

Investor Presentation

First Quarter 2019 Update

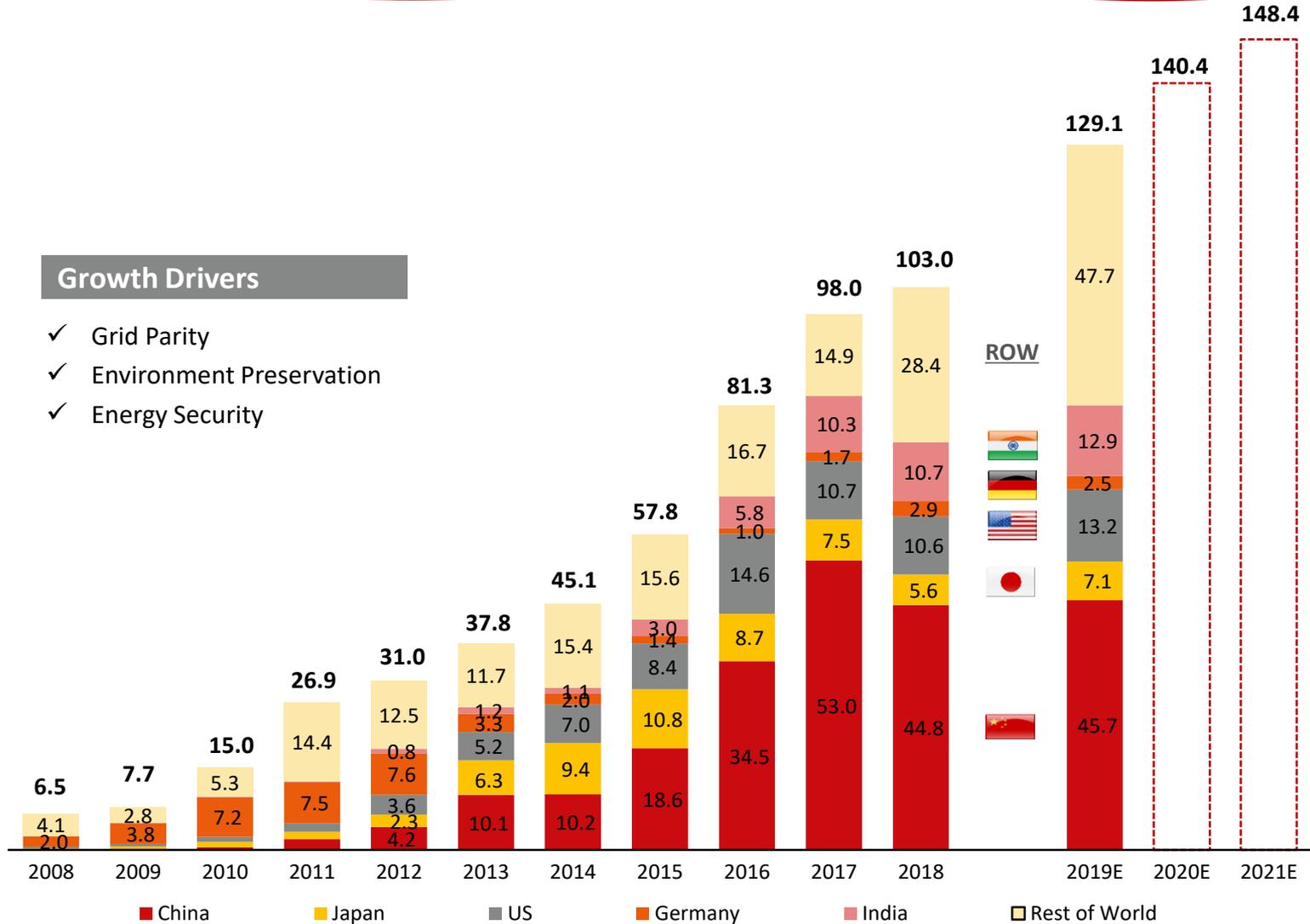
May 2019

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Global PV Installation Continue to Grow

