

## 美国电新与火电 US Power Equipment & New Energy & Thermal Power

美联储降息幅度超预期，美国市场短期利好新能源，长期看好天然气发电与核电

The US Federal Reserve Rate Cut Beat Expectations, Positive Impact to US New Energy in Short Term, Optimism Towards US Natural Gas and Nuclear Power in the Long Term

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### 热点速评 Flash Analysis

(Please see APPENDIX 1 for English summary)

**事件：**美国联邦储备委员会当地时间9月18日宣布，将联邦基金利率目标区间下调50个基点，超过市场预期的25个基点，联邦基金利率目标区间降至4.75%至5.00%之间，降息力度超预期。这是美联储自2020年3月以来的首次降息，也标志着由货币政策紧缩周期向宽松周期的转向，短期内有望降低项目融资成本，提高光伏项目收益率，利好新能源项目开发。

**光伏风电：降息降低项目融资成本，刺激装机需求。**过去两年加息周期大大提高了新能源项目建设融资成本，开发商通过提高PPA电价来转移成本，根据彭博新能源财经数据，美国新增光伏和陆上风电项目的彭博新能源财经基准最低股本内部收益率8.5%-9.2%，推动美国风电和光伏装机保持较高增速，光伏方面，根据SEIA和Wood Mackenzie数据，2023年美国的光伏装机容量为32.4GW，同比增长51%，预计2024年美国光伏新增装机将达到43.3GW，同比增长达34%。风电方面，2024H1美国新增风电装机为1.97GW，其中二季度新增装机增速为41%，预计2024年全年新增装机为8.2GW，同比增长13.9%。近年来在IRA等政策刺激下，美国风光装机保持高增，进入降息周期，风光项目开发融资成本进一步降低将刺激装机需求。

**储能：降息将降低储能项目融资成本，提高大储项目内部收益率。**美国大储应用场景主要来自于调峰、调频、峰谷套利以及辅助服务市场，其中加州储能收入主要依靠峰谷套利、德州主要依靠辅助服务市场。2022年IRA政策首次提出独立储能享受税收抵免，美国表前表后储能装机呈现爆发式增长，根据ACP数据，2024年上半年美国储能并网装机2.93GW，其中二季度同比增长62%，环比增长177%；根据Wood Mackenzie预测，2024年美国大储预计新增装机达11.1GW/31.6GWh，2024-2028年有望累计新增62.6GW/219GWh。2022年以来美联储连续加息11次，联邦基金利率提高了525个基点，大储项目的贷款比例较高，达到50%左右，因此降息能够提高大储项目内部收益率，提升储能装机需求。

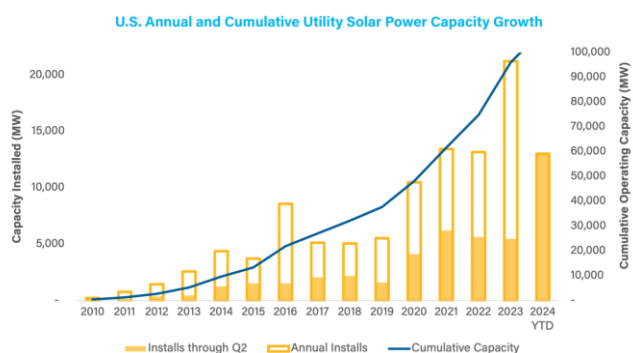
**长期来看，美国新能源发展将受限。**根据伯克利实验室数据，截至2023年底有接近2600GW各类能源等待并网，其中太阳能1086GW，风电366GW，储能1028GW。美国电网建设老旧，更新建设严重滞后，导致新能源积压越发严重，消纳困难，短期内很难解决，长期来看新能源发展将受限。

