

| <b>GPM** - Global Polysilicon Marker</b> | <b>23.050</b> | <b>USD/kg</b> |   |
|--|---------------|---------------|---|
| Price change WoW                         | 0             | 0             | - |
| Price change since 2 Jan 2024            | -3.072        | -11.76%       | ▼ |
| <b>Average Mono Grade in China</b>       | <b>55.330</b> | <b>CNY/kg</b> |   |
| Price change WoW                         | -3.17         | -5.42%        | ▼ |
| Price change since 2 Jan 2024            | -5.67         | -9.30%        | ▼ |
| <b>CMM* - Chinese Module Marker</b>      | <b>0.121</b>  | <b>USD/wp</b> |   |
| Price change WoW                         | 0             | 0%            | - |
| Price change since 5 Mar 2024            | 0.002         | 1.68%         | ▲ |

\*\*Global Polysilicon Marker (GPM) is the average price of chip-size Polysilicon:

- that is produced outside mainland China
- that is ready to be processed for monocrystalline ingot growing without any treatment
- which can be used for monocrystalline recharging
- for which supply chain traceability documentation can be provided, in accordance with applicable legislation

\*Chinese Module Marker (CMM) reflects the TOPCon module FOB China prices, w.e.f. March 05, 2024

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## Spot Prices & Market Outlook

| Polysilicon               | High   | Low    | Average | Change  | % Change | Next week | Next Month | In 3 months |
|---------------------------|--------|--------|---------|---------|----------|-----------|------------|-------------|
| GPM (USD/kg)              | 25.50  | 20.00  | 23.050  | 0       | 0        | –         | ▼          | ▼           |
| China Mono Grade (CNY/kg) | 58.00  | 54.50  | 55.330  | -3.17   | -5.42    | ▼         | ▼          | ▼           |
| Wafers (USD/pc)           | High   | Low    | Average | Change  | % Change | Next week | Next Month | In 3 months |
| Mono PERC M10             | 0.219  | 0.206  | 0.212   | -0.023  | -9.79    | –         | ▼          | –           |
| Mono PERC G12             | 0.324  | 0.312  | 0.318   | -0.013  | -3.93    | –         | ▼          | –           |
| N-type M10                | 0.212  | 0.199  | 0.204   | -0.024  | -10.53   | –         | ▼          | –           |
| N-type G12                | 0.343  | 0.324  | 0.334   | -0.028  | -7.73    | –         | ▼          | –           |
| Cells (USD/wp)            | High   | Low    | Average | Change  | % Change | Next week | Next Month | In 3 months |
| Mono PERC M10             | 0.0474 | 0.0449 | 0.0460  | -0.0014 | -2.95    | –         | ▼          | –           |
| Mono PERC G12             | 0.0461 | 0.0449 | 0.0455  | -0.0026 | -5.41    | –         | ▼          | –           |
| TOPCon M10                | 0.0561 | 0.0523 | 0.0556  | -0.0033 | -5.60    | –         | ▼          | –           |
| Modules                   | High   | Low    | Average | Change  | % Change | Next week | Next Month | In 3 months |
| Mono PERC (USD/wp)        | 0.120  | 0.110  | 0.112   | 0       | 0        | –         | –          | –           |
| Mono PERC (CNY/wp)        | 0.939  | 0.884  | 0.898   | 0       | 0        | –         | –          | –           |
| TOPCon (USD/wp)           | 0.127  | 0.119  | 0.121   | 0       | 0        | –         | –          | –           |
| TOPCon (CNY/wp)           | 1.019  | 0.904  | 0.958   | 0       | 0        | –         | –          | –           |

1 USD = 7.10 CNY

Overseas polysilicon not submitted to Chinese Anti-Dumping.

Prices in CNY include VAT but exclude the 4% import duty since these are domestic polysilicon production.

All A-grade based.

Wafer USD price converted from: CNY price/ 1.13(VAT)/ FX

Cell assessments basis: Mono PERC High Cell eff: ≥23.1% (7.63W); TOPCon Cell eff: ≥24.2% (7.99W).

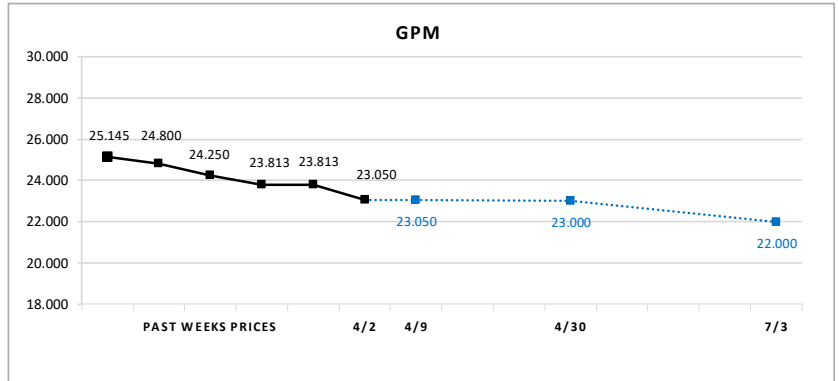
Module prices Incoterms: RoW FOB China

Average module output: Mono PERC ≥540wp; TOPCon ≥575W

## Global Polysilicon Market (USD/kg)

| High   | Low    | Average | Price change |
|--------|--------|---------|--------------|
| 25.500 | 20.000 | 23.050  | 0.000        |

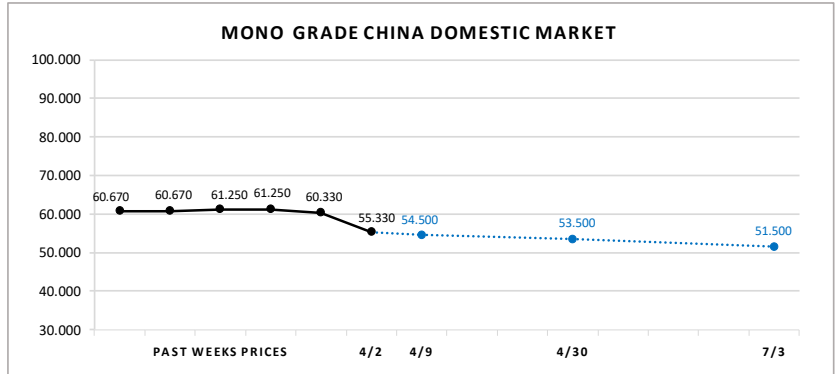
BLUE data points in each graph represent polled price outlook.



