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印度 ALMM 清单重启在即，贸易保护主义下的光伏组件出口风险

India's ALMM is on the way to restart, China module export stumbles under storms of protectionism risk

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热点速评 Flash Analysis

(Please see APPENDIX 1 for English summary)

印度 ALMM 清单或重启。2 月 9 日，印度新能源和可再生能源部（“MNRE”）发布政令称“型号和制造商批准清单”（“ALMM”）将于 2024 年 4 月 1 日起重新生效，ALMM 包含太阳能光伏和电池的型号和制造商清单，目前针对电池的清单还未公布。MNRE 要求只有在清单中的产品型号才可用于印度政府光伏项目、政府资助或政府计划下的光伏项目以及印度政府 PM KUSUM 计划下的相关配套和屋顶光伏项目。尽管 MNRE 在 2 月 15 日发布新指令称目前 ALMM 将延期至新的政令发布，但地缘政策风险和贸易保护主义依然是悬在中国光伏组件出口需求头上的剑。

预计 77GW 大型电站装机在规划中，印度光伏市场潜力较大。JMK Research 数据显示，截至 2023 年底，印度光伏装机量约 10GW，同比 2022 年下降 28%，其中大型电站装机 6.5GW，同比下降 41%；屋顶光伏装机 3GW，同比基本持平，另外有 0.5GW 的电网外项目。截至 2023 年 9 月底，印度大型电站装机有接近 77GW 项目在规划建设流程中，相较于 2022 年底的 58GW 增长 33%，其中 68GW 招标中的项目等开标，印度光伏市场需求较充足，但其贸易保护主义为中国企业设置重重障碍。

ALMM 政策是印度光伏产业贸易保护的主要手段。“型号和制造商批准清单”（“ALMM”）是印度新能源和可再生能源部于 2019 年提出的旨在保护印度本土光伏组件和电池制造商的政策，在该政策下，只有符合条件的本土制造企业才能够在政府资助的光伏项目中使用，结合印度政府推出的 Solar PLI 计划以激励印度国内制造。截至 2023 年 10 月，ALMM 中新增了 16 家印度本土组件厂商，清单中白名单数量至 100 家、30GW 以上，印度组件厂商可随时为新组件产品型号或新产能申请进入清单，印度新能源和可再生能源部每季度审查更新清单。经过 2023 年 5 月的政革后，入选 ALMM 的产品有效期由两年提升至四年，到期后需要续费重申；申请费用下调 80%，检查费用降低 70%，最低转换效率要求为地面电站 20%，屋顶光伏 19.5%。

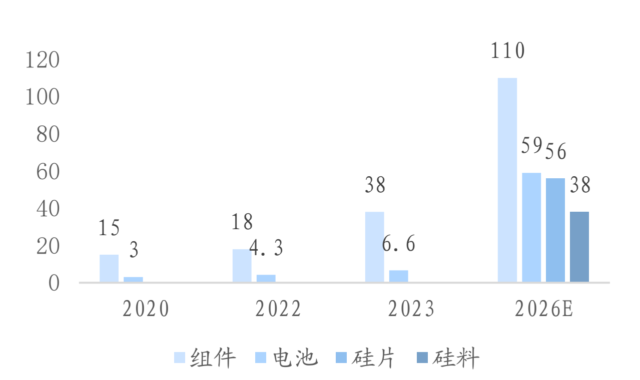
保护政策下印度本土组件产能迅速增长，上游产能缺口较大。在印度政府的政策支持下，印度光伏制造业近两年快速发展。 2020 年至 2023 年间，印度电池和组件的名义产能增加了一倍以上，2023 年印度的组件和电池名义产能分别为 38 和 6.6GW。JMK Research 预测，印度组件名义产能到 2026 年将达到 110 GW。在 PLI 计划下，印度政府大力支持本土制造商资本扩张，在 2023 年 3 月公布的 PLI（Tranche-II）计划中，政府预计支出 26 亿美元，支持包括 Shirdi Sai Electricals（4.01 亿美元用于 6000MW 包括多晶硅到组件的产能）、Reliance（6000MW）、Waaree（6000 MW）、ReNew（4800MW），维克拉姆太阳能公司（2400MW）和塔塔电力太阳能公司（4000MW）等。此外，美国等地区的光伏制造商瞄准“中国+1”战略，印度光伏对其他市场的出口迅速增长，促进印度光伏制造商扩产。尽管如此，印度光伏产业链中的上游零部件仍然较为依赖进口，硅片、硅料和电池片产能缺口较大。

