Investor Presentation
Third Quarter 2018 Update

November 2018
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Declining Cost Drives Adoption

Investment and GW deployment of renewables will continue to grow owing to declining cost/watt, particularly for solar.

Source: J.P. Morgan Analyst Research Report
Global PV Installation Continue to Grow

**Growth Drivers**
- Grid Parity
- Environment Preservation
- Energy Security

**Source:** Global PV module demand assumptions from IHS, Bloomberg and analyst research reports
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)

Source: EPIA, IHS, EIA, Canadian Solar Analysis; Cumulative Installations as of the year 2017.

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
- > 30 GW of solar modules shipped cumulatively
- > 4.6 GWp (1) solar power plants built and connected (incl. Recurrent)
- **Global Top 3 solar company by revenue in 2017**

### Global Footprint and Brand

- Q3 2018 Revenue: $768.0 million
- Q3 2018 Shipment: 1.59 GW
- 2018 Shipment Guidance: 6.33 GW to 6.38 GW
- 2018 Revenue Guidance: $3.5 billion to $3.6 billion

### Solar Power Plants Built and Connected

Source: Company information as of November 15, 2018

1. Includes solar power projects built and connected by Recurrent Energy before acquisition by Canadian Solar in 2015
Energy Business: Globally Diversified Project Pipeline

9.5 GWp
Total project development pipeline

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

~2.9 GWp
Total late-stage project pipeline (1)

~1,148 MWp
Solar power plants owned and operated, with an estimated resale value of $1.23 billion

Priority Markets for Utility-scale Project Development

U.S. | Brazil | Mexico | Japan | China | Australia | Argentina | Taiwan | Philippines | India | Chile | Malaysia | South Korea
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
1,022 | 476.2 | 435.7 | 310 | 255 | 121 | 97.6 | 41.7 | 27.5 | 24 | 18.4 | 15 | 8

Source: Company information as of November 15, 2018
Note: (1) Late-stage project pipeline, nearly all projects have an energy offtake 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.**

**5.4 GWp**
Early to mid-stage pipeline

**1,022 MWp**
Late-stage pipeline

**340.1 MWp**
Owned and operated\(^1\)

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**Projects in Operation\(^1\)**

- 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*

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**Late-stage Project Pipeline**

- Mustang Two: 210 MWp  
  *Under development; COD expected in 2020*
- Gaskell West 2: 147 MWp
- Pflugerville: 185 MWp
- Texas Project: 280 MWp
- Slate: 200 MWp  
  *Development; COD expected in 2021*

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Source: Company information as of November 15, 2018

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

Total Solutions Business – Japan

310 MW_p
Late-stage pipeline

92.9 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.

- 310 MW_p late-stage projects have secured interconnection agreement and FIT, including 73.8 MW_p in construction and 236.2 MW_p under development
- Projects in the bidding process 11.4 MW_p

Source: Company information as of November 15, 2018
### Market Leader in Brazil and Mexico

**79.8 MW<sub>p</sub>**
Owned and operated
In Brazil

<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&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>122.2</td>
<td>Minas Gerais</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Jaiba&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>97.3</td>
<td>Minas Gerais</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Lavras&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>144.7</td>
<td>Ceará</td>
<td>Development</td>
<td>2021</td>
</tr>
<tr>
<td>Salgueiro&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>112</td>
<td>Pernambuco</td>
<td>Development</td>
<td>2020</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>476.2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Late-stage projects in 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>EL Mayo&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>124</td>
<td>Sonora</td>
<td>Development</td>
<td>2020</td>
</tr>
<tr>
<td>Tastiota&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>125</td>
<td>Sonora</td>
<td>Development</td>
<td>2020</td>
</tr>
<tr>
<td>Horus&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>119</td>
<td>Aguascalientes</td>
<td>Development</td>
<td>2020</td>
</tr>
<tr>
<td>Aguascalientes&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>67.7</td>
<td>Aguascalientes</td>
<td>Construction</td>
<td>2019</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>435.7</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company information as of November 15, 2018
Note: * The MWp size represents Canadian Solar’s equity interests in the projects
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
  - Black silicon + Poly PERC + Bifacial