← CAGR: 31.8% → ← CAGR: 7.1% →

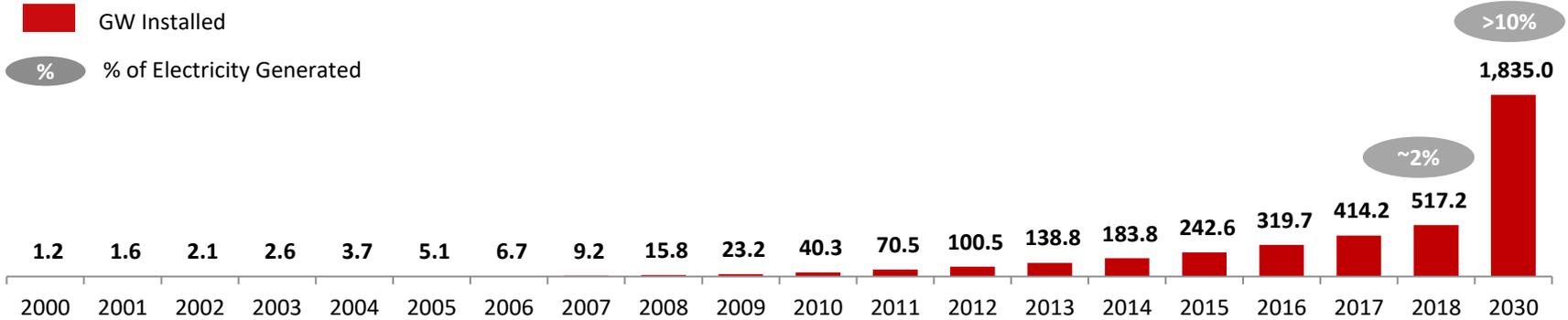


Source: Global PV module demand assumptions from IHS

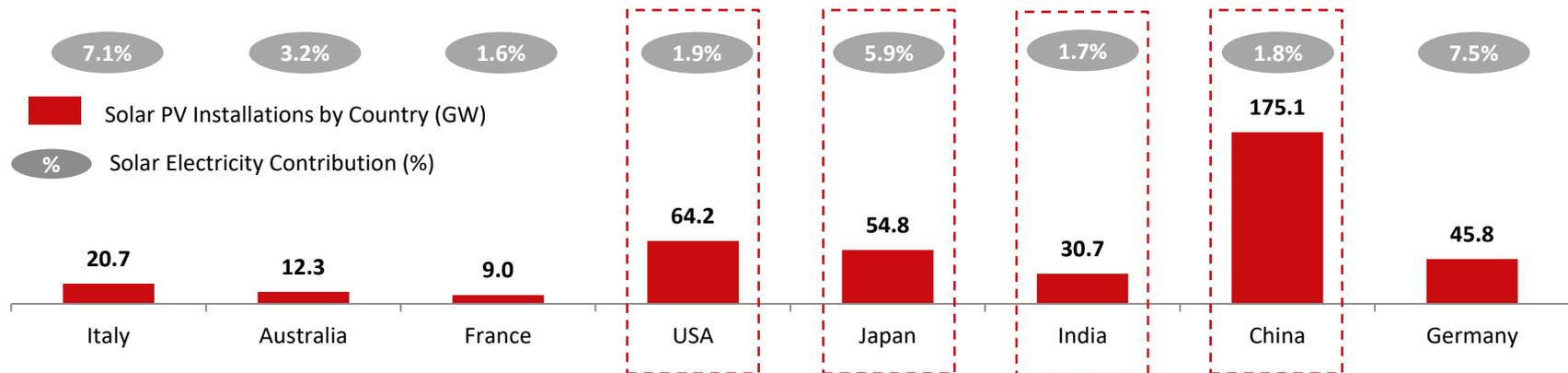
We Are at the Very Early Stages of Solar Adoption

Solar energy will grow from ~2% of global electricity generation today to >10% by 2030

Global Cumulative Solar PV Installations (GW)



Canadian Solar's key markets such as China, U.S. India and Japan are significantly under-penetrated



Source: IHS, EIA and Canadian Solar Estimates; Cumulative Installations as of the year 2018.

Solar PV installed capacity is forecast to grow to over 1,835 GW in 2030.

Company Overview

- 🌞 Founded in Ontario, 2001
- 🌞 Listed on NASDAQ (CSIQ) in 2006
- 🌞 Over 12,000 employees globally
- 🌞 Presence in 20 countries / territories
- 🌞 > 34 GW of solar modules shipped cumulatively
- 🌞 > 4.6 GWp⁽¹⁾ solar power plants built and connected (incl. Recurrent)
- 🌞 **A global Top 3 solar company by revenue and net income in 2018**

Highlights

- 🌞 Q1 2019 Shipment: **1,575 MW**
- 🌞 Q1 2019 Revenue: **484.7 million**
- 🌞 2019 Shipment Guidance: **7.4 GW to 7.8 GW**
- 🌞 2019 Revenue Guidance: **\$3.5 billion to \$3.8 billion**

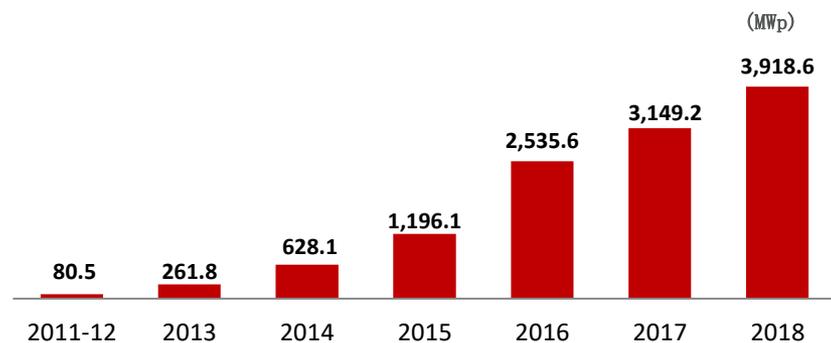
Source: Company information as of May 30, 2019.

1. Includes solar power projects built and connected by Recurrent Energy before acquisition by Canadian Solar in 2015

Global Footprint and Brand



Solar Power Plants Built and Connected



Energy Business: Globally Diversified Project Pipeline

Priority Markets for Utility-scale Project Development

12 GWp

Total project development pipeline

8.6 GWp

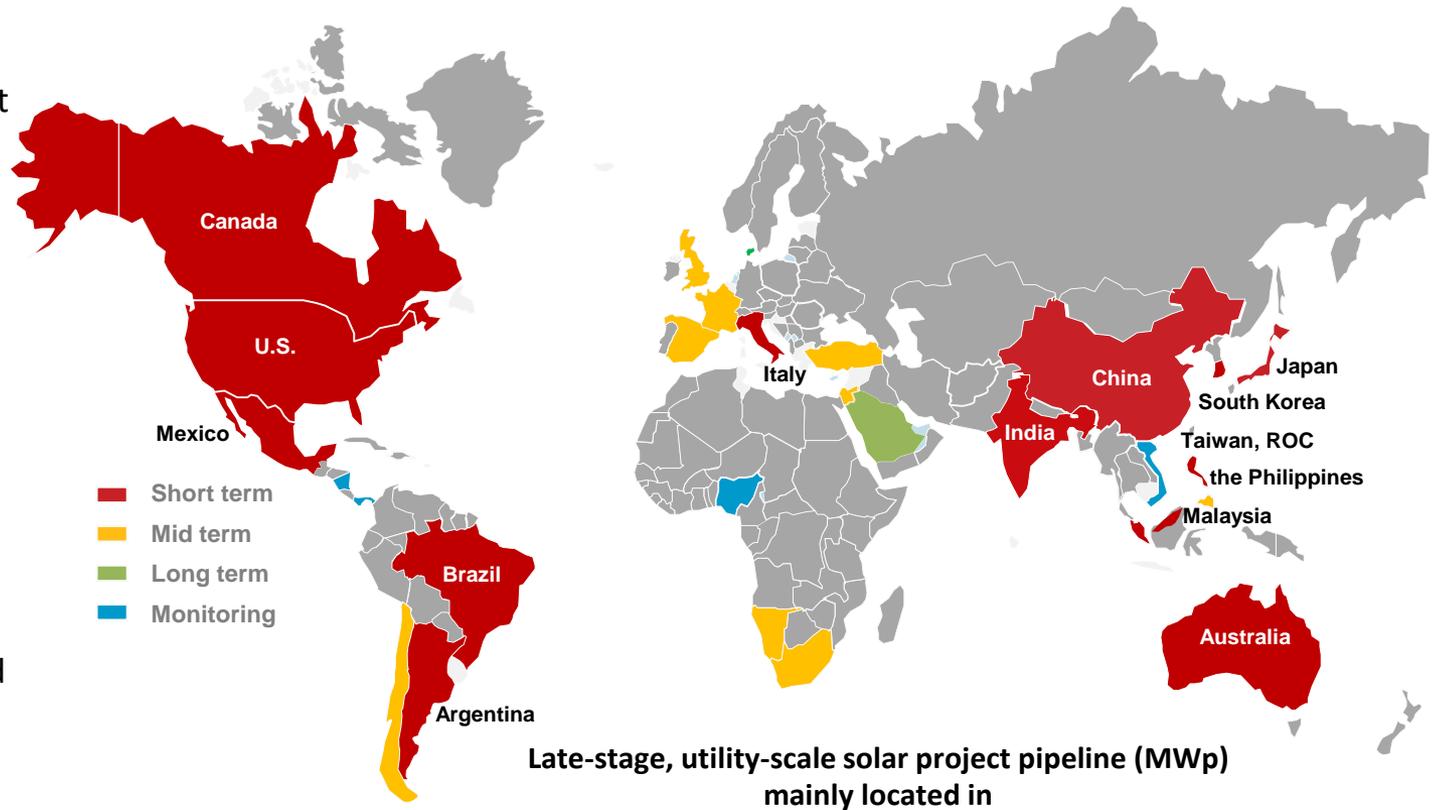
Early to mid-stage development pipeline ⁽²⁾

