INITIATION OF COVERAGE REPORT

CHEMICALS & MATERIALS TECHNOLOGY

Homerun Resources, Inc.

HMRFF: Initiating Coverage; Solar Panel Glass Right Where You Need It

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KEY POINTS

- **We are initiating coverage of Homerun Resources, Inc. (OTCQB: HMRFF),** a Vancouver-based vertically integrated materials and energy solutions company that is developing LatAm's first dedicated antimony-free solar glass manufacturing facility integrated with high-purity quartz (HPQ) silica feedstock in Bahia, Brazil.
- **LatAm's first vertically integrated silica-to-solar glass platform.** Homerun's planned 365,000-tpy solar glass facility would capture an estimated 15-25% of Brazil's current annual demand in a structurally supply-constrained, non-Chinese market, with a forecast of 20-30 GW in annual installations through 2030. The integrated mine-to-glass model eliminates international freight, reduces breakage losses, and positions Homerun as the region's first dedicated solar glass producer with independent metallurgical testing that confirms processed material capable of achieving <1 ppm iron suitable for premium antimony-free applications.
- **Government and private strategy alignment.** Project alignment with Brazil's neo-industrialization agenda creates eligibility for favorable BNDES/FINEP long-tenor financing, while the Nikolaus Sorg GmbH & Co. KG (SORG) letter of intent (LOI) positions Homerun for German export credit-backed project financing through Euler Hermes guarantees, materially reducing blended cost of capital. The amended Sengi Solar offtake (100,000 tpy at $750/mt FOB, up from 20,000 tons) anchors >27% of Phase 1 capacity with a domestic manufacturer, strengthening commercial bankability ahead of the completion of the bankable feasibility study (BFS) in 2026.
- **Permitting progress supports production timeframe.** Homerun has secured Agência Nacional de Mineração (ANM)-granted mining concessions, executed surface rights agreements covering 64 hectares for facilities, and advanced environmental licensing toward the issuance of a preliminary license in 2026. The project's mechanical beneficiation flowsheet (no chemical leaching), location on established Belmonte infrastructure with port access, and strong federal/state support for clean energy manufacturing support a constructive permitting outlook aligned with 2027 commercial operations.
- **Vertically integrated model.** Unlike competitors sourcing silica externally, Homerun controls HPQ feedstock through finished glass manufacturing, capturing margin across multiple value chain stages, with the deposit's ultra-low iron enabling 100% antimony-free production that meets ESG-driven specifications. Management's longer-term ambitions toward downstream PV module manufacturing position the project as a strategic industrial platform for localizing Brazil's fast-growing solar value chain.
- **Near-term catalysts create value inflection points.** The completion of the BFS enables a final investment decision (FID) and institutional financing targeted for 2026, while the conversion of the SORG LOI into a binding EPC contract and the confirmation of German export credit/Brazilian development bank financing materially enhances project bankability.

KEY STATISTICS

Ticker:Exchange	HMRFF:OTC
Current Price	$0.67
52-Week Range	$0.53-$1.05
Average Volume (30-Day)	43,442
Shares Outstanding (MM)	78.3
Market Cap ($MM)	$53.2
Fiscal Year-End	December

PRICE PERFORMANCE

COMPANY OVERVIEW

Homerun Resources, Inc. (OTCQB: HMRFF) is a vertically integrated materials and energy solutions company that is headquartered in Vancouver, British Columbia and is focused on building the silica-powered backbone of the global energy transition. Founded in 2022, the company has rapidly consolidated control over the HPQ silica sand resources of the Santa Maria Eterna (SME) district in Belmonte, Bahia, Brazil, positioning itself as a strategic supplier of low-iron feedstock for advanced solar and energy storage applications. Homerun's operating model spans the full industrial vertical from raw material extraction and processing through to downstream solar glass manufacturing and AI-enabled energy management systems. Through its Homerun Advanced Materials division, the company is advancing large-scale silica processing and pioneering zero-waste purification technologies, while its Homerun Energy Solutions platform is developing LatAm's first dedicated antimony-free solar glass manufacturing facility and commercializing "The Hub", its proprietary AI-driven energy management system for battery storage assets. By integrating secure long-life mineral supply with high-value clean energy technologies, Homerun aims to deliver structural cost advantages, enhanced ESG performance, and supply chain resilience outside of China. The company's strategy is designed to capture margin across multiple stages of the value chain, while addressing accelerating global demand for high-efficiency solar infrastructure and intelligent energy storage solutions.

COMPANY DESCRIPTION

Homerun's SME HPQ silica project in Belmonte, Bahia, Brazil underpins its vertically integrated strategy to become a key supplier of critical feedstock for solar glass and other high-value materials. The SME district hosts an NI 43-101 compliant maiden resource of 63.91MM tons at ~99.6 % SiO_2, with broader target resources in excess of 200MM tons across multiple contiguous leases that are fully permitted for commercial mining by ANM. Independent metallurgical testing has confirmed the HPQ silica's exceptionally low iron impurity, raw sand below 7 ppm, and processed material capable of achieving <1 ppm iron, making it suitable for premium optical, industrial and solar glass markets. To secure long-term industrial access, Homerun has not only consolidated control over all major mineral leases in the SME district but also executed definitive surface rights agreements covering 64 hectares immediately adjacent to the resource for its processing and solar glass facilities and completed a 582-hectare land acquisition as part of its district-wide strategy.

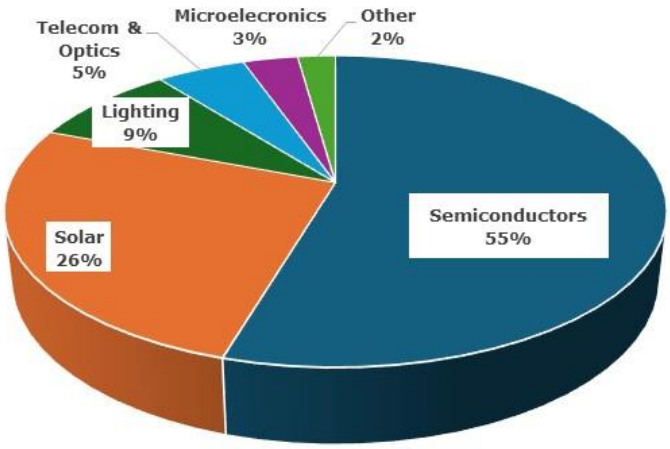
Building on this resource base, Homerun is advancing a phased plan to develop proximal infrastructure that brings silica to market and feeds downstream value creation. Initial phases involve wash, sort, and dry processing with commercial sales anticipated ahead of full purification, while process flow and engineering studies continue for the ultra-pure (>99.99 % SiO_2) purification plant that will feed higher-margin markets. Parallel to silica extraction and processing, Homerun is planning LatAm's first dedicated solar glass manufacturing facility, with 365K tpy capacity and 100% antimony-free production made possible due to the deposit's ultra-low iron content and supported by existing LOIs and tariff protections on imports. This downstream plant positions Homerun to help reduce the region's dependence on imported solar glass and counter the broader global concentration of solar panel supply chains in China, where most polysilicon and glass production currently resides, by offering a competitively priced, ESG-aligned alternative for Brazil's rapidly expanding solar market.

