



# Investor Presentation

*December 16, 2013*

CSIQ  
NASDAQ  
LISTED

 **CanadianSolar**  
Make The Difference

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# Company Description

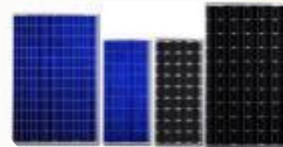
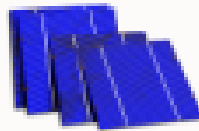
## ☀️ A Canadian company with global reach

- Founded in Ontario, 2001
- Listed on NASDAQ (CSIQ) in 2006
- Over 7,000 employees globally
- Present in **20** 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 Q4-2013
- Expected module shipments of **1.75-1.77GW** in 2013

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



Poly-silicon

Ingots &  
Wafers

Cells

Modules

Systems  
and  
Solutions

# Industry Rank (Shipments)

	2009	2010	2011	2012	9M-2013	GW*
1 <sup>st</sup>	First Solar	Suntech	Suntech	Yingli	Yingli	2.29
2 <sup>nd</sup>	Suntech	First Solar	First Solar	Suntech	Trina Solar	1.82
3 <sup>rd</sup>	Sharp	Sharp	Yingli	Trina Solar	Sharp	1.41
4 <sup>th</sup>	Yingli	Yingli	Trina Solar	Canadian Solar	Canadian Solar	1.27
5 <sup>th</sup>	SunPower	Trina Solar	Canadian Solar	First Solar	First Solar	1.24
6 <sup>th</sup>	Kyocera	Canadian Solar	Sharp	Sharp	Jinko Solar	1.23
7 <sup>th</sup>	Trina Solar	Hanwha Solar	SunPower	JA Solar	ReneSola	1.22
8 <sup>th</sup>	Canadian Solar	Kyocera	Jinko Solar	Jinko Solar	Hanwha Solar	0.91
9 <sup>th</sup>	Hanwha Solar	SunPower	Hanwha Solar	SunPower	JA Solar	0.81
10 <sup>th</sup>	Solar World	Solar World	Kyocera	Hanwha Solar	SunPower	0.70

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

# Business Focus

## Project Development & Total Solutions

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

## EPC Services

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

## Module Sales

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

**Total Solutions including System Kits, EPC Services, Project Development are targeted to be ~31% revenue in 2013, up from 13% in 2012**

# Investment Highlights

## Differentiated Business Model

- ☀️ Canadian Solar's solar power project pipeline in Canada (499MW), U.S. (198MW), Japan (278MW) and China (40MW) currently is over 1.0 GW (dc)
  - Currently assessing 200MW of additional project opportunities in Japan and multiple GW globally.
  - Soft project pipeline in China and other markets exceeds 3.5 GW (dc)
- ☀️ Landmark agreement to build 130MWdc solar power plant for phase 1 of Samsung's renewable energy initiative in Ontario, Canada. Phases 2 and 3 may add an additional 260MWdc, when and if approved.

## Industry Leading Cost Structure

- ☀️ All-in module manufacturing cost at \$0.55 per watt in the third 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 70 countries
- ☀️ Industry leading, tier-1 customer base
- ☀️ 10-yr workmanship and 25-yr linear power output performance warranty backed by investment grade insurance policy

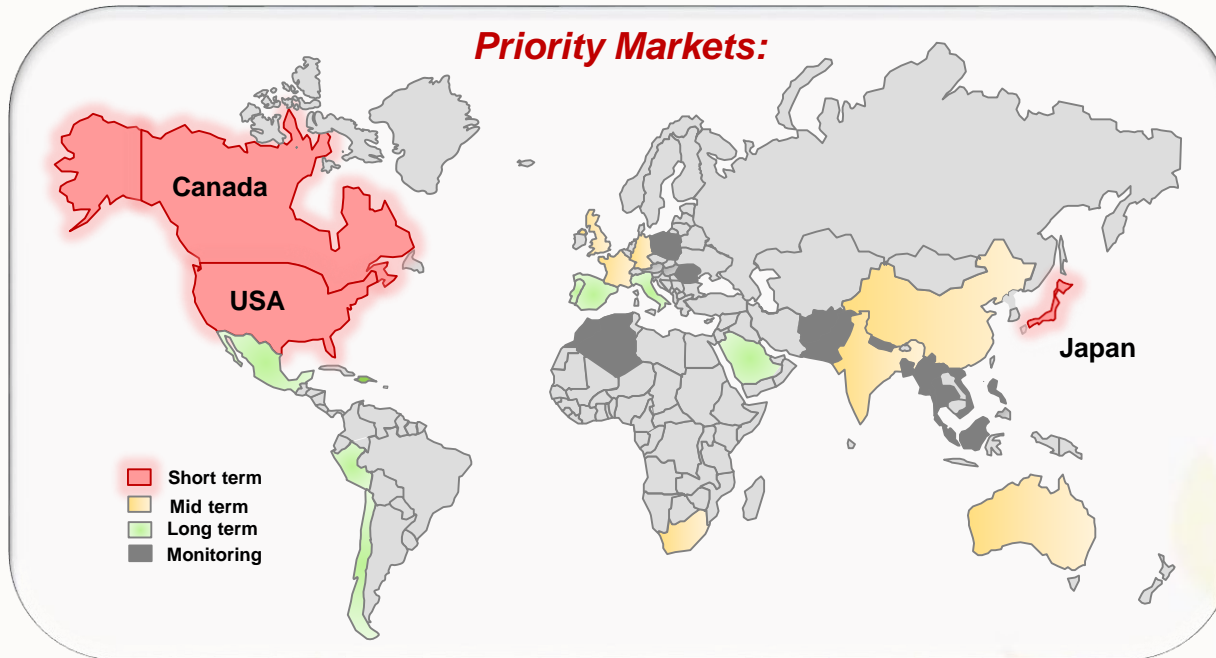
## Large and Growing Market

- ☀️ 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.

# Business Differentiator: Our Project Strategy

## Where we see opportunity

1. Short term focus on markets where we believe it is more likely to sell projects upfront, before starting construction
2. Professionalize the development activity through partnerships with developers that do not have the financial capability to complete their projects
3. Mid- and long-term focus on markets where grid parity at utility scale most likely to happen



Contracted/Late-Stage Project Backlog<sup>1</sup>:

**1.0 GW<sub>(dc)</sub>**

Early to Mid-Stage of Development Pipeline<sup>2</sup>:

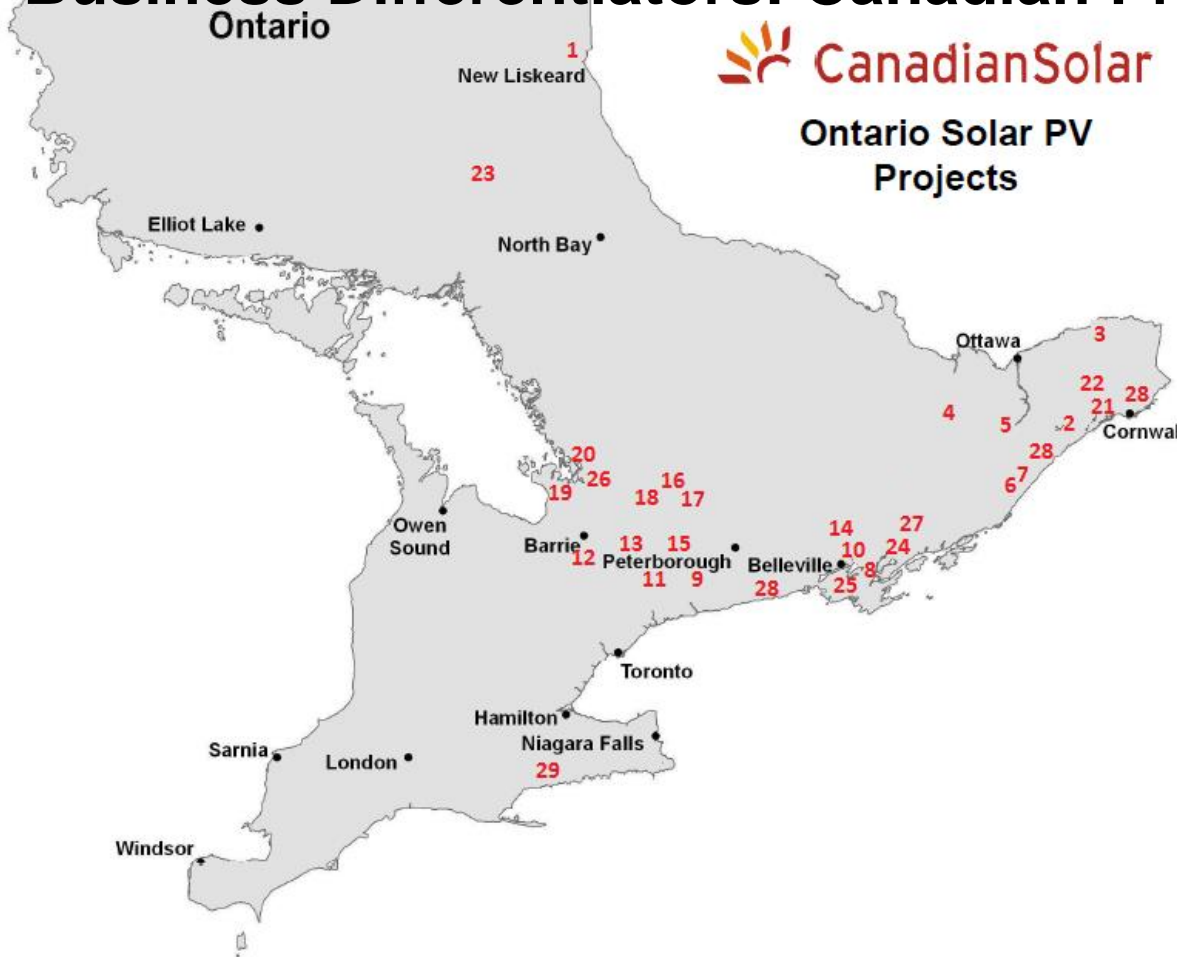
**>3.5GW<sub>(dc)</sub>**

## Key success factors

1. Canadian Solar has a strong **team** with experience in project development, EPC, and M&A
2. Our team has the ability to conduct **risk assessment**, and understand impact on cash flows
3. **Speed**, we have a process in place for quick decision making
4. We have proven access to **finance** and expect to develop risk insurance options for difficult regions
5. We have developed **partnerships** with **developers** and **end buyers** for quick access to **equity**

1. Late-stage project and EPC contract backlog as of the end of Q3 2013: nearly all projects have an energy off-take agreement and are expected to be built within the next 2 years; Over 200 MW(dc) are currently under construction.
2. Early to mid-stage of development: includes projects under assessment for co-development and acquisition, as well as projects being self-developed where the land has been identified or secured, and an energy off-take agreement is in place or there is a reasonable probability that an energy off-take agreement can be secured.

# Business Differentiators: Canadian Project Backlog



Owned Projects		Size	Status	End Buyer
1	Liskeard 1, 3 and 4	30 MW AC	In Construction (COD 2014)	TransCanada
2	William Rutley	10 MW AC	Commercial Operation	TransCanada
3	Alfred	10 MW AC	COD 2015	TransCanada
4	Mississippi Mills	10 MW AC	Commercial Operation	TransCanada
5	Burritts Rapids	7 MW AC	SALE CLOSED in 3Q13	TransCanada
6	Brockville 1	10 MW AC	SALE CLOSED in 2Q13	TransCanada
7	Brockville 2	9 MW AC	SALE CLOSED in 3Q13	TransCanada
8	Foto Light LP	10 MW AC	COD 2014	TBD
9	Illumination LP	10 MW AC	COD 2015	DIF
10	Little Creek	8.5 MW AC	In Construction (COD 2014)	BluEarth
11	Gold Light LP	10 MW AC	COD 2014	DIF
12	Beam Light LP	10 MW AC	COD 2015	DIF
13	Earth Light LP	10 MW AC	COD 2015	Concord
14	Lunar Light LP	10 MW AC	COD 2015	BluEarth
15	Discovery Light LP	10 MW AC	COD 2014	TBD
16	Sparkle Light LP	10 MW AC	COD 2014	BluEarth
17	Glen Arm	10 MW AC	COD 2014	DIF
18	Good Light LP	10 MW AC	In Construction (COD 2014)	BluEarth
19	Aria LP	9 MW AC	COD 2015	Concord
20	Ray Light LP	10 MW AC	In Construction (COD 2014)	Concord
21	Mighty Solar LP	10 MW AC	In Construction (COD 2014)	Concord
22	City Lights LP	10 MW AC	COD 2014	TBD
23	Highlight (Val Caron)	10 MW AC	In Construction (COD 2014)	Concord
26	Oro-Medonte 4	10 MW AC	COD 2014	TBD
27	Westbrook	10 MW AC	In Construction (COD 2014)	TBD
EPC Projects		Size	Status	End Buyer
24	Taylor Kidd	10 MW AC	In Construction (COD 2014) Sale Closed 3Q13	BlackRock
25	Demorestville	10 MW AC	In Construction (COD 2014) Sale Closed 3Q13	BlackRock
28	Penn Energy	29 MW AC	In Construction (COD 2014)	Penn
29	Grand Renewable Phase I	100 MW AC	In Construction (COD 2015)	GRSP

Canadian Solar Owned Projects and EPC backlog in Ontario is expected to generate over C\$1.7 Billion in revenue over the next 18-24 months.



