# FOURTH QUARTER 2014



## Disclaimer

This Presentation includes and is based, inter alia, on forward-looking information and statements that are subject to risks and uncertainties that could cause actual results to differ. These statements and this Presentation are based on current expectations, estimates and projections about global economic conditions, the economic conditions of the regions and industries that are major markets for REC Silicon ASA (including subsidiaries and affiliates) lines of business. These expectations, estimates and projections are generally identifiable by statements containing words such as "expects", "believes", "estimates" or similar expressions. Important factors that could cause actual results to differ materially from those expectations include, among others, economic and market conditions in the geographic areas and industries that are or will be major markets for REC Silicon ASA's businesses, energy prices, market acceptance of new products and services, changes in governmental regulations, interest rates, fluctuations in currency exchange rates and such other factors as may be discussed from time to time in the presentation. Although REC Silicon ASA believes that its expectations and the presentation are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved or that the actual results will be as set out in the presentation. REC Silicon ASA makes no representations or warranties, expressed or implied, as to the accuracy, reliability or completeness of the presentation, and neither REC Silicon ASA nor any of its directors, officers or employees will have any liability to you or any other persons resulting from your use.

This presentation was prepared for the Fourth quarter 2014 results presentation on February 13, 2015. Information contained herein will not be updated. The following slides should be read and considered in connection with the information given orally during the presentation.

REC Silicon ASA shares have not been registered under the U.S. Securities Act of 1933, as amended (the "Act"), and may not be offered or sold in the United States absent registration or an applicable exemption from the registration requirements of the Act.

# Agenda

REC Q4 and 2014 Results	T. Torvund, CEO
Market Outlook	K. Levens, VP Commercial
Financial Overview	J. May, CFO
Guidance 2015	T. Torvund, CEO
Q & A	

# REC Silicon ASA Fourth Quarter Highlights

**Revenues:** \$126.2 M

**EBITDA:** \$38.0 M

## **Record Polysilicon Production**

<ul> <li>Total polysilicon production</li> </ul>	5,337 MT
<ul> <li>Polysilicon sales volume</li> </ul>	4,595 MT
- FBR cash cost	\$10.8/kg

## **Strong Silicon Gas Sales**

- 848 MT Sales
- Silicon gas prices remained stable

## **Q4 PV Market Weaker than Anticipated**

- 2014 polysilicon demand approx. 270,000 MT
- REC solar grade prices impacted by trade dispute

## **Expansion Initiatives On-track**

- Yulin JV \$75 M equity contribution paid
- Rx 25/26 Expansion underway

# REC Silicon ASA Q4 2014 Key Metrics

Financials	
Revenue	\$126.2 M
EBITDA	\$38.0 M
EBITDA Margin	30%

FBR Production	
Actual	4,491 MT
Guidance*	4,400 MT
Change	+2%

FBR Cash Cost		
Actual	\$10.8/kg	
Guidance*	\$11.0/kg	
Change	-1.9%	

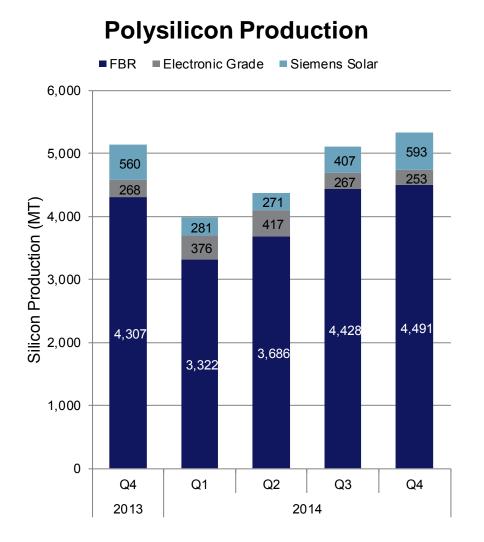
Total Polysilicon Production		
Actual	5,337 MT	
Guidance*	5,280 MT	
Change	+1%	