Industry Overview

The global silica market is a large, mature industrial minerals segment with products going primarily into construction, glass, foundry, chemicals, and electronics end markets. Total industrial silica sand demand is widely estimated at 400–450MM tpy, representing a market value of $40–50 billion, depending on the inclusion of specialty and engineered products. The dominant end markets are construction (concrete and specialty building products), flat and container glass, foundry casting, and hydraulic fracturing sand. Glass manufacturing accounts for 30–35% of global silica consumption, followed by foundry and construction applications. Within this broad market, quality specifications vary widely, with most volumes sold as standard industrial sand (95–99.5% SiO_2). HPQ silica, typically ≥99.9% SiO_2 and often ≥99.99% for advanced uses, represents a small but strategically critical niche within this broader ecosystem.

HPQ silica represents less than 5% of total silica volumes, but commands disproportionately high value due to stringent impurity thresholds, particularly for iron, aluminum, and trace elements. On a volume basis, the HPQ segment is generally estimated at 10-15MM tpy, though only a subset qualifies for ultra-high purity applications such as semiconductor quartz crucibles and solar glass. By value, the HPQ market is commonly assessed in the $5-8 billion range, reflecting premium pricing relative to commodity sand. Key end markets include photovoltaic (PV) solar glass, semiconductor and electronics components (including fused quartz and crucibles), specialty optical glass, advanced ceramics, silicon metal production, and high-specification fiberglass. Solar glass and electronics-related uses represent the fastest-growing demand applications, while traditional specialty glass and lighting have been comparatively stable. Because HPQ often feeds high-technology supply chains, its market dynamics are closely linked to renewable energy deployment, semiconductor capital expenditure cycles, and broader global electrification trends.

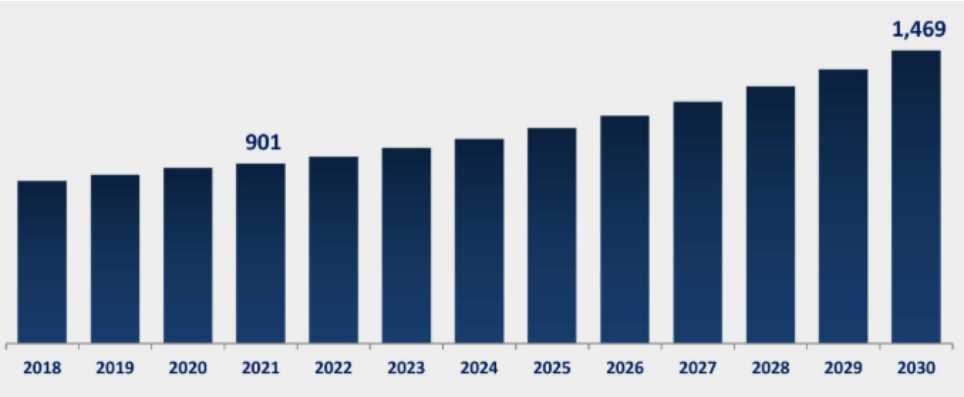
Figure 1: HPQ Silica Market by Application



Source: Coherent Market Insights, Water Tower Research

Over the past five years, HPQ demand has expanded meaningfully, driven primarily by record global solar installations and the rapid scale-up of polysilicon and wafer production. Global solar capacity additions increased from ~115 GW in 2019 to well over 400 GW in 2023–2024, sharply increasing demand for low-iron solar glass feedstock. This growth translated into tightness in certain grades of low-iron HPQ, particularly in Asia, where most solar glass capacity resides. Pricing trends have been bifurcated, as standard industrial silica prices have remained relatively stable, while high-specification low-iron silica and ultra-HPQ experienced episodic price appreciation during 2021–2023 due to supply bottlenecks and logistics constraints. Semiconductor industry volatility created some cyclical softness in ultra-HPQ demand in 2023–2024, but structural long-term demand remains intact. Overall, HPQ pricing has demonstrated greater resilience and margin stability compared with bulk industrial sand, reflecting higher barriers to entry and qualification requirements.

Figure 2: HPQ Silica Market Growth Outlook ($MM)



Source: Acumen Research & Consulting, Water Tower Research

Looking ahead, HPQ demand growth is expected to outpace the broader silica market, supported by structural drivers rather than cyclical construction activity. Solar deployment is forecast to remain robust globally as decarbonization policies, electrification, and energy security initiatives accelerate. Each incremental gigawatt of crystalline silicon PV requires substantial volumes of high-quality solar glass, which in turn depends on low-iron HPQ feedstock. Additional growth vectors include AI-driven data center expansion (supporting semiconductor fabrication), electric vehicle adoption, advanced battery materials, and high-performance composites. Industry participants generally anticipate mid- to high-single-digit annual demand growth for HPQ overall, with double-digit growth in solar-related grades, subject to policy and trade dynamics. Supply additions are constrained by geological rarity, permitting complexity, and lengthy customer qualification cycles, which support constructive medium-term pricing outlooks for premium grades.

Geographically, HPQ demand remains heavily concentrated in Asia, particularly China, which dominates global solar glass and polysilicon manufacturing and therefore represents the largest single demand center for low-iron HPQ feedstock. Europe and North America are smaller in absolute volume but strategically important markets, driven by semiconductor fabrication, specialty glass, and policy-supported efforts to reshore clean energy supply chains. In contrast, LatAm currently represents a modest share of global HPQ demand, despite being one of the fastest-growing solar installation markets globally, led by Brazil, Chile, and Mexico. Brazil in particular has emerged as a top-tier solar growth market over the past five years, supported by distributed generation economics, favorable irradiation, and transmission expansion, yet the region remains structurally dependent on imported solar glass and upstream components, primarily from China. From a supply perspective, LatAm has limited established HPQ production dedicated to high-specification solar or electronics-grade markets, with most regional silica production serving construction, foundry, and lower-value industrial applications. Within this context, Homerun's SME HPQ project in Bahia positions Brazil as a potential regional hub for low-iron silica feedstock and downstream solar glass manufacturing, offering LatAm the prospect of its first vertically integrated silica-to-solar-glass supply chain and reducing reliance on imported materials as regional solar deployment accelerates.

Vertically Integrated Solution to Support LatAm Growth

LatAm has emerged as one of the fastest-growing solar regions globally, with annual PV installations rising from 8–10 GW in 2019 to 25-30 GW in 2023–2024, driven by utility-scale procurement in Chile and Mexico and distributed generation expansion in Brazil. Cumulative installed solar capacity in LatAm now exceeds 80 GW, with Brazil accounting for more than half of the regional total. Industry forecasts from regional grid operators and international energy agencies project LatAm solar additions to average 20–30 GW per year through 2030, supported by strong irradiation profiles, improving grid access, and falling levelized costs of electricity (LCOE). Brazil specifically has become one of the top five global solar markets, with cumulative installed capacity surpassing 35–40 GW by 2024, up from less than 5 GW in 2018, reflecting compound annual growth well above 40% over that period. Government energy expansion plans and distributed generation incentives are expected to drive continued additions of 8–12 GW annually over the next five years. This sustained buildout directly translates into rising demand for solar glass, as each gigawatt of crystalline silicon PV capacity typically requires 50,000–60,000 tons of solar glass, depending on module format and glass thickness.

Despite this rapid installation growth, LatAm currently lacks meaningful domestic solar glass manufacturing capacity, leaving module assemblers and project developers heavily dependent on imported glass, primarily from China, which controls the majority of global PV glass production. Brazil, while hosting a growing number of module assembly plants, imports most upstream components, including low-iron tempered solar glass, exposing the market to freight costs, tariff volatility, and supply chain disruption risk. Based on recent installation levels of ~10 GW annually in Brazil alone, implied solar glass demand is in the range of 500,000–600,000 tpy, nearly all sourced from imports. Regionally, total LatAm solar glass demand likely exceeds 1.2–1.5MM tpy, assuming current installation rates persist. Forward-looking decarbonization targets, grid expansion, and distributed generation economics suggest cumulative Brazilian solar capacity could exceed 70–80 GW by 2030, effectively doubling current glass demand. The absence of localized PV glass supply represents a structural gap in the LatAm renewable value chain, creating a potential opportunity for vertically integrated silica-to-glass platforms within Brazil.