# Business Differentiators: Canadian Presence

## Project Development Hub

- 🌟 Track record as EPC/Developer on over 58MW AC of utility-scale projects
- 🌟 Contracted EPC on 149MW AC utility-scale projects in Ontario
- 🌟 Developer and EPC on 24 utility-scale projects scheduled to be built through 2015

Module Capacity:

**330 MW**

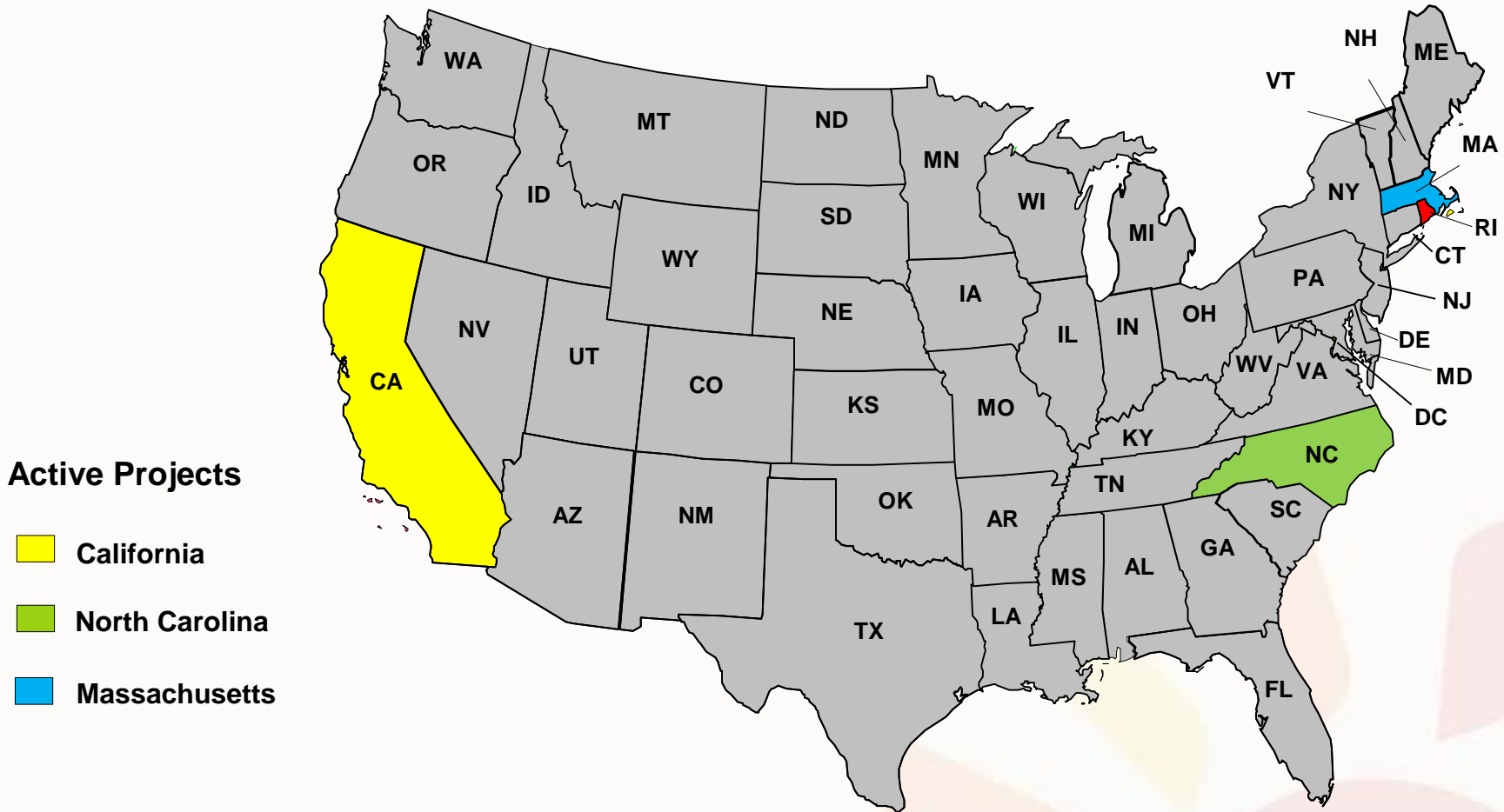
Ontario Pipeline (DC):

**~499 MW**

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



# Business Differentiators: U.S. Late Stage Pipeline



Canadian Solar late-stage solar power project pipeline in the U.S. totals 198MW<sub>dc</sub>, with 91MW<sub>dc</sub> expected to be completed in 2013

# Business Differentiators: Japan Utility-Scale Opportunity

## Sample Project



Late Stage Development  
Pipeline:

**278 MW**

Early-stage Preliminary  
Assessment Opportunities:

**200 MW**

- 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



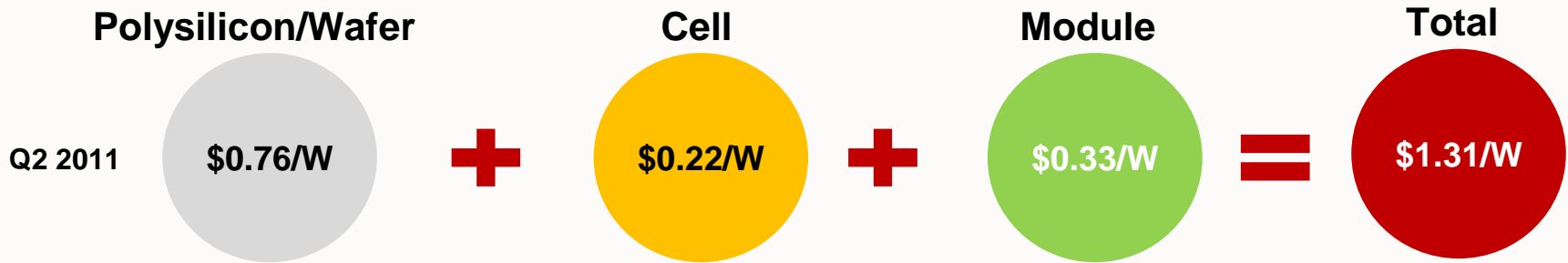
## System Kits

Market Entry:  
**2009**

2012 Revenue:  
**\$120m**



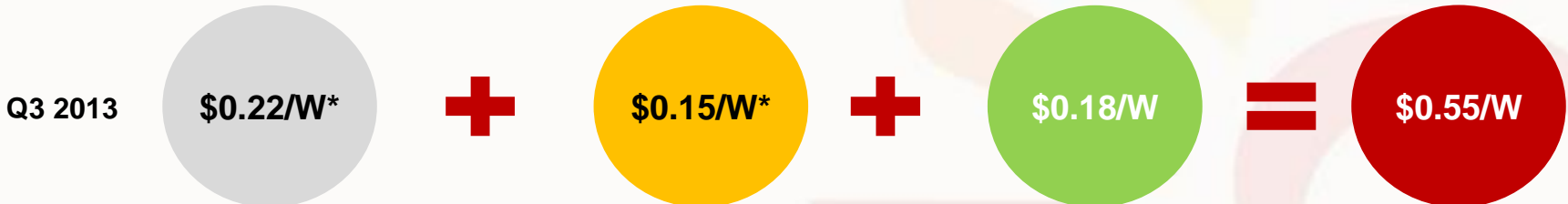
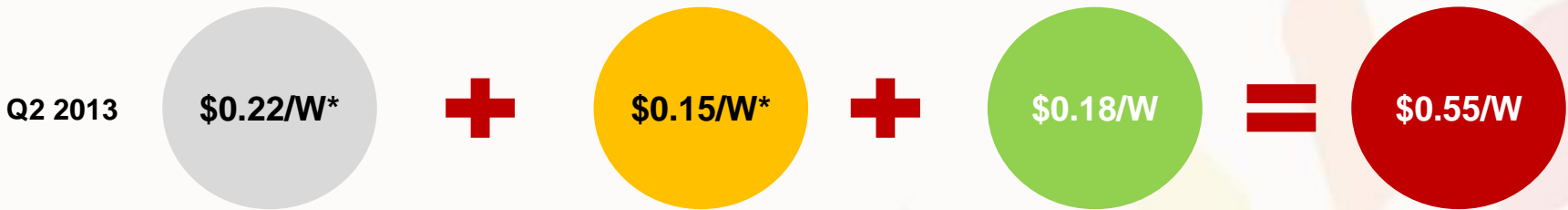
# All-in Pure Manufacturing Cost in China



- Secure LT wafer supply agreement at \$0.20/W or less for up to 1GW
- Benefit from lower cost/usage of silicon
- Explore supply diversification opportunities

- Reduce raw material purchase cost
- Reduce raw material usage
- Increase throughput

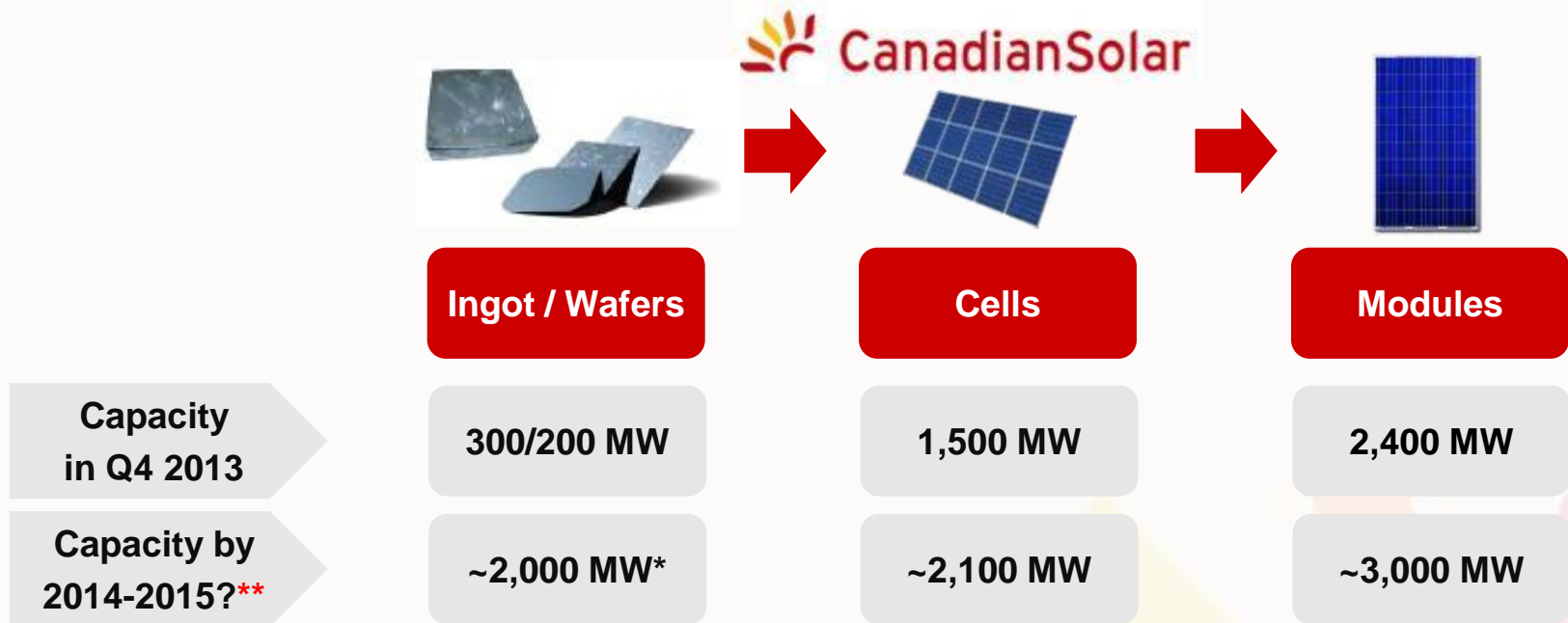
- Reduce cell to module power loss
- Reduce raw material purchase cost
- Redesign Modules



\* Includes purchased silicon, wafers and cells.

