Investor Presentation

Second Quarter 2019 Update

August 2019

CSIQ NASDAQ Listed

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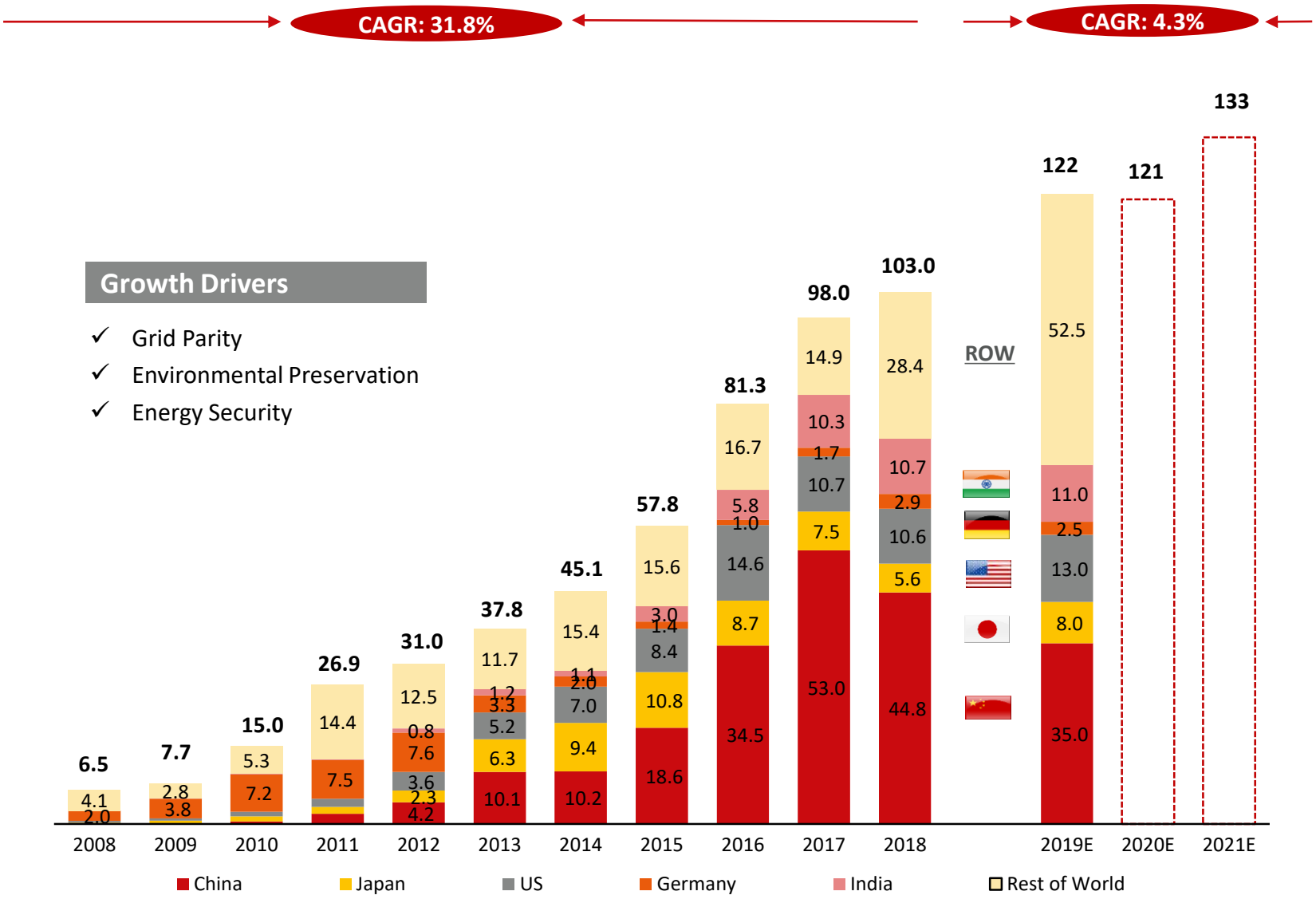
Global PV Installations Continue to Grow



Source: Global PV module demand assumptions from IHS and Canadian Solar analysis.

