





# Investor Presentation

*June 7, 2013*

CSIQ  
NASDAQ  
LISTED

 CanadianSolar

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# Company Description

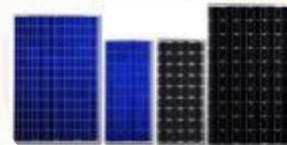
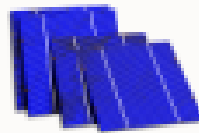
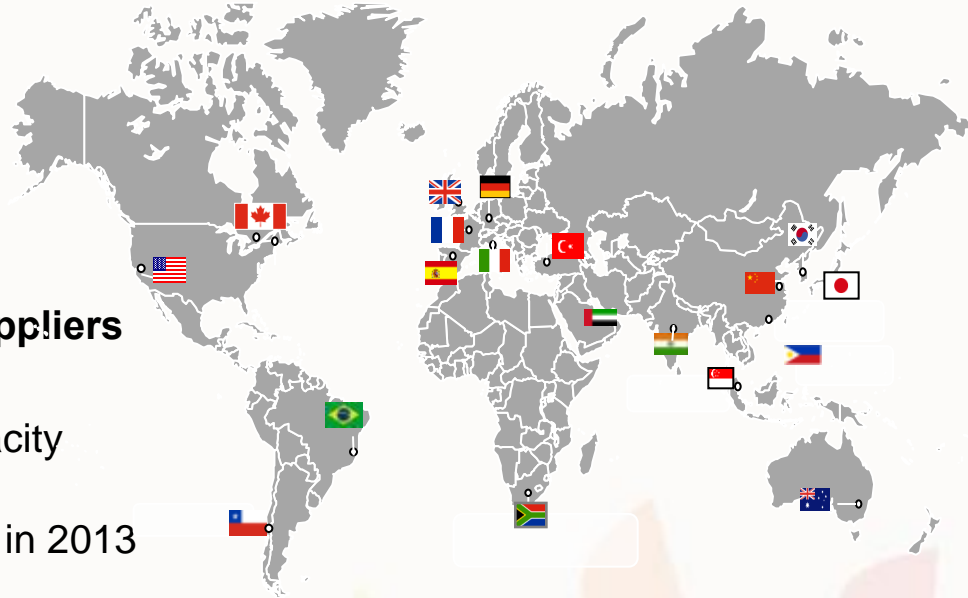
## ☀️ A Canadian company with global reach

- Founded in Ontario, 2001
- Listed on NASDAQ (CSIQ) in 2006
- Over 10,000 employees globally
- Present in **19** countries/territories

## ☀️ One of the world's largest solar module suppliers

- Module shipments of **1.54 GW** in 2012
- **2.4GW** annual module manufacturing capacity in Q4-2012
- Expected module shipments of **1.6-1.8GW** in 2013

## ☀️ Vertically integrated manufacturer of ingots, wafers, cells, modules and solar system and solutions



Poly-silicon

Ingots &  
Wafers

Cells

Modules

Systems  
and  
Solutions

# Business Focus

## Module Sales

- ☀️ Virtually integrated flexible business model
- ☀️ Leading cost position
- ☀️ Bankable brand
- ☀️ Global footprint

## EPC Services

- ☀️ Leverage competitive supply chain
- ☀️ Build on core expertise
- ☀️ Capture additional margin

## Project Development & Total Solutions

- ☀️ Residential system kits
- ☀️ Commercial rooftops
- ☀️ Development and construction of utility scale power plants

**EPC Services, Project Development and Total Solutions are targeted to represent ~50% revenue in 2013**

# Industry Rank (Shipments)

	2009	2010	2011		2012	GW*
1 <sup>st</sup>	First Solar	Suntech	Suntech	1 <sup>st</sup>	Yingli	2.30
2 <sup>nd</sup>	Suntech	First Solar	First Solar	2 <sup>nd</sup>	Suntech	1.80
3 <sup>rd</sup>	Sharp	Sharp	Yingli	3 <sup>rd</sup>	Trina Solar	1,59
4 <sup>th</sup>	Yingli	Yingli	Trina Solar		Canadian Solar	1.54
5 <sup>th</sup>	SunPower	Trina Solar	Canadian Solar		First Solar	1.53
6 <sup>th</sup>	Kyocera	Canadian Solar	Sharp	4 <sup>th</sup>	Sharp	1.10
7 <sup>th</sup>	Trina Solar	Hanwha Solar	SunPower	5 <sup>th</sup>	JA Solar	0.94
8 <sup>th</sup>	Canadian Solar	Kyocera	Jinko Solar	6 <sup>th</sup>	Jinko Solar	0.91
9 <sup>th</sup>	Hanwha Solar	SunPower	Hanwha Solar	7 <sup>th</sup>	SunPower	0.86
10 <sup>th</sup>	Solar World	Solar World	Kyocera	8 <sup>th</sup>	Hanwha Solar	0.83

Source: Company issued press releases, analyst reports, Canadian Solar analysis

\* Estimates based on shipments recognized into revenue indicate Canadian Solar is tied and among top three suppliers in 2012

# Investment Highlights

## Differentiated Business Model

- ☀️ Canadian Solar's utility-scale solar power project pipeline in Canada (400MW), U.S. (255MW) and Japan (125MW) currently totals 780 MW (dc)
  - Approximately 220MW (dc) in Canada and the U.S. are expected to be completed in 2013.
  - Currently assessing 400MW of additional project opportunities in Japan

## Industry Leading Cost Structure

- ☀️ All-in module manufacturing cost at \$0.57 per watt in the first quarter of 2013
- ☀️ Virtually-integrated ~2GW wafer-to-module platform drives manufacturing efficiencies while minimizing capital expenditure
- ☀️ Strategic wafer partnership guarantees reliable supply at industry leading cost structure

## Global Footprint and Bankable Brand

- ☀️ Track record of growing shipments and increasing market share
- ☀️ Over 5.0 GW of modules installed in more than 50 countries
- ☀️ Industry leading, tier-1 customer base
- ☀️ 10-yr workmanship and 25-yr linear power output performance warranty backed by investment grade insurance policy

## Large and Growing Market

- ☀️ Market is expected to grow as solar energy adoption accelerates in 2014 and beyond
- ☀️ Growth drivers include: retail grid-parity, concern for the environment, energy security, move away from nuclear, demand for distributed energy in emerging markets, among other factors.

