

## 火电与新能源 Thermal Power & Renewable Energy

### 电力市场建设不断推进，“十四五”期间新能源装机将保持高增

New Energy Installed Capacity to Maintain High Growth during 14th 5-Year Period with Further Development of Power Market

杨斌 Bin Yang

bin.yang@htisec.com

#### 热点速评 Flash Analysis

(Please see APPENDIX 1 for English summary)

**二十大会议提出加快建设新型能源体系，强化能源结构转型，风电光伏装机将维持高增。其中风电：**

(1) 2022 年 1-9 月根据不完全统计，陆上风电中标大约 47.8GW（不含竞配），海上风机中标大约 19.6GW（不含竞配），远景能源、金风科技中标均超 12GW，排名前二，我们预计 2022 全年新增陆上风电装机 50GW，海上风电装机 6GW，全年新增 56GW 装机，同比增加 17.7%。光伏：(2) 2022 年 1-9 月光伏组件招标总规模超 124GW，超过 2021 年全年招标量的 3 倍左右，2022 年全年预计招标量在 150GW 左右，1-9 月光伏新增装机 52.6GW，同比增长 106%，我们预计全年新增装机 90GW 左右，同比增长 63.6%。2022 年 1-9 月风电和光伏合计新增装机 71.8GW，占新增总装机的比例为 62.6%。**发电量：**风电、光伏的发电量增速分别为 11.2%、14.4%，远超发电总量增速 2.2%，风光发电量合计占比从 2021 年底的 9.3%提升到当前的 10.5%。我们认为国家对于推动双碳目标的实现不会变，对推动能源结构从传统煤电主导向新能源主导的转型不会变，风电、光伏装机将继续维持高速增长。

**辅助服务市场交易品种不断丰富，系统调节能力不断提高，2025 年市场规模有望达到 1140 亿元。**我国辅助服务市场逐步形成以调峰、调频、备用为交易核心的区域、省级辅助服务市场。**区域市场：**西南 2022 年 7 月正式启动川渝一体化电力调峰辅助服务市场，全国六大区域均引入了调峰辅助服务。华东、华中、东北和南方区域还开展了区域备用辅助服务市场，实现跨省备用资源共享，南方区域开展了调频辅助服务市场。**省级市场：**国网经营区内除西藏外，其余省份均已开展调峰辅助服务市场运行或试运行，其中山西、山东、江苏、浙江、福建、甘肃、四川共 7 个省份开展了调频辅助服务，吉林、黑龙江同步建设了省级备用辅助服务市场。我们认为随着大量新能源接入电网，电力系统“双高双峰”和“双侧随机性”特征将越发凸显，对调峰、调频等辅助服务的需求越发强烈，如山东 2022 年 1-8 月 AGC 调频月均补偿 1.2 亿，同比增 274.9%，按照辅助服务市场占全社会用电量 2%测算，2025 年市场规模有望达到 1140 亿元，储能参与各类辅助服务的盈利状况有望不断改善。

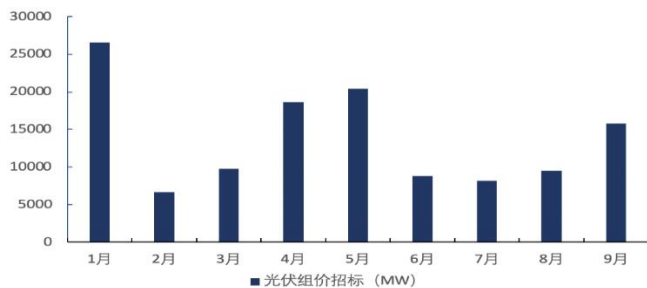
**特高压输电线路，数字化和现代化电网建设有望提速，“十四五”期间国网、南网电网投资合计超 3 万亿，同比“十三五”增长 10.5%。****国网：**“十四五”期间计划投资 3500 亿美元，主要投向特高压输电线路建设，2022 年下半年将开工 8 条特高压，总投资超 1500 亿元，2022 年全年投资有望超 5000 亿，创历史新高。特高压建设提速将带动上游高压电气开关设备、新材料、换流阀、线缆、变压设备、机械等相关产业规模大幅度增长。**南网：**“十四五”期间计划投资 6700 亿元，较“十三五”增加 51%，主要投向数字化和现代化电网建设。如提升输电智能化水平，推进输电线路智能巡视和智能变电站建设，推进智能配电站、智能开关站、台架变智能台区建设，推动基础设施智慧融合发展，促进变电站、充换电站、储能站、数据中心、5G 基站、北斗基站等“多站合一”融合建设。到 2025 年，力争多站融合变电站达到 100 座。我们认为在新能源消纳压力下，特高压建设将提速，数字化、智能化电网建设将会是“十四五”期间重要投资方向。