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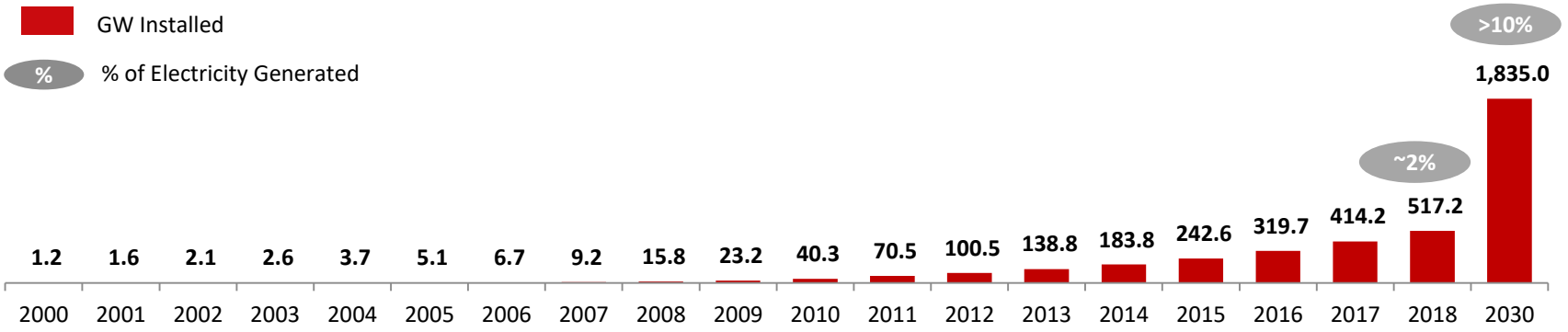
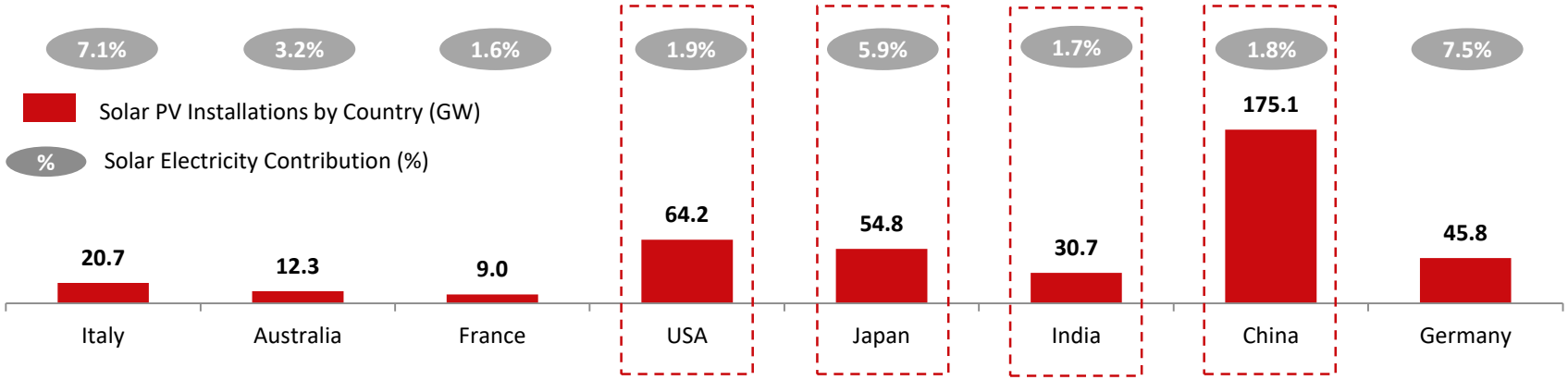
We Are at the Very Early Stages of Solar Adoption

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 forecasted to grow to over 1,835 GW by 2030

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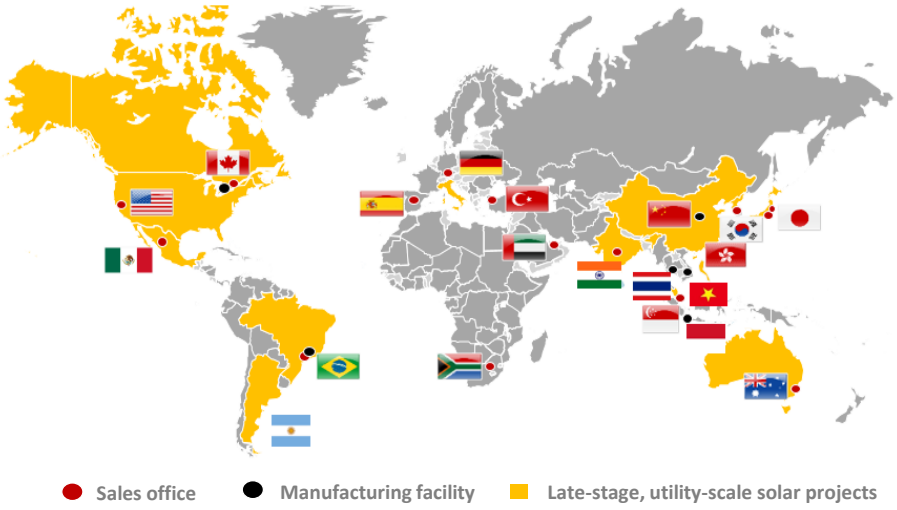
Company Overview

- Founded in Ontario, 2001
- Listed on the NASDAQ (CSIQ) in 2006
- Over 11,000 employees globally
- Presence in 20 countries / territories
- > 36 GW of solar modules shipped cumulatively
- > 4.7 GWp [1] solar power plants built and connected (incl. Recurrent)
- **A global Top 3 solar company by revenue and net income in 2018**
- **Canadian Solar's bankability rating topped #1 as 100% of respondents surveyed by Bloomberg New Energy Finance considered Canadian Solar modules bankable[2]**

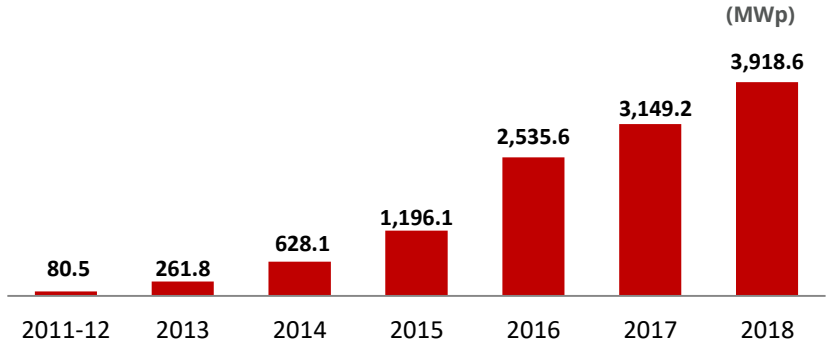
Global Footprint and Brand



Highlights

- Q2 2019 Shipments: **2,143 MW**
- Q2 2019 Revenues: **1,036.3 million**
- 2019 Shipment Guidance: **8.4 GW to 8.5 GW**
- 2019 Revenue Guidance: **$3.5 billion to $3.8 billion**

Solar Power Plants Built and Connected



Source: Company information as of August 15, 2019.
1. Includes solar power projects built and connected by Recurrent Energy before its acquisition by Canadian Solar in 2015
2. 2019 BNEF survey

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Energy Business: Globally Diversified Project Pipeline