Homerun's SME HPQ project is differentiated not simply by in-situ grade, but by its demonstrated ability to be beneficiated and purified to the stringent chemical specifications required for PV solar glass market. Test work indicates the material can be upgraded to ultra-low iron concentrations suitable for high-transmission, antimony-free solar glass formulations, meeting the demanding optical and color neutrality thresholds required by Tier 1 PV manufacturers. Importantly, the relatively simple processing flow sheet, primarily mechanical washing, classification, and conventional beneficiation rather than intensive chemical leaching, positions the project toward the lower end of the industry cost curve for solar-grade silica feedstock. Proximity between the mine, processing facilities, and planned glass plant materially reduce inland transportation costs, a key differentiator versus global competitors that ship raw or semi-processed silica over long distances. Additionally, by localizing glass production in Brazil, the project eliminates the typical breakage losses and handling damage associated with long-haul ocean transport of finished solar glass from China, which can meaningfully erode effective supply. The integrated mine-to-glass configuration is therefore designed to deliver not only quality assurance and ESG advantages, but also structural logistics and cost efficiencies relative to imported alternatives.

Downstream, Homerun is advancing plans for LatAm's first dedicated solar glass manufacturing facility, designed for ~1,000 tpd (~365,000 tpy) of low-iron, antimony-free solar glass. At full capacity, this output would represent a meaningful share, estimated in the 15–25% range, of Brazil's current annual solar glass demand, which is currently met largely through imports, predominantly from Asia. The company's strategy is to utilize its vertically integrated HPQ feedstock to produce high-transmission, ESG-aligned solar glass for domestic PV module assemblers, reducing Brazil's reliance on imported glass substrates. While the initial focus is solar glass, management has articulated

longer-term ambitions to expand further downstream into PV module manufacturing as the domestic supply chain matures. Annual glass output at nameplate capacity would be sufficient to support 8–10 GW of PV module production, depending on module format and glass thickness assumptions. In aggregate, the project is positioned not merely as a mining operation but as a strategic industrial platform aimed at localizing a critical portion of Brazil's fast-growing solar value chain.

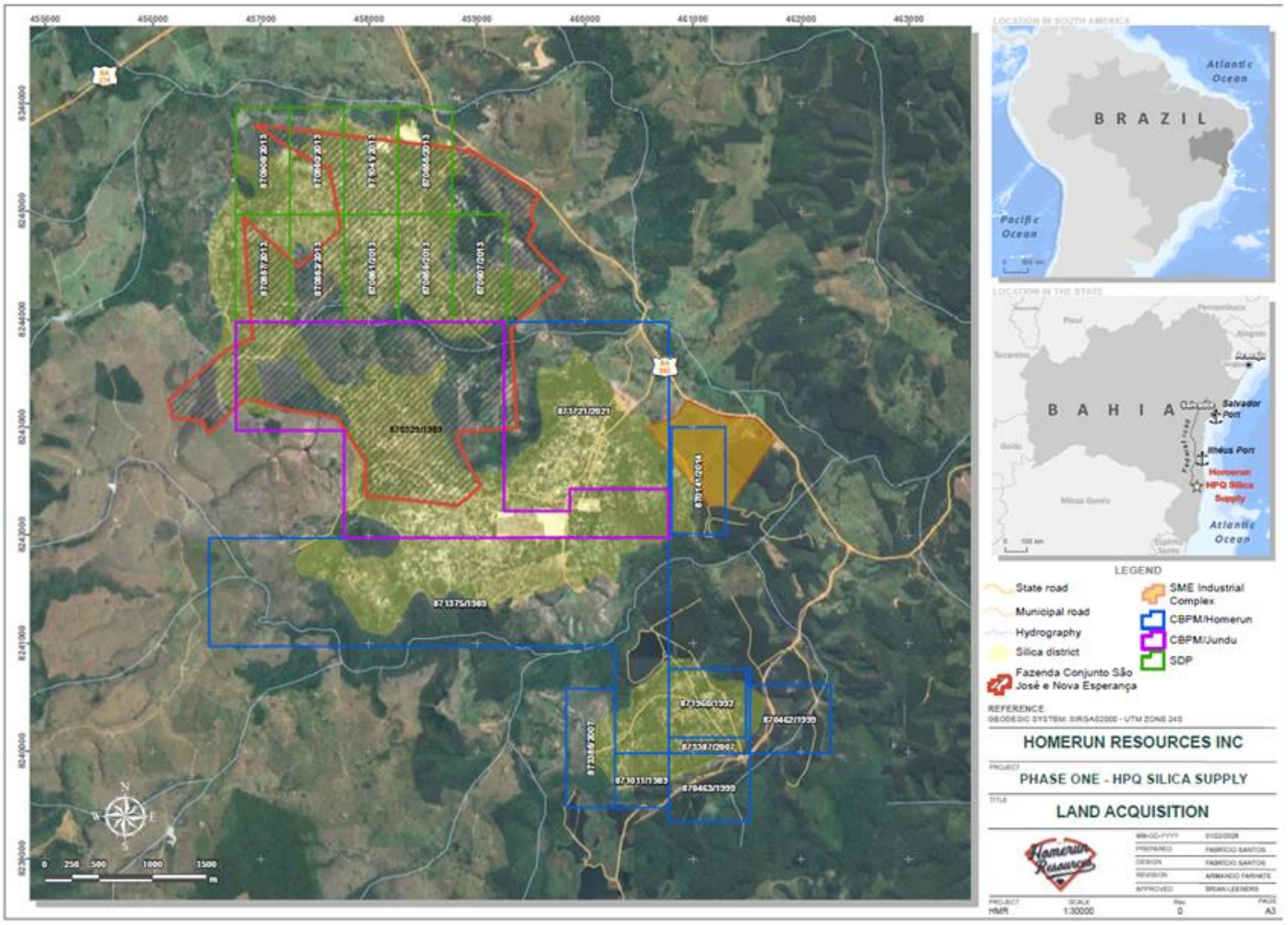
Unique Resource in High-Growth Geography

Homerun's principal HPQ asset is located in the SME district of Belmonte, Bahia State, northeastern Brazil, a coastal region with established port access and proximity to existing industrial infrastructure. The project comprises multiple contiguous mining leases and surface rights covering several hundred hectares within a district-scale silica system. According to its NI 43-101 compliant technical report, the maiden mineral resource is ~63.9MM tons grading ~99.6% SiO_2, with additional exploration targets across the broader district exceeding 200MM tons. The resource is at surface, laterally extensive, and amenable to conventional open-pit mining with low strip ratios, characteristics that typically support favorable mining economics and scalability. The combination of large tonnage, homogeneous geology, and low deleterious elements provides a foundation for long mine life potential and phased capacity expansion.

From a quality standpoint, the SME sand is distinguished by its exceptionally low iron and trace impurity profile, a critical parameter for solar and specialty glass markets. Independent metallurgical test work has demonstrated raw iron levels below ~7 ppm and the ability to reduce iron content to sub-1 ppm levels through conventional mechanical beneficiation processes, without reliance on intensive chemical leaching. This is particularly important for PV glass applications, where iron content directly affects light transmission efficiency and final module performance. The relatively simple processing flowsheet, typically involving washing, attrition scrubbing, magnetic separation, and sizing, supports a capital-efficient development model and positions the project favorably on the industry cost curve for solar-grade silica feedstock. The deposit's consistent grain size distribution and high initial purity reduce processing complexity and improve yield assumptions, both key variables in operating margin sensitivity analyses.