## Mono-grade China Domestic Market (CNY/kg)

| High   | Low    | Average | Price change |
|--------|--------|---------|--------------|
| 58.000 | 54.500 | 55.330  | -3.170       |

BLUE data points in each graph represent polled price outlook.



Source: OPIS Data

## Polysilicon weekly insights:

The Global Polysilicon Market (GPM), the OPIS benchmark for polysilicon outside China, remained steady at \$23.05/kg this week, unchanged from the previous week, reflecting stable market fundamentals.

Despite the absence of significant changes in supply and demand in this market presently, discussions are ongoing regarding the favorable and unfavorable factors influencing prices.

According to the Solar Energy Industries Association (SEIA), the newly added solar deployment in the US in 2023 was 32.4 Gigawatts (GW). This may only need no more than 75,000 metric tons (mt) of polysilicon, according to a market participant, who further asserted that the capacity of polysilicon produced outside of China is ample to fulfill the demand of the US market.

Furthermore, a polysilicon manufacturer located outside of China has announced intentions to raise its polysilicon production capacity by 21,600 tons by 2027, through building upon its current capacity. According to a source with knowledge of the matter, the construction of this expansion plan is slated to commence this year and production is set to commence in January 2027.

However, a source within the global polysilicon market suggests that consumers of polysilicon produced outside of China predominantly demand N-type material. The insufficient output of N-type polysilicon in China underscores the irreplaceable advantage of the high quality polysilicon produced outside of China.

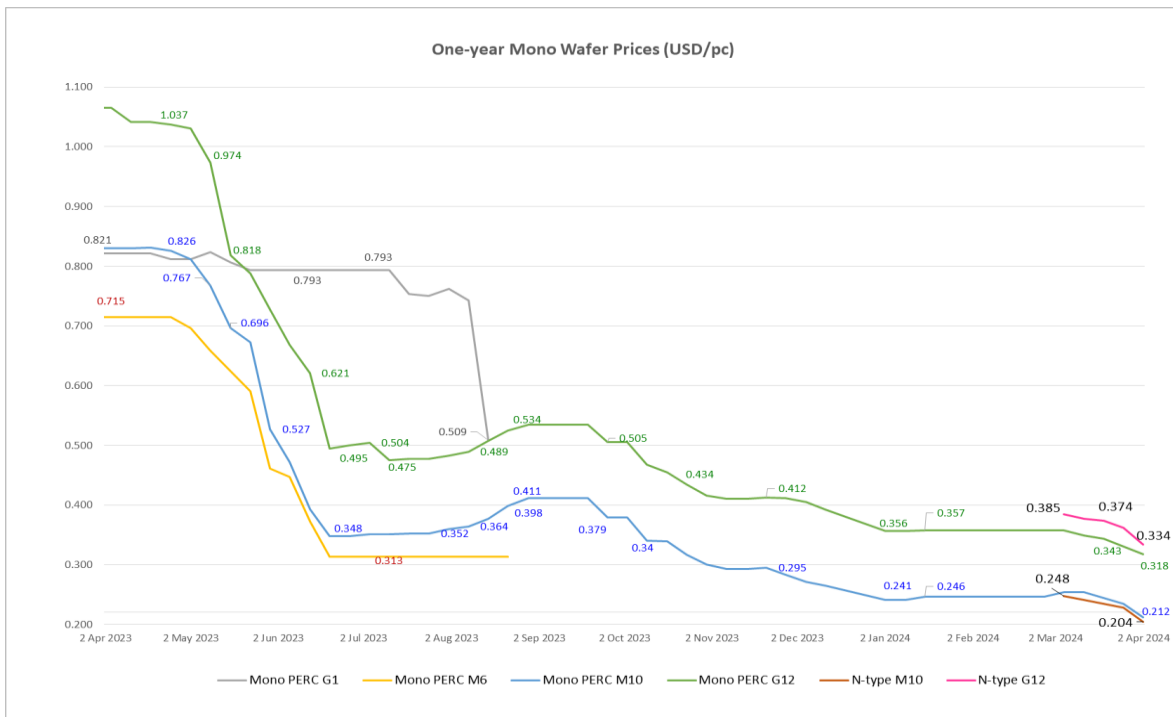
China Mono Grade, OPIS' assessment for polysilicon prices in the country were assessed at 55.33 yuan/kg this week, down (remove the dollar sign) \$3.17 yuan/kg, or 5.42% from the previous week. This decline was spurred by heightened demand from wafer producers seeking low-priced polysilicon.

Multiple sources have indicated that polysilicon sales were sluggish in the past week. High inventory levels and low selling prices of wafers have dampened the enthusiasm of wafer companies to purchase polysilicon, putting pressure on polysilicon suppliers to reduce prices.

An upstream source reported that polysilicon producers have been unable to secure substantial sales orders for three consecutive weeks, leading to an accumulation of polysilicon inventory totaling approximately 150,000 mt which is roughly equivalent to more than three weeks' worth of production.

According to a market observer, the offers of N-type polysilicon have dropped to a range between 60 and 65 yuan/kg, with expectations that the final transaction price will fall below the offer level.

Some polysilicon companies experiencing severe cash flow shortages are keen to take the initiative in reducing prices to stimulate sales and replenish funds to sustain production operations, as per a market veteran, who further pointed out that if polysilicon prices persist below 50 yuan/kg for several months, we may witness the closure and exit from the market of some obsolete or high-cost capacities.



| Date      | Mono PERC M10, \$/pc | Mono PERC G12, \$/pc | N-Type M10, \$/pc | N-type G12, \$/pc |
|-----------|----------------------|----------------------|-------------------|-------------------|
| 2-Apr-24  | 0.212                | 0.318                | 0.204             | 0.334             |
| 26-Mar-24 | 0.235                | 0.331                | 0.228             | 0.362             |
| 19-Mar-24 | 0.244                | 0.343                | 0.234             | 0.374             |
| 12-Mar-24 | 0.254                | 0.349                | 0.241             | 0.377             |
| 5-Mar-24  | 0.254                | 0.357                | 0.248             | 0.385             |

Source: OPIS Data  
Wafer USD price converted from: RMB price / 1.13(VAT)/ FX

## Wafers weekly insights:

FOB China prices for wafers have experienced a widespread decline this week for the third consecutive week, underscoring the prevalent oversupply in the market. Mono PERC M10 and N-type M10 wafer prices decreased noticeably by 9.79% and 10.53% week to week, reaching \$0.212 per piece (pc) and \$0.204/pc, respectively.

