

LONGi

减污降碳 向绿而行

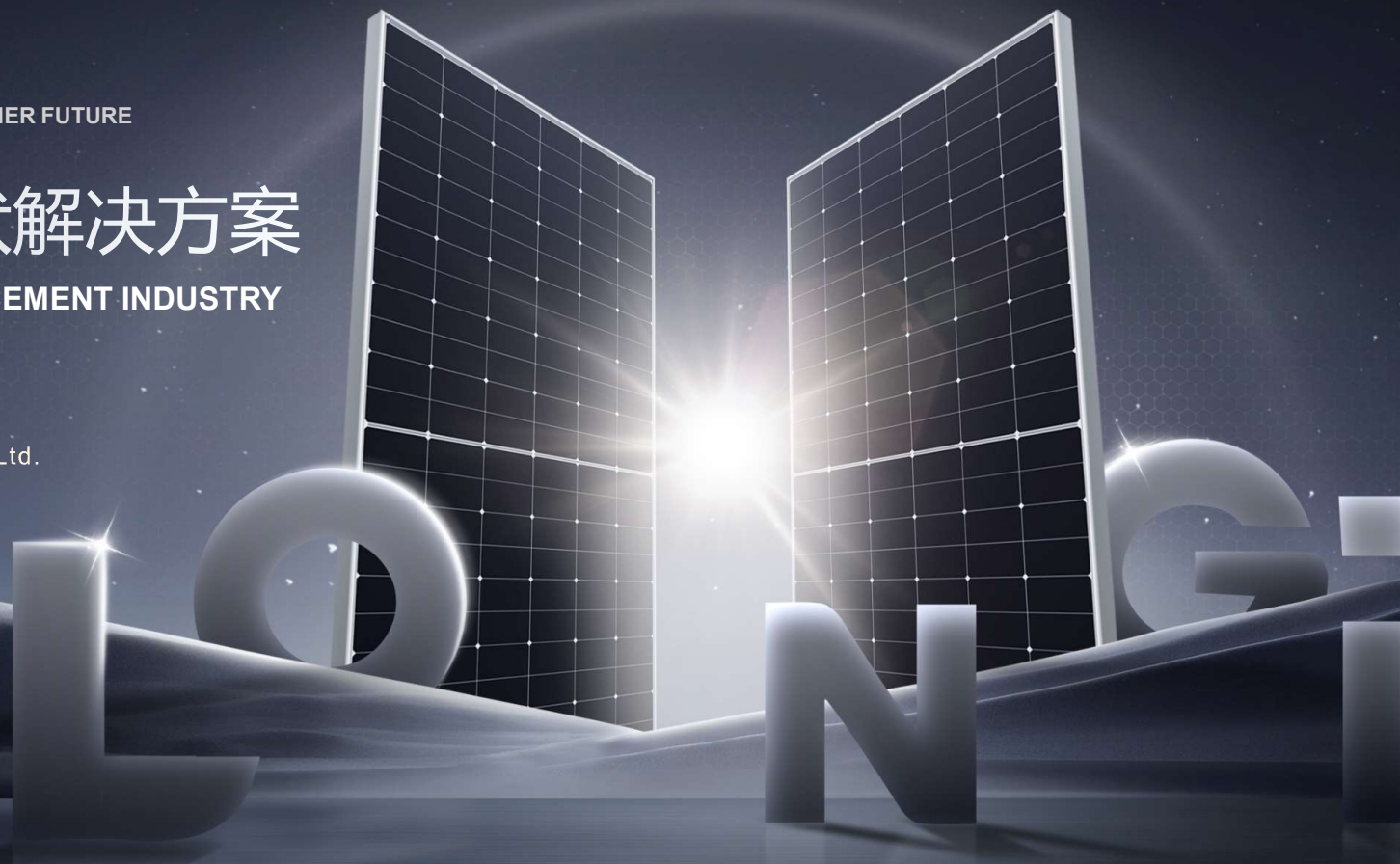
LOWER POLLUTION & CARBON EMISSION FOR A GREENER FUTURE

水泥行业分布式光伏解决方案

DISTRIBUTED PV SOLUTIONS FOR THE CEMENT INDUSTRY

隆基绿能科技股份有限公司

LONGi Green Energy Technology Co., Ltd.