**电力现货市场建设不断推进，推动新能源全面参与电力市场交易，提高新能源电力消纳能力。**截至 2022 年 10 月广东、山东、蒙西等 8 个首批现货试点地区已经全部启动结算试运行，第二批 6 个现货试点省份也在加紧推进，从运行结果来看，由于新能源发电间歇和随机性，晚高峰市场高价时光伏难出力、中午光伏出力高峰时电价过低，导致新能源在市场机制下度电均价整体下降，如山西某光伏电站 2022 年 1-5 月平均上网电价为 0.1225 元/度，较煤电基准电价低 63%。我们认为推动新能源全面参与电力市场交易有助于新能源电力消纳，同时新能源企业应该提高自身发电预测能力，制定发电计划，确定年度、月度等各个交易周期的交易电量比例，将保底电量以较高价格锁定，合理制定交易策略，以达到最优结算电费，减少现货市场电价冲击。

**投资建议：**受政策驱动能源结构转型不断推进，光伏风电装机将继续高速增长，**建议关注**（1）风电整机制造商**金风科技**，**东方电气**，风电运营龙头**龙源电力**，新能源装机占比不断提升的**华润电力**；（2）受益于高硅料价格，半年报营收和净利润均创新高**的新特能源**、**协鑫科技**。

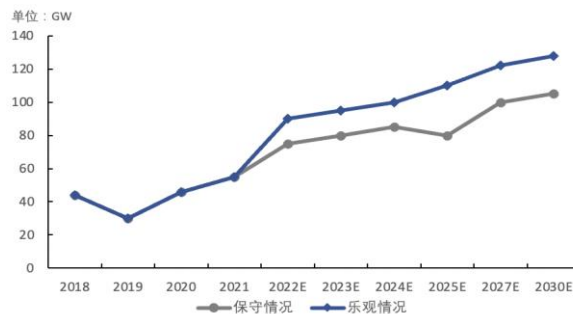
**风险：**政策和需求不及预期，原材料价格上涨

图 1: 2022 年 1-9 月份我国光伏组件招标数据



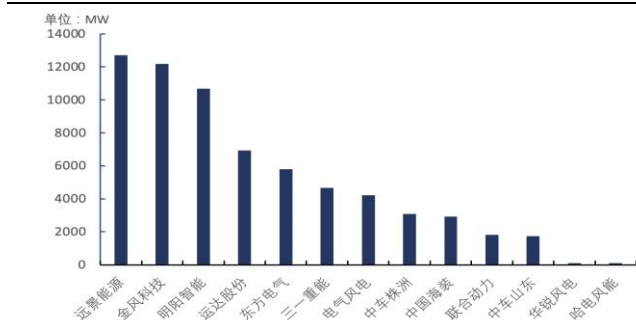
资料来源: 公开数据统计, HTI

图 2: 我国新增光伏装机及预测



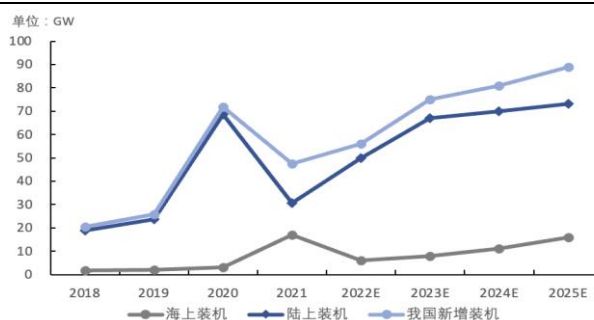
资料来源: 国家能源局, CPIA, HTI

图 3: 2022 年 1-9 月风机厂商中标规模



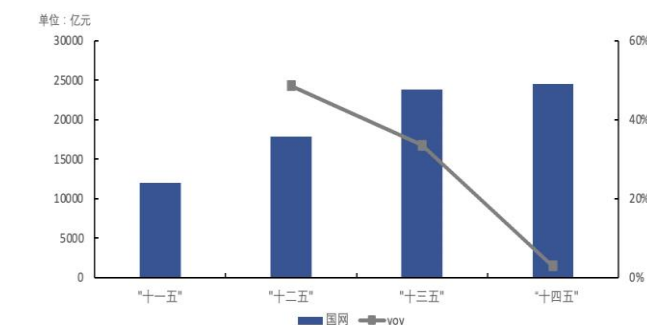
资料来源: 每日风电, HTI

图 4: 我国新增风电装机及预测



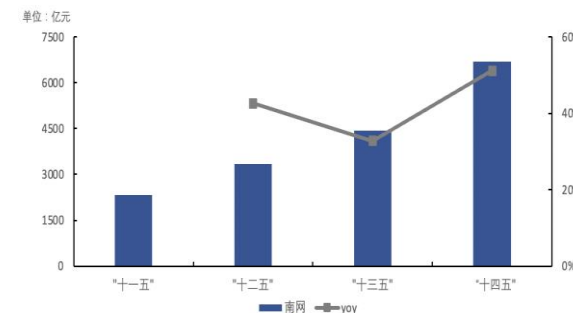
资料来源: 国家能源局, HTI

图 5: 国家电网投资规模及增速



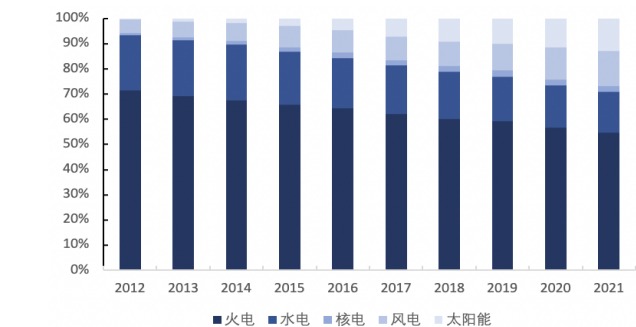
资料来源: 国家电网, HTI

图 6: 南方电网投资规模及增速



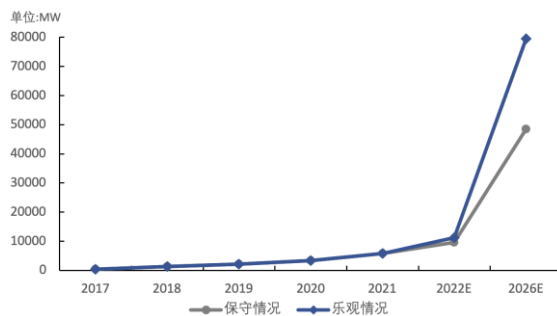
资料来源: 南方电网, HTI

图 7: 我国不同能源装机结构



资料来源: 国家统计局, HTI

图 8: 我国新型储能市场累计装机规模



资料来源: CNESA, HTI

## APPENDIX 1

The 20th National Congress of the Communist Party of China (CPC) Proposes to accelerate the construction of a new energy system, the new energy installed capacity will maintain a high growth rate during the "14th Five-Year Plan".

The varieties of transactions in the auxiliary service market are becoming more and more abundant, which helps to improve the system regulation capacity. The market scale is expected to reach 114 billion yuan in 2025.

The construction of ultra-high voltage, digital and intelligent power grids is expected to speed up during the "14th Five-Year Plan" period, the total investment of the State Grid and the CSG exceeded 3 trillion, an increase of 10.5% over the "13th Five-Year Plan".