~3.4 GWp

Total late-stage project pipeline ⁽¹⁾

983.6 MWp

Solar power plants owned and operated, with an estimated resale value of **\$1.2 billion**



Source: Company information as of May 30, 2019

Note: (1) Late-stage project pipeline, nearly all projects have an energy off-take agreement and are expected to be built within the next 2-4 years. Some projects may not reach completion due to failure to secure permits or grid connection, among other risk factors.

(2) Early to mid-stage of development: includes only those projects that have been approved by our internal Investment Committee or projects that are expected to be brought to the Investment Committee in the near term.

U.S. Utility-scale Solar Project Pipeline



Market Leader in the U.S.

U.S. Late-stage Project Development Footprint

3.5 GWp

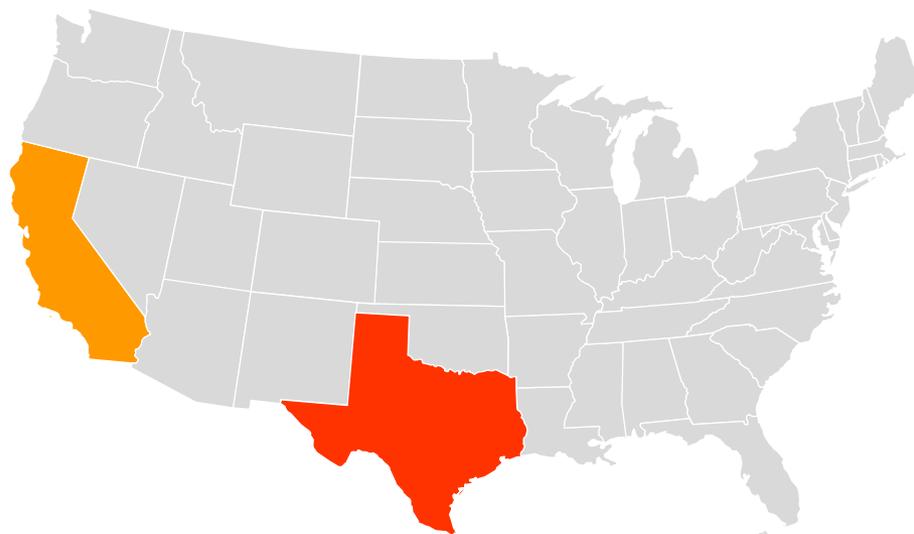
Early to mid-stage pipeline

1,525 MWp

Late-stage pipeline

340 MWp

Owned and operated¹



Projects in Operation¹

NC 102

102
MWp

Commercial
Operation
since Q3 2018

Mustang*

134
MWp

Commercial
Operation
since Q3 2016

Roserock

104
MWp

Commercial
Operation
since Q4 2016

Gaskell West 2

147
MWp

Under development; COD expected in 2020

Pflugerville

185
MWp

Texas Project

280
MWp

Texas
Project 2

310
MWp

Texas
Project 3

280
MWp

Under Development; COD expected in
2021

Slate

235
MWp

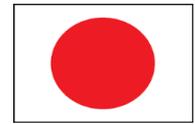
Stanford Solar
Generating Station#2

88
MWp

Source: Company information as of May 30, 2019

1. It represents the MWp owned by Canadian Solar; *Mustang was sold in May 2019.

Japan Utility-scale Solar Project Pipeline



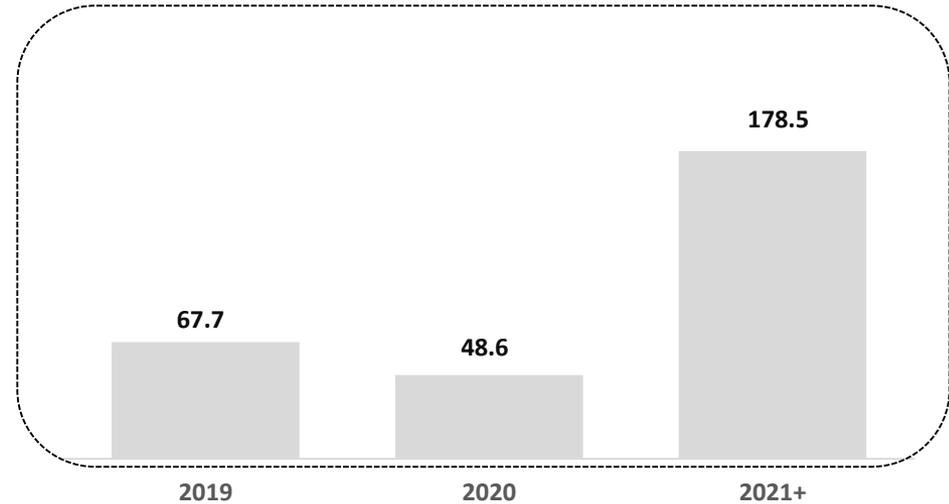
Total Solutions Business – Japan

294.8 MW_p
Late-stage pipeline

86.2 MW_p
Owned and operated



Utility-scale COD Schedule¹ - MWp



Note: (1) Expected COD are tentative estimates subject to change, due to delays in securing all the necessary permits among other risk factors.