**传统能源：数据中心的快速发展推动传统能源得到重视，长期看好天然气发电和核电。**近年来随着美国人工智能和数据中心发展迅速，截至2024H1，美国数据中心容量为12GW，自2020年以来，美国的数据中心容量翻了一番，2022-2024年数据中心容量复合年增长率为21%。电力需求激增，同时数据中心对于电力需求的稳定性提出要求，根据EPRI预测，到2030年美国数据中心将消耗9%的发电量，是当前的2倍，根据EIA数据，从发电结构来看，美国天然气发电量占比从2021年的37%上升到2023年的42%，天然气发电将继续担任重要的角色，核电方面，3月份美国联邦政府将提供15亿美元贷款，历史上首次重启已关闭的Palisades核电站，随着AI及数据中心对用电量需求及稳定性的提升，核电和气电将在数据中心电力供应方面发挥更加重要的作用。

**投资建议：**建议关注AI数据中心设备及建造企业如【伊顿】、【Vertiv】、【Nvent Electric】、【广达服务】；电网设备企业如【Hyundai Electric】、【LS Electric】、【Hitachi Energy】、【金盘科技】、【伊戈尔】和【Powell Industrial】；气电与核电供应商如【VISTA】、【GEV】和【Constellation】。

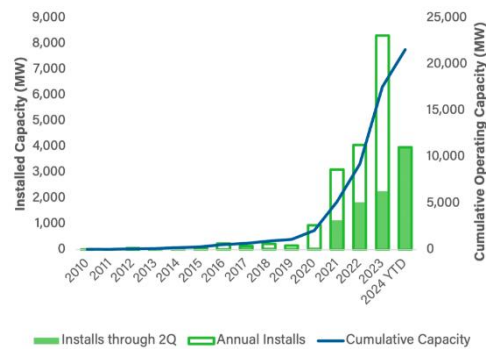
**风险：**相关政策不及预期、数据中心建设不及预期等。

图 1:美国太阳能装机 (集中式)



资料来源: ACP, HTI

图 2:美国储能新增装机



资料来源: ACP, HTI

## APPENDIX 1

**Investment Highlights:**

**Event:** On September 18th, the Federal Reserve announced a 50 BPs cut for the federal funds rate, exceeding the market's expectation. The target range for the federal funds rate was lowered to between 4.75% and 5.00%, with the easing move being stronger than anticipated. This is the first rate cut by the Fed since March 2020 and also signifies a shift from a tightening to an easing monetary policy cycle. In the short term, it is expected to reduce project financing costs and increase the return on photovoltaic and energy storage projects, benefiting the development of new energy projects.

**Photovoltaic and Wind Power:** The rate cut reduces project financing costs and stimulates installation demand. The interest rate hike cycle over the past two years has significantly increased the financing costs for new energy project construction. Developers have passed on costs by raising PPA electricity prices. According to data from Bloomberg New Energy Finance, the Bloomberg New Energy Finance benchmark minimum equity internal rate of return for newly added photovoltaic and onshore wind power projects in the United States is between 8.5% and 9.2%. This has driven the United States to maintain a high growth rate in wind and photovoltaic installations. In terms of photovoltaics, according to data from the Solar Energy Industries Association (SEIA) and Wood Mackenzie, the United States' photovoltaic installation capacity in 2023 was 32.4GW, a year-on-year increase of 51%. It is expected that new photovoltaic installations in the United States will reach 43.3GW in 2024, a year-on-year increase of 34%. In terms of wind power, the United States added 1.97GW of new wind power installations in the first half of 2024, with a growth rate of 41% in the second quarter. It is expected that the annual new installations will be 8.2GW in 2024, a year-on-year increase of 13.9%. In recent years, under the stimulus of policies such as the Inflation Reduction Act (IRA), the United States has maintained a high increase in wind and photovoltaic installations. Entering the interest rate cut cycle, the further reduction in financing costs for wind and photovoltaic project development will stimulate installation demand.

