

# DOMESTIC SOLAR GLASS MANUFACTURING

**MARCH 2025** 









### Introduction

Canadian Premium Sand Inc. ("CPS") is a public company listed on the TSX-Venture Exchange

- > Developing pattern solar glass manufacturing facilities in US and Canada
- No manufacturing facilities of this kind exist in North America today
- Experienced management team with deep relationships in the solar industry
- Two phase market entry strategy
  - 1. Brownfield strategy in the US with a capital efficient facility
  - 2. Greenfield strategy in Canada with vertical integration to sand supply
- Both facilities have long-term structural cost advantages to support their development

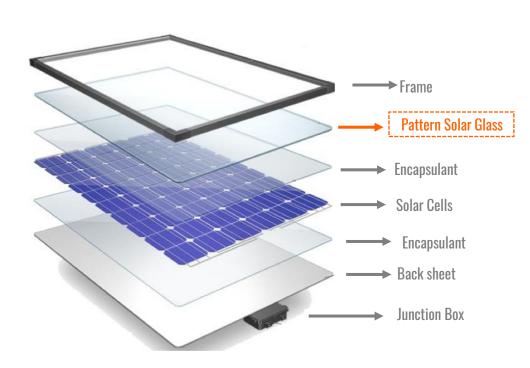


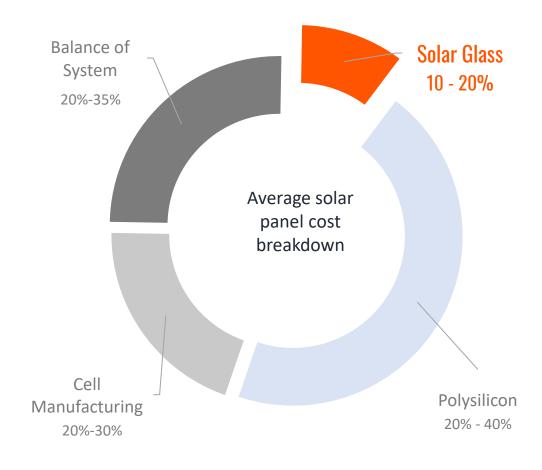


# Solar Glass is a Critical Component of Solar Panels

### Pattern solar glass:

- Maximizes light transmittance
- Protects solar panel from elements
- Carries limited technology risk or obsolescence





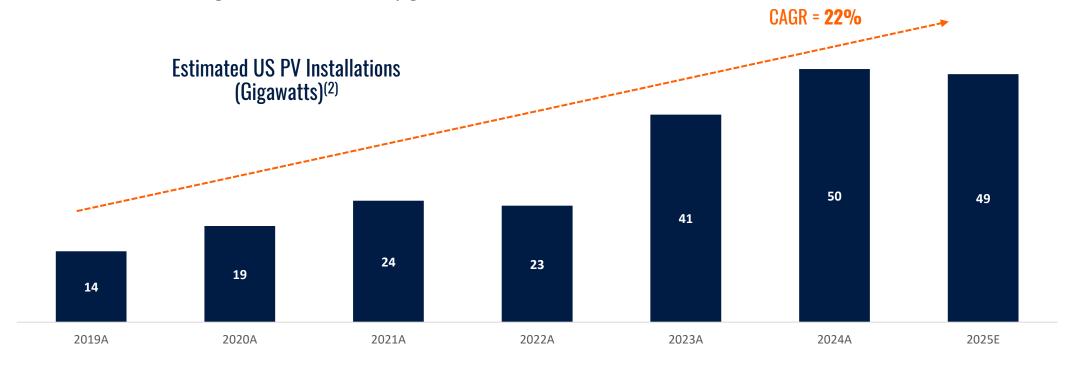


### Significant Demand for Solar Panels

In 2024, solar installations accounted for 64% of new utility generation added to the US grid(1)

Solar panel **installations** have grown **22%** annually, driven by:

- Cost competitiveness of solar energy relative to traditional sources of energy
- Corporate sustainability commitments
- Decarbonization targets for the electricity grid



