

# **REC**SiLICON

FOURTH QUARTER

2023

**PRESENTATION** 

Kurt Levens, CEO Jack Yun, CFO

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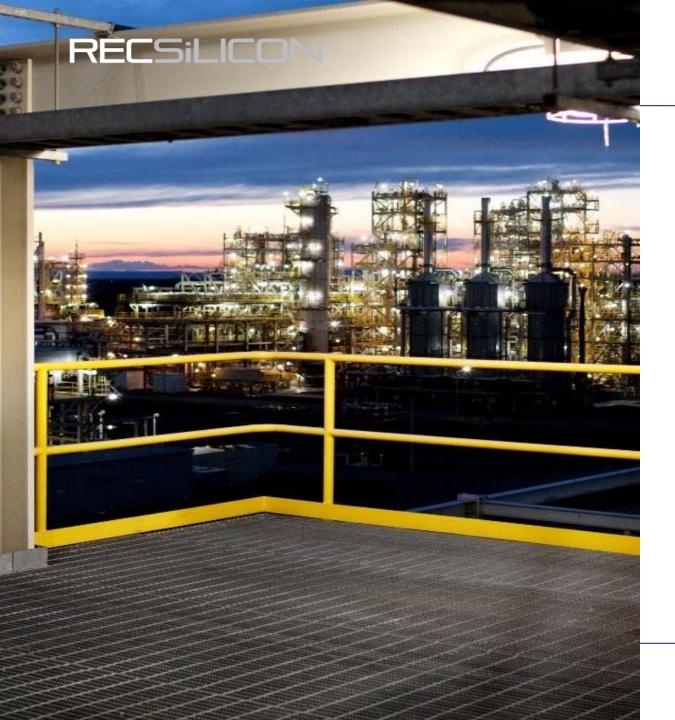
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# **AGENDA**

- Highlights
- > The Business Opportunity
- Activity Update
- Operations
- > Financials
- Summary





# **HIGHLIGHTS**

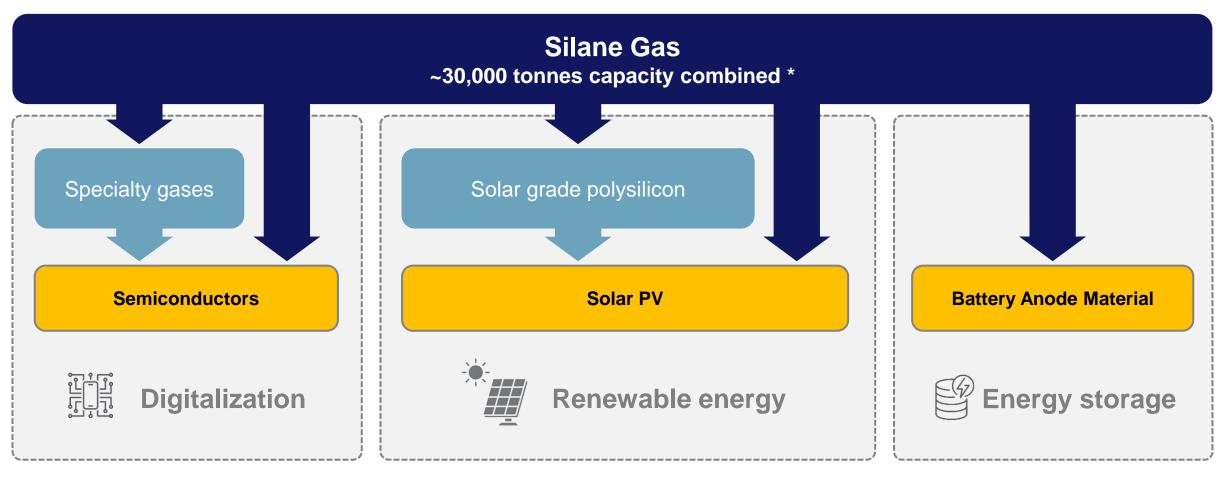
- Q4 2023 revenues of \$40.5M, up from \$34.8M in Q3, driven by increased silicon gas sales and semiconductor product mix
- EBITDA (\$31.2M) impacted by Butte poly shutdown accruals and increased manufacturing cost at Moses Lake
- Moses Lake startup process commenced, process on time for first delivery in Q1 2024 and full capacity by year-end
- Process to optimize Butte operations continues, discontinuing EG polysilicon production during 2024
- Yulin JV sale completed Gross proceeds of \$136.1M received in December 2023
- December 2023 cash balance of \$170.9M