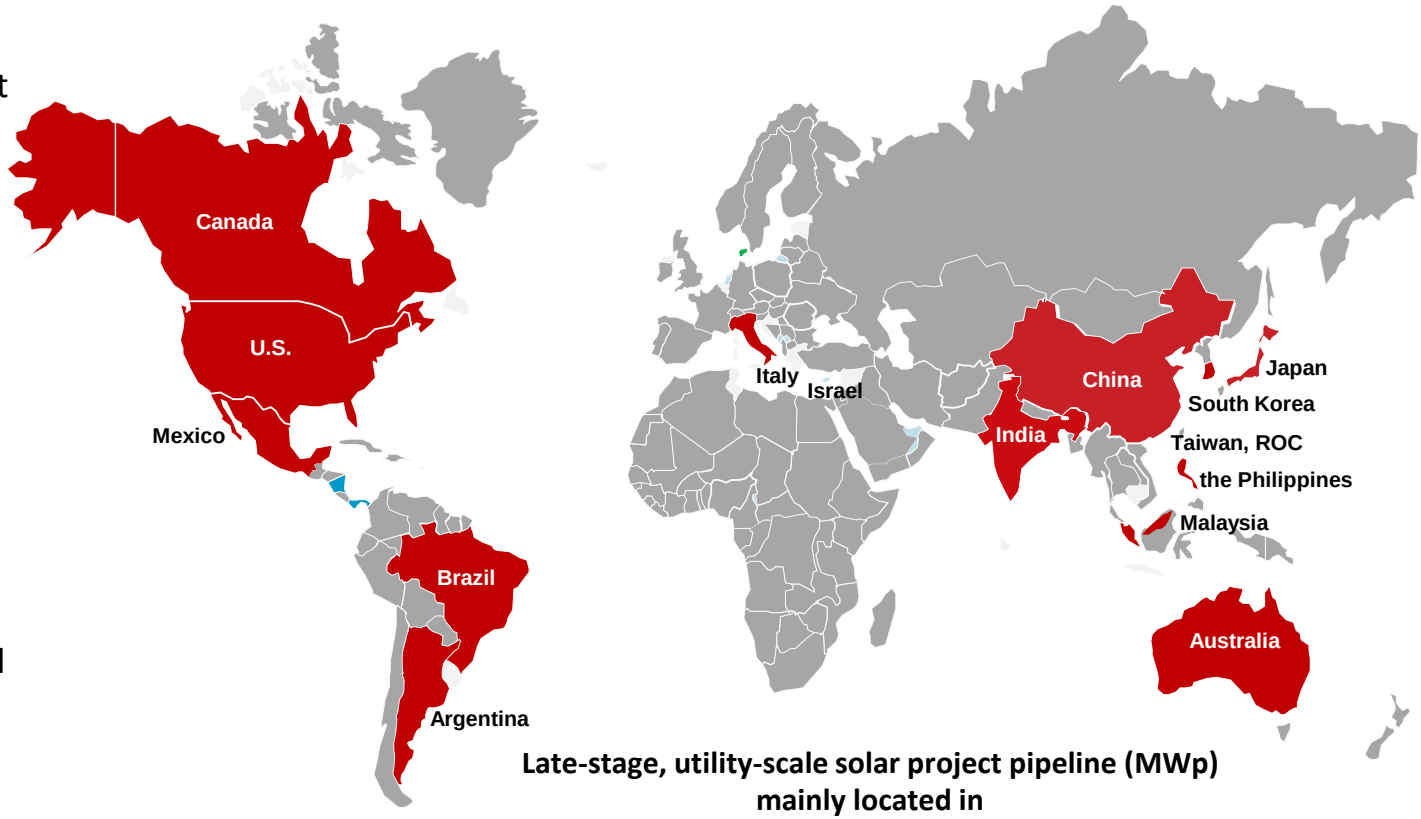
13 GWp
Total project development pipeline

9.4 GWp
Early to mid-stage development pipeline (2)

3.6 GWp
Total late-stage project pipeline (1)

795.8 MWp
Solar power plants owned and operated, with an estimated resale value of
$1.0 billion

Global Late-stage Project Development Footprint



Late-stage, utility-scale solar project pipeline (MWp) mainly located in

U.S.	Brazil	Mexico	Japan	China
1,565	508.2	368	311.8	385

Source: Company information as of August 15, 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.

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U.S. Utility-Scale Solar Project Pipeline

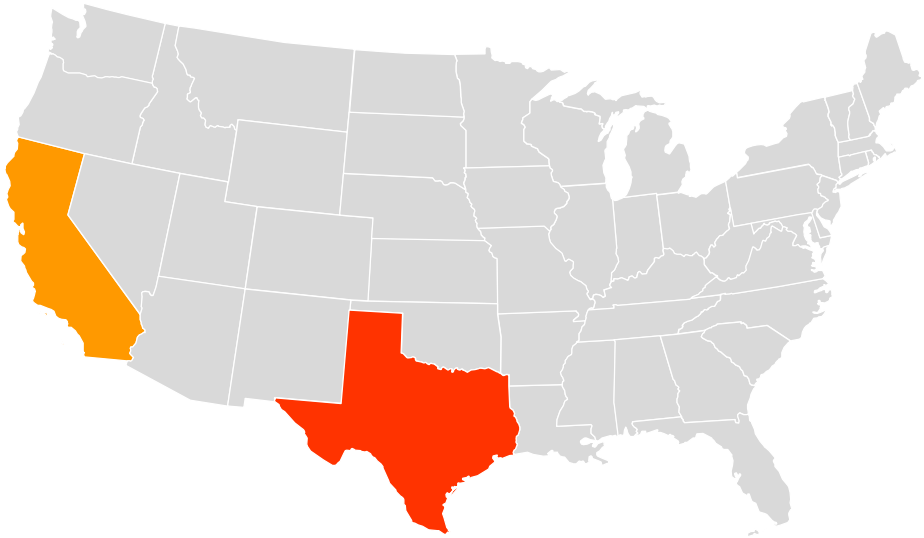
Market Leader in the U.S.

