JinkoSolar - Q4 2018 Transcript

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Call participants:

Rene Du -- *Investor Relations Manager*

Kangping Chen -- *Chief Executive Officer*

Gener Miao -- *Chief Marketing Officer*

Charlie Cao -- *Chief Financial Officer*

Philip Shen -- *ROTH Capital Partners -- Analyst*

Maheep Mandloi -- *Credit Suisse -- Analyst*

Brian Lee -- *Goldman Sachs -- Analyst*

Carl Xiong -- *CICC -- Analyst*

Alex Liu -- *UBS -- Analyst*

Prepared Remarks:

Operator

Thank you for standing by, and welcome to JinkoSolar Quarter Four and Full-Year 2018 Earnings Conference Call. At this time, all participants are in a listen-only mode. There will be a presentation, followed by a question-and-answer session. (Operator Instructions)

I would now like to hand the conference over to your host today, Ms. Rene Du. Thank you. Please go ahead.

Rene Du -- *Investor Relations Manager*

Thank you, operator. Thank you everyone for joining us today for JinkoSolar's fourth quarter 2018 earnings conference call. The Company's results were released earlier today and are available on the Company's IR website at www.jinkosolar.com, as well as on Newswire services. We have also provided a supplemental presentation for today's earnings call, which can also be found on the IR website.

On the call today from JinkoSolar are Mr. Chen Kangping, Chief Executive Officer; Mr. Cao Haiyun, Chief Financial Officer; Mr. Gener Miao, Chief Marketing Officer; and Ms. Rene Du, IR Manager. Mr. Chen will discuss JinkoSolar's business operations and Company highlights, followed by Mr. Miao who will talk about the sales and marketing, and then Mr. Cao, who will go through the financials. They will all be available to answer your questions during the Q&A session that follows.

Please note that today's discussion will contain forward-looking statements made under the Safe Harbor provisions of US Private Securities Litigation Reform Act of 1995. Forward-looking statements involve inherent risks and uncertainties. As such, our future results may be materially different from the views expressed today. Further information regarding these and other risks is included in JinkoSolar's public filings with the Securities and Exchange Commission. JinkoSolar does not assume any obligation to update any forward-looking statements except as required under the applicable law.

It's now my pleasure to introduce Mr. Chen Kangping, CEO of JinkoSolar. Mr. Chen will speak in Mandarin and I will translate his comments into English. Please go ahead, Mr. Chen.

Kangping Chen -- *Chief Executive Officer*

(foreign language)

Thank you, Rene. Good morning and good evening to everyone, and thank you for joining us today.

(foreign language) Module shipments hit a record high of 3,618 megawatts during the quarter, an increase of 22.5% sequentially, and an increase of 45.8% year-over-year. Total revenues were $1.12 billion, an increase of 15.3% sequentially and an increase from 21.5% year-over-year. Gross margin was 14.7%. Including the CVD reversal benefit, gross margin was 13.8% compared with 12.8% last quarter. For full-year 2018, we shipped 11.4 gigawatt of solar modules, an increase of 16% from 2017, which further consolidated by our leading position in global market share. Total revenues for the full year 2018 were $3.64 billion, a decrease of 5.4% from 2017 because of the lower ASP. Gross margin was 14% for the full-year 2018 compared with 11.3% of 2017.

(foreign language) Looking back at 2018, although the Chinese market was affected by policies released on May 31, we were able to continue to grow our business with our strong diversified global distribution and further consolidated our leading position in terms of market share.

Looking out to the coming years, we expect our module shipment to grow by approximately 30% in 2019. (foreign language) On the policy side, the NEA has laid out their plans for a bidding system and is expected to begin granting subsidy approvals again for utility-scale projects. Development of these projects will have to bid for government aid. And aid will be based on, among other things, available form (ph). In addition, there will be a separate subsidy scale for residential solar systems and the corporate strategy for Asian project (ph).

And more important, subsidies will be prepaid by the state grids, which means no more payment delays for new projects. And new policies sets a clear direction for the country's solar panels and will help to greatly improve sentiment for the solar sector as the country tries to smoothly transition toward grid parity and encourage a more market-driven environment rather than policy-driven.

Based on these expectations, domestic installations are expected to exceed last year's DG projects and the projects complete at grid parity will continue to make up a large share of overall installations. In fact, the NEA is also trying to address the subsidies for existing solar panels. (foreign language) Moving over to the US, the market there is very active, due to introduction of the solar Investment Tax Credit or ITC, whereas solar developments has began to launch an audit. US demands were strong in the second half of the year and this momentum will continue as more companies attempt to gain (ph) strong results than ITC, which will prompt construction to start before 2020 and commissioning to take place before 2024. For us, we started pilot production at our US manufacturing facility in November 2018. Since then, we have been steadily moving up and expect to be fully operating now in Q2 of this year. Given the existing opportunities in the US market, we fully intend to expand our presence there by leveraging all our overseas manufacturing capacity, including our US facility as well as our strong brand recognition, high-quality products and the best-in-class customer service.

(foreign language) We continue to see strong growth momentum there in Asia-Pacific region. FIT then, feed-in tariff policy has taken shape from 2019 to 2021 and continue to encourage market developments. Malaysia, Thailand and the Philippines and other Southeast Asian markets continue to maintain robust demand in 2018. For our business, we will take advantage of our early entry in these markets and consolidate our leading position.

(foreign language) In Europe, after the cancellation of the minimum import price policy, demand from solar power purchase agreements and grid-parity projects in the European markets is surging, especially in some of the big markets such as Spain, the Netherlands and Germany. Overall, the EU market is expected to hit 15 gigawatts this year. Emerging markets are also booming. Jordan, Kuwait, South Africa and Oman will impact, and we have seen a continual stream of announcements of gigawatt level standards. I'll let Gener go over this in more detail later.