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能源结构逐步调整 光伏需求高速增长

Demand for PV Rises Rapidly with the Gradual Reform of the Energy Structure

光伏逐步成为能源主体 | 市场推动产业降本增效

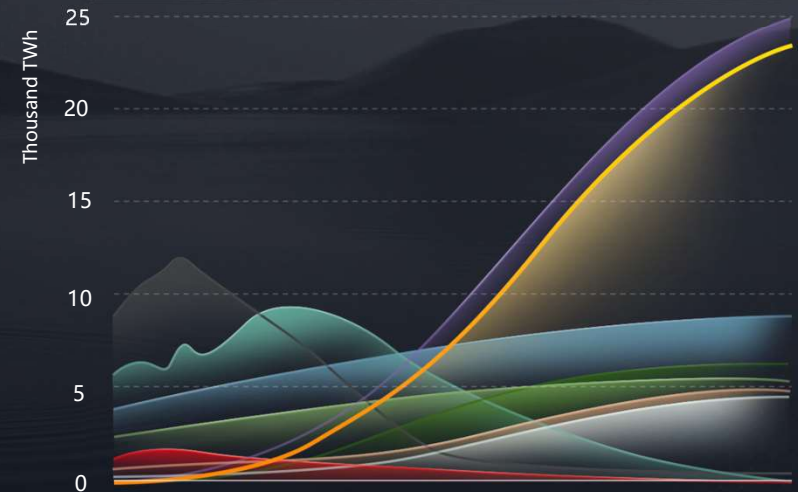
Photovoltaics gradually become the main energy source | Market drives industry to reduce costs and increase efficiency

可再生能源发电量占总发电量的比例
从2020年的29%上升到2030年的60%以上，并在2050年接近90%

The proportion of renewable energy power in total power generation will rise from 29% in 2020 to over 60% in 2030, and approaching 90% in 2050

2030年前光伏和风电将成为可再生能源最大的组成部分
2050年光伏发电量超过23000TWh

PV + wind will become the largest component of renewable energy by 2030
PV power generation will exceed 23,000TWh in 2050



数据来源 IEA-Net Zero by 2050
Data Source

数据来源 IEA-Net Zero by 2050
Data Source

- 石油
- 氢气
- 核能
- 水电
- 风电
- 光伏
- 天然气
- 未减量煤炭
- 化石燃料碳捕捉
- 其他可再生能源
- Petroleum
- Hydrogen
- Nuclear
- Hydro
- Wind
- PV
- Natural gas
- Unreduced coal
- Fossil fuel carbon capture
- Other renewables

行业洞察-水泥行业降碳之路

INDUSTRY INSIGHT - CARBON REDUCTION OF CEMENT INDUSTRY

国家发展改革委等四部门联合发布《高耗能行业重点领域节能降碳改造升级实施指南（2022年版）》（以下简称《指南》），明确了钢铁、有色金属冶炼、水泥、炼油等17个高耗能行业节能降碳改造升级的工作方向和目标，旨在指导各有关方面科学有序开展重点领域节能降碳改造升级工作。

The National Development and Reform Commission and three other departments jointly released the *Guidelines for Energy Conservation and Carbon Reduction Transformation and Upgrading in Key Areas of High Energy Consumption Industries (2022 Edition)* (hereinafter referred to as the *Guidelines*), which clearly outline the work direction and goals for energy conservation and carbon reduction transformation and upgrading in 17 high-energy-consuming industries such as steel, non-ferrous metal smelting, cement, and refining. The aim is to guide relevant parties to scientifically and orderly carry out energy conservation and carbon reduction transformation and upgrading work in key areas.