2023 年中国对印度出口光伏组件达到 7.6GW，ALMM 下影响中国组件厂商出货。2023 年，中国全年组件累计出口 188.7GW，对印度出口 7.6GW，占比 7.6%，出口排名前三的国家为荷兰、巴西和印度。11/12 月组件对印度出口达到高峰，分别为 3.9/2.9GW，主要由于 1）印度开发商预期今年 4 月开始受 ALMM 政策影响，预先囤货，2）国内光伏组件价格大幅下降。预计 2024 年第一季度中国对印度市场仍将出现大量出货。根据 Mercom 的印度太阳能市场排行数据显示，截至 2023 年上半年，隆基绿能、Waaree Energies，晶澳太阳能、晶科能源、Premier Energies 分别为出货前五的组件供应商，供应占比分别为 9.1%、8.9%、7.2%、6%及 4.3%，其中 Waaree 为印度本土最大组件商之一，在古吉拉特邦拥有 12GW 组件产能，预计两年内将组件、电池和硅片产能扩大到 20GW、12GW 和 6GW。

投资建议：建议关注【First Solar】，其为第一家也是唯一一家获得 11.78 亿卢比 PLI 资金用于建立 3400 兆瓦的集成从多晶硅到组件工厂的海外公司。

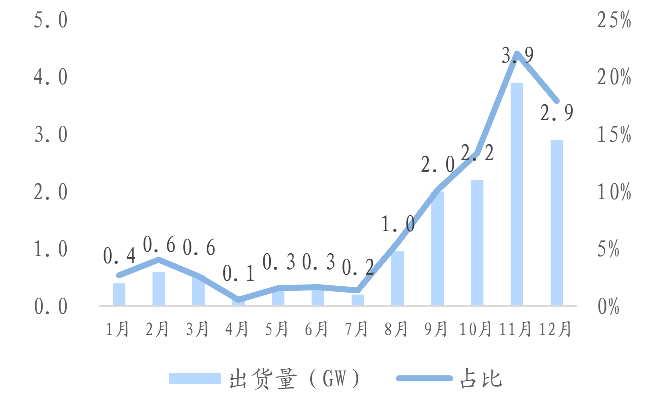
风险提示：1、ALMM 政策延期不及预期； 2、国内外政策突发重大变化。

图 1: 印度光伏产业链产能



数据来源：JMK Research, HTI

图 2: 2023 年中国组件出口-印度



数据来源：InfoLink, HTI

表 1: 印度 ALMM 组件申请费用明细

	For initial / first enlistment				For addition of models by manufacturers already enlisted in ALMM			
	Earlier		Now		Earlier		Now	
Production capacity	For first model	For other models (1% of application fee for every additional model)	For first model	For other models (1% of application fee for every additional model)	For first model (10% of application fee for initial enlistment in ALMM)	For other models (1% of application fee for initial enlistment in ALMM)	For first model (10% of application fee for initial enlistment in ALMM)	For other models (1% of application fee for initial enlistment in ALMM)
Up to 50 MW /year	Rs. 2,500/- per MW	Rs. 25/- per MW	Rs. 500/- per MW	Rs. 5/- per MW	Rs. 250/- per MW	Rs. 25/- per MW	Rs. 50/- per MW	Rs. 5/- per MW
More than 50 MW /year	Rs. 5,000/- per MW	Rs. 50/- per MW	Rs. 1,000/- per MW	Rs. 10/- per MW	Rs. 500/- per MW	Rs. 50/- per MW	Rs. 100/- per MW	Rs. 10/- per MW