- 1. America's Clean Power Progress 2024 by American Clean Power (ACP) association
- 2. Solar Energy Industry Association (SEIA) 2024 Year-End Report and Base-Case Forecast



# Current Dependence on Asia-Pacific Suppliers

Domestic solar panel manufacturers are aggressively seeking a local supply of glass
 No supply of pattern solar glass exists in North America

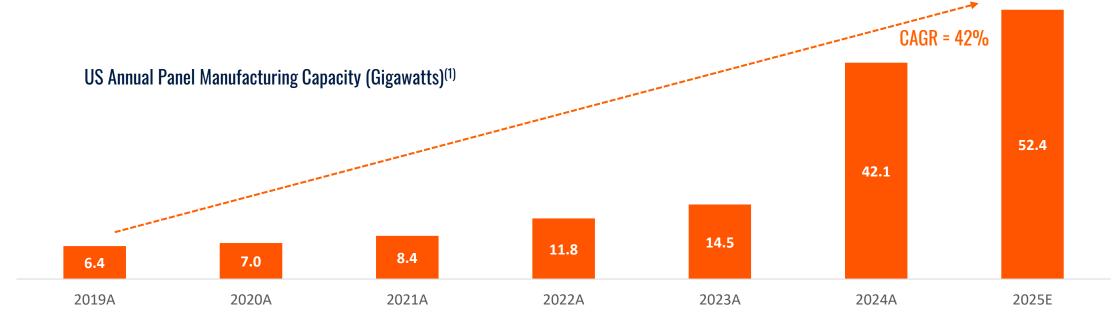




# **Growth of Domestic Panel Manufacturing**

### US solar panel manufacturers are now capable of supplying all domestic solar panel needs

- Several global panel manufacturers announced billions of dollars in investments for new facilities in the US
- US panel manufacturing capacity and associated glass demand has increased nearly 9x from 6 GW per year in 2019 to 52 GW in 2025



- ✓ Hanwha Solutions (Qcells) announced the largest investment in U.S. solar history (US\$2.5B) to build out a sustainable North American solar supply-chain to support growth, targeting over 8GW of solar panel manufacturing.
- ✓ Heliene Inc. recently announced further expansion plans for its panel manufacturing operations, having secured offtakes from notable customers and supporting its panels with US cell manufacturing in the near future.
- ✓ <u>Canadian Solar announced</u> plans for a 5GW cell manufacturing facility in Indiana to support their 5GW panel manufacturing facility in Texas, having <u>secured offtakes</u> for their new panels.



### **Market Entry Strategy**

### **Developing two of North America's only pattern solar glass manufacturing facilities**

### Phase 1 - Brownfield US Strategy

Re-purpose a shuttered glass manufacturing facility in southern US to produce 4GW of solar glass annually

- Utilize existing infrastructure, equipment and buildings to achieve long-term structural capital cost advantage
- Leverage existing federal emissions permits to accelerate project development
- US\$75 million 48C tax credit allocation secured and can be monetized to support project financing
- State and local incentives for the US site secured under letter of intent
- US facility will produce domestic solar glass providing additional incentives to end-users of panels through Inflation Reduction Act compliance
- Potential for joint venture partnership with strategic glass manufacturing partner



## **US Brownfield Development**

### CPS Glass USA - a wholly owned US subsidiary established to advance the brownfield strategy

- Offtake agreements under negotiation with key customers
  - CPS team has deep long-term relationships with major solar panel manufacturers
  - Filling a void in the current domestic supply-chain allows CPS to secure a premium sales price
- Preliminary economic analysis demonstrates strong project economics and attractive equity rate of return
- Project financing strategy advancing through discussions with investment banks and lenders

#### **Achieved and Upcoming Milestones**

To-Date

Q2 2025

✓ Site selection

Local & State incentives
✓ US\$75 million 48C tax credit

Q2 2025

OR Q3 2025

Pre-construction engineering
Project financing (debt & equity)

Construction start

Construction start



### **Market Entry Strategy**

### **Developing two of North America's only pattern solar glass manufacturing facilities**

#### **Phase 2 – Vertically Integrated Canadian project**

Greenfield flagship project in Manitoba, vertically integrated with wholly owned low-iron sand supply to produce 6GW of solar glass annually