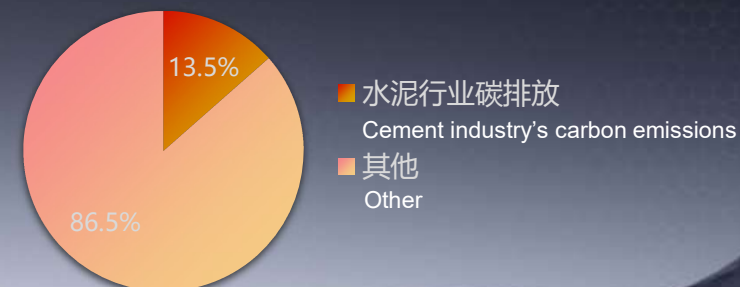
世界水泥工业碳排放占比

Proportion of cement industry's carbon emissions in the world



中国水泥工业碳排放占比

Proportion of cement industry's carbon emissions in China



善用太阳光芒 创造绿能世界

TO MAKE THE BEST OF SOLAR
ENERGY TO BUILT A GREEN WORLD

隆基成立于2000年

致力于成为全球领先的太阳能科技公司

Founded in 2000, LONGi aspires to be the most compelling solar technology company in the world

隆基聚焦科技创新

构建单晶硅片、电池组件、工商业分布式解决方案、绿色能源解决方案、氢能装备五大业务板块，形成支撑全球零碳发展的“绿电”+“绿氢”产品和解决方案。

LONGi focuses on technological innovation and endeavors to build its business in five areas—monocrystalline wafers, cells and modules, industrial and commercial PV solutions, power station solutions, and hydrogen energy systems. It has grown into a Green Power + Green Hydrogen product and solution provider that supports the global zero carbon drive.

