REC Silicon Investor Presentation

January 2021

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Silane: Feedstock for the Energy Transition

SILANE

BATTERY VALUE CHAIN	SEMICONDUCTOR	SOLAR VALUE CHAIN

Silicon Anodes to Drive Silane Market Expansion.

Moses Lake

- Sole major supplier of pure silane outside China
- Co-Location discussions with multiple potential partners
- ~$1.0B gross silane plant capex

Growth Driver

Proven Global Leader.

Butte

- 3,200MT Si-gas
- Module loading

EBITDA **~$30M**

Established Footprint to Capture Solar Market Upside.

Moses Lake

- Moses Lake FBR Poly: 18,000MT

Technology

- Yulin JV Technology Transfer Agreement of USD 200M

Market Inflection

Semiconductor Segment Provides Stable Cash Flows.

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Growth Driver	EBITDA **~$30M**	S/D market Inflection

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Butte is *the only* large capacity silicon gas provider

Silicon gas

Silicon gases

- 7,200 MT silane capacity
- 240 MT DCS capacity
- 300 MT MCS capacity
- 2.4 MT DiSilane capacity

Silicon gas market share

- 50% of Total Global Market
- 70% of Semi Market

Investment opportunities within silicon gas

- DCS: $5M for an additional 300MT
- DiSilane: $ 2.7M for an additional 2.1MT

Electronic polysilicon

Float Zone – Highest Purity

- REC is one of only two companies manufacturing FZ
- >30 years experience producing FZ product

Float Zone sells at a significant premium over EG polysilicon

- 800 MT
- Possible Investment for Larger Rod Mass ~$20M (not active)

Prior 12-month EBITDA contribution:

$30M

Polysilicon Capacity & Technology gives Several Pathways to Profitability.

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Market Inflection

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Solar Market Developments to Monitor

Global Supply/Demand

- Demand growth exceeding capacity additions
- Poly-price rising

US-China Trade War

- New US administration
- Announced new clean energy agenda

Non-Chinese Value Chain

Drivers:

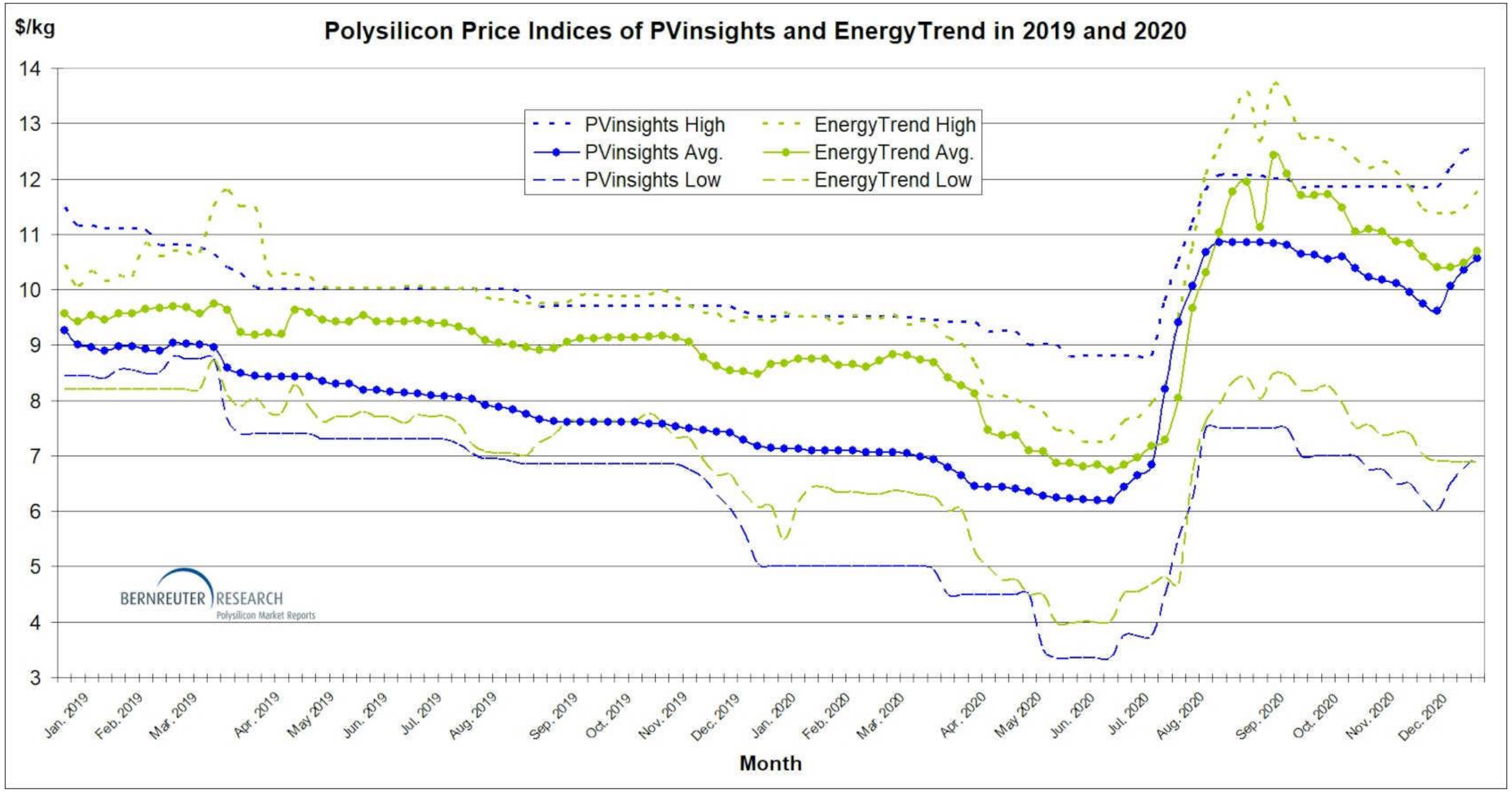
- China Dependence
- Low-Carbon
- Forced Labor Issues

