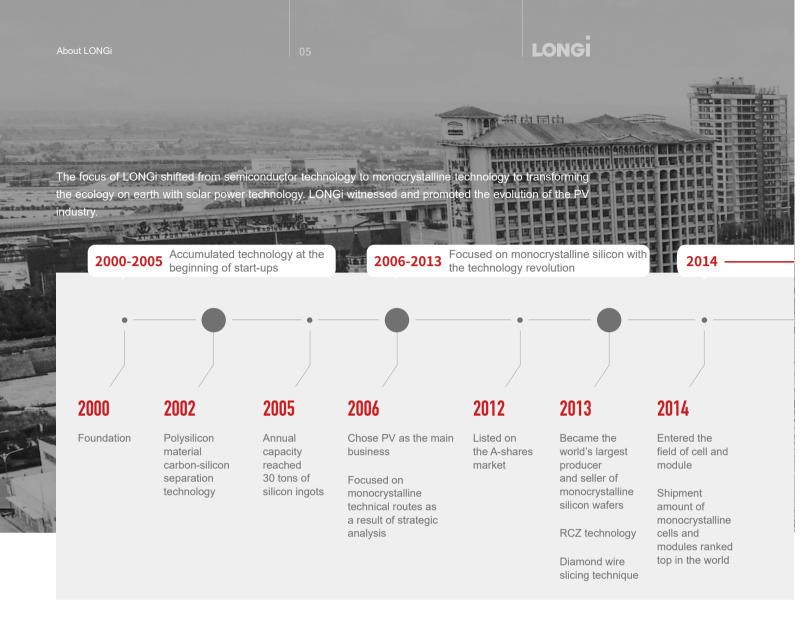
BIPV, off-microgrid solutions



Ground PV power station solutions





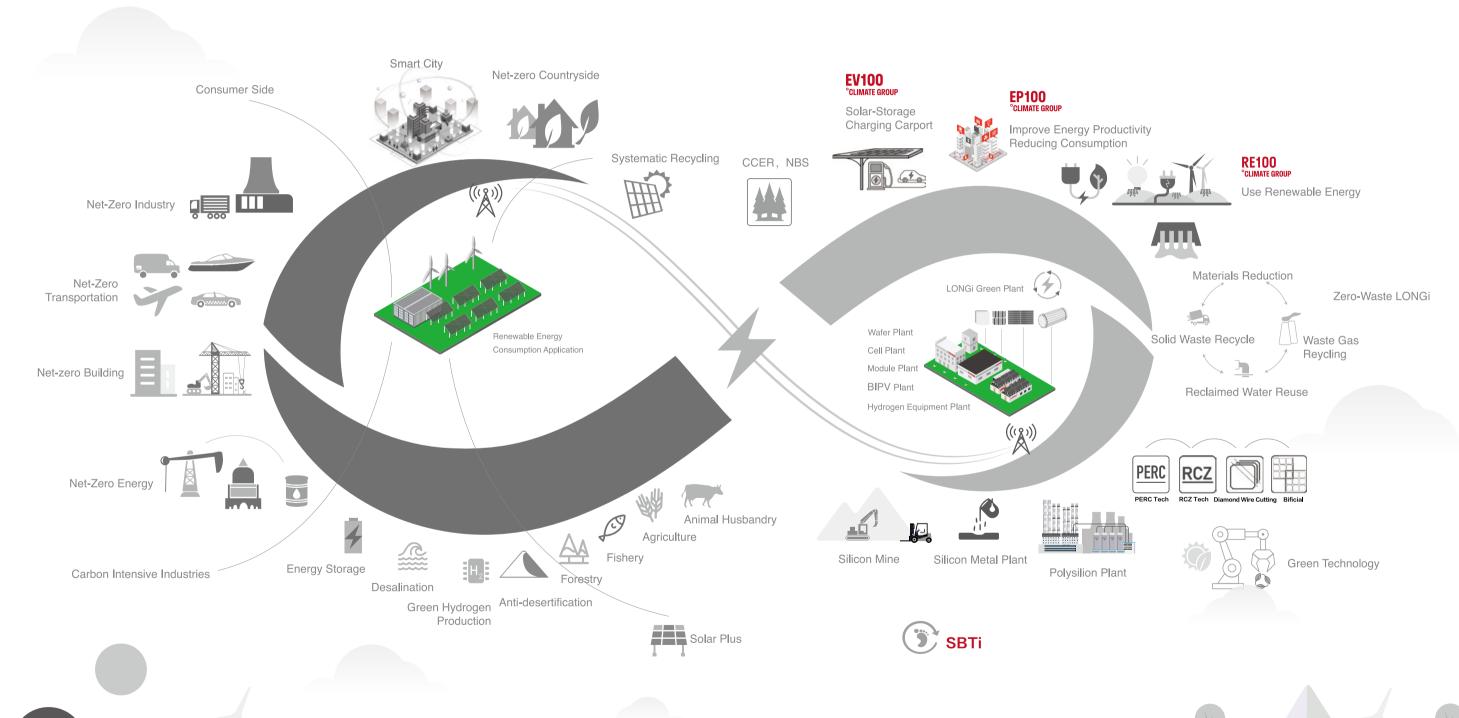


## Honor of the company in 2020

- United Nations SDG China Pioneer
- Model Enterprise for Sustainability
   in 2020 CSR Competitiveness China Corporate
   Social Responsibility Selection
- Progressive Private Enterprise for Flighting Against COVID-19 by All-China Federation of Industry and Commerce
- China Red Cross Humanity Medal
- Ranked No. 300th in the Fortune 500 China 2020 List

- Ranked 1,180th in the Forbes Global 2000
   World's Largest Public Companies
- Ranked **369th** in the Hurun Global 500
- Ranked 23rd in the Global Top 500 New Energy Enterprises list
- Ranked 157th in the Top 500 Private Enterprises in the Chinese Manufacturing Industry in 2020 of All-China Federation of Industry and Commerce
- Rated as the most financially secure solar manufacturer by Bloomberg New Energy Finance (BNEF)

# LONGI SUSTAINABLE ECOSYSTEM



















## 2016

Launched production bases in Yunnan, China and Kuching, Malaysia

Clean energy generation powered by clean energy

## 2018

Became the PV manufacturer with the highest market value

Proposed the "Solar for Solar" development pattern

## 2019

Market share of monocrystalline products rose to 72% from less than 20% in 2014

Joined in RE100, EV100, and EP100 initiatives by the Climate Group, and

2020

Proposed "Zero Carbon Photovoltaics"

Became the official PV solution provider of the China Pavilion at Expo 2020 Dubai

- Graded as AAA-Rated module suppliers in PV ModuleTech Bankability
- Scored 100% in BNEF PV Module Inverter Bankability
- GREEN 50 List
- Became the official PV solution provider of the China Pavilion at Expo 2020 Dubai on January 17, 2020



## **Sustainable Development Management**

The United Nations Sustainable Development Goals (SDGs) define the global vision and priorities for 2030 and create unprecedented opportunities for promoting global sustainable development. To fully support the SDGs, LONGi strengthens technological innovation, combines the SDGs with the Group's business values, and identifies the importance and meaning of the relevant SDGs to the Group. LONGi takes action to contribute to the SDGs as a responsible leader in the PV industry.

LONGi's sustainability work is led by the Chairman of the Board of Directors. To promote the SDGs, the Sustainability Committee was established as a management division. The committee led by our brand management department is responsible for developing our sustainable development guidelines and policies, improving the sustainable development management framework, aligning sustainable development issues with business processes, and comprehensively enhancing the sustainable development system.

In 2020, on the basis of joining the United Nations Global Compact, we established partnerships with many stakeholders to share our practice and solutions to help achieve the SDGs.

Sustainable development is both a corporate management issue and a centerpiece of brand building. The company's attitude, ability, and performance in solving environmental and social issues constitute its corporate brand proposition and values.

#### The construction of sustainable development system

#### led by the Chairman

- To promote the SDGs
- The Sustainability Committee was established as a management division

#### led by our brand management

- Developing our sustainable development guidelines and policies
- Improving the sustainable development management framework

LONGI Sustainable Development Management

Product Production Employees

Key issue	Practice and solution	and service	and value creation	and society	SDG
Staying Steady and Reliable and Focusing on Long-Term Sustainable Development  → P21-22 Sustainable profitability → P22-23 Business compliance → P23-24 Anti-Corruption	SDG8: LONGi provides employees with equitable career development paths and reasonable remuneration packages to protect their legitimate rights and interests     SDG11: LONGi's production bases all receives the ISO 14001:2015 environmental management system certification and green factory certification, and achieves 100% recycling of packaging materials     SDG16: LONGi improves its own anti-fraud management and pays return visits to suppliers to strengthen supplier integrity and anti-corruption communication and implementation	•	•	•	8 meet nam une 11 permanent
Driving with Technology and Lighting Green Economy  → P27-29 R&D and innovation  → P28-32 Clean energy supply and product development  → P30-32 Industry cooperation and development  → P32-36 Local development contribution	<ul> <li>SDG7: LONGi implements energy-saving technological improvement projects and establishes BIPV photovoltaic power generation projects</li> <li>SDG9: LONGi releases new PV modules and its first BIPV product to promote innovation-driven development</li> <li>SDG17: LONGi works with competitors to sign a voluntary agreement that use no "conflict minerals"</li> </ul>	•	•	•	7 Elements 9 Institution  17 Print Carlo  Section 17
Building Up Quality and Creating Value for Customers  → P39-42 Product based service quality	<ul> <li>SDG7: LONGi implements energy-saving technological improvement projects and establishes BIPV photovoltaic power generation projects</li> <li>SDG9: LONGi releases new PV modules and its first BIPV product to promote innovation-driven development</li> <li>SDG11: LONGi's production bases all receives the ISO 14001:2015 environmental management system certification and green factory certification, and achieves 100% recycling of packaging materials</li> </ul>	•	•	•	7 Editable 9 Programmer 11 Editable 14 A
Collaborating for Win-Win Results and Developing a Green Supply Chain  → P45-46 Responsible procurement → P47-48 Business compliance	SDG9: LONGi releases new PV modules and its first BIPV product to promote innovation-driven development     SDG16: LONGi improves its own anti-fraud management and pays return visits to suppliers to strengthen supplier integrity and anti-corruption communication and implementation     SDG17: LONGi works with competitors to sign a voluntary agreement that use no"conflict minerals"	•	•	•	9 Hornestone 16 April 1887 17 Hornestone 17 Hornestone
Manufacturing Greener and Contributing to a Zero-Carbon Future  → P51-55 Tackling climate change  → P55-58 Resource recycling  → P55-56 Use and management of water resources  → P51-54 Protection of ecological environment and biodiversity  → P57-58 Waste management	SDG7: LONGi implements energy-saving technological improvement projects and establishes BIPV photovoltaic power generation projects     SDG12: LONGi establishes major quality risk management and control plans and clarifies quality management assessment methods to continuously improve product quality     SDG13: LONGi joins a number of global climate initiatives and submits the science-based target's commitment to contribute to a zero-emissions world.	•	•	•	7 distribution 12 exception (Control of Control of Cont
Putting People First and Achieving Shared Endeavor  → P61-62 Protection of employees' rights and interests  → P62-64 Staff training and development  → P61-63 Diversity and equal opportunities  → P66 Occupational health and safety	SDG3: LONGi reduces or avoids the use of polluting materials and ensures safe disposal of waste     SDG5: LONGi establishes the Female Employees Committee and builds lactation rooms. LONGi provides female candidates with equal employment opportunities     SDG8: LONGi provides employees with equitable career development paths and reasonable remuneration packages to protect their legitimate rights and interests			•	3 minutes 5 minutes 6 minu
Giving Back to Society and Building a Beautiful Home  → P69-72 Local development contribution → P69-74 Charity → P74 Community communication and participation	SDG1: LONGi builds PV power stations for poverty alleviation, supplies PV modules, and gives financial aid to registered impoverished households to ensure that they do not return or reduce to poverty in the next 20 years SDG3: LONGi reduces or avoids the use of polluting materials and ensures safe disposal of waste SDG4: LONGi donates teaching materials, builds model PV power stations on campus, and establishes scholarships in disadvantaged primary and secondary schools SDG12: LONGi establishes major quality risk management and control plans and clarifies quality management assessment methods to continuously improve product quality		•	•	1 Notes 3 SOURCE AND A CONTROL OF THE PROPERTY

<sup>&</sup>lt;sup>1</sup> Jointly selected by Canadian magazine *Corporate* Knights, Earth Day Canada, and Earth Day Initiative.

Communication with Stakeholders 11 Communication with Stakeholders 12 LONG

## **Communication with Stakeholders**

In the process of the LONGi's sustainable development, the decisions and actions of stakeholders have a direct impact on the Company. At the same time, as a member of the industry chain and society, LONGi should respond to the needs of stakeholders in a timely manner in order to achieve sustainable development. During our operations, we identified key stakeholder groups and figured out the engaged ways in line with the requirements of our management systems and maintaining effective communication with stakeholders. On the basis of improving operational efficiency, we worked with different stakeholder groups to contribute to sustainable development.

#### Means of Communication between LONGi Group and its Key Stakeholders

Key Stakeholders	Expectations from Stakeholders	Means of Communication
Customers	Reliable and Efficient Products	Customer Receptions; Release Event for New Products; Exhibition; Technology Seminar
Gustomers	Quality Services	400 Service Platform; Satisfaction Surve
	Career Development	Staff Congress & Labor Union; Training & Education; Employer's Brand
Employees	Health and Safety	LONGi Happy Family WeChat Official Account; Complaint Report Mini Wechat App
	Pleasant Working Environment	Staff Activities; Staff Club
Shareholders	Return on Investment	Business Performance Briefing; Communication with Investors; Investor Hotline
and Investors	Financial Stability and Health	<ul> <li>Shareholders' Meeting; Annual Reports and Announcements; On-site/Field Research</li> </ul>
	Green Supply Chain	Supplier Training; Supplier Environment Evaluation
Suppliers	Win-win Cooperation	Supplier E-portal Website; Collaboration & Innovation Supplier Conference
	Clean Business Environment	Supplier Code of Conduct; Transparent Procurement
Government and Regulatory Bodies	Industry Development	Operation with Compliance; Policy Recommendations
Communities and	Environmental Protection	Active communication; Project Cooperation to Support Community Activities
Non-governmental Organizations	Environmental Safety	Charities and Donations
Organizations	Promote Sustainable Development	Join trade associations and academic societies; Open to the public

**635** valid questionnaires were collected

To understand the stakeholders' level of concern, expectations, and demands for the Company's sustainable development and review our own performance, we conducted the survey with stakeholders and identified the key sustainability issues through the determination of material issues.

#### **Identification and Selection of Material Issues**

· Collect issues

Material issues were identified by our independent third-party consultancy. 20 sustainability issues related with economy, environment, labor, and human rights were collected.

Study stakeholders' level of concern

The independent consultants conducted questionnaire surveys on the stakeholder groups, and invited stakeholders to evaluate the importance of each topic to them. 635 valid questionnaires were collected.

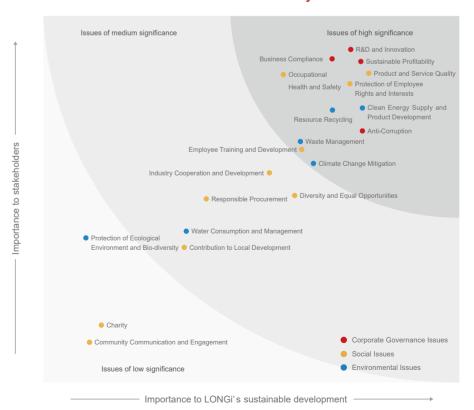
Analyze the impact on our operation

Solicit opinions were collected from LONGi's senior managers and let them assess the importance of the issues to LONGi from the Company's perspective.

Rank the issues

The analysis and ranking of the issues were based on their importance to stakeholders and importance to LONGi, then the visualization was presented in a matrix. The materiality matrix will serve as an important reference for strategy development, goal setting, and information disclosure in the future.

#### **LONGi's Material Sustainability Issues**



Special Topic: Leading Zero-Carbon
Solutions for a Green Energy Future

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Special Topic: Leading Zero-Carbon Solutions for a Green Energy Future

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# **Special Topic: Leading Zero-Carbon Solutions for a Green Energy Future**

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As of the end of 2020, more than 100 countries around the world committed to carbon neutrality. China also set the goal of "having CO<sub>2</sub> emissions peak before 2030 and achieving carbon neutrality before 2060". Achieving carbon neutrality has become a global consensus. We need to balance short-term economic growth and long-term sustainable development. The extensive use of clean energy will meet the rising energy demand from social development. Energy transition will be the fundamental approach to carbon neutrality for all countries and regions, businesses, communities, and social organizations.

In the past two decades, we have been working on improving PV conversion efficiency and reducing the cost of PV products with technological advances. It turned out that our efforts greatly promoted the use of PV power. Thanks to technological progress and the development of power grids, grid parity has become a reality in many parts of the world, and the PV industry has become a major promoter of social energy supply and energy restructuring in some countries and regions.

After promoting PV to become a basic source of energy, LONGi sought to revolutionize the industry chain to make it "even cleaner", that is, to generate clean energy with clean energy. At COP 24 Katowice 2018, LONGi proposed the concept of "Solar for Solar", namely using PV generated electricity to produce PV products. LONGi suggested that PV power stations and pumped-storage hydroelectricity plants be built in coastal areas with sufficient vertical height difference and abundant sunlight in the world to power PV manufacturing plants. The "Solar for Solar" industry chain can achieve zero-carbon or even carbon negative.

The "Solar For Solar" concept did not come out of thin air. For years, LONGi has been committed to promoting the proportion of clean energy in all factories around the world. As early as 2015, LONGi started to use sufficiently available, low-cost hydropower to produce PV products in Yunnan, China and Kuching, Malaysia. In 2020, five factories in Yunnan Province began to run on 100% renewable electricity.