1294.98^{100M}
亿元

2023年营业收入

Operating revenue in 2023

107.51^{100M}
亿元

2023年归母净利润

Net profit attributable to parent company in 2023

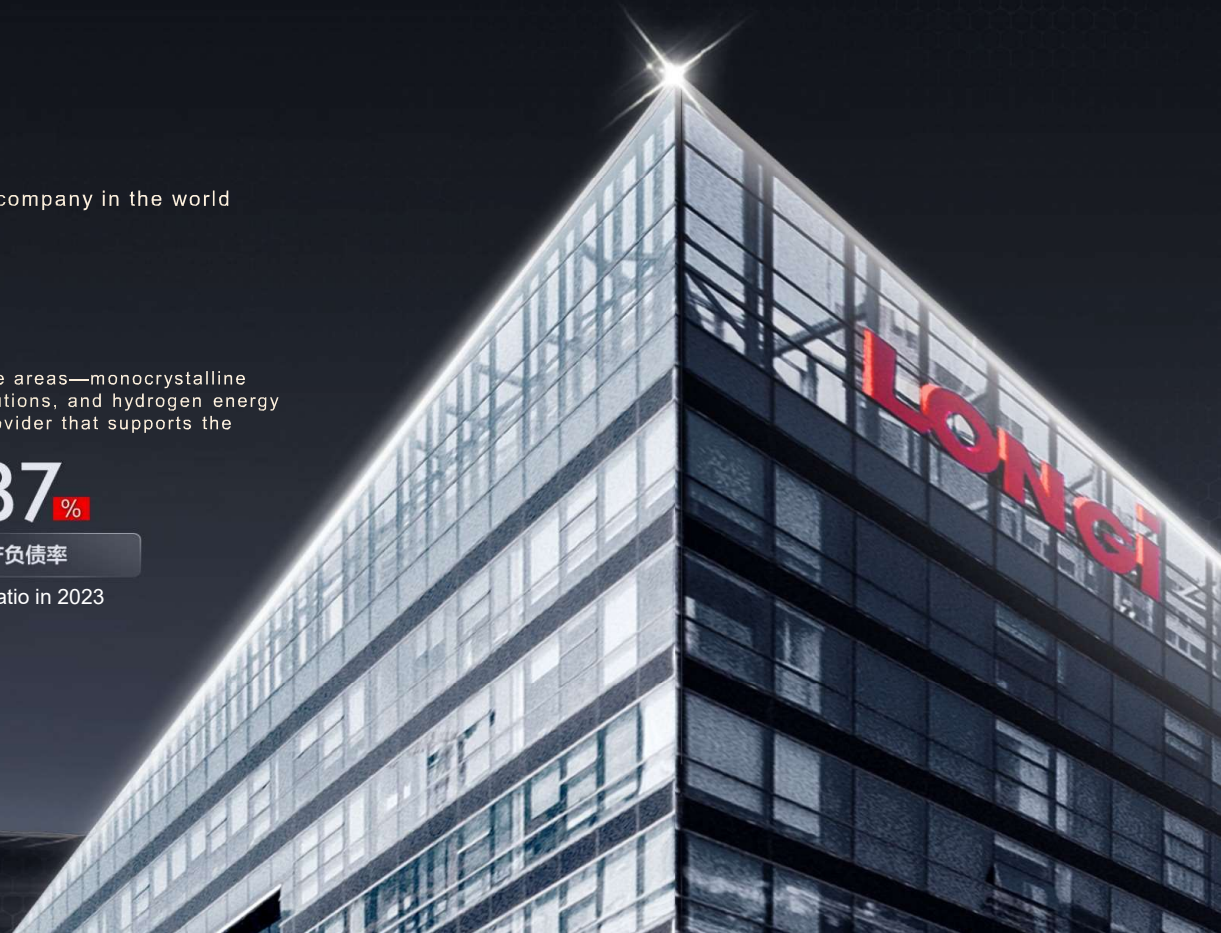
56.87%

2023年资产负债率

Asset-liability ratio in 2023

注：数据来源于2023年年报

Data source: 2023 annual report



LONGi

中国工商业 绿色能源综合解决方案专家

An Expert in Comprehensive Green Energy Solutions for Industrial and Commercial Applications

全周期能源定制 一站式解决方案

Lifecycle Energy Customization One-stop Solutions

隆基绿能 - 中国政企地区部

China Government and Enterprises Region, LONGi

聚焦三大客户群体，提供三大合作模式

LONGI

Three Cooperation Modes for Three Major Customer Groups

定制一站式中国工商业绿色解决方案

Customized one-stop green solutions for China's industrial and commercial applications



聚焦“工商业主、投资方、EPC”三大客户需求，利用差异化产品与服务，实现客户价值最大化

Focus on the needs of "industrial and commercial owners, investors and EPC", and offer them differentiated products and services to maximize customer value

差异化优势

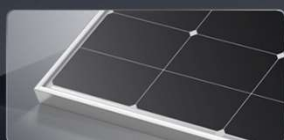
Differentiated Advantages

定制差异化产品

Custom-made Differentiated Products

- 性能巅峰打造更具价值产品
满足差异化客户需求

Products with peak performance and greater value
Meeting differentiated customer needs



科学家
Scientist



双面双玻
Bifacial Glass-glass



黑曜石
Obsidian



隆顶
LONGi Roof



隆锦
LONGi Bright



隆行
LONGi Park

铁三角优质服务

Quality Services from Customer-centric 3 (CC3)