- **294.8 MWp** late-stage projects have secured interconnection agreement and FIT, including **97.7 MWp** in construction and **197.1 MWp** under development

Market Leader in Brazil and Mexico



Late-stage projects	Gross MWp	Location	Status	Expected COD
Francisco Sa ⁽¹⁾	114.3	Minas Gerais	Development	2021
Jaiba ⁽¹⁾	101.6	Minas Gerais	Development	2021
Lavras ⁽³⁾	152.4	Ceara	Development	2021
Salgueiro ⁽²⁾	114.3	Pernambuco	Development	2020
Total	482.6*			

68 MW_p**
Owned and operated in Mexico



Late-stage projects	Gross MWp	Location	Status	Expected COD
EL Mayo ⁽¹⁾	124	Sonora	Development	2021
Tastiota ⁽¹⁾	125	Sonora	Development	2020
Horus ⁽²⁾	119	Aguascalientes	Development	2020
Total	368			

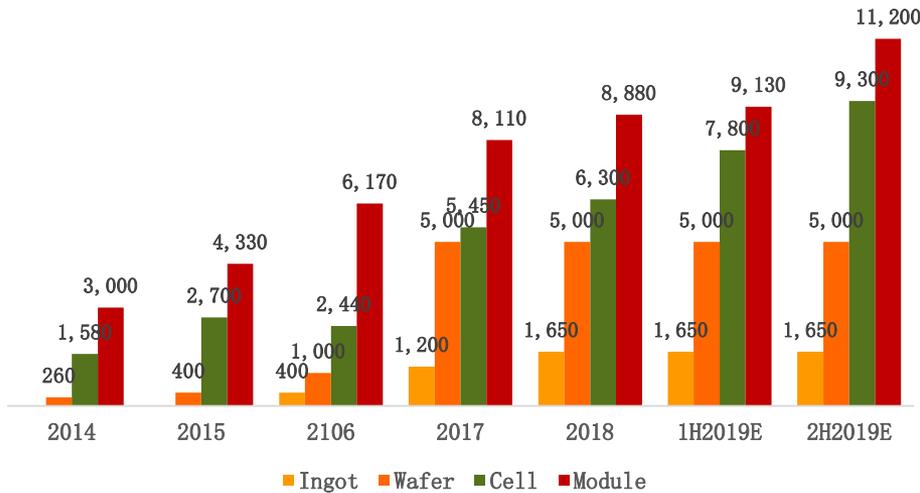
Source: Company information as of May 30, 2019

*The Company signed an agreement in April 2019 to sell 80% interest in the 482.6 MWp Brazilian late-stage projects and expects to close the deal after Q2 2019.

**The Company completed the sale of the 68 MWp Mexican project in May 2019.

Expected Capacity with New Technology and Cost Reduction

Manufacturing Capacity - MW



Technology upgrade - New products, new process, new design

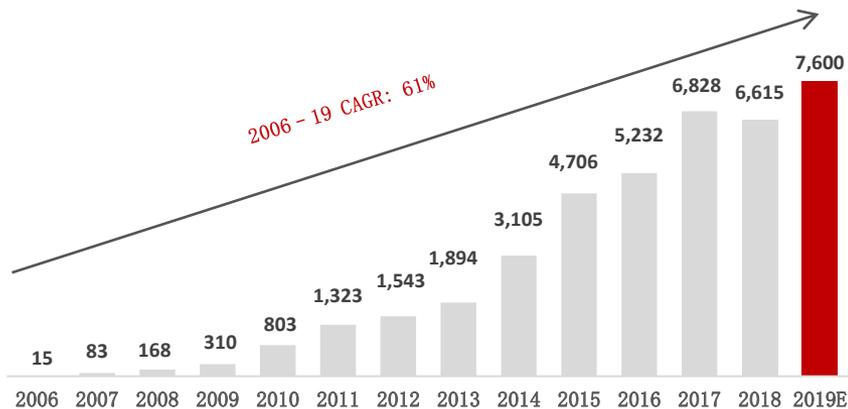
- ✓ Diamond wire-saw wafer
- ✓ Black silicon
- ✓ Mono PERC
- ✓ Black silicon + Poly PERC
- ✓ Casted Mono
- ✓ Black silicon + Poly PERC + Bifacial

Global Manufacturing Footprint

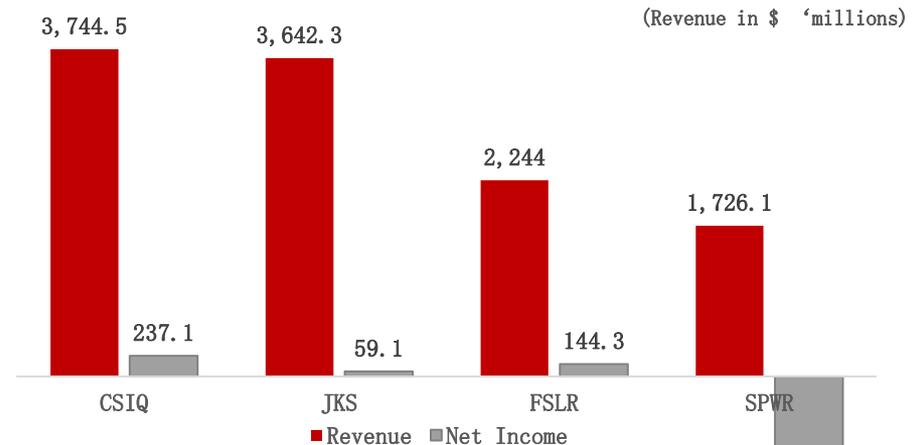
- ✓ Brazil
- ✓ Canada
- ✓ China
- ✓ South East Asia, including Thailand, Vietnam and Indonesia
- ✓ Taiwan

