

SunEdison's upstream suppliers hit hardest with US\$321 million owed in bankruptcy

Bankrupt renewable energy firm SunEdison owes its upstream suppliers more than US\$321 million, according to papers filed with the Bankruptcy Court for the Southern District of New York.

Primarily a fabless company, SunEdison has been trading some in-house polysilicon and wafer production with producers of solar cells and modules via outsourcing that would ultimately be used in its downstream PV power plant projects.

Court documents indicate that PCS Phosphate, a producer of silicon tetrafluoride, used for the production of polysilicon has become the largest supplier victim of SunEdison's bankruptcy, owed over US\$193 million.

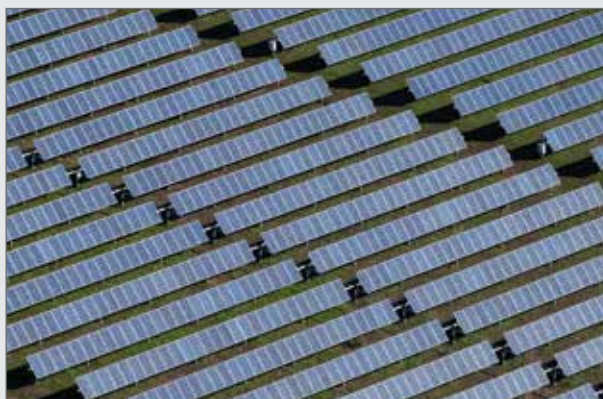
SunEdison announced in February 2016 that it would permanently close its Pasadena, Texas polysilicon production facility by the third quarter of 2016.

The closure would result in one-time impairment and restructuring charges of US\$363 million and approximately US\$10 million to US\$13 million in restructuring charges that were expected to occur in 2016.

The significant debt owed to PCS Phosphate could indicate that SunEdison was struggling with liquidity issues long-before its last quarterly conference call in November 2015.

High up the debt list is PV module assembly subcontractor and single-axis tracker supplier, via its NEXTracker acquisition, Flextronics International (Flex), which is owed over US\$44 million.

Several major PV module suppliers have also been embroiled in the bankruptcy, which include 'Silicon Module Super League' (SMSL) members, Trina Solar and JA Solar, owed US\$10.52 million and US\$10.38 million, respectively.



Credit: SunEdison

SunEdison's upstream suppliers look set to be hit hard by the company's Chapter 11 bankruptcy proceeding.

News

Market updates

Saudi Arabia hits renewable reset button with new 9.5GW target

Saudi Arabia has confirmed a new 9.5GW renewable energy target as part of its 2030 Vision initiative to move its economy away from reliance on oil.

The plan was revealed in April and includes a combination of asset sales, subsidy reforms and the creation of a US\$2 trillion sovereign wealth fund.

The country famously announced a US\$109 billion solar investment plan in 2012 but has seen little in deployment since. Under the new goals, manufacturing will also be targeted, and foreign investment in projects will be encouraged as part of public-private partnerships. This model has already proved successful in other Gulf economies, notably the UAE.

"Even though we have an impressive natural potential for solar and wind power, and our local energy consumption will increase three fold by 2030, we still lack a competitive renewable energy sector at present," said an English version of the Vision 2030 plan posted on the country's state news website. "To build up the sector, we have set ourselves an initial target of generating 9.5GW of renewable energy. We will also seek to localise a significant portion of the renewable

energy value chain in the Saudi economy, including research and development, and manufacturing, among other stages."

China PV installs surge past 50GW milestone

China installed 7.14GW of new solar power capacity in the first quarter of 2016, according to figures released by the country's National Energy Administration (NEA). Total cumulative solar capacity in the country is now 50.3GW.

The quarterly figure is up 48% compared to the same period last year.

Frank Haugwitz, Beijing-based founder of solar consultancy AECEA, said there is more to come. "It is no surprise to see such a high number, because, traditionally Q1 witnesses the final execution of roll-over projects from 2015. As well, in September 2015 a good 5.3 GW were additionally approved and their deadline in order to qualify for last year's feed-in tariff (FiT) is the end of June," he said.

While there has been no official target or quote for PV deployment released for 2016, Haugwitz noted that a vague, unofficial indication of 15GW has been mentioned publicly.



Credit: GCL System Integration Technology

Cumulative PV capacity in China has now surpassed the 50GW mark.



Yingli Green has delayed its fourth-quarter and full-year 2015 results as it continues to struggle financially.

News

Brazilian Development Bank accredits 17 solar equipment manufacturers

The Brazilian Development Bank (BNDES) has qualified 17 solar equipment manufacturers to receive funding in Brazil.

Of the accredited companies, five are domestic companies that produce PV panels locally, seven produce inverters and two manufacture trackers that follow the sun's trajectory throughout the day. Meanwhile, another five produce central junction boxes for PV applications. One of the panel manufacturers can supply modules to utility-scale projects, while another four are geared towards residential and commercial rooftop applications.