To further reduce our energy consumption in the production process and reduce carbon emissions throughout the life cycle of PV products, LONGi joined a number of global climate change initiatives and promised to operate on 100% renewable energy globally by 2028.

# LONGi Deeply Followed the Timeline of Global Climate Action in 2020

We are well aware that climate change mitigation is the common responsibility of all sectors and requires the participation and support of all. For LONGi, achieving the carbon neutrality goal as soon as possible requires not only prudent strategies and rigorous planning but also pragmatic efforts and coordination with the entire industry chain. On its way towards carbon neutrality, LONGi can share its climate solutions with regulators,



In 2020, LONGi's production base in Yunnan consumed 2.5 billion kWh of hydropower, which is equivalent to reducing 1.35 million tons of greenhouse gas emissions. The PV products produced with clean energy will steadily offer clean energy in the next 25 years to further reduce greenhouse gas emissions.

#### The "Solar For Solar"

industry chain can achieve zero-carbon or even carbon negative

In 2020, 5 factories in Yunnan Province started to run on 100% renewable

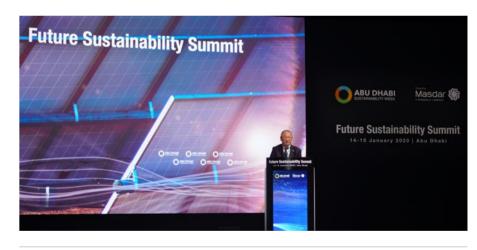
## "photovoltaic plus desalination"

which is the natural advantage offered by LONGi's "Solar for Solar" concept in mitigating climate change and creating a carbon-negative planet businesses, and social organizations. LONGi's zero-carbon PV solutions will further promote the global energy transition and have long-reaching impacts.

In 2020 alone, LONGi participated in a number of climate change events and activities, showcased its green capabilities on many important platforms worldwide, and promoted its green development concepts and vision to join hands with more global partners to embrace greater changes.

# Make the "Solar for Solar" Vision A Reality LONGi Shared the LONGi Solution and Announced the LONGi Commitment on Global Platform

On **January 14**, President Li Zhenguo attended the 2020 World Future Energy Summit in Abu Dhabi and delivered a keynote speech. In his speech, The President presented the technical solution of "photovoltaic plus desalination" to global energy leaders, which is the natural advantage offered by LONGi's "Solar for Solar" concept in mitigating climate change and creating a carbon-negative planet. This is LONGi's solution to help the Middle East coordinate energy transition, zero-carbon development, and ecological restoration.



On **June 16**, as the only Chinese enterprise invited by the United Nations Global Compact, LONGi shared the floor with United Nations Secretary-General Guterres, German Chancellor Merkel, former US Vice President Al Gore as well as other heavyweights at the Global Leaders' Summit and presented LONGi's experience of contributing to the green recovery in the context of the COVID-19 pandemic.



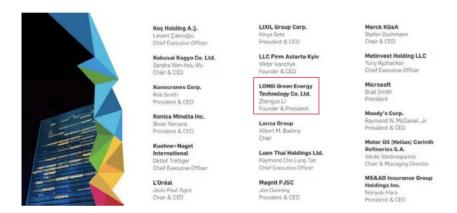


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On **September 21**, President Li Zhenguo attended Climate Week NYC 2020 and offered the voice of a Chinese enterprise on promoting energy transition. At the same time, LONGi was the only mainland company to be nominated for the first RE100 Leadership Awards - Best Policy Influencer Award by the Climate Group.

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On **September 27**, LONGi was invited to events of the 75th UN General Assembly. In response to the UN Global Compact's initiative, LONGi signed the *Statement from Business Leaders for Renewed Global Cooperation* as the only representative of Chinese renewable energy companies and made a solemn commitment to fully undertake corporate social responsibility and promote global cooperation. The statement was endorsed by the UN Secretary-General Guterres.



On **December 8**, as the only renewable energy company invited by the host country of COP 26, LONGi attended the "Towards Zero Carbon" launch meeting, shared its experience in low-carbon development, and witnessed the 5th anniversary of the *Paris Agreement*.





#### Be nominated for

the first RE100 Leadership Awards-Best Policy Influencer

LONGi was invited to events of the 75th UN General Assembly.

The statement was endorsed by the UN Secretary-General Guterres.

Witnessed the 5th anniversary of the Paris Agreement. Joined the RE100

Joined the SBTi submitted its science-based targets commitment

#### EV100 target

undertook to install sufficient EV charging facilities by 2030 "Walk with the wise, and associate with the good"

LONGi established in-depth collaborations with
international organizations to effectively implement the
carbon neutrality strategy









On **March 12**, LONGi officially joined the RE100 initiative led by The Climate Group. RE100 initiative aims to bring together the world's most influential businesses committed to 100% renewable electricity. LONGi promised to run on 100% renewable energy by 2028.

On June 5, LONGi joined the SBTi and submitted its science-based targets commitment.

On **August 8**, at the LONGi booth at Shanghai SNEC PV Power Expo, the largest PV tradeshow in the world, LONGi announced its roadmap for the RE100 initiative, including a five-stage transformation plan. LONGi promised to run on 100% renewable energy by 2028. At the same time, as leading PV, wind power, and storage providers, LONGi, Solargiga, and Envision jointly initiated the RE 100 Initiative in China to promote the concept of 100% renewable energy.



Special Topic: Leading Zero-Carbon Solutions for a Green Energy Future

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Special Topic: Leading Zero-Carbon Solutions for a Green Energy Future

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On **November 7**, LONGi announced its participation in the EV100 initiative led by The Climate Group and undertook to install sufficient EV charging facilities by 2030. In addition, LONGi joined the EP100 initiative and promised to complete the deployment of the energy management system by 2025 and increase energy efficiency by 35% from the base year of 2015.

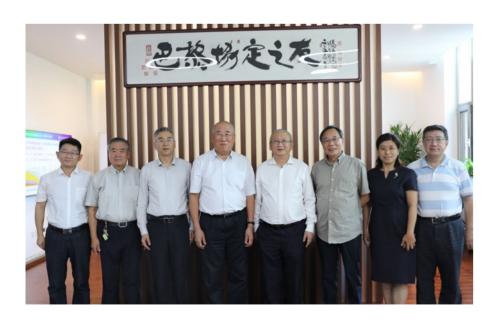
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On **January 17**, LONGi became the sole official PV solution provider of the China Pavilion at Expo 2020 Dubai. LONGi showcased its products at the Expo to present China's PV technology and zero-carbon solutions to the world.





On **August 21**, President Li Zhenguo and delegates met with Professor Xie Zhenhua, Director of the Institute of Climate Change and Sustainable Development of Tsinghua University. Professor Xie spoke highly of LONGi's climate actions throughout the years and encouraged LONGi to carry forward the new development concept and contribute to global climate governance and eco-friendly economic recovery.



#### Joined

the EV100 and EP100

#### Became

the sole official PV solution provider of the China Pavilion at Expo 2020 Dubai

#### Me

with Professor Xie Zhenhua, Director of the Institute of Climate Change and Sustainable Development of Tsinghua University

#### We reached out to the public for

sustainability communication via our WeChat Public Platform and other platforms To familiarize more sectors with climate change, the PV industry, and the energy transition, We reached out to the public for sustainability communication via our WeChat Public Platform and other platforms.

We published articles such as *How does Global Climate Change Affect Me? and A Line That Saves 30 Billion for the Chinese PV Industry to communicate our measures* to mitigate climate change and promote the green development of the PV industry.

We reached out to college students. We invited students from Tsinghua University, Peking University, and Northwestern Polytechnical University to visit LONGi and our PV power stations to study the status quo of the PV industry, the poverty reduction achievements of the PV industry, and green development as a trend.

At the 12th International Youth Summit on Energy and Climate Change organized by China Youth Climate Action Network (CYCAN), we drew on live streaming for students to visit our PV module intelligent manufacturing production line.





Li Zhenguo, President of LONGi commented "Our participation in the four international initiatives is the first step for us to achieve zero-carbon photovoltaics. It is also an important carbon neutrality measure."

We believe that when "Solar for Solar" becomes a reality and the entire PV industry chain is driven by clean energy, we will not only achieve the carbon neutrality goal but also supply clean energy to desalination, water transportation, and other ecological restoration efforts. The world will embrace a carbon-negative era powered by green energy.

It is our unswerving pursuit to promote the energy transition and achieve green development marked by 'clean energy for clean energy'.

— Li Zhenguo, President of LONGi Group



LONGi adheres to steady operations and joins hands with customers and partners for common development. LONGi continuously improves the level of corporate governance, standardizes internal control systems and risk management mechanisms, and ensures compliance with business ethics for clean and efficient operation. After the PV industry has entered the era of grid parity, the company's sustainable development is still being achieved.

## **Key Successes in 2020**

**54.583** billion yuan

65.92%

The operating revenue

a year-on-year increase of

8.552 billion yuan

61.99%

The net profit attributable to the parent

a year-on-year increase of

**87.635** billion yuan

47.77%

The total assets

a year-on-year increase of

2.532 billion yuan

The accumulated dividends paid to shareholders

Won the 2020-2021 Best Information Disclosure Award and Best Capital Market Communication Award at the 4th China Excellence IR Summit

3,551

provided 80 integrity training with 3,551 employees

## SDGs Responded to in this Chapter







## **Material Sustainability Issues Involved in this Chapter**

 Sustainable Profitability P21-22

Business Compliance

P22-23

Anti-Corruption

P23-24

Staying Steady and Reliable and Focusing on Long-Term Sustainable Development

LONGI

Staying Steady and Reliable and Focusing on Long-Term Sustainable Development

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## **Steady Development**

We adhere to first principles thinking in terms of technical route selection and strategic planning. We make prudent analyses to make our own decisions and specialize in monocrystalline, relying on the insight into the nature of the industry.

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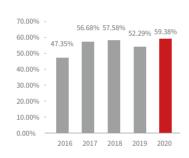
As early as 2006, LONGi believed that the PV industry was about continuously reducing the per kWh cost. If product efficiency fails, the industry will have no prospects, and the best approach to it is the monocrystalline route. At that time, the market was very keen on PV products. As the polycrystalline route was easier to pursue, many companies chose to launch polycrystalline products and expand production capacity as soon as possible to make a fast buck. On the other hand, LONGi believed that as the efficiency of solar cells rose, the industry would need higher quality materials, and low-end materials would not be able to support high-performance products.

LONGi spared no effort to develop monocrystalline growth, diamond wire slicing, monocrystalline PERC, bifacial PV modules. LONGi's correct strategic decision laid the foundation for its leadership.

In terms of operation, LONGi believes that the best product quality assurance is that " the company should last longer than the product ",consistently leads the industry in terms of financial stability. We uphold the concept of steady operation and establish long-term partnerships with customers and partners. After 2008, we have only purchased silicon raw materials from the spot market, avoiding the impact of the global price plunge in silicon in 2011 and 2012. After we went public in 2012, LONGi has strengthened internal control and kept our debt-to-asset ratio at around 50%, achieving steady growths in operating revenue and total assets and consistently ranking among the first in the PV industry in terms of financial stability.

As early as **2006**, LONGi believed that the PV industry was about continuously reducing the per kWh cost

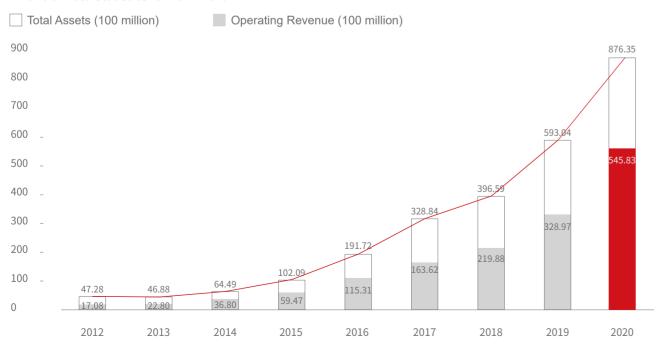
#### The asset-liability ratio of LONGi



50%

kent our debt-to-asset ratio at around

#### **Financial Data Statistics for 2012-2020**



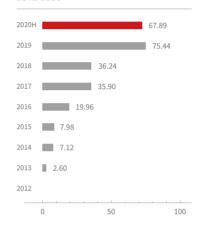
The total amount of dividends paid to shareholders exceeds

2.532 billion yuar

LONGi was listed in

the FTSE China A50 Index

#### Dividend (10 million) (Tax Included) for 2012-2020



We established 3 mechanisms

A scientific and efficient decision-making mechanism

An effective check and balance supervision mechanism

A stable and long-term incentive mechanism

On the basis of steady development, LONGi implements a stable profit distribution policy. LONGi has paid cash dividends every year to repay investors after it went public. The total amount of dividends paid to shareholders exceeds 2.532 billion yuan.

After being listed in the SSE50 Index in 2019, LONGi was listed in the FTSE China A50 Index in 2020. In June 2020, LONGi was rated AAA by United Ratings for its long-term credit and was rated the most financially secure solar manufacturer by BNEF. LONGi was also the sole AAA-rated module supplier in PV ModuleTech Bankability and scored 100% in BNEF PV Module Inverter Bankability.

In terms of risk management, we develops systems and procedures such as the Internal Audit Management Measures, Supervision Management System, Internal Control Management System, and Internal Control and Self-evaluation of Internal Control System on the basis of strict compliance with the laws and regulations of the countries where we operate to manage all risks involved in our operations and standardize corresponding internal control measures and procedures. We strengthens employees' awareness of internal control, risk prevention, and compliance, keeping on improving our risk management and internal control systems. In 2020, we focused on the optimization of special internal control risk identification to address the difficult and pain points in our core businesses, improved value contribution to business administrations, and deeply identified internal control risks. We preliminarily identified compliance risks overseas, developed a crisis management mechanism, and improved the closed-loop internal control management mechanism. During the reporting period, we put forward a total of 144 improvement suggestions, of which 118 have been implemented.

#### **Effective Governance**

In strict accordance with laws and regulations the Company Law of the People's Republic of China, Securities Law of the People's Republic of China, and Code of Corporate Governance of Listed Companies, we continuously optimize our corporate governance system and enhance our corporate governance level. We established a scientific and efficient decision-making mechanism, an effective check and balance supervision mechanism, and a stable and long-term incentive mechanism to promote the healthy, stable, and sustainable development of the Company and strive for better corporate governance practice.

In 2020, LONGi won the 2020-2021 Best Information Disclosure Award and Best Capital Market Communication Award at the 4th China Excellence IR Summit and won the Golden Round Table Award-Best Board of Directors at the 16th Forum for the Board of Directors of China's Listed Companies.







Communication Award

The Golden Round Table Award-Best Board of Directors at the 16th Forum for the Board of Directors of China's Listed Companies

Staying Steady and Reliable and Focusing on Long-Term Sustainable Development

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LONG

Staying Steady and Reliable and Focusing on Long-Term Sustainable Development

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LONG

Controlling shareholders and listed company The controlling shareholders of the Company consistently regulate the behavior of shareholders in a strict manner for them to exercise their rights as shareholders in good faith. The controlling shareholders support the development of the Company by providing guarantees for the listed company's business. The Company is independent of its controlling shareholders in terms of business, personnel, assets, institutions, and finance, and did not exceed the Annual General Meeting to interfere in the company's decision-making and business activities.

Shareholders and Annual General Meeting We consistently disclose information in a transparent, comprehensive, and effective way. We maintain close and stable communication with investors around the world along the way, and actively communicate the operating philosophy, results, and strategic directions to investors via multiple channels. We listen to investors' suggestions on corporate governance and sustainable development, collaborate with investors to establish a healthy governance ecosystem. During the reporting period, we convened shareholders meeting and conducted voting procedures in accordance with the *Company Law of the People's Republic of China*, *Articles of Association*, and *Procedures of the Annual General Meeting* to protect the equal positions and legitimate rights of all shareholders, especially small and medium shareholders.

Directors and Board of Directors The Board of Directors has 9 directors, of which 4 are external directors (including 3 independent directors). External Directors account for 1/5, 2/3, 2/3, and 2/3 of the Strategy, Remuneration, Nomination, and Audit Committees under the Board of Directors respectively. The Board of Directors boasts a great mix of skills and backgrounds, which is in line with the strategic development of the Company. The Board of Directors has forward-looking strategic thinking skills and efficient strategic execution capabilities. We continue to strengthen the supervisory and advisory roles of External Directors to improve board committees. We fully listen to the beneficial suggestions of External Directors on industry development and risk management, which effectively helps the Board to make better decisions.

Supervisors and Board of Supervisors

LONGi's Board of Supervisors has 3 supervisors, including one external supervisor and one employee supervisor, representing a reasonable board composition. During the reporting period, the Board of Supervisors performed its supervisory duties in a responsible manner. It oversaw the Company's regulatory compliance in terms of business development, related party transactions, the management and use of funds raised, and equity incentive compensation for the healthy, stable and sustainable development of the Company.

#### **Business Ethics**

LONGi strictly abides by the business ethics of honesty, trustworthiness, integrity, and self-discipline, and implements the LONGi Code of Conduct. We act in strict accordance with applicable laws related to the business and have effective compliant procedures to ensure equality for all. We observe the principle of honesty and trustworthiness, prohibit corruption and bribery, strictly prevent insider trading, and avoid conflicts between corporate interests and employees' personal interests. We respect the basic human rights of all employees, protect the occupational health and safety of employees, safeguard confidential information and intellectual property rights, and ensure compliance with financial and international trade and competition law.