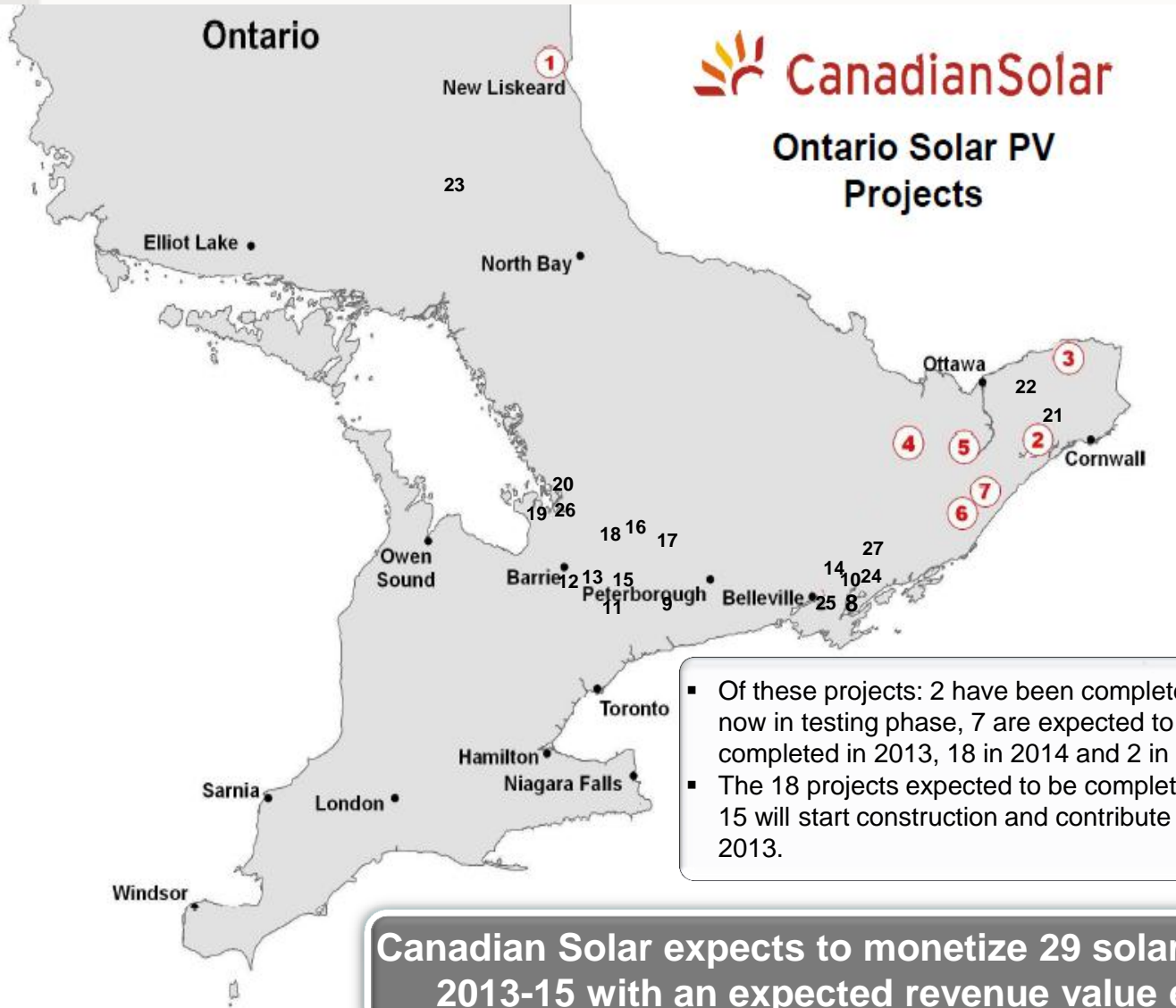
# Differentiated Business Model

## Deepening Customer Relationships to Capture Additional Margin - % of Revenue



- ☀ System and Solution business represented ~13% of revenue in 2012
- ☀ Expect to complete the sale of 9 solar power plants in 2013 in Canada, valued at approximately C\$500 million with gross margin in the range of 20-25%
- ☀ Joint-Venture with SkyPower to develop projects in select international markets
- ☀ Expanded utility-scale pipeline in the US market to 255MW (dc)
- ☀ Expanded utility-scale pipeline in Japanese market to 125MW (dc)
- ☀ Total size of global utility-scale solar power project pipeline exceeds 780MW (dc)

# Business Differentiators: Canadian Pipeline



Project	Size
1 Liskeard 1, 3 and 4	30 MW AC
2 William Rutley	10 MW AC
3 Alfred	10 MW AC
4 Mississippi Mills	10 MW AC
5 Burritts Rapids	7 MW AC
6 Brockville 1	10 MW AC
7 Brockville 2	9 MW AC
8 Foto Light LP	10 MW AC
9 Illumination LP	10 MW AC
10 Little Creek	8.5 MW AC
11 Gold Light LP	10 MW AC
12 Beam Light LP	10 MW AC
13 Earth Light LP	10 MW AC
14 Lunar Light LP	10 MW AC
15 Discovery Light LP	10 MW AC
16 Sparkle Light LP	10 MW AC
17 Glen Arm	10 MW AC
18 Good Light LP	10 MW AC
19 Aria Light LP	9 MW AC
20 Ray Light LP	10 MW AC
21 Mighty Solar LP	10 MW AC
22 City Lights LP	10 MW AC
23 Highlight (Val Caron)	10 MW AC
24 Taylor Kidd	10 MW AC
25 Demorestville	10 MW AC
26 Oro-Medonte 4	10 MW AC
27 Westbrook	10 MW AC

- Of these projects: 2 have been completed and are now in testing phase, 7 are expected to be completed in 2013, 18 in 2014 and 2 in 2015.
- The 18 projects expected to be completed in 2014, 15 will start construction and contribute to revenue in 2013.

**Canadian Solar expects to monetize 29 solar power plants in Ontario in 2013-15 with an expected revenue value exceeding C\$1.5 Billion.**

# Business Differentiators: Canadian Presence

## Project Development Hub

- Track record as EPC provider on over 40MW of utility-scale and commercial rooftop projects
- Contracted EPC on 29MW utility-scale projects in Ontario
- Developer on 29 utility-scale projects scheduled to be built through 2015 and valued at >\$1.5 billion
- 50:50 Joint Venture with SkyPower to develop utility scale projects in the Middle East, Africa and Latin America

Module Capacity:

**330 MW**

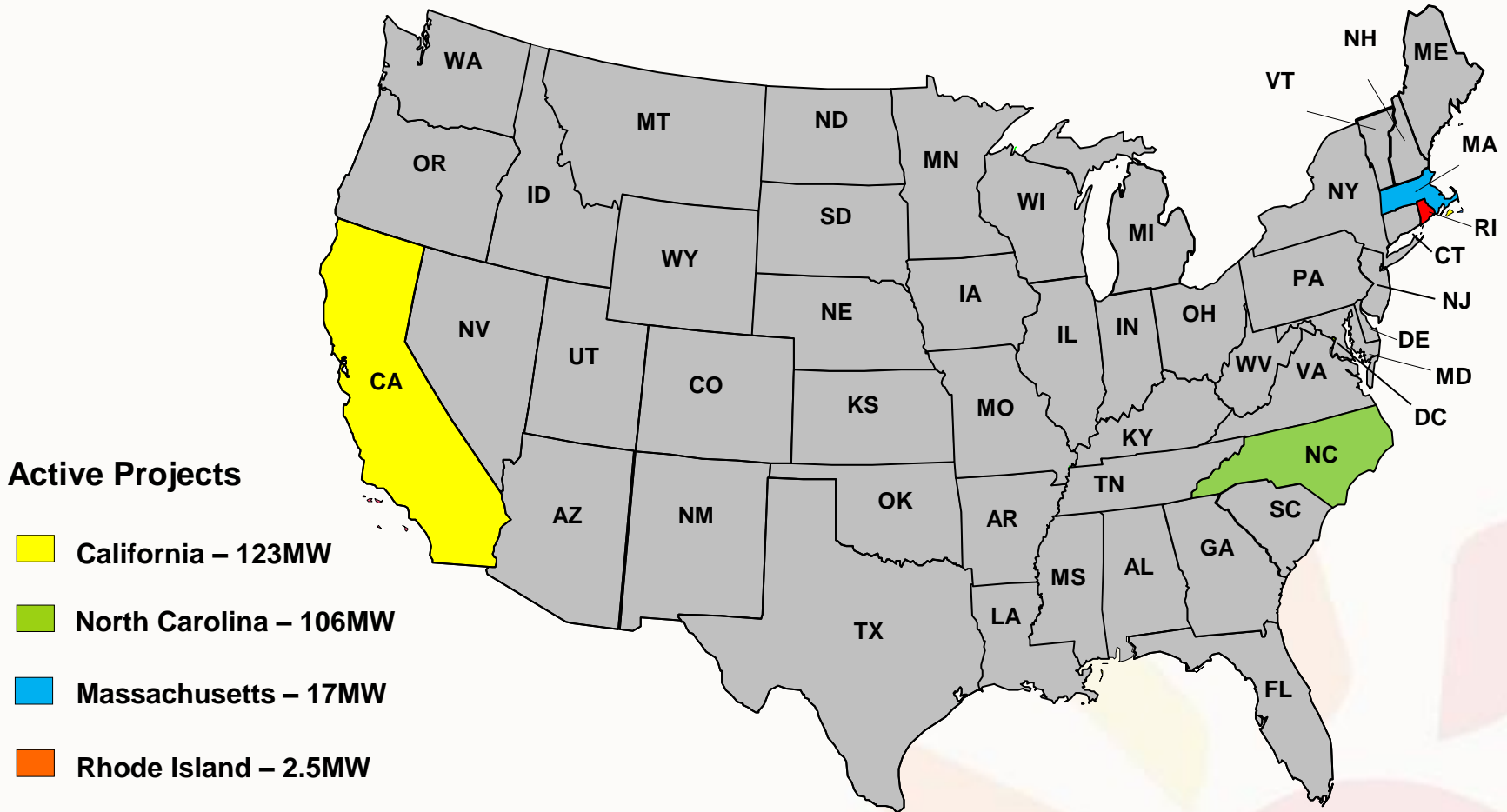
Ontario Pipeline:

**>400 MW**

**Only Tier 1 Supplier to Establish (Fully Automated) Module Plant in Ontario**



# Business Differentiators: U.S. Pipeline



Canadian Solar late-stage solar power project pipeline in the U.S. totals 255MW<sub>dc</sub>, with 100MW<sub>dc</sub> expected to be completed in 2013

# Business Differentiators: Japanese Utility Scale Market

## Sample Project



Late Stage Development  
Pipeline:

**125MW**

Preliminary Assessment  
Opportunities:

**400MW**

- Land to be leased
- Project size 12.5 MWp
- Expected yield 1,130 kWh/kWp
- Connection voltage 110 kV
- Substation on site
- FiT 40 JPY/kWh
- METI and utility permits obtained

# Business Differentiators: Japanese Residential Market



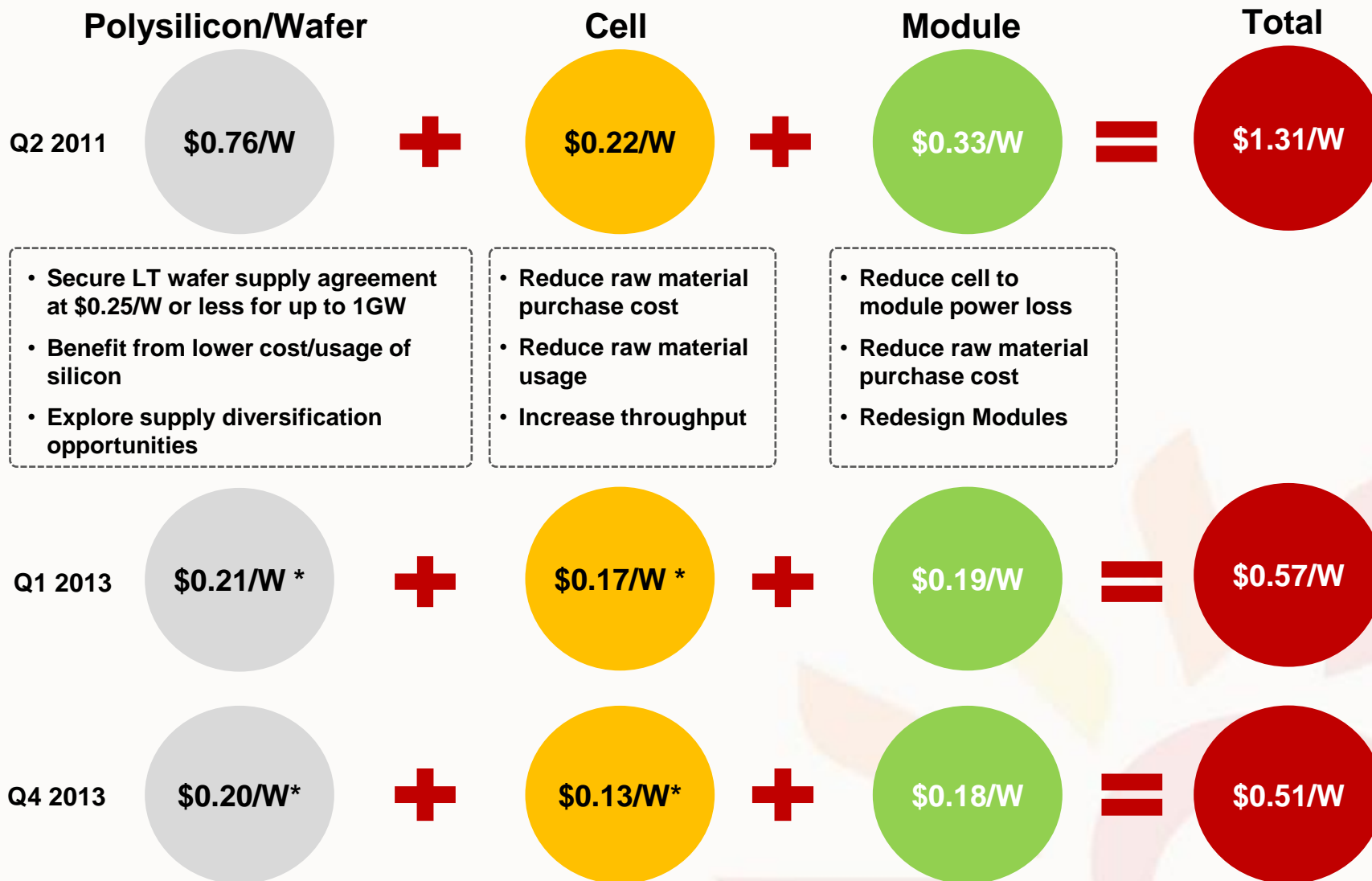
## System Kits

Market Entry:  
**2009**

2012 Revenue:  
**\$120m**



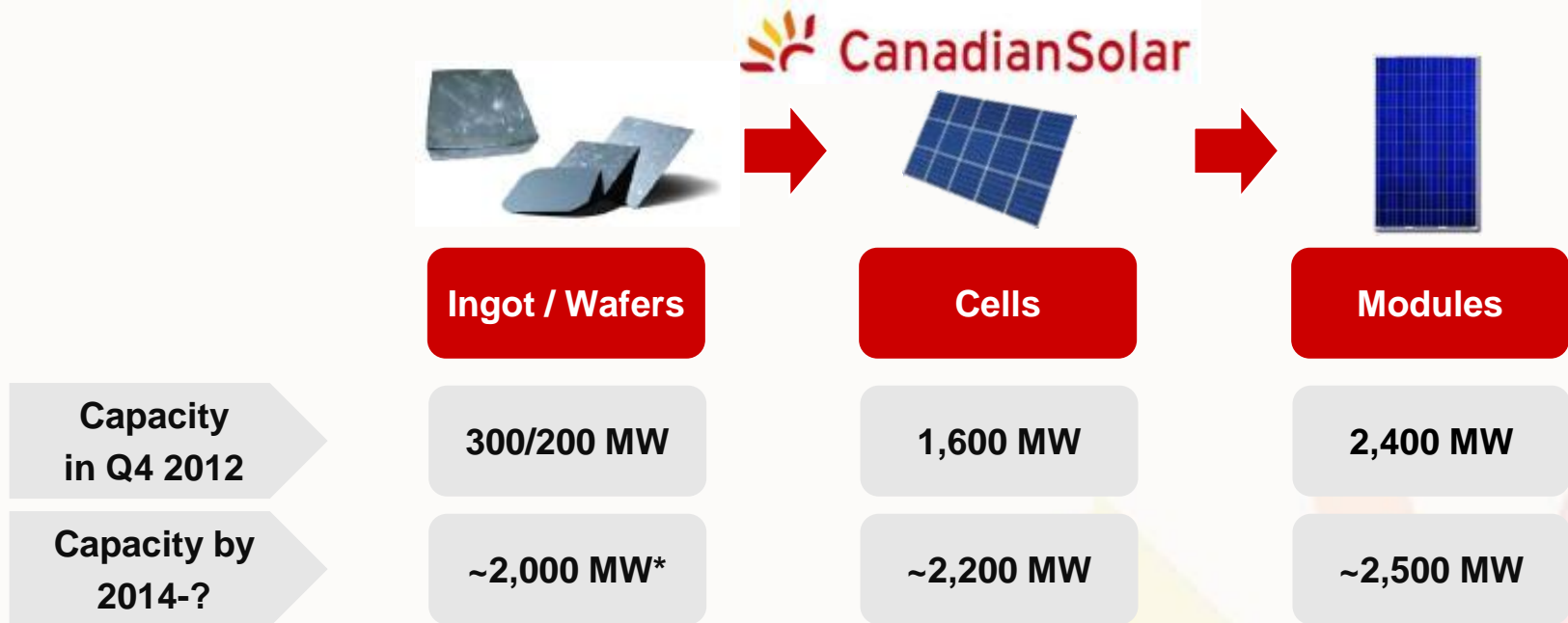
# All-in Manufacturing Cost Roadmap



\* Includes purchased silicon, wafers and cells.

# Capacity Expansion Plan

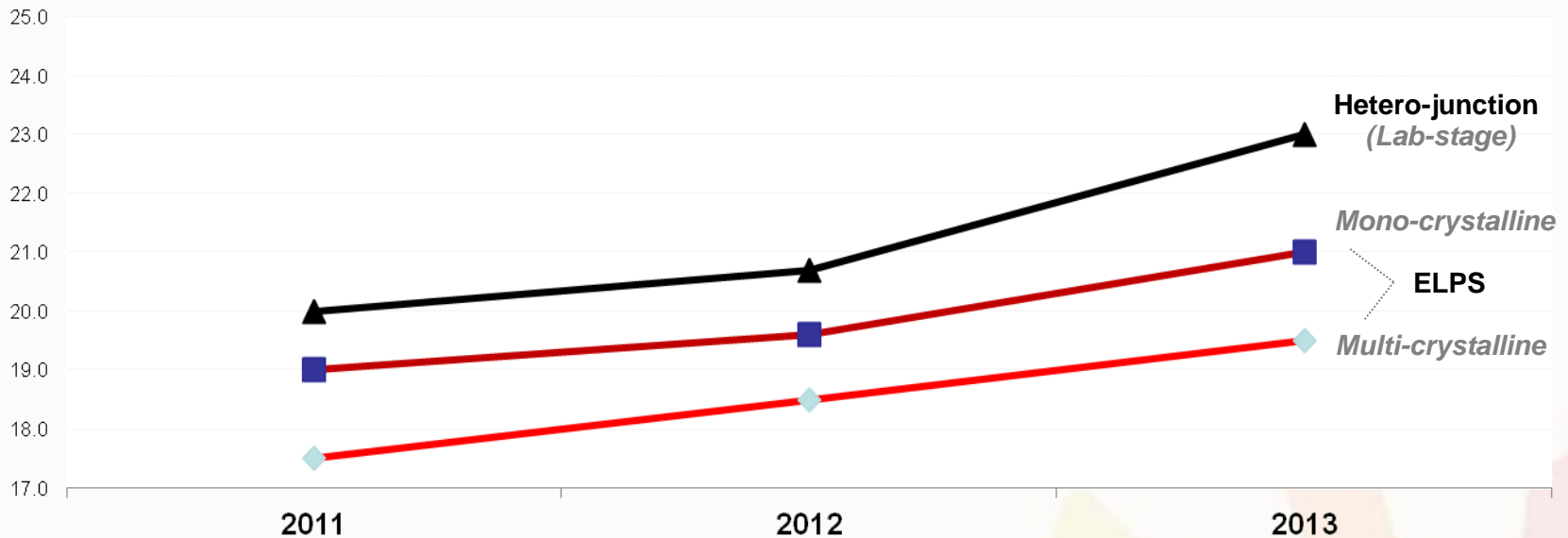
**Desired Capacity = Differentiated Products with Industry Leading Cost Structure**



- ☀ Ingot/wafer capacity of ~2,000 MW\* for 2014 and beyond include: (a) ~300MW internal (b) 600MW GCL joint-venture and (c) 1GW LT supply agreement (d) other external suppliers