(foreign language) On the technology front, we continue to allocate resources toward the application of high efficiency technology, while constantly optimizing the cost structure on our product. On the wafer side, we continue to make progress implementing large-scale crystallization furnaces to increase productivity and we are also working very hard on technologies to reduce both oxygen content and light-induced degradation.

At the same time, we've led the industry in terms of efficiency improvements on our diamond wire cutting, continuously reducing our wire consumption. On the sales side, our large-area N-type monocrystalline silicon solar cell reached record high efficiency of 24.2% in January. We are now focusing on further improving cell efficiency based on N-type and PERC cells. Our high efficiency capacity were ramping up as we plan to fully switch our existing capacity to high efficiency capacity.

On the module side, we just launched our new bifacial Swan module in Japan and it is already attracting a lot of interest. The module and the latest addition to our premium Cheetah range of products and due to its current age transparent backsheet with DuPont's clear Tedlar technology, lightweight material solves a lot of problems on the installation side and creates a lower materialized cost of energy to our customers. Content technology development, such as this not only enable us to provide our clients with competitive, higher efficiency products, but also allow us to sustainably cut costs. We are confident in our ability to further optimize our cost structure going forward and are fully prepared to enter an era of grid parity in the near future.

(foreign language) Intellectual property is important in today's competitive business environment. Currently, we have been granted over 570 patents globally. (inaudible) of which that the industry, we will continue to increase investments in scientific research and grow our intellectual property portfolio to maintain our global leading position in terms of technology. With global effect, intellectual property rights and encouraged healthy competition, but we will take legal action to defend ourselves from accusations of wrong doing. We refute the allegations made by Hanwha and believe that complaints are without technical or legal merit. We are now working closely with our legal counsel and our technical advisors to vigorously defend against the claims and we are confident in the positions we are developing. We don't expect any disruption to our normal operations arising from the Hanwha team.

(foreign language) Turning to the manufacturing capacity, our internal wafer cell and module capacity reached 9.7 gigawatts, 7 gigawatts and 10.8 gigawatts, respectively, by the end of the fourth quarter. We plan to rapidly increase our capacity to produce high-efficiency products by increasing both mono wafer capacity and PERC capacity and converting our existing non-PERC capacity to PERC capacity to increase output.

We expect new capacity to ramp up in the mid of 2019. Once completed, the competitiveness of our products will enhance and our cost advantages will expand. We expect to reach 16 gigawatts, 10 gigawatts and 15 gigawatts, respectively, by the end of the year. Of this, approximately 11 gigawatts will be mono wafer and approximately 9.2 gigawatts will be PERC cell. Overall, we believe we are well positioned given the expected significant advances for high efficiency projects and the current structure of our production capacity.

(foreign language) Looking out to 2019, we are confident about Chinese and global demand next year as solar energy becomes more and more competitive. We are excited about this opportunities that lie ahead and we are confident in our ability to further expand our market share, stand out from the competition and lead the industry forward.

(foreign language) Before turning the call over to Gener, I will quickly go over the guidance. Based on the current estimates, we expect our total solar module shipments should be in the range of 2.8 gigawatts to 3 gigawatts for the first quarter and 14 gigawatts to 15 gigawatts for the full year.

(foreign language) Thank you, Rene. With that, I will turn it over to Gener.

Gener Miao -- *Chief Marketing Officer*

Thank you, Mr. Chen. I'm happy to report a strong finish to 2018. Jinko shipped a total volume of 3,618 megawatts in quarter four and 11.4 gigawatts for the entire year. We once again ranked first globally in solar module shipment for the third year running with approximately 13% market share according to analysts' report.

The Chinese May 31st policy change did not impact our growth momentum. Our sales channels now cover over 100 countries. In terms of geographic distribution, China has the largest demand and accounted for the approximately 38% of the total shipments. The Asia Pacific region was the second biggest, followed by emerging markets, North America and Europe.

In 2018, we further consolidated our number 1 position in terms of the shipment by increasing the lead with second place by over 30%. In 2019, we expect the international demand to account for over 80% of our total annual shipments. Geographic mix among Asia Pacific, Europe and North America is becoming more balanced, meanwhile shipments to emerging markets are growing and are increasingly becoming more important. Overall, we are very optimistic about continuing global market growth this year. We are confident in our ability to maintain our leading position in this industry and to generate sustainable growth over long term.

In terms of market update, I will first start with China where recent imbalance in demand/supply has supported an increase in ASPs, especially for premium products. In February, market sentiments improved after the National Energy Administration announced the business-friendly policy jobs together with industry consultation. According to various industry forecasts, new Chinese installations in 2019 is expected to be in the range of 40 gigawatts to 45 gigawatts, which is similar to last year. As the industry awaits the finalization of this year's new solar policies, the industry expects the DG projects and grid-parity projects will gear up an ever greater share of annual installations in China.

It is the government's aim to help the industry transition from subsidy-driven demand to market-driven demand and smoothly achieve grid-parity in the near term. We are confident that we will be able to take advantage of these expanding opportunities for grid parity projects, while continuing to provide our clients with highly efficiency products with lower LCOE. Our strategy is to promote industry-leading products and technologies, while expanding our presence and market share.

The US market is strategically important to us, and this year is shaping up to be very active. Solar developers are rapidly putting together projects in order to benefit from the highest possible investment tax credits. This has created a shortage of high-efficiency products and has supported ASPs. We anticipated that this policy will stimulate further demand over the next few years. We will leverage our extensive brand recognition, premium quality products and the services, as well as our dedicated local US capacity to further consolidate our presence in this country.