3.5 GWp
Early to mid-stage pipeline

1,565 MWp
Late-stage pipeline

205.9 MWp
Owned and operated[1]

U.S. Late-stage Project Development Footprint



Projects in Operation[1]

NC 102	Roserock
102 MWp	104 MWp
Commercial Operation since Q3 2018	*Commercial Operation since Q4 2016*

Late-stage Project Pipeline

Texas Project 3	Gaskell West 2	Pflugerville	Texas Project	Maplewood	Maplewood 2	Slate	Stanford Solar Generating Station#2
280 MWp	147 MWp	185 MWp	280 MWp	310 MWp	40 MWp	235 MWp	88 MWp
Under development; COD expected in 2020	*Under Development; COD expected in 2021*						

Source: Company information as of August 15, 2019

1. It represents the MWp owned by Canadian Solar.

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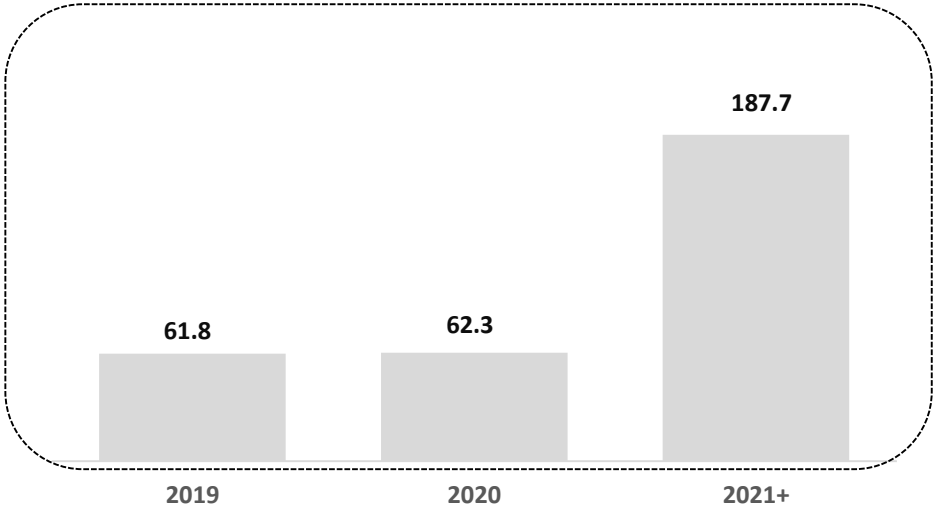
Japan Utility-Scale Solar Project Pipeline

Total Solutions Business – Japan

311.8 MW_p
Late-stage pipeline

89.6 MW_p
Owned and operated

Utility-scale COD Schedule[1] - MWp



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

- **311.8 MWp** late-stage projects have secured interconnection agreement and FIT, including **94.4 MWp** in construction and **217.4 MWp** under development

Source: Company information as of August 15, 2019

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
Jaiba Expansao (1)	25.6	Minas Gerais	Development	2021
Total	**508.2**			

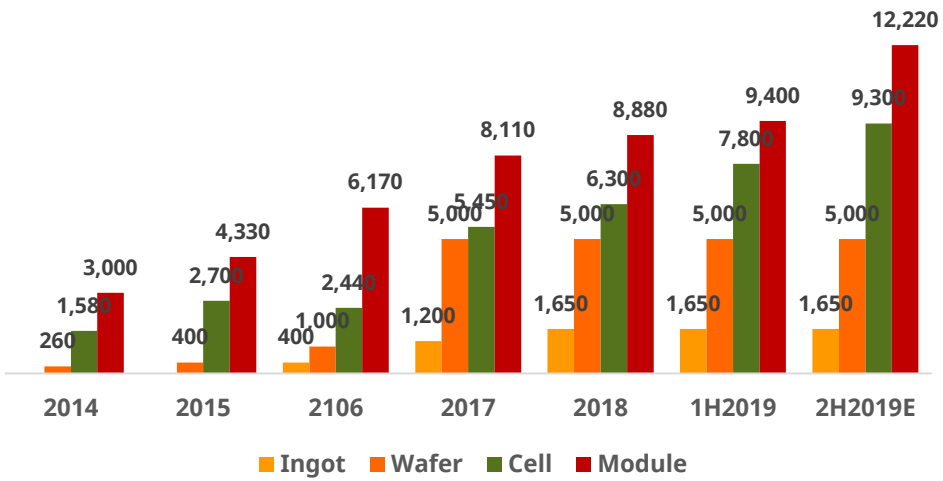
Late-stage projects	Gross MWp	Location	Status	Expected COD
EL Mayo (1)	124	Sonora	Development	2021
Tastiota (1)	125	Sonora	Development	2020
Horus (2)	119	Aguascalientes	Development	2020
Total	**368**			

Source: Company information as of August 15, 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 in the coming months.