In order to be accredited, BNDES verifies that the manufacturer is compliant with local content requirements, which is a prerequisite to receiving funding from the development bank.

BNDES offers financing to PV players that follow a progressive nationalisation plan for equipment manufacturing including a level of local content compliance. For example, to qualify for funding, from 2018 all junction boxes, inverters and support structures used in projects need to be sourced locally.

The bank is currently in the process of qualifying another three foreign-based manufacturers and one Brazilian manufacturer.

Grid integration and financing issues will hinder India's 100GW solar target - Bridge to India

Grid integration and availability are the key challenges ahead for India's solar sector, according to the latest report from consultancy firm Bridge to India.

The 'India Solar Handbook 2016', which

included a survey of chief executives for the first time, reported that grid issues are the major bottleneck to the country's 100GW by 2022 target and as a result the country is expected to deploy just 40-60GW instead.

Maintaining investment and lending appetite at aggressive tariff levels was another main challenge and Bridge to India said that policy intervention would be key to sustaining its growth in the sector.

In any case the country is still expected to become the fourth largest solar market globally in 2016 behind China, the US and Japan with 5.4GW of expected new capacity in the year.

Despite the bottlenecks cited, Bridge to India described the sector as being in "full bloom." However, financing capacity remains an issue with tariffs reaching well below five rupees per unit of late and many developers struggling to raise capital with banks seemingly reluctant to lend to projects with these tariffs. As a result, progress in 2017 and 2018 will not be as fast as expected.

Company news

Yingli Green delays financial reporting on liquidity issues

Struggling major solar PV manufacturer Yingli Green Energy has officially delayed filing its fourth-quarter and full-year 2015 results as it needs more time to gauge its overall liquidity issues.

Yingli Green noted that it expected to disclose in its annual report that there remains substantial doubt over its 'going concern' status, which proved to be a shock for the industry in its 2014 filing.

Yingli Green said it expected a loss for 2015 in the range of RMB5.8 billion to RMB5.9 billion (US\$894.1 million to US\$909.7 million), compared to a net loss of RMB1.3 billion in 2014.

Revenue is expected to be in the range of RMB10.0 billion to RMB10.2 billion (US\$1.54 billion to US\$1.57 billion), decreased from net revenue of RMB12.9 billion in 2014, due primarily to falling PV module shipments on the back of liquidity issues.

Yingli Green said that module shipments were 2,357MW in 2015, down from 3,101MW in 2014. Shipments in 2015 were at the low end of previous guidance of 2.35GW to 2.40GW.

TerraForm Power bullish in wake of SunEdison bankruptcy

TerraForm Power has moved to allay fears that it could become entangled in SunEdison's Chapter 11 bankruptcy proceedings, however its original IPO filing warned of the risks of losing its

sponsor.

In an SEC filing posted towards the end of April, the yieldco reiterated that it and sister company TerraForm Global were separate entities and that none of its "significant" power purchase agreements with the off-takers of its projects included a break provision in the event of bankruptcy at SunEdison.

"TerraForm Power and its sister company, TerraForm Global, are not part of the SunEdison bankruptcy filing and have no plans to file for bankruptcy themselves," the statement said. "TerraForm Power and TerraForm Global are publicly listed companies that are separate legal entities and are traded separately on Nasdaq. The equity interests of TerraForm Power and TerraForm Global in their respective wind and solar power plants that are legally owned by their respective subsidiaries are not available to satisfy the claims of creditors of SunEdison.

"While TerraForm Power's relevant review remains ongoing, the Company has not identified any significant power purchase agreement that includes a provision that would permit the offtake counterparty to terminate the agreement in the event of a SunEdison bankruptcy."

R&D spending laggards Canadian Solar and JinkoSolar continue redemption

Annual analysis by *Photovoltaics International's* sister website, PV Tech, of 12 major PV manufacturers' R&D spending behaviour again highlights that two 'Silicon Module Super League' (SMSL) members, Canadian Solar and JinkoSolar, continue to lag behind rivals, despite climbing the SMSL ranks and top 10 manufacturers' rankings, based on PV module shipments.

JinkoSolar had long been the perennial R&D spending laggard but in 2014 the company increased spending by 60% to US\$17.3 million, climbing two ranking positions, also new record for the company.

In 2015, JinkoSolar increased R&D spending a further 28% to around US\$22.2 million, another record and crossed the US\$20 million barrier that previously, in 2014, had been occupied by five of the 12 companies covered in the analysis since 2007.

The other R&D spending laggard, Canadian Solar also increased expenditure in 2015 by around 41% to US\$17.05 million, compared to US\$12.05 million in the previous year, but remained within the US\$20 million barrier and spending remains below the peak of US\$19.8 million set in 2011.

R&D spending by Canadian Solar as a percentage of revenue in 2015 stood at 0.5%.