- **Global Manufacturing Footprint**
  - Brazil
  - Canada
  - China
  - Indonesia
  - South East Asia
  - Vietnam

- **Operation efficiency improvements**: Shorter cycle time and lower inventory

### Manufacturing Capacity - MW

<table>
<thead>
<tr>
<th>Year</th>
<th>Ingot</th>
<th>Wafer</th>
<th>Cell</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>3,000</td>
<td>2,700</td>
<td>1,000</td>
<td>1,580</td>
</tr>
<tr>
<td>2015</td>
<td>4,330</td>
<td>400</td>
<td>1,200</td>
<td>1,100</td>
</tr>
<tr>
<td>2016</td>
<td>6,170</td>
<td>400</td>
<td>1,650</td>
<td>1,890</td>
</tr>
<tr>
<td>2017</td>
<td>5,020</td>
<td>5,460</td>
<td>6,700</td>
<td>3,100</td>
</tr>
<tr>
<td>2018E</td>
<td>8,110</td>
<td>5,000</td>
<td>6,000</td>
<td>6,828</td>
</tr>
<tr>
<td>1H2019E</td>
<td>8,700</td>
<td>6,300</td>
<td>6,000</td>
<td>5,232</td>
</tr>
<tr>
<td>2H2019E</td>
<td>9,360</td>
<td>7,100</td>
<td>6,000</td>
<td>6,828</td>
</tr>
</tbody>
</table>

### Total Module Shipments - MW

- **2006 - 17 CAGR**: 74%

### Top 3 Solar Company by Revenue in 2017

- **Revenue in $ ‘millions**
  - JKS: $4,069
  - CSIQ: $3,390
  - JASO: $3,022
  - FSLR: $2,941
  - HQCL: $2,177
  - SPWR: $1,872
  - YGE: $1,285

Source: Company information as of November 15, 2018
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 4 years in-house R&D, **self-owned IPs**
- ~4GW in-house multi cell production used this technology at the end of Q3 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

**Highlights**

- **P4** will improve the multicrystalline cell efficiency to above 22% in 2021.
- Mono PERC cell efficiency can reach above 23% in mass production by 2021.
- Non-PERC cell technologies will be phased out by the end of 2019.
- Other high efficiency and cost competitive technologies are also in R&D.

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Cell Efficiency

- **Conventional mono technology phased out in 2017**
- **Conventional poly technology phased out in 2017**
- **P3 to be phased out in 2019**
- **P4**
## Experienced Board & Senior Management

<table>
<thead>
<tr>
<th>Name / Title</th>
<th>Work Experience</th>
</tr>
</thead>
</table>
| **Dr. Shawn Qu**<br>Chairman, President & CEO (Director) | - 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.) |
| **Dr. Huifeng Chang**<br>SVP, 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 |
| **Yan Zhuang**<br>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. |
| **Guangchun Zhang**<br>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. |
| **Arthur Chien**<br>SVP and Chief Strategic Officer | - 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. |
| **Jianyi Zhang**<br>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**<br>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**<br>Chairperson of the Corporate Governance, Nominating and Compensation Committees | - Partner with McMillan LLP, a business and commercial law firm  
- Director and senior officer of Boliden Ltd. |
| **Lars-Eric Johansson**<br>Chair of the Audit and member of Governance, and Compensation Committees | - CEO of Ivanhoe Nickel & Platinum Ltd.  
- Chairperson of the Audit Committee of Harry Winston Diamond |
| **Dr. Harry E. Ruda**<br>Chair of Technology and member of the Audit, Governance, 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**<br>Member of the Audit, Corporate Governance, Compensation 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. |

Source: Company information
Income Statement

Revenue – US$ million

<table>
<thead>
<tr>
<th>Year</th>
<th>Q3 17</th>
<th>Q4 17</th>
<th>Q1 18</th>
<th>Q2 18</th>
<th>Q3 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2,853</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>3,390</td>
<td>912</td>
<td>1,109</td>
<td>1,425</td>
<td>651</td>
</tr>
</tbody>
</table>