We establish an Audit and Risk Control Department as our anti-bribery and compliance function responsible for developing, evaluating, and improving our anti-bribery management system. The department conducts ISO 37001 anti-bribery management system audits on an annual basis, regularly evaluates, rates, and ranks bribery risks, and formulates corresponding control measures. At the same time, we develop documents including the *Integrity Practice Guidelines for Management Staff, Complaint and Reporting Management System, Supervision and Management System, Anti-Commercial Bribery Management Measures, Position-Specific Fraud Risk* 



Anti-fraud alliance micro video award certificate



Integrity promotion animation video



Organized a series of training on clean work



WeChat Public Platform



Management Rules, Professional Ethics for Auditors and Supervisors, and Supplier Integrity Management Rules for employees to abide by the corporate value of "Reliable, Value-added, Delighted" to discipline themselves, comply with anti-corruption rules in the Employee Handbook and Integrity Practice Guidelines for Managerial Staff, and fulfill the Commitment to Integrity and Self-Discipline to establish zero-tolerance for unethical behaviors such as corruption and fraud, and create an honest and clean working atmosphere.

We strictly implement our rules and regulations, formulate the *Management Measures* on *Accountability for Violations* to improve the accountability mechanism for violations. We clarify the accountability of the violator him/herself and his/her directly reporting managers and the accountability of the senior corporate leadership of the business sector. At the same time, we establish a complaint and reporting platform to ensure accessible reporting channels,establish "LONGi Breeze," a WeChat mini-app, and "LONGi Audit", a WeChat public platform, as well as phone, email, and other reporting channels to encourage employees and partners to speak out. We undertake to keep the whistleblower and the reported matter highly confidential.

We incorporate a clean culture into our daily operations and make active anti-fraud efforts. We participate in the Corporate Integrity and Compliance Publicity Month of the Integrity Alliance, the September 19 International Anti-Corruption Day of the China Enterprise Anti-Fraud Alliance, and other events and activities. We require new recruits to sign a Commitment to Integrity and Self-Discipline and provide anti-fraud training for managerial staff and employees to enhance external and internal anti-corruption communication. In 2020, we have released 4 episodes of integrity publicity animation videos on the LONGi Audit WeChat public platform, which won the Outstanding Work Award in the First Corporate Anti-Fraud Micro-Video Competition. We have provided 80 integrity training sessions with 3,551 employees. In 2020, LONGi had no fraud or corruption cases as a result of effective risk control..

As we improve our own anti-fraud management, LONGi extend anti-fraud management to our supply chain partners. We carried out a series of anti-fraud measures for suppliers and joined hands with the upstream and downstream of the industry chain to build a transparent, cooperative business environment. Before bidding results are announced, our Procurement Department assesses whether there are associations with bidders and the Audit Department makes spot checks; We included integrity clauses in our contracts with suppliers. Violations of such clauses shall result in punishments based on the degree of violation; We developed the *Detailed Rules for Supplier Integrity Management* and paid on-site return visits or by phone or email to collect suppliers' feedback. We communicate our anti-corruption requirements and stances and report channels to suppliers. In 2020, we paid return visits to 142 suppliers and strengthened anti-corruption and integrity communication with suppliers.

To report violations of professional ethics of LONGi employees, please contact:

Reporting hotline

Reporting email

029-84193391 18089282003

audit @longi.com



Having a foothold in the solar photovoltaic technology frontline, LONGi Group has continuously invested in research and development. The Group has focused on sustainable value innovation for the customers. LONGi leads technological reforms in the photovoltaic industry through each technical upgrade to promote global energy transformation and green development.

## **Key Successes in 2020**

2.592 billion yuan

4.75%

Invested

the R&D operating revenue accounting for the total revenue

22.38%

for the **7th** time

LONGi's module conversion efficiency reached

refreshed the world record regarding module conversion efficiency

- LONGi' Mono PERC bifacial module was awarded the A++ Energy Yield Rating Label by TÜV Rheinland Group
- Released Hi-MO 5 module series and the first assembled BIPV product "LONGi Roof-Energy box"
- Released the Joint Initiative of Photovoltaic Products' Standard
- Promoted the green transformation in Yunnan, Ningxia, Shaanxi, etc.and numerous global regions

## SDGs Responded to in this Chapter







## **Material Sustainability Issues** Involved in this Chapter

R&D and Innovation

P27-29

Clean Energy Supply and the Corresponding Products Development P28-32

Trade Cooperation and Development

P30-32

Contribution of Local Development

P32-36

Driving with Technology and Lighting Green Economy 27 LONG

#### **Technological Innovation**

LONGi's business covers the entire photovoltaic industry chain. Faced with the technical route and technological upgrading selection in the photovoltaic industry, LONGi integrates the optimal technology into products based on the customers' long-term value, always makes products innovation from the perspective of customers, analyzes technologies' advantages and disadvantages from the perspective of the customers. LONGi listens to customers' voices, improves conversion efficiency, enhances the generating ability, and reinforces the solution of photovoltaic PV and scenario. When figuring out the optimal solution or technical route for LCOE, LONGi has immediately invested significant R&D resources for production lines, forged the leading technology and lead products with competitive cost

#### LONGi's Technological Innovation Leading Route



Monocrystalline PV Technology Progress

RCz Technology Diamond wire slicing Improve the quality of silicon wafers



PERC Technology

Hi-MO 1 starts a new era of low attenuation and highly efficient module



PERC Bifacial Module

Hi-MO 2 dual glass module obviously improves the power generation



Half Cell Module Technology

The batch application of the technology improves the power and reliability (Hi-MO 3)



M6 Standard

The globally bestselling Hi-MO 4 replaces the M<sub>2</sub> module in the entire scenarios



**Optimal Dimension** 

Hi-MO 5 improves the module efficiency for intelligent welding in large-scale power stations 540W

reached

21%

more than

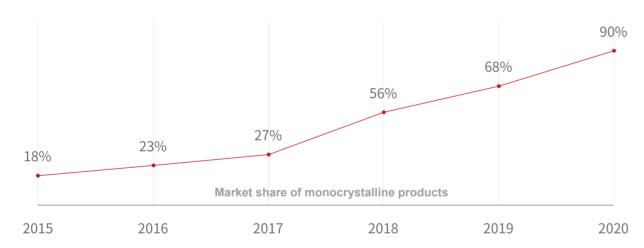
Since the production power has

The conversion efficiency is

Making that the 500W+

production stage

module entered into the mass



In 2020, faced with the COVID-19 pandemic at home and abroad, LONGi still insisted on R&D investment to continuously improve technologies and accelerate the upgrading of the products. In 2020, we have invested 2.892 billion yuan in R&D, with the R&D operating revenue accounting for 4.75%% of the total revenue. As of the end of 2020, the Company has been granted 1,001 authorized patents in total.

In January 2020, after tested by TÜV Rheinland Group, a third-party certification body, LONGi's module conversion reached 22.38%, which refreshed the world record regards to module conversion efficiency for the seventh time. On the "All Quality Matters Solar" Solar Congress 2020 held by TÜV Rhein, LONGi was awarded "Outdoor Energy Yield AQM Award 2020-Bifacial Group" and "Outdoor Energy Yield AQM Award 2020-Monofacial Group".

**1,001** authorized patents were granted in total

22.38%

LONGi's module conversion reached

## LONGi's Global Efficiency Record of Monocrystalline Cell and Module



In June 2020, Hi-MO 5 module series had released, which were based on the M10 standard silicon wafer. Since the production power has reached 540W and the conversion efficiency is more than 21%, the performance of the Hi-MO 5 module series marks the 500W+ module entered into the mass production stage. In August 2020, LONGi released "LONGi Smart Soldering Pro+5.0 Lifecycle Photovoltaic System Solution" (abbr. "Smart Soldering Pro+5.0"). Meanwhile, with the assistance of famous inverters and stands manufacturers, along with the convergence of systemized technology, LONGi has taken the Hi-MO 5 highly efficient monocrystalline module as the core of Smart Soldering Pro+5.0 for integrating the optimal ICOE with maximum power production.



LONGi Released Hi-MO 5 Module Series based on M10 Standard Silicon Wafer

The Company has established a multi-level innovation and R&D system consisting of the Group's Intellectual Property Rights Department, the R&D Center under the Business Department, and subsidiaries. The system largely ensures the Company's R&D capabilities and innovation competitiveness from the aspects of personnel, platform, resources, and others. Meanwhile, by focusing on the three cores of silicon wafers, cells, and modules, we have established an R&D team of over 800 employees, including several top-class technical experts and the R&D forgoers in the industry. In addition, we have a first-class photovoltaic enterprise technology center and have deepened the

Driving with Technology and Lighting Green Economy 29 LONG

communication with the well-known colleges at home and abroad. For example, we have built strategic cooperation relations with scientific research institutes, including the University of New South Wales and the State Key Laboratory of Silicon Materials in Zhejiang University.

LONGi devotes itself to the technology R&D as well as the improvement of the Lab's management and testing capability. In a word, for making a quick response to efficient R&D, inspection and mass production, we have not only strengthened a series of quality-based programs, such as standard, testing and certification but also improve the R&D test line of the whole process flow.

- In 2020, a third-party testing and certification organization issued the "Lab Qualification" certifications for KUCHING LONGi Module Labs in Malaysia, the Base Lab in Zhejiang LONGi Solar, and the Module Lab in Taizhou LONGi Solar Module Factory the "Lab Qualification".
- In January, China Quality Certification Center (abbr. "CQC<sup>2</sup>") awarded the international standard certification IEC 61215 & IEC 61730 and the lab qualification of Witnessed Manufacturer's Testing (abbr. "WMT<sup>3</sup>") to LONGi.
- In June, TÜV SÜD Group (abbr. "TÜV SÜD") awarded the international standard IEC 61215 & IEC 61730 and the lab qualification of Customers' Testing Facilities<sup>4</sup> (abbr. "CTF") for LONGi's Products Center Lab.
- In July, LONGi was awarded the lab qualification of the TMP<sup>5</sup> Witness Testing Data Program (abbr. "WTDP") for the second time by TÜV after 2018.
- In November, DEKRA, a global safety scientific testing and certification organization, issued a "DEKRA Witness Testing Lab" Certificate for New Energy BIPV R&D Lab.
- <sup>2</sup> The full name of CQC is "China Quality Certification Center".
- <sup>3</sup> The full name of WMT is "Witnessed Manufacturer's Testing".
- <sup>4</sup> The full name of CTF is "Customers' Testing Facilities".
- 5 TMP means that the certification authority test products of the manufacturers by utilizing their own testing lab resources according to the certification standard.

800+ employees in our R&D team

#### legued

by a third-party the "Lab Qualification"

#### Awarded

the international standard certification IEC 61215 & IEC 61730 & the lab qualification of WTF



LONGi was Awarded the CQC Certification of Customer's Testing Facilities



TÜV SÜD Issued Customer's Testting Facility (CTF) to LONGi

**182\*182mm** a silicon wafer standard (M10)

let it become the standard normative documents among the industry standard organization, and help establish a uniform standard-based supply chain system in the entire photovoltaic industry

#### **Industrial Cooperation**

Relying on our reliable and leading photovoltaic products, we expect to explore advanced products solution with our customers and actively establish long-term, stable and friendly partnerships with our upstream and downstream partners in the industry chain, for facilitating the steady development between each other, further applying photovoltaic products in more scenarios and advancing the global energy structure transformation on a deeper level.

#### **Photovoltaic Industry**

In recent years, as the photovoltaic industry has developed rapidly, many industrial enterprises have actively innovated and explored ways to improve photovoltaic product performance. Among them, the large size silicon wafer with highly efficient modules is one promising innovation direction recognized by numerous upstream and downstream enterprises in the industry chain. However, during the process, the different size of silicon wafers used by these enterprises have increased the manufacturing cost of consumable materials in the photovoltaic industry chain, such as silicon wafer, cell, module and glass, and brought challenges for the products selection, the photovoltaic system installation and the coordination between the upstream and downstream.

For improving the situation and promoting the highly efficient and normative development of the industry, we, together with another 6 enterprises in the industry, proposed a standard dimension in the photovoltaic industry, i.e., a silicon wafer standard (M10) with the physical dimension of 182mm\*182mm, let it become the standard normative documents among the industry standard organization, and suggested it to become the standard dimension of next generation of the silicon wafer, cell, and module. Meanwhile, the proposed silicon wafer can help establish a uniform standard-based supply chain system in the entire photovoltaic industry, standardize the equipment manufacturing system and customer's application system, reduce the wasting of resources and promote the development of the photovoltaic industry.

#### **Energy Industry**



LONGi Signed a Strategic Cooperation Agreement with China Huaneng

As the countries in the world have reached an agreement on low-carbon environment and green development nowadays, the major traditional energy enterprises across the world has began advancing the energy transformation. For accelerating the grid parity with an electricity rate of 0.1 yuan per kWh in the photovoltaic industry, LONGi has taken the opportunity of global energy transformation and established strategic cooperation relationships with China Huaneng Group Co., Ltd., China Huadian Cooperation, China Datang Corporation, China Three Gorges Renewables (Group) Co., Ltd., CGN New Energy Holdings Co., Ltd. and Yunnan Provincial Energy Investment Group Co., Ltd. around 2020. We participated in the high-level dialogue in renewable energy industry hosted by China Petrochemical Corporation (Sinopec Group), and sought for cooperation regarding photovoltaic module supplying, photovoltaic power generation resources development, photovoltaic power generation technology service, supply chain. cooperation between industry chains and overseas market development for exploring the development route of clean and low carbon development in traditional energy industries.

#### **Construction Industry**

LONGi understands that the photovoltaic industry would give importance to the scenario application. In this case, we put BIPV, the combination of the photovoltaic industry and green architecture, as the priority. In July 2020, LONGi's first assembled BIPV product, "LONGi Roof", was off the assembly line in LONGi's BIPV factory in Xi'an. Aiming to the integrated installation of the industrial and commercial plants' roof, the assembled BIPV is the perfect combination of green and intelligent building materials and highly efficient photovoltaic products. Linton Kayex in Wuxi was the first BIPV photovoltaic power generation project, which LONGi engaged. In 2020, LONGi's New Energy Business Division was awarded IDC Innovative Green Energy Technology Excellence.



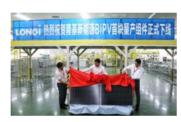
LONGi Issued the First Assembled BIPV Products

Accelerating the grid parity with

"an electricity rate of 0.1 yuan

in the photovoltaic industry

LONGI



LONGi's first assembled BIPV product, "LONGi Roof-Energy box", was off the assembly line

#### Awarded

**IDC Innovative Green Energy Technology Excellence** 

Participated in the construction of

1.000+ base stations for photovoltaic power supply systems



New Combination of "Photovoltaic PV plus Communication Base Station"



LONGi New Energy's Light-Storage-Charging Integration Product-E-vehicle

Tala Shoal Photovoltaic Industrial Park

the largest photovoltaic power generation station

 $609 \, \mathrm{km^2}$ with a total area of

LONGi is one of the major suppliers

#### Information Industry

Relying on light-storage complementary and multi-energy complementary, and for advancing the development of "photovoltaic PV plus new infrastructure", we develop many projects regarding "photovoltaic PV plus Communication Base" and "Photovoltaic PV plus Data Center". During the rapid construction of 5G base stations, the application of photovoltaic PV can strengthen the layout flexibility of 5G base stations. Meanwhile. we have applied the off-network photovoltaic experience in Tibet and the construction in other remote areas. As of the end of 2020, we have participated in the construction of over 1,000 base stations for photovoltaic power supply systems. In respect of the data center construction, LONGi New Energy has communicated and cooperated with the main data center operators to provide renewable energy sources solution for data centers and promote the green low carbon development of the data center.

#### **Transportation Industry**

With the popularity of renewable energy vehicles, the vast demand for charging piles brings huge potentials for the combination of "light-storage-charging integration". In this case, LONGi has launched "E-vehicle Station", an integration product of "light-storagecharging", which, depending on its function of "self-power-generation and self-charging", absorbs the off-peak electricity at night from the photovoltaic power station by utilizing the energy storage systems of cells, and charges the charging stations with the energy storage and electric supply at the peak time, for filling in the gap between the peak and off-peak period, increasing the absorption of new energies and making up the defects caused by the discontinuity of photovoltaic power generation. In 2020, the first intelligent light-storage-charging station has landed in the Technology Innovation Harbor Campus of Xi'an Jiaotong University, which proves the the rich application scenarios of renewable

#### **Green Transformation**

Comparing with other traditional energies and clean energies, in regard with the characteristics of flexibility and convenience, the photovoltaic industry is competent to break the regionalized price of energy supplying and consumption to bring more potential for global social energy transformation. At the same time, LONGi firmly believes that making the public correctly understand and apply photovoltaic technology is our value. We have positively explored the green development modes under different climates, environments, and economic conditions.

In China, LONGi participated in constructing the largest photovoltaic power generation station in Qinghai, and signed strategic cooperation agreements with multiple provinces, including Yunnan, Ningxia, Shenzhen and Shaanxi. We demonstrated, and deeply took part in the local energy transformation and green economic development.

Case LONGi Witnessed "the Sheep Come Back to Qinghai"

Relying on 1,600 hours of available sunshine, barren mountain, large areas of deserts and rich hydroelectric resource as standby for photovoltaic energy, Qinghai-Tibet Plateau in Qinghai, is as one of the most likely regions in China to apply the "Solar for

Driving with Technology and Lighting Green Economy 33 LONG

Solar" development model and has the unique advantages for the development of the photovoltaic industry. Tala Shoal Photovoltaic Industrial Park is the largest photovoltaic industrial bases in China, with a total area of 609 km², as one of the major suppliers for which, LONGi, in the face of COVID-19 pandemic in 2020 and the high altitude barrier, supplied and delivered 385 MW highly efficient monocrystalline module in a timely manner within 50 days, facilitating the grid connection successfully.



Sheep in Qinghai Tala Shoal Photovoltaic Power Station (from Xinhua News Agency)

Case LONGi Developed its Business in Yunnan to Drive the Development of Hydroelectric Silicon Industry

With its unique advantages of water and light resources, the proportion of hydroelectric in Yunnan is around 92%. As the pioneer photovoltaic enterprise settled in Yunnan, LONGi expands its industrial scale in Lijiang, Baoshan, Chuxiong and Qujing, which not only helps LONFi achieve the goal of manufacturing clean energy with clean energy but also plays a leading and demonstrative role in the development of green energy industry in Yunnan. Under the leadership of LONGi, several photovoltaic enterprises successively take their roots in Yunnan.