Expected Capacity with New Technology and Cost Reduction

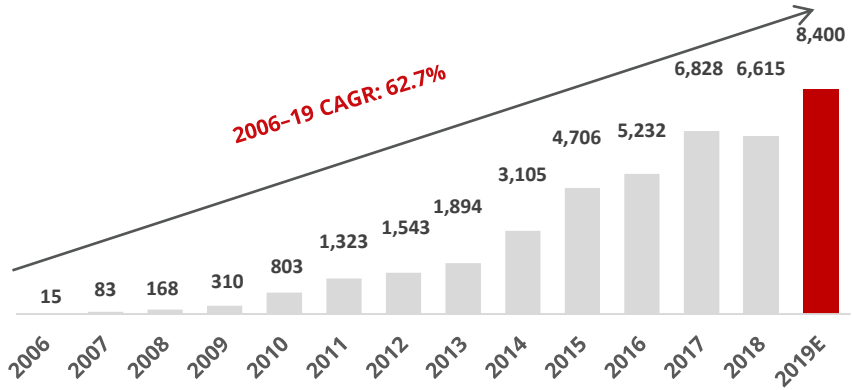
Manufacturing Capacity - MW



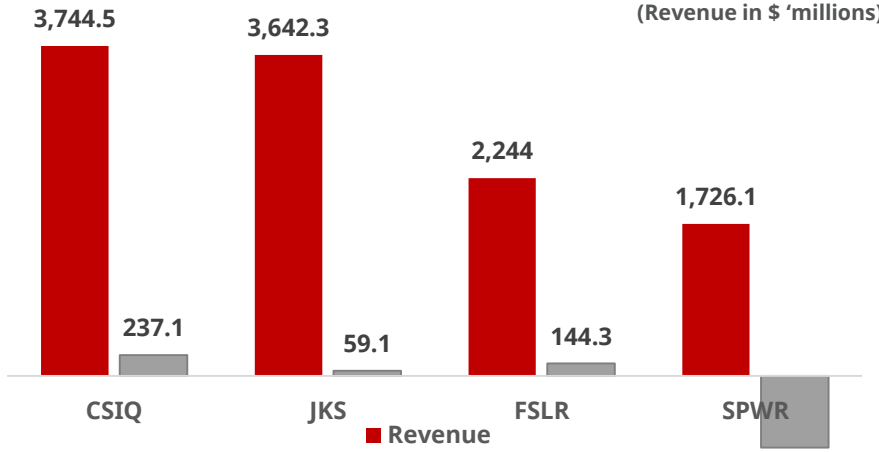
- **Technology upgrade – New products, new process, new design**
  - ✓ Diamond wire-saw wafer
  - ✓ Black silicon
  - ✓ Mono PERC
  - ✓ Black silicon + Poly PERC
  - ✓ Casted Mono
  - ✓ Black silicon + Poly PERC + Bifacial
- **Global Manufacturing Footprint**
  - ✓ Brazil
  - ✓ Canada
  - ✓ China
  - ✓ South East Asia, including Thailand and Vietnam 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 August 15, 2019 and public filings

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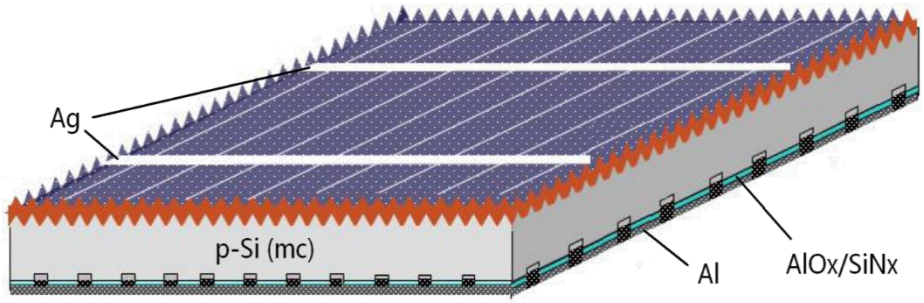
Competitive Pipeline of Homegrown Technologies

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

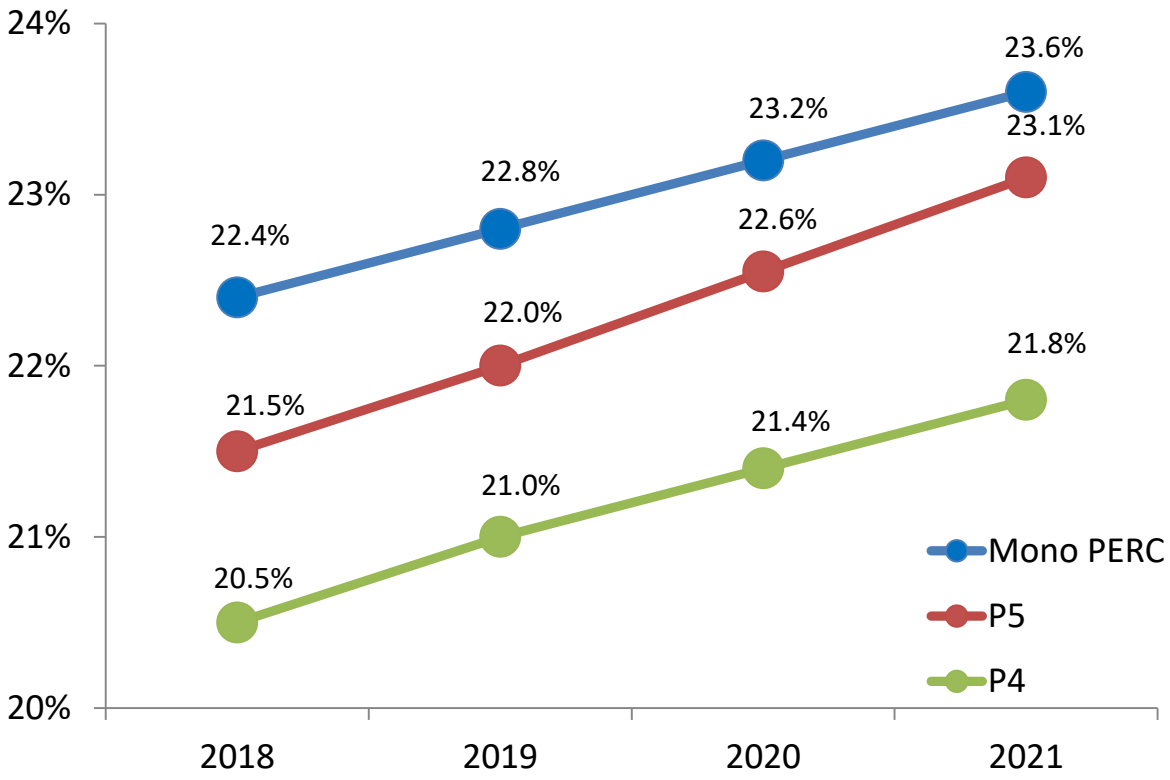


- Mono PERC enhances back side passivation and increased cell efficiency to over 22%
- Low Light Induced Degradation (LID), and Potential Induced Degradation (PID) resistant
- Premium product: 60-cell module power reached over 320 Watt
- 100% mono cell production was upgraded to mono PERC at the end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