Development plans contemplate a staged ramp-up beginning with commercial-scale mining and primary processing to supply both domestic industrial customers and, critically, a planned downstream solar glass manufacturing facility. Management has indicated a target to commence initial mining and silica processing operations in the 2026 timeframe, subject to completion of detailed engineering, plant construction, and final financing, with downstream solar glass production expected to follow shortly thereafter as the integrated facility is commissioned. Initial production is expected to align with feedstock requirements for a proposed 1,000-tpd solar glass plant (~365,000 tpy), implying silica output sufficient to fully integrate mine-to-glass operations at steady state. The company has secured surface rights for industrial plant construction adjacent to the resource, materially reducing logistics costs, construction complexity, and permitting risk. Infrastructure advantages include road access, proximity to Brazilian ports for potential export, and access to regional power and labor markets, which collectively support an accelerated development schedule relative to greenfield projects lacking established logistics. From an investment standpoint, critical timeline milestones include the completion of bankable feasibility studies, an FID, plant construction and commissioning phases through 2026–2027, and achievement of nameplate capacity thereafter.

Figure 3: Homerun Resources Project Map



Source: Company Reports

Homerun is currently advancing detailed engineering and technical workstreams required to complete a full BFS covering the integrated solar glass facility, a critical prerequisite to securing project-level financing. The BFS is expected to be finalized during the 2026 timeframe, incorporating finalized capital expenditure estimates, operating cost models, process flow validation, infrastructure design, and updated market studies. Key outstanding milestones include the completion of pilot-scale processing validation, finalization of equipment selection and vendor quotations, environmental and construction permitting confirmations, and firm power and utilities agreements. Upon delivery of the BFS, management intends to move toward a formal FID, contingent on arranging a combination of debt, strategic partnerships, export credit support, and/or equity financing. Assuming FID approval in 2026, construction of the silica processing and 1,000-tpd solar glass plant is expected to require 12–18 months, followed by staged commissioning and ramp-up through 2027. Commercial production at nameplate capacity would therefore be targeted in the 2027 timeframe, subject to financing closure and execution risk, with early-stage silica production potentially preceding full glass plant commissioning.

Homerun has progressively advanced its vertically integrated solar glass strategy through a series of coordinated press releases spanning technology selection, engineering advancement, financing alignment, and commercial positioning. Collectively, these announcements reflect a transition from concept-stage development toward structured project execution for its planned 1,000-tpd antimony-free solar glass facility in SME (Belmonte), Bahia, Brazil.

The most consequential recent development is the execution of a non-binding LOI with SORG and the appointment of SORG as the technology provider and supplier of the glass melting and conditioning systems for the proposed plant. SORG, a ~150-year-old German furnace engineering group with more than 300 furnaces operating globally, has extensive experience in float and solar glass furnace design, including regenerative cross-fired furnaces in the 400–1,200 tpd range and multiple solar glass installations in India and Europe. Under the LOI framework, SORG will provide the core melting furnace, conditioning systems, and related processing equipment incorporating electric boosting for energy efficiency and production capability for antimony-free solar glass. Homerun retains responsibility for site development, permitting, civil work, utilities, and installation. While the LOI is not yet a binding EPC contract, management expects conversion to a definitive agreement following completion of a BFS and successful project financing.

Parallel to technology selection, Homerun has advanced engineering de-risking through the appointment of German-based engineering firm DTEC to conduct the BFS in coordination with SORG. The BFS process is intended to formalize capital cost estimates, operating parameters, plant configuration, and financing documentation suitable for lender underwriting. Prior press releases also referenced receipt of a competitive budgetary offer from SORG for the solar glass manufacturing facility, which established an initial capital framework ahead of the formal feasibility process. The structured sequencing, from budgetary proposal to LOI to BFS, indicates a conventional progression toward financial close.

Financing strategy has been a recurring theme across Homerun's communications. The company and SORG have stated their intention to pursue German export credit-backed project financing for the imported technology and equipment package, supported by Euler Hermes export credit guarantees. This structure would allow a portion of capital expenditures associated with SORG-supplied systems to be financed through German banks at potentially favorable long-term rates, reducing the project's blended cost of capital. Complementing this export credit component, Homerun previously disclosed expressions of interest and support under a joint support plan involving Banco Nacional de Desenvolvimento Econômico e Social (BNDES) and Financiadora de Estudos e Projetos (FINEP), which could provide Brazilian government-backed financing instruments for localized content such as civil work, utilities, and infrastructure. The combined German-Brazilian development finance overlay represents a layered capital stack approach typical of large industrial export-oriented projects and is central to minimizing equity dilution risk.

Earlier releases also highlighted Homerun's positioning of the plant as LatAm's first dedicated solar glass manufacturing facility, emphasizing production of antimony-free solar glass for next-generation PV applications. The company has consistently framed the project within broader supply-chain localization dynamics, rising solar demand in Brazil, and ESG-driven material specifications that increasingly favor antimony-free formulations. Additional technical disclosures have referenced process design features aimed at improving energy efficiency and lowering carbon intensity, including electric boosting systems integrated into the furnace architecture.

Beyond the SORG engagement, Homerun has issued updates with respect to commercial and strategic alignment across its silica-to-solar platform. These include references to high-purity, low-iron silica feedstock from its Bahia resource, intended to supply the solar glass facility; commercial discussions and LOIs with domestic solar industry participants; and broader positioning within silica processing, solar manufacturing, energy storage, and energy solutions verticals. While not all of these announcements constitute binding offtake or EPC agreements, they collectively demonstrate an effort to align raw material supply, downstream demand, technology selection, and financing pathways ahead of an FID.

In aggregate, Homerun's recent press releases reflect a coordinated de-risking strategy across four dimensions: (1) technology validation via SORG; (2) engineering advancement through a formal BFS process; (3) export credit and development bank financing engagement; and (4) early-stage commercial positioning within Brazil's PV market. The agreements announced to date remain largely non-binding and contingent upon feasibility completion and financing closure. However, from a capital markets perspective, the combination of Tier 1 furnace technology, export credit eligibility, and development bank engagement materially enhances project bankability relative to earlier-stage conceptual positioning. Conversion of the LOI into a binding supply contract and confirmation of committed debt financing could represent the next major inflection point for the project's execution timeline and valuation framework.

Making Headway on Permitting

Homerun has made substantive progress in securing the core mineral tenure and land access required to advance its SME HPQ project in Belmonte, Bahia. At the federal level, the company controls granted mining concessions and priority rights registered with ANM, providing legal authorization over the principal high-purity silica resource areas. The company has also completed the assignment and consolidation of key mineral rights across the district, strengthening continuity of tenure over a district-scale footprint. Complementing subsurface rights, Homerun has executed definitive surface rights agreements covering parcels designated for mining, processing, and the planned solar glass facility, materially reducing land-access risk. Municipal-level zoning alignment in Belmonte supports the

co-location of extraction and industrial activities, an important factor for permitting efficiency. Collectively, secured mineral title and surface control represent critical early de-risking milestones and position the project to advance through Brazil's environmental licensing framework.