- Low-cost Canadian natural gas, hydro-electricity and wholly owned sand resource provide a structural operating cost advantage
- Nearly 100% renewable electricity from Manitoba's electrical grid will enable production of solar glass with a low carbon footprint in North America
- Project will support onshoring of solar glass manufacturing in North America and enhance supply-chain transparency for customers
- Up to C\$272 million in indications of support (30% of capital need) from federal and provincial government programs



### Canadian Facility Development

#### **Project Economics**

- Lump-sum turnkey EPC agreement for a total capital cost of C\$880 million, including sand quarry development
- Previously executed offtake agreements indicate 19% unlevered IRR
- Lowest cost solar glass manufacturing operation in North America as a result of low-cost renewable electricity, wholly owned sand supply and western Canadian natural gas supply

#### **Achieved and Upcoming Milestones**

To-Date 2025 2026

- ✓ Secured site, offtake agreements and environmental permits
- ✓ Launched formal financing process
- ✓ Advanced debt and equity conversations
- ✓ Prepared a shortlist of investors
- ✓ Up to C\$272 million in federal and provincial incentives

- Finalize non-dilutive contribution agreements for government incentives
- Continued engagement with Indigenous groups for equity participation through the federal Indigenous Loan Guarantee Program
- Prepare revised project financing plan pending resolution of Canada & US tariffs



# **Security of Raw Material Supply**

Wholly owned low-iron sand deposit supports development of two glass manufacturing facilities

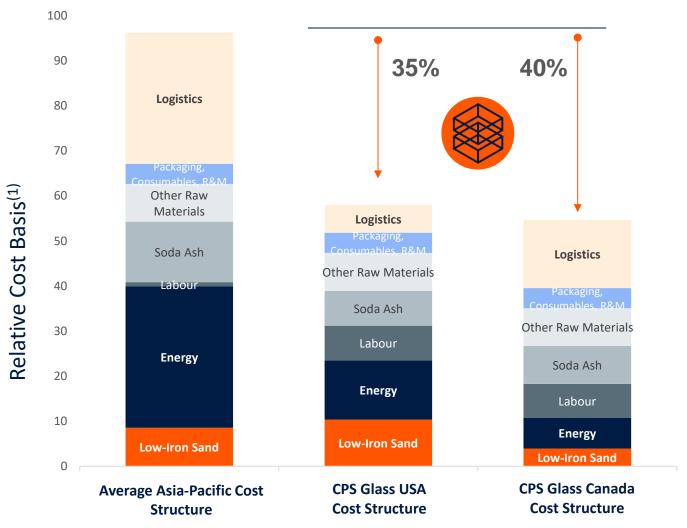


#### Rare high quality silica sand resource

- ✓ 7.25 million tonnes of inferred resource
- ✓ Meets industry requirement for <100 parts per million (ppm) iron oxide content</p>
- ✓ Some areas of low-iron resource tested as low as 39ppm for iron oxide content
- ✓ Provides security of supply and cost certainty for key raw material input
- Low-cost operation with minimal overburden and processing
- Participation Agreement in place with First Nation community



# **Structural Cost Advantage**





### **35% - 40% cost advantage**(2)

- **Logistics**: Significantly lower logistics cost due to proximity to customers vs. Asia-Pacific
- Soda Ash: Lower cost supply of soda ash in North America
- Energy: Inexpensive and lower carbon electric energy supply and natural gas
- Low-Iron Sand: Wholly owned supply of highpurity solar spec sand for Canadian facility and 3<sup>rd</sup> party supply for US facility to start

- 1. Cost comparison is based on commodity futures for LNG and current ocean freight cost from Asia-Pacific
- 2. Implementation of US tariffs significantly boosts CPS Glass USA economics relative to Asia-Pacific and Canadian supply



### **Long-Term Growth Strategy**

### US brownfield strategy is a first step towards establishing CPS as the preferred solar glass supplier

US solar panel manufacturing has reached a turning point with 52 GW of annual capacity driving significant focus and capital towards onshoring of the solar supply-chain