数据来源：MNRE, HTI

表 2: 印度 ALMM 组件检查费用明细

<table>
<tr><th></th><th colspan="4">For initial / first enlistment</th><th colspan="4">For addition of models by manufacturers already enlisted in ALMM</th></tr>
<tr><th></th><th colspan="2">Earlier</th><th colspan="2">Now</th><th colspan="2">Earlier</th><th colspan="2">Now</th></tr>
<tr><th>Location of manufacturing site</th><th>Production capacity (MW/year)</th><th>Inspection fee (Rs.)</th><th>Production capacity (MW/year)</th><th>Inspection fee (Rs.)</th><th>Production capacity (MW/year)</th><th>Inspection fee (Rs.)</th><th>Production capacity (MW/year)</th><th>Inspection fee (Rs.)</th></tr>
<tr><td rowspan="5">Manufacturing situated in SAARC (South Asian Association for Regional Cooperation) countries</td><td>Up to 50 MW</td><td>2.5 lakhs</td><td rowspan="2">Up to 100 MW</td><td rowspan="2">1.5 lakhs</td><td>Up to 50 MW</td><td>1.25 lakhs</td><td rowspan="2">Up to 100 MW</td><td rowspan="2">0.75 lakhs</td></tr>
<tr><td>More than 50 MW & up to 100 MW</td><td>5 lakhs</td><td>More than 50 MW & up to 100 MW</td><td>2.5 lakhs</td></tr>
<tr><td>More than 100 MW & up to 250 MW</td><td>10 lakhs</td><td rowspan="2">More than 100 MW & up to 500 MW</td><td rowspan="2">5 lakhs</td><td>More than 100 MW & up to 250 MW</td><td>5 lakhs</td><td rowspan="2">More than 100 MW & up to 500 MW</td><td rowspan="2">2.5 lakhs</td></tr>
<tr><td rowspan="2">More than 250 MW</td><td rowspan="2">15 lakhs</td><td rowspan="2">More than 250 MW</td><td rowspan="2">7.5 lakhs</td></tr>
<tr><td>More than 500 MW</td><td>15 lakhs</td><td>More than 500 MW</td><td>7.5 lakhs</td></tr>
<tr><td>Manufacturing situated in non SAARC countries</td><td>For all capacities</td><td>30 lakhs</td><td>For all capacities</td><td>30 lakhs</td><td>For all capacities</td><td>15 lakhs</td><td>For all capacities</td><td>15 lakhs</td></tr>
</table>

数据来源：MNRE, HTI

APPENDIX 1

The Ministry of New and Renewable Energy (MNRE) has released an order on 9th Feb 2024, deciding to re-impose the regulatory measure of the Approved List of Models and Manufacturers (ALMM) for solar PV modules/cells from 1st Apr 2024. The ALMM is applicable to solar power projects sponsored or subsidized by the central or state governments, as well as roof top solar projects and components of PM KUSUM scheme which receive capital subsidies from the government. Private solar power projects set up under open access route or as captive power projects were exempted from ALMM norms. Even though on 15th Feb 2024, MNRE has released another order stating that ALMM will be held in abeyance till further orders, the export demand for China modules/cells are still exposed to the protectionism risk worldwide.

As of 2023, 10GW of solar was installed in India, yoy -28% compared to 13.95GW installed in 2022, according to JMK Research. Utility-scale installations dropped more than 41% yoy to 6.5GW, while rooftop installation is flat yoy on nearly 3GW. India's utility-scale solar development pipeline stood at nearly 77GW as of September 2023, comparing 58GW on 2022 seeing a 33% increase and over 68 GW of projects tendered were pending auction at the end of Q3 2023.