Source: Company information as of August 15, 2019

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 August 2019

Source: Source: Company information as of August 15, 2019

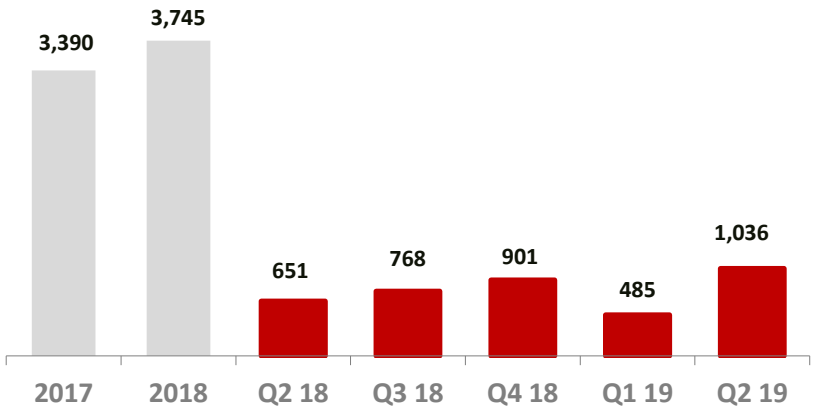
Experienced Board & Senior Management

	Name / Title	Work Experience
	**Dr. Shawn Qu** *Chairman and CEO*	■ 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.)
	**Yan Zhuang** *Acting CEO, SVP and Chief Commercial Officer*	■ Head of Asia of Hands-on Mobile, Inc. ■ Asia Pacific regional director of marketing planning and consumer insight at Motorola Inc.
	**Dr. Huifeng Chang** *SVP and Chief Financial Officer*	■ 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
	**Guangchun Zhang** *SVP and Chief Operating Officer*	■ 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.
	**Ismael Guerrero** *CVP and President of Energy Group*	■ President, Head of Origination and COO at TerraForm Global ■ Vice President of Global Projects at Canadian Solar ■ Director of Operations for Asia at the Global Sustainable Fund
	**Jianyi Zhang** *SVP and Chief Compliance Officer*	■ Senior advisor to several Chinese law firms ■ Senior assistant general counsel at Walmart Stores, Inc. ■ Managing Partner at Troutman Sanders LLP
	**Dr. Guoqiang Xing** *SVP and Chief Technology Officer*	■ Chief Technology Officer of Hareon Solar ■ R&D Director of JA Solar ■ R&D Director at several semiconductor companies
Experienced Independent Directors	**Robert McDermott** *Chair of the Nominating and Corporate Governance, and member of Audit and Compensation Committees*	■ Partner with McMillan LLP, a business and commercial law firm ■ Director and senior officer of Boliden Ltd.
	Dr. Harry E. Ruda *Chair of Technology, and member of the Audit, Nominating and Governance, and Compensation Committees*	■ 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
	Andrew Wong *Chair of the Compensation, and member of the Audit, Nominating and Governance Committees*	■ 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 Shenzen Yantian Port (Group) Co. Ltd.
	Arthur Wong *Chair of the Audit Committee, and member of Nominating and Governance, and Compensation Committees*	■ 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