Similarly, Mono PERC G12 and N-type G12 wafer prices also dropped by 3.93% and 7.73% week to week at \$0.318/pc and \$0.334/pc, respectively.

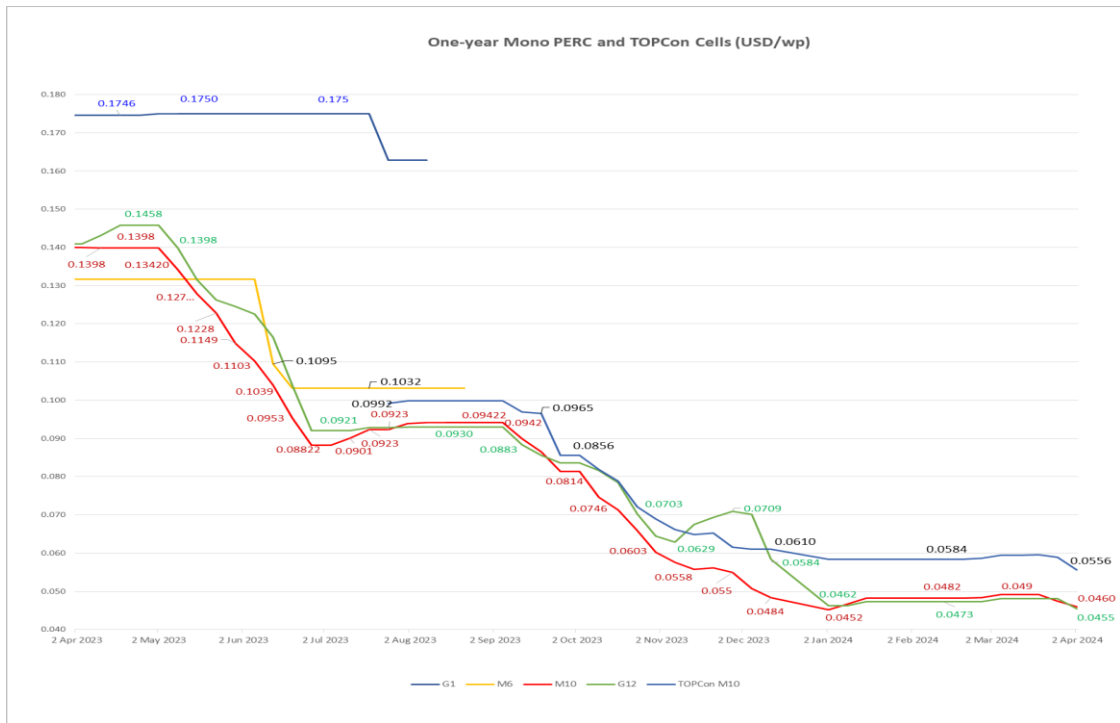
According to OPIS' market survey, the prices of Mono PERC M10 and N-type M10 wafers in the Chinese domestic market have fallen to approximately 1.70 yuan/wp and 1.63 yuan/wp, respectively. "The prevailing price of wafers is resulting in considerable financial losses for wafer companies," said an upstream source.

As per another market participant, certain wafer producers had initially assessed the bottom price for M10 wafers to be around 1.9 yuan/pc and abstained from selling below this mark in March. This strategy proved to be flawed, leading to a significant buildup of wafer inventory. Consequently, they now find themselves compelled to sell wafers at even lower prices to regain some cash flow, the source explained.

The wafer market currently has an inventory level equivalent to approximately two to three weeks' worth of production, according to a market watcher. The discussions surrounding the plan of wafer factories to reduce production over the past two weeks have yielded results this week. Multiple sources have confirmed that the majority of specialized wafer factories have implemented varying degrees of production cuts.

An insider within the polysilicon market has conveyed a relatively positive outlook, suggesting that with the decrease in wafer production and the gradual rollout of ground-mounted solar projects in China during April and May, the high wafer inventory may experience some relief by the end of April.

A market veteran concluded that some wafer manufacturers will inevitably face elimination in this intense competition, which may provide a slight reprieve to the surplus wafer production capacity.



| Date      | Mono M10, \$/wp | Mono G12, \$/wp | TOPCon, \$/wp |
|-----------|-----------------|-----------------|---------------|
| 2-Apr-24  | 0.0460          | 0.0455          | 0.0556        |
| 26-Mar-24 | 0.0474          | 0.0481          | 0.0589        |
| 19-Mar-24 | 0.0492          | 0.0481          | 0.0596        |
| 12-Mar-24 | 0.0492          | 0.0481          | 0.0595        |
| 5-Mar-24  | 0.0492          | 0.0481          | 0.0595        |

Source: OPIS Data

## Cells weekly insights:

FOB China prices for cells have undergone a noticeable decline across the board this week, influenced by widespread price drops across the upstream segments.

The FOB China prices of Mono PERC and TOPCon M10 cells were assessed at \$0.0460 per Watt peak (wp) and \$0.0556/wp, respectively, marking a decrease of 2.95% and 5.60% from the previous week. Similarly, the price of Mono PERC G12 cells dropped by 5.41% week to week, reaching \$0.0455/wp this week.

According to the OPIS market survey, the prices of Mono PERC M10 and TOPCon M10 cells in the Chinese domestic market have fallen to approximately 0.369 yuan/wp and 0.446 yuan/wp, respectively. The high-efficiency TOPCon M10 cell from leading cell manufacturers was reported to be around 0.45 yuan/wp, while smaller cell producers have been observed offering TOPCon M10 cells for as low as 0.42 yuan/wp in the market.