Provided a normalization of the polysilicon market, REC Silicon has a Proven Profitable Platform.

Developments to Monitor

Global Supply/Demand

- Demand growth exceeding capacity additions
- Poly-price rising



Developments to Monitor

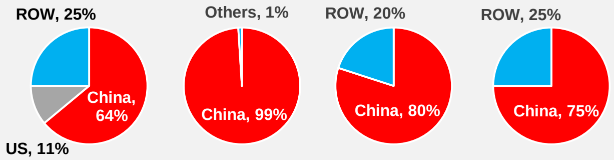
Non-Chinese Value Chain

Drivers:
- **China Dependence**
- Low-Carbon
- Forced Labor Issues

Solar Value Chain

Metallurgical grade silicon	Polysilicon	Ingot growth / wafers	Solar cell	Solar module	Installations

Global Production Capacity



China dominates the global PV value chain…

Non-Chinese initiatives

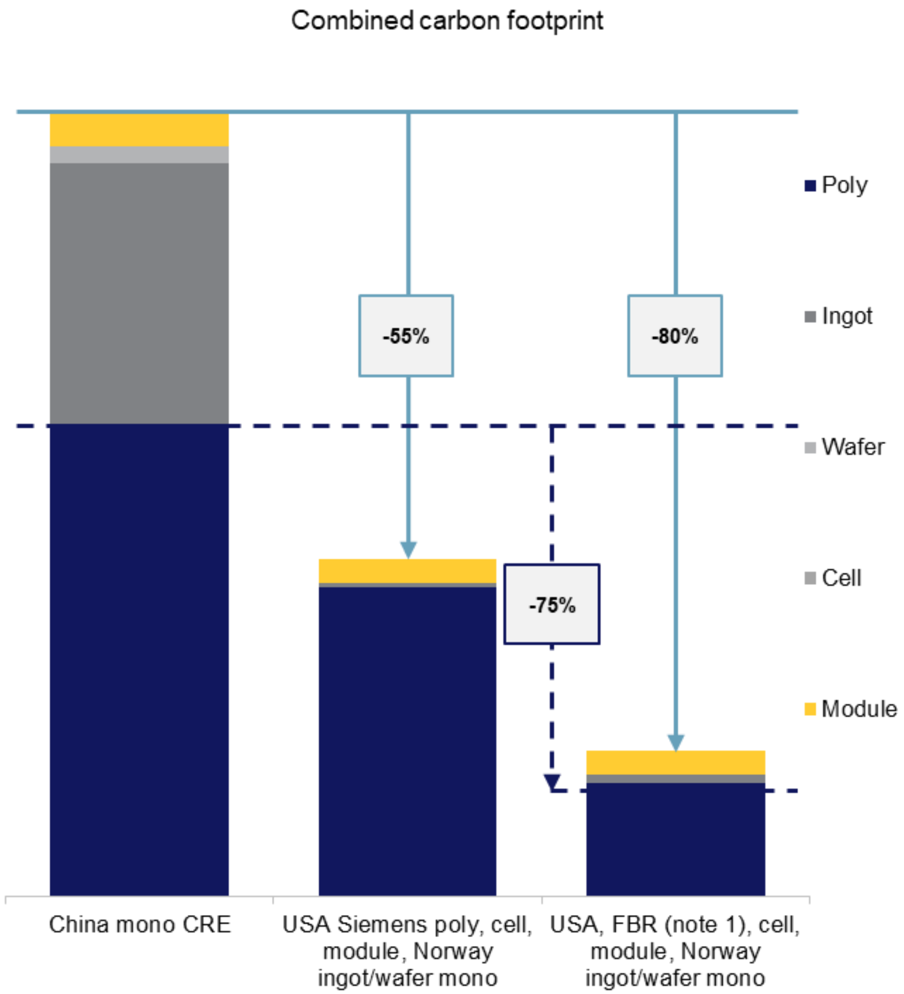
NorSun	1 GW today in Norway, evaluating to add 3-4 GW of wafer production capacity
VIOLET POWER	Vertically integrated solar manufacturer to be co-located with REC Silicon
MEYER BURGER	5 GW of cell and module capacity in Germany
ULTRA LOW-CARBON SOLAR ALLIANCE Not All Solar Panels Are Created Equal	REC Silicon, Hemlock, Wacker, NorSun, QCells, First Solar

…but several players intend to challenge the Chinese dominance.

Developments to Monitor

Non-Chinese Value Chain

Drivers:
- China Dependence
- **Low-Carbon**
- Forced Labor Issues



CO2 footprint for PV production favors non-Chinese players, and this measure will be rewarded in future EU renewable infrastructure auctions.

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Developments to Monitor

Non-Chinese Value Chain

Drivers:
- China Dependence
- Low-Carbon
- **Forced Labor Issues**

The New York Times

Chinese Solar Companies Tied to Use of Forced Labor

A new report shows some of the world's biggest solar companies work with the Chinese government to absorb workers from Xinjiang, programs that are often seen as a red flag for forced labor.

Polysilicon producers are concentrated in Xinjiang

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Silicon-anode technologies give exiting market expansion for silane gas.

SILANE FEEDSTOCK

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Continued Battery Cost Improvement dependent on New Cell Chemistry