Switching over to Asia-Pacific region, we are forecasting good demand in Japanese market. We expect the 2019 total installations to be in the range of 6 gigawatt to 8 gigawatt. Demand is likely to increase in short term as developers rush to secure the old FIT before it expires. Solar policies now are gradually taking shape, which will further boost the sustainability of this market. Demand across the country is growing from both local and international players. We see potentials in other neighboring countries such as Thailand, Malaysia, Indonesia and the Philippines.

Our strategy has always been to establish early mover advantage in local markets. We believe we are well positioned to strengthen our leading position across the region. The Indian market is very actively growing. However, their ambitious national target for the solar products cannot be met by the limited production capacity they have. As a result, the market continues to rely heavily on Chinese and overseas suppliers, even after the introduction of import duties. We are optimistic about the long-term prospects of the Indian market. We will focus on our premium clients and promote our high-efficiency product there.

We are very optimistic of our European markets in 2019. The cost of solar development has decreased substantially and many countries have already achieved the grid parity. Both utilities and the distributed segments are inserting (ph) in key markets such as Germany, Italy, Netherlands and Spain, which are showing great promises. 10% to 20% renewable energy commitments by EU countries by 2020, many countries are rushing to reach this target before the deadline. Countries that have fallen behind are actively ramping up their efforts to bridge this gap based on this target.

Emerging markets such as Latin America and the Middle East are growing in importance and accounting for a bigger portion of our shipments. In 2018, we further consolidate our position in Latin America by shipping to 20 countries there. Many Latin American markets are implementing action mechanisms that will further stimulate demand. In the Middle East, we believe traditional markets such as Egypt, Jordan and the UAE, as well as emerging markets such as Kuwait and Oman, will continue to show great promise. We expect the 7 gigawatt to 10 gigawatt of installations in EMEA region in 2019 and believe demand will continue to grow through 2020. We are very optimistic about our prospects in this region and we will allocate more resources to develop the market there.

Moving to product pricing. Our first quarter ASP decreased as expected when compared to the previous quarter. But as Ms. Chen has just mentioned, with technology improvements and the ramping up of our high-efficiency product capacity, we are confident that we will be able to generate sustainable profit and growth.

As solar module efficiency increases and cost continue to decrease, solar energy will continue to become more competitive when compared to traditional energy sources, which will help increase the pace toward grid parity. On the marketing side, we have set out to position ourselves as a key opinion leader in the market. One of the ways we can increase demand is by educating the market and expanding the reach of our marketing activities.

As part of this effort, we were invited to speak at many world-class conferences, events and the forums such as the IFC 2018 Climate Business Forum, which was an event where global business leaders were invited to collaborate on how to tackle climate change. We were also invited participate in the 2018 B20 Summit in Argentina, where representatives from top companies and business associations from all G20 countries discussed the influence of grid parity on the global energy market.

In terms of the progress (ph) on marketing, we increased our efforts toward the promotion of our premium Cheetah brand and other industry-leading products.

Over the course of this year, we attended 45 major exhibitions, 207 conferences and hosted a further 170 customer events around the word. This global marketing events strengthen clients' trust in our Cheetah series of products and help to further expand the recognition of our premium products in this market.

With that, I will turn it over to Charlie.

Charlie Cao -- *Chief Financial Officer*

Thank you, Gener. Firstly, I'd like to walk through our Q4 results. Total solar module shipments were 3.6 gigawatts, up 23% sequentially and up 46% year-over-year. Total revenue was $1.1 billion, up 15% sequentially. The sequential increase was due to the strong solar module shipments. Gross profit was $165 million compared to $145 million in Q3. Excluding a CVD reversal benefit, gross profit was $155 million compared to $125 million in

Q3. The sequential increase was due to the increase of shipments of solar modules and the reduction in our production costs.

Gross margin was 14.7%, or 13.8% excluding the CVD reversal benefit, compared to 14.9%, or 12.8% excluding the CVD reversal benefit, in Q3. We achieved a higher gross margin through our combination of our diversified strong global sales and continued cost reduction. The operating expenses was $130 million, representing 11.6% of total revenue compared to $118 million, which was 12.1% of total revenue in Q3. Net exchange loss was $5 million compared to a net exchange gain of $14 million in Q3, due to the RMB appreciation against US dollars. EBITDA was $54 million compared to $24 million in Q3. Net income was $16.7 million compared to $27.5 million in Q3. Non-GAAP net income was $17 million. This translates into non-GAAP diluted earnings per ADS of $0.40.

I'll briefly review our full-year 2018 financial results. We concluded our 2018 with total solar module shipments of 11.4 gigawatts, up 16% year-over-year. Total revenue was $3.6 billion in 2018, down 5% year-over-year due to the decline of average selling price. Gross margin was 14%, or 13.2% excluding the CVD reversal benefit, compared to 11.3% in 2017. We achieved a higher gross margin through a combination of our diversified strong global sales and continued cost reduction.

Operating expense was 11.5% of total revenue compared to 10.1% in 2017. EBITDA was $220 million compared to $160 million in 2017. Net income was $59 million compared to $22 million in 2017. Non-GAAP net income was $63 million compared $32 million (ph) in 2017. This translates into non-GAAP basic and diluted earnings per ADS of $1.64.

Moving to the balance sheet, the Company has $506 million in cash, cash equivalents and restricted cash compared to $442 million by the end of Q3. The accounts receivable were $889 million, down from $955 million by the end of Q3. Inventories were $835 million compared to $810 million by the end of Q3. And total debt was $1.41 billion compares to $1.38 billion at the end of Q3. The net debt was $960 million compared to $936 million at the end of Q3.

At this moment, we're happy to take your questions. Operator?