**Energy Storage:** The rate cut will reduce the financing costs of energy storage projects and improve the internal rate of return for large-scale energy storage projects. The main application scenarios for large-scale energy storage in the United States come from peak shaving, frequency regulation, peak-to-valley arbitrage, and ancillary service markets. In California, energy storage revenue mainly relies on peak-to-valley arbitrage, while Texas mainly relies on the ancillary service market. The 2022 IRA policy first proposed that independent energy storage could enjoy tax credits, leading to an explosive growth in front-of-the-meter and behind-the-meter energy storage installations in the United States. According to ACP data, in the first half of 2024, the United States' energy storage grid-connected installations were 2.93GW, with a year-on-year increase of 62% in the second quarter and a sequential increase of 177%. According to Wood Mackenzie's forecast, the United States is expected to add 11.1GW/31.6GWh of large-scale energy storage in 2024, with a cumulative addition of 62.6GW/219GWh expected from 2024 to 2028. Since 2022, the Federal Reserve has raised interest rates 11 times, increasing the federal funds rate by 525 basis points. Large-scale energy storage projects have a high loan ratio, reaching about 50%. Therefore, the rate cut can improve the internal rate of return for large-scale energy storage projects and increase the demand for energy storage installations.

**In the long term, the development of new energy in the United States will be limited.** According to data from the Berkeley Lab, by the end of 2023, there were nearly 2600GW of various types of energy waiting to be connected to the grid, including 1086GW of solar, 366GW of wind, and 1028GW of energy storage. The construction of the U.S. power grid is old, and the renewal construction is seriously lagging behind, leading to an increasingly severe backlog of new energy and difficulties in consumption, which is difficult to solve in the short term and will limit the development of new energy in the long term.

**Traditional Energy:** The rapid development of data centers has led to a renewed focus on traditional energy, with a long-term positive outlook for natural gas power generation and nuclear power. In recent years, with the rapid development of artificial intelligence and data centers in the United States, as of the first half of 2024, the data center capacity in the United States is 12GW, which has doubled since 2020. The compound annual growth rate of data center capacity from 2022 to 2024 is 21%. The surge in electricity demand, coupled with the stability requirements of data centers for power demand, according to EPRI forecasts, by 2030, data centers in the United States will consume 9% of the electricity generation, twice the current level.

According to EIA data, looking at the power generation structure, the share of natural gas power generation in the United States increased from 37% in 2021 to 42% in 2023. Natural gas power generation will continue to play an important role. In terms of nuclear power, in March, the U.S. federal government provided a loan of \$1.5 billion, historically restarting the closed Palisades nuclear power station for the first time. With the increase in electricity demand and stability required by AI and data centers, nuclear power and gas power will play an increasingly important role in the power supply of data centers.

**Investment advice:** It is recommended to focus on AI data center equipment and construction companies such as Eaton, Vertiv, Nvent Electric, Quanta Service; Power grid equipment companies such as Hyundai Electric, LS Electric, Hitachi Energy, Jinpan Technology, Eaglerise Electric & Electronic (China) , Powell Industrial; Gas and nuclear power suppliers such as VISTA, GEV, and Constellation.

**Risks:** Policies may not meet expectations, Data center construction falls short of expectations, etc.

## 附录 APPENDIX

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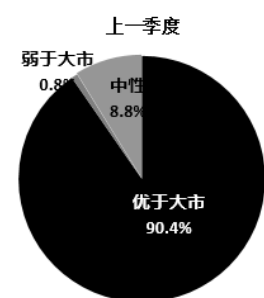
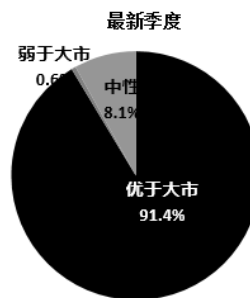
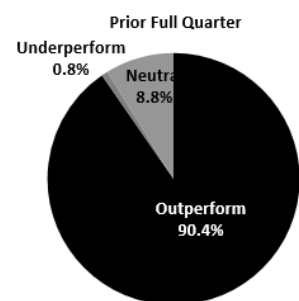
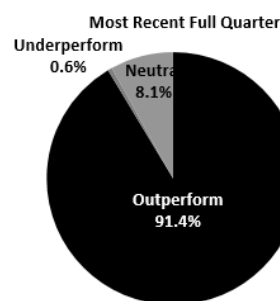
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投资银行客户*	3.1%	4.8%	0.0%

\*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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