The project is proceeding through Bahia's state-level environmental permitting regime administered by INEMA, which follows Brazil's three-stage structure: (1) preliminary license (Licença Prévia [LP]); (2) installation license (LI); and (3) operating license (LO). Homerun has submitted baseline environmental studies and technical documentation supporting the LP application, including environmental impact characterization, hydrology assessments, and site development plans consistent with its integrated mine-to-glass strategy. Applications related to water use rights (outorga) and other supporting authorizations have also been advanced, and these remain under regulatory review. Issuance of the LP, expected in the 2026 timeframe based on standard processing timelines, would formally confirm environmental viability and allow the company to proceed toward the LI. The LI is the most critical near-term permit, as it authorizes physical construction of the mining infrastructure, silica processing plant, and 1,000-tpd solar glass facility. Subsequent issuance of the LO would follow construction completion and commissioning inspections, enabling full commercial operations targeted for 2027.

Additional approvals required include final engineering submissions tied to the BFS, public consultation processes if mandated, grid interconnection agreements, fire and industrial safety certifications, and final confirmation of water allocations. While permitting remains on the project's critical path, silica mining and mechanical beneficiation operations generally face lower environmental complexity than hard-rock or chemically intensive mineral projects, given the absence of toxic tailings or reagent leaching. The principal regulatory risk would be the delay or denial of the LI, which would defer construction and an FID. However, the project's relatively low environmental footprint and secured land access mitigate this risk. As a contingency, management retains flexibility to phase development, potentially initiating limited-scale mining and silica sales under existing authorizations while downstream glass plant approvals are finalized. Overall, the combination of secured mineral concessions, surface rights, and active advancement through Bahia's licensing process supports a constructive permitting outlook, with LP, LI, and LO sequencing aligned to a 2026–2027 development and commissioning timeline.

Constructive Government Policies Provide Confidence

Brazil maintains a structurally supportive policy framework for both mining and renewable energy, though the emphasis and tone differ between federal and state levels. Mining is regulated federally through ANM and the Ministry of Mines and Energy (MME), with Brazil historically positioning itself as a reliable jurisdiction for industrial mineral and bulk commodity development. At the same time, environmental licensing is largely administered at the state level, such as through Bahia's INEMA, creating a dual-layer regulatory structure in which federal mineral rights security coexists with state-level environmental oversight. Under the current administration of Luiz Inácio Lula da Silva, policy emphasis has shifted toward energy transition, industrial policy, and value-added manufacturing, compared with the prior administration of Jair Bolsonaro, which was more focused on deregulation and expanding upstream extraction. The current government has signaled stronger environmental scrutiny but also more explicit support for renewable energy industrialization, including domestic supply-chain localization. This distinction is important for Homerun's projects, which combine mining with downstream clean energy manufacturing.

In the PV sector, Brazil has implemented policies that indirectly support domestic manufacturing and solar glass demand. Brazil's distributed generation framework (net metering regime) and regulated power auctions have driven rapid solar adoption, while import tariffs on certain solar components, including glass and modules, have created pricing differentials that favor local production. The federal government, through the Ministry of Development, Industry, Trade and Services (MDIC), has promoted "neo-industrialization" strategies aimed at reducing dependence on imported clean energy components, aligning with the strategic rationale for localized solar glass manufacturing. At the financing level, Brazil's national development bank, BNDES, provides long-tenor, below-market-rate loans for industrial and renewable energy projects that meet local content and ESG criteria. BNDES has historically financed large-scale renewable generation and industrial facilities and remains a key potential funding source for integrated mining-to-manufacturing platforms. Additional support mechanisms may include state-level tax incentives (ICMS reductions), infrastructure credits, and potential participation in climate-linked financing programs.

For the mining sector more broadly, Brazil continues to promote development of "strategic minerals" tied to the energy transition, including lithium, rare earth elements, nickel, and industrial minerals essential to clean energy supply chains. While HPQ silica is not always explicitly categorized alongside battery metals, its relevance to solar and semiconductor manufacturing aligns with federal industrial policy goals. The Lula administration has emphasized responsible mining practices, ESG compliance, and domestic value addition, which may increase procedural rigor but also favor projects that integrate processing and manufacturing within Brazil rather than exporting raw materials, which aligns perfectly with Homerun's strategy and goals. Compared with the prior administration's deregulatory posture, the current government's approach can be characterized as more environmentally structured but

strategically supportive of vertically integrated clean energy projects. This policy orientation is constructive for projects that combine resource extraction with downstream industrialization, as is the case with Homerun's planned solar glass facility.

At the state level, Bahia has positioned itself as a renewable energy hub, already hosting significant wind and solar generation capacity and promoting industrial diversification. State authorities may provide fiscal incentives, land-use facilitation, and infrastructure coordination to attract clean energy manufacturing investments. While no public confirmation of finalized federal loan packages specific to Homerun has been disclosed, the company's integrated silica and solar glass strategy is structurally aligned with eligibility criteria typically required for BNDES industrial financing, climate-linked credit lines, and potential regional development programs. Outstanding milestones would include securing formal credit approvals, confirming local content compliance thresholds, and finalizing any tax incentive agreements with Bahia authorities. In aggregate, Brazil's current policy environment, combining federal clean energy industrial strategy with state-level renewable development priorities, appears broadly supportive of vertically integrated HPQ-to-solar-glass projects, provided environmental licensing and ESG standards are rigorously satisfied.

Brazil has introduced several policy and financing mechanisms that signal federal commitment to critical materials and energy transition supply chains, even if not branded under a single "critical minerals act" framework. Through BNDES and the federal innovation agency FINEP, the government provides long-tenor project finance, concessional loans, and blended capital structures for mining, processing, and clean energy industrial projects that meet local content and ESG criteria. The MME has also supported strategic minerals mapping and investment facilitation initiatives aimed at accelerating development of materials linked to electrification and renewable technologies. In certain cases, projects deemed strategically relevant may receive coordinated interagency review to streamline permitting interfaces between ANM (mineral rights), IBAMA or state environmental bodies, and infrastructure authorities, reducing bureaucratic sequencing delays. Brazil's "neo-industrialization" agenda further includes tax incentives, accelerated depreciation schemes, and potential ICMS (state VAT) reductions at the state level to attract downstream manufacturing tied to resource development. While environmental licensing remains rigorous, the combination of development bank financing, innovation grants, and policy alignment around domestic value addition demonstrates a structured, if administratively layered, commitment to expanding Brazil's role in critical materials and clean energy supply chains.

While Homerun has not disclosed whether it is in discussions with Brazilian government with respect to potential funding of its project, management has indicated that development bank financing and strategic funding sources are being evaluated as part of the broader capital access considerations required to support a future FID. Given the project's alignment with Brazil's industrial policy priorities, such as localizing solar supply chains and adding domestic value to mineral resources, Homerun may be in a position to qualify in principle for BNDES long-term project finance or climate-linked credit programs, subject to standard underwriting, local content thresholds, and environmental approvals.

To secure project-level financing from BNDES, Homerun would need to satisfy a structured set of technical, financial, ESG, and local content requirements typical of Brazilian development bank underwriting. First and foremost, BNDES generally requires completion of a BFS prepared to internationally accepted standards, including validated capex and opex estimates, detailed engineering, market studies, and sensitivity analyses demonstrating resilience under downside pricing scenarios. A clearly defined capital structure, with equity commitments, sponsor guarantees (if required), and evidence of financial close capacity, is also essential before BNDES will issue binding term sheets. The project must demonstrate long-term cash flow visibility, often supported by offtake agreements or contracted sales, particularly for industrial manufacturing projects such as a solar glass plant. For Homerun, securing binding solar glass offtake agreements or strategic partnerships with Brazilian module assemblers would materially strengthen its financing case.