# Capacity Expansion Plan

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

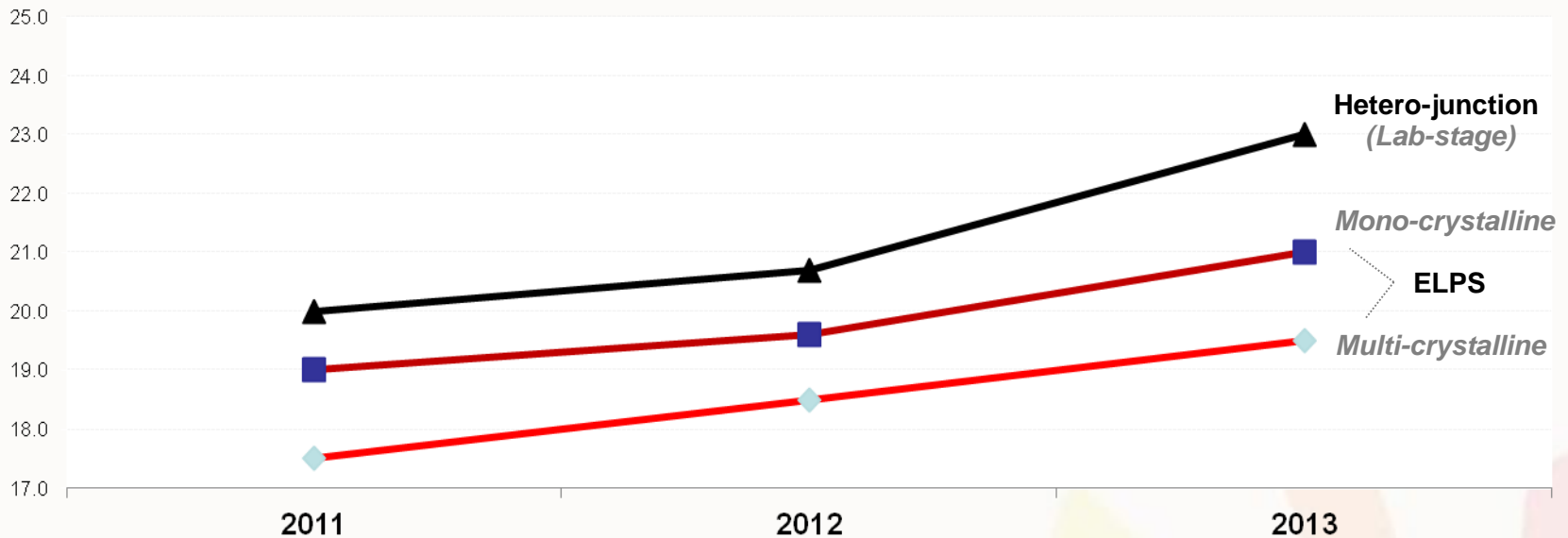


- ☀ Ingot/wafer capacity of ~2,000 MW\* for 2014 and beyond include: (a) ~300MW internal (b) 600MW GCL joint-venture and (c) 1GW LT supply agreement (d) other external suppliers
- ☀ Cell capacity expansion include 600MW through external supply partners
- ☀ In-house cell capacity targeted at 75% of module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

<sup>\*\*</sup>As of the date of this presentation all capacity expansion targets are on hold.

# Cell Efficiency Roadmap

Existing Cell lines can be converted to ELPS technology



17.5% to 20.0%

18.5% to 21%

>21.0%

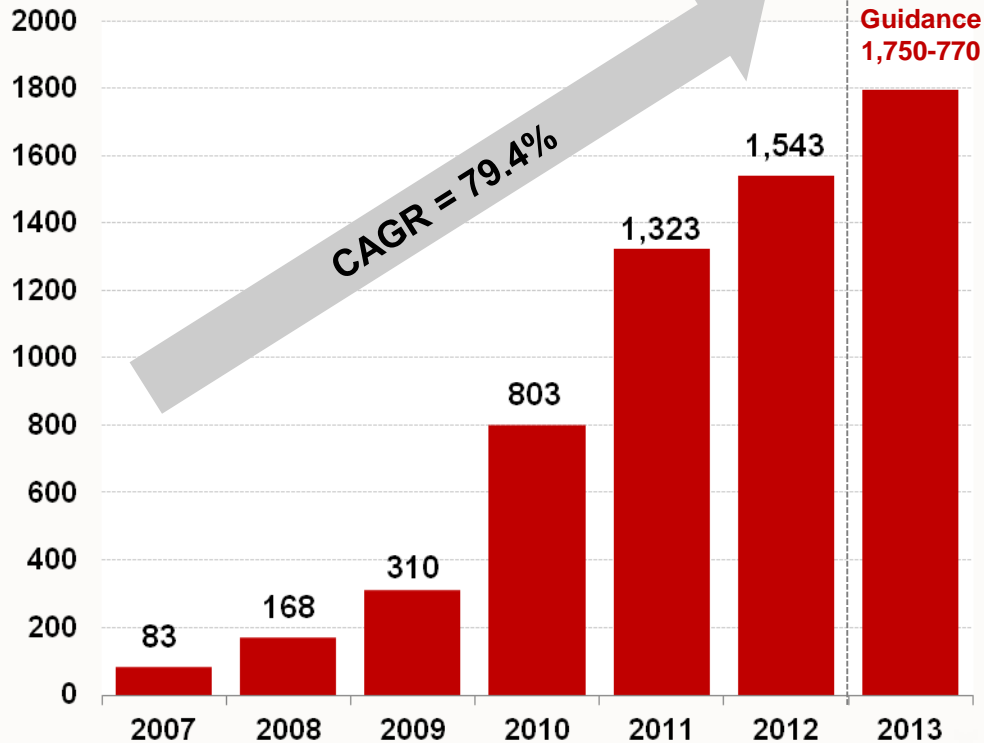
- Enhanced selective emitter structure currently in production
- ELPS break-through technology to be introduced in June-September 2011

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

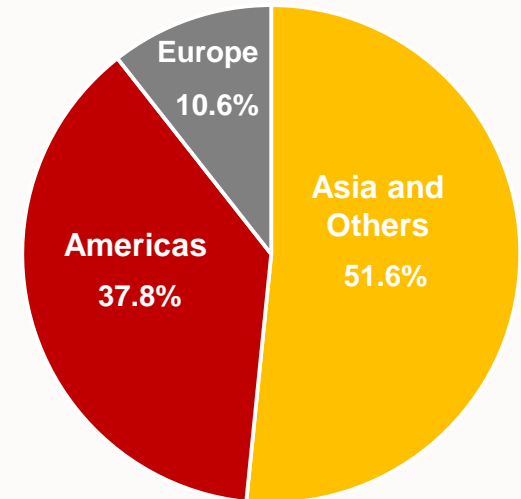
- N-type
- ELPS + HIT
- IBC structure

# Global Footprint and Growing Market Share

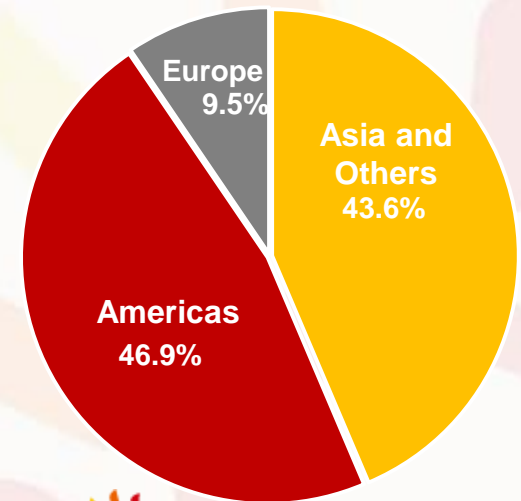
## Canadian Solar Module Shipments - MW



## Second Quarter 2013\*



## Third Quarter 2013\*



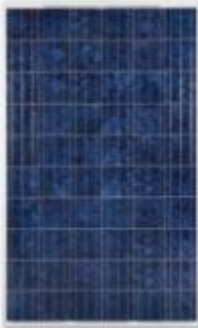
Well positioned as one of the world's largest PV module suppliers with over 5GW delivered to customers in over 70 countries.