# THE BUSINESS OPPORTUNITY





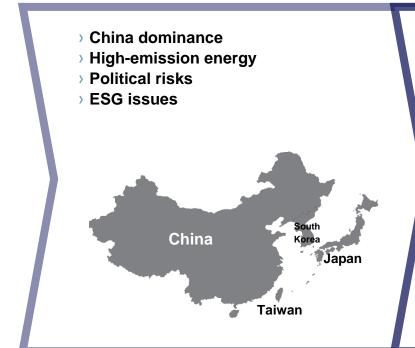
# **EXPOSURE TO ENERGY TRANSITION MEGATRENDS**



<sup>\*</sup> From 2025 and onwards



# SILANE-BASED INDUSTRIES FACING DISRUPTIVE CHANGES



- > Investments moving from Asia to the US
- > Support from US legislative initiatives



- The CHIPS & Science Act 2022
- > Inflation Reduction Act 2022
- Uygur Forced Labor Prevention Act 2021
- Infrastructure Investment & Jobs Act 2021

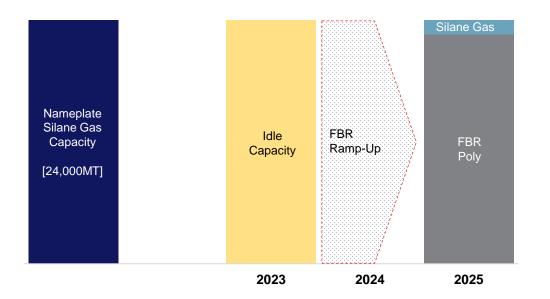
- > Strong political and regulatory push
- Low-emission energy
- > Supply chain geographical diversification
- > End-user proximity
- > Tech war





# STRATEGIC PRODUCT MIX TRANSFORMATION/ OPTIMIZING SILANE GAS CAPACITY

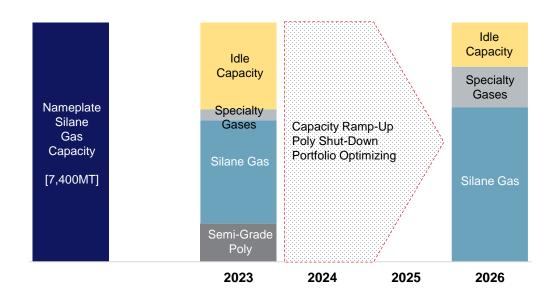
## Moses Lake



#### Energy and carbon metrics 2023



## Butte



#### Energy and carbon metrics 2026 and onwards





# THE ROAD TO SUSTAINABLE PROFITABILITY

#### 2023 Exposure **Exposure 2025 ->** > ~ 5,200 MT silane gas production > ~ 30,000 MT silane gas production > 2/3 of revenues in Asia > 2/3 of revenues in the US From exposure to To high exposure to volatile China US value chains with **Additional growth** markets and lower potential as value higher value products value commodity and significant chains develop products growth trends Solar Other SemiconductorsSolarEnergy storageOther Semiconductors Change in product mix to higher value products Strong competitive position due to location and available capacity