Questions and Answers:

Operator

Thank you. (Operator Instructions)

Your first question is from Philip from Roth Capital Partners. Your line is now open. Please go ahead.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Hi, everyone. Thank you for my questions. I'd like to just kind of about your capacity expansion to start. Can you help us understand what the CapEx required will be to enable your capacity expansion for 2019? Thanks.

Charlie Cao -- *Chief Financial Officer*

Sure. In terms of capacity expansion, I think the fundamental rationale for the Company to expand our capacity is, the market is shifting to the high increasing (ph) products, and we have the strongest product in the market, like we have the 400 watts 72 pieces Cheetah. And we just launched the Swan bifacial product and with strong attractiveness from our customers.

And in terms of the expected estimation of the full-year shipments, we guided 14 gigawatts to 15 gigawatts shipments. Around 65% is mono PERC. So all the investment is on the high-efficiency (ph) product and which is -- if you look at our capacity, we plan to do 5 gigawatts mono wafer capacity and wait -- for the PERC cell perspective, we are doing the conversion from non-PERC to PERC and the increase -- the total PERC capacity is around 9.2 gigawatts. And the purpose is to build our competitiveness of the capacity as well as our cost competitiveness and for the future. And regarding your question, so total CapEx, we estimate it's in the range of $400 million to $450 million.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay, great. Thank you, Charlie. Can you break down the unit CapEx by chance, how much -- what's the unit CapEx per watt for wafer cell module and then also for the PERC capacity? Thanks.

Charlie Cao -- *Chief Financial Officer*

Sure. And for the new capacity, I just gave you some -- the range. And, therefore, for some capacity wafer cells, we convert existing cell capacities non-PERC to PERC, so the CapEx will be lower. And for the new capacity like the mono wafer, we estimate, per watt basis, it's $0.03 to $0.04 per watt basis. For the new PERC capacity, per watt basis, it's $0.06 to $0.07 and for the module capacity, it's around $0.02.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Great, thank you for the detail there. So given the $450 million that may be required, Charlie, do you have plans to raise equity, how do you expect to finance the expansion?

Charlie Cao -- *Chief Financial Officer*

It's kind of coming from the couple different resources and we expect that we are able to continue to generate positive and sizable operating cash flows. And secondly, we are working with some industry farms which are interested in solar energy from the long-term perspective. Certainly, we have roughly 500 megawatts international projects, which are in construction and we are estimating second quarter or third quarter, we're going to sell around 250 megawatts international projects and we can recycle the equity we are investing on the international projects.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay. And is that enough... ?

Charlie Cao -- *Chief Financial Officer*

So on the settlement I think -- as for settlement I think the price, we don't like to increase our leverage dramatically and we are going to, you know, working with some industry farms from the equity perspective and on the subsidiary level, and we can put their money and they are kind of long-term investors.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay, great. To what degree do think you would want to work with local governments to help you also finance some of this expansion? Do you think there is a partnership that you can secure with some local provinces and then in turn perhaps shift the CapEx to a partner and then have less requirement on your own balance sheet? But then as a result, do you expect that to increase your operating expenses from a lease perspective, can you walk us through how that might work?

Charlie Cao -- *Chief Financial Officer*

I think you know solar is pretty attractive and you know, the China economy is also good. And from many investor perspective and a lot of investor are looking for the interest rates with long-term sustainable growth. And I think you understand China, even China there -- China policy is positive and providing anticipated transition period hoping China's market to shift into the market without subsidy. So why I like to say that, because a lot of market-driven financial institutions are -- they're interested in investing on solar from the long-term perspective, so that is our direction to working with.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay. Thank you, Charlie. Shifting over to ASPs. I think, Gener, you talked about ASPs may be coming down a little bit in Q1 versus Q4. Roughly we calculate about $0.31 per watt ASP for Q4, are we -- is that correct to start? And then also, Gener, as you think about the Q2, Q3 and Q4 ASP that you might see, can you talk about the cadence of those ASPs? Thanks.

Gener Miao -- *Chief Marketing Officer*

Yeah. Thank you, Phil. I think, for ASP side, our Q4 numbers are -- we are around 30s, very close to 30s, so high-20s, close to 30s and that's for Q4. And for Q1 and for 2019 ASPs, we are observing a very strong demand, at least for our premium products like our Cheetah series, and our Swan series, so by converting our whole leads (ph) capacity into more a PERC capacity, manufacturing this premium industry resource products, I believe the market price of those premium product will help us to stabilize ASPs and keep this whole year ASP stable with some seasonality of certain quarters ASP even goes up somehow.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay, great. Do you expect -- I think Canadian Solar is talking about potential and I've heard from some of our checks that there's potential in Q3 and Q4 for ASPs to go higher. Do you see any potential for that as China resolves its policy outlook and some of the demand, latent demand, has -- gets released, I guess, in Q3 and Q4?

Gener Miao -- *Chief Marketing Officer*

For the seasonalities, I think, this policy -- mainly for the policy-driven market, it will impact the supply and demand curve in some certain period of time. That's why it happens even in the, should I say, last Q3, Q4, maybe it might happen again for 2019 Q4, Q3 as well. Regarding China, I think, because of the delay of the announcement of the new policy, maybe it will further pop out the demand by the second half from China market due to the rush of the short period of time and large volume. The good thing is, I think there will be some grace period automatic corrections. That's why I think the total demand will be -- become much smoother than last year.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Great. One last question, then I'll pass it on. As for the US market, how do you -- there is a shortage of high-efficiency products in the US market. And my sense is, manufacturers don't want to unnecessarily expand capacity in Southeast Asia to be tariff economic to the US, but what are your plans for cell capacity in Southeast Asia? Do you expect to expand at all to serve the US market or do you think you want to convert some of the US market back to multi? So -- yeah, what are your thoughts overall for capacity, thanks, for the US market?