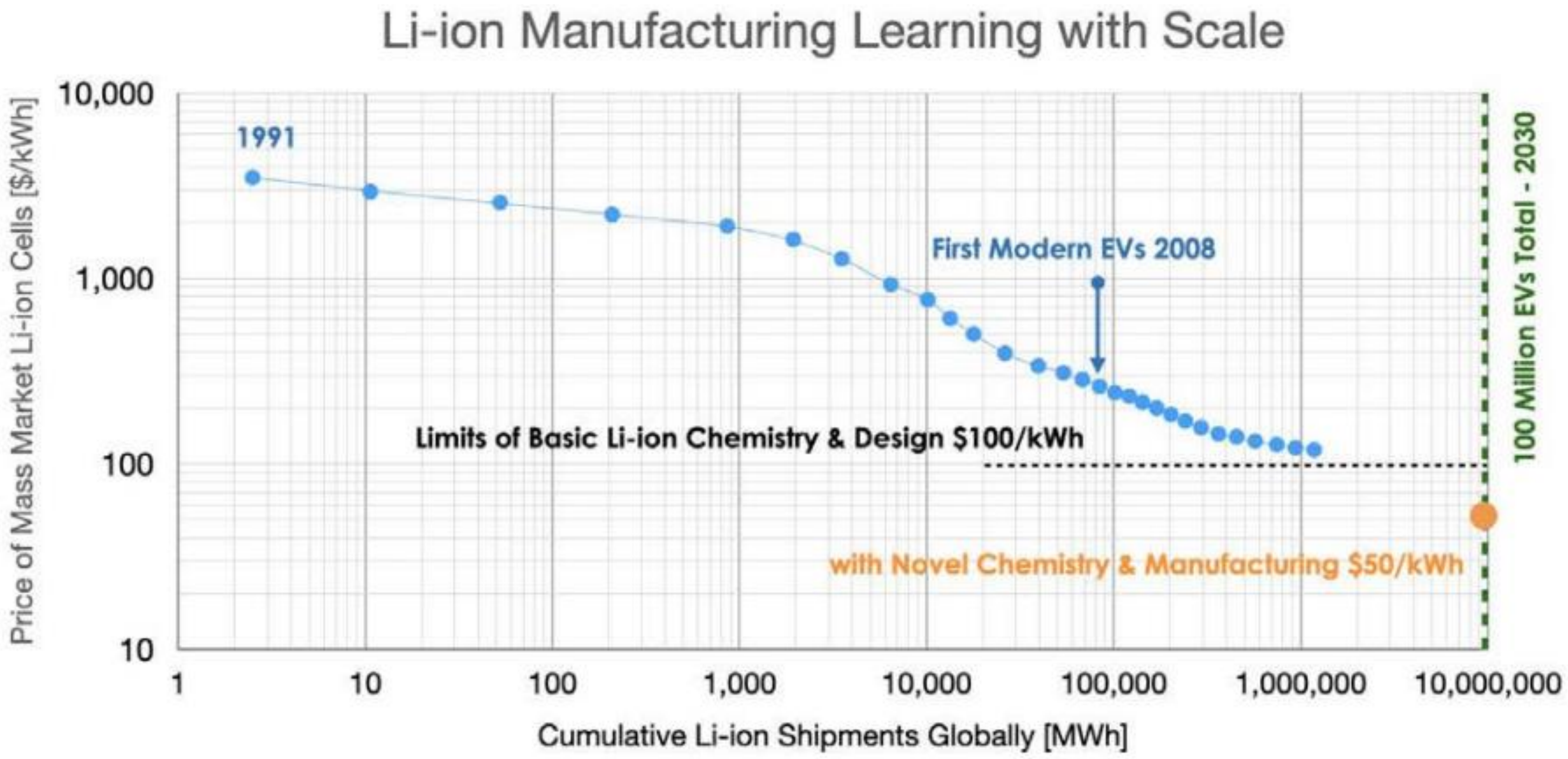


Figure 3. The manufacturing learning curve for conventional Li-ion is flattening out even as scale is reaching previously unfathomable quantities.

Lithium silicon emerging as the new battery technology node for the mid-2020s

Expect three broad battery material technology waves in passenger auto EVs in 2020s

	Wave 0 *Since 2015*	Wave 1 *Early-2020s*	Wave 2 *Mid-2020s*	Wave 3 *Late-2020s*
Anode	Graphite-based	Silicon-based		Li-metal
Electrolyte	Liquid (e.g. $LiPF_4$)		Solid (e.g. Polymer- or Ceramic-based)	
Cathode	Nickel- & cobalt-based			Sulfur-based
Energy Density (est.)	1x	1.2x	1.5x	Over 2x

REC well positioned to supply global market with silicon gases

REC Silicon Moses Lake

REC Silicon
Moses Lake, WA

SiH_4

Next Generation Silicon Anode Manufacturing
Moses Lake, WA

Silicon Anode Materials

Cell/ Battery manufacturing

Silane production capacity:
~25,000 tons per year
Highest purity & lowest cost
Hydroelectricity = low carbon footprint