Semiconductor Production		
Actual	253 MT	
Guidance*	240 MT	
Change	+ 1%	

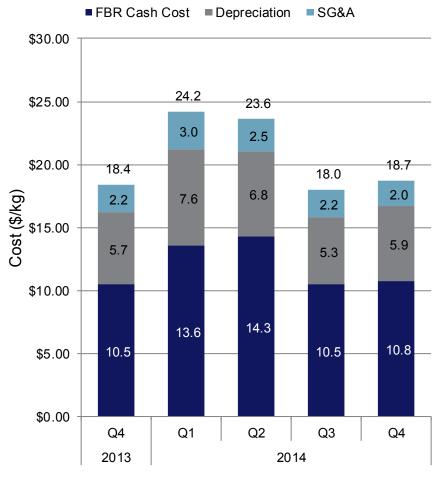
Silicon Gases Sales Vol.		
Actual	848 MT	
Guidance*	800 MT	
Change	+6.5%	

<sup>\*</sup> Guidance presented November 4, 2014

# Record High Polysilicon Production in Q4 2014



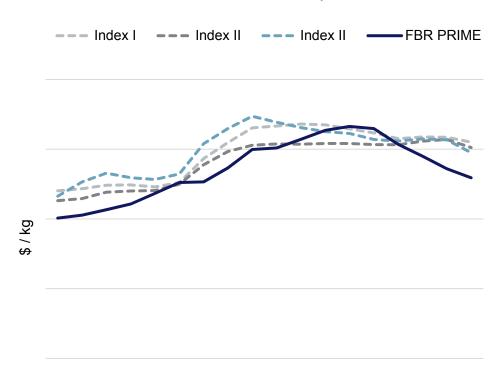
### **FBR Cost**



# Q4 2014 FBR ASPs Down Compared to Spot Indices

- Average total polysilicon price dropped 12% in Q4 compared to Q3
- Trade dispute negatively impacted FBR Prime ASPs
- FBR Prime ASPs discounted to secure volume

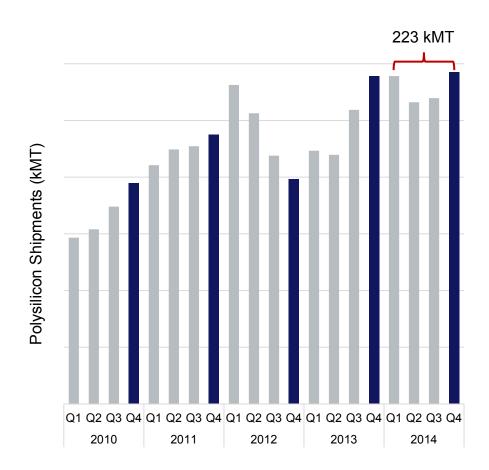
## FBR ASPs vs. Spot Indices



JULY APR MAR A APR SEP SOCT TOO NOV TO

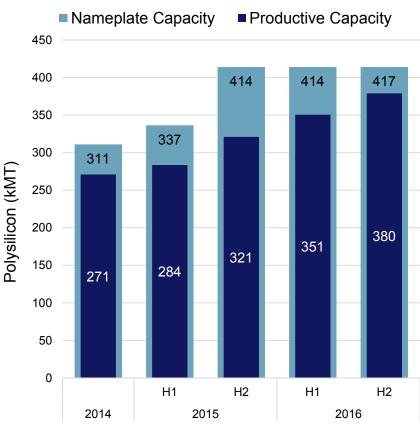
# Q4 2014 Shipments and Productive Capacity Expectation

Tier 1 Shipment Estimates



Tier 1: Daqo, GCL, Hemlock, Mitsubishi, OCI, Osaka Titanium, REC, SunEdison, Tokuyama, Wacker

#### **Total Available Capacity**



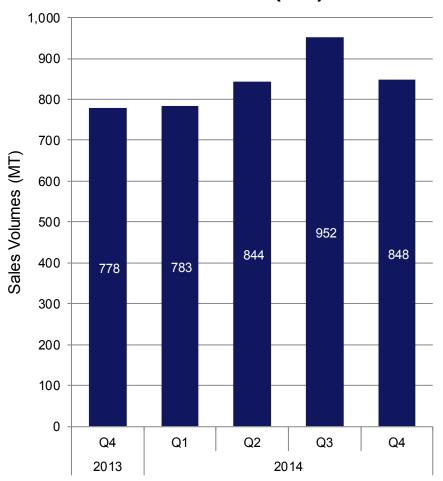
Productive Capacity figures include non Tier-1 additional capacity of 47kMT in 2014 and 63kMT in 2015-2016