Gross Profit – US$ million

<table>
<thead>
<tr>
<th>Year</th>
<th>Q3 17</th>
<th>Q4 17</th>
<th>Q1 18</th>
<th>Q2 18</th>
<th>Q3 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>461</td>
</tr>
<tr>
<td>2017</td>
<td>638</td>
<td>160</td>
<td>219</td>
<td>144</td>
<td>200</td>
</tr>
</tbody>
</table>

Operating Income – US$ million

<table>
<thead>
<tr>
<th>Year</th>
<th>Q3 17</th>
<th>Q4 17</th>
<th>Q1 18</th>
<th>Q2 18</th>
<th>Q3 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>137</td>
<td>58</td>
<td>130</td>
<td>78</td>
<td>54</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96</td>
</tr>
</tbody>
</table>

Net Income – US$ million

<table>
<thead>
<tr>
<th>Year</th>
<th>Q3 17</th>
<th>Q4 17</th>
<th>Q1 18</th>
<th>Q2 18</th>
<th>Q3 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>93</td>
<td>100</td>
<td>13</td>
<td>61</td>
<td>43</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Company filings

Note: (1) Non-GAAP adjusted numbers, excluding the AD/CVD true-up provision of $44.1 million
### MSS Business and Energy Business - Revenue and Gross Profit

#### Three Months Ended September 30, 2018 – US$ thousand

<table>
<thead>
<tr>
<th></th>
<th>MSS</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenue</td>
<td>768.0</td>
<td>255.7</td>
</tr>
<tr>
<td>Cost of Revenue</td>
<td>255.7</td>
<td>512.3</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>512.3</td>
<td>255.7</td>
</tr>
</tbody>
</table>

#### Nine Months Ended September 30, 2018 – US$ thousand

<table>
<thead>
<tr>
<th></th>
<th>MSS</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenue</td>
<td>2,843.5</td>
<td>1,239.4</td>
</tr>
<tr>
<td>Cost of Revenue</td>
<td>1,239.4</td>
<td>1,280.8</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>1,604.1</td>
<td>503.8</td>
</tr>
</tbody>
</table>

#### Source: Company filings
Operating Expenses as % of Net Revenue

- **Selling Expenses**
  - 2016: 5.1%
  - 2017: 4.6%
  - Q3 17: 4.7%
  - Q4 17: 3.6%
  - Q1 18: 3.0%
  - Q2 18: 6.2%
  - Q3 18: 5.0%

- **General & Administrative Expenses**
  - 2016: 7.1%
  - 2017: 6.8%
  - Q3 17: 5.8%
  - Q4 17: 6.3%
  - Q1 18: 3.4%
  - Q2 18: 8.7%
  - Q3 18: 7.7%

- **Research & Development Expenses**
  - 2016: 0.6%
  - 2017: 0.8%
  - Q3 17: 0.8%
  - Q4 17: 0.8%
  - Q1 18: 0.7%
  - Q2 18: 1.4%
  - Q3 18: 1.3%

- **Total Operating Expenses**
  - 2016: 11.4%
  - 2017: 10.9%
  - Q3 17: 11.2%
  - Q4 17: 8.0%
  - Q1 18: 4.6%
  - Q2 18: 16.2%
  - Q3 18: 13.6%

Source: Company filings
Note: Percentages are of the total net revenue in the corresponding period.
(1) The % is affected by the deferral of several project sales.
## Guidance as of November 15, 2018

<table>
<thead>
<tr>
<th></th>
<th>Q3 2018</th>
<th>Q4 2018</th>
<th>FY2017</th>
<th>FY2018</th>
<th>YoY Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module Shipments</strong></td>
<td>1.59 GW</td>
<td>1.67 GW to 1.72 GW</td>
<td>6.8 GW</td>
<td>6.33 GW to 6.38 GW</td>
<td>-6.6%</td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$768 mn</td>
<td>$690 mn to $800 mn</td>
<td>$3.39 bn</td>
<td>$3.5 bn to $3.6 bn</td>
<td>+6.2%</td>
</tr>
<tr>
<td><strong>Gross Margin</strong></td>
<td>26.1%&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>24.0% to 26.0%&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<sup>(1)</sup>Includes MSS business and Energy business
THANK YOU

November 2018