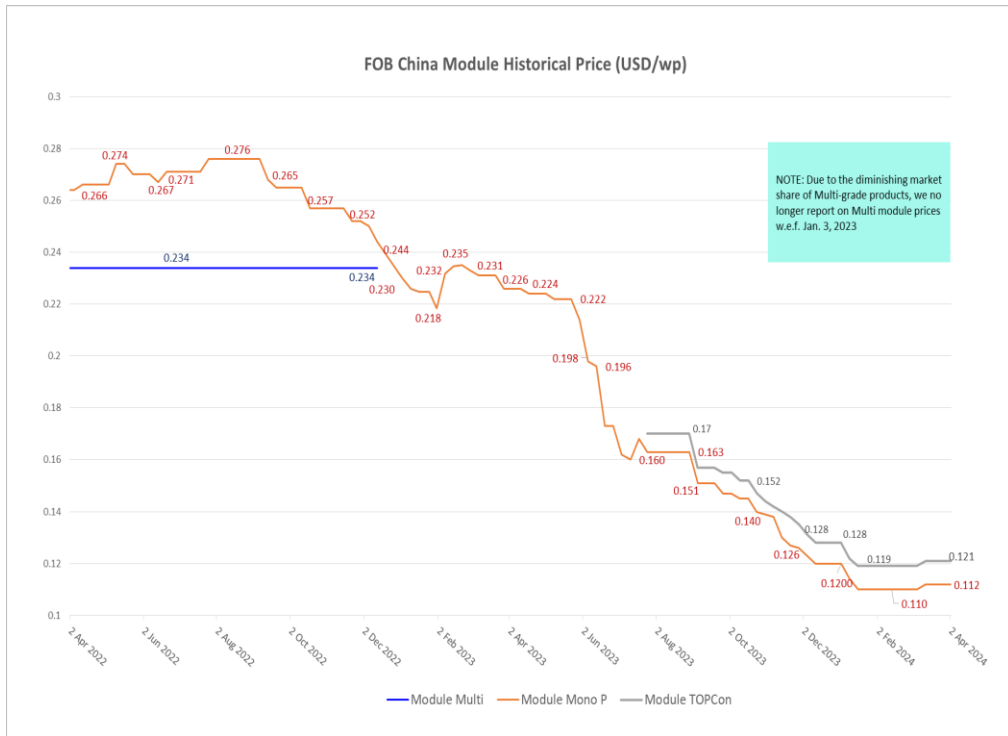
Multiple sources have confirmed that the reduction in cell prices this time is primarily attributed to widespread price decreases in the upstream manufacturing segments. As a result of stringent pressure from module manufacturers on cell manufacturers to reduce prices, cell makers did not reap the benefits of the price reductions in upstream materials.

According to a market observer, because the decrease in cell prices is not as pronounced as that of wafers, some module manufacturers opt to procure wafers directly and then subcontract cell production to Original Equipment Manufacturers (OEMs). This further diminishes the likelihood of cell manufacturers benefiting from the reduction in wafer prices, the source added.

Nevertheless, according to a cell manufacturer, serving as a cell OEM for module makers presents a favorable option for cell manufacturers in times of market instability, as it helps mitigate the risks associated with upstream price fluctuations.

Additionally, the widespread adoption of Laser-enhanced Contact Optimization (LECO) technology among TOPCon cell manufacturers has contributed to a general improvement in the efficiency of TOPCon cells available in the market. According to sources, this advancement is expected to further widen the price disparity between N-type and P-type products. Additionally, this development is poised to have a notable impact on suppliers of laser sintering equipment.

# Modules



| Date                    | 5-Mar-2024 | 12-Mar-2024 | 19-Mar-2024 | 26-Mar-2024 | 2-Apr-2024 |
|-------------------------|------------|-------------|-------------|-------------|------------|
| <b>Mono Perc, \$/wp</b> | 0.110      | 0.112       | 0.112       | 0.112       | 0.112      |
| <b>TOPCon, \$/wp</b>    | 0.119      | 0.121       | 0.121       | 0.121       | 0.121      |

Source: OPIS Data

## Module weekly insights:

The Chinese Module Market (CMM), the OPIS benchmark assessment for TOPCon modules was assessed at \$0.121 per Watt peak (wp), flat from the previous week while mono PERC modules from China was assessed at \$0.112/wp, unchanged week to week reflecting discussions heard.

Market sentiment was mixed in the Chinese domestic market with the majority of players staying on the sidelines, adopting a wait and see approach on the back of price declines in the upstream wafer and cells segment. Moreover, talks of lower prices in the market had emerged following previous weeks of price increases by Tier One module manufacturers. This has resulted in some confusion in the market.

These Tier One module makers had raised prices by about 0.05 yuan/wp over the course of several weeks in March in an attempt to bring module prices back above the cost of production. As a result, market sentiment was heard to be improving as some buyers had accepted these price increases, a market source said.

However on March 29, Xinhua Hydropower's module procurement tender received an average bid of 0.82 yuan/wp for mono PERC modules and an average bid of 0.87 yuan/wp for TOPCon modules which was the lowest compared to the earlier tenders in 2024 and this caused a dip in overall market sentiment, the market source added. Coupled with the price declines in the upstream wafer and cells segment, most market participants preferred to stay on the sidelines in wait for a clearer price trend to emerge.

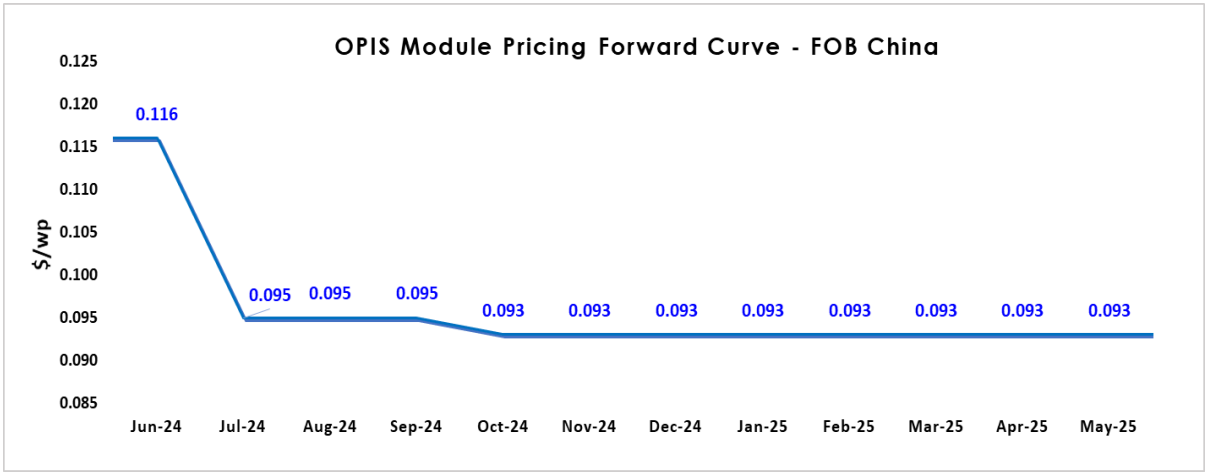
Meanwhile in the FOB China market, competition amidst over supply was intense with some module manufacturers selling below cost in a bid to clear inventory, a market veteran said. However, the market veteran pointed out that prices had no room to fall further as it was close to cost of production but prices were also unlikely to rise due to oversupply in the market.