- ☀ Cell capacity expansion include 600MW through external supply partners
- ☀ In-house cell capacity targeted at 75% of module shipments

# Cell Efficiency Roadmap

Existing Cell lines can be converted to ELPS technology



17.5% to 20.0%

18.5% to 21%

>21.0%

- Enhanced selective emitter structure currently in production
- ELPS break-through technology to be introduced in June-September 2011

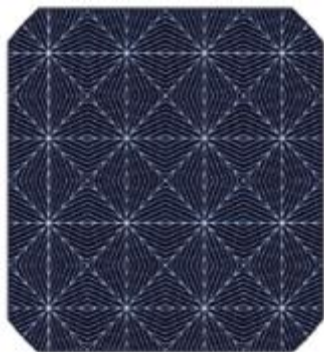
- Second generation ELPS
- ELPS + SE=ELPS2.0
- ELPS2.0 : 21.1% (lab)
- HIT: 20.1%

- N-type
- ELPS + HIT
- IBC structure

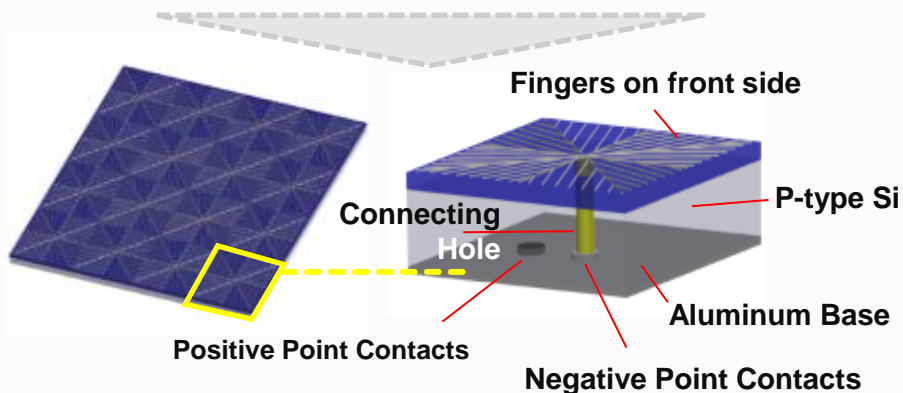
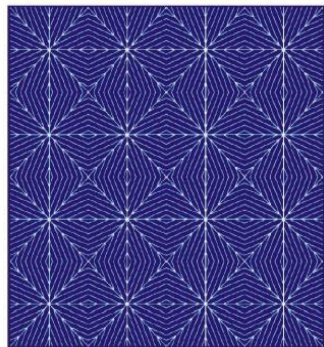
# Technology Differentiators

## Efficient Long-term Photovoltaic Solution (ELPS)

*Mono*

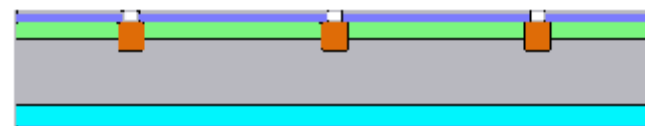
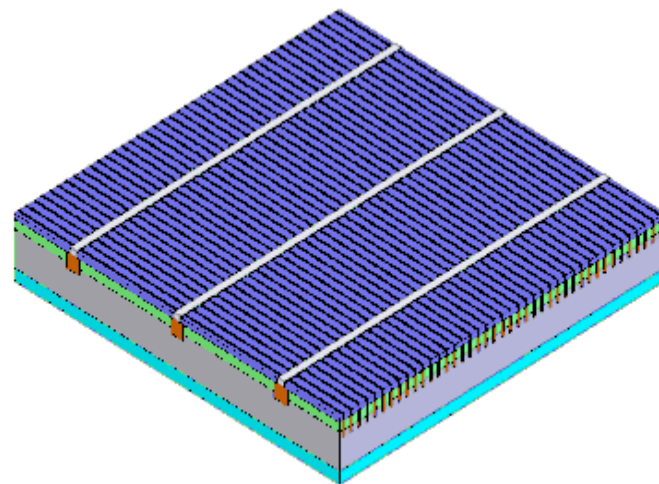


*Multi*



☀ ELPS is a Metal Wrap Through (MWT) technology, whereby holes are drilled into the cell and the screen printing paste is used to fill it, moving the electrical connection from the front side to the backside, increasing the cell's active surface area resulting in higher cell conversion efficiency.