Source: Financial reports, press releases, construction/production calculations

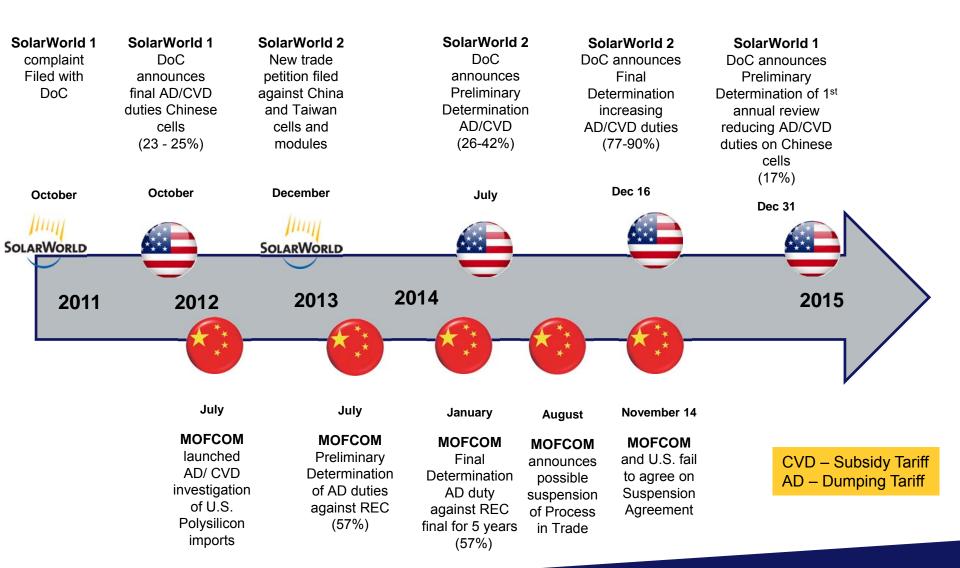
# Q4 2014 Silicon Gas Sales Remained Strong

- Strong Sales Volumes
  - 48MT Over Guidance
- Silicon gas prices remained stable from Q3
- Display and PV demand up
- Competitive capacity restart ramping and qualifying material in Q1'15

## Silicon Gases (MT)



# US/China Trade Dispute Timeline (Impacts only Solar grade FBR)



## Current Status of SolarWorld Trade Cases

#### SolarWorld 1 Case

- AD/CVD applies to Chinese cells, prompting Taiwanese cell loophole
- Dec 31, 2014 announcement: AD/CVD reduced to approx. 17% in Preliminary Determination of 1st Annual Review
- Final Determination of 1<sup>st</sup> Annual Review expected mid-year 2015

## SolarWorld 2 Case

- Applies to Taiwanese cells and Chinese panels containing foreign made cells, closing the SolarWorld 1 loophole
- Dec 17, 2014 Final Determination 77-90%

Industry analyst view:

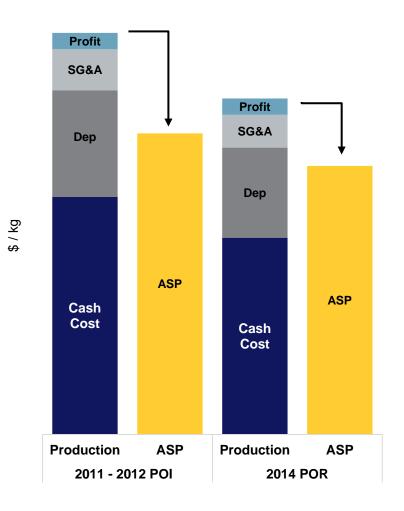
"This is a big loss for SolarWorld, and a big win for the Chinese manufacturers"

"The likelihood is that cash deposits...are going to go down from ~31% to 15% for most Chinese manufacturers beginning in either May or June of this year...."

- GTM Research January 22, 2015

## Potential MOFCOM Tariff Review

- FBR costs have decreased since original investigation period
- Current 57% tariff based on investigation period
  - Jul 2011 Jun 2012
- New period of review
  - Jan 2014 Jan 2015
- MOFCOM discretion whether to undertake the review
  - Request to be made by Feb 19, 2015
  - Potential revision not likely until Q1 2016





Market Outlook



# Market Highlights



## **PV Polysilicon**

2014 supply and demand relatively balanced until late Q3/Q4, when China end-demand weakened, which may lead to excess channel inventory in early 2015.