Substantial reduction of energy costs and GHG emissions

# **ACTIVITY UPDATE**

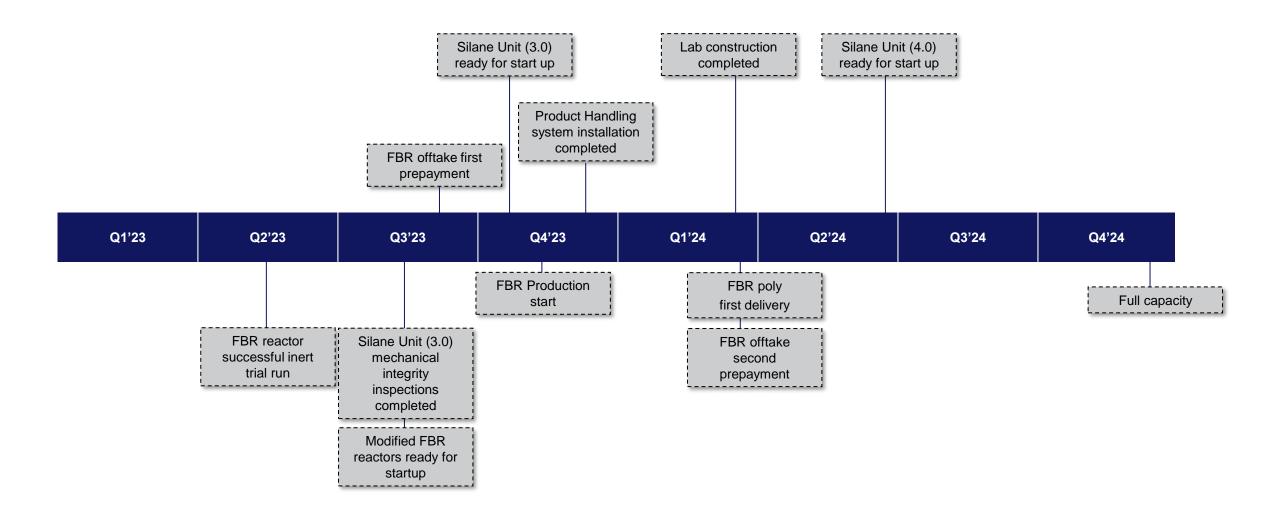


# **ACCOMPLISHMENTS**

| What we've said                                       | What we've done   | Status             |
|---|---|--------------------|
| Refinance \$110M bond                                 | <ul> <li>Corporate debt financing \$110M, April 2023</li> <li>\$30M one-year bank loan facility, June 2023</li> </ul>                               | <b>✓</b>           |
| Financing of Moses Lake restart and Butte investments | <ul><li>\$100M three-year term loan agreement, July 2023</li><li>\$40M term loan, September 2023</li></ul>  | <b>*</b>           |
| Secure long-term corporate funding                    | <ul> <li>Received the first tranche of prepayments under offtake contract</li> <li>Second tranche of prepayments at the first delivery</li> </ul>   | Q1 2024            |
| Secure sustainable operation for Moses Lake           | Signed 10-year offtake contract   | ✓                  |
| Moses Lake restart                                    | <ul> <li>Modifications</li> <li>Installations</li> <li>Testing and recommissioning</li> <li>Production start</li> <li>Production ramp-up</li> </ul> | Ongoing<br>Ongoing |
| Butte capacity expansions                             | <ul><li>DCS capacity expansion</li><li>Silane gas loading capacity expansion</li></ul>  | <b>✓</b>           |
| Yulin JV  | Sold 15% equity stake \$136M  | ✓                  |
| Address Butte energy situation                        | <ul> <li>Entered short-term hedging contracts and increased sales price</li> <li>Discontinue polysilicon production</li> </ul>                      | Ongoing            |



# MOSES LAKE RESTART PROCESS





# POSITIONING FOR NEW SILANE GAS OPPORTUNITIES

- Hanwha MoU for Silane GasOfftake terminated
- > REC Silicon focusing on optimizing value creation
  - Direct with battery anode material producers
  - Through selected distributors
- Moses Lake
  - Several initiatives ongoing
  - Silane-based anode material a common denominator









# **BUTTE RESTRUCTURING**

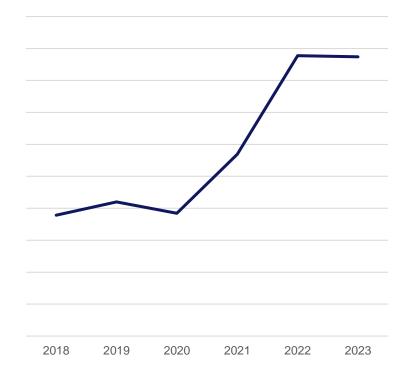
#### **Capacity expansions**

- Total investments of \$13.8M
- DCS expansion
- 3X previous capacity
- Some production volume shipments expected in 2024
- North American market expected to increase 2-3X
- Increased silicon gas container capacity and fleet
- Capacity leverage for recovery
- Cost reduction ROI projects ongoing