ALMM is the main measure to protect local module producer in India. the Approved List of Models and Manufacturers was first raised on 2019 by The Ministry of New and Renewable Energy, under which, only qualified producer could be used in government sponsored solar projects. Along with Solar PLI program, Indian government is keen to stimulate local solar industry. As of Oct 2023, 16 more producers were added to the list, with total more than 100 manufacturers and 30GW capacity approved. All local module manufacturers could apply for the certification and MNRE would review quarterly. After the reform on May 2023, there are certain changes on the policy including reduction in application fee by 80%, reduction in inspection fee in certain cases by 70%, extend ALMM enlistment validity from 2 years to 4 years, introduction of following end-use category-wise minimum module efficiency thresholds for enlistment in ALMM: Utility/ Grid Scale Power Plants: 20.00%, Rooftop and Solar Pumping: 19.50%.

Echoing the favourable policy environment created by the Indian government, PV manufacturing has grown rapidly in the last two to three years. Between 2020 and 2023, the nameplate capacity for both cells and modules more than doubled in India. There are 38 GW and 6.6GW module and cell manufacturing nameplate capacity on 2023 and by 2026, India will likely reach the 110 GW mark in solar module manufacturing nameplate capacity. Under PLI scheme II, Shirdi received 401 million USD on expanding its full supply chain capacity, as well as Reliance（6000MW）、Waaree（6000 MW）、ReNew（4800MW）, Vikram（2400MW）, TATA（4000MW） Furthermore, all major PV importers also aim for a “China+1” strategy for their PV sourcing requirements, However, despite the growth and demand from other exports market, the Indian PV manufacturing sector is still facing headwinds. These include sustained reliance on imports, especially for upstream components (polysilicon and ingots/wafers), ancillaries and PV machinery.

China exports 7.6GW module to India on 2023, under ALMM, China module manufacturer would be affected most. China export 188.76GW on 2023 with 7.6GW to India, taking up7.6%. The top 3 module importer countries are Dutch, Brazil and India. The module expert peaked on Nov/Dec due to the avoidance of ALMM and the slump price of module. According to Mercom, Longi, Waaree, Jinao, Jinko and Premier took top five market share as 9.1%, 8.9%、7.2%、6% and 4.3% as of 1H 2023. Among which, Waaree is a local manufacturer with 12GW module capacity, and expects to expand to 20GW module, 12GW cell and 6GW wafer capacity.

Investment recommendations: 【First Solar】as the only non-India module producers to receive 1.18 billion Ruble from India Solar PLI scheme for 3400 MW polysilicon and module capacity investment.

Risks: 1, ALMM extension below expectation. 2, the uncertainty of international politics

附录 APPENDIX

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优于大市，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

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。

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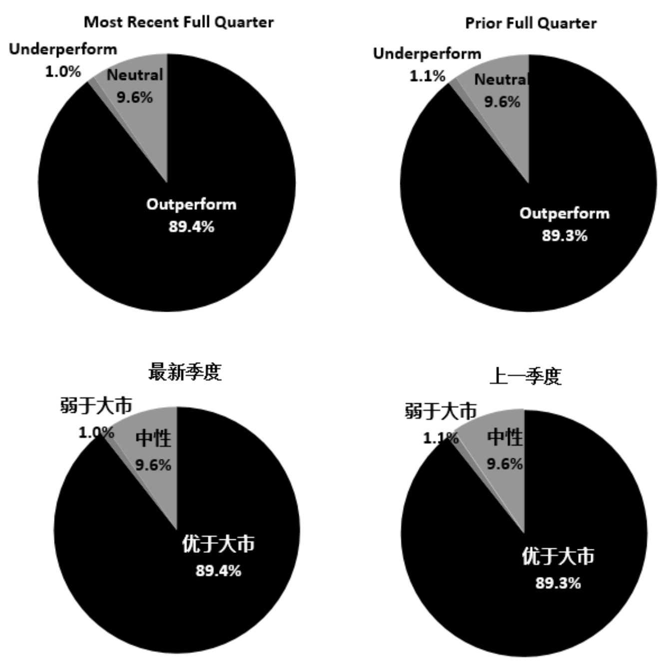

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Outperform: The stock's total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as indicated below.

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.

截至 2023 年 12 月 31 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
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投资银行客户*	3.9%	5.1%	5.6%

*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
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IB clients*	3.9%	5.1%	5.6%

*Percentage of investment banking clients in each rating category.

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