Charlie Cao -- *Chief Financial Officer*

Yes. So Phil, I think for US market, we are currently 100% supplying our Cheetah series, the high-end premium product to US market. So we don't have any plan to ship our poly products because of the expensive labor cost and the tracker cost in US, and that's our plan. So I think we will stick to our plan and fully utilize everything we have in Southeast Asia, including in US, the Florida site, to finish -- to satisfy our obligation of supply. We have secured, I think, almost everything we have for the next quite a couple of months for US market. So we don't have too much capacity left.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Okay, thank you Gener, thank you, Charlie. I'll pass it on.

Gener Miao -- *Chief Marketing Officer*

Thank you.

Operator

Thank you. Your next question is from Maheep from Credit Suisse. Your line is now open. Please go ahead.

Maheep Mandloi -- *Credit Suisse -- Analyst*

Hi, thanks for taking my questions. Just heading back to the capacity question, how much capacity do you expect the industry to add in 2019 for either the wafer and cell capacity? And could you just talk about like the total demand expectations you have for 2019?

Charlie Cao -- *Chief Financial Officer*

So Maheep, you are talking about industry, right? The capacity expansion, right?

Maheep Mandloi -- *Credit Suisse -- Analyst*

Yes.

Charlie Cao -- *Chief Financial Officer*

Yes, I think from the PERC perspective, most of the, I think, investors are expecting around 88 gigawatts to 98 gigawatts of PERC cell capacity by the end of the year. But for the mono wafer, in terms of competitiveness and I think we are one of the three and mono wafer producers and are planning to do the capacity expansion. And -- no, it's depending on the -- how it's -- how solid is the capacity expansion plan and if you add some company and also very big capacity expand, it's not -- I don't think it's curable. So I think from the mono wafer capacity perspective, it's quite in line with the PERC capacity and -- around 88 gigawatts.

Philip Shen -- *ROTH Capital Partners -- Analyst*

Got that. And how much is the growth from 2018 to 2019 in that?

Charlie Cao -- *Chief Financial Officer*

Sure. Maheep, what Charlie just mentioned is our expectation of the total industry capacity. It's not the newly added capacity, right. Just one clarification on that. So, compared with the growth ratios, personally we believe for the mono wafer capacity is significant. And I say, we have a significant growth, it's approximately close to double, or let's say, 60% -- over 60%, close to 60%, 70% growth. And for the PERC cell capacity, it's I think, definitely more than double.

Maheep Mandloi -- *Credit Suisse -- Analyst*

Got that. And just on your capacity expansion like when do you expect those new capacities to come in service? Is it like in early first half of 2019 or toward the later half?

Charlie Cao -- *Chief Financial Officer*

Most of the capacity, particularly on the mono wafer and the PERC capacity, we plan to ramp up around -- in the middle of the year. And the ramp up for capacity -- and I think by the end of Q3.

Gener Miao -- *Chief Marketing Officer*

Yes, it's a different space Maheep. This is Gener. So, for example, for a difficult part of -- like the in the wafer part, it's the renting part ramp-up process might take longer, but for the PERC capacity, upgrade and adding some new capacity, I think that will be faster. So the module part will be much faster, so that varies. So, the range will be starting from Q2 to end of Q3. So step-by-step everything will be ready.

Maheep Mandloi -- *Credit Suisse -- Analyst*

Got it. And then just on the -- I mean, thanks for the color on the ASPs earlier, but how do you look -- think of gross margins in 2019? Should we expect the same run rate we saw in Q3 and Q4 of 2018 or slightly higher?

Charlie Cao -- *Chief Financial Officer*

So from the gross margin perspective, in Q4 last year, 2018, and excluding CVD impacts, our gross margin was 13.8% and we expect the gross margin in Q1 is favorable, excluding the CVD impact. And just back Gener said, that market price is very strong, particularly for the high-efficiency mono PERC. And from our perspective, if you look at our capacity for the high increasing mono PERC, it's very limited. And by the end of last year, we have only 5.7 gigawatts mono wafer and the 4.2 gigawatts on the PERC capacity. So our in-house capacity gross margin actually in Q1, we expect to increase because continued cost reduction and very decent price. And, however, because of the -- particularly the third-party -- the PERC cell price is pretty high and we need to buy around 30% and to 40% cell from third-party, so we get some -- an active impact from the gross margin perspective in Q1.

So, all-in-all -- and we expect the Q1 gross margin is stable, but however, with more capacity, particularly for the PERC cell coming out and the price is in a downward trend and, most importantly, we are increasing our capacity on the mono wafer and the PERC cell and we expect our in-house capacity, which is our total shipments, the percentage, particularly for the mono PERC, will increase step-by-step. So we estimate our gross margin for the second half year will improve step-by-step.

Maheep Mandloi -- *Credit Suisse -- Analyst*

I got it. That's helpful color. And I just -- last question for me and then I'll jump back in the queue. Like, how do you look at operating expenses for the year, especially given you're increasing your shipments by more than 30% in 2019?

Charlie Cao -- *Chief Financial Officer*

Yes, you're right and that we estimate 30% shipments and growth, as well as we estimate throughout the whole year the ASPs were quite stable particularly on the high efficient products and we have the -- very strong compatibility (ph) with product. And from the revenue size, and we estimate -- because the shipment is 30%, an increase on the revenue size, we estimate, I think around 15% increase. So from the operating expenses perspective, we estimate range of 10% to 10.5%.

Maheep Mandloi -- *Credit Suisse -- Analyst*

Got it, and I appreciate the color. I'll jump back in the queue. Thank you.

Gener Miao -- *Chief Marketing Officer*

Thank you.

Operator

Thank you. Your next question is from Brian from Goldman Sachs. Your line is now open. Please go ahead.