Focusing on three major customer groups' needs

聚焦三大客群需求

Established a CC3 mode of AR + FR + SR

形成AR+FR+SR铁三角模式

专属商务服务
Exclusive commercial services



专属产品
交付服务
Exclusive product
delivery services

专属产品
方案服务
Exclusive product
solution services

分布式工商业定制组件

Customized Modules for Distributed Industrial and Commercial Scenarios

满足差异化客户需求

Satisfy Differentiated Customer Demands

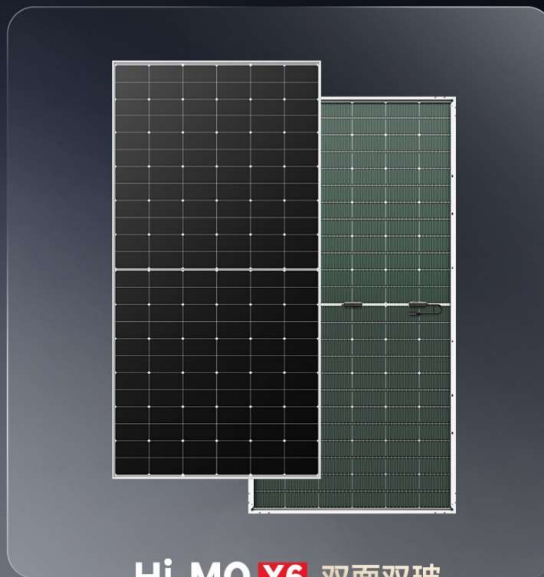


Hi-MO X6 科学家

Scientist

极致高效HPBC+电池
效率巅峰 超高收益

Extremely efficient HPBC+ cells
Peak efficiency for super high returns



Hi-MO X6 双面双玻

Bifacial Glass-glass

分布式双面场景最优之选
耐湿热 | 高增益 | 高可靠

The best choice for distributed bifacial scenarios
Anti-Humidity & Heat | High Power Gain | High Reliability



Hi-MO X6 极致黑

Ultra Black

高效HPBC电池
纯粹黑色 极致优雅

High efficiency HPBC cells
Pure Black | Extreme Elegance

隆基BIPV产品家族

LONGi BIPV Product Series



隆基隆顶 LONGi Roof

会发电的超级屋顶
Power-generating super roofs



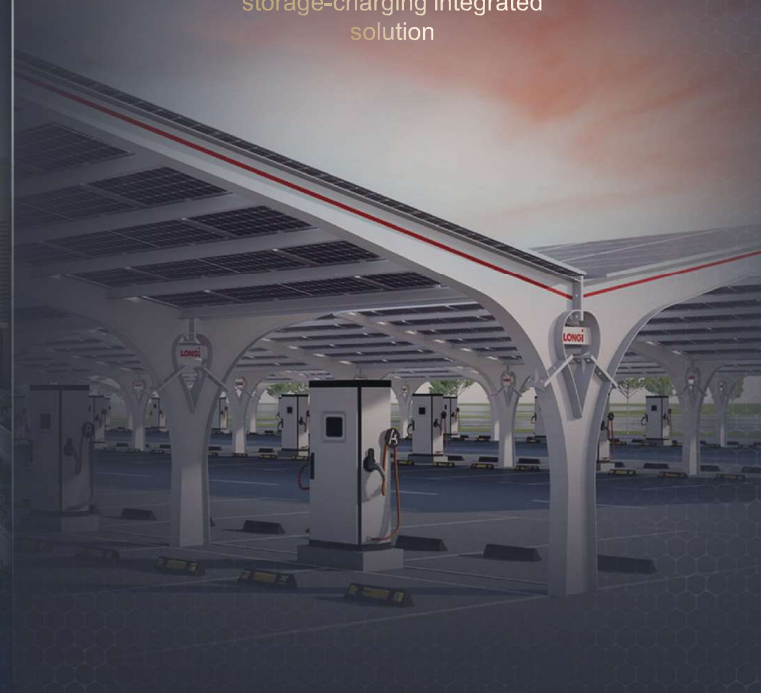
隆基隆锦 LONGi Bright

会发电的彩色建材
Colorful building materials
that generate power



隆基隆行 LONGi Park

智能光储充一体化解决方案
Intelligent power generation-
storage-charging integrated
solution



工商业行业定制解决方案-水泥行业

Customized Solutions for Industrial and Commercial Scenarios - Cement Industry

水泥建材是行业定制的典型

Cement & building materials are typical examples of industry customization

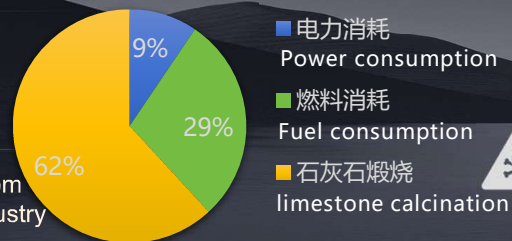
2022年全国水泥行业消费电能约2000亿度

In 2022, China's cement industry consumed approximately 200 billion kWh of electricity