While some market participants said demand had improved, citing China's module export figures for January-February which stood at 43.1 Gigawatt (GW), other market participants were less bullish. One module seller said he did not see an improvement in demand as the volume of new orders had decreased.

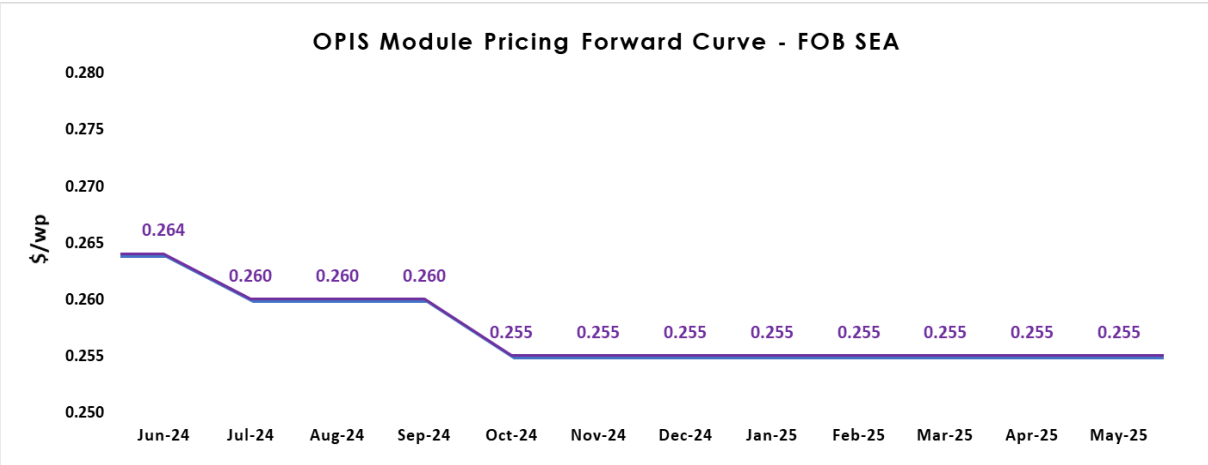
The Indian government has re-imposed the Approved List of Models and Manufacturers (ALMM) with effect from April 1. The ALMM mandates that only modules manufactured by manufacturers on the ALMM list can be used in government-backed solar energy projects in India. The list does not include Chinese made modules.

Prior to the ALMM, India imported 2.5 Gigawatt (GW) of Chinese modules in February. This was down 40% from 4.2GW in January, a market source said. These import numbers contrast with India's total installation of 10GW for 2023. A market observer concluded that importers had rushed their orders in the first 2 months, ahead of the ALMM activation, and therefore demand for modules is expected to fall sharply going forward.

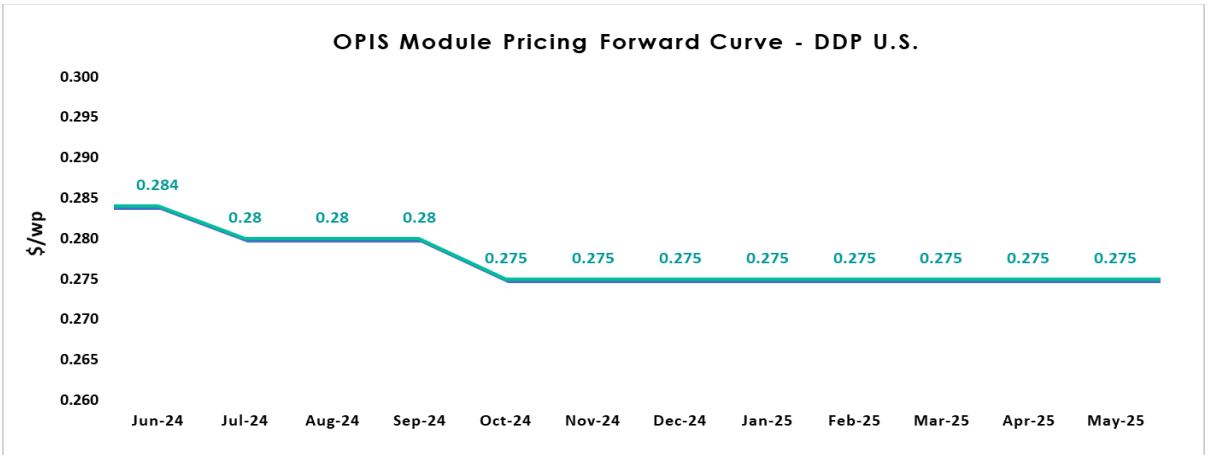
# Modules: Forward Curves



| Forward Month | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | Apr-25 | May-25 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| High          | 0.127  | 0.108  | 0.100  | 0.100  | 0.095  | 0.095  | 0.095  | 0.095  | 0.095  | 0.095  | 0.095  | 0.095  |
| Low           | 0.105  | 0.090  | 0.090  | 0.09   | 0.090  | 0.090  | 0.090  | 0.090  | 0.090  | 0.090  | 0.090  | 0.090  |
| Average       | 0.116  | 0.095  | 0.095  | 0.095  | 0.093  | 0.093  | 0.093  | 0.093  | 0.093  | 0.093  | 0.093  | 0.093  |