#### **EG Poly shutdown**

- > Increase EBITDA by \$10-13MM per year
- Reduce exposure to unbalanced energy market
- > Reduce GHG emissions
- Product portfolio continues to shift to higher value silicon gases and markets
- Increases available gas capacity and focus on profitable growth opportunities into the future

## **Average Electricity Price (Yearly MW)**





February 8, 2024

# **OPERATIONS**



# SILICON GASES

#### Silicon Gas Sales

- 832 MT shipped in Q4 2023
  - 10.4% volume increase vs. Q3 2023
- Silicon gas sales price 2.0% increase vs. Q3 2023

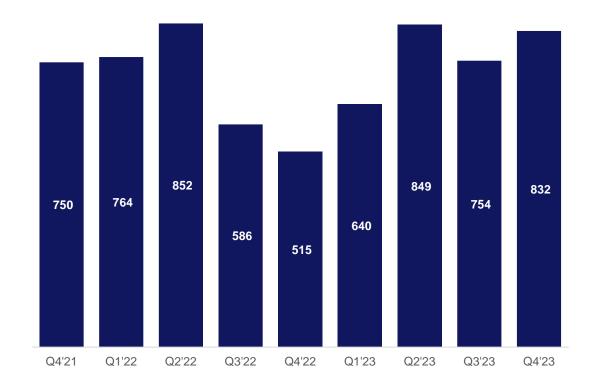
## **Semiconductor showing sign of improvement**

- Some gases seeing supply chain replenishment
- Package cycle improving
- Still utilizing spot channels for silane volumes
- Utilization recovery still semi device dependent

#### No change to fundamental opportunity

- Semi Fabs, PV Cell Fabs and Si anode material facilities all under construction
- Mobile technology, AI, Data, Anode Materials, PV re-shoring

# Silicon Gas Sales Volumes (MT)





# SEMICONDUCTOR GRADE POLYSILICON

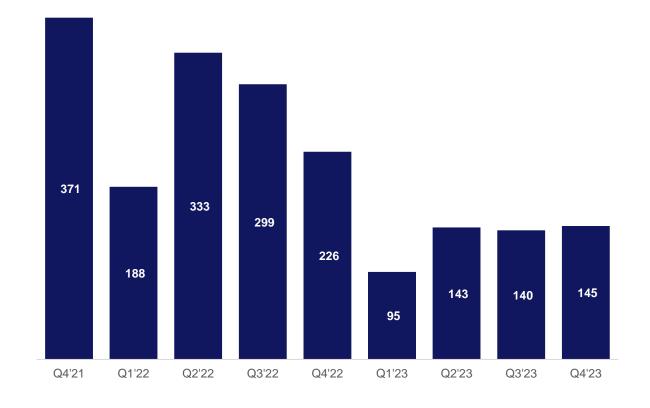
#### **Semiconductor Grade Polysilicon Sales**

- 145 MT shipped in Q4 2023
- Increase of 3.5% compared to Q3 2023
- Semiconductor grade polysilicon price 35.6% increase vs Q3 2023

#### **Production of Polysilicon**

- CZ polysilicon demand still slow
- Market growth projected for 2H 2024
- FZ polysilicon demand for power devices remains good
- Prices and volumes are firm commitments through mid year
- Expect to be finished with product growth by mid year

# Semiconductor Grade Polysilicon Sales Volumes (MT)





# PV POLYSILICON

## **Solar shipments and installations strong in 2023**

- Total installations above 350GW
- Total module shipments over 400GW
- Module inventory builds reported in US and Europe

#### Prices stabilizing 2H 2024

- China price drop slowing as approaching reported cash costs
- Outside China polysilicon prices maintaining gap
- Demand for N-type polysilicon increasing
- Will be dominant poly type in the future

#### **China New plant expansions**

- Plans by capacity leaders in China to drive expansion to force out suboptimal capacity
- Plants not under construction expected to be delayed or cancelled