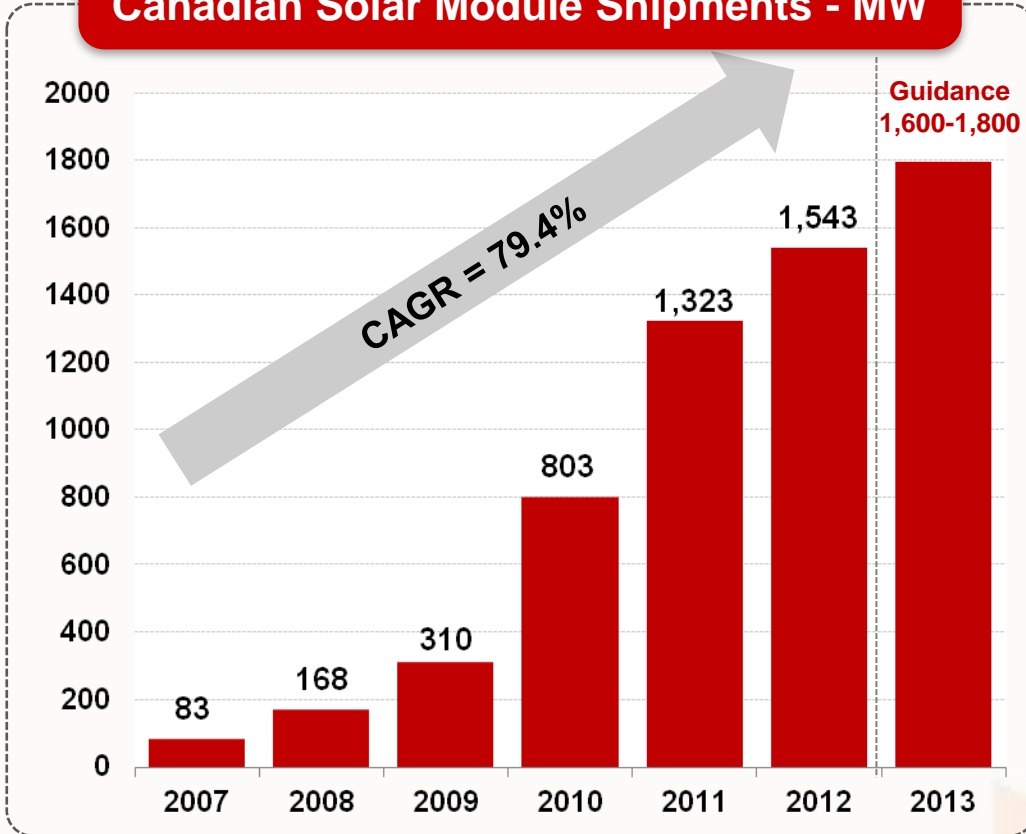
## Enhanced Selective Emitter (ESE)



☀ Our Enhanced Selective Emitter applies light doping under active area to eliminate the surface "dead layer", and high doping under the fingers and busbars to ensure perfect ohmic contact resulting in a higher current and increased cell efficiency.

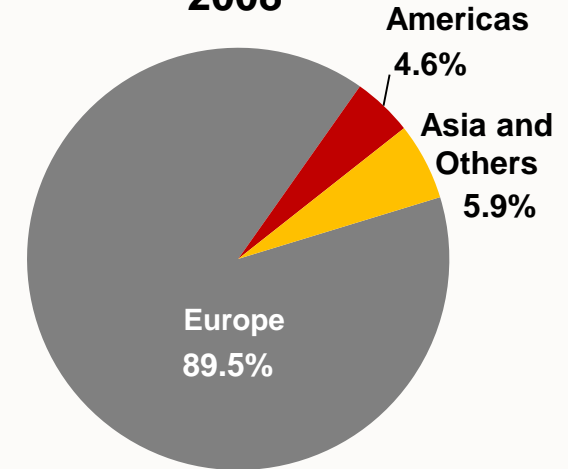
# Global Footprint and Growing Market Share

## Canadian Solar Module Shipments - MW

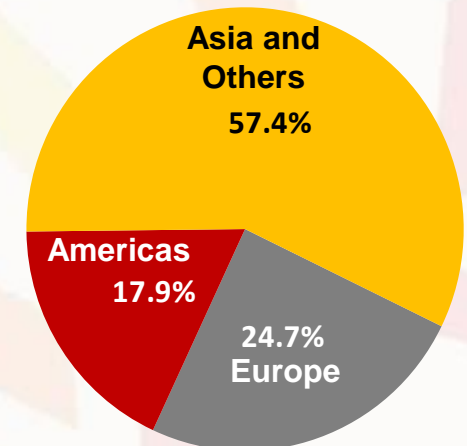


Well positioned as one of the world's largest PV module suppliers with over 5GW delivered to customers in over 50 countries.

2008\*



First Quarter 2013\*

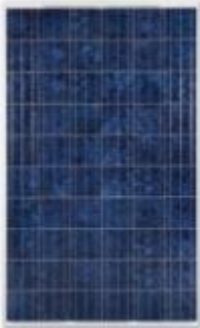


\* Based on revenue

# World Class Product Portfolio

## Commercial & Utility

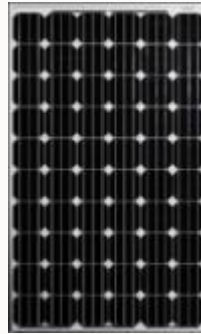
**CS6P-P**



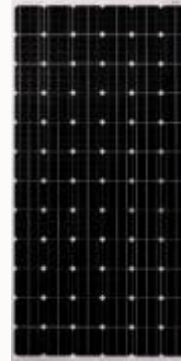
**MaxPower  
CS6X-P**



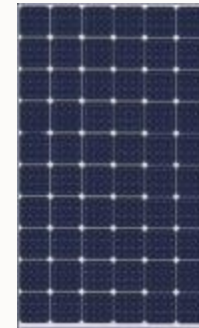
**CS6P-M**



**MaxPower  
CS6X-M**



**ELPS  
CS6P-MM**



## Residential

**CS5A-M**



**CS6A-P**



**All-black  
CS5A-M**



# Quality and Performance Certification

## International Environmental & Quality Management Standards

- ☀ ISO 9001:2008 Quality Management System
- ☀ QC080000:2005 HSPM Hazardous Substance Process Management
- ☀ ISO 14001 Environment Management System
- ☀ ISO TS16949:2009 First PV manufacturer to adopt ISO TS16949 for PV quality control
- ☀ OHSAS 18001 Occupational Health and Safety

## International Testing Standards

- ☀ IEC 61215 & IEC 61730, UL 1703 & UL 790 & CEC
- ☀ CE conformity, MCS (EN45011)
- ☀ REACH Compliance