Operation efficiency improvements: Shorter cycle time and lower inventory

Total Module Shipments - MW



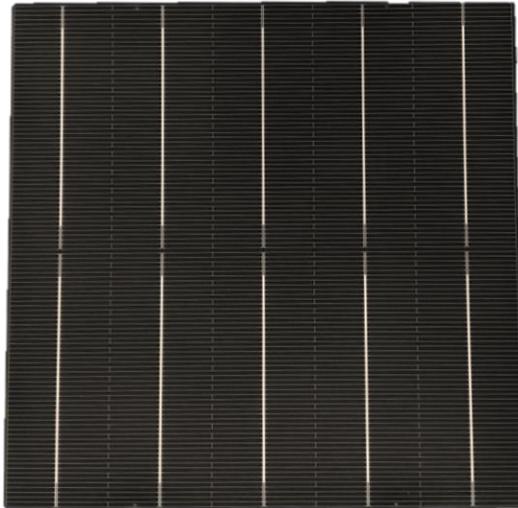
A Global Leading Solar Company by Revenue and Net Income in 2018



Source: Company information as of May 30, 2019 and public filings

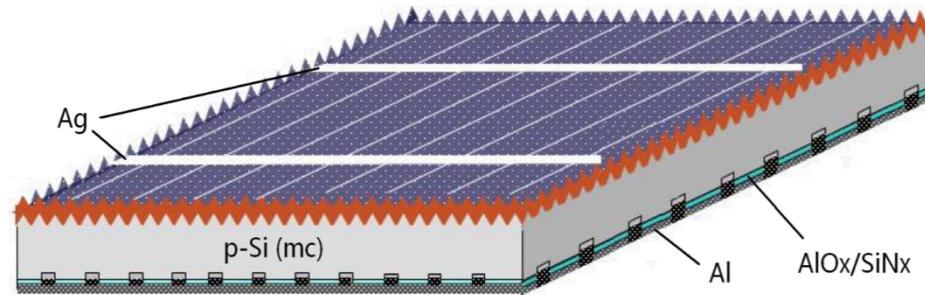
Competitive Pipeline of Homegrown Technologies

P4



- ☀️ 1% cell efficiency and 12 watts module power gain on 60-cell module design over baseline; cell efficiency reached over 20.5% in mass production
- ☀️ Over 5 years in-house R&D, **self-owned IPs**
- ☀️ ~4GW in-house multi cell production used this technology at the end of Q4 2018
- ☀️ Pleasing aesthetics

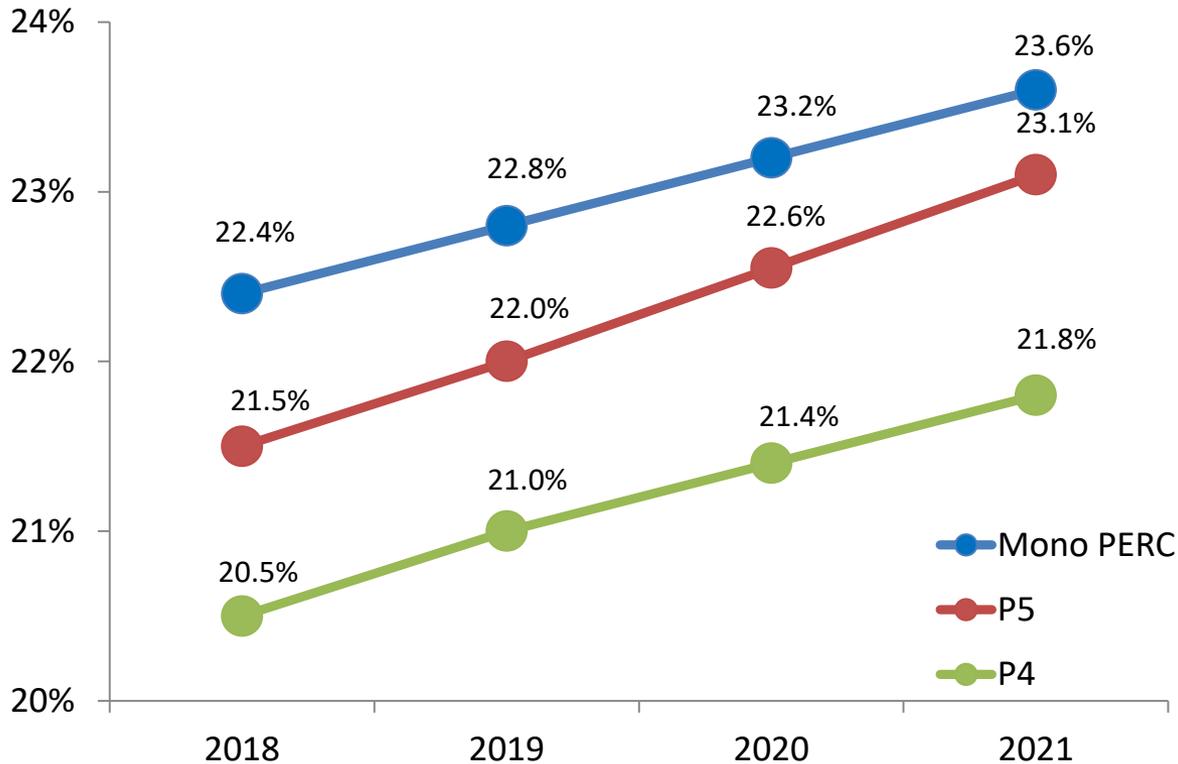
Mono PERC



- ☀️ Mono PERC enhances back side passivation and increased cell efficiency to over 22%
- ☀️ Low Light Induced Degradation (LID), and Potential Induced Degradation (PID) resistant
- ☀️ Premium product: 60-cell module power reached over 320 Watt
- ☀️ 100% mono cell production was upgraded to mono PERC at the end of 2017

Cell Efficiency Roadmap

Cell Efficiency



Highlights

- 🌅 P4 (black silicon + poly PERC) will improve the multi-crystalline cell efficiency to 22% in 2021
- 🌅 P5 (casted mono) has close to mono efficiency while at multi cost; Optimization is being continued during production ramp-up.
- 🌅 Mono PERC cell efficiency can reach above 23% in mass production by 2020
- 🌅 Non-PERC cell technologies will phase out in 2019

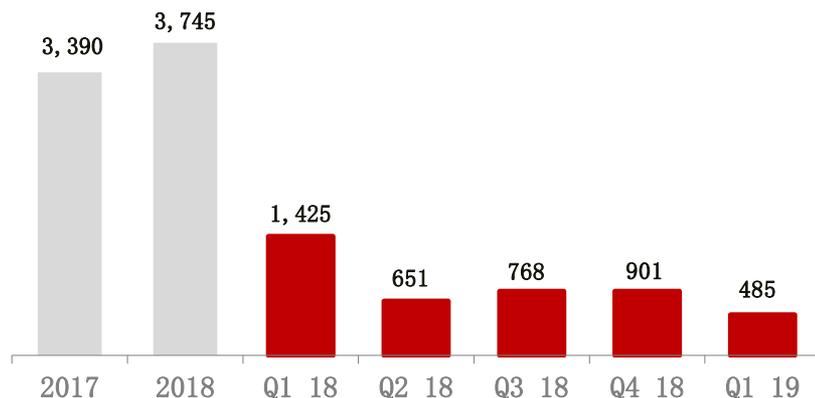
Source: Source: Company information as of May 30, 2019