Co-location is Necessary

- Current silane distribution network +/-7,000 MT/yr.
- Distribution capacity expansion capex ~$30M per 1,000MT

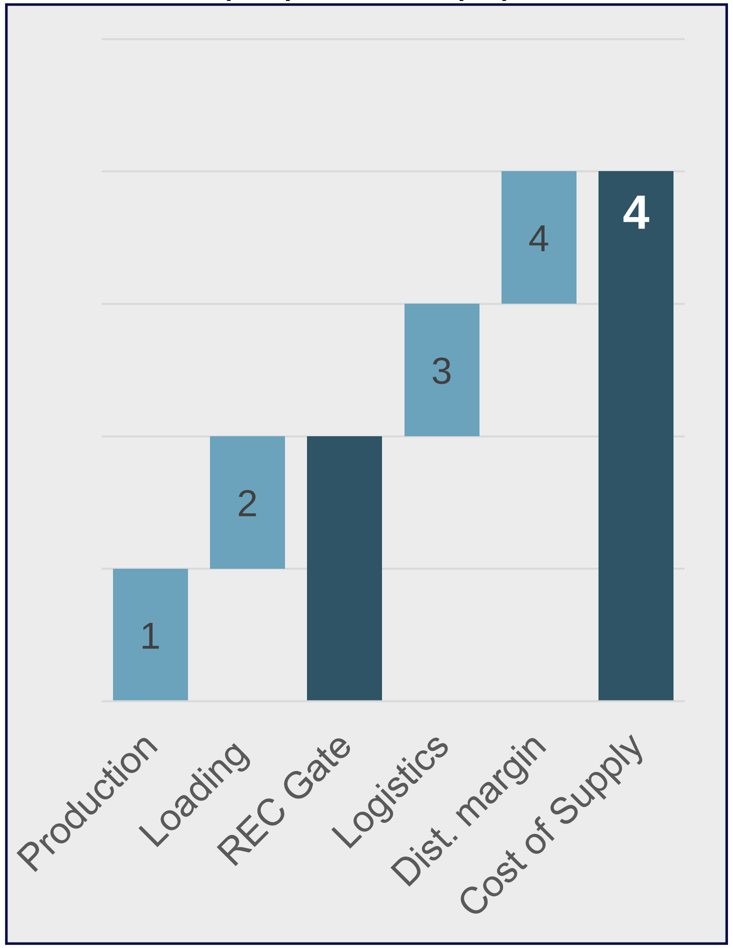
REC Silicon Butte

- Largest producer and distributor of Silane Gas
  - Unmatched experience and safety record
  - Recognized product quality and reliability
  - ~70% Semiconductor market share
- Infrastructure to protect market share
  - Large module fleet
  - Secure distribution channels
  - Available capacity to support market growth