- ✓ IEC 61215
- ✓ IEC 61730
- ✓ IEC 61701: Salt Mist Corrosion
- ✓ Ammonia Resistance
- ✓ PID free
- ✓ REACH Compliant



# Industry Leading Warranty

## Product Workmanship and Power Output Performance Warranty...

- 🌞 10-year product workmanship warranty
- 🌞 25-year linear power output performance guarantee
  - Guarantee 97% of the labeled power output in the first year
  - Decline of no more than 0,7% annually
  - By year 25 the actual power output will be no less than 80% of the module's labeled power output



## ....Backed by an Investment Grade Insurance Policy

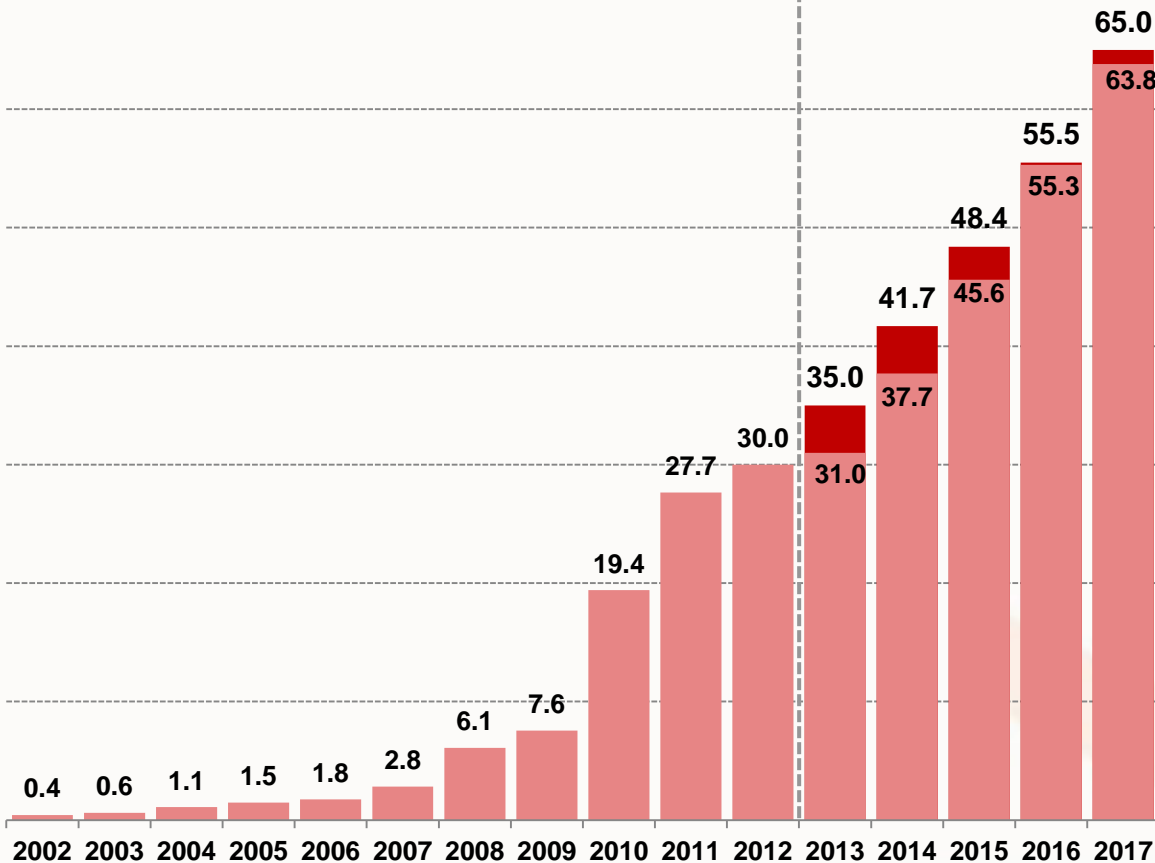
- 🌞 Insurance policy matches Canadian Solar's standard warranty terms
- 🌞 Coverage starts immediately and lasts for 25 years
- 🌞 Covers worldwide modules sales from all CSI subsidiaries to most countries
- 🌞 The policy is non cancelable and allows third party bankruptcy rights (satisfying investors/ lenders requirements)
- 🌞 Insurance purchased underwritten by:
  - Companion Property Casualty Insurance Company AM Best Rating: A VIII. [www.companiongroup.com](http://www.companiongroup.com)
  - International Insurance Company of Hannover Limited AM Best Rating: A XV. [www.inter-hannover.com](http://www.inter-hannover.com)
  - RSUI Indemnity Company AM Best Rating: A XII. [www.rsui.com](http://www.rsui.com)

# Global Module Demand Forecast

## Global PV Module Demand - GW

Last 10 Years: 54% CAGR

Forecast: 16% CAGR



Source: Solarbuzz, IMS

## Key Drivers

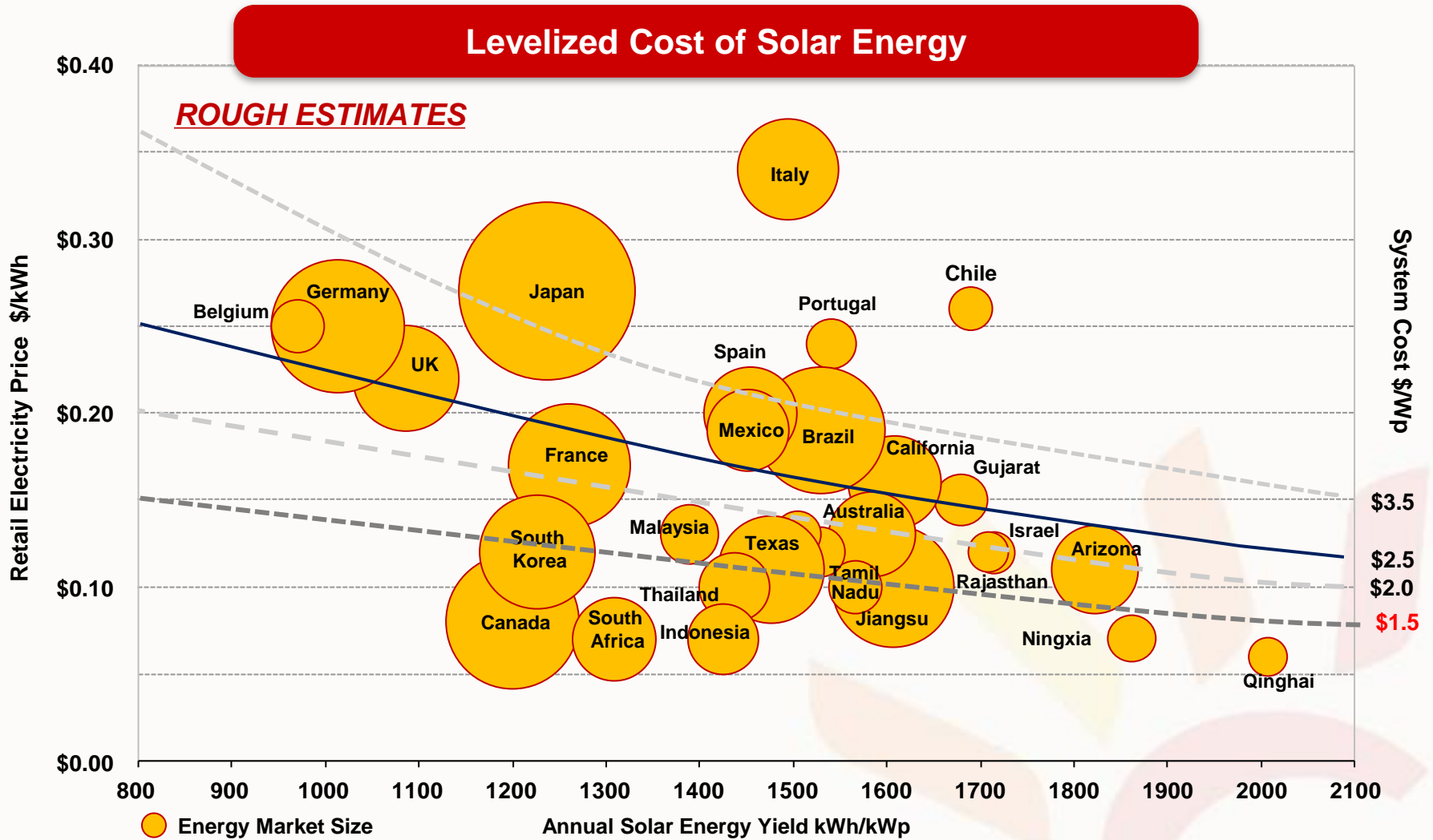
### Past:

- ✓ Government incentives
- ✓ Lower system prices

### Future:



- ✓ Grid parity
- ✓ Rural electrification
- ✓ Energy security
- ✓ Fuel substitution
- ✓ Energy diversity
- ✓ Environment preservation
- ✓ Distributed energy
- ✓ Move away from nuclear

# Retail Grid-parity in Selected Markets



Source: PHOTON Consulting analysis based on data from EIA and Eurostat

# Selected Growth Themes

Segment	Description	Examples
<b>Utility Scale and DG</b>	<ul style="list-style-type: none"><li>• FIT or PPA markets</li><li>• Micro-grid</li></ul>	
<b>Restricted Space</b>	<ul style="list-style-type: none"><li>• Commercial and Residential rooftops</li></ul>	
<b>Rural Electrification</b>	<ul style="list-style-type: none"><li>• 1.5 billion people do not have access to electricity (Kerosene substitution)</li></ul>	
<b>Special Applications</b>	<ul style="list-style-type: none"><li>• Diesel hybrids</li><li>• Water pumps</li><li>• Telecom base stations</li><li>• Eco houses</li></ul>	

# Management Team and Board

## International Background + Extensive Industry Experience

Name / Title	Working Experience
 <p><b>Dr. Shawn Qu (Xiaohua)</b> <i>Chairman, President &amp; CEO (Director)</i></p>	<ul style="list-style-type: none"> <li>Director &amp; VP, Photowatt International S.A.</li> <li>Research scientist, Ontario Power Generation Corp.</li> </ul>
 <p><b>Michael G. Potter</b> <i>SVP and Chief Financial Officer (Director)</i></p>	<ul style="list-style-type: none"> <li>Corporate Vice President and CFO of Lattice Semiconductor Corp.</li> <li>Senior Vice President and CFO of NeoPhotonics Corp.</li> </ul>
 <p><b>Yan Zhuang</b> <i>SVP and Chief Commercial Officer</i></p>	<ul style="list-style-type: none"> <li>Head of Asia of Hands-on Mobile, Inc.</li> <li>Asia Pacific regional director of marketing planning and consumer insight, Motorola Inc.</li> </ul>
 <p><b>Guangchun Zhang</b> <i>Chief Operating Officer</i></p>	<ul style="list-style-type: none"> <li>Vice President for R&amp;D and Industrialization of Manufacturing Technology, Suntech Power Holdings</li> <li>Centre for Photovoltaic Engineering at the University of New South Wales and Pacific Solar Pty. Limited.</li> </ul>

### Experienced Independent Directors

<p><b>Robert McDermott</b> <i>Chairperson of the Corporate Governance, Nominating and Compensation Committees</i></p> <ul style="list-style-type: none"> <li>Partner with McMillan LLP, a business and commercial law firm</li> <li>Director and senior officer of Boliden Ltd.</li> </ul>	<p><b>Lärs-Eric Johansson</b> <i>Chairperson of the Audit Committee</i></p> <ul style="list-style-type: none"> <li>CEO of Ivanhoe Nickel &amp; Platinum Ltd.</li> <li>Chairperson of the audit committee of Harry Winston Diamond Corp.</li> </ul>	<p><b>Dr. Harry E. Ruda</b> <i>Member of the Audit Committee and Compensation Committee</i></p> <ul style="list-style-type: none"> <li>Director of the Centre for Advanced Nanotechnology, the Stanley Meek Chair in Nanotechnology and Prof. of Applied Science and Engineering at the University of Toronto, Canada</li> </ul>
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# The Key Levers of our Strategy

## Differentiate Business Model

- ☀️ Leverage CSI's existing expertise to expand and monetize utility scale project opportunity (e.g. Canada, U.S., Japan, China)
- ☀️ Expand residential system kits

## Maintain Lowest Manufacturing Cost

- ☀️ Reduce manufacturing costs to remain competitive

## Leverage Manufacturing Scale

- ☀️ Increase market share to remain among the Top-4 manufacturers and on the short list of key accounts

## Introduce New Technologies

- ☀️ ELPS, Smart Module, QUADTECH

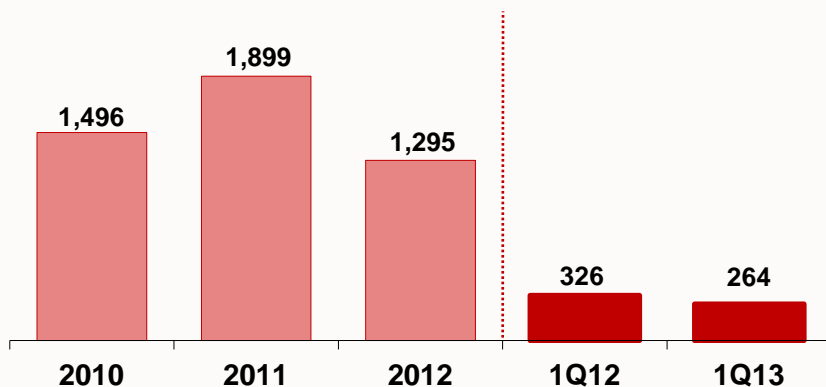
**Goal is to be profitable and among the top-4 global module manufacturers, with over 10% share of the global PV module market**