# World Class Product Portfolio

## Commercial & Utility

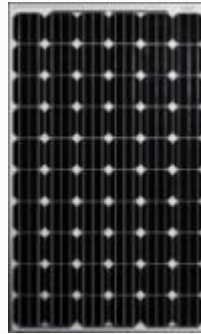
CS6P-P



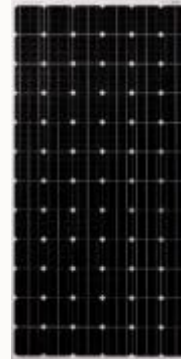
MaxPower  
CS6X-P



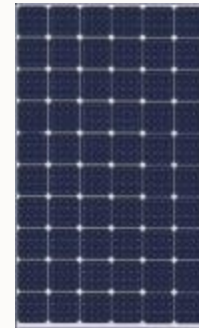
CS6P-M



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

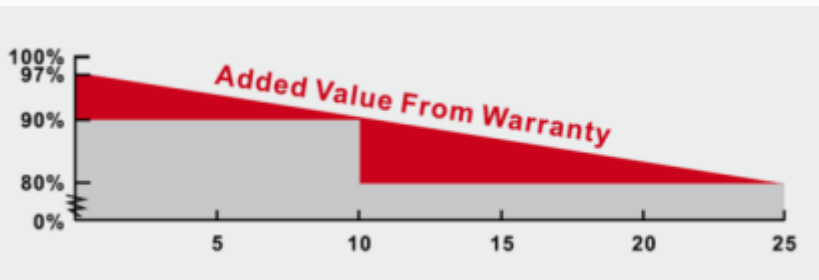
- ✓ IEC 61215
- ✓ IEC 61730
- ✓ IEC 61701: Salt Mist Corrosion
- ✓ Ammonia Resistance
- ✓ PID free
- ✓ REACH Compliant



# 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

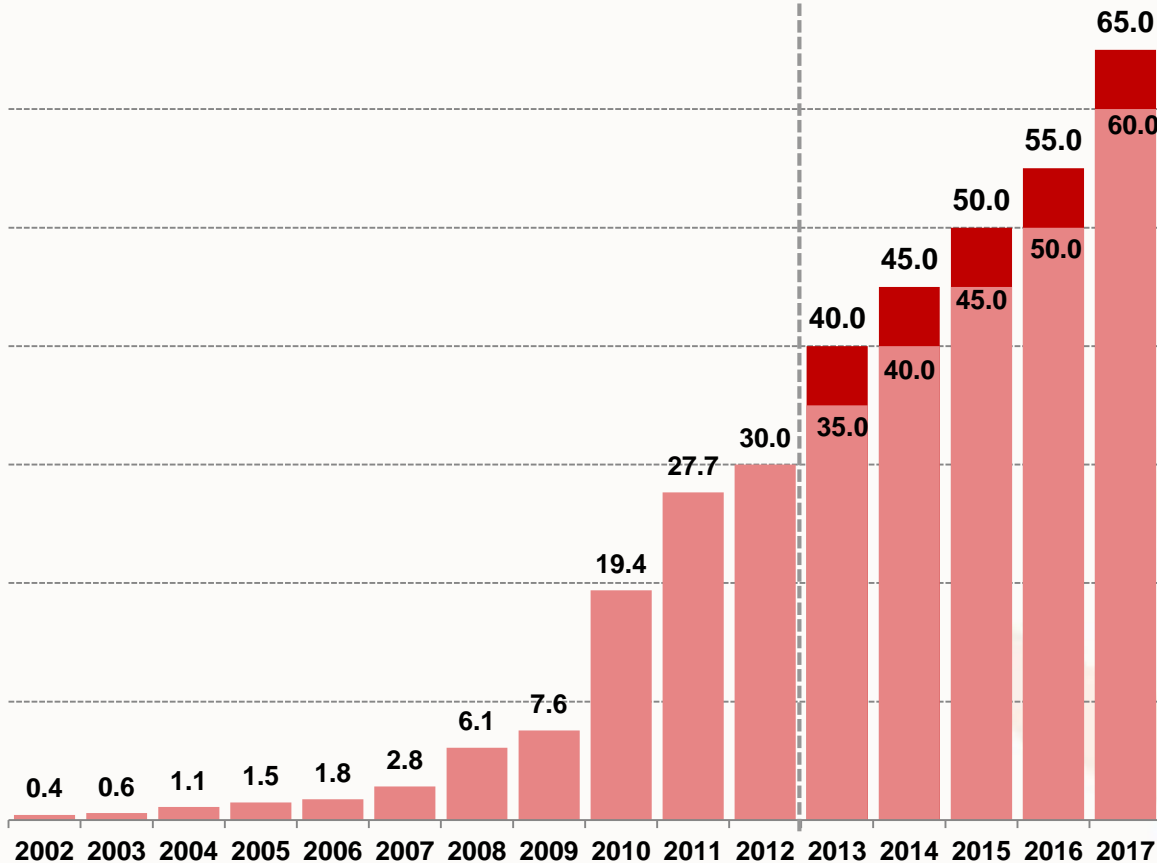
- 🌟 Insurance policy matches Canadian Solar's standard warranty terms
- 🌟 Coverage starts immediately and lasts for 25 years
- 🌟 Covers worldwide modules sales from all CSI subsidiaries to most countries
- 🌟 The policy is non cancelable and allows third party bankruptcy rights (satisfying investors/ lenders requirements)
- 🌟 Insurance purchased underwritten by:
  - 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)