Brian Lee -- *Goldman Sachs -- Analyst*

Hey guys, thanks for taking the questions. I might have missed this, but did you mention what your cash flow from operations was in 2018? What that number was?

Charlie Cao -- *Chief Financial Officer*

The cash flow for 2018, we are still finalizing -- you know the finalized numbers. But if you look at our -- the disclosed cash flows in the previous quarters, it is quite impressive because particularly we signed a lot of contracts in the international markets and -- for the next two or three years. So we've got a lot of advance payments.

Brian Lee -- *Goldman Sachs -- Analyst*

Well, maybe to put it another way, I think you spent $545 million in CapEx for 2018, that's on slide 7 of the presentation. How did cash flow from operations compare to that, just directionally, I guess?

Charlie Cao -- *Chief Financial Officer*

So you're asking about 2018 right, CapEx?

Brian Lee -- *Goldman Sachs -- Analyst*

Yeah, I'm just trying to get a sense for what free cash flow was in 2018.

Charlie Cao -- *Chief Financial Officer*

Okay, I think from the free cash flow, given we invest around -- over $400 million, I think the free cash flow will be some negative numbers in the range of, I think, around $100 million to $150 million.

Brian Lee -- *Goldman Sachs -- Analyst*

Okay, all right, that's helpful. And you mentioned $400 million right now. But on slide 7, unless I'm interpreting this correctly, if you add up the quarterly figures on the CapEx, it totals $545 million for 2018. So can you reconcile, is that the right CapEx number to be assuming here? And then related to that...

Charlie Cao -- *Chief Financial Officer*

Sorry to interrupt. I think, I'm talking about -- from the manufacturing perspective, and if you look at our number, we have international projects. Just I said, we are going to sell the international projects and around 250 megawatt and (multiple speakers) in middle of the year.

Brian Lee -- *Goldman Sachs -- Analyst*

Maybe the question is, of the $545 million in aggregate CapEx that you show in Slide 7, how much of that is manufacturing CapEx versus how much of that is projects-related?

Charlie Cao -- *Chief Financial Officer*

The CapEx for the IPD, international projects, it's around $90 million.

Brian Lee -- *Goldman Sachs -- Analyst*

$90 million, OK. The reason I ask is, I take the $90 million out of the $545 million total, you spent around $450 million in manufacturing CapEx for 2018, you're guiding $400 million to $450 million of CapEx, I'm assuming manufacturing CapEx, in 2019 based on the question that was asked earlier in the call around your capacity expansion. But the capacity expansion target is much higher for 2019 over 2018 versus what you saw in 2018 versus 2017, so I'm just -- you could help reconcile how (multiple speakers) not much higher than that?

Charlie Cao -- *Chief Financial Officer*

Yes, I think (inaudible). And in my previous, I think, remarks, I think it's not new -- all the things are from the new capacity expansion, like the cell capacity. It's mostly coming from converting existing capacity non-PERC to PERC. At the same time, we increased the output and de-bottlenecked. And for the module perspective, I think we are going to increase around 4 gigawatts -- around 2 gigawatts, it's from the de-bottleneck. It's not the new capacity expansion.

Brian Lee -- *Goldman Sachs -- Analyst*

Okay. Maybe on that same topic then, what about wafer and cell? Because wafer and cell are clearly the more capital intensive parts of the CapEx budget, how much of that is de-bottlenecking to get to the 15 gigawatts and 10 gigawatts versus greenfield expansion?

Charlie Cao -- *Chief Financial Officer*

So you are talking about wafer, right?

Brian Lee -- *Goldman Sachs -- Analyst*

Wafer, and I think you mentioned -- well, earlier you said that wafer and the cell were higher cents per watt CapEx than the module, which makes sense.

Charlie Cao -- *Chief Financial Officer*

Yes, you're right. I'm talking about the new capacity CapEx. And it was existing old capacity converting or upgrades, but debottleneck the CapEx per watt basis will be very lower.

Brian Lee -- *Goldman Sachs -- Analyst*

Okay. Fair enough. I'll take that offline. Maybe just another question on the capacity expansion, and then I'll move on to another topic. Given you -- you're burning some cash here in '18 or you burned some cash in '18, it seems like you'd be on a similar trajectory in 2019 given the gross margin and OpEx color that you provided and also a similar level of CapEx. What -- how should we be thinking as investors on the ROI or ROIC, just the level of returns that you get when you go into your annual planning sessions to figure out how much CapEx capital investment to be putting back into the business? Just is there a hurdle rate, you look at, or how -- can you guys just give us a sense of how you think about the targeted returns as you put capital work on the CapEx side?

Charlie Cao -- *Chief Financial Officer*

Yes, and Brian, I think we build high efficient capacity and just like with (inaudible) -- we think it's a market expansion, market is shifting to the highly efficient products and we invest on not only in R&D and on the product. And it's -- for the highly efficient module capacities, it's -- the gross margin is quite impressive like I think from the industry leaders and the mono PERC module in high gross margin are able to reach 25% and even a lot higher. And we build the capacity, not for this year and we think it's a trend and we increase our competitiveness on the capacity perspective. And again, for the financing needs and to increase the capacity, and our goal is to working with some industry equity funds and the two founders of capacity expansion.

Brian Lee -- *Goldman Sachs -- Analyst*

Okay. I mean, I know a lot depends on what albeit pricing and your cost end up doing. But when we sort of back into the math, it seems like on some of this capital investment, you're earning less than a 5% ROI. Would you agree with that or how would you sort of put us at ease at the returns on this investment or better than what seem to be penciling out on paper?

Gener Miao -- *Chief Marketing Officer*

So I think Brian, this is Gener, I think our target is at least to be at the same level of the industry leaders for the high end of product market. So I will go -- from the margin wise we are expecting, let's say, high mid-20s rate same as our other peers, right. I think you can take that as a reference.

