# 隆基绿能 LONGi Green Energy

# https://www.longi.com/cn/

A股上市公司,聚焦单晶硅片、电池组件、分布式光伏解决方案、地面光伏解决方案、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,目前中国光伏行业排名第1名,中国能源化工制造业第8名。

LONGi Green Energy is a Chinese A-share listed company that specializes in five major business segments: monocrystalline silicon wafers, cells and modules, distributed PV solutions, ground-mounted PV solutions, and hydrogen energy equipment. The company has established a robust portfolio of "green electricity" and "green hydrogen" products and solutions, which support global zero-carbon development. Currently, they hold the top position in the Chinese PV industry and rank 8th in the Chinese energy and chemical manufacturing sector.

# 晶澳太阳能 JA Solar

#### http://www.jasolar.com/

A 股上市公司,以硅片-电池片-组件的主产业链为主体,以光伏辅材和设备产业、光伏+应用场景解决方案为两翼,持续深入推进"一体两翼"战略,在海外设立 13 个销售公司,向全球 135 个国家和地区提供绿色光伏产品及服务,截至 2023Q2 组件累计出货 152 吉瓦。

As an A-share listed company, JA Solar is consistently advancing their "One Body, Two Wings" strategy. The company primarily focuses on the production of silicon wafer-cell-module production as its "body", with PV auxiliary materials and equipment as well as PV+ application scenario solutions as its "two wings". The company has established 13 sales subsidiaries overseas and are providing green PV products and services to 135 countries and regions globally. As of Q2 2023, JA Solar's cumulative module shipments have reached 152 GW.

# 天合光能 Trina Solar

#### https://www.trinasolar.com/cn

2020 年在上交所科创板挂牌上市,主要业务包括光伏组件、电站及系统产品业务、光伏发电及运维、储能智能解决方案、智能微网及多能系统的开发和销售等业务。截至 2023 年 6 月底,公司全球组件累计出货量超 150GW,业务遍布全球 160 多个国家和地区。

Listed on the Shanghai Stock Exchange Sci-Tech Innovation Board (SSE STAR Market) in 2020, Trina Solar specializes in PV modules, power stations and system products, PV power generation and O&M, smart energy storage solutions, smart microgrids and multi-energy systems development sales, etc. As of the end of June 2023, the company had achieved a global milestone, surpassing 150 GW in module shipments, with a global footprint spanning over 160 countries and regions worldwide.

# 通威股份 Tongwei Group

#### https://www.tongwei.com.cn/

2004 年登陆上交所上市,是绿色农业和绿色能源高效协同发展的大型民营科技型上市公司, 现拥有遍布全国及海外的 200 余家分、子公司。年饲料生产能力超 1000 万吨;高纯晶硅年 产能 42 万吨;太阳能电池年产能超 90GW;组件产能 55GW;以"渔光一体"为主的光伏 电站累计装机并网规模达到 3.7GW。2022 年 7 月,通威股份市值最高突破 3000 亿元,成 为四川省市值最高的上市民营企业。

Listed on the Shanghai Stock Exchange in 2004, Tongwei Group is a prominent privately-owned

technology-driven public company that champions the efficient co-development of green agriculture and clean energy. With over 200 subsidiary and branch companies scattered across China and overseas, the company boasts impressive annual production capabilities: more than 10 million tons for animal feed, 420,000 tons for high-purity crystalline silicon, over 90 GW for solar cells, and 55 GW for solar modules. The company's PV power stations, primarily focused on the fishery-solar systems, have cumulatively reached a grid-connected capacity of 3.7 GW. In July 2022, Tongwei Group's market capitalization reached a record-breaking 300 billion yuan, becoming the most valuable publicly-traded private enterprise in China's Sichuan Province.