目前水泥行业大约 9%的碳排放来自于外购电力，而国内电力结构上火电占据电力供给的 71%。将电力从外购转向可再生能源将减少大量排放。

About 9% of carbon emissions in the cement industry come from outsourced electricity, while thermal power accounts for 71% of the domestic electricity supply. Shifting electricity supply from outsourcing to renewable energy will significant reduce carbon emissions.

我国水泥行业各工序碳排放占比



Proportion of carbon emissions from each process of China's cement industry



屋面场景复杂 Complicated roof scenarios

水泥企业厂房形式多样，厂区厂貌差异很大，对项目设计、建设提出了较高的要求。不规范的设计施工未考虑屋面系统的技术特点和功能要求，往往会给屋面和电站造成巨大的安全隐患。

Cement plants feature diverse building structures and varying premises, demanding precise project design and construction. Neglecting the technical aspects of roofing systems during construction poses significant safety risks to roofs and power stations.



用电负荷大 Large electrical load

水泥企业生产用电负荷大，厂区可利用屋顶面积小，光伏所发电量远远不能满足生产需求。

Cement plants demand a lot of electricity, but their limited roof space means solar power alone can't meet production needs.



粉尘污染物多 Numerous dust pollutants

水泥企业厂房屋面水泥粉尘等污染物较多，遇潮凝结固化，长时间积聚难以清除影响发电量和组件寿命。

In cement plants, rooftops gather pollutants like cement dust, which harden with moisture, making them tough to clean. This buildup affects power generation and module lifespan.

通过分场景与核心产品及服务匹配

Match Core Products and Services with Fitting Scenarios

综合多方因素定制化设计最具经济性方案，实现更优度电成本，助力水泥行业节能降碳

Integrate multiple factors to customize the most economical solution to achieve better LCOE and help the cement industry save energy and reduce carbon emissions.

应用场景 Application scenarios	LONGi 解决方案 LONGi Solutions	LONGi 产品 LONGi Products	LONGi 服务严选 LONGi Premium Services
<p>存量金属/水泥屋面 Existing metal/cement roofs</p> <p>新建或翻新金属屋面 New/renovated metal roofs</p> <p>弧形金属屋面 Curved metal roofs</p> <p>建筑立面 Building facades</p> <p>园区车位 Parking spaces in parks</p>	<p>BAPV解决方案 BAPV Solutions</p> <p>隆顶BIPV解决方案 LONGi ROOF Solutions</p> <p>隆锦BIPV解决方案 LONGi BRIGHT Solutions</p> <p>隆行BIPV解决方案 LONGi PARK Solutions</p>	<p>Hi-MO X6</p> <p>隆顶 LONGi ROOF</p> <p>隆锦 LONGi BRIGHT</p> <p>隆行 LONGi PARK</p>	<p>全生命周期管控 121项服务承诺 10项全生命周期服务 Full life cycle management and control 121 Service Commitments 10 Lifecycle Services</p> <p>Hi-MO X6 延保服务包 产品延保 定期巡检 远程监控 运行分析 Hi-MO X6 Extended Warranty Package Extended Warranty Regular Inspection Remote Monitoring Operation Analysis</p> <p>金钥匙项目管理服务包 三大模块 七大业务环节 42个客户触点 Golden Key Project Management Package 3 Major Components 7 Business Links 42 Customer Touch Points</p> <p>金融服务包 Financial Services Package</p>



LONGi

地标建筑 Landmark building
亚洲及全球规模最大的论坛之一
One of the largest forums in Asia and the world

博鳌亚洲论坛 BIPV项目

Bo'ao Forum for Asia
BIPV project

3.88MW



项目位置 Location

海南琼海 Qionghai, Hainan



并网时间 Grid connection time

2023.3



项目意义 Project Significance

博鳌亚洲论坛穿上零碳“新外衣”，将光伏产品与建筑完美融合，从屋面到车棚，让建筑的每一寸都发电。

Bo'ao Forum for Asia puts on a zero-carbon "new coat" and perfectly integrates photovoltaic products with the building. From the roof to the carport, every inch of the building generates electricity.