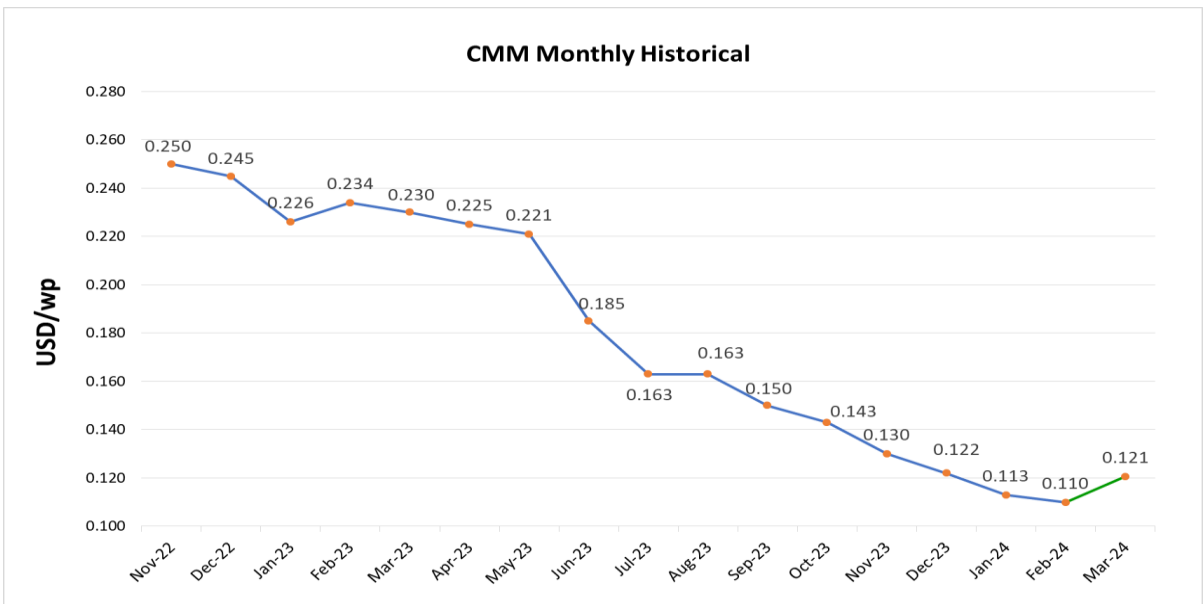
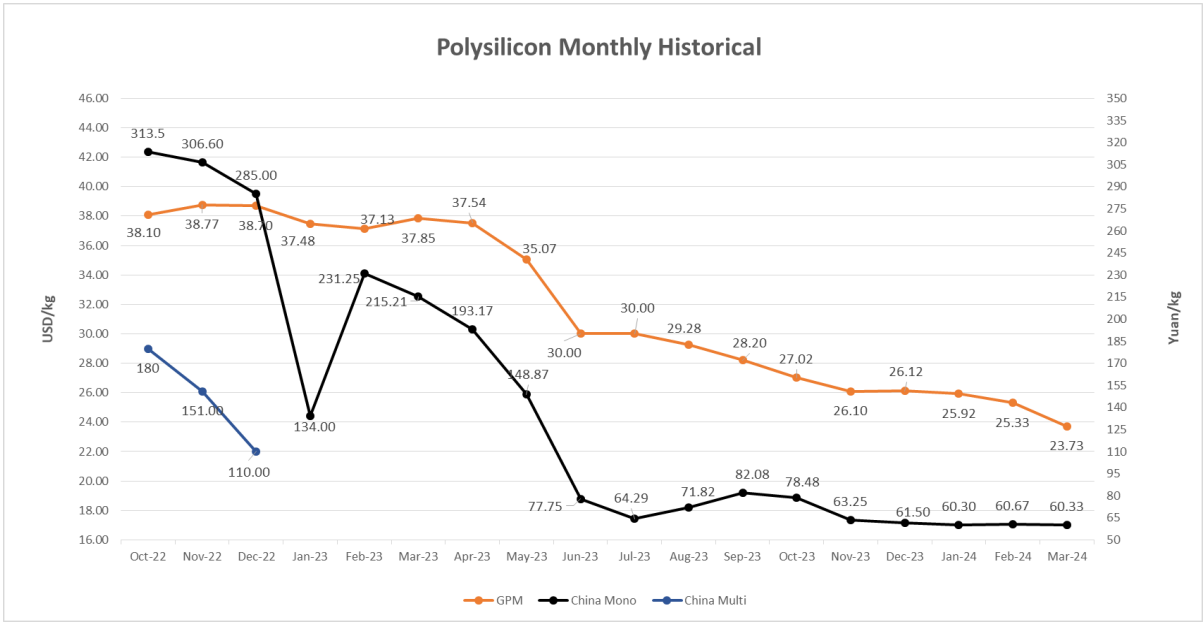


| Forward Month | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | Apr-25 | May-25 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| High          | 0.310  | 0.310  | 0.310  | 0.310  | 0.280  | 0.280  | 0.280  | 0.280  | 0.280  | 0.280  | 0.280  | 0.280  |
| Low           | 0.225  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  | 0.220  |
| Average       | 0.264  | 0.260  | 0.260  | 0.260  | 0.255  | 0.255  | 0.255  | 0.255  | 0.255  | 0.255  | 0.255  | 0.255  |



| Forward Month | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-24 | Mar-25 | Apr-25 | May-25 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| High          | 0.330  | 0.330  | 0.330  | 0.330  | 0.300  | 0.300  | 0.300  | 0.300  | 0.300  | 0.300  | 0.300  | 0.300  |
| Low           | 0.250  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  | 0.240  |
| Average       | 0.284  | 0.280  | 0.280  | 0.280  | 0.275  | 0.275  | 0.275  | 0.275  | 0.275  | 0.275  | 0.275  | 0.275  |

# Historical Data



w.e.f. March 2024: CMM reflects TOPCon module FOB China prices  
(The CMM is updated to represent TOPCon modules instead of Mono PERC modules as TOPCon modules gain market share.)

# Capacity Build

Global, Mar 27 - Apr 2

| Company  | Value Chain Position | Country | City           | Activity  |
|----------|----------------------|---------|----------------|---|
| Risun    | Polysilicon          | China   | Inner Mongolia | Integrated park including 120kt/yr polysilicon project started construction                       |
| Risun    | Wafer                | China   | Inner Mongolia | Integrated park including 40GW wafering project in Tuyou Banner started construction              |
| Risun    | Wafer                | China   | Inner Mongolia | Integrated park including 40GW wafering project in Rare Earth High Tech Zone started construction |
| Guosheng | Wafer                | China   | Anhui          | 25GW wafer project signed   |
| Jinko    | Wafer/Cell/Module    | China   | Shanxi         | Phase I (14GW) of 56GW integrated base put in production.   |
| Risun    | Cell                 | China   | Inner Mongolia | Integrated park including 10GW cell project started construction                                  |
| Runda PV | Cell                 | China   | Jiangsu        | 10GW TOPCon cell factory sees first equipment delivery  |
| Nordcell | Module               | Sweden  | TBD            | Plans 1.2GW operational 1H25  |
| Risun    | Module               | China   | Inner Mongolia | Integrated park including 5GW module project started construction                                 |
| Taiyi    | Module               | China   | Xinjiang       | 5GW module factory started construction   |



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## \*\*\*S Korea's OCI to Supply Trina Solar with Polysilicon in Term Contract

South Korea-based polysilicon maker OCI Holdings will supply Trina Solar, a major Chinese solar integrated manufacturer, with \$700 million of solar polysilicon through a long-term contract, according to an OCI announcement on Mar. 20.