Overall supply for 2015 should be sufficient for potential demand scenarios

Long-term contracts will continue to expire through 2015 driving more spot transactions and greater equilibrium between spot and contract price



#### Silicon Gases

Market growth in all segments for second consecutive year in 2014

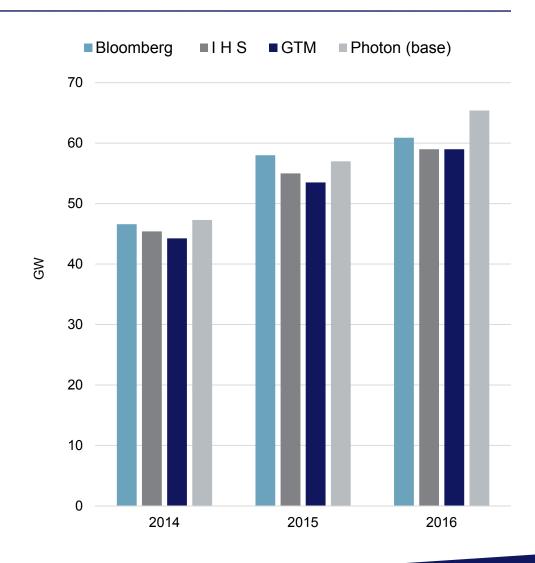
Continued market growth is predicted for Integrated Circuit, Flat Panel and PV segments

Advanced silicon gases have higher growth potential associated with new technology adoption

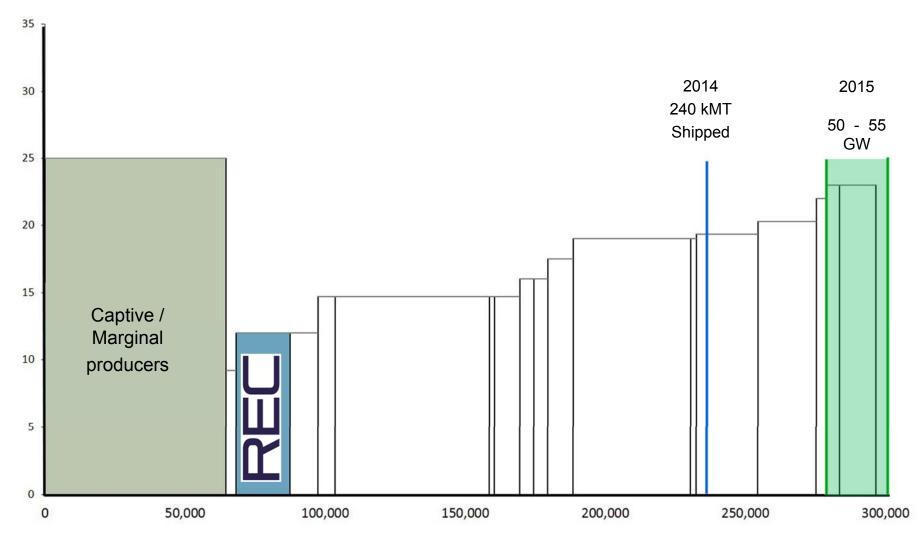
Potential for further production retirement this year due to re-started capacity and limited market share opportunity

# Analysts Expect Near-term PV Growth

- > 2014 estimates 44 47 GW
  - However actual polysilicon shipments indicate inventory build and lower demand
- > 2015 estimates 53 57 GW
- > 2016 estimates 58 64 GW



# 2015 Solar Grade Polysilicon Capacity vs. Cash Cost



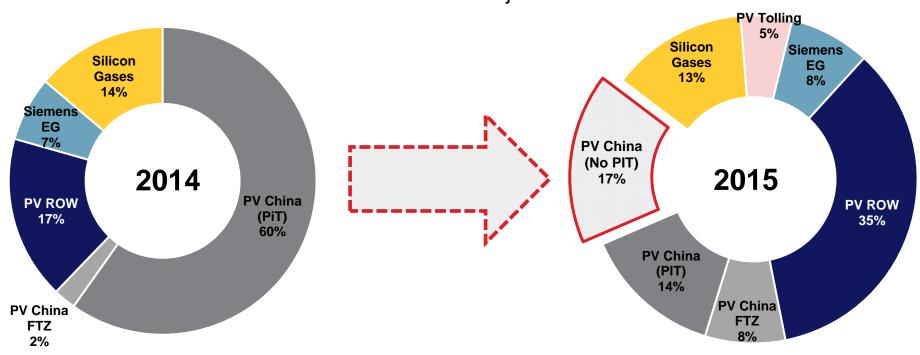
Note: Excludes Semiconductor grade and excessive polysilicon inventory in value chain Source: REC internal database