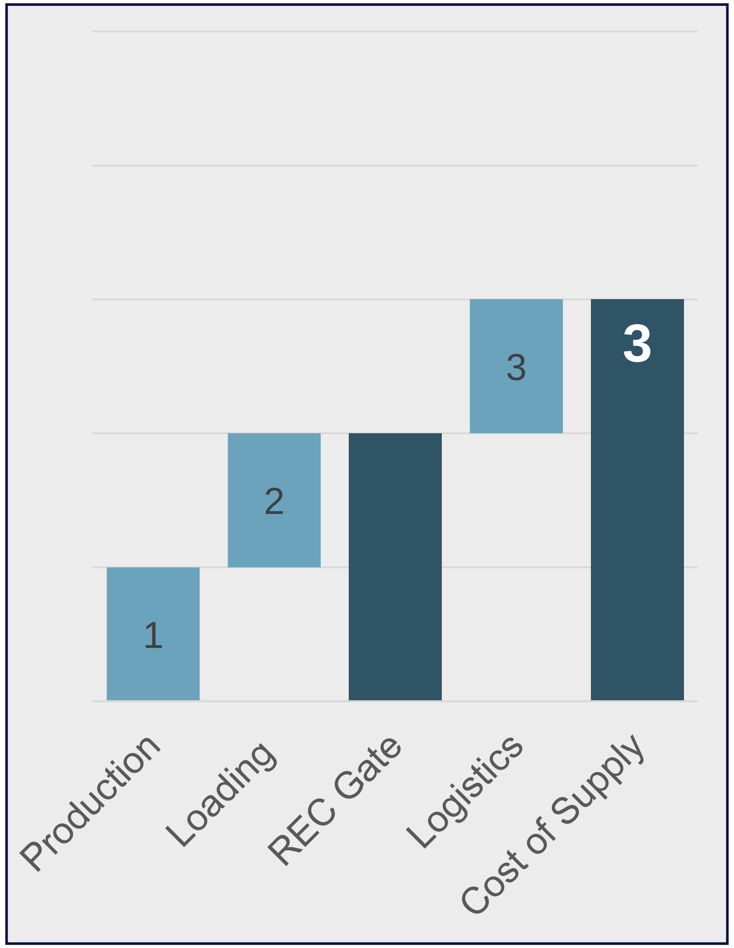
Moses Lake and Butte are the only existing silane plants in the US and Europe. Total capacity of 32,000 MT silane which is enough silicon for batteries for 2.5M EVs at current silane-based silicon anode performance. Reduces to ~1M EVs as silicon content increases in the battery.

REC Silicon is sole western silane producer; co-location critical due to silane logistics.

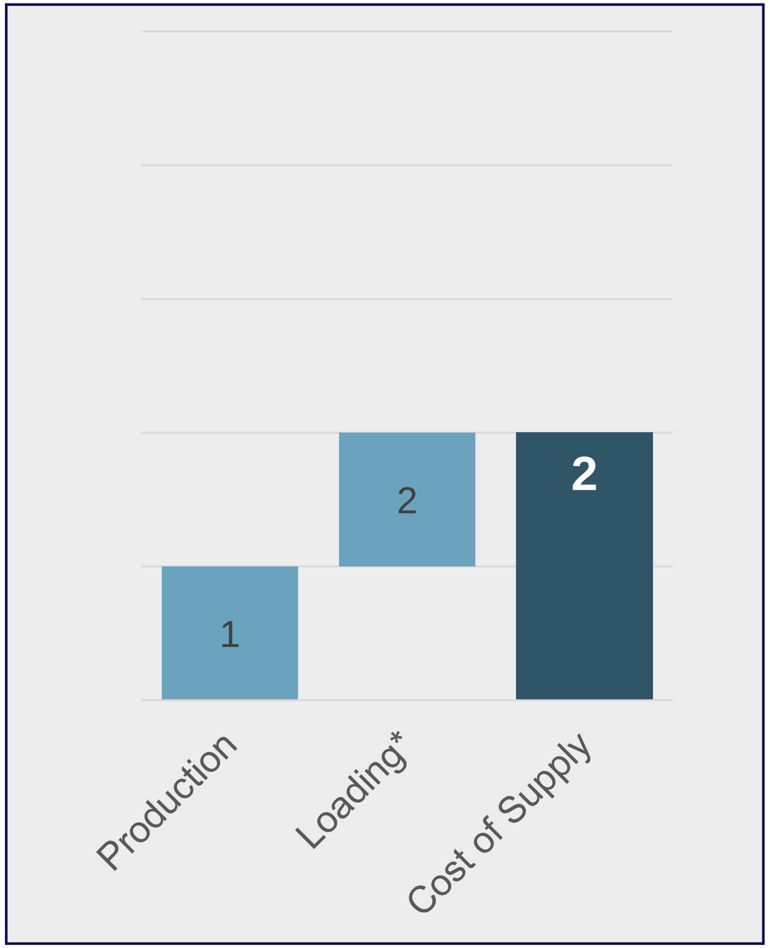
Distribution
(required steps)



Direct Procurement
(required steps)



Co-Location
(required steps)



* Lower loading cost with pipeline investment

REC Silicon has multiple avenues to fuel the energy transition.

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