OCI's Malaysian subsidiary OCIM, which currently produces 35,000 metric tons (mt) of low-carbon solar polysilicon a year, will supply polysilicon to Trina Solar's production base in Thai Nguyen, Vietnam until 2030, OCI said.

OCI said in its announcement that it is actively strengthening its position as a key player in establishing a solar power value chain in the U.S., especially amid the rising preference for polysilicon produced outside of China.

"By signing a large-scale supply contract with Trina Solar, a leader in the global solar energy industry, we were able to confirm once again the global market demand for high-efficiency polysilicon produced by OCIM." Woohyun Lee, Chairman of OCI Holdings said.

OCI had also announced in February during a conference call that it would increase OCIM's annual polysilicon production capacity from the existing 35,000 mt to 56,600 mt by 2027.

According to a source with knowledge of the matter, OCI's expansion plan will unfold at the existing factory site, with construction slated to commence this year and production set to commence in January 2027.

The Global Polysilicon Marker (GPM), the OPIS benchmark for polysilicon outside China, was assessed at \$23.05/kg in the week of Mar. 25, according to OPIS data. Based on this assessment, the total value of the \$700 million supply contract equates to approximately 30,369 mt of polysilicon.

Trina Solar is a leading Chinese solar integrated manufacturer. The company has wafer production capacity of 6.5GW in Vietnam, which started production in August 2023. Around 16,000 mt of polysilicon are required per year to sustain the annual wafer production capacity of 6.5GW, according to OPIS calculation.

(\$1 = CNY 7.09)

---Reporting by Summer Zhang, [szhang@opisnet.com](mailto:szhang@opisnet.com); Editing by Hanwei Wu, [hwu@opisnet.com](mailto:hwu@opisnet.com)  
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2024-04-01 03:11:13 EDT

## \*\*\*India Reimposes Domestic Solar Module Requirement From April 1

India has reimposed the requirement to use locally produced solar photovoltaic (PV) modules under the Approved List of Models and Manufacturing (ALMM) for solar projects from April 1, according to a memorandum from the country's Ministry of New and Renewable Energy (MNRE).

The Ministry will evaluate solar projects receiving non-ALMM solar modules by March 31 but not operational on a case-by-case basis.

The ALMM requirement applies to projects which are funded or subsidized by the government. The requirement also applies to government agencies procuring power for their consumption or distribution, solar PV rooftops and the PM-KUSUM scheme, as stated in the memorandum on February 9.

The PM-KUSUM scheme aims to ensure energy security for Indian farmers through renewable energy sources. Under this initiative, farmers may install solar-powered agricultural pumps and set up solar-powered plants, selling surplus electricity to local grids at pre-fixed tariffs.

In March 2023, the MNRE suspended an earlier order imposing the ALMM requirement on government projects commissioned by March 31 this year, as previously reported by OPIS.

There are 83 module manufacturers under the ALMM as of March 22, up from 78 manufacturers in January.

---Reporting by Brian Ng, [bng@opisnet.com](mailto:bng@opisnet.com); Editing by Hanwei Wu, [hww@opisnet.com](mailto:hww@opisnet.com)  
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2024-03-28 05:47:14 EDT

## \*\*\*Australia's A\$1 billion Solar Sunshot Program to Boost Local Solar Industry

Australia is looking to capture more of the global solar manufacturing supply chain with its A\$1 billion (\$652 million) Solar Sunshot program that provides support measures such as production subsidies and grants, the Australian Government said in a March 28 press release.

While the country has the highest uptake of rooftop solar in the world with panels on one in three households, just 1 per cent of those have been made locally, according to the press release.

The \$1 billion federal investment in the Solar Sunshot program builds on over \$40 billion of investment committed by the Australian Government to enable Australia to become a renewable energy superpower.

The Australian Renewable Energy Agency (ARENA) will work alongside the industry and the Australian Government to design and deliver this initiative beginning mid-April. ARENA will look at the entire supply chain from ingots and wafers to cells, module assembly, and related components, including solar glass, inverters, advanced deployment technology and solar innovation.

This complements other processes underway such as the Hydrogen Headstart program also administered by ARENA.

The Solar Sunshot programme will offer production subsidies and grants to help Australia capture more of the global solar manufacturing supply chain and follows the introduction of legislation establishing the Net Zero Economy Authority to help catalyze investment in a clean energy future made in Australia's regions, the government said.

In parallel with the Solar Sunshot program, the New South Wales (NSW) Labor Government is also delivering the NSW Net Zero Manufacturing Initiative, with the first round of \$275 million available to support workers, small businesses, manufacturers and innovators to take advantage of the transformation of Australia's energy grid.

In the second round, the NSW Labor Government will work with the industry to leverage government procurement to offer offtake agreements to local manufacturers of renewable products and low carbon materials.

---Reporting by Serena Seng [Serena.seng@opisnet.com](mailto:Serena.seng@opisnet.com), Editing by Hanwei Wu, [hww@opisnet.com](mailto:hww@opisnet.com)  
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## \*\*\*India's Solar Modules Capacity Rises 48% In 2023: Mercom India

India's solar modules capacity increased 48% in 2023, reaching a cumulative capacity of 64.5 gigawatts (GW) by the end of December last year, according to a report by research firm Mercom India on March 28.

The capacity increases were due to the expected reimposition of the Approved List of Models and Manufacturers (ALMM) order in April this year and potential export opportunities, the report said.

Under the ALMM order, solar projects which are funded or subsidized by the government are required to use locally produced solar photovoltaic (PV) modules.