Experienced Board & Senior Management

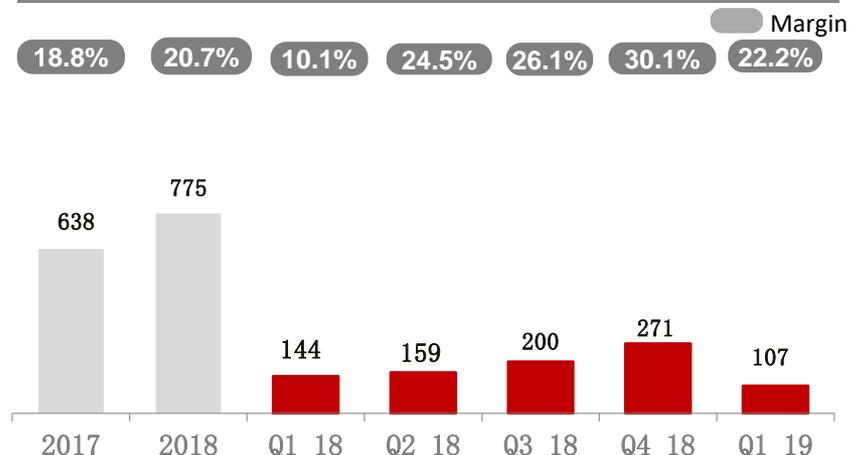
Name / Title	Work Experience
 <p>Dr. Shawn Qu <i>Chairman, President & CEO (Director)</i></p>	<ul style="list-style-type: none"> ■ Founded Canadian Solar in 2001, and has since then, firmly established the company as a global leader of the solar industry ■ Director & VP at Photowatt International S.A. ■ Research scientist at Ontario Hydro (Ontario Power Generation Corp.)
 <p>Dr. Huifeng Chang <i>SVP and Chief Financial Officer</i></p>	<ul style="list-style-type: none"> ■ Co-Head of Sales & Trading at CICC US in New York ■ CEO of CSOP Asset Management in Hong Kong ■ Vice President of Citigroup Equity Proprietary Investment in New York
 <p>Yan Zhuang <i>Acting CEO, SVP and Chief Commercial Officer</i></p>	<ul style="list-style-type: none"> ■ Head of Asia of Hands-on Mobile, Inc. ■ Asia Pacific regional director of marketing planning and consumer insight at Motorola Inc.
 <p>Guangchun Zhang <i>SVP and Chief Operating Officer</i></p>	<ul style="list-style-type: none"> ■ Vice President for R&D and Industrialization of Manufacturing Technology at Suntech Power Holdings ■ Centre for Photovoltaic Engineering at the University of New South Wales and Pacific Solar Pty. Limited.
 <p>Arthur Chien <i>SVP and Chief Strategic Officer</i></p>	<ul style="list-style-type: none"> ■ CEO at Talesun Solar Co., CFO at Canadian Solar Inc. ■ Managing director of Beijing Yinke Investment Consulting Co. Ltd. ■ Chief financial officer of China Grand Enterprises Inc.
 <p>Jianyi Zhang <i>SVP and Chief Compliance Officer</i></p>	<ul style="list-style-type: none"> ■ Senior advisor to several Chinese law firms ■ Senior assistant general counsel at Walmart Stores, Inc. ■ Managing Partner at Troutman Sanders LLP
 <p>Dr. Guoqiang Xing <i>SVP and Chief Technology Officer</i></p>	<ul style="list-style-type: none"> ■ Chief Technology Officer of Hareon Solar ■ R&D Director of JA Solar ■ R&D Director at several semiconductor companies
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Experienced Independent Directors</p>	<p>Robert McDermott <i>Chair of the Nominating and Corporate Governance, and member of Audit and Compensation Committees</i></p> <ul style="list-style-type: none"> ■ Partner with McMillan LLP, a business and commercial law firm ■ Director and senior officer of Boliden Ltd.
	<p>Lars-Eric Johansson <i>Chair of the Audit, and member of Nominating and Governance, and Compensation Committees</i></p> <ul style="list-style-type: none"> ■ CEO of Ivanhoe Nickel & Platinum Ltd. ■ Chairperson of the Audit Committee of Harry Winston Diamond
	<p>Dr. Harry E. Ruda <i>Chair of Technology, and member of the Audit, Nominating and Governance, and Compensation Committees</i></p> <ul style="list-style-type: none"> ■ Director of the Centre for Advanced Nanotechnology, Stanley Meek Chair in Nanotechnology and Prof. of Applied Science and Engineering at the University of Toronto, Canada
	<p>Andrew Wong <i>Chair of the Compensation, and member of the Audit, Nominating and Governance Committees</i></p> <ul style="list-style-type: none"> ■ Senior Advisor to Board of Directors of Henderson Land Development Co. ■ Director of Ace Life Insurance Co. Ltd., China CITIC Bank Corp., Intime Retail (Group) Co. Ltd. And Shenzhen Yantian Port (Group) Co. Ltd.
	<p>Arthur Wong <i>Member of the Audit, Nominating and Governance, and Compensation Committees</i></p> <ul style="list-style-type: none"> ■ Independent director and chair of the audit committee of China Automotive Systems, Inc., Daqo New Energy Corp., and China Maple Leaf Educational Systems Limited ■ Various positions with Deloitte Touche Tohmatsu (Deloitte) in Hong Kong, San Jose and Beijing ■ Chief Financial Officer at a variety of companies