The construction of spot markets for electric power keeps continues to advance, which is beneficial to wind and solar energy consumption.

Risks: less-than-expected growth in demand, policy changes, rising raw material prices.

## 附录 APPENDIX

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各地股票基准指数: 日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100, 美国 – SP500; 其他所有中国概念股 – MSCI China.

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### Analyst Stock Ratings

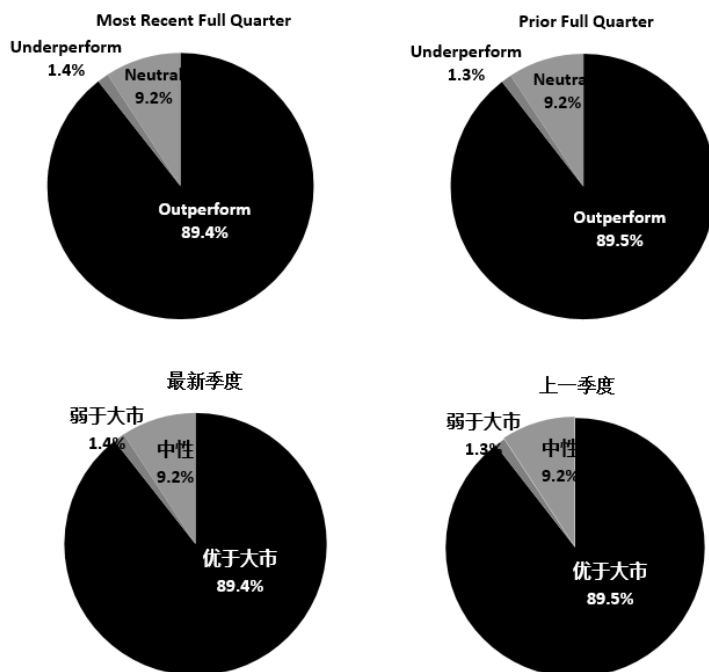
**Outperform:** The stock's total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as indicated below.

**Neutral:** The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

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**Benchmarks for each stock's listed region are as follows: Japan – TOPIX, Korea – KOSPI, Taiwan – TAIEX, India – Nifty100, US – SP500; for all other China-concept stocks – MSCI China.**

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## 截至 2022 年 9 月 30 日海通国际股票研究评级分布

	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	89.4%	9.2%	1.4%
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\*在每个评级类别里投资银行客户所占的百分比。

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中性, 未来 12-18 个月内预期相对基准指数变化不大, 基准定义如下。根据 FINRA/NYSE 的评级分布规则, 我们会将中性评级划入持有这一类别。

卖出, 未来 12-18 个月内预期相对基准指数跌幅在 10%以上, 基准定义如下

各地股票基准指数: 日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.



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	Outperform	Neutral (hold)	Underperform
HTI Equity Research Coverage	89.4%	9.2%	1.4%
IB clients*	5.5%	6.8%	4.5%

\*Percentage of investment banking clients in each rating category.

BUY, Neutral, and SELL in the above distribution correspond to our current ratings of Outperform, Neutral, and Underperform.

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