U.S. Solar Manufacturing Expansion Plan

I. Mid-to Long-Term Strategy and Vision for Renewable Energy business 03

II. U.S. Solar Manufacturing Expansion Plan

Overview – U.S. Expansion Plan 06
Rationale and Benefits (1) Focusing on U.S. solar market 07
Rationale and Benefits (2) IRA 08
Capacity Roadmap (2021-2024) 09
Glossary 10
DISCLAIMER

This presentation, prepared in accordance with K-IFRS, provides preliminary results prior to the completion of an external audit for the convenience of investors only.

It contains forward-looking statements that are inherently subject to risks and uncertainties, unexpected changes in market conditions and subsequent adjustments in the company’s strategies, which may cause actual results to differ materially from the projections made in this presentation.

The responsibility for any investment decision based upon the information contained in this presentation falls on the investor. We do not undertake any duty to update any forward-looking statement.
Transition to an energy solutions provider based on the differentiated competitiveness of the energy system
Transition to an energy solutions provider based on the **differentiated competitiveness of the energy system**

- Leveraging technology leadership to build a differentiated solar supply chain
- Internalization and strategic sourcing of a major hardware systems
- Integrate and strengthen competencies in software

* Please refer to the glossary on page 10
Transition to an energy solutions provider based on the differentiated competitiveness of the energy system

- Capitalize distributed energy resources and provide direct installation/financing solutions of residential rooftop systems
- Foster the development of ESCO business by approaching C&I in the perspective of a ‘Small Utility Project’
- Build a virtuous cycle by offering development to asset disposal, EPC and operations to capture margin

* Please refer to the glossary on page 10
### U.S. Solar Manufacturing Expansion Plan

#### Overview – U.S. Expansion Plan

Expand U.S. manufacturing capacity to 8.4GW by end of 2024 (2021 1.7GW)

<table>
<thead>
<tr>
<th>Year</th>
<th>Module</th>
<th>Capacity (GW)</th>
<th>Investment</th>
<th>Location</th>
<th>Completion of Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Module 1.7GW</td>
<td>1.7GW</td>
<td>$171mil (~W220Bil.)</td>
<td>Georgia, U.S</td>
<td>2H23</td>
</tr>
<tr>
<td>2023</td>
<td>Module 1.4GW</td>
<td>1.4GW</td>
<td>$181mil (~W230Bil.)</td>
<td>Georgia, U.S</td>
<td>2024</td>
</tr>
<tr>
<td>2024</td>
<td>Module 2.0GW</td>
<td>2.0GW</td>
<td>$2.31bil (~W2.9Tril.)</td>
<td>Georgia, U.S</td>
<td>2024</td>
</tr>
<tr>
<td>2024</td>
<td>Ingot &amp; Wafer Cell/Module</td>
<td>3.3GW each</td>
<td>$3.20bil (~W3.2Tril.)</td>
<td>Georgia, U.S</td>
<td></td>
</tr>
</tbody>
</table>

Investment of approx. W3.2Tril.

*Investment (W) is the amount converted by applying the basic exchange rate (USD/KRW 1,267.30) as of Dec 30th 2022*
Rationale and Benefits

(1) Focusing on U.S. solar market

- Enhancing competitiveness by manufacturing and distributing in the U.S.
  - The market size of the solar panel installation is expected to increase to 30-40GW per year
  - Build a competitive advantage through an integrated value chain of ingot to module in the U.S.
  - Provide prompt responses to customers and differentiated energy solution services as a U.S.-based company
  - Increase brand awareness and customer loyalty of Q CELLS

U.S. Solar PV Installations and forecasts, 2022-2026

<table>
<thead>
<tr>
<th>Year</th>
<th>Utility PV</th>
<th>C&amp;I</th>
<th>Residential PV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>19 GW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>28 GW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>33 GW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>39 GW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2026</td>
<td>44 GW</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Source: WoodMac

Plan to increase Solar PV module shipments to U.S

- Shipments: ~30% in 2021, ~70% in 2025
- 2.3x growth vs 2022
**Rationale and Benefits**

### IRA

**Inflation Reduction Act**

- **Advanced Manufacturing Production Credit (AMPC)**: Provides a tax credit\(^1\) for clean energy equipment, produced in the US and sold by manufacturer.  
  1) Per-unit tax credit for component * units produced and sold per year  
  **Module 7cent/w, Cell 4cent/w, Wafer $12/m\(^2\), Polysilicon $3/kg**

- **Investment Tax Credit (ITC)**: The residential clean energy credit increased to 30% and the timeline has been extended.  
  : Adders worth 10% are available for projects that meet certain criteria.

### Simulation of cash benefits under IRA

**Expected Cash Benefits**: approx. $875mil/Y

\[\sum_{2023}^{2032} \text{Tax Credit} \text{($)} \]

**Tax Credit Monetization Options**

- Direct pay option available for the 5 years
- Application period may vary by production facilities

\* Expected benefits of IRA(W) is the amount converted by applying the basic exchange rate (USD/KRW 1,267.30) as of Dec 30th 2022.
### U.S. Solar Manufacturing Expansion Plan

#### Capacity Roadmap (2021-2024)

<table>
<thead>
<tr>
<th>Year</th>
<th>Ingot/Wafer</th>
<th>Cell</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>U.S. + 3.3 GW</td>
<td>U.S. + 3.3 GW</td>
<td>12.4 GW + 1.4 GW + 2.0 GW + 3.3 GW = 6.7 GW</td>
</tr>
<tr>
<td>2024</td>
<td>3.3 GW</td>
<td>13.3 GW</td>
<td>19.1 GW</td>
</tr>
</tbody>
</table>

*The above figure presents year-end nominal production capacity which may differ from the actual production volume.*

**Capacity Addition**

- **U.S.**
  - 2021: + 3.3 GW
  - 2024: 3.3 GW

**Location**

- **Korea**
  - 10.7 GW
- **Malaysia**
  - 1.7 GW
- **China**
  - 10.0 GW
- **U.S.**
  - 12.4 GW

*Optimized operation to be proceeded*
GLOSSARY

* IPP : Independent Power Producer
* VPP : Virtual Power Plant
* ESCO : Energy Service Company, Companies providing total solutions for optimal energy conservation measures tailored to customers’ needs and circumstances
* EPC : Engineering, Procurement, Construction
* MLPE : Module Level Power Electronics, Microinverter, DC Optimizer etc
* C&I : Commercial & Industrial
* ESS : Energy Storage System
* EMS : Energy Management System
* CRM : Customer Relationship Management
* TOPCon : Tunnel Oxide Passivated Contact