A second major hurdle is local content compliance, which is central to BNDES lending criteria. The bank prioritizes projects that utilize Brazilian suppliers, labor, and industrial inputs, and it may apply local content thresholds tied to equipment sourcing and construction contracts. For an integrated HPQ-to-solar-glass project, this would involve demonstrating Brazilian procurement of plant components where feasible and maximizing domestic value addition rather than exporting raw silica. The company would also need to formalize long-term power supply contracts, ideally from renewable sources, given Brazil's strong ESG and decarbonization orientation in industrial lending. Meeting these industrial policy objectives would materially improve eligibility under Brazil's broader "neo-industrialization" agenda promoted by the administration of Luiz Inácio Lula da Silva.

Environmental and social compliance represents a third gating item. BNDES requires full environmental licensing (or at minimum issuance of the LP and substantial progress toward the LI) before major disbursements. Demonstrated compliance with Bahia state environmental authority (INEMA) requirements, secured water rights (outorga), and community engagement programs are prerequisites. The project's relatively low environmental intensity, mechanical

beneficiation without chemical leaching, works in its favor, but the integrated glass plant introduces industrial emissions and energy-use considerations that must meet federal and state standards. Any delays in obtaining the LI would likely delay potential BNDES credit approval.

The Homerun project aligns well with Brazil's strategic objectives of domestic clean energy supply chain development, import substitution for solar glass, and value-added mineral processing. If Homerun completes its BFS on schedule (targeted 2026), secures environmental milestones, and demonstrates meaningful domestic industrial participation, BNDES financing is plausible as part of a blended capital raise. However, development banks rarely provide 100% project funding. Equity commitments and potentially commercial co-lenders would still be required. In short, eligibility appears structurally achievable, but it hinges on timely delivery of technical studies, regulatory approvals, and credible commercial offtake support.

Project Funding and Offtake Commitments

Homerun remains pre-revenue and is funding development activities through staged equity financings while it advances toward feasibility and an FID. The company recently completed ~$6 million in financing followed by an additional $3 million raise, bringing total recent gross proceeds to ~$9 million. These funds have been earmarked toward resource advancement, metallurgical testing, surface rights acquisitions, engineering work, permitting activities, and general corporate purposes tied to progressing the SME HPQ and solar glass strategy. While exact quarter-end cash balances fluctuate with working capital deployment, the company's current liquidity profile is sufficient to support near-term technical studies and permitting milestones but not construction-scale capital expenditures.

Importantly, these raises are development-stage bridge capital rather than construction financing. The estimated capital required to bring the silica mine and processing facility into commercial production is expected to materially exceed current cash on hand and the downstream 1,000-tpd solar glass facility represents a significantly larger funding requirement. Accordingly, a substantial portion of total project capex remains to be raised ahead of an FID, targeted for 2026. Management is expected to pursue a blended financing strategy that could include additional equity, strategic investors, project-level debt, and potential Brazilian development bank participation (discussed above). The recent $9 million in aggregate capital raises therefore function primarily as risk-reduction capital, advancing engineering, permitting, and feasibility, rather than as funding for plant construction itself.

As previously mentioned, Homerun is pursuing a phased capital deployment strategy that separates initial silica production from the larger downstream solar glass buildout, materially affecting funding requirements and sequencing. The first phase, which includes commercial mining and primary beneficiation of HPQ silica, typically carries substantially lower capital intensity than glass furnace construction and is expected to require funding for mining equipment, wash/sort facilities, site infrastructure, utilities, and working capital. While the company has not yet published a finalized BFS-level capex figure, comparable low-iron silica processing facilities suggest an initial capital envelope in the tens of millions of US dollars, depending on throughput scale. This phase is designed to establish operating cash flow and technical validation before full integration into solar glass manufacturing. Funding for this stage would likely be sourced through a combination of equity issuance, strategic investors, and potentially equipment leasing or vendor financing. The objective is to minimize shareholder dilution while preserving balance sheet flexibility ahead of the larger capital commitment required for downstream integration.

The second phase, the planned 1,000-tpd (365,000-tpy) solar glass manufacturing facility, represents the dominant capital requirement. Solar glass furnaces and float lines are capital-intensive assets, with global benchmarks implying capex potentially in the low to mid-hundreds of millions of US dollars, depending on furnace configuration, automation level, energy systems, and ancillary processing infrastructure. This phase would also require incremental investment in grid interconnection, natural gas or alternative fuel systems, emissions control, and potentially logistics infrastructure. Given this magnitude, the company is unlikely to rely solely on equity financing. Instead, a blended capital structure would typically include project-level debt, development bank participation (e.g., long-tenor industrial loans), strategic equity partners, and possibly export credit agency (ECA) support tied to imported equipment. Final capital requirements will be refined upon completion of the BFS targeted for 2026.

With respect to liquidity, Homerun has historically relied on equity financings to fund exploration, permitting, engineering, and corporate development activities. Recent capital raises have supported resource delineation, metallurgical testing, surface rights acquisitions, and advancement of feasibility work. However, the company does not yet possess the balance sheet capacity to self-fund construction of either the full silica processing complex or the solar glass plant. As of its most recent disclosures, cash on hand is sufficient to support near-term technical studies and permitting but not large-scale construction. Accordingly, a substantial portion of total project capital, potentially the majority, remains to be raised prior to an FID. The critical funding inflection point will coincide with BFS completion and formalization of offtake agreements, which typically underpin credit approval and institutional financing.

Likely funding sources include Brazilian development bank financing (subject to eligibility and local content compliance), commercial bank project finance, strategic industry investors such as downstream module manufacturers, and potentially sovereign or climate-aligned investment funds seeking exposure to energy transition infrastructure. The company may also evaluate joint venture structures or minority equity stakes in the glass plant to reduce upfront capital burden. Timing wise, management's stated objective of an FID in 2026 implies that debt commitments, equity backstop arrangements, and any government-supported facilities would need to be secured in advance of that decision. From an investor perspective, key variables include capital intensity per annual tonne of glass capacity, leverage tolerance, dilution risk, and the company's ability to sequence silica cash flow generation ahead of peak glass plant capex. In aggregate, while the capital requirement is significant, the phased approach and alignment with Brazil's industrial policy objectives create multiple potential financing pathways, provided technical milestones and commercial validation are delivered on schedule.

Customer Enthusiasm Evident in Offtake Agreements

Homerun has materially strengthened its commercial positioning through an amended non-binding offtake agreement with Sengi Solar Importação e Exportação Indústria e Comércio, a Brazilian PV module manufacturer. The amendment increases the minimum annual purchase commitment from 20K tons to 100K tpy of solar glass, priced at US$750/mt FOB Belmonte, Bahia. At the planned nameplate capacity of 365K tpy, this amendment alone represents ~27% of the company's planned initial solar glass capacity, a meaningful level of commercial validation at this stage of development. While the agreement remains formally non-binding, the fivefold increase in minimum annual volume signals rising confidence from a downstream manufacturer in both domestic solar demand and the viability of Homerun's integrated project. The fixed pricing framework at US$750/t provides a visible revenue reference point, implying potential annual gross revenue of $75 million tied to this single counterparty at minimum volume levels. The pricing structure, on an FOB plant basis, also supports favorable logistics economics by eliminating overseas freight and typical glass breakage losses associated with long-haul imports from China.

From a counterparty perspective, Sengi Solar is a privately held Brazilian PV module producer focused on domestic manufacturing for residential, commercial, and industrial markets. The strategic rationale for the expanded volume commitment reflects tightening Brazilian trade policy, specifically increased tariffs and reduced exemptions for imported solar components, which improves the competitive positioning of domestically produced glass and modules. The amendment explicitly cites strengthening long-term demand fundamentals in Brazil, including data center expansion linked to AI infrastructure, which is increasing electricity demand and accelerating renewable capacity deployment. Although the agreement is not yet structured as a definitive take-or-pay contract required for non-recourse project financing, it meaningfully advances Homerun's commercial de-risking by anchoring more than one-quarter of Phase 1 glass output with a domestic manufacturer.