# Large and Growing Market Opportunity

## Global PV Module Demand - GW

Last 10 Years: 54% CAGR

Forecast: 16.7% CAGR



Source: Solarbuzz, IMS

## Key Drivers

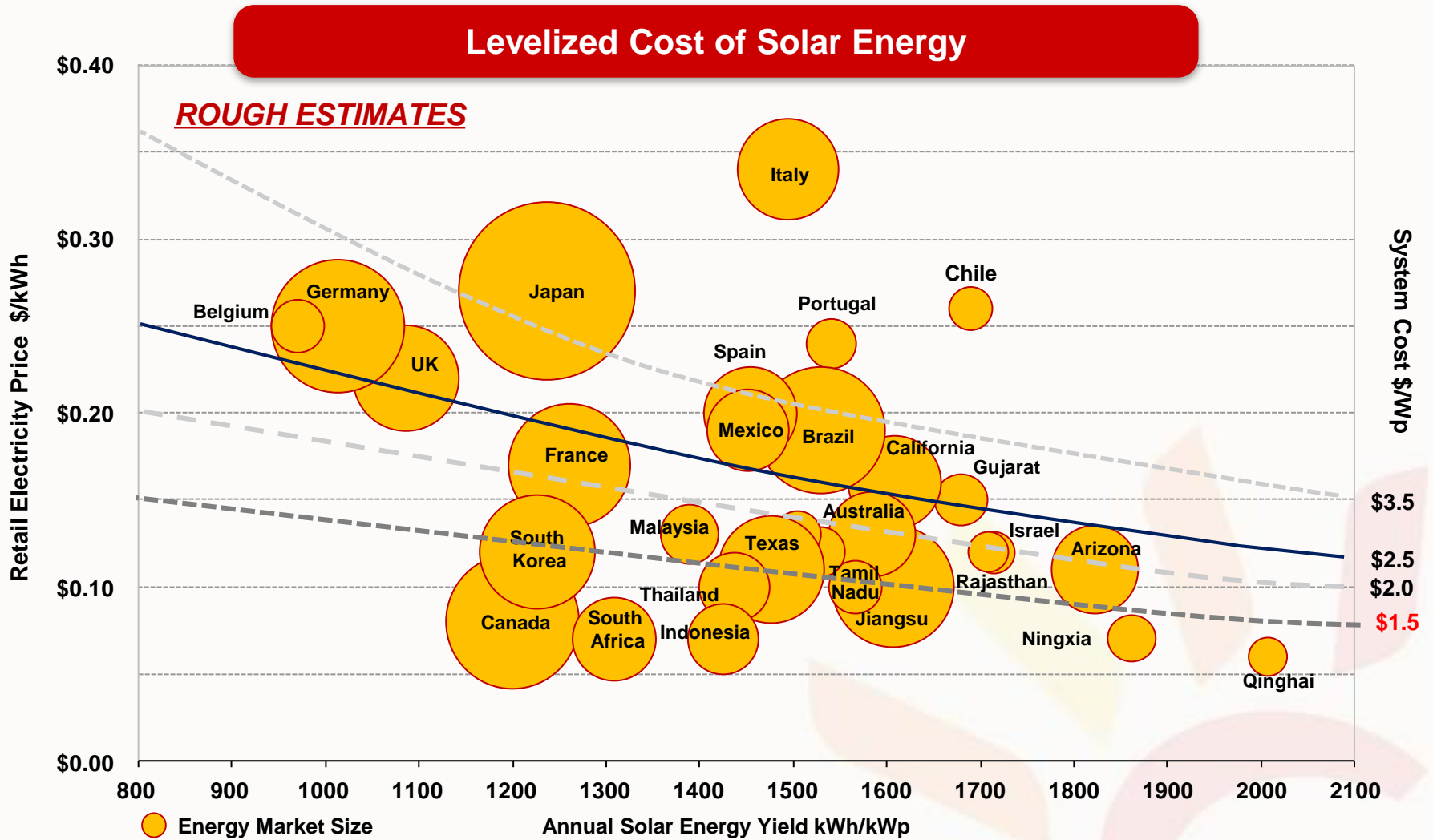
### Past:

- ✓ 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

# Management Team and Board

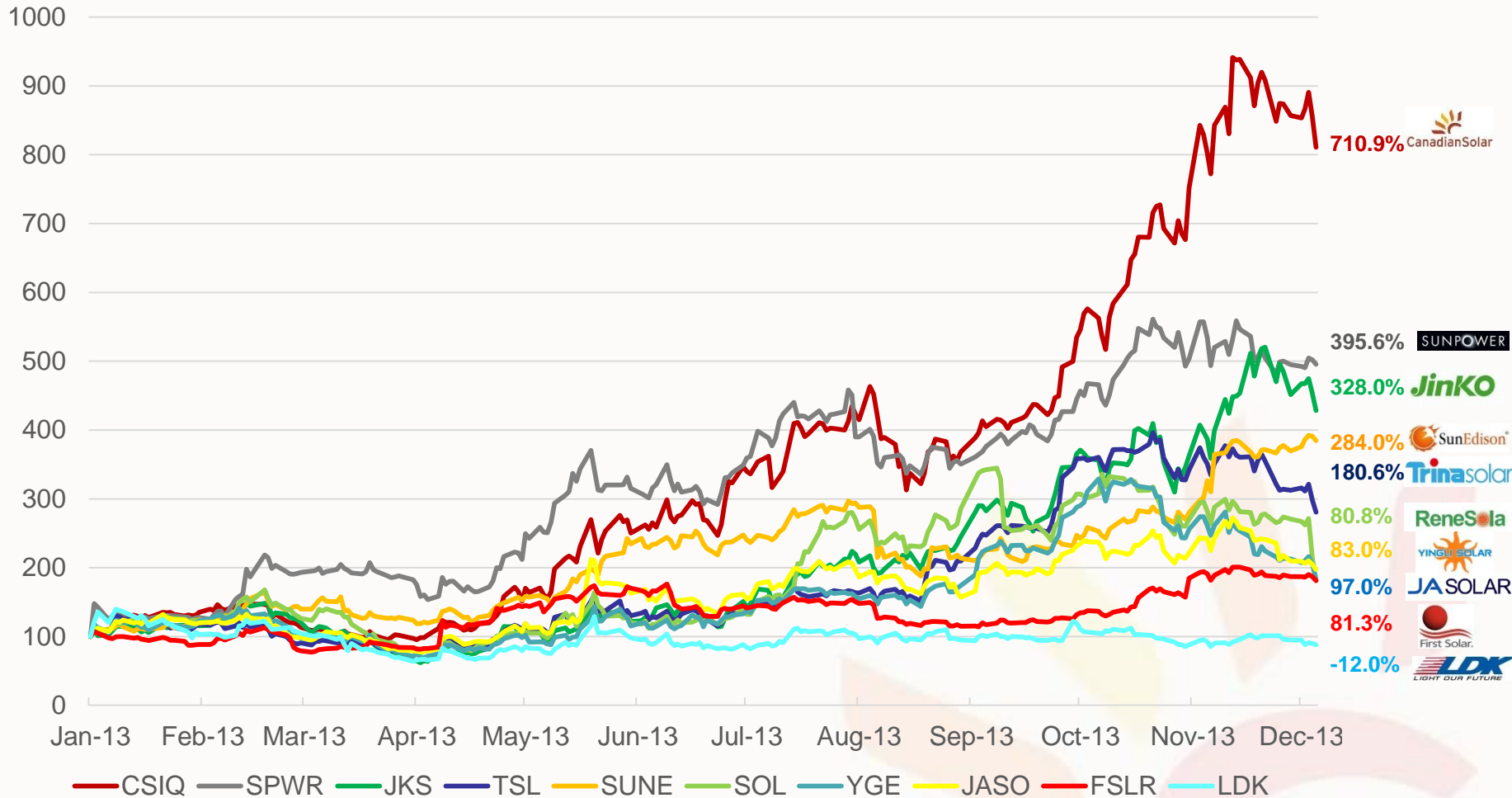
## International Background + Extensive Industry Experience

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</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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# 2013 Share Price Performance Relative to Peers