Yunnan Baoshan LONGi

Within 50 days

Supplied and delivered

## 385MW

highly efficient monocrystalline module

92%

The proportion of hydroelectric in Yunnan is around

#### "Green Energy"

becomes one of the three "Aces" in Yunnan to implement the new thinking on development

As of 2020, Ningxia has become one of the important production bases of LONGi in the world

Including

silicon ingot, silicon wafer, cell and module

the complete photovoltaic industrial chain

During the first half of 2020, the renewable energy utilization ratio in Ningxia has reached

97.43%

ranking first in the northwest regions

showing great potential as a advantageous strategic emerging industry

Meanwhile, depending on the advantages of hydroelectric and clean energies in the province, the People's Government of Yunnan Province accelerates the integration of hydroelectric silicon processing. Till 2019, the production value of green hydroelectric silicon has achieved 2 consecutive years doubled, with increased industrial growth of 1%. Yunnan completely resolves the problems regarding large-scale surplus water and the pattern of power supply - "supplying most of the power to other regions, other than the local region". "Green Energy" becomes one of the three "Aces" in Yunnan to implement the new thinking on development.

LONG

Case Root in Ningxia to Facilitate the Transformation of the Strategic Town with Traditional Energy

Ningxia, which is the strategic town with traditional energy and has a strong industrial base and well-established power infrastructure, was identified as the first comprehensive demonstration plot for renewable energy in 2012. LONGi Group, as the first clean energy enterprise investor in Ningxia, established our first monocrystalline silicon factory in 2006. As of 2020, Ningxia has become one of the important manufacturing bases of LONGi in the world. In addition, LONGi also established the complete photovoltaic industrial chain, including silicon ingot, silicon wafer, cell and module, while playing a demonstrative role in the transformation of clean energy and the settlement of industries, and has become a new platform of employment for traditional energy transformation. During the outbreak of the pandemic, the photovoltaic industry bucked the trend in Ningxia, with its production value reaching nearly 10 billion yuan by January-September, 2020, and the year-to-year growth of 40%. During the first half of 2020, the renewable energy utilization ratio in Ningxia has reached 97.43%, ranking first in the northwest regions, which showing great potential as a advantageous strategic emerging industry.



The Project in Ningxia LONGi

Globally, relying on the cooperation with partners on all continents, LONGi contributed to the promotion and construction of the photovoltaic power station with large scale and high flexibility. We have assisted each division of the economic society to realize "carbon emission reduction" and "carbon neutral", facilitated the worldwide construction of clean energies, advanced the energy transformation globally and helped create an high efficiency energy network.

LONGI

#### 2020 Green Transformation Projects with the Assistance of LONGi (in part)





LONGi has been bravely advancing in technological innovation, but also hold the conservative standpoint of quality control, being a "principled quality conservative". We are dedicated to providing the market and customers with more reliable and valued products. We want our excellent high-quality products and customer services to win the global customers' trust.

## **Key Successes in 2020**

- LONGi's modules won the "High Achiever" award released by the US Renewable Energy Testing Center (RETC), with excellent performance in all of the eight individual tests.
- LONGi has remained the sole AAA-Rated module supplier in PV ModuleTech Bankability for four consecutive times.
- Has launched the "Brand Quality Year" activities to promote quality with brand and help brand with quality.
- The Company was awarded "Top Photovoltaic Brand" by EuPD Research, a global authoritative research organization.

## SDGs Responded to in this Chapter







# Material Sustainability Issues Involved in this Chapter

Product and Service Quality
 P39-

LONGI LONGI Building Up Quality and Creating Value for Customers 39 Building Up Quality and Creating Value for Customers 40

#### **Product Quality**

LONGi is committed to providing customers with quality products that can stand the test of time. By formulating and implementing a series of systematic documents such as Integrated Quality Management System, Key Characteristics Statistical Control (SPC) Management Regulations, and Quality Improvement Projects and QCC Management Regulations. A realistic scenario simulation is carried out by ensuring that the products have undergone rigorous testing.

The Company continues to improve the quality of its management system, specifying its management responsibilities and quality management evaluation methods. In 2020, we deepened our standardization to include the quality of the management from the dimensions of our standard system construction, standard implementation, standardization of evaluations, and other improvements.

- · Comprehensively sort out our standard quality and organize the relevant personnel to carry out internal benchmarking of our professional standards.
- · Improve our capabilities of our relevant personnel and equipment, and deepen the promotion and implementation of our standardization.
- · Improve the standard map management and enhance the employee's awareness of standardized work with reference to the standardization management specifications and the standardization evaluation table.

Referring to the Lean Six Sigma management model (abbr. "6S Lean Management"), we have carried out various quality optimization and special actions with practical methods of definition, measurement, analysis, improvement, and control. In 2020, we focused on the significant risks and improved the applicability of the quality management system. We also formulated the major quality risk management and risk control plans; we set up a focus project on "Reducing 4M Quality Risks Changes", and reached "controllable external risks" and "internally restrain quality fluctuations" through the methods of visualization, process optimization, and personnel training control.

Case LONGi Modules' Power Generation Capacity and Quality Have Been Widely

LONGi has once again won the "HIGH Achievers" award on "Photovoltaic Module Index Report" released by the US Renewable Energy Testing Center (RETC) in 2020, with its tremendous power generation capacity. RETC is an authoritative third-party testing organization in California, USA. This honor fully proved the superiority of LONGi modules. We have outstanding results in all of the three indicators of reliability, performance, and quality. We became the only module manufacturer to perform well in all eight tests.

Seiri (organization) Seiketsu (cleaning) Seiton (rectification) Shitsuke (quality) Seiso (cleaning) Safety (safety)

Man

(the operators who need high insurance)

Machine

(equipment, fixtures, tools, molds)

Material

(materials, spare parts)

Method

(methods, engineering, operating conditions)

## AAA \_rated

The perfect width of 1133mm

the Hi-MO 5 high-effeciency modules perfectly reach the maximum door height of standard containers

greatly reducing the transportation cost

the Only Global Module Supplier in PV ModuleTech Bankability

> method that putting two pallets stacked vertically on the side, which commonly used within the industry. With the width of 1133mm, the Hi-MO 5 high-effeciency modules perfectly reach the maximum door height of standard containers. It not only makes the best of the space between containers, but also leaves a safety margin for forklift loading and unloading. It also can ensure the stability and firmness of the modules during transportation, which greatly reduces the transportation cost. Besides, the vertical sidestanding packaging method of LONGi's Hi-MO 5 high-efficiency modules let the height of the container packaging be lower than 1.25m, allowing workers to smoothly unpack the items. After unpacking, the Hi-MO 5 high-efficiency module will be placed on a dedicated tilt stand, which is stable enough and will not easily tilt. This also ensures the safety of the workers. The interlocking reliability of links allows LONGi's high-efficiency modules to deliver intact goods to customers even after undergoing multiple processes such as

LONGi Remained the Only Global AAA-Rated Module Supplier in PV

In 2020, PV ModuleTech (referred to as "PV-Tech") released the Q4'20 PV ModuleTech

Bankability Ratings report. LONGi remained the world's sole AAA-rated module

manufacturer for four consecutive times. As the most influential, professional, and

authoritative global photovoltaic company, the PV-Tech market research team would

determine the investment risks of all photovoltaic module manufacturers based on the

Company's manufacturing capabilities and financial scores quarterly. The rating analysis

covers the top 50 PV module suppliers in the industry. The world's sore AAA-rated

module manufacturer assessed by PV-Tech showed that the industry had been optimistic

about LONGi's performance and encouraged LONGi to continuely serve our global

Based on the fact that the Chinese-made photovoltaic modules are supplying the whole

world and are mainly shipped globally by containers. It is a mature and reliable packaging

ModuleTech Bankability for Four Consecutive Times

customers with high-quality products.

In terms of the quality of the photovoltaic power station construction, we fully combine with the actual conditions of the project and put forward targeted improvement suggestions around multiple links, such as equipment, spare parts, and construction techniques. We compile process atlases, so that the rectification list of quality issues can become an operation guide for quality improvement. In 2020, we continued to be praised by our customers for "strong professional ability with high-quality service".

packaging, loading, land transportation, shipping, vehicle transportation, and unpacking.

## only one

module manufacturer to perform well in all eight tests



Remained the Outstanding Performance in RETC's Eight Tests



"Strong professional ability with high-quality service"

The Evaluation in our Customer's Thank You Letter

## **Quality Services**

LONGi is a customer-oriented company, which provides full quality services covering pre-sales, in-sales and after-sales. We refer to the Customer Satisfaction Measurement Management System, create a complete customer service document for every customer, establish three major support platforms for customer service, and promise "1-2-1" effective service commitment.

#### The Full Process of Customer Service



Pre-

Provide quality technical consulting services during product sales process to help customers understand the product value.



**During** During the sale process, actively maintain customer communication, specify product and technology application scenarios.



Aftersales

Conduct product satisfaction surveys, mainly reply to customers' complaints, and cooperate with multiple departments to respond to the needs of customers.

#### **Three Supporting Platforms**



It is globally unified to meet customers' needs for operations with high efficiency across regions and internal departments

Set up a spare parts management system in the global core market to solve major component replacement in a timely manner

pare parts platforn

Rely on on-site information collection, an information entry system, and an expert analysis team to comprehensively solve the problems encountered within the full life cycle of the project.

Fault analysis platform

In order to protect our value for customers in a better way, we listen to the customers' needs during the entire product production cycle and work with the customer to create products and services that can meet their needs better. In 2020, the Company divided customer feedback issues and opinions into three categories, "control issues", "standard issues" and "customer communication", and clarified the main responsibility of management, promoted problem rectification, and improvement of quality.

#### "121" service Effective **Service Commitment**



LONGI

connections with customers, and understand the customer issues in detail

Respond promptly

within 1 day, build



Provide customized solutions for customer feedback within 2 working days.

satisfy the customer's needs, complete the order with the return and exchange processing within 1 week.

If the solution fails to

The Company divided customer feedback issues and opinions into



standard issues customer communication

promoted problem rectification, and improvement of quality

Product Development Stage	<ul> <li>Deeply cooperate with the progress of new product development, actively listen to customer needs and implement unexpected management of some products.</li> </ul>
Product Verification Stage	<ul> <li>Work closely with the customer service department to organize cross-departmental quality verification to ensure the rate of one-time client verification pass rate while still completing the requirements for rapid production.</li> </ul>
	<ul> <li>Have regular customer visits, actively monitor the consistency and stability of product performance for the client, and carry out quality and quantity analysis.</li> </ul>
Product Sales Stage	Establish and improve customer feedback mechanisms and feedback processing procedures.
Otago	<ul> <li>Conduct customer satisfaction questionnaire surveys regularly that cover all different types of customers and all nine major aspects such as brand reputation, product delivery, logistics and transportation, product quality, and technical support.</li> </ul>





#### **Five-Star Supplier**

Won this honor for two consecutive vears



## Sola Panel Manufacturer of the Year in Spain and LATAM

Awarded through the Latin American consumer voting

## **Winning Brand**

LONGi's business brand value is embodied throughout every order of its excellent products to the customers. The brand is a concentrated expression of customer perception, and the quality is the most important embodiment of customer perception. In 2020, LONGi launched the "Brand Quality of the Year" activity, forming a management model that promoted quality with brand and helped brand with quality.



LONGi was awarded "Five-Star Praise" by CGN New Energy Holdings Co., Ltd, and both signed a Strategic Cooperation Agreement

On the 11th of June, 2020, LONGi was invited to attend the 2020 China General Nuclear New Energy Supplier Conference. The Company was awarded "2019 Five-Star Supplier" by China General Nuclear New Energy for its high-quality, efficient photovoltaic products, thoughtful and timely professional services. At present, LONGi has won the honor for two consecutive years (2018-2019). As a reliable and friendly partner, the "Five-Star" products, "Five-Star" quality and "Five-Star" service of LONGi have been praised and recognized by more and more customers.

The Company was awarded "Top Photovoltaic Brand" by a global authoritative research organization, EuPD Research in 2020. As well as this, the Company was rated as the top solar brand in Australia, Spain and the Netherlands, reflecting the brand power of LONGi in major markets in Australia and Europe. It acted as a guide to the great value of the Company to its distributors, installers and customers.

At the "2020 Review Energy Awards" Event held by the world-renowned renewable energy publication "Review Energy" magazine, LONGi was selected by consumers for the first time for its outstanding market performance and brand both in Spain and Latin America. Through the Latin American consumer voting, the Company was awarded the "Solar Panel Manufacturer of the Year in Spain and LATAM" (i.e., the best solar panel manufacturer of the year in Spain and Latin America).



LONGi adheres to the concept of "win-win collaboration, interconnected innovation, and low carbon " and cooperates with suppliers to drive the concept of responsible in-depth supply chain development. As a leading global photovoltaic manufacturing company, LONGi's supply chain spreads worldwide, which also means that its responsibilities are distributed globally. We share information with suppliers, put our best effort into cooperation, and achieve mutual complements. We believe a sustainable and positive supply chain ecosystem will steadily promote a greener economy, create opportunities, open horizons, and contribute to the general trend of global energy transformation.

## **Key Successes in 2020**

**1,300** suppliers

signed the Supplier Code of Conduct and pledged not to use the conflict minerals

More than 50% of major suppliers

have obtained ISO 14001 Environmental Management System and ISO 45001 Occupational Health and Safety Management System Certification

150 suppliers

responded to the LONGi Greener Supply Chain Carbon Reduction Initiative

The Company was awarded the

"Vice Chairman Unit of PV Committee of China Green Supply Chain Alliance"

## SDGs Responded to in this Chapter







# Material Sustainability Issues Involved in this Chapter

Responsible Procurement P45-46

Business Compliance P47-48

## **Supplier Management**

With the globalization, interconnection, and networking development these days, supply chain management has gradually shifted its focus from inter-organizational transaction coordination and operational efficiency to information interconnection and collaborative innovation between organizations. The COVID-19 in 2020 has affected the uneven development of all links in the photovoltaic industry chain. While actively cooperating with suppliers, ensuring supply, optimizing logistics, and transportation, LONGi has used digital interconnection and technology to promote in-depth interaction with suppliers, deepen mutual cooperation.

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LONGi pays attention to and actively manages the social, ecological, and health & safety impacts of suppliers on the community. We have established a series of systematic documents such as *Supplier Code of Conduct, Conflict Minerals Appendix, and Strategic Supplier Management Measures* to incorporate sustainable development requirements such as business ethics, environmental impacts, labor rights and human rights, as well as health & safety into supplier management.



incorporate sustainable
development requirements
such as business ethics,
environmental impacts, labor
rights and human rights, as well
as health & safety into supplier
management

### Areas covered by LONGi's Supplier Code of Conduct



Management System

• Establish and continuously improve management procedures to fully identify the social, ecological and health & safety risks to workers and communities during production.





Business Ethics

 Declare the authenticity of the information provided on the qualifications, service standards, and product bills, implement the principles of honesty and trustworthiness throughout the cooperation and avoid any falsehoods, deception, forgery, and fabrications.

 Understand and comply with relevant domestic and foreign laws and regulations and LONGi's requirements for incorruptible cooperation, shall not tolerate or engage in corruption or bribery in any form.



Environmental Impacts

- Comply with domestic and foreign environmental protection laws and regulations, carry out safely the management of hazardous substances including waste water and waste gas value by the applicable domestic and international statutory standards.
- Minimize environmental pollution and continuously improve environmental protection performance.
- Replace traditional energy with renewable energy as much as possible, continuously promote energy conservation and emission reduction, and practice the concept of a greener supply chain.



Labor Rights and Human Rights

- Prohibit any form of child labor and forced labor, insist on offering equal employment, and provide equal job opportunities for all employees.
  Ensure to respect employees' dignity, privacy, and other relevant individuals' rights within the workplace, and
- make sure that employees are free from any form of discrimination, harassment and abuse.

   Ensure the Company and its sub-suppliers comply with local labor protection laws, both parties are responsible



Health and Safety

- Ensure the Company and its sub-suppliers comply with local labor protection laws, both parties are responsible for the health and safety of internal and external employees.
- Define health and safety risks and take all reasonable and possible preventive measures to help reduce and prevent accidents and occupational hazards.
- Provide professional training to ensure that internal and external employees understand and familiarize them with health and safety education in the workplace.

The Company revised and issued the

#### Supplier Code of Conduct

more than 150 suppliers
launched the LONGi Greener Supply
Chain Carbon Reduction Initiative

In 2020, as a member of the new energy industry, the Company revised and issued the *Supplier Code of Conduct* with reference to the EU mandatory standards *Restriction of Hazardous Substances* and the *Electronic Industry Code of Conduct* to further standardize our suppliers' material selection, industrial standards, environmental protection, and other regulations, and encouraged suppliers to practice sustainable development in operation.

In order to work with our supply chain partners to achieve bigger goals for the sustainable industry development, and contribute to a broader range of sustainable social development, at the 2020 Supplier Conference, LONGi and more than 150 suppliers launched the *LONGi Greener Supply Chain Carbon Reduction Initiative*. LONGi has regarded the greener supply chain as an innovative environmental management method, started by itself, to set high standards, and cooperated with supply chain partners to fulfill climate commitments.