Around 60% of the manufacturing capacity could produce solar modules in M10 (182mm) and G12 (210mm) sizes, with 22.2 GW of the overall module capacity being recognized under the ALMM order in Jan. 2024.

Monocrystalline modules comprised 67.5% of the country's production capacity, outpacing polycrystalline, TOPCon and thin film modules.

In 2023, government agencies and the public sector issued solar module tenders totaling 9.7 GW of solar module tenders - more than five times the previous year's volume.

Module imports hit a record high of 16.2 GW in 2023, up from 10.3 GW in 2022. Similarly, module exports tripled to 4.8 GW compared to the previous year.

## INDIA'S 2026 SOLAR CAPACITY PROJECTIONS

Module manufacturing capacity will surpass 150 GW by 2026, while cell capacity is set to exceed 75 GW, based on projections by Mercom India.

Monocrystalline modules will account for 59.7% of the annual module production capacity and 50.5% of the cell production capacity by 2026. The remaining capacities will comprise TOPCon, Heterojunction (HJT) and other technologies.

"A policy change in the U.S. post-elections could potentially shrink export opportunities, and demand for solar energy in India needs to ramp up significantly to consume the projected increase in module production in the coming three years," said Raj Prabhu, CEO of Mercom Capital Group.

Prabhu added that cheaper Chinese products will continue to challenge the competitiveness of India-produced modules.

---Reporting by Brian Ng, [bng@opisnet.com](mailto:bng@opisnet.com); Editing by Hanwei Wu, [hww@opisnet.com](mailto:hww@opisnet.com)  
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### \*\*\*Suniva, Heliene to Produce First US Domestic Content-Eligible Solar Modules

US cell manufacturer Suniva and US module manufacturer Heliene have announced a three year sourcing agreement to produce the first US domestic content-eligible crystalline silicon photovoltaic (PV) modules, according to a joint company statement on March 27.

Based on the agreement, Heliene will incorporate Suniva's US-made solar cells into its US-made solar modules. The modules are expected to be commercially available beginning mid-2024 and will be the first crystalline solar modules made with a domestically produced solar cell

Heliene's modules will allow solar project owners and developers to qualify for the 10% Domestic Content Bonus Investment Tax Credit due to its US made cells. This is based on the US Department of Treasury's guidance published in May 2023.

Currently, all US-made solar crystalline modules use only imported cells. This partnership is expected to address the gap in the US solar supply chain and help strengthen domestic manufacturing capacity to meet increased demand for domestic products, the statement said.

---Reporting by Serena Seng [Serena.seng@opisnet.com](mailto:Serena.seng@opisnet.com), Editing by Hanwei Wu, [hww@opisnet.com](mailto:hww@opisnet.com)  
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## **\*\*\*Idemitsu and BII to Invest 300MW Solar Capacity in Southeast Asia**

Japan's Idemitsu Kosan and British International Investment (BII) will invest in Skye Renewables to develop 300-megawatts (MW) of greenfield solar power capacity for commercial and industrial customers in Southeast Asia, the companies announced on March 26.

The solar projects aim to reduce on-grid electricity consumption and cut annual carbon emissions by 270,000 metric tons (mt).

Since July 2022, Idemitsu Kosan has invested in Skye Energy for commercial and industrial (C&I) rooftop solar projects in Singapore, Malaysia, Vietnam and the Philippines.

This collaboration with Skye marks BII's first direct equity investment in Southeast Asia since its re-entry into the region in 2022, according to Srinu Nagarajan, BII's Managing Director and Head of Asia.

BII plans to invest up to £500 million (\$631 million) in decarbonization efforts, particularly in the renewable energy sector.

Southeast Asia's energy demand is set to increase by 1.8 times by 2050, while renewable energy demand will grow by 4.4 times based on the current policy climate, BII said.

"Southeast Asia is a region with an increasing demand for power and a high reliance on fossil fuels, which creates an opportunity for the growth of renewable energy as part of decarbonisation efforts," it added.

---Reporting by Brian Ng, [bng@opisnet.com](mailto:bng@opisnet.com); Editing by Hanwei Wu, [hwu@opisnet.com](mailto:hwu@opisnet.com)  
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## **\*\*\*TotalEnergies Corbion to Power Thai Bioplastic Plant with Solar Energy**

TotalEnergies Corbion has installed solar panels at its 75,000 metric tons (mt) per year polylactic acid (PLA) plant in Rayong, Thailand, and signed a solar power purchase agreement in a push towards sustainable production and decarbonization, the joint-venture (JV) company said on March 25.

Headquartered in the Netherlands, TotalEnergies Corbion is a 50-50 JV between TotalEnergies and Corbion.

Its Rayong plant has been integrated with solar panels through a "Solar Rooftop, Carport, and Cover Way" project run by affiliated TotalEnergies Eneos, with both JVs signing a 20-year power purchase agreement. This project situated in Rayong's Asia Industrial Estate has a capacity of 1,251 kilowatt peak (kWp), with 1.6 gigawatt-hours (GWh) of solar power expected annually, promising CO2 emission cuts by 823 mt/year, said TotalEnergies Corbion.

This solar initiative and the use of PLA bioplastics both align with the principles of the United Nations Sustainable Development Goal (SDG) 12, emphasizing responsible consumption and production practices, reducing environmental impact, and fostering a transition towards a more circular and sustainable economy, said TotalEnergies Corbion.

In a separate statement on March 18, TotalEnergies Corbion said it had developed an embossed label PLA water bottle with South Korea's Sansu, which can hasten adoption of recycled PLA as feedstock. Both companies have been working on post-consumer-recycling (PCR) of PLA since 2019, but this has been cumbersome -- labels and caps need removing, followed by crushing, cleaning, and shipping in the used PLA in flake form back to the Rayong plant for de-polymerization into PLA monomers, and subsequent re-polymerization into recycled PLA. TotalEnergies Corbion said a 100% PLA bottle with an embossed label significantly expedites the processing of PCR PLA bottles.

Singapore-based TotalEnergies Eneos Renewables Distributed Generation Asia is a 50-50 JV between TotalEnergies and Eneos to develop onsite business-to-business solar distributed generation across Asia, with plans to develop 2 GW of decentralized solar capacity over the next five years, it said.

---Reporting by Chuan Ong, [cong@opisnet.com](mailto:cong@opisnet.com); Editing by Hanwei Wu, [hwu@opisnet.com](mailto:hwu@opisnet.com)  
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