Brian Lee -- *Goldman Sachs -- Analyst*

Okay, fair enough. Maybe last question, and then I'll pass on. I know I've had a few here. The -- I think it's come to light recently that you have some associated debt or liability with the Jinko Power organization that you parted ways with a couple years ago. I think, based on your financial statements, the agreement reliability or backstop, however, you characterize ends in October of 2019. Our understanding is Jinko Power is in the market or has been in the market trying to raise that. But in the event that they aren't able to do that, just maybe can you level set us as to what your exposure is there and then given we don't have transparency into what Jinko Power is doing with its balance sheet, what confidence level there is that won't be a liability that'll ultimately stays with you guys at the end of this year?

Charlie Cao -- *Chief Financial Officer*

I think you know we are seeing a lot of misleading information in some people's report. Back to our history, in Q4 2016, we spinned off Jinko Power and before this spin-off, Jinko as part of the Company were provided guarantees for the project zones of Jinko Power. And in China itself, where we extended and common practice for prudent companies to provide guarantees for the projects zones in China. And it's us, all the projects we provided are guarantees back to -- before 2016, are in the subsidized catalog. And they're generating sufficient cash flows and based on the principles the total balance sheet amount has dramatically decreased to around $588 million. And after the spin-off in 2016 Q4 Jinko and Jinko Power in different companies, we didn't provide any additional guarantees to Jinko Power. On top of that, for the pre-existing guarantee arrangements, we are charging the guarantee fees based on the market practice. And in addition -- and I think there are some information in public as Jinko Power, in Q4 last year, they have raised another RMB1 billion equity funds. And in December last year, Jinko Power submitted the IPO applications and are expected to continue to go through the IPO process.

Gener Miao -- *Chief Marketing Officer*

And I don't understand why you guys keep saying we're not transparent. I think every information is transparent and public. You can find all the information in our 20-F. I don't know if just somebody (inaudible) any time in reading our 20-F or what. It's all transparent, OK?

Brian Lee -- *Goldman Sachs -- Analyst*

Yeah. I read pretty of much that in your financial statements. So there is transparency to that degree. The fact that Jinko Power is not a publicly listed entity is what I'm referring to in terms of lack of transparency as to what's happening at your partner, because what's happening there at the partner level with respect to their debt servicing and raising of funds is what potentially a worrisome issue with respect to you guys. So I'll leave it there. Thanks for answering all the question, guys. Thanks.

Gener Miao -- *Chief Marketing Officer*

Thank you.

Operator

Thank you. Your next question is from Carl from CICC. Your line is now open. Please go ahead.

Carl Xiong -- *CICC -- Analyst*

Hey, management. Thanks for taking my question. My first question is, looking at your capacity expansion plan, we have a lot of mono wafer capacity expansion. And I've got one question about -- we are looking at the market and we are seeing some kind of quasi-mono that is using the traditional party and they make -- can produce some mono wafer. So how we look at this technology? Are they going to mature this year? And we are seeing some kind of pricing that those kind of quasi-mono wafer could produce like RMB0.4 (ph), but it -- this kind of compare to the normal mono wafer? And so how about an full of capturing (ph) on the cost reduction? Yes. So the first question is about the, how we look at the technology of -- about the costly mono?

Gener Miao -- *Chief Marketing Officer*

Thank you. This is Gener. I think in terms of the technology roadmap, there are a lot of argument in the market.

Carl Xiong -- *CICC -- Analyst*

Yes.

Gener Miao -- *Chief Marketing Officer*

We, and I say, Jinko -- Jinko has its own roadmap and based on our own technology together with their own IPs. So after our internal analysis, we believe the current roadmap, including the wafers, cells and modules is the most, let's say, promising and a competitive way we should do. So that's why we choose this way. And regarding our other peers' technologies, I think it's a hard to comment on it's good or bad or a high or low. But we respect that everyone has a different position in terms of the facilities they have, in terms of the R&D development they have, even their asset qualities etcetera. So everyone comes from different position, make different decisions. But at the end of the day, the market will only look into the solar modules. In terms of LCOE, I think that the China policy decision makers trying to push for together with the other solar market as well. So as far as LCOE number makes sense, that will become the competitiveness. That's how we make our decision as well.

Carl Xiong -- *CICC -- Analyst*

Okay, thank you. Yeah, my next question comes from the cost reduction. So we are seeing some of our peers has much capacity in the fourth quarter and this is some project cost reduction and the curriculum (ph) helped their margins, but we are seeing quite a stable margins for us. So could you help me to understand what's the -- so and I think in the report we are mentioning that we have a exchange in loss because of -- and the appreciation in the fourth quarter. So I got a little confusing about this, so could you please tell me, what are we facing in the fourth quarter? Are we facing RMB appreciation in the first quarter and so we will make a foreign exchange loss on that? And so how we look at the cost in the fourth quarter?

Charlie Cao -- *Chief Financial Officer*

I think for the cost reduction, it is still our key focus still on 2019. And no, we are -- we debottleneck our capacity, increase output, reduce cost per watt basis, and we are talking about the capacity expansion particularly around the mono wafer PERC cell and we continue to expect the economy of scale and we are putting technology in place and increasing facility enhancements.

And back to what you are saying, the gross margin, and I think the key impact for us is -- and we have limited cell capacity, we need to buy 40% from third-party and due to the capacity constraints, particularly for the mono PERC cell, the prices has -- had increased a lot in addition and one quarter to two quarters. And so, our gross margin, there is some impact from that perspective. From the near-term PERC capacity coming out, the price, the market price for solar cell is in a downward trend and on top of that, we are adding our in-house PERC cost competitive capacity and we are expecting to see the positive impact in the second half year.