#### LONGi Greener Supply Chain Carbon Reduction Initiative

- Actively implement the concept of greener development, prioritized the
  use of renewable energy (including BAPV, BIPV, photovoltaic curtain wall
  and other photovoltaic systems, wind power systems, hydropower, etc.) in
  production and operating sites and promote the use of photovoltaic plus
  electric charging piles to improve energy management ability and reduce
  carbon emissions.
- Actively carry out green supply chain management, starting with high energy consumption and high emission links in the supply chain, strengthen green procurement and green supplier management, and lead mainstream companies to carry out low-carbon transformation by improving production processes and optimizing energy-using organizations, continuously reducing carbon footprint within the supply chain
- Continuously reduce carbon emissions within the supply chain and actively disclose carbon emission reduction information of the company and supply chain-related companies to accept social supervision.
   Meanwhile, strengthen the innovation in green supply chain management, communicate with the best practical domestic and overseascompanies, organize more upstream and downstream companies and peers to join this action, and actively shared experiences.



The Ceremony to Publish LONGi Greener Supply Chain Carbon Reduction Initiative

Collaborating for Win-Win Results and Developing a Green Supply Chain

Collaborating for Win-Win Results and Developing a Green Supply Chain

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In 2020, LONGi cooperated with more than 1,800 suppliers, of which 1,300 suppliers signed the Supplier Code of Conduct and pledged to comply with the requirements of conflict-free minerals. The Company will continue to set conflict-free minerals goals in the future, find alternatives to conflict minerals with the suppliers, and encourage suppliers to eliminate conflict minerals in the supply chain.

47

In 2020, 90% of LONGi's major material and equipment suppliers have obtained Quality System Certification (ISO 9001), and more than 50% of core suppliers have obtained Environmental Management System (ISO 14001) and Occupational Health and Safety Management System Certification (ISO 45001).

#### **Supplier Assessment**

We strictly implement fair assessments to regulate procurement and eliminate discriminatory treatment for suppliers. In 2020, the Company refined the Supplier Development Management Measures, Supplier Upgrade Management Measures, and other systematic documents, and updated several detailed rulings including supplier development, approval, management, and auditing. The Company has comprehensively regulated its supplier qualification review, certification, downgrade, and withdrawal procedures.

Since 2019, we have established a cooperative relationship with a third-party credit evaluation platform to incorporate the judgments of the risk radar platform into the assessment of potential suppliers. Meanwhile, the Company has carried out long-term risk monitoring of significant suppliers, connected the risk radar platform and the internal Supplier Relationship Management System (referred to as "SRM") to receive early warning of any risk from suppliers and avoid any harm to the supply chain.

• Conduct on-site inspections and qualification verification on potential suppliers, considering comprehensive capabilities including production capacity, quality management, environmental, health and safety performance, R&D technology, etc.

1.500+

LONGI

Suppliers from China Mainland

300+

Suppliers from over-seas, Hong Kong, Macao and Taiwan

The Company has comprehensively regulated its supplier qualification review, certification, downgrade, and withdrawal procedures

- Issue and require suppliers to sign the Supplier Code of Conduct, carry out special quality audits, and define requirements for major issues such as quality improvement, product tracking, environmentally prohibited substances, trade safety, packaging and transportation
- Have quarterly, half-yearly or annual performance evaluation for suppliers.
- Carry out suppliers' performance evaluation and set "ABCD" four levels of the supplier performance distribution.
- · Carry out annual audits of important suppliers
- Establish supplier files and supplier resource pools, and fully investigate the suppliers' performance in terms of quality, cost, delivery management

- Refer to the Administrative Measures for Supplier Upgrading and Downgrading to set up four cooperation levels for the suppliers: green, yellow, red, and black, covering four supplier cooperation requirements: qualified, restricted trading, uncooperative, and permanent blacklist
- Urge and assist yellow-card suppliers complete the corresponding rectification and improvement requirements within the deadlines, and upgrade to the green-card after the upgrade approval
- Set a one-year deadline for red-card suppliers. If we want to collaborate with the red-card suppliers again, we need to re-launch the qualification certification and review procedure
- If a supplier is downgraded to a black-card supplier, this supplier will be permanently restricted from participating in the consultation and bidding activities of all kinds and all business entities of LONGi.

technical exchange activities with major suppliers

> jointly tackle multi-faceted technical tasks

help our business partners in improving

their

management level

production capacity

supply stability



In 2020, the Company was awarded

Vice Chairman Unit of PV Committee of China Green **Supply Chain Alliance** 

## **Supplier Communication**

LONGi has been committed to building a supply chain of mutual trust, mutual benefit, mutual complementarity cooperation, and sustainable development for the long term. The Company has cooperated with suppliers to grow together, achieve mutual success, and has built and maintained healthy growth within the photovoltaic industry.

We have established strategic partnerships with outstanding suppliers and strengthened both parties' top technological advantages through various methods such as technology development, resource sharing, and other complimentary benefits. We worked together to create more value for our customers.

In 2020, LONGi has carried out 40 technical exchange activities with major suppliers. We found production issues and solved these problems by responding to them, tackled challenging problems during R&D, and gained praise, recognition, and trust from multiple strategic suppliers. At the same time, we overcomed the inconvenience caused by the epidemic by conducting regular supplier interaction through telephone and e-mail questionnaires. We have improved our cooperation satisfaction level, based on supplier

Case Cooperation with Strategic Suppliers in Technology Development

The Company has signed strategic cooperation agreements with some major suppliers of bulk materials and equipments to jointly tackle multi-faceted technical tasks and help our business partners in improving their management level, production capacity and supply

#### In 2020, our collaborative R&D projects with suppliers included:

- Carbon-carbon suppliers improve equipment and processes to enhance efficiency.
- · Collaborate to develop new laser technology to help cell process innovation.
- · Suppliers of diamond wire and slicing auxiliary materials collaborate to carry out technological innovation of diamond wire.
- · The junction box suppliers provide a variety of innovative solutions and optimized
- · Slurry suppliers customize exclusive solutions and work together to replace cell products.

LONGi holds annual supplier conferences to discuss core topics such as industry innovation and development opportunities, balance and coordination of photovoltaic industry chain, and green supply chain.

While performing well in the Company's supply chain, LONGi is also actively participating in constructing the national and photovoltaic industry green supply chain. In 2018, the International Economic and Technical Cooperation Center of the Ministry of Industry and Information Technology and other related units in the photovoltaic field initiated the China Green Supply Chain Alliance Photovoltaic Special Committee (Referred to as "China Green Supply Chain Alliance"). LONGi, as the first official member, has actively contributed to green manufacturing and green supply chain. The Company was awarded the Vice Chairman Unit of PV Committee of China Green Supply Chain Alliance in 2020.



As a leader in the photovoltaic manufacturing industry, LONGi attaches great importance to the greener and more sustainable development of its production and operations, while creating greener energy for the whole world. We have strengthened our environmental management system, heavily invested in environmental protection projects, reduced the traditional power and water resources, vigorously used renewable electricity to reduce our carbon emissions, recycled waste, and have contributed to building a zero-carbon society.

1,356,216 tons

which is equivalent to reducing

101.21 million yuan

saved the costs of

120 million kWh

729,000 tons

## **Key Successes in 2020**

41.83%

Proportion of renewable energy used by the Group

99

The number of energy-saving technology transformation projects implemented

3.39%

The electricity consumption of each saved the electricity of production unit has decreased by

2.45%

100%

The water consumption of each production unit has decreased by

Realized a packaging recycling

saved the water of

**SDGs Responded to in this Chapter** 







## **Material Sustainability Issues** Involved in this Chapter

 Tackling Climate Change P51-55

 Resource Recycling P55-58

The Use of Water and its Management P55-56

 Protect the Ecological Environment and Biodiversity P51-54

P57-58 Waste Management

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LONG

Manufacturing Greener and Contributing to a Zero-Carbon Future

## LONG

#### **Environmental Management System**

As the global environmental management concept changes, environmental countermeasures and development strategies continue to deepen; environmental management is becoming more critical to the long-term development of enterprises. Following the ISO 14001 Environmental Management System, we have continued to improve the environmental management system and organizational structure, set annual reduction targets for energy and resource use intensity, implemented follow-up services and assessment, and linked performance with executives' compensation to establish standardized, normalized and refined environmental management mechanism to ensure that LONGi's production bases implement the concept of greener development in its daily operations.

ensure that LONGi's production bases implement the concept of greener development in its daily operations



A total of 4 LONGi factories have obtained Green Factory Certification:



We strictly comply with the *Law of the People's Republic of China on Environmental Protection* and laws and regulations in the place where our overseas production bases are located throughout the process from the construction to production and operation, establish a complete system and mechanism on environmental protection, continue to enforce rules and try to minimize the environmental impacts.

In 2020, LONGi had no major environmental violations



We have strictly implemented the "Three Simultaneity" system of environmental assessment, environmental protection and strictly observe the "Ecological Red Line" when selecting the sites, carrying out surveys on the project's environment, assess regional resource endowments. As well as ecological, environmental protection requirements, and fully consider the possible impact of project construction, future production and operation, to avoid the effect on the ecological environment and biodiversity.



We have formulated the *Environmental Monitoring and Management Regulations* in order to regulate the sewage outlets, pollutants, noise monitoring, emissions, and disposal standards in each plant area. Every project is applying these regulations and the formulated EHS plan and needs to have monthly inspections and annual evaluations. We have continuously improved the production process to ensure high environmental standards are obtained during operations.

#### Risk Management

We have formulated the *Emergency Plan for Sudden Environmental Pollution Accidents* based on the environmental risks involved in the production process and pollution production links, and have a guide for the relevant personnel to carry out an environmental emergency response to any potential emergencies. Environmental risk prevention and control measures and emergency management systems for various risk sources. The company and government departments have jointly carried out emergency drills for environmental emergencies to strengthen our environmental emergency response capabilities.

## **Energy Saving**

52

installed an energy management system



The core of greener manufacturing

The core of green manufacturing is refined by energy-saving management. In order to have green manufacturing, we have actively implemented the EP100 Commitment to establish an energy management system by creating an energy-saving management organization that has formulated energy-saving targets and assessment methods and installed an energy management system. We have established an incentive mechanism to promote energy conservation and consumption reduction, made full use of environmental and economic benefits and built greener core competitiveness for LONGi.



The Company has established an energy management system, formulated *Energy Management System*, *Energy Data Management Measures* and other systematic documents, standardized detailed requirements for energy-saving inspections, data statistical submissions, and annual assessment-related matters, laying a solid foundation for refined energy management.



Established a group-level energy-saving work leading the group, the chairman and heads of various departments are deeply involved in energy-saving and emission reduction. They supervise the implementation of targets and actively made decisions.



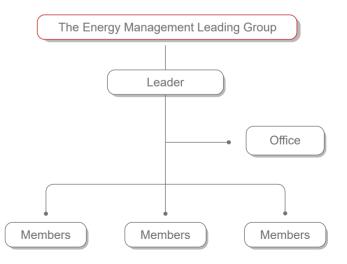
The Group's Energy Management Leading Group Office is responsible for daily energy-saving inspections and evaluations. The Group will reward the best ones based on their evaluations of project investment, profit, and investment payback period, for departments and subsidiaries that actively participate in energy improvement projects and carry out energy-saving and emission-reduction work.

In the future, we also plan to link the evaluation results of energy-saving appraisal with the overall performance appraisal of the organization to fully encourage employees to participate.

#### In the Group's Energy Management Leading Group

the chairman of the Group serves as the group leader and the Group directors, the directors of each department, the general manager of the functional center, and other relevant department leaders are all members. The Energy Management Leading Group has an office directly managed by the Engineering and Technology Department of the General Affairs Center. The head of the department is the office director, and the leaders of the energy management departments of each business department are members.

#### Chart of the Energy Management Leading Group



Manufacturing Greener and
Contributing to a Zero-Carbon Future

Case LONGi Started the Construction of Energy Management Information System

In June 2020, LONGi Wafer Business Unit launched its energy management system information construction project for its 6 subsidiaries. The system mainly includes the function of energy consumption data system display, energy consumption overview, energy consumption data monitoring, energy consumption reporting, energy consumption analysis, energy prediction, energy consumption alarm, and other relevant functions. It realizes with the government energy consumption online monitoring platform for energy consumption to provide robust and accurate data support. After the energy management system was launched, we expected to achieve an energy-saving rate of 1% in the first year and 2% in the second year. After the stable operation of the energy management systems of the six subsidiaries, it achieves a profit of more than 26.55 million yuan.

	2020	2019
The Energy Consumption Statistics from 2019 to 20	20	
Natural Gas (10,000 m³)	952.94	/
Diesel (Tons)	291.24	/
Gasoline (Tons)	177.06	/
The Consumption for Production and Operation (10,000 kWh)	611,425.10	353,863.80
Renewable Energy Usage (10,000 kWh)	255,783.35	175,760.98

Note: 1. The data above do not cover the production base in Vietnam; 2. The hazardous waste in Kuching LONGi is calculated as per the local standard; 3. "/" means no statistics.

In 2020, the electricity consumption of LONGi's production unit has decreased by 3.39% on a year-on-year basis, which has saved about 120 million kWh of electricity. Based on the analysis of the energy consumption of LONGi's production and operation in previous years, we have set the energy management target from 2021 to 2025 on the basis of the performance in 2020. We strive to achieve a 10%-15% reduction in electricity consumption by 2025.

## After the energy management system was launched

we expected to achieve an energy-saving rate of  $10/_0$  in the first year  $20/_0$  in the second year.

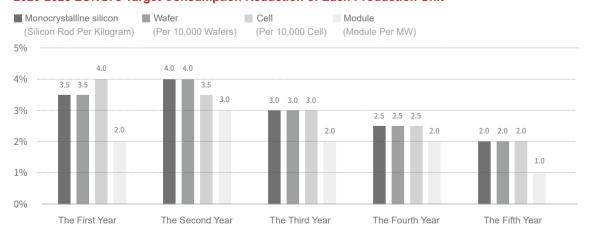
After the stable operation of the energy management systems of the six subsidiaries, it achieves a profit of more than 26.55 million yuan

the electricity consumption of LONGi's production unit has decreased by

3.39%

on a year-on-year basis

#### 2020-2025 LONGi's Target Consumption Reduction of Each Production Unit



Note:1. The silicon wafers and solar cells with the above indicators are calculated based on M6 standard size; 2. The above indicators are expected indicators and will be adjusted annually according to the actual conditions.

Manufacturing Greener and Contributing to a Zero-Carbon Future 54

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we have carried out a total of 99 energy-saving projects in the whole Group

achieving an annual cost saving of

101.21 million yuan as well as significant environmental protection benefits

We have analyzed and summarized that the energy consumption data of the previous year, tapped into the energy-saving potential from multiple dimensions such as technology, process, equipment, energy, and has carried out energy-saving technological transformation projects, and actively promoted the selected outstanding energy improvement projects. In 2020, we have carried out a total of 99 energy-saving projects in the whole Group, including 82 technological transformation projects and 17 management projects, achieving an annual cost saving of 101.21 million yuan as well as significant environmental protection benefits.

Serial Iumber	Path to Implement	Specific Measure	Number of Items/ Number of Projects	Save Electricity 10,000 kWh
1	Lighting electricity Saving	Automatic lighting control     Optimize the number of lamps     Strengthen lighting management	15	518.3
2	Pump System Optimization	Replace high-efficiency water pump     Pump power optimization	6	330.4
3	Frequency Conversion	Water pump frequency conversion     Air compressor frequency conversion     Cooling tower frequency conversion	6	245.8
4	Air Conditioning and Refrigeration System Optimization	Pipeline and end optimization     Natural cooling     Automatic control	25	1,041.8
5	Other Power System Optimization(Including compressed air system, pure water, waste water, waste gas system, etc.)	System optimization configuration     Automatic control     Strengthen energy-saving managemeand control	nt 30	198.5
6	Use of Excess Heat	Waste heat recovery and utilization	2	16.0
	Process System Optimization	Process energy improvement	15	329.1

In order to fully implement the concept of greener development, we actively carry out energy-saving publicity and education, increase employee energy-saving special training and organize "energy-saving publicity week" activities, plan energy-saving knowledge contests in order to popularize the concept of greener development and low-carbon development among employees and to enhance employees' awareness of energy conservation. For all employees to participate in energy saving.

#### Case LONGi held an energy conservation promotion week

In June 2020, LONGi planned an energy conservation promotion week with the theme of "Cleaner Waters and Greener Mountains, Energy Conservation and Efficiency", and launched a series of activities at the group headquarters and related business units to enhance employees' awareness of energy-saving and contribute to the company's low-carbon development.

E	
Energy-saving publicity	Posting energy-saving publicity posters and showing excellent energy-saving short films.
Questions and Answers with prizes	Holding the "Strive to be an energy-saving expert" energy-saving knowledge prize-answering activity, and preparing a variety of small energy-saving gifts for the winning employees.
Energy-saving inspection	formulate an energy-saving inspection plan for the office building of the Group's headquarters to correct any wasting of energy such as not turning off lights, computers, and air conditioners after finishing work to create a good energy-saving atmosphere for the Group.
Energy-saving training	Xi'an Slicing Factory organizes training on Energy Management System Requirements to help everyone master the key points of energy management system construction.

#### Greener and Low-carbon

The greenhouse gas emissions within the operating boundary of LONGi mainly come from the consumption of electricity. In order to cope with climate change and reduce carbon emissions, we not only carry out energy-saving technological transformation in order to reduce energy consumption, but also conduct company-wide carbon emission verification, and respond to the CDP climate change questionnaire for the first time to improve the ability to manage corporate carbon assets. At the same time, we actively change the structure of energy use, increase the layout of industrial bases in regions with direct purchase of renewable power, and the purchase of renewable power through market-oriented transactions. We strive to increase the percentage of renewable power used and implement the RE100 commitment, while still achieving high-scale production growth. Continuously reducing greenhouse gas emissions and helping companies achieve their goals in carbon neutrality.

55

In 2020, the operation within LONGi's boundary directly distributed 53,287,500 kWh (including rooftop power stations hold and operated by a third party) of photovoltaic power, purchased 2504.5459 million kWh of renewable power in a market-based manner and used 255,783,500 kW of renewable energy power. At that time, the proportion of electricity used by renewable energy reached 41.83%, which is equivalent to reducing greenhouse gas emissions by 1,356,216 tons. The Company used 98.58% of renewable electricity in its 7 production plants in Yunnan, which is the foundation for achieving regional "carbon neutrality".