In addition to the amended Sengi framework agreement, Homerun has issued several press releases outlining commercial positioning for its integrated silica and solar glass platform, though most remain structured as LOIs, strategic supply discussions, or commercial cooperation agreements rather than definitive take-or-pay contracts. These include:

- **Solar glass commercial engagements.** Homerun has disclosed additional LOIs and commercial dialogues with Brazilian PV market participants with respect to the supply of antimony-free, low-iron solar glass from its planned 1,000-tpd facility in Belmonte, Bahia. These agreements are generally described as non-binding and contingent upon completion of the BFS, construction, and formal product qualification. While specific counterparties and exact volumes in some cases have not been fully disclosed, management has indicated that discussions reference meaningful portions of initial production capacity. Collectively, these frameworks signal domestic demand alignment and early customer positioning but do not yet constitute fully bankable multi-year offtake contracts.
- **Silica feedstock evaluation and downstream validation.** The company has also announced that prospective industrial customers and independent laboratories have conducted technical evaluations of SME HPQ silica samples. Press releases referencing third-party metallurgical and process testing confirm the material's suitability for solar-grade applications, including ultra-low iron thresholds required for high-transmission PV glass. While not structured as formal offtake contracts, these evaluation programs are a prerequisite step toward long-term supply agreements, particularly in solar and specialty glass markets where qualification standards are rigorous. The announcements emphasize successful beneficiation results and positive technical validation, which strengthen commercial credibility but stop short of disclosing binding purchase commitments.

- **Strategic solar and manufacturing positioning.** Homerun has also released statements outlining future production of 100% antimony-free solar glass and engagement with engineering partners to advance feasibility work for its solar glass plant. While these are not traditional offtake agreements, they are strategically relevant because they support commercial discussions with domestic module manufacturers seeking compliant, locally sourced glass. In some cases, press releases reference anticipated collaboration with Brazilian solar industry participants tied to rising import tariffs and supply-chain localization trends. These commercial frameworks are designed to anchor future sales but remain subject to financing and construction milestones.

VALUATION

HPQ Silica Market Peers

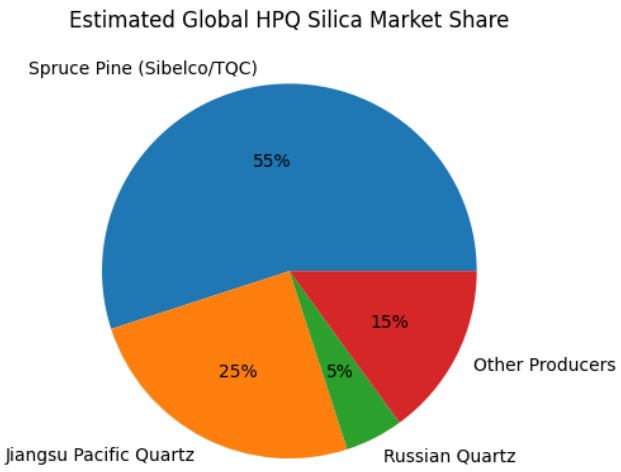
The HPQ silica market is structurally oligopolistic and geographically concentrated. The Spruce Pine district in North Carolina, which is operated primarily through assets controlled by Sibelco and The Quartz Corp. (TQC) (private), accounts for 50-60% of global semiconductor and crucible-grade quartz supply. Chinese producers, led by Jiangsu Pacific Quartz, account for 20-30%, while Russian Quartz and smaller specialty producers make up the balance. True semiconductor-grade HPQ (≥99.99% SiO_2) is significantly more supply-constrained than lower-grade glass silica, with high purification barriers, limited deposit quality globally, and long customer qualification cycles.

Demand is driven primarily by semiconductor crucibles (polysilicon and wafer production), followed by PV and specialty industrial applications. Barriers to entry are substantial, including geological rarity, purification complexity, capex intensity, and qualification timelines with semiconductor OEMs. Public market exposure to pure-play HPQ mining remains extremely limited, with most dominant suppliers privately held or embedded within diversified industrial mineral groups. HPQ silica applications fall into three primary categories:

1. **Semiconductor crucibles and quartzware.** Ultra-HPQ used in silicon crystal growth; highest margin and strictest qualification cycle.
2. **PV applications.** Quartz sand for crucibles used in polysilicon and wafer manufacturing; more cyclical and price sensitive.
3. **Specialty industrial and lighting.** Quartz tubes, rods, and high-temperature glass components.

Jiangsu Pacific Quartz is the only publicly traded company meaningfully integrated across all three segments at scale. Russian Quartz operates primarily in the specialty and industrial tier. Western semiconductor-grade dominance remains concentrated in private ownership structures of TQC (a joint venture between Sibelco and Norsk Mineral). It supplies semiconductor crucible manufacturers and high-end quartz glass producers worldwide and is widely believed to control a majority share of electronic-grade HPQ outside China. Because it is not publicly traded, investors seeking exposure to HPQ must rely primarily on Jiangsu Pacific Quartz among listed equities.

Figure 4: HPQ Silica Market Share



Source: Water Tower Research, Company Filings

TQC is the world's leading supplier of ultra-HPQ, serving semiconductor, PV, and specialty industrial markets. The company sources its core feedstock from the Spruce Pine district in North Carolina, widely regarded as the highest-quality natural quartz deposit globally, and processes material at advanced purification facilities in the US and Norway. TQC's products are primarily used in quartz crucibles for Czochralski silicon crystal growth, semiconductor wafer fabrication, HPQ glass, and polysilicon manufacturing. The company is a joint venture between Sibelco and Norsk Mineral and is privately held, limiting direct public equity exposure. TQC is widely believed to control a majority share of non-Chinese electronic-grade HPQ supply, benefiting from geological scarcity, long customer qualification cycles, and high switching costs within the semiconductor ecosystem.

Jiangsu Pacific Quartz Co., Ltd. is the largest publicly traded company with direct exposure to HPQ materials used in semiconductor and PV supply chains. The company operates quartz mining and advanced purification facilities in Jiangsu Province, China, producing HPQ sand as well as fabricated quartz components including tubes, rods, and crucible materials. Its HPQ products serve semiconductor wafer manufacturing (quartz crucibles for Czochralski crystal growth), polysilicon production, and high-end PV wafer markets, in addition to specialty industrial applications requiring high thermal and chemical stability.

Financially, Pacific Quartz has delivered multi-billion RMB annual revenue (historically in the RMB 5–7+ billion range, depending on semiconductor and PV cycles), with profitability highly correlated to downstream semiconductor capex and solar wafer expansion. Margins expanded materially during the 2021–2022 semiconductor and polysilicon boom, followed by normalization amid PV pricing compression and slower wafer growth. The company's strategic advantage lies in vertical integration, from ore extraction to ultra-high purity processing and precision quartz fabrication, allowing it to capture value beyond raw quartz concentrate sales. Capital expenditures have focused on expanding high-purity processing capacity and improving yield rates to compete with Western HPQ suppliers.

Russian Quartz is a specialized producer of HPQ concentrates and quartz materials targeting semiconductor, lighting, and specialty industrial markets. Its HPQ products are used in semiconductor crucibles, quartz glass manufacturing, and high-temperature industrial equipment. While technically capable of producing electronic-grade quartz, its global market penetration is constrained by geopolitical factors and limited Western semiconductor customer qualification.