# N-Type Polysilicon USD/KG



Source: PV Insights



# FINANCIALS



# **GROUP EARNINGS**

|   | (Millions USD)                             | Q4-23                 | Q4-22              | 2023                   | 2022                   | Q3-23                 |
|---|--|-----------------------|--------------------|------------------------|------------------------|-----------------------|
| Revenues \$40.5M - Polysilicon Sales volume decrease by 8.9% vs. Q3-23 - Silicon Gas Sales volume increase by 10.4% vs. Q3-23 | Semiconductor Materials<br>Solar Materials | \$ 40.3<br>0.1        | \$ 31.5<br>0.1     | \$ 140.6<br>0.4        | \$ 147.4<br>0.2        | \$ 34.7<br>0.1        |
|   | Other<br>Revenues                          | <u>0.0</u><br>\$ 40.5 | \$ 31.6            | <u>0.2</u><br>\$ 141.1 | <u>0.2</u><br>\$ 147.8 | <u>0.1</u><br>\$ 34.8 |
| EBITDA (\$31.2M)  - Impacts: - Polysilicon shutdown accrual - Increase Moses Lake restart activities                          | Semiconductor Materials Solar Materials    | \$ 1.1<br>(25.8)      | \$ (6.5)<br>(10.5) | \$ 14.0<br>(64.8)      | \$ 6.3<br>(19.9)       | \$ 6.1<br>(16.0)      |
|   | Other                                      | (6.5)                 | (6.6)              | (29.7)                 | (21.3)                 | (8.0)                 |
| Semiconductor Materials Segment - EBITDA of \$1.1M  | EBITDA<br>EBITDA Margin                    | \$ (31.2)<br>(77.0%)  | (74.7%)            | (57.0%)                | \$ (34.9)<br>(23.6%)   | \$ (17.8)<br>(51.2%)  |
| Other - Net Expense of \$6.5M   | Polycilican Production                     | 276 MT                | 267 MT             | 1 102 MT               | 1 456 MT               | 201 MT                |
|   | Polysilicon Production Polysilicon Sales   | 182 MT                | _                  | •                      | 1,456 MT<br>1,502 MT   |                       |
|   | Silicon Gas Sales                          | 832 MT                | 515 MT             | 3,075 MT               | 2,718 MT               | 754 MT                |



# SEMICONDUCTOR MATERIALS SEGMENT

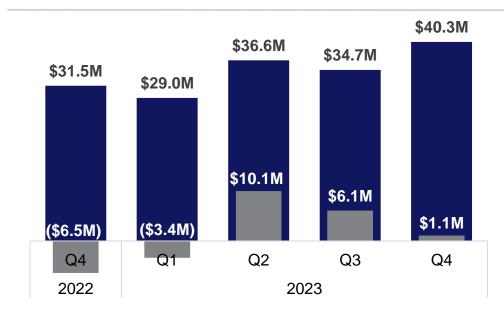
#### Revenues \$40.3M

- 16.3% increase in revenues vs. Q3-23
- Polysilicon Sales Volume 8.9% decrease vs. Q3-23
  - Semiconductor Grade Polysilicon increase by 3.5%
- Polysilicon Sales Price 35.6% increase vs. Q3-23
  - Semiconductor Grade Polysilicon 20.9% increase vs Q3-23
- Silicon Gas Sales Volume 10.4% increase vs. Q3-23
- Silicon Gas Sales Price 2.0% increase vs. Q3-23

#### **EBITDA Contribution \$1.1M**

- \$5.0M decrease in EBITDA contributed vs. Q3-23
- Decreased production volumes
  - 2.0% decrease in Polysilicon Production vs. Q3-23 5 MT

## **Quarterly Revenue and EBITDA (USD Million)**



| Sales Volumes       |        |        |          |        |  |  |  |  |
|---------------------|--------|--------|----------|--------|--|--|--|--|
|                     | Q4-23  | Q4-22  | 2023     | Q3-23  |  |  |  |  |
| Semiconductor Grade | 145 MT | 226 MT | 524 MT   | 140 MT |  |  |  |  |
| Other Grades        | 37 MT  | 76 MT  | 225 MT   | 59 MT  |  |  |  |  |
| Polysilicon Sales   | 182 MT | 302 MT | 749 MT   | 199 MT |  |  |  |  |
| Silicon Gas Sales   | 832 MT | 515 MT | 3,075 MT | 754 MT |  |  |  |  |