Income Statement

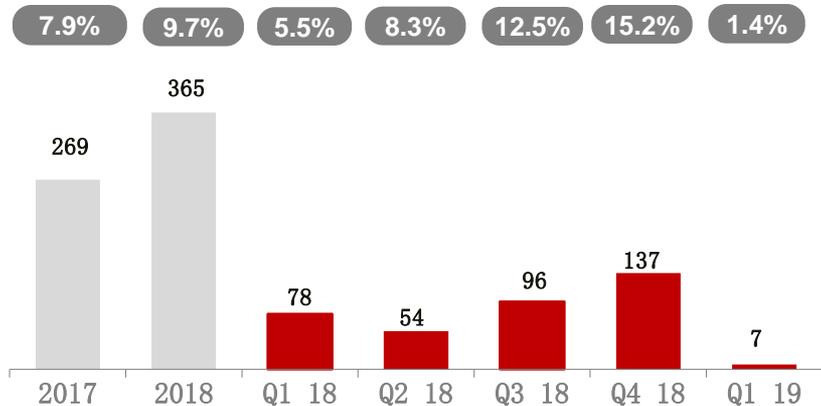
Revenue – US\$ million



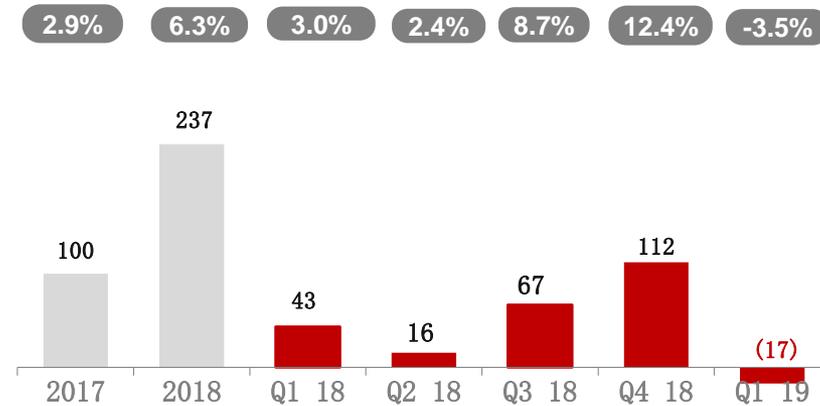
Gross Profit – US\$ million



Operating Income – US\$ million



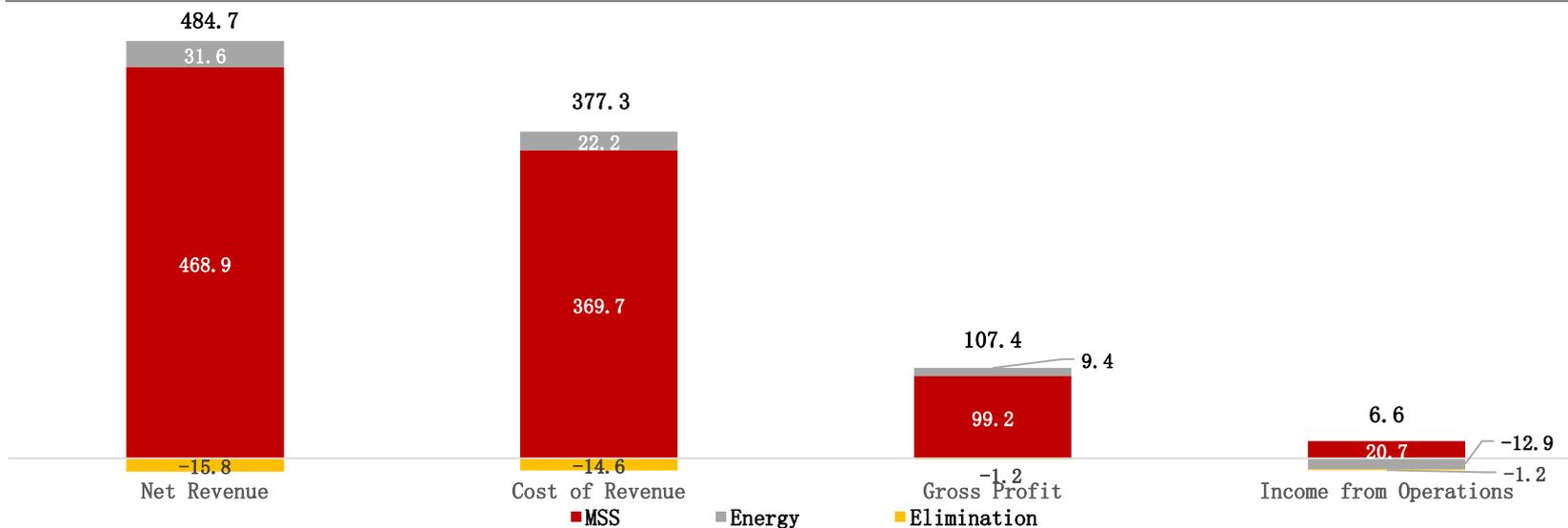
Net Income – US\$ million



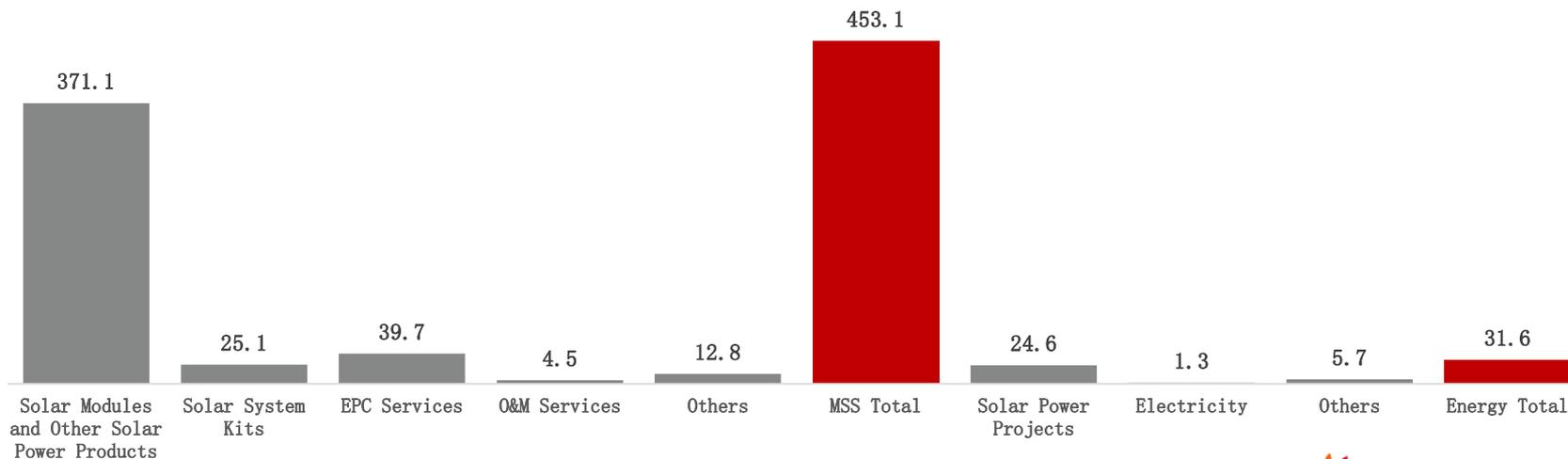
Source: Company filings

MSS Business and Energy Business - Revenue and Profitability

Three Months Ended March 31, 2019 - US\$ million

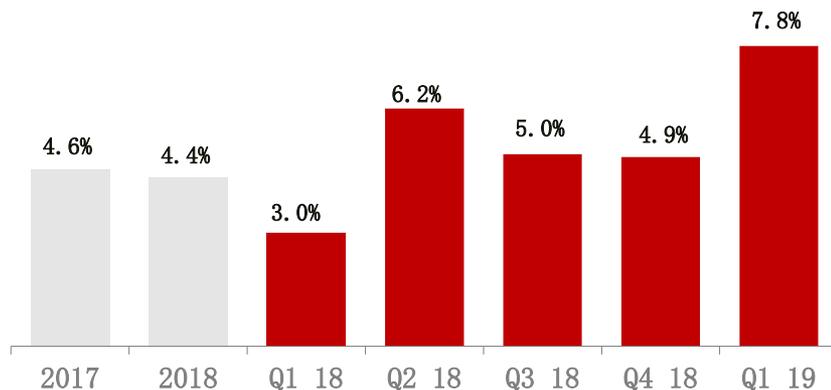


Revenue - Three Months Ended March 31, 2019 - US\$ million

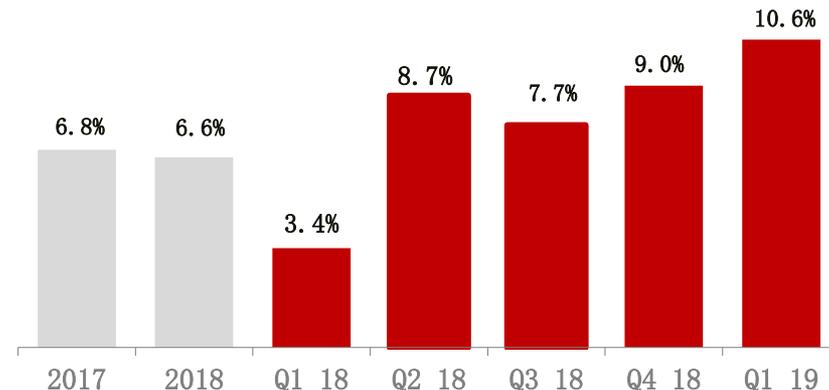


Operating Expenses as % of Net Revenue

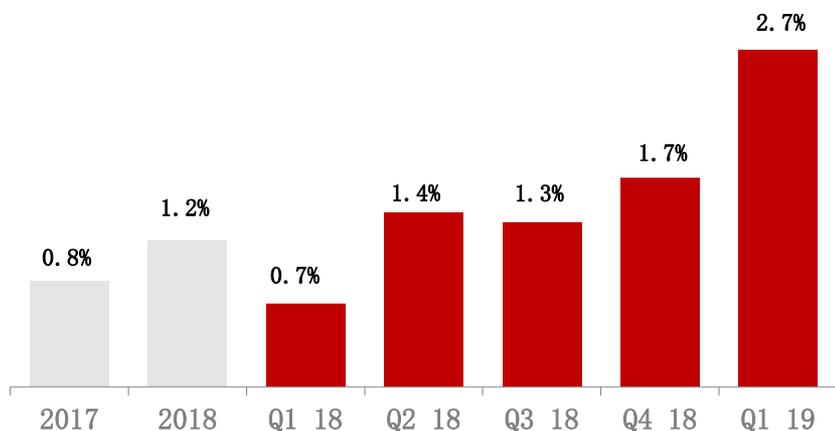
Selling Expenses



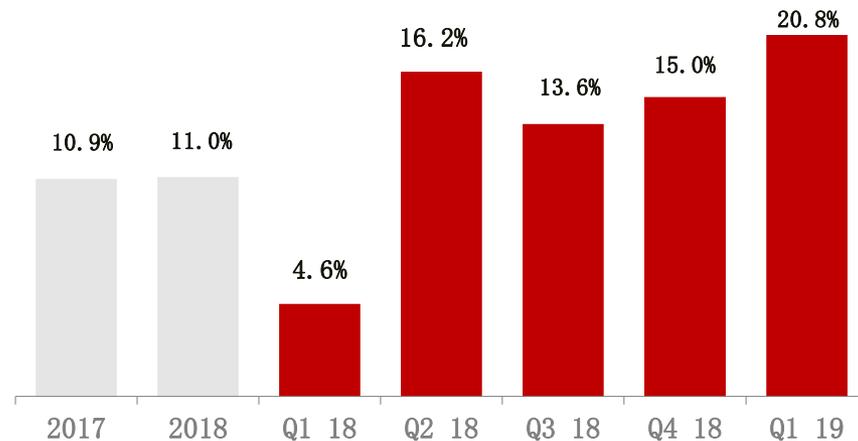
General & Administrative Expenses



Research & Development Expenses



Total Operating Expenses



Source: Company filings

Note: Percentages are of the total net revenue in the corresponding period. The higher percentages of the expenses in Q1 2019 were mainly due to the lower revenue in that quarter compared with the previous quarters.

Guidance as of May 30, 2019

	Q1 2019	Q2 2019
Module Shipments	1,575 MW	1.95 GW to 2.05 GW
Revenue	\$484.7 mn	\$970 mn to \$1.01 bn
Gross Margin	22.2% ⁽¹⁾	13% to 15% ⁽¹⁾

	FY2018	FY2019	YoY Δ%
Module Shipments	6,615 MW	7.4 GW to 7.8 GW	+17.9%
Revenue	\$3.74 bn	\$3.5 bn to \$3.8 bn	+1.6%
Gross Margin	NA	NA	NA

1-Includes MSS business and Energy business

THANK YOU

May 2019