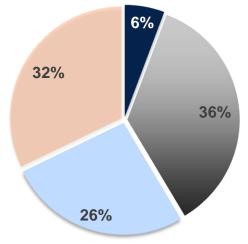
- Our US project with 4GW of domestic glass supply enables a capital efficient market entry and establishes CPS as a reliable supplier to our customer-base
- Once operational, the US project will demonstrate operational capabilities and facilitate long-term offtake contracts to support development of CPS flagship Canadian facility
- CPS wholly owned sand resource can supply multiple facilities for decades

Both facilities when operational would displace less than 20% of Asia-Pacific imports



## **Corporate Overview**

| Capitalization   |            | Current |
|--|------------|---------|
| Share price (January 31, 2025)                             | (\$/share) | \$0.335 |
| Common shares outstanding                                  | (MM)       | 92.6    |
| Market capitalization (basic)                              | (\$MM)     | \$31.0  |
| Net cash outstanding                                       |            |         |
| Cash and equivalents (December 31, 2024)                   | (\$MM)     | \$3.7   |
| Less: 12.0% convertible debentures (due February 26, 2026) | (\$MM)     | -\$3.4  |
| Net cash   | (\$MM)     | \$0.3   |
| Enterprise value   | (\$MM)     | \$31.3  |



- Management & Directors
- Paramount Resources & Strategic Investors
- Institutional Investors
- Retail Shareholders

#### **Management Team**

Glenn Leroux, P.Eng

President & CEO, Director

Isha Kular, CPA, CA, MPAcc

Chief Financial Officer

Dana Partridge, BSc., JD

Vice President, Glass Operations

Anshul Vishal, P. Eng, MBA

*Vice President, Corporate Development* 

Alasdair Knox, P. Eng, PMP, MBA

Vice President, Project Engineering

#### **Board of Directors**

Lowell Jackson, P. Eng | Chairman

Previously CEO and President of WestFire Energy Ltd. and Real Resources Inc.

Theresa Jester, BSc.

Previous executive roles at Solar World, Solaria and Hudson Energy Partners

Rod Sousa, B. Comm., CFA

Executive Vice-President, Corporate Development Planning at Paramount Resources Ltd.

**Brad Virbitsky, BA** 

Portfolio Manager, Equinox Partners

Todd Garman, B. Comm., MBA

President at Iron Horse Energy Services

John Assman, BA, ICD.D

President & CEO of Landtran Systems Inc.



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Technical information contained in this Presentation that relate to the silica sand resource has been extracted or summarized based on the information contained in the independent Technical Report and Mineral Resource update of Wanipigow Sand Quarry dated October 14, 2021, reviewed and approved by Roy Eccles, P. Geol. of APEX Geoscience Ltd., who is independent of the Company and a "qualified person" under National Instrument 43-101 - Standards of Disclosure for Mineral Projects. Readers are cautioned not to solely rely on the summary of this information but should read the Technical Report in its entirety which is available for review on the Company's profile on SEDAR at www.sedar.com.