# 一道新能 DAS Solar

#### https://www.das-solar.com/

专业从事 N 型高效光伏电池、组件及系统应用的研发、制造和销售及电站投资、建设、运营于一体,致力于成为全场景光伏新能源系统应用解决方案的综合服务商。建成国内外完善的销售网络,产品远销 60 多个国家和地区,2023 年将建成 N 型 30GW 高效电池和 30GW 高效组件产能,已成为光伏行业的新一线品牌。

DAS Solar is dedicated to the R&D, manufacturing and sales of n-type high-efficiency solar cells, modules and system applications, as well as power station investment, construction and operation. The company is committed to becoming a comprehensive service provider of full-scenario PV new energy system application solutions. It has built a complete sales network at home and abroad, exporting to more than 60 countries and regions. In 2023, the company will have 30 GW high-efficiency cell and 30 GW high-efficiency module production capacity, positioning itself as a new first-tier brand in the PV industry.

#### 远景能源 Envision Energy

# https://www.envisioncn.com/cn/energy.html

远景能源聚合全球可再生与智慧能源技术创新实力,以智能风电为切入,通过创造性的技术 与设计,把能源科技打造为让人类生活更美好的产品,让充足、低价、安全的清洁能源走近 人们的生活,目前是中国前三大风机供应商,收获的订单覆盖中国、法国、墨西哥、印度、 越南、阿根廷、黑山、哈萨克斯坦等国家和地区。

Powered by global renewable and smart energy technology innovation capabilities, Envision Energy focuses on intelligent wind power, and creatively utilizes technology and design to create energy solutions that enhance the quality of human life. This allows ample, affordable, and safe clean energy to become an integral part of people's lives. Currently, the company ranks among the top three wind turbine suppliers in China and receives orders from countries and regions including China, France, Mexico, India, Vietnam, Argentina, Montenegro, Kazakhstan, and more.

# 中车株洲电力机车研究所有限公司 CRRC Zhuzhou Institute Co., Ltd.

#### https://www.crrcgc.cc/zzs

中车株洲所下属十大主体,拥有两家上市公司、十一个国家级科研创新平台、三个企业博士 后科研工作站、五个海外技术研发中心、十一家境外分(子)公司。立足交通和能源领域, 积淀了"器件、材料、算法"三大内核技术,打造了轨道交通、新材料、新能源、电力电子 器件、汽车电驱、海工装备、工业电气、智轨快运系统等八大产业板块。

CRRC Zhuzhou Institute owns ten major entities, with two publicly listed companies, ten state-level research and innovation platforms, three corporate postdoctoral research

workstations, five overseas technology R&D centers, and 11 overseas subsidiaries. Focusing on the transportation and energy sectors, the company focuses on three core technologies: "devices, materials, algorithms," and contributes to eight major industrial sectors, namely rail transit, new materials, new energy equipment, power electronic devices, electric drive systems for automobiles, deep-sea equipment, industrial electric equipment, and intelligent rail transit systems.

# 奇点能源 JD Energy

# http://www.jd-energy.com.cn/

公司致力于先进储能系统中核心装备的技术研究和产品开发,为实现全球碳中和目标,贡献 行业领先的解决方案,拥有以行业知名技术专家为学科带头人的近百人技术团队,建立了完 整的电化学储能技术与电力电子实验室,建立了国内首个 GWh 级的储能标准化产品制造基 地,可为用户提供完整的储能电站整体解决方案和一站式能源管理服务。

JD Energy is committed to technology research and product development of core equipment in advanced energy storage systems, and contributes industry-leading solutions to achieve the global carbon neutrality goal. The company boasts a technical team of nearly 100 people headed by well-known tech experts in the industry, and has established a complete electrochemical energy storage technology and power electronics laboratory and China's first GWh-level energy storage standard manufacturing base, which can provide users with complete energy storage power station solutions and one-stop energy management services.