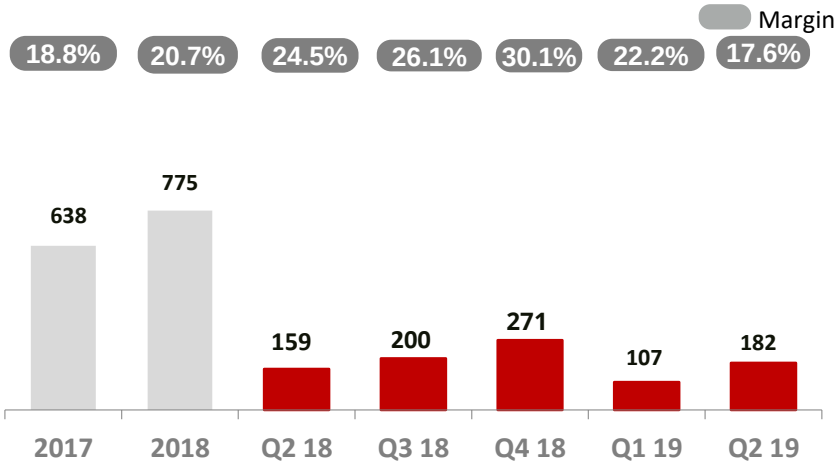
Source: Company information

Income Statement

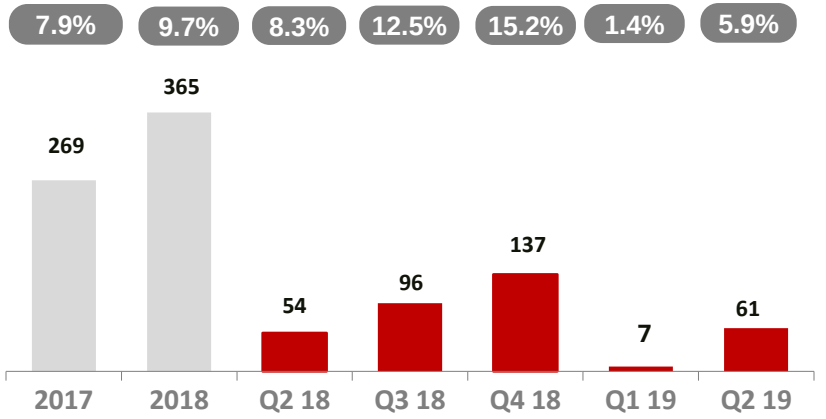
Revenue – US$ million



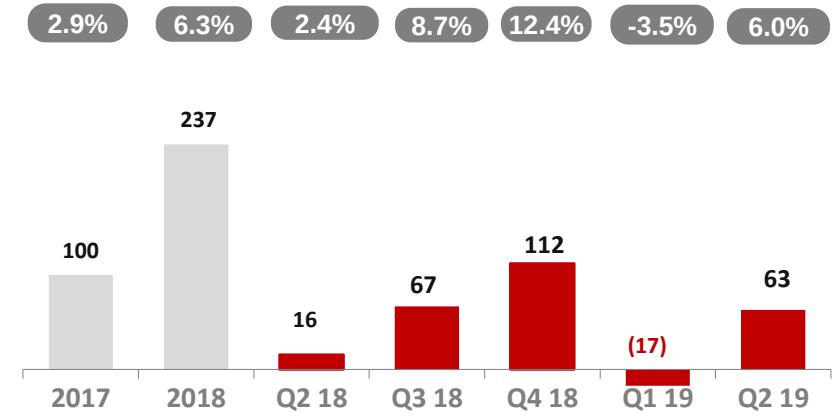
Gross Profit – US$ million



Operating Income – US$ million



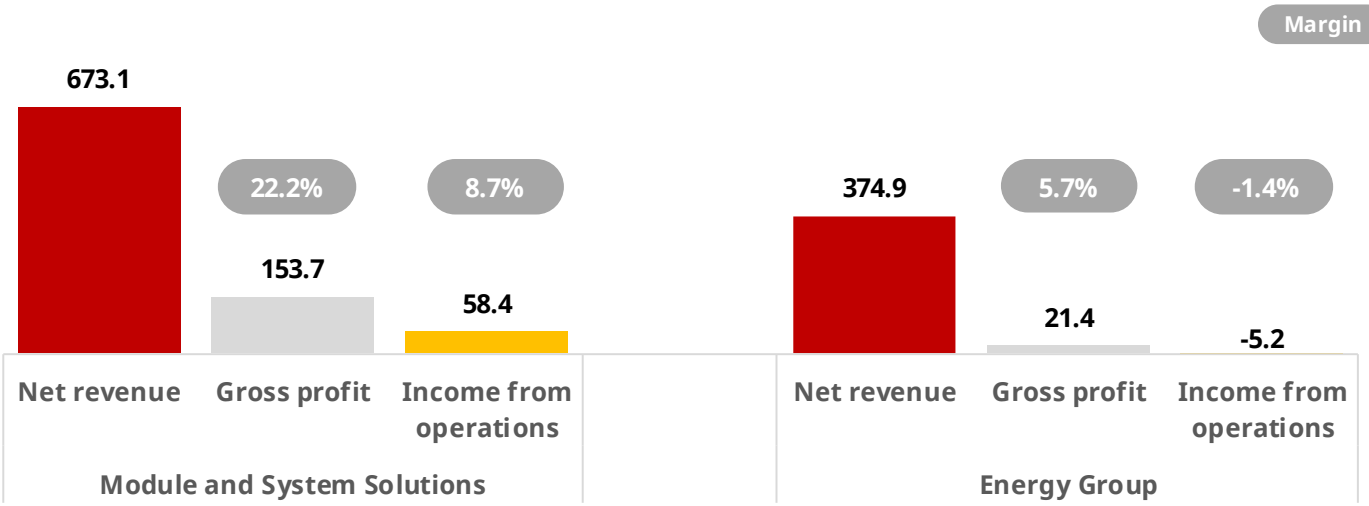
Net Income – US$ million



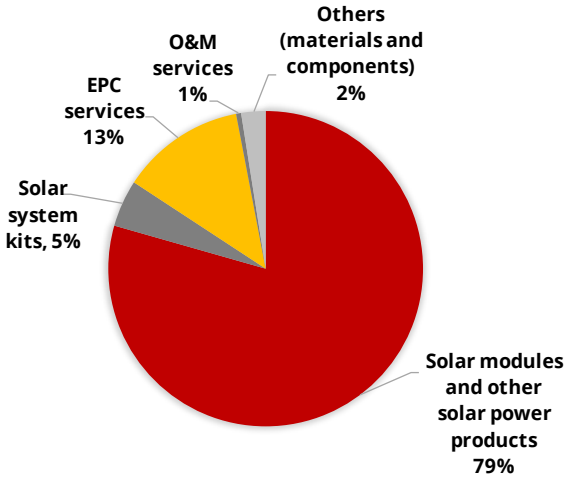
Source: Company filings

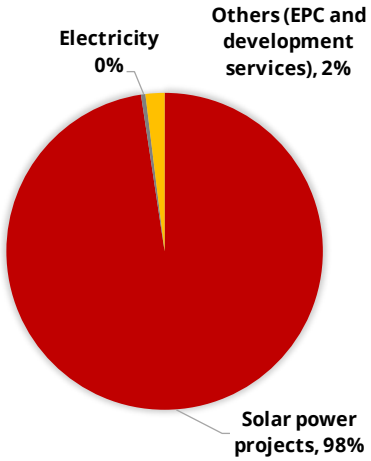
Q2 2019 Revenue and Profitability by Segment

Three Months Ended June 30, 2019 – US$ million (1)



Revenue split - Three Months Ended June 30, 2019





Source: Company filings

(1) Intersegment elimination of US$ 11.8 million on revenues and US$ 19.3 million on gross profit has been excluded in these charts to better show underlying profitability of each business unit.

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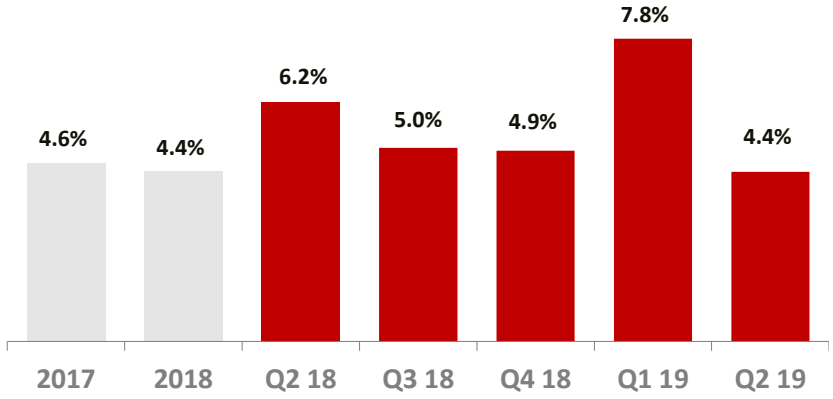
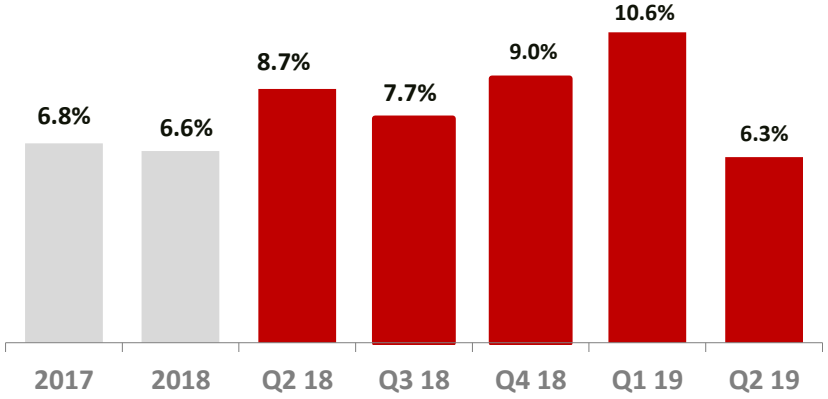
Operating Expenses as % of Net Revenue

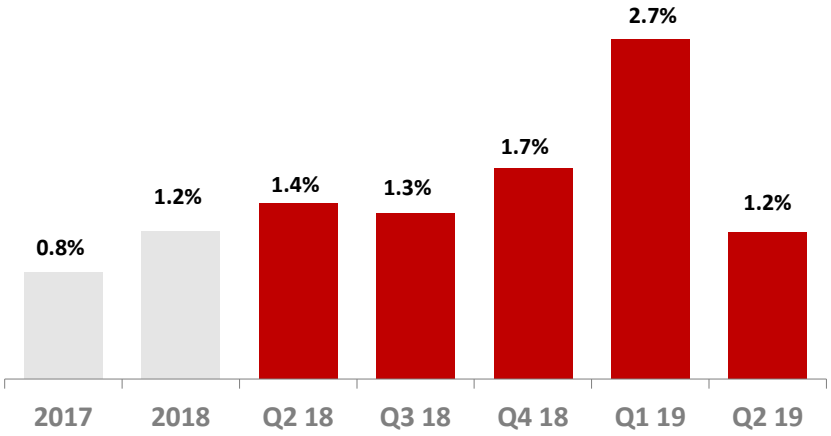
Selling Expenses



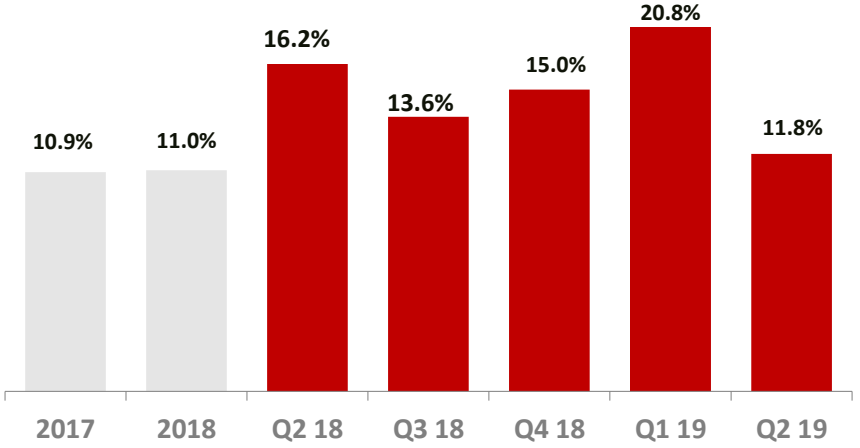
General & Administrative Expenses



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 August 15, 2019

	Q2 2019	Q3 2019E	FY2018	FY2019E	YoY Δ%
Module Shipments	2,143 MW	2.2 GW to 2.3 GW	6,615 MW	8.4 GW to 8.5 GW	+27.7%
Revenue[1]	$1,036.3 mn	$780 mn to $810 mn[2]	$3.74 bn	$3.5 bn to $3.8 bn	+1.6%
Gross Margin[1]	17.6%	24% to 26%[2]	NA	NA	NA

(1) Includes MSS and Energy businesses.
(2) The Q3 2019 revenue and gross margin guidance do not include potential sales of a project that may be completed in the third quarter. If the transaction is closed on time, total revenue for the third quarter is expected to be in the range of $970 million to $1 billion with gross margin between 27% and 29%.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THANK YOU
August 2019