# Financial Highlights

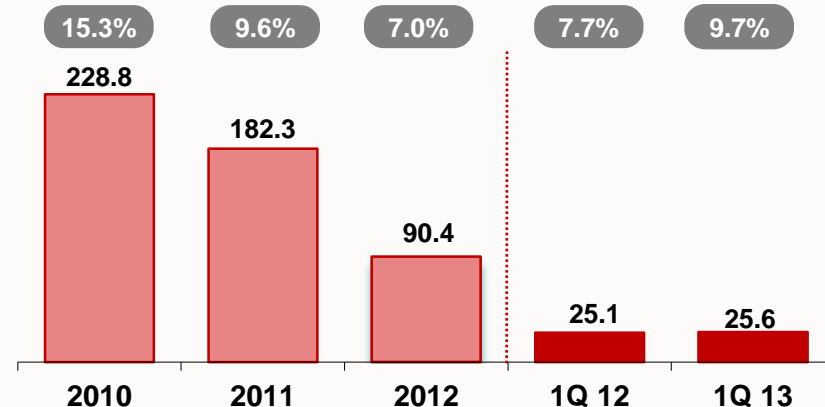


# Key Performance Indicators

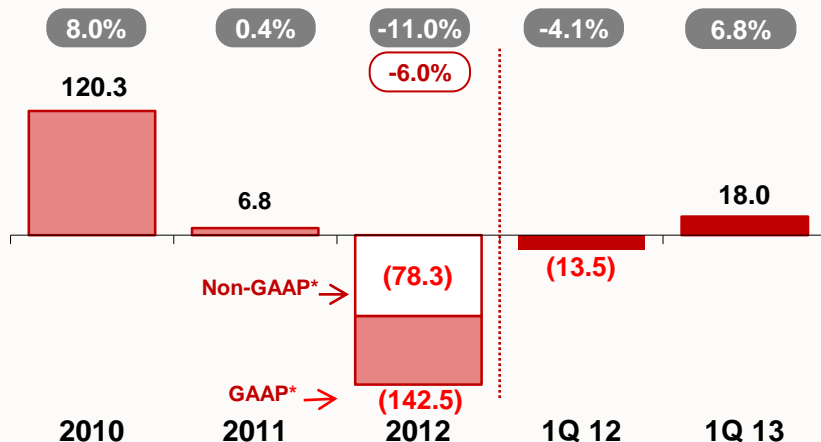
## Revenue - US\$ million



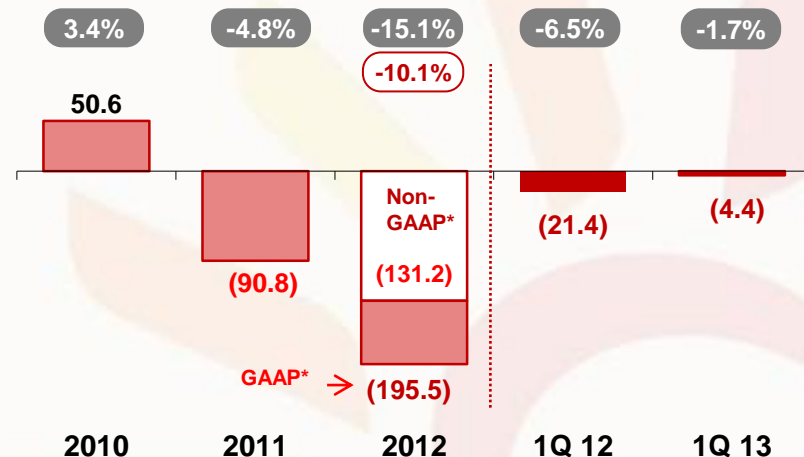
## Gross Profit - US\$ million



## Operating Income (Loss) - US\$ million



## Net Income (Loss) - US\$ million



### Margin

- Non-GAAP measure excludes non-cash charges for A/R and Arbitration Award.
- Reconciliation of GAAP to Non-GAAP is found at the end of this presentation.

# Key Performance Indicators

## Operating Leverage

	2011	2012	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013
Selling	3.7%	7.0%	2.8%	3.5%	3.7%	4.4%	6.2%	7.0%	6.6%	8.5%	7.1%
G&A	4.5%	5.0%*	3.8%	3.5%	3.2%	7.8%	4.7%	5.3%	5.2%	5.8%*	6.2%**
R&D	1.0%	1.0%	0.5%	1.0%	1.6%	1.1%	0.9%	1.0%	1.0%	1.1%	0.9%
Operating Expense	9.2%	13.0%*	7.1%	8.0%	8.5%	13.3%	11.8%	13.3%	12.8%	15.4%*	14.2%

\*Fourth quarter of 2012 excludes \$61.3 million non-cash provision for bad debt and arbitration award. Including these provisions, fourth quarter 2012 G&A and operating expenses represented 26.5% and 36.1% respectively. Fiscal year 2012 excludes \$64.2 million non-cash provision for bad debt and arbitration award. Including these provisions, G&A and operating expenses for fiscal 2012 represented 10.0% and 18.0% respectively ; \*\*Excludes arbitration award reversal totaling \$30 million.

# Summary Balance Sheet

US\$ million	March 31, 2013	December 31, 2012	December 31, 2011
Cash and Restricted Cash	606.1	564.3	522.3
Accounts Receivable	225.7	254.9	292.2
Inventories	291.3	274.5	296.6
Other Current Assets	339.3	348.5	184.5
<b>Total Current Assets</b>	<b>1,462.4</b>	<b>1,442.2</b>	<b>1,295.6</b>
Property, Plant and Equipment	456.5	469.6	510.1
Other Non-current Assets	397.4	347.5	74.1
<b>Total Assets</b>	<b>2,316.3</b>	<b>2,259.3</b>	<b>1,879.8</b>
Short Term Borrowings	966.3	858.9	743.7
Accounts Payable	483.7	461.6	306.0
Other Current Liabilities	169.9	219.8	186.8
<b>Total Current Liabilities</b>	<b>1,619.9</b>	<b>1,540.3</b>	<b>1,236.5</b>
Non-current Liabilities	362.8	372.3	176.3
Redeemable non-controlling interest	37.2	45.1	-
<b>Total Equity</b>	<b>296.4</b>	<b>301.6</b>	<b>467.0</b>
<b>Total Liabilities and Equity</b>	<b>2,316.3</b>	<b>2,259.3</b>	<b>1,879.8</b>

# Outlook and Guidance

## Second Quarter and Full Year 2013 Guidance

	Q2 2013*	FY 2013*
Shipments	380 MW – 420 MW	1,600–1,800MW
Gross Margin	9.0% to 11.0%	NA

\* Company Press Release, May 28, 2013

# Summary

**10 Year Operating History with Strong Bankable Brand**

**Expanding Higher Margin Total Solutions Business**

**Commitment to Building Shareholder Value**



**Large Scale and Global Footprint**

**Track Record of Prudent Financial Management**

**Strong R&D Driving Breakthrough Product Releases**

# Selected Projects: Canada



**Thunder Bay, Ontario Canada**  
**CSI Role: 8.5 MW DC EPC Solution and O&M Provider**  
**Owner: SkyPower LTD (TBA)**  
**Construction Finance: Minsheng Bank**  
**Project Debt : Deutsche Bank**  
**Status: Completed December 2011**



**Napanee, Ontario Canada**  
**CSI Role: 10.5 MW DC EPC Solution and O&M Provider**  
**Owner: SkyPower LTD (FLII)**  
**Construction Finance: Minsheng Bank**  
**Project Debt : Deutsche Bank**  
**Status: Completed January 2012**

# Selected Projects: Germany

## Utility Scale



Brandenburg  
Installation Size: 166 MW

Construction Financing: DKB Deutsche  
Owner: saferay, GP Joule  
Activated: September 2011

Note: Canadian Solar supplied 148 MW of the system's total 166 MW.

## Roof-top



Hamburg-Wittenburg  
Installation Size: 3.6 MW

Installed by: Dr. Metje Consulting  
Owner: Dutch Van der Valk Group  
Activated: July 2012

## Selected Projects: U.S.



Setton Pistachio, Terra Bella, California, USA  
Installation Size: 1.7 MW  
Installed by: Cenergy Power

Owner: Setton Farms  
Activated: July 2011

# Reconciliation of GAAP to Non-GAAP Measures

To supplement its financial disclosures presented in accordance with GAAP, Canadian Solar uses non-GAAP measures which are adjusted from the most directly comparable GAAP results for certain items, as described below. The Company presents non-GAAP adjusted net loss so that readers of the press release can better understand the underlying operating performance of the business before the impact of the provision for the arbitration decision and the bad debt allowance for doubtful accounts in the fourth quarter of 2012. The non-GAAP adjusted net loss is not a measure of financial performance under U.S. GAAP, and should not be considered in isolation or as an alternative to operating cash flows and other measures determined in accordance with GAAP.

## Statement of Operations Data: (In Thousands of US Dollars)

### Twelve Months Ended

	December 31, 2012	December 31, 2011
GAAP net loss attributable to Canadian Solar Inc.	(195,469)	(90,804)
Non-GAAP loss adjustment items:		
Bad debt allowances	34,191	18,537
Loss accruals for an arbitration in favor of LDK	30,054	-
Non-GAAP net loss attributable to Canadian Solar Inc.	(131,224)	(72,267)



**Thank You!**