	2020	2019
2019-2020 Greenhouse Gas Emissions		
Scope 1 Direct Emissions (tCO <sub>2</sub> e)	92,665	14,927
Scope 2 Direct Emissions (tCO₂e)	2,480,349	2,197,552
Total Emissions (tCO₂e)	2,573,014	2,212,479

Note: 1. The data above do not cover the production base in Vietnam; 2. The greenhouse gas emissions in 2019 do not consider the emission reduction effects of renewable electricity, and the emissions in 2020 are calculated by third-party agencies.

## **Water Resources Management**

Water consumption mainly comes from the production process of silicon wafers and solar cells. The water consumed mainly comes from municipal water supply and self-supply via well water. In order to save water resources, the Company has established a cost accounting system involving a formulated water management system for production workshops and conducting statistics and analysis on water usage every month by formulating special water-saving measures. In 2020, the Company improved the processing of the waste water station at the cell plants by using reclaimed water during circulating cooling water and cleaning the plant to reduce the use of tap water. The water consumption of all production units of the whole group has decreased by 2.45% year-on-year, saving 729,000 tons of water.

	2020	2019	
2019-2020 Total Water Resources Con	sumption		
Total Water Consumption (Tons)	32,750,659	17,506,281	
Proportion of Water Reuse (Percentage)	33.89%	43.20%	

Note: The data above do not cover the production base in Vietnam.

used

**2,557.83** million kWh of renewable energy power

the proportion of electricity used by renewable energy reached

41.83%

which is equivalent to reducing greenhouse gas emissions by

1.356.216 tons

≈ 9,600 tons

Annual water-saving approx

The water consumption of all production units of the whole group has decreased by

2.45% year-on-year

aving

**729.000** tons of water

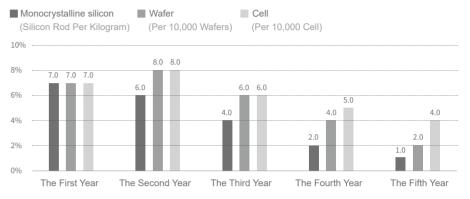
≈ **54,000** tons

≈ 38,400 tons

Annual water-saving approx

Using 2020 as the base year, we have also set a water-saving goal for 2021 to 2025, and strive to achieve a year-on-year decrease in our overall water consumption.

# 2021-2025 LONGi's Unit Water Consumption Reduction Targets for Various Production Units



Note: 1. The silicon wafers and solar cells with the above indicators are calculated in M6 standard size; 2. The above indicators are expected indicators and will be adjusted annually according to actual conditions.

#### Case Water Resources Reuse Project of LONGi Wafer Business Unit

#### Lijiang LONGi

The Lijiang LONGi Wastewater Treatment Station changed its water source for the initial stage of wastewater treatment from tap water to wastewater after treatment standards, and recycled wastewater. It is estimated that approximately 9,600 tons of water would be saved each year. In addition, the Company's original pressurized water filtration system had some problems such as frequent clogging of the nozzles of the square cutting machine and excessive tap water consumption. After the system was improved, the frequency of clogging and maintenance was reduced, and the tap water consumption decreased too, creating more than 1.3 million yuan of revenue.

#### Yinchuan LONGi

The monocrystalline silicon preparation process of Yinchuan LONGi No. 1 and No. 2 Plant consumed 2,232 tons of pure water every year. After concentrated water and pure water were reused in different layers, the consumption of pure water is reduced. The plant was used to be cleaned with tap water, causing high operating cos. After the greener water supply pipeline was renovated, the excessive pressurized water in the machine-processing workshop is used as cleaning water, reducing the amount of tap water by approximately 4,500 tons per month.

#### Wuxi LONGi

The Wuxi LONGi's subsidiary reuses concentrated water (wastewater separated from the purification process) in areas that do not require a high water quality, such as the chemical configuration of waste water stations and summer green watering areas in order to save the Company's tap water consumption. At the same time, the Company branched the existing concentrated water supply pipeline all the way to directly use the belt filter press and the treatment of the waste water station and set up a greener water injection pipe at the bridge along the way to facilitate the watering plant in the summer. After the implementation of the project, 38,400 tons of water were saved every year.

Manufacturing Greener and Contributing to a Zero-Carbon Future

Manufacturing Greener and Contributing to a Zero-Carbon Future

LONG

#### **Waste Management**

LONGi strives to build a resource-saving, environment-friendly and greener company, improves resource utilization, and reduces pollutant emissions and lowers the consumption of freshwater. This in turn will lower operating costs, as well as meet the expectations and needs of various stakeholders. To this end, we have set up the resources reuse research lab in 2020 to mobilize the expertise of various business units and identify in depth the parts that can reduce emissions and save resources during production and operation, with much success achieved.

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For reducing polluting emissions, we recycle industrial wastewater generated by solar cell manufacturing, circulating cooling. We use concentrated water for preparing pure water and ground cleaning, as well as domestic sewage produced by employees in order to make the best use of recyclable water resources and reduce emissions; we also treat the sewage at the treatment stations of various of our factories to make sure they're up to standard before being discharged. The acid waste gas, alkaline waste gas and organic waste gas produced in the processes of texturing, diffusion, panel cleaning, as well as coating, drying and sintering are treated by the internal gas purifiers to ensure that they meet the national requirements for emissions.

To manage our waste, we have formulated the Waste Material Management System. Chemical Management System, and Hazardous Waste Management System. We have also established hazardous waste warehouses to store the waste separately according to their categories and have entrusted a qualified third-party company for compliant disposal. For general solid waste and other waste materials, we have created the Waste Material Management System, Silicon Material Recycle Management System, and Packaging Material Recycle and Reuse Management Guidelines. We have set up a waste material management department to manage and count waste materials such as silicon mud, waste diamond wire, graphite, waste paper, cardboard, and waste plastics by their categories. Each factory in the business units conducts benchmarking analysis and take steps to improve, optimize and control the output from the source, optimize the disposal methods at the back end, and study methods to maximize the value of materials, so as to increase the times of recycling waste materials.

We have set up the resources reuse research lah

in 2020

LONG

We have set up a waste material management department

to increase the times of recycling waste materials

2010

		2020	2019
Total Emissions of	of Pollutants in 2019-2020		
	Wastewater Discharge (Tons)	20,205,827.90	9,567,979.49
	Chemical Oxygen Demand (COD)(Tons)	1,404,835.53	/
	Ammonia Nitrogen (Tons)	57,207.62	/
Waste Water	Suspended Solids (SS) (Tons)	330,035.85	/
	Waste Gas (m³)	7,617,819,718.40	/
	NO <sub>x</sub> (Tons)	299.86	16.33
	Particulate Matter (Tons)	77.66	22.34
	VOCs (Tons)	21.13	19.34
	Fluoride (Tons)	5.28	2.92
\\\	Chlorine (Tons)	3.90	0.17
Waste Gas	Ammonia (Tons)	13.48	2.81
	Sulfuric Acid Mist (Tons)	0.68	0.09
Solid Waste	Hazardous Waste Discharge (Tons)	29,001.76	1,067.17

2020

Note: 1. The data above does not cover the production base in Vietnam; 2. The hazardous waste in Kuching LONGi is calculated as per the local standard; 3. "/" means no statistics.

We have recovered

As of the end of the reporting period, LONGi's project on packaging material reduction and recycling has saved nearly



**70.000** cubic meters of



20.000



by recycling all product packaging

of LONGi's module products are comprehensively recycled and reused

Case Waste Oil Purification and Recycling of Baoshan LONGi

In 2020, Baoshan LONGi Silicon Material Co., Ltd has installed a waste oil purification and recovery device in its deposition chamber. With the vacuum dewatering and decolorization as well as using centrifugal dewatering and decolorization to collect waste oils, Baoshan LONGi has boosted the efficiency of waste oil, reduced the generation of waste oils and recycled the waste oil produced in the chamber. In 2020, the total amount of waste oil produced by Baoshan LONGi was 87.7 tons, of which 73.1 tons have been recycled, meaning that we have recovered 80% of our waste oil.

## **Greener Packaging**

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At LONGi, we care about the products we make and how we make them. We have prepared Packaging Material Recycling and Reuse Management Guidelines. And designed LONGi Recyclable Standard Packaging Scheme. We also requireLONGi's suppliers to innovate their own packaging scheme in line with our standard and advocate to reduce packaging, using greener logistics and recycling across the whole industry

Case Packaging Reduction and Recycling Practice

LONGi fully identifies the potential of emission reduction within the supply chain, and advocates and encourages suppliers of plastic film, components and cells to participate in the Company's exploration of packaging reduction and recycling. We collect relevant data, keep an eye on opportunities to go green without affecting the quality and supply, and practically reduce our packaging, packaging materials and silicon wafer pallets on multiple production bases. LONGi and suppliers jointly changed the glass-based packaging to recyclable iron pallets, saving about 37,250 cubic meters of wood and 11,000 tons of paper; In 2019, we recycled our iron-framed pallet, saving about 3,840 cubic meters of wood. We also started the plastic film packaging recycling project, which has saved 2,750 cubic meters of wood and 860 tons of paper. In the attempt to reduce component packaging materials, we were able to save a total of 3,230 tons of paper material, equivalent to 70,190.12 tons of reduced carbon emissions.

For recycling of photovoltaic modules, LONGi has considered product recycling when designing photovoltaic modules and has gradually promoted the fluorine-free material for the main plate. Over 90% of LONGi's module products are comprehensively recycled and reused. LONGi has participated in the national key R&D program of renewable energy and hydrogen technology and has built environmentally-friendly treatment technology and experimental platform for crystalline silicon photovoltaic modules with new materials and new structures. We have studied the recycling of scrapped technology module systems together with other companies and promoted the establishment of recycling systems and policies for scrapped module systems. Which has made photovoltaic products greener in their full life cycle.



LONGi Group takes "respect, opportunity and incentive" as the keywords for its human resources development philosophy. It protects the rights and interests of employees and strives to build and improve our talent management system and talent training mechanism. LONGi cares for the physical and mental health of our employees and increases employees' enthusiasm and cohesion among the team. The Company works to create a fair, open, harmonious and inclusive work environment for all our employees.

## **Key Successes in 2020**

**89,332.3** hours

736,656

Training

Trainees

99.44 points

Employee satisfaction score, up from a year earlier

28.28 million yuan

**93.45** points

Benefit distributed

Satisfaction score for employee benefits

2,019

92.9% of them

Potential safety hazards found

rectified

## SDGs Responded to in this Chapter







## **Material Sustainability Issues Involved in this Chapter**

 Protection of Employee Rights and Interests P61-62

Employee Training and Development

P62-64

Diversity and Equal Opportunities

P61-63

Occupational Health and Safety

P66

Putting People First and 61
Achieving Shared Endeavor

#### **Staff Employment**

LONGi pursues an open, fair, and equal employment policy and abides by labor standards of the local governments, including those laws and regulations in Japan, Germany, Malaysia, and India. The Company resolutely forbids child labor and forced labor during production and services. LONGi doesn't interfere with employees' freedom of religion and does not tolerate any discrimination on employees' ethnic minority, race, nationality, religion, gender, age, disability or marital status, etc. LONGi respects the employees' right to free association and conduct collective negotiation. The Company insists on equal pay for equal work among males and females to promote gender equality and provides equal job opportunities for all employees.

As of December 31, 2020, LONGi Group has 46,631 regular employees, covering production bases in Kuching and Vietnam as well as overseas offices. During the reporting period, the social insurance covered 97.59% of employees in the Chinese mainland. Kuching LONGi also purchased social insurance as required by local policies. There was no discrimination employment, child labor or forced labor. In addition, LONGi has actively and effectively offered jobs for migrant workers in various regions and won the honorary title of "national advanced job provider for migrant workers" during the reporting period. As of the end of 2020, LONGi Group has hired more than 20,000 employees with agricultural registered permanent residence.

As of December 31, 2020, LONGi Group has

**46.631** employees

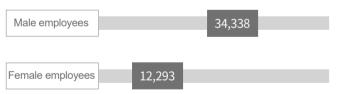
More than **20,000** agricultural registered permanent residence



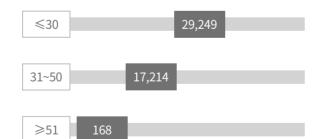
The social insurance covered 97.59% of employees in the Chinese mainland in 2020

## LONGi's Employee Data in 2020

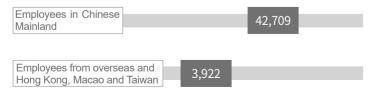




#### Number of Employees by Age



#### Percentage of Employees by Region



Putting People First and Achieving Shared Endeavor LONGI

# "Management, innovators and craftsmen"

Talent introduction, retention, training and development

# Carries out targeted empowerment training activities

for different types of talents



Employee training system

## **Talent Development**

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LONGi regards employee growth and development as the root of its long-term development, and implements the management philosophy of "empowerment inspires vitality and enthusiasm", it creates a high-quality team and supplies human resources for the Company's sustainable development.

We build and provide a fair and diversified career development platform for our employees, focusing on talent introduction, retention, training and development with the core of "management, innovators and craftsmen", and improving our internal talent development system, cadre management system and talent training system. We prefer to provide promotion for internal employees and regularly publish job offerings, to make the best use of our talents through a fair competition mechanism.

We have built a comprehensive and systematic employee training system to help our employees continuously improve their abilities and professional assets. The Company trains and reserves different types of talent, and carries out targeted empowerment training activities, such as fresh graduates training projects, team leader training projects and improvement of strategic organizational skills for management personnel. We also proactively use external resources by encouraging our managers to learn from the world's top companies. In 2020, we further expanded our form of training and launched an independent mobile learning platform to overcome the limitations of time and space; we also continued to strengthen the development of internal lecturers with training and certification on them.

#### Training Hours and Trainees in LONGi in 2020

Total Training Hours by Gender	Male employees	Hour	65,748.6	
	Female employees	Hour	23,583.7	
	Senior management	Hour	35,286.3	
Total Training Hours by Rank	Middle management	Hour	19,295.8	
	Staff	Hour	34,750.3	
Total Number of Participants by Gender	Male employees	Person	542,179	
Total Number of Participants by Gender	Female employees	Person	194,477	
	Senior management	Person	290,979	
Total Number of Participants by Rank	Middle management	Person	159,118	
	Staff	Person	286,559	

Putting People First and 63 Achieving Shared Endeavor

Putting People First and Achieving Shared Endeavor 64

## LONG

#### Care for the Employee

LONGi adheres to the concept of putting people first. It updates and improves the Regulations on Care for Employees, Labor Dispute Mediation Management System and other documents. And LONGi listens to the demands of the employee, proactively cares for and helps employees in hardship, creates a good work environment and atmosphere, helps employees achieve a balance between work and life, and boosts their sense of identity and satisfaction.

LONGi adheres to the concept of putting people first

LONGI

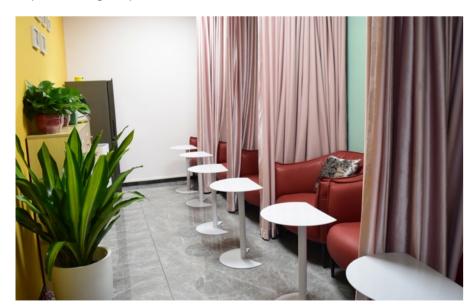
#### **Employee Benefit**

The Group has improved the LONGi Group Benefit Handbook, to provide employees with vacations, social insurance, commercial insurance, dining subsidies, transportation subsidies, communication benefits, living subsidies and other benefits; the Group has also offered pre-employment physical examination for new employees and health checkups for employees joining us for more than half a year.

#### **Care for Women**

The Group has set up a women workers' committee to show concern for women workers' life, and proactively organizes activities for female employees on March 8th every year, so that women workers can feel they are being loved and cared about.

It has established a 10m<sup>2</sup>-mother-and-baby room with refrigerators, sofas, lockers, tables, air purifiers and green plants.



The Mother-and-Baby Room in the New Office Building at our Headquarters



of financial assistance to employees



Dragon Boat Festival



The Group's Employee Representatives Conference

Solicited

7.821 problems that were voiced by employees

97% of which were handled

#### **Employee Assistance**

In accordance with the Regulations on Care for Employees, the Company provides 1,000 yuan to 10,000 yuan of financial assistance to employees, their spouses and immediate family relatives who suffer from major diseases, accidental injuries, natural disasters and are unable to pay their children's tuition fees.

#### **Employee Activities**

The Group holds many sporting events such as LONGi Cup Billiards Games, LONGi Cup Badminton Games, LONGi Cup Basketball Games and LONGi Cup Table Tennis Games;

It also holds activities such as dumpling making during the winter solstice, sending flowers on International Working Women's Day, and garden visiting games during the Dragon Boat Festival and Mid-Autumn Festival. As well as cross-country running, tug of war and other fun sports games;

It actively assists its basketball club, badminton club, table tennis club and E-sports club in organizing activities. And provide's 60% of the funds to support each activity held by the club. As of the end of 2020, the Company has 77 employee clubs in total.

#### **Employee Communication**

The Company tries its best to meet the demands of its employees by unblocking communication channels for its staff and listens to them voicing their concerns, through various ways such as employees' representatives conference, employee forums and online communication platform.

## Employees' Conference

In May 2020, LONGi held the Group's annual employee representatives conference, in which the leaders of the Company interacted with the employee representatives, deliberated and voted on The Group's Collective Representatives Agreement and the first edition of the Reward and Punishment Management System. The meeting included the main venue at the headquarters and breakouts at 22 bases. A total of 550 people attended the meeting through video links. The conference confirmed 22 proposals, and closed 18 proposals, with 81% being closed.