Revenue disclosure is more limited compared to exchange-listed peers and global market share is modest (estimated low single digits). Operational capability focuses on beneficiation and purification of domestic quartz resources rather than vertically integrated fabrication. The company's competitive positioning depends largely on regional industrial demand rather than global semiconductor supply chain leadership.

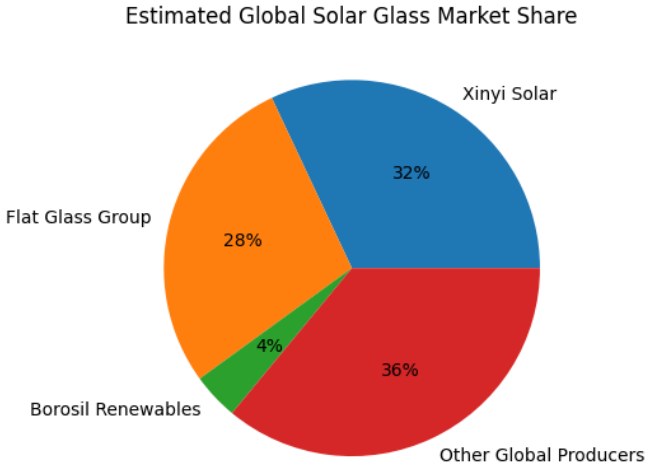
Covia Holdings Corp. Although no longer publicly traded, Covia historically provided the primary US public market exposure to high-purity silica resources, including assets within the Spruce Pine district of North Carolina, the most strategically important HPQ deposit globally. Spruce Pine quartz is widely regarded as the benchmark feedstock for semiconductor-grade crucibles due to its exceptionally low trace element content. Covia's broader portfolio focused heavily on industrial sand and proppants, with HPQ representing a smaller but higher-margin specialty segment.

Prior to restructuring and privatization, Covia generated revenue exceeding $2 billion annually, though most was derived from energy and industrial markets rather than ultra-HPQ. HPQ processing capabilities included beneficiation, sizing, and supply to quartz glass manufacturers serving the semiconductor and lighting industries. While not a pure-play HPQ company, Spruce Pine's geological dominance remains central to the global semiconductor ecosystem.

PV (Solar Panel) Glass Market Peers

The global solar glass market is highly consolidated and overwhelmingly China-dominated. Xinyi Solar and Flat Glass Group together account for 55–60% of global dedicated solar glass capacity. Total global production capacity exceeds 40–50MM tpy, with more than 80% located in China. Non-Chinese capacity remains limited, though India and Europe are expanding domestic production to reduce reliance on imports. Solar glass demand tracks global PV installation growth. Unlike HPQ, solar glass production is capital intensive but not geologically constrained. The competitive advantage lies in furnace scale, energy efficiency, raw material access, and proximity to module manufacturers. Pricing volatility is common due to Chinese capacity additions and periodic oversupply cycles.

Figure 5: Solar Glass Market by Participant



Source: Water Tower Research, Company Financial Filings, and Presentations

Xinyi Solar Holdings Ltd. is the largest dedicated solar glass manufacturer globally, operating more than 20MM tons of annual solar glass capacity across multiple production bases in Anhui, Tianjin, Guangxi, and other Chinese provinces, with incremental capacity in Southeast Asia (including Malaysia). The company produces ultra-clear, low-iron PV glass used in crystalline silicon modules, including both standard and ultra-thin formats (2.0mm and below) for bifacial and high-efficiency modules. Xinyi's capabilities include large-scale float furnace operations, coating technologies, and integration with downstream module manufacturers. Its scale allows meaningful cost advantages through energy efficiency, raw material procurement leverage, and furnace optimization.

Financially, Xinyi Solar has historically generated annual revenue in the range of HK$20-30 billion ($2.5-4.0 billion equivalent), with EBITDA margins highly sensitive to solar glass pricing cycles. Following strong profitability during the 2021–2022 polysilicon expansion cycle, margins normalized amid Chinese capacity additions and pricing pressure in 2023–2024. Nevertheless, the company remains cash generative and continues selective capacity expansion and technology upgrades. Xinyi effectively sets the global pricing benchmark for solar glass and commands one of the strongest balance sheets in the segment.

Flat Glass Group Co., Ltd. is a leading Chinese float and PV glass producer with installed solar glass capacity approaching 15–20MM tpy across Zhejiang, Anhui, Jiangsu, and other Chinese provinces, alongside overseas expansion initiatives (including Vietnam). The company manufactures ultra-clear PV glass, ultra-thin glass for bifacial modules, and coated products tailored to high-efficiency cell architectures. Flat Glass is vertically integrated across raw materials procurement, float production, and deep processing, enabling cost competitiveness in large-scale module supply contracts.

Recent annual revenue has generally ranged from RMB20-30 billion ($3-4 billion equivalent), with profitability closely tied to global PV installation trends and domestic Chinese capacity utilization. Similar to Xinyi, earnings peaked during strong polysilicon pricing cycles and moderated during periods of solar glass oversupply. Flat Glass continues to invest in energy efficiency improvements and furnace upgrades to defend margin position. It remains one of the two dominant global players, together accounting for well over half of worldwide solar glass output.

Borosil Renewables Ltd. is India's primary solar glass manufacturer and one of the few non-Chinese dedicated producers of meaningful scale. The company operates manufacturing facilities in Gujarat, India, with installed capacity exceeding 1,000 tpd (~350,000–500,000 tpy), making it the closest comp size-wise to Homerun's proposed initial solar glass production goal, and has expanded into Europe through acquisition of German solar glass assets. Borosil focuses on low-iron tempered solar glass, including high-transmission and anti-reflective coated variants for crystalline silicon modules.

Annual revenue has typically ranged from ₹10–15 billion (~$120-180 million), materially smaller than Chinese peers but strategically positioned within India's import-substitution framework. Profitability has fluctuated based on Chinese import competition and Indian safeguard duties. The company benefits from government-backed domestic manufacturing incentives and rising local module production, though its smaller scale relative to Chinese competitors results in narrower cost advantages and greater earnings volatility during global oversupply cycles.

Nippon Sheet Glass Co., Ltd. is a global float glass producer with operations in Japan, Europe, and the Americas. Solar glass production is embedded within its architectural and specialty glass segments, supplying low-iron glass and coated variants for PV installations. Unlike Chinese pure-play solar glass producers, NSG does not operate multiple dedicated large-scale solar furnaces; rather, solar applications are integrated into broader float capacity.

The company typically reports annual revenue in the range of ¥600–800 billion (~$4–6 billion). Earnings are diversified across automotive and architectural end markets, with solar exposure representing incremental opportunity rather than a primary revenue driver. NSG's global footprint provides geographic diversification, though it lacks the scale advantage of China's dedicated solar glass leaders.

China Glass Holdings Ltd. operates float glass production facilities across multiple Chinese provinces and maintains exposure to PV glass markets, though at smaller scale compared with Xinyi and Flat Glass. Annual float glass capacity runs into several million tons, with a portion dedicated to solar applications. The company produces low-iron glass for PV modules alongside conventional architectural float glass.

Annual revenue typically ranges from RMB3–5 billion. Competitive positioning is more regional and cost-sensitive, with earnings tied to Chinese domestic demand and export pricing dynamics. While technologically capable, China Glass does not command the scale or margin profile of the two dominant solar glass leaders.

The HPQ silica and solar glass producers discussed above represent the most relevant comp framework for Homerun as they span the two critical segments that Homerun intends to vertically integrate, namely upstream high-purