Investor Presentation
Second Quarter 2019 Update

August 2019
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Global PV Installations Continue to Grow

Growth Drivers

✓ Grid Parity
✓ Environmental Preservation
✓ Energy Security

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

- GW Installed
- % of Electricity Generated

<table>
<thead>
<tr>
<th>Year</th>
<th>GW Installed</th>
<th>% of Electricity Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1.2</td>
<td>~2%</td>
</tr>
<tr>
<td>2001</td>
<td>1.6</td>
<td>~2%</td>
</tr>
<tr>
<td>2002</td>
<td>2.1</td>
<td>~2%</td>
</tr>
<tr>
<td>2003</td>
<td>2.6</td>
<td>~2%</td>
</tr>
<tr>
<td>2004</td>
<td>3.7</td>
<td>~2%</td>
</tr>
<tr>
<td>2005</td>
<td>5.1</td>
<td>~2%</td>
</tr>
<tr>
<td>2006</td>
<td>6.7</td>
<td>~2%</td>
</tr>
<tr>
<td>2007</td>
<td>9.2</td>
<td>~2%</td>
</tr>
<tr>
<td>2008</td>
<td>15.8</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2009</td>
<td>23.2</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2010</td>
<td>40.3</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2011</td>
<td>70.5</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2012</td>
<td>100.5</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2013</td>
<td>138.8</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2014</td>
<td>183.8</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2015</td>
<td>242.6</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2016</td>
<td>319.7</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2017</td>
<td>414.2</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2018</td>
<td>517.2</td>
<td>&gt;10%</td>
</tr>
<tr>
<td>2030</td>
<td>1,835.0</td>
<td>&gt;10%</td>
</tr>
</tbody>
</table>

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

- Solar PV Installations by Country (GW)
- Solar Electricity Contribution (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Solar PV Installations (GW)</th>
<th>Solar Electricity Contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>20.7</td>
<td>7.1%</td>
</tr>
<tr>
<td>Australia</td>
<td>12.3</td>
<td>3.2%</td>
</tr>
<tr>
<td>France</td>
<td>9.0</td>
<td>1.6%</td>
</tr>
<tr>
<td>USA</td>
<td>64.2</td>
<td>1.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>54.8</td>
<td>5.9%</td>
</tr>
<tr>
<td>India</td>
<td>30.7</td>
<td>1.7%</td>
</tr>
<tr>
<td>China</td>
<td>175.1</td>
<td>1.8%</td>
</tr>
<tr>
<td>Germany</td>
<td>45.8</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

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.
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)

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

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
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

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.
U.S. Utility-Scale Solar Project Pipeline

3.5 GWp
Early to mid-stage pipeline

1,565 MWp
Late-stage pipeline

205.9 MWp
Owned and operated

Projects in Operation
- NC 102: 102 MWp
- Roserock: 104 MWp

Late-stage Project Pipeline
- Texas Project 3: 280 MWp
- Gaskell West 2: 147 MWp
- Pflugerville: 185 MWp
- Texas Project: 280 MWp
- Maplewood: 310 MWp
- Maplewood 2: 40 MWp
- Slate: 235 MWp
- Stanford Solar Generating Station#2: 88 MWp

Source: Company information as of August 15, 2019

1. It represents the MWp owned by Canadian Solar.
Japan Utility-Scale Solar Project Pipeline

Total Solutions Business – Japan

311.8 MWp
Late-stage pipeline

89.6 MWp
Owned and operated

Utility-scale COD Schedule\(^1\) - MWp

<table>
<thead>
<tr>
<th>Year</th>
<th>MWp</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>61.8</td>
</tr>
<tr>
<td>2020</td>
<td>62.3</td>
</tr>
<tr>
<td>2021+</td>
<td>187.7</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Late-stage projects</th>
<th>Gross MWp</th>
<th>Location</th>
<th>Status</th>
<th>Expected COD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Francisco Sa (1)</td>
<td>114.3</td>
<td>Minas Gerais</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Jaiba (1)</td>
<td>101.6</td>
<td>Minas Gerais</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Lavras (3)</td>
<td>152.4</td>
<td>Ceara</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Salgueiro (2)</td>
<td>114.3</td>
<td>Pernambuco</td>
<td>Development</td>
<td>2020</td>
</tr>
<tr>
<td>Jaiba Expansao (1)</td>
<td>25.6</td>
<td>Minas Gerais</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>508.2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