#### **Employee** Forum

In order to help employees solve problems and encourage them to give advice and suggestions, the headquarters regularly held employee conversations once a month, and each business unit held a variety of conversations such as general manager conversations, member representative conversations, employee conversations, chamber conversations, and team conversations. In 2020, the Group solicited 7,821 problems that were voiced by employees, 97% of which were handled.

## Online **Platform**

The Company set up the "trade union mailbox", which is an online communication platform. Combining with a feedback channel from each Communication unit, it can cover all employees within the Group, and arrange special personnel to track and reply to the problems to ensure better and faster solutions

LONG

#### Case—

## Girls of Yi Minority leaving the mountains

Zi Yinmei is a girl from Yi Minority who grew up in the mountain area, Yunnan. Her family struggled to make a living all year round by planting fruits and vegetables, so she had to go out to work to feed her family.

In August 2019, she worked for Baoshan LONGi as a document clerk and part-time assistant at the Monocrystalline Silicon Storage Team. Since her home was only 50 minutes' walk from the Company, she was paid higher than as a migrant worker and it was much more convenient for her to take care of the elderly and children at home. She said that she had a well-off life and learned a lot. Last year when she was on duty during Spring Festival, she also received three times her salary and holiday allowance. Her family was very relieved and favored her work in LONGi.



We invested

**76.648** million yuan

in occupational health and safe production

Conducted

370,869 hours

of occupational health and safety training for employees

We carried o

**532** emergency drills

## Safety and Health

LONGi knows the importance of employee safety and occupational health, and strictly follows EHS policy of "Obeying Laws and Regulations, Clean Production, People-oriented, Health & Safety". The Company vigorously promotes various work on safe production, raises the safety awareness of all its employees, and ensures the safety of life and property of both the Company and all its employees. In 2020, we invested 76.648 million yuan in occupational health and safe production and conducted 370,869 hours of occupational health and safety training for employees.

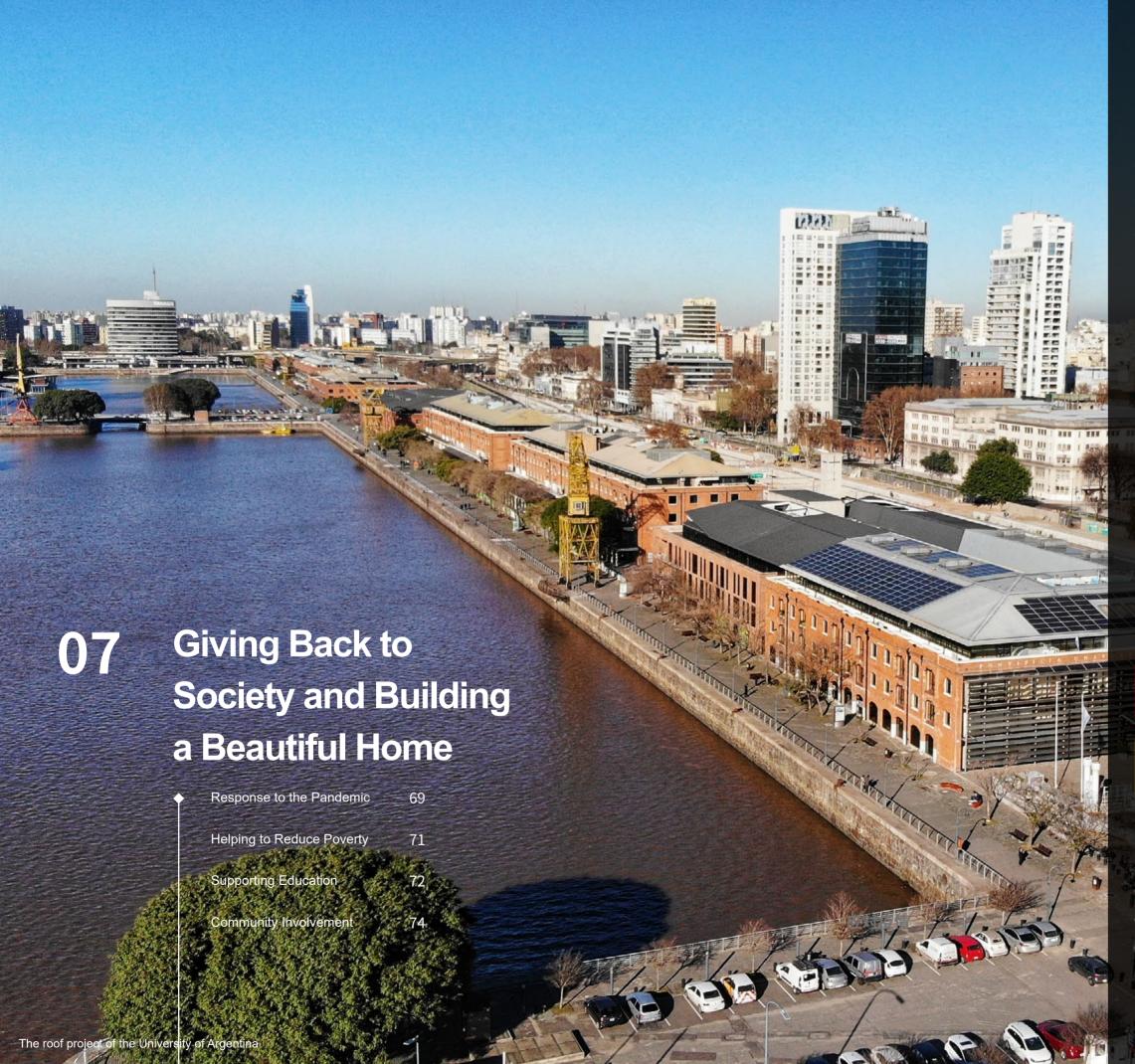
The Company sets up an EHS Management Committee at the group level, which is responsible for implementing EHS-related laws and regulations, proposing policies and requirements on EHS management for organizing and handling major accidents and more serious ones, and coordinating and ensuring EHS management resources. Besides this, we have established the EHS management system, formulated the *Management Guide on Environment, Safety, and Health, Quality, Environment, Health and Safety Management System*, and *Rules and Regulations on Safe Production*, improved the QEHS Management System Manual and EHS Control Procedures, sorted and standardized a complete QEHS system at the group level, and specified the ideas that we manage EHS according to classification.

The Company sets the occupational health and safety management objectives each year, in line with the principle of "those who are in charge of production must be responsible for safety", we required the managers of all functional departments, production directors and general managers of subsidiaries to sign the letter of responsibility for EHS objectives in 2020, which is also an objective-based responsibility system. The Company assisted its subordinate business units in identifying environmental, safety and occupational health risks, and obtained QEHS certification on three systems during the reporting period.

In 2020, we have conducted a Group-wide "Safe Production Month" activity with the theme of "eliminating potential accidents and building a strong line of defense on safety". The activity has mainly included five parts, namely, the signing of the safe production oath and safety responsibility certificate, education and training on safe production, the "Safe Production" knowledge competition, an on-site fire drill, and the investigation of safety hazards. It was conducted through all wings of all business units and all employees participated. In 2020, we carried out 532 emergency drills.

The Company carries out targeted health and safety prevention and control work to ensure the occupational health of employees. The Company regularly tests for any occupational hazard factors in the production plant, and stores the results in our occupational health archives and releases them to the operators on a regular basis. When an employee is diagnosed and identified as having an occupational disease, according to the Provisions of the Law on the Prevention and Control of Occupational Diseases, the Company timely reports it and cooperates with the investigation as per the requirements of national or local laws and regulations, so as to protect the rights and interests of employees from being impaired.





LONGi Group strives to be a facilitator to social services while growing ourselves. We are enthusiastic about public welfare and have been proactive in coping with the COVID-19, as well as continuing to help reduce poverty, promote quality education and make positive contributions to community development by means of photovoltaic technology.

## **Key Successes in 2020**

15.65 million yuan

Donated 15.65 million yuan to support the fight against the

1,472 medical staff

Specially funded medical staff from Shaanxi who offered assistance in

3,477 impoverished households

Our photovoltaic power stations established continuously distributed income to impoverished households who held files and registered cards

## Donated

2 photovoltaic power stations

## SDGs Responded to in this Chapter









## **Material Sustainability Issues Involved in this Chapter**

Contribution to Local Development

P69-72

Public Welfare and Charity

P69-74

Community Communication and Participation

P74

LONGI

## **Response to the Pandemic**

When COVID-19 broke out in early 2020, LONGi took the control of pandemic prevention seriously, and formulated strategies from various different aspects and dimensions. LONGi immediately arranged and assigned the pandemic prevention and control work at the beginning of the outbreak by establishing the Group's pandemic control and management working group. The company also set up emergency pandemic prevention and control groups in various business units and subsidiaries of LONGi, and appointed directors of pandemic prevention and control. The Company prepared the Pandemic Prevention and Control Knowledge Guide and required all business units and subsidiaries to strictly implement the Group's pandemic prevention and control work, which included setting up pandemic inspection sites at the entrances of all plants, office buildings and chambers, where we took temperatures, inspected and disinfected both personnel and vehicles entering and leaving. We also carried out disinfection more frequently in key links, such as catering and accommodation. During the reporting period, there were no confirmed or suspected cases.

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When we fought against the COVID-19, we still undertook our corporate social responsibility. As the first company in the photovoltaic industry to respond, LONGi Group quickly announced it would donate to the Red Cross Society of China, and specially funded the medical staffs of Shaanxi Province who offered their help in the anti-pandemic efforts in Hubei. Following the COVID-19 outbreak, the Company announced additional donations, including 215,000 surgical masks, 212,000 medical masks, 7,000 items of protective clothing, and 17,320 N95 masks to Yunnan, Ningxia and Anhui, and donated funds to Taizhou, and Wuxi in Jiangsu Province as well as Quzhou and Jiaxing in Zhejiang Province. All subsidiaries also donated materials to Raoyang Town of Raoyang County in Hebei Province, Lufeng County of Chuxiong County in Yunnan Province, and Guangling County in Shaanxi Province, which has strongly supported the pandemic prevention and control work in various places. During the pandemic period, LONGi has donated a total of 15.65 million yuan.

#### Pecially funded the medical staff of Shaanxi who offered their help in the anti-pandemic efforts in Hubei



Case LONGi Specially Funded the Medical Staff From Shaanxi Who Offered Their Helping Hands in Anti-Pandemic Efforts in Hubei

On January 25th, LONGi Group announced that it would donate money to the LONGi





Distributed epidemic prevention materials to employees



**1,565** million yuan LONGi donated a total of





Presented anti-epidemic items to overseas partners



Kuching LONGi Donated Medical Equipment for Treatment During the

**200** employees

The total number of employees assigned to upstream companies that meet the requirements of isolation time and nucleic acid testing

During the epidemic,we have recruited more than **20,000** employees globally

One Percent Foundation of RCSC to especially fund medical and nursing staff from Shaanxi Province who offered their help in anti-pandemic efforts in Hubei Province, reflecting the spirit of humanistic care. The donation of 10 million yuan was assigned to the Red Cross Society of China, the Red Cross Society of China Shaanxi Branch and 133 medical institutions within the province. About 1,472 medical staff from Shaanxi who offered their help in anti-pandemic efforts in Hubei were financed and were rewarded for their courage and efforts. LONGi was also awarded the medal of the humanity of the Red Cross of China.

When the pandemic spread overseas, Kuching LONGi, Sarawak, Malaysia, provided medical equipments and pandemic prevention supplies worth 500,000 yuan to local medical institutions and the government. LONGi Wafer Business Unit and LONGi Solar Business Unit also provide pandemic control supplies to multinational customers and partners around the world, reflecting that LONGi is willing to rise or fall together with them



Kuching LONGi in Sarawak, Malaysia, provided medical equipment and pandemic prevention supplies worth **500,000** yuan to local medical institutions and the government

Case Kuching LONGi Donates Medical Equipment to Sarawak Central Hospital

On March 30th, LONGi quickly purchased the necessary medical equipment needed by Sarawak Central Hospital and delivered it to the hospital. The much-needed medical monitor and three syringe pumps were immediately wheeled into the ICU ward and were directly used to treat patients before they were even officially handed over. Kuching LONGi continued to donate more during the material procurement process, and the vice governor of Sarawak and the chairman of the Sarawak Disaster Management Committee were also invited to attend the donation ceremony.

As the pandemic control achieved phased progress, resuming work and production, as well as social and economic stability gradually become the top priority of all work. While strictly following the national and local regulations, LONGi immediately promoted the resumption of work and production, becoming the first group of companies to return to work in Xi'an. LONGi also fully leveraged its advantages in overseas production layout, increased the output of overseas factories, effectively guaranteed the delivery to global customers, and offset the impact of the pandemic. At the same time, LONGi proactively supported and helped companies in the supply chain to resume work and production, and dispatched more than 200 employees to upstream enterprises after that they were able to finish the standard hours of quarantine and nucleic acid detection to supply the workforce due to the fact that their non-local employees could not return to work.

Although the pandemic posed various challenges to the Company, such as the supply of raw materials for production, the fulfillment of product orders, as well as the fluctuation of overseas domestic demand, LONGi insisted on employment as usual. From January to June 2020, we recruited more than 20,000 employees worldwide, providing much-needed

LONGI

Giving Back to Society and Building a Beautiful Home

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LONGI

jobs to local people. In terms of steady foreign trade, the "Special Train for Photovoltaic Products" by the China-Europe Railway Express directly transported PV products from Xi'an, the mainland city in China, to the European market. The shipments to the main overseas market grew by more than 100% over the same period last year, and further development was made along with comprehensive recovery of production and operation.

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## **Helping to Reduce Poverty**

2020 was the last year of national poverty alleviation. Even with the impact of COVID-19, LONGi Group and its subsidiaries still managed to stick to its "helping the poor with leading photovoltaic products". We supplied efficient photovoltaic products, ensured the high quality of poverty alleviation projects, and supported community development in poverty-stricken areas.

As of December 31, 2020, LONGi participated in the construction of a 37.6 MW photovoltaic power station for poverty alleviation in Dongxiang County of Gansu Province, as well as a 41.52 MW one in Kangbao County of Hebei Province and a 100 MW one in Gonghe County of Qinghai Province, thus generating high, stable income brought by power generation to the local people. It also created the 30 MW photovoltaic power station for poverty alleviation in Datong County of Shanxi Province, the 30 MW one in Guangling County of Shanxi Province, the 20 MW Shenrao Station in Raoyang County, Hebei Province, and the 20 MW Baisha LONGi station in Baisha County, Hainan Province. We also offered targeted assistance to 3,477 registered poor families with 3,000 yuan of income allocated to each household every year. In 2020, we distributed a total income of 10.431 million yuan, helping the local people to achieve the goal of poverty alleviation on schedule.

We offered targeted assistance to

**3.477** registered poor families

We allocated to each household every year

3.000 yuan of income

In 2020, we distributed a total income of

**10.431** million yuan





Power Station in Dongchuan District, Kunming, Yunnan

Donated **400.000** yuan

The annual generating power

The Company set up LONGi

One Percent Education Fund

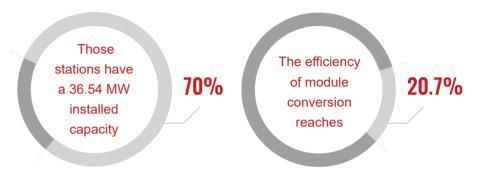
capacity of the station is

on average per year

5 kWh

Case LONGi Built Photovoltaic Power Station in Dongchuan District of Yunnan

In the second batch of photovoltaic power station projects in Yunnan during our 13th Five-Year Plan, LONGi used Hi-MO 4 modules in 16 village-level power stations at Dongchuan Power Supply Bureau, Kunming, Yunan Province. Those stations have a 36.54 MV installed capacity, accounting for 70% of photovoltaic capacity in Kunming, the efficiency of module conversion reaches 20.7%. The daily power generation capacity meets the needs of 10.000 households, and the income from power generation increased by more than 200,000 yuan for the collective economy covering 119 poor villages. We have created a series of high-efficiency projects for nearly 30,000 poor people in Dongchuan District and played a positive demonstrative role in the local area.



LONGi Improved Education For Ethnic Minorities in the Poverty-Stricken Case Areas of "Three Regions and Three Autonomous Prefectures" to Get Rid of Povertv

"Three regions and three autonomous prefectures" are the largest poverty-stricken area in China, spanning the Qinghai-Tibet Plateau, the Pamirs Plateau, the Yunnan-Guizhou Plateau and the Loess Plateau, all of which are the home to ethnic minorities.

In August 2020, LONGi became a member of the "chamber of commerce directly under the All-China Federation of Industry venturing Gannan" and donated 400,000 yuan to build a 32.4 kW distributed photovoltaic power station for the Central Primary School of Kecai Town, Xiahe County, Gannan Prefecture. The average annual generating power capacity of the station exceeds 50,000 kWh. The income of the power station was used for school education and photovoltaic science publicity, which enhances the concept of greener development, promoting national unity and building a century-long foundation for education.

## **Supporting Education**

LONGi firmly believes in the power of education and adheres to the concept that "education promotes technological progress and then makes human life better". It advocates technological innovation and trains excellent talents for energy transformation and sustainable development.

The Company set up LONGi One Percent Education Fund, which offers student grants



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for related majors in key universities to sponsor poverty-stricken students and broaden their international vision, as well as scholarships in primary and secondary schools in backward areas to stimulate students' enthusiasm to learn. Also, we have carried out university-enterprise cooperation, promoted a greener campus assistance program, specially funded experts in the field of climate and energy, and established the communication and cooperation between the Company and well-known universities through public donations, public welfare activities and other channels.