地标建筑 Landmark building
入选“第二批中国20世纪建筑遗产”

Selected into the "Second Batch of Chinese
20th Century Architectural Heritage"

北京工体改建 BIPV项目 Beijing Workers' Stadium Renovation BIPV project

351kW

 **项目位置** Location
北京 Beijing

 **并网时间** Grid connection time
2023

 **项目意义** Project Significance

北京市政府于2020年启动北京工人体育场的改造复建工程。工程涉及体育场的内外部结构，新增屋面幕墙工程由隆基供应351kW光伏发电组件，安装在体育馆屋面四周一圈，形状酷似“金项圈”，为场馆提供部分用电的同时，兼顾建筑幕墙美观、节能、环保等特点。

The new roof curtain wall project installed 351kW of photovoltaic modules supplied by LONGi. The shape resembles a "golden collar", which not only provides part of the electricity for the venue, but also takes into account the beauty, energy saving, environmental protection and other characteristics of the building curtain wall.



LONGi

汽车行业 Automobile industry

小米首款汽车SU7生产工厂

Production plant of Xiaomi's first car SU7

小米汽车工厂

BIPV项目

Xiaomi car factory

BIPV project

16.2MW



项目位置 Location

北京

Beijing



并网时间 Grid connection time

2024



项目意义 Project Significance

小米首款汽车SU7生产基地——小米汽车超级工厂，在工厂屋顶铺设16.2MW分布式光伏电站，实现造新能源车，用新能源电。

Xiaomi's first car SU7 production base - Xiaomi Automobile Super Factory, has laid a 16.2MW distributed photovoltaic power station on the roof of the factory to build new energy vehicles and use new energy electricity.



LONGI

水泥行业 Cement industry
2023年中国企业500强 全国知名水泥企业
Top 500 Chinese Enterprises in 2023 &
Renowned cement enterprise in China

红狮水泥园区江西会昌 光伏电站项目 Hongshi Cement Park Jiangxi Huichang PV Power Station Project

5.82MW



项目位置 Location

江西 赣州 Ganzhou, Jiangxi



并网时间 Grid connection time

2024.03.05



项目意义 Project Significance

水泥行业属于高粉尘高耗能行业，本次业主选择9944块Hi-MO X6极智家防积灰组件，有效解决行业痛点，不仅带来发电收益，同时减少业主清洗组件的频次，助力可持续发展。

The cement industry is a high-dust and energy-intensive industry. In this project, 9,944 Hi-MO X6 Guardian anti-dust modules are installed to generate power, and also to reduce the owner's burden in washing and cleaning the modules.



LONGI

建材行业 Building materials industry

亚洲最大最先进的岩棉生产线

Asia's largest and most advanced rock wool production line

青岛泰石岩棉项目

Qingdao Taishi Rock Wool Project

4.077MW



项目位置 Location

山东 青岛 Qingdao, Shandong



并网时间 Grid connection time

2024.04.05



项目意义 Project Significance

泰石岩棉股份有限公司主要生产优质岩棉以及制品，是国家重点的绝热保温材料生产企业。岩棉生产粉尘等相关污染以及附着物较多，因此客户选择隆基防积灰产品，保障提升发电效益，有效解决行业痛点，不仅带来发电收益，同时减少业主清洗组件的频次，助力可持续发展。

Taishi Rock Wool is a national key enterprise dedicated to the production of quality rock wool and products. It chose LONGI's anti-dust modules to guarantee the power generation while reducing the frequency of module cleaning.

LONGI

赋能中国工商业绿色能源转型

隆基绿色中国政企地区部

TRANSFORM