# REC Product Mix Response to AD/CVD

## 2015 Product Sales Strategy

83% of volume not subject to tariff



**57% Tariff does not apply to**: Siemens EG, PV Tolling, PV China Free Trade Zone (FTZ), PV China Process in Trade (PIT), ROW PV, Silicon Gases

# 2015 Solar Grade Polysilicon Market Pricing Impact Model

#### **China Market Price**

 Internal China market price sets benchmark

#### **Process in Trade Price**

Lower than China Market Price due to Process In Trade customers extracting some value for bonded book access scarcity and other applicable importrelated taxes/costs

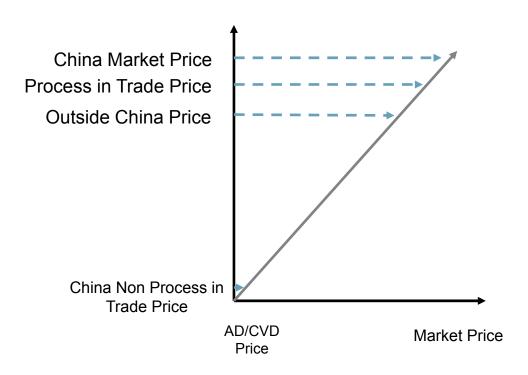
#### **Outside China Price**

 Lower than China Market and Process in Trade Prices because customers outside China extract value for access to nontariffed markets and increased choice

#### **China Non Process in Trade Price**

Lowest price due to discount for 57% tariff

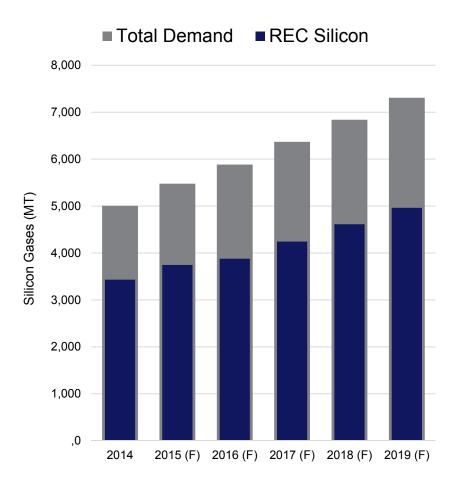
AD / CVD Impact on Market ASPs



# Continued Market Leadership in Silicon Gases

- Largest Silicon gas consumers
  - Flat Panel Displays
  - Semiconductor
  - PV
- Mobile devices and IC miniaturization driving demand of additional high growth advanced silicon gases
- Significant volume under secure contractual obligations
- > REC Silicon #1 or #2 in market share for each gas

## Silicon Gases Demand Outlook



Note: REC internal model built with industry demand side information from: I.H.S. DisplaySearch, SEMI, IC Insights, LINX Consulting, Sage Concepts, BNEF, Greentech Media, Energytrend



# Polysilicon and Silicon Gases Market Outlook Summary

Revenue and profit concerns due to China AD/CVD uncertainty



Minimization of volume subject to tariff



Fully leverage new customers, new products and products not subject to potential tariff

Silicon Gases



Utilize leading economies of scale and market leverage to defend and grow volume



Drive continuing rationalization in supply

**Market Observations** 



All markets forecast growth for the 3<sup>rd</sup> consecutive year



Supply demand balance in PV polysilicon will be dependent upon new capacity ramp





# Financial Results – Total and Continuing Operations

(USD million)		Q4 2014			Q3 2014	
	Revenues	EBITDA	EBIT	Revenues	EBITDA	EBIT
REC Silicon	126.2	38.2	(0.9)	126.2	45.5	12.6
REC Silicon Technology Sale *	-	-	-	-	101.0	101.0
Other & eliminations	(0.0)	(0.2)	(0.2)		(0.6)	(0.7)
REC Silicon & Other	126.2	38.0	(1.2)	126.2	145.9	112.9
REC Solar	-	_	-	-	-	-
Gain/Loss on disposal of disc. oper.	-	1.0	1.0	-	(0.4)	(0.4)
Eliminations						
Total Operations	126.2	39.0	(0.2)	126.2	145.4	112.5
Discontinued operations		(1.0)	(1.0)		0.4	0.4
Continuing Operations	126.2	38.0	(1.2)	126.2	145.9	<u>112.9</u>