# **CASH FLOWS**

#### December 31, 2023 Cash Balance \$170.9M

#### \$49.2M Increase in Cash During Q4-23

#### **Cash Flows From Operating Activities (\$44.8M)**

- (\$31.2M) EBITDA
- (\$7.9M) Working Capital
  - (\$9.1M) Increase in inventories
  - (\$6.7M) Increase in receivables
  - \$7.9M Increase in payables
- \$1.2M Interest received
- (\$8.0M) Interest paid
- \$0.7M Other items

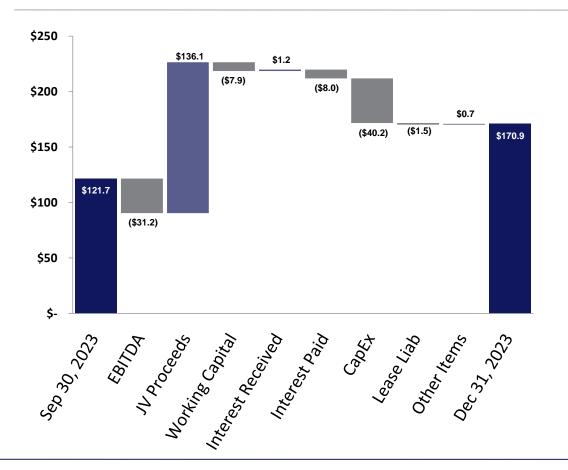
#### **Cash Inflows From Investing Activities \$96.0M**

- \$136.1 Proceeds from Yulin JV sale
- (\$40.8M) Capital Expenditures
- \$0.2M Other items

#### **Cash Flows From Financing Activities (\$2.0M)**

- (\$1.1) Principal payment of property tax note
- (\$0.9M) Payment of Lease Liabilities

## **Cash Flows (USD Million)**





# FINANCIAL POSITION

#### Nominal Debt \$354.1M

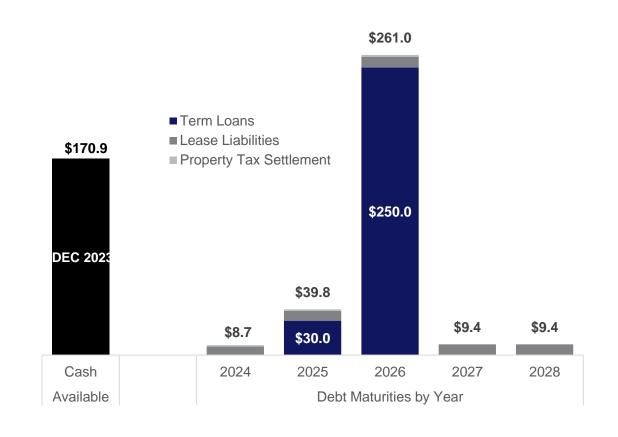
- \$1.4M Increase during Q4-23
  - (\$1.1M) Repayment of Debt
  - \$2.5M Changes in Lease Liabilities
- Completion of Yulin JV share sale, Gross proceeds of USD 136.1M

#### **Nominal Net Debt \$183.2M**

- \$47.8M Decrease during Q4-23
  - \$49.2M Increase in Cash
  - (\$1.4M) Increase in Nominal Debt

#### Equity ratio 13.8%

## **Debt Maturity Profile (USD Million)**







# **SUMMARY**

- Successful restart of Moses Lake initiated in November on track for first delivery in Q1 2024
- Successful close of Yulin JV interest
- Silicon Gas market still at stable level with increasing replenishment in some markets
- Continued optimization of Butte operations and portfolio addressing energy use situation and ensuring sustainable profitable operations
- Silicon anode material opportunities closer to fruition, using channel approach flexibility to maximize value creation

# RECSILICON

# Thank You

Q1 2024 Reporting May 9, 2024

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