#### The Company's main education supporting activities in 2020 were as follows:



We have carried out university-enterprise exchanges and cooperation with Tsinghua University, Xi'an Jiaotong University, Lanzhou University and Sun Yat-Sen University to receive college students for social practice and internship;



We have donated money and materials to Longling Vocational High School in Baoshan County, Huaping County Women's High School and Huaping Vocational Senior Middle School in Lijiang City, Yunnan Province, and sponsored the public organization Teach For China to offer teaching activities in mountainous areas of Baoshan City and support the development of local education;



We also donated 300,000 yuan to purchase 1,000 schoolbags and distributed them to poverty-stricken students in 3 schools in Xihaigu and Yinchuan City of Ningxia in response to the initiative of Ningxia Hui Autonomous Region Poverty Alleviation Foundation - themed lighting up the Chinese dream and joining hands to help campus;



We launched the public welfare project of teacher and student grant for Lanzhou University under the LONGi One Percent Foundation of RCSC, and supported college students to participate in the new energy training, learning and exhibition both at home and abroad;



In September 2020, LONGi won the Best CSR Strategy Award of the 4th CSR China Education Award and was among the CSR China Top 100.

#### Case LONGi Held Zero Carbon Classroom for Youth in 2020

On December 2, LONGi Group and Junior Achievement (JA) China (which is a charitable education organization), held the "Zero Carbon Classroom" for youth in 2020. About 60 teachers and students from Xi'an Gaoxin No.1 High School and Xi'an Senior High School attended the activity. Through a field visit, explanation, scenario simulation, group discussion and presentation, the activity intuitively familiarized students with the value of photovoltaic technology and the development of greener energy.



LONGi Held the "Zero Carbon Classroom" for Youth in 2020

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LONGi Donated an Intelligent Power Station With Optical Storage and Charging to the Campus of Xi'an Jiaotong University in the iHarbour District

To support the educational development of Xi'an Jiaotong University and the construction of its campus in the iHarbour District, LONGi Group invested 1 million yuan to build a 56.07 kW intelligent power station with optical storage and charging, which is equipped with microgrid prefabricated cabin and electric vehicle charging points, to build a greener campus.

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LONGi Group invested

million yuan to build a

## 56.07kW

intelligent power station with optical storage and charging.

Intelligent Power Station with
Optical Storage and Charging to the
Campus of Xi'an Jiaotong University
in the iHarbour District



#### **Community Involvement**

We focus on cultural exchange and integration within local communities and proactively involve ourselves in their development. The Company actively contacts the communities where their businesses are located and holds open days for the community in the Company and our factories. We also encourage employee volunteers to participate in community service, carry out charitable activities in the community, and make a joint effort with employees for the sustainable development of the community.

The main community activities the Company was involved in 2020 are as follows:



Donated money and materials to Lufeng County and Xingquan Town, Huaping County, Lijiang, Yunnan Province and Hailing District Charity Association, Taizhou, Jiangsu Province to help local poor families and show our empathy;



Donated 500 PV modules to the photovoltaic power station in the parking lot of Akshardham Temple, Delhi, India, to present scenarios in which renewable energy is used by local residents and tourists;



Donated photovoltaic modules to the slums in Rio, Brazil, and offered greener energy courses for children together with Revolusolar- a local NGO, to train the next-generation sustainable innovators;



Communicated with schools and communities where the company headquarters and production bases are located, held open days, and invited both residents and primary and secondary school students to visit LONGi.

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# **Events in 2020**

	We the first constant to the first to LONG! On Broad Front the Bull One On the following
January	<ul> <li>Was the first company to announce a donation to LONGi One Percent Foundation at the Red Cross Society of China and especially to support the medical and nursing staff from Shaanxi who assited their help in the fight against the COVID-19 in Hubei, and paid tribute to the medical and nursing staff on the anti-pandemic frontline</li> <li>Became a partner of China Pavilion at Dubai Expo 2020 and was awarded the title of "official PV solution provider of the China Pavilion at Expo 2020 Dubai"</li> </ul>
February	• Announced additional donations to support pandemic prevention and control in Yunnan, Ningxia, Anhui, Jiangsu, and Zhejiang as well as Kuching of Malaysia
March	• Became a member of the RE100 initiative and pledged to use renewable energy to power 100% of its production and operation worldwide by 2028 at the latest
April	Launched LONGi Group's Brand Quality Year in 2020
May	LONGi's brand value reached 14.137 billion, hitting a new high
June	<ul> <li>Submitted a letter of commitment to Science-Based Targets and joined the global initiative of Science-Based Targets initiative (SBTi)</li> <li>Was invited to participate in the 20th Anniversary of the UN Global Compact online activities</li> <li>LONGi and 6 photovoltaic companies jointly released the proposal on the M10 Silicon Wafer Standard</li> <li>Released LONGi Hi-MO 5 modules based on the standard M10 silicon wafer on June 29, whose mass production power has reached 540W and efficiency of conversion is more than 21%</li> </ul>
July	• The 5GW solar cell plant of Shaanxi LONGi Solar, a subsidiary, was put into operation, becoming the largest single solar cell plant in Shaanxi • LONGi was ranked 300th in the Top 500 Fortune China with revenue of 32.897 billion yuan in 2019, vaulting a whopping 80 spots compared with last year • Ranked 106th in the Top 500 Chinese List Companies by Market Value in 2020 released by the Wind • Acquired 100% equity of Ningbo Jiangbei Yize New Energy Technology Co., Ltd.; its factory in Vietnam became LONGi's second overseas factory following that in Kuching, Malaysia and the layout of LONGi's overseas production continued to expand
August	<ul> <li>Chairman Zhong Baoshen won the Special Mayor's Award in Xi'an</li> <li>People's Government of Shaanxi Province signed a strategic cooperation agreement with LONGi</li> <li>Nominated for the first RE100 Leadership Awards - Best Policy Influencer Award by the Climate Group, which was also the only mainland enterprise being nominated</li> <li>Released the LONGi Greener Power Strategy in SNEC 2020 and jointly launched the China RE100 Initiative together with China's leading renewable energy companies such as Sungrow and Envision</li> <li>Released LONGi Roof, the first BIPV product of LONGi, on August 20</li> </ul>
September	• Signed the Statement from Business Leaders for Renewed Global Cooperation as a representative for Chinese renewable energy companies during the 75th UN General Assembly, actively responding to the call of the UN Global Compact • Participated in the opening ceremony of 2020 New York Climate Week and spoke the voice of LONGi as the only representative and invited Chinese company • Shortlisted in the list of Top 500 Private Enterprises in the Chinese Manufacturing Industry in 2020 of the All-China Federation of Industry, securing 157th place
November	<ul> <li>Participated in the 3rd China International Import Expo, and announced once again that has joined the Climate Group EV100 and EP100 initiatives, and became the first Chinese company to be the member of the Climate Group's three "100" initiatives</li> <li>Remained the sole AAA-rated module supplier in PV ModuleTech Bankability for four consecutive times</li> <li>Ranked 23rd on the list of 2020 Global Top 500 New Energy Enterprises</li> </ul>

# **GRI Standard**

		Global Reporting Initiative Index (GRI 2016 Standard)	
		Indicators	Pages
GRI 101	2.1-2.7		P12
	102-1	Name of the organization	P03-04
	102-2	Activities, brands, products, and services	P03-04
	102-3	Location of headquarters	P03-04
	102-4	Number of countries where the organization operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report	P03-04
	102-5	Nature of ownership and legal form	P03-04
	102-6	Markets served(including geographic locations、sectors served、types of customers and beneficiaries)	P03-04
	102-7	Scale of the organization	P03-04
	102-8	Information on employees and other workers	P61
	102-9	A description of the organization's supply chain	P47
	102-10	During the reporting period, significant changes to the organizations' size, structure, ownership, or supply chain	P03-04
	102-11 Whether and how the organization applies the Precautionary Principle or approach		P21
	102-12	A list of externally-developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes, or which it endorses	P41-1
GRI 102	102-13	A list of industry or other associations, and national or international advocacy organizations	P41-1
0.1.102	102-14	A statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy for addressing sustainability	P01-02
	102-16	A description of the organization's values, principles, standards, and norms of behavior	P23-24
	102-18	Governance structure of the organization, including committees of the highest governance body. Committees responsible for decision-making on economic, environmental, and social topics	P22-23
	102-40	List of stakeholder groups	P11
	102-41	Percentage of total employees covered by collective bargaining agreements	P64
	102-42	Identifying and selecting stakeholders	P11
	102-43	The approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	P11
	102-44	Key topics and concerns that have been raised through stakeholder engagement, including: how the organization has responded, including through its reporting; the stakeholder groups that raised each of the key topics and concerns	P12
	102-45	Entities included in the consolidated financial statements	P81
	102-46	Defining report content and topic Boundaries	P81

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	102-47	A list of the material topics identified in the process for defining report content	P81
	102-48	The effect of any restatements of information given in previous reports, and the reasons for such restatements	P81
	102-49	Significant changes from previous reporting periods in the list of material topics and topic Boundaries	P81
	102-50	Reporting period for the information provided	P81
GRI 102	102-51	If applicable, the date of the most recent previous report	P81
0111 102	102-52	Reporting cycle	P81
	102-53	The contact point for the report or its contents	P81
	102-54	Claims of reporting in accordance with the GRI Standards	P81
	102-55	GRI content index	P76
	102-56	External assurance	None

		Standard	Pages	Omission
	Economic F	Performance		
GRI 201		Management approach	P55	None
	201-2	Financial implications and other risks and opportunities due to climate change	P55	None
	Anti-corrup	otion		
GRI 205		Management approach	P23-24	None
	205-2	Communication and training about anti-corruption policies and procedures	P24	None
	Materials			
GRI 301		Management approach	P58	None
	301-3	Reclaimed products and their packaging materials	P58	None
	Energy			
GRI 302		Management approach	P52	None
GRI 302	302-1	Energy consumption within the organization	P53	None
	302-4	Reduction of energy consumption	P54	None
	Water			
GRI 303		Management approach	P55	None
GKI 303	303-1	Water withdrawal by source	P55	None
	303-2	Water sources significantly affected by withdrawal of water	None	None
GRI 305	Emissions			

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		Management approach	P55	None
GRI 305	305-1	Direct (Scope 1) GHG emissions	P55	None
GIVI 303	305-2	Energy indirect (Scope 2) GHG emissions	P55	None
	305-5	Reduction of GHG emissions	P55	None
	Effluents	and Waste		
		Management approach	P57	None
GRI 306	306-1	Water discharge by quality and destination	P57	None
GRI 300	306-2	Waste by type and disposal method	P57	None
	306-3	Significant spills	None	None
	306-4	Transport of hazardous waste	P57	None
	Environm	ental Compliance		
GRI 307		Management approach	P51	None
	307-1	Non-compliance with environmental laws and regulations	None	None
	Supplier E	Environmental Assessment		
GRI 308		Management approach	P47	None
	308-1	New suppliers that were screened using environmental criteria	P47	None
	Employm	ent		
GRI 401		Management approach	P61	None
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	P63	None
	Occupation	onal Health and Safety		
GRI 403		Management approach	P66	None
	403-3	Workers with high incidence or high risk of diseases related to their occupation	P66	None
	Training a	and Education		
GRI 404		Management approach	P62	None
	404-1	Average hours of training per year per employee	P62	None
	Diversity	and Equal Opportunity		
GRI 405		Management approach	P61	None
	405-1	Diversity of governance bodies and employees	P61	None
	Supplier 9	Social Assessment		
GRI 414		Management approach	P45-57	None
OI (I T I T	414-1	New suppliers that were screened using social criteria	P45-56	None
	414-2	Negative social impacts in the supply chain and actions taken	P45	None

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	Marketing and Labeling							
GRI 417		Management approach	P61	None				
GRI 417	417-2	Incidents of non-compliance concerning product and service information and labeling	P61	None				
	417-3	Incidents of non-compliance concerning marketing communications						
	Socioecor	nomic Compliance	P45-57	None				
GRI 419		Management approach	P45-56	None				
	419-1	Non-compliance with laws and regulations in the social and economic area	P45	None				

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# **Explanation of Professional Terms**

Noun	Definition
MONOCRYSTALLINE SILICON	Monocrystalline with periodically arranged silicon atoms in bulk silicon crystals are prepared from high purity polycrystalline silicon by mainly Czochralski and zone melting methods.
SILICON WAFER	A square or octagonal sheet formed by cutting a monocrystalline silicon ingot or a polycrystalline silicon ingot.
SILICON INGOT	The ingot-like silicon monocrystalline grown from polycrystalline silicon by CZ and FZ. It is monocrystalline.
CELL	The solar cell, a device that uses photovoltaic principle to convert solar radiation energy into electricity through semiconductor materials, is also called "photovoltaic cell."
MODULE	The solar module consists of multiple solar power units connected in series and parallel. Its function is to converge smaller solar power generated by single solar cell into a photoelectric device with larger power output. It can be used to charge all kinds of batteries, or it can be used in series or parallel as a generating unit for off-grid or grid-connected solar power system.
PERC CELL	Passivation emitter back contact technology, which uses SINx or Al2O3 to form a passivation layer on the back of the cell, as a back reflector, to increase the absorption of long-wavelength light, maximizes the electric potential difference between P-N electrodes and reduces the recombination of electrons. It can significantly improve the efficiency of the cell.
MW	Megawatt, unit of power for solar cells, 1 megawatt = 1,000 kilowatts.
GW	Gigawatt, unit of power for solar cells, 1 gigawatt = 1,000 megawatt.
CELL CONVERSION EFFICIENCY	The ratio of the optimum power of solar cells to solar radiation power projected on their surface.
BIPV	Building integrated photovoltaics (BIPV) is a technology that integrates solar energy (PV) modules into buildings.
GRI	GRI is the abbreviation for Global Reporting Initiative. GRI aims to provide a generally accepted framework for corporate social responsibility report.
EHS	EHS stands for Environment, Health, and Safety. It is also the integration of the Environmental Management System (EMS) and Occupational Health and Safety Management System (OHSMS).
SBTI	Science Based Target Initiative (SBTi) is a global initiative introduced in 2015 by the World Wildlife Fund (WWF), the Carbon Disclosure Project (CDP), the World Resources Institute (WRI), and the United Nations Global Compact (UNGC). The initiative offers industry-specific resources and guidance for businesses to set carbon reduction goals in line with keeping global temperature rise within 2.0°C or 1.5°C as compelled by a report from the Intergovernmental Panel on Climate Change (IPCC).
RE100	RE100 is initiated by The Climate Group to unite the world's most influential companies such as Apple, Google, Facebook, Coca-Cola, Microsoft, Philips, and Goldman Sachs to pledge to transition to 100% renewable electricity for their global operations as soon as possible (by 2050).
EV100	EV100 is a global initiative of The Climate Group that encourages businesses and individuals to use electric vehicles in their daily travel to help reduce air pollution, mitigate climate change, and make electric transport the new normal by 2030.
EP100	EP100 is another global initiative led by The Climate Group. It encourages businesses to improve energy efficiency and lower energy consumption and emissions by integrating energy targets and adjusting business strategies.

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## **About this Report**

## **Report Brief Introduction**

In line with the principles of objectivity, standardization, transparency, and comprehensiveness, this report discloses the practice and performance of LONGi in the field of economics, environment, social responsibility and governance from January 1, 2020, to December 31, 2020. In order to enhance the comparability and completeness, certain contents of this report cite contents of previous years for reference.

## Scope of the Report

This report covers some subsidiaries of LONGi in the People's Republic of China and their production bases in the Federal Republic of Malaysia, Socialist Republic of Vietnam. When the specific data range is inconsistent with the report range, it will be noted in the report.

## **Report Criteria**

The report is compiled on the core option of *GRI Standards* by the Global Sustainability Standards Board (GSSB)and the content of *Guidelines for Environmental Information Disclosure of Listed Companies* of the Shanghai Stock Exchange and refers to the new edition of *Environmental, Social and Governance Reporting Guide* of Hong Kong Stock Exchange.

#### **Data Sources**

The data sources used in the report include relevant statistical reports of LONGi Group, public reports, press releases, third-party surveys or interviews, and public data of government departments, etc. The LONGi Group Board of Directors guarantees that there are no false records, misleading statements, or major omissions in this report.

## **Appellation of the Company**

For the convenience of expression and reading, "LONGi Green Energy Technology Co., Ltd." in this report is also expressed as "LONGi Group", "LONGi", "Company", "The Group" or "We".

## **Access to the Report**

You can download the Chinese and English versions of this report from the official website of LONGi Group at http://www.longi.com. In case of any discrepancy or ambiguity between these two versions, the Chinese version shall prevail.

If you have any questions or suggestions about the report, you can send an email to CSR@longi.com, or call 4008601012

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## **Feedback Form**

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Thank you for reading the report quality, please help		, ,			,	
confidential.						
D	* N.I.		*			

Personal infor	mation	* Name:	* E-mail:				
* Which stakeholder group do you belong to?							
□ Employee	□ Employee □ Customer □ Government □ Public □ Supplier □ Public Organization □ Others						
Your Feedback:							
* Your overall	* Your overall assessment of the report is:						
□ very good	□ good	□ not bad	□ bad				
* Your assessi	* Your assessment of the environmental responsibilities of LONGi Group disclosed in this report is:						
□ very good	□ good	□ not bad	□ bad				
* Your assessment of the social responsibilities of LONGi Group disclosed in this report is:							
$ \square \text{ very good}$	□ good	$\hfill\Box$ not bad	□ bad				
* Your assessi	* Your assessment of the governance responsibilities of LONGi Group disclosed in this report is:						
□ very good	□ good	$\hfill\Box$ not bad	□ bad				
* Did you get the information you wanted in this report:							
□ Yes □ No	□ Yes □ No						
* Do you think the content and layout of this report are easy to read?							
□ Yes □ No							
* What other information you would like to know which is not disclosed in this report?							
* What are your opinions and suggestions on LONGi's sustainability work?							

#### You can fill in this form and send it by mail or provide your feedback by the following means:

\* What information would you like to learn from LONGi Group's Sustainability Report?

Address: No.8369, Shangyuan Road, Economic and Technological Development Zone, Xi'an City, Shanxi

Province

**Post code:** 710016 **Tel:** 029-85767999

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