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A number of factors, risks and uncertainties could cause results to differ materially from those anticipated and described herein including, among others: the effects of competition and pricing pressures; effects of fluctuations in the price of glass products and raw materials input costs; risks related to indebtedness and liquidity, including the Company's capital requirements; supply chain risks; risks related to interest rate fluctuations and foreign exchange rate fluctuations; changes in general economic, financial, market and business conditions in the markets in which the Company operates; the Company's ability to obtain, maintain and renew required permits, licenses and approvals from regulatory authorities; the stringent requirements of and potential changes to applicable legislation, regulations and standards; the ability of the Company to comply with unexpected costs of government regulations; liabilities resulting from the Company's operations; the results of litigation or regulatory proceedings that may be brought against the Company; uninsured and underinsured losses; risks related to the transportation of the Company's products, including potential rail line interruptions or a reduction in rail car availability; the geographic and customer concentration of the Company to retain and attract qualified management and staff in the markets in which the Company operates: labor disputes and work stoppages and risks related to employee health and safety: general risks associated with the glass manufacturing and sand quarry industries, loss of markets, consumer and business spending and borrowing trends; limited, unfavorable, or a lack of access to capital markets; uncertainties inherent in estimating quantities of products; processing problems; the use and suitability of the Company's accounting estimates and judgments; and the other risk factors outlined in CPS's most recent Management's Discussion and Analysis which is available on SEDAR at www.sedar.com. Although the Company has attempted to identify important factors that cause actual actions, events or results to differ materially from those described in its forward-looking statements, there may be other factors that cause actual actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will materialize or prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The forward-looking statements contained in this Presentation are expressly qualified by this cautionary statement. Readers should not place undue reliance on forward-looking statements. These statements speak only as of the date of this Presentation. Except as may be required by law, the Company expressly disclaims any intention or obligation to revise or update any forward-looking statements or information whether as a result of new information, future events or otherwise. Any financial outlook and future-oriented financial information contained in this Presentation regarding prospective financial performance, financial position, cash flows, EBITDA or net debt projections are based on assumptions about future events, including economic conditions and proposed courses of action based on management's assessment of the relevant information that is currently available. Projected operational information contains forward-looking information and is based on a number of material assumptions and factors, as are set out above. These projections may also be considered to contain future oriented financial information or a financial outlook. The actual results of the Company's operations for any period will likely vary from the amounts set forth in these projections and such variations may be material. Actual results will vary from projected results. Readers are cautioned that any such financial outlook and futureoriented financial information contained herein should not be used for purposes other than those for which it is disclosed herein. The forward-looking information and statements contained in this document speak only as of the date hereof and the Company does not assume any obligation to publicly update or revise them to reflect new events or circumstances, except as may be required pursuant to applicable laws



# Disclaimer (Cont'd)

#### Market, Independent Third Party and Industry Data

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#### Non-GAAP Financial Measures

In this Presentation, CPS has used the following terms (each a "Non-GAAP Financial Measure") which is not defined by International Financial Reporting Standards ("IFRS") but is used by management to evaluate the performance of CPS and its business: "EBITDA" and "net debt". EBITDA is defined as earnings before interest, taxes, depreciation and amortization. Management uses the term "net debt", as a key measure for evaluating its capital structure and to provide shareholders and potential investors with a measurement of the Company's total indebtedness. These measures may also be used by investors, financial institutions and others to assess CPS's performance and ability to service debt. Non-GAAP Financial Measures do not have standardized meanings prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies. Securities regulations require that Non-GAAP Financial Measures are calculated and disclosed on a consistent basis from period to period. Specific items may only be relevant in certain periods. The intent of Non-GAAP Financial Measures is to provide additional useful information to investors and analysts, and the measures do not have any standardized meaning under IFRS. The measures should not, therefore, be considered in isolation or used in substitute for measures of performance prepared in accordance with IFRS. Other issuers may calculate Non-GAAP Financial Measures differently. Investors should be cautioned that EBITDA and net debt should not be construed as an alternative to net earnings, cash flow from operating activities or other measures of financial results determined in accordance with GAAP as an indicator of CPS's performance.

#### Currency

All references to "\$" in this Presentation are to Canadian dollars, unless otherwise noted.

#### **Internal Financial Modeling**

Certain information contained in this Presentation including the information presented on slides 4 and 13 is derived from internal financial modeling based on: capital and operating cost details from the FEED study; current solar glass price data from Singapore Solar Exchange and PV InfoLink; and logistics quotes for delivery costs of solar glass to North American locations. Implicit in forward-looking information in respect of the EBTIDA projections contained in this Presentation are certain current assumptions, including, among others, that the Company will continue to execute on its strategy of developing manufacturing capacity for solar glass, attracting customers and end-users, realize operational efficiencies from its integrated sand quarry, and extract procurement and cost synergies on time and on budget. Additional assumptions include no changes to the current economic environment, no material changes in interest rates and foreign exchange rates, procurement, development or supply costs, access to equity and debt capital and sufficient cash flow for ongoing operations. These assumptions are based on the fact that funding for the construction of the facility will be obtained, the project will receive final investment decision approval from the CPS board and the ultimate construction of the facility will proceed as scheduled and on budget, markets for solar glass and access to end markets. See also "Forward Looking Information" above.