- **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**

### Manufacturing Capacity - MW

- **Ingot**
- **Wafer**
- **Cell**
- **Module**

### Total Module Shipments - MW

- **2006–19 CAGR: 62.7%**

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

<table>
<thead>
<tr>
<th>Company</th>
<th>Revenue (in $ ‘millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIQ</td>
<td>3,744.5</td>
</tr>
<tr>
<td>JKS</td>
<td>3,642.3</td>
</tr>
<tr>
<td>FSLR</td>
<td>2,244</td>
</tr>
<tr>
<td>SPWR</td>
<td>1,726.1</td>
</tr>
</tbody>
</table>

- **Revenue**

Source: Company information as of August 15, 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

Source: Company information as of August 15, 2019
Cell Efficiency Roadmap

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: Company information as of August 15, 2019
# Experienced Board & Senior Management

<table>
<thead>
<tr>
<th>Name / Title</th>
<th>Work Experience</th>
</tr>
</thead>
</table>
| **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 |
| **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 Shenzhen 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)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Net revenue</th>
<th>Gross profit</th>
<th>Income from operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module and System Solutions</td>
<td>673.1</td>
<td>153.7</td>
<td>58.4</td>
</tr>
<tr>
<td></td>
<td>22.2%</td>
<td>8.7%</td>
<td></td>
</tr>
<tr>
<td>Energy Group</td>
<td>374.9</td>
<td>21.4</td>
<td>-5.2</td>
</tr>
<tr>
<td></td>
<td>5.7%</td>
<td>-1.4%</td>
<td></td>
</tr>
</tbody>
</table>

Revenue split - Three Months Ended June 30, 2019

Solar modules and other solar power products, 79%
Solar system kits, 5%
EPC services, 13%
O&M services, 2%
Others (materials and components), 2%
Electricity, 0%
Others (EPC and development services), 2%
Solar power projects, 98%

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.
### Operating Expenses as % of Net Revenue

#### Selling Expenses

<table>
<thead>
<tr>
<th>Year/Quarter</th>
<th>2017</th>
<th>2018</th>
<th>Q2 18</th>
<th>Q3 18</th>
<th>Q4 18</th>
<th>Q1 19</th>
<th>Q2 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling</td>
<td>4.6%</td>
<td>4.4%</td>
<td>6.2%</td>
<td>5.0%</td>
<td>4.9%</td>
<td>7.8%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

#### General & Administrative Expenses

<table>
<thead>
<tr>
<th>Year/Quarter</th>
<th>2017</th>
<th>2018</th>
<th>Q2 18</th>
<th>Q3 18</th>
<th>Q4 18</th>
<th>Q1 19</th>
<th>Q2 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>6.8%</td>
<td>6.6%</td>
<td>8.7%</td>
<td>7.7%</td>
<td>9.0%</td>
<td>10.6%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

#### Research & Development Expenses

<table>
<thead>
<tr>
<th>Year/Quarter</th>
<th>2017</th>
<th>2018</th>
<th>Q2 18</th>
<th>Q3 18</th>
<th>Q4 18</th>
<th>Q1 19</th>
<th>Q2 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D</td>
<td>0.8%</td>
<td>1.2%</td>
<td>1.4%</td>
<td>1.3%</td>
<td>1.7%</td>
<td>2.7%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

#### Total Operating Expenses

<table>
<thead>
<tr>
<th>Year/Quarter</th>
<th>2017</th>
<th>2018</th>
<th>Q2 18</th>
<th>Q3 18</th>
<th>Q4 18</th>
<th>Q1 19</th>
<th>Q2 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>16.2%</td>
<td>15.0%</td>
<td>20.8%</td>
<td>13.6%</td>
<td>15.0%</td>
<td>20.8%</td>
<td>11.8%</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th>Q2 2019</th>
<th>Q3 2019E</th>
<th>FY2018</th>
<th>FY2019E</th>
<th>YoY Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Shipments</td>
<td>2,143 MW</td>
<td>2.2 GW to 2.3 GW</td>
<td>6,615 MW</td>
<td>8.4 GW to 8.5 GW</td>
<td>+27.7%</td>
</tr>
<tr>
<td>Revenue&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>$1,036.3 mn</td>
<td>$780 mn to $810 mn&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>$3.74 bn</td>
<td>$3.5 bn to $3.8 bn</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Gross Margin&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>17.6%</td>
<td>24% to 26%&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

(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%.
THANK YOU

August 2019