#### > REC Silicon & Other

- Continuing operations
- REC Silicon Includes Special Items of USD 101 million for Transfer of Technology to the Yulin JV (\*)

## > EBITDA of \$38.0 M

- REC Silicon Segment EBITDA of \$38.2 M
- Parent Company Expenditures of \$0.2 M

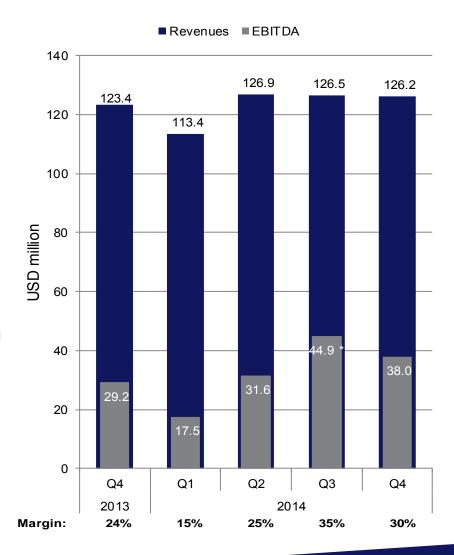
# Q4 2014 Key Financial Results

## Revenues - \$126.2 M

- Unchanged from Q3 2014
- Increased Polysilicon Revenues
  - ~18% Sales volume increase from Q3 2014
  - ~12% Average price decrease from Q3 2014
- Continued Strong Silicon Gas Sales
  - Sales prices remained stable
  - Higher spot market sales as competitive capacity is restarted
  - Sales volume of 848 MT (11% decrease from Q3 2014)

## EBITDA - \$38.0 M

~15% Decrease from Q3 2014



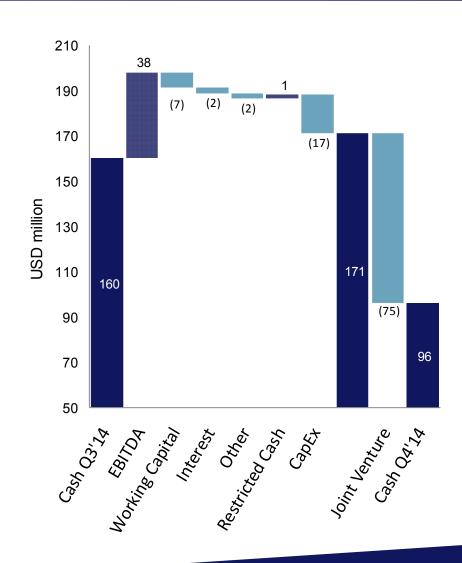
<sup>\*</sup> Excludes Special Items of USD 101 million Gain on Sale of Technology to the Yulin JV

## Q4 2014 Cash Flows

# Operations - \$30.5 M

 Working capital increase due to Increased Inventories and Accounts Receivable

Yulin JV Equity Contribution \$75 M paid in October, 2014



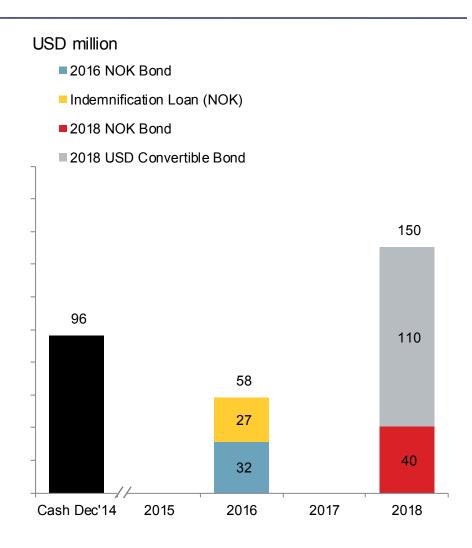
# Liquidity at December 31, 2014

## Nominal Net Debt - \$112 M

- > Increased by \$48 M from Q3 '14
- Reduced by \$265 M in 2014

## Nominal Debt - \$208 M

- Reduced by \$16 M in Q4'14 due to changes in currency exchange rates
- Reduced by \$169 M in 2014