# 比亚迪 BYD

# https://www.bydauto.com.cn/pc/

比亚迪是香港和深圳上市公司,营业额和总市值均超过千亿元,业务布局涵盖电子、汽车、新能源和轨道交通等领域,并在这些领域发挥着举足轻重的作用,从能源的获取、存储,再到应用,全方位构建零排放的新能源整体解决方案,经过 20 多年的高速发展,已在全球设立 30 多个工业园,实现全球六大洲的战略布局。

As a listed company in Hong Kong and Shenzhen Stock Exchange, BYD boasts a turnover and total market capitalization exceeding 100 billion yuan. Its business covers electronics, automobiles, new energy and rail transit. With a pivotal role in these fields, BYD is committed to building an all-round zero-emission new energy solution spanning across the acquisition and storage of energy to application. After over 20 years of rapid development, the company has established its presence on six continents around the world with more than 30 industrial parks globally.

# 上海采日能源科技有限公司 Shanghai Sermatec Energy Technology Co., Ltd.

# https://www.sermatec-ess.com/

一家能源数字化运营和储能系统制造公司,主要产品有发电侧、输配电侧、工商业、户用一体化储能系统、智慧能源运维服务等。截止 2022 年,累计出货量 2.5GWh,荣获 2022 年度中国储能系统集成商全球市场储能系统出货量 Top10、国内用户侧市场储能系统出货量 Top10。

Sermatec is an digital energy operation and energy storage system (ESS) manufacturing company. Its main products include energy storage system and smart energy O&M services for power generation side, transmission and distribution side, and industrial and commercial applications, as well as all-in-one residential systems, etc. As of 2022, the company's cumulative shipment volume reached 2.5 GWh, ranking among the top 10 ESS shipments in the global market as a Chinese energy storage system integrator in 2022, and the top 10 ESS shipments in China's consumption-side market.

# 国家电投集团氢能科技发展有限公司 State Power Investment Corporation Hydrogen Technology Development Co., Ltd.

# http://www.spic.com.cn/

国内第一家专业从事氢能的央企二级单位,也是国家"科改示范行动"唯一的氢能企业。公司聚焦氢燃料电池技术,制储氢关键技术,氢燃料电池动力系统等技术的研发和关键设备与材料部件制造。

China's first state-owned enterprise's subsidiary specialized in hydrogen energy, and the only hydrogen energy company in China's "Science and Technology Innovation Demonstration Action". The company focuses on the R&D of hydrogen fuel cell technology, key technologies for hydrogen production and storage, and the manufacturing of key equipment and materials components for hydrogen fuel cell power systems.

# 山东赛克赛斯氢能源有限公司 Shandong Saikesaisi Hydrogen Energy Co., Ltd.

http://www.ql-spe.com/portal/index/index.html

国内首家从事 PEM 纯水电解制氢装备的国家高新技术企业。公司集研发、设计、制造、销售和服务于一体,在 PEM 制氢产品细分领域的排名和市场占有率均居全国首位,产品已出口 30 多个国家和地区。

China's first high-tech enterprise engaged in PEM pure water electrolysis hydrogen production equipment. The company integrates R&D, design, manufacturing, sales and service. Its ranking and market share in the PEM hydrogen production product segment rank first in the country, and its products have been exported to more than 30 countries and regions.

# 阳光氢能科技有限公司 Sungrow Hydrogen Technology Co., Ltd.

# https://www.sungrowpower.com/

阳光电源股份有限公司全资子公司,主要产品有制氢电源、碱性水电解槽、PEM 电解槽、 气液分离与纯化装置、智慧氢能管理系统。公司具备大批量生产和交付的能力,产品已落地 吉林、宁夏、内蒙古、甘肃、湖北等多个大型风光制氢示范项目。

A wholly-owned subsidiary of Sungrow Power Supply Co., Ltd., its main products include hydrogen production power supplies, alkaline water electrolyzers, PEM electrolyzers, gas-liquid separation and purification devices, and smart hydrogen energy management systems. The company has the capability of mass production and delivery, and its products have been implemented in many large-scale wind and solar hydrogen production demonstration projects in Jilin, Ningxia, Inner Mongolia, Gansu, Hubei and other places.