Carl Xiong -- *CICC -- Analyst*

Yeah. Okay, understand. Yeah. And my last question is about the order visibility. And so, everybody is talking about very strong demand from the overseas market, so what's our order visibility in 2019? We have few other orders through second quarters, through third quarter? And how about the order, are they with the price at field or they are with the price over the --?

Gener Miao -- *Chief Marketing Officer*

So, this is Gener. So I think the visibility, let's say, numbers varies according to what capacity we're talking to, right. So according to our status or has, we are happy to say that we are over 60% booked for the whole year of 2019. And we are -- I think, the number will change in the next few months as well. But the strong demand is already happening and even without China -- remember that number comes out without the -- our China market start, right. So that's why we are pretty confident that this will be a great year for the whole industry, I think.

Charlie Cao -- *Chief Financial Officer*

Yeah. I think the visibility is the strongest in recent years. And just like Gener said, it's almost 100% from international markets. And China policy, the installation are on track to achieve second half year of 2019. So we didn't account for any China orders in the visibility. And I think the key driver is, grid parity is coming and the technology innovation is impressive, like PERC half cell and bifacial and driving down the solar installation costs and LCOE. And we believe because in our costs, the global -- the key solar markets, the penetration, is very low compared to the potential growth.

Carl Xiong -- *CICC -- Analyst*

Yes. I've got a follow-up question on this. So I'll -- we already see that 60% of this whole year is based on the -- our guidance of 40 gigawatt to 50 gigawatt shipments, is that -- can I understand on that?

Charlie Cao -- *Chief Financial Officer*

Yes, that's approximate. Yes.

Carl Xiong -- *CICC -- Analyst*

Yes, OK. And so for those orders, the pricing of our module is fixed or is it flexible?

Charlie Cao -- *Chief Financial Officer*

Fixed. We only talk about -- only when (inaudible) is fixed, we count them as firm orders. If the price is not fixed, we don't count them. If we count of, let's say, not fixed orders, the visibility number will be much higher than what we're seeing.

Carl Xiong -- *CICC -- Analyst*

Sure, sure. And debt, as we previously mentioned, we got a pre-payment from that right?

Charlie Cao -- *Chief Financial Officer*

We got a full secure accounting.

Carl Xiong -- *CICC -- Analyst*

So what's kind of percentage of pre-payment that we can get?

Charlie Cao -- *Chief Financial Officer*

Well, we don't disclose that, sorry to say. But we have enough comfort on those -- execution of those contracts for sure.

Carl Xiong -- *CICC -- Analyst*

Okay. Yes, thank you very much for taking the question. That's all.

Charlie Cao -- *Chief Financial Officer*

Thank you.

Carl Xiong -- *CICC -- Analyst*

Thank you.

Operator

Thank you. Due to time constraints, we'll be taking in our last question from Alex who's from UBS. Your line is now open. Please go ahead.

Alex Liu -- *UBS -- Analyst*

Thank you for taking my last question. My first one is, regarding your wafer capacity expansion plans, you mentioned you extended your wafer capacity by 6 gigawatt this year. So -- but considering the other wafer makers like (inaudible), they are also expanding very quickly or aggressively. So do you think you can get enough wafer equipment from like (inaudible) in time? I mean are you confident enough to get all your new wafer capacity online within the year?

Charlie Cao -- *Chief Financial Officer*

I think we are not going to disclose our suppliers. But I think we -- when we talking about 5 gigawatt mono wafer capacity, we have almost secured the suppliers and on top of that, when we are selecting the ratings in wafer China, which is very cost competitive and we build the capacity and you know, so it's a brand new 5 gigawatts mono wafers and we believe our -- from those quality and cost perspective, we are competitive, we will be very competitive.

Alex Liu -- *UBS -- Analyst*

Okay. And then my second question is regarding to the module ASPs, you mentioned that you are like packing lot of the stable ASP outlook for this year. But considering that, we are still have -- still have some small difference compared with parity. So do think you still need to push down the ASP a bit to help the industry with good parity or you -- maybe that will happen next year?

Gener Miao -- *Chief Marketing Officer*

Yes, this is Gener. I think you have -- you just raised a great question. In long-term, we do believe only by making solar energy become more competitive compared with other traditional energy resources, solar industry will have a bright future, that everyone is working in this industry believes I think. And in short-term -- in short-term, the seasonality of different market segment, even the policy changes, the deadline changes, will naturally change the short-term supply and demand. That's why I say in the long term, let's say, in the whole year of 2019, I see the market price become more stable. High rate if you look into the, I think into the single quarter or single month that will much -- be more much -- much more impacted by the detail of the policies. That's why I think you know, most of the industry players believe in the Q3, Q4. When China market hiccup with a strong number, I think the price won't be -- won't drop too much, I think.

Alex Liu -- *UBS -- Analyst*

Okay.

Gener Miao -- *Chief Marketing Officer*

On top of that...

Alex Liu -- *UBS -- Analyst*

(multiple speakers) Yes.

Gener Miao -- *Chief Marketing Officer*

Understand that in China, the projects are sensitive and if you look up, the global, I think most of the countries have reached grid parity and even more competitiveness, and China, I think you will understand, there are some sizable or steepening subsidies and most of -- if you compare to the top one -- the subsidy levels, let's say, average RMB0.05, and it's going to support very big numbers or installations. So it's -- again, it's a transition period, and two years, right, starting from now and... yes, I think that pretty much answered your question, right?

Alex Liu -- *UBS -- Analyst*

Yeah. Okay. That's very helpful. Thank you, guys.

Gener Miao -- *Chief Marketing Officer*

Thank you, Alex.

Operator

Thank you, ladies and gentlemen. That does conclude our conference for today. Thank you all for your participation. You may all now disconnect.