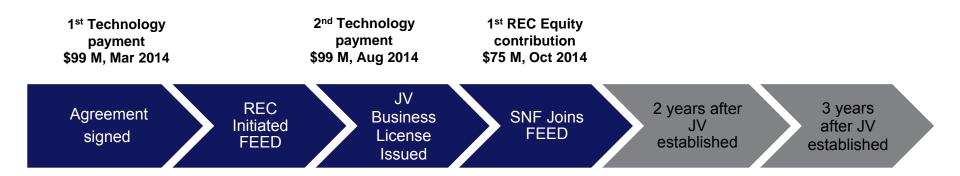




**Expansion Initiatives** 



## Yulin JV – On Track



#### Q4 Activities

- Detailed engineering with Fluor in Shanghai well underway
- REC made \$75 M capital contribution in October
- Purchase orders for long-lead items issued

#### Q1 Activities

- Recruitment of technical personnel and preparation for operational training in U.S.
- Detailed engineering with Fluor continues

#### YULIN JOINT VENTURE:

2<sup>nd</sup> REC Equity

contribution \$15 M, Aug 2016

- 18,000 MT granular polysilicon, 1,000 MT Siemens polysilicon, 500 MT Silane gas
- Next generation Fluid Bed Reactors (FBR-B)
- Technology transfer limited to China and Taiwan

3<sup>rd</sup> REC Equity contribution

\$154 M, Aug 2017

## Moses Lake and Butte – On Track

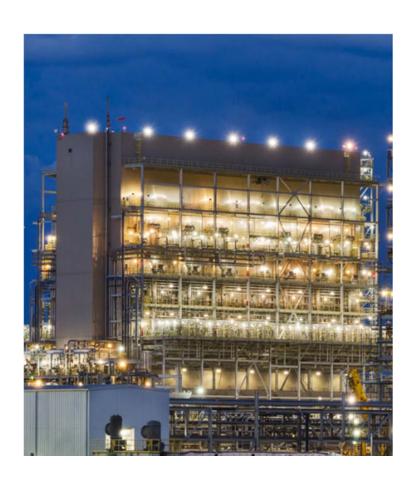
- > Building permits obtained
- Construction activity commenced
- > Start-up

- Silane I: Q3 2016

- Rx 25 & 26: Q3 2016

#### **MOSES LAKE AND BUTTE EXPANSION:**

- Adding 3,000 MT granular polysilicon
- · Next Generation Fluid Bed Reactors (FBR-B)
- Restart Silane I 3,000 MT
- · Silane loading Butte additional 1,200 MT
- Estimated cost USD 115 million





Q1 and 2015 Guidance



# 2014 Results vs. Guidance

FBR Production		
2014 Actual	15,929 MT	
Guidance	15,840 MT	
Change	+0.5%	

FBR Cash Cost	
2014 Actual	\$12.1kg
Guidance	\$12.2/kg
Change	-0.8%

Silicon Gas Sales		
2014 Actual	3,428 MT	
Guidance	3,380 MT	
Change	+1.5%	

Semiconductor Production	
2014 Actual	1,313 MT
Guidance	1,300 MT
Change	+1%

Total Polysilicon Production	
2014 Actual	18,794 MT
Guidance	18,740 MT
Change	+0.3%

СарЕх	
Maintenance	\$22 M
Expansion	\$14 M
Total	\$38 M

<sup>\*</sup> Guidance presented November 4, 2014

# Q1 and 2015 Key Metrics Guidance

FBR Production	
Q1	4,400 MT
2015	16,300 MT

FBR Cash Cost	
Q1	\$11.5/kg
2015	\$12.5/kg

Silicon Gas Sales	
Q1	730 MT
2015	3,700 MT

Semiconductor Production	
Q1	380 MT
2015	1,300 MT

Total Polysilicon Production	
Q1	5,300 MT
2015	19,300 MT

СарЕх	
Maintenance	\$25 M
Expansion	\$60 M



May 6, 2015