Source: Nasdaq Corporate Solutions as of December 6 2013

# 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**

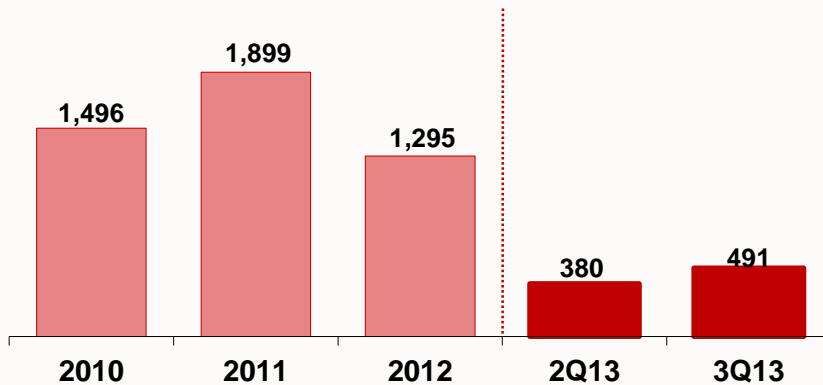


# Financial Highlights

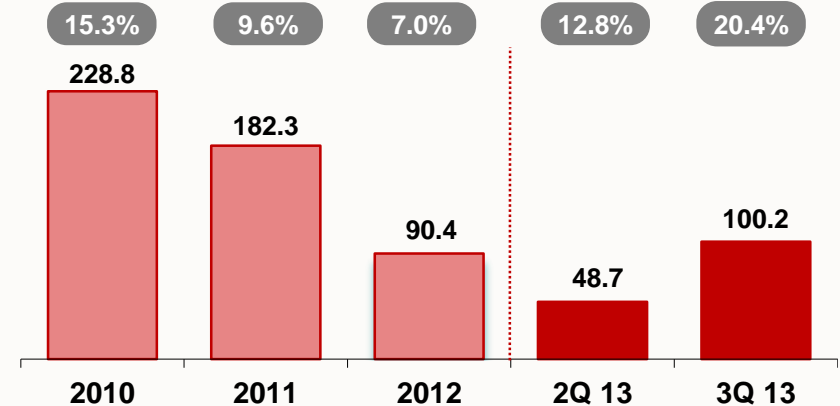


# Key Performance Indicators

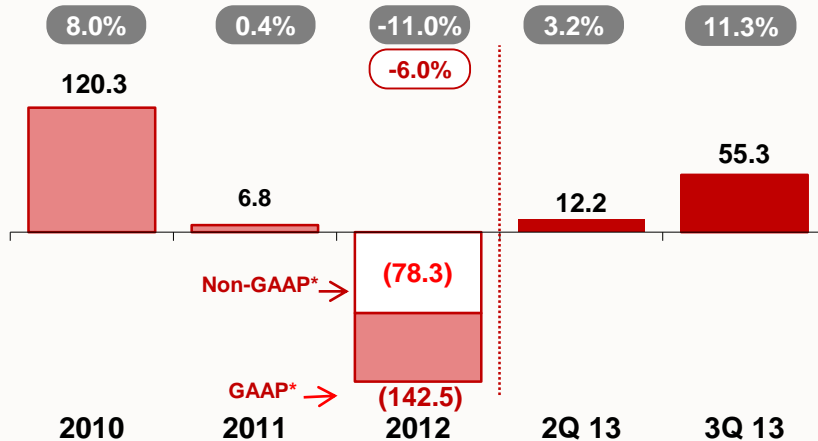
## Revenue - US\$ million



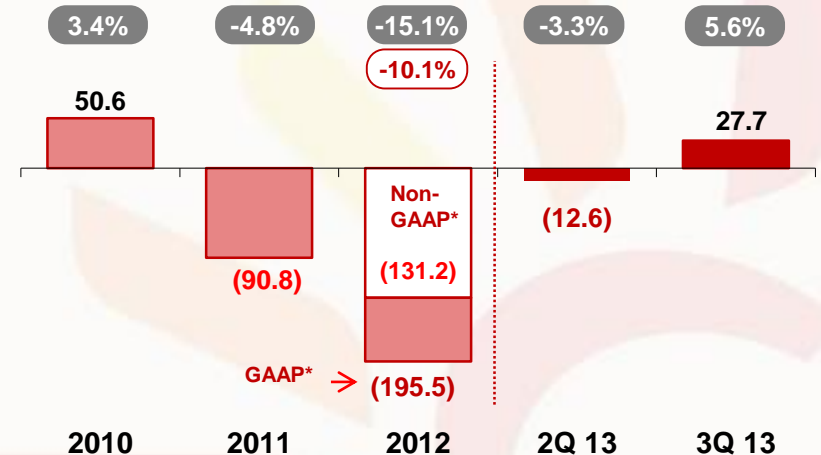
## Gross Profit - US\$ million



## 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 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013	Q2 2013	Q3 2013
Selling	3.7%	7.0%	6.2%	7.0%	6.6%	8.5%	7.1%	5.2%	4.3%
G&A	4.5%	5.0%*	4.7%	5.3%	5.2%	5.8%*	6.2%**	3.5%	4.2%
R&D	1.0%	1.0%	0.9%	1.0%	1.0%	1.1%	0.9%	0.8%	0.6%
Operating Expense	9.2%	13.0%*	11.8%	13.3%	12.8%	15.4%*	14.2%	9.5%	9.2%

\*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	September 30, 2013	June 30, 2013	December 31, 2012	December 31, 2011
Cash and Restricted Cash	681.7	540.6	564.3	522.3
Accounts Receivable	271.8	262.9	254.9	292.2
Inventories	220.6	218.5	274.5	296.6
Other Current Assets	479.0	566.0	348.5	184.5
<b>Total Current Assets</b>	<b>1,653.1</b>	<b>1,588.0</b>	<b>1,442.2</b>	<b>1,295.6</b>
Property, Plant and Equipment	426.8	441.9	469.6	510.1
Other Non-current Assets	273.7	229.5	347.5	74.1
<b>Total Assets</b>	<b>2,444.3</b>	<b>2,259.4</b>	<b>2,259.3</b>	<b>1,879.8</b>
Short Term Borrowings	801.6	813.6	858.9	743.7
Accounts Payable	589.7	463.1	461.6	306.0
Other Current Liabilities	308.4	282.1	219.8	186.8
<b>Total Current Liabilities</b>	<b>1,699.8</b>	<b>1,558.8</b>	<b>1,540.3</b>	<b>1,236.5</b>
Non-current Liabilities	348.8	389.8	372.3	176.3
Redeemable non-control. interest	22.6	33.2	45.1	-
<b>Total Equity</b>	<b>373.0</b>	<b>288.6</b>	<b>301.6</b>	<b>467.0</b>
<b>Total Liabilities and Equity</b>	<b>2,444.3</b>	<b>2,259.4</b>	<b>2,259.3</b>	<b>1,879.8</b>

# Outlook and Guidance

## Fourth Quarter and Full Year 2013 Guidance

	Q4 2013*	FY 2013*
Shipments	480 MW – 500 MW	1,750–1,770MW
Gross Margin	13.0% to 15.0%	NA

- Company Press Release, \*Nov 13, 2013

# Selected Projects: Canada



**Brockville I, Ontario Canada**  
**CSI Role: Project Owner and Developer**  
**Status: Sale to TransCanada closed Q2 2013**



**Brockville II, Ontario Canada**  
**CSI Role: Project Owner and Developer**  
**Status: Sale to TransCanada closed Q3 2013**

## Selected Projects: Canada



**William Rutley, Ontario Canada**  
**CSI Role: Project Owner and Developer**  
**Status: Connected to the grid**  
**Note: Sale to TransCanada pending**

# 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**

	<b>December 31, 2012</b>	<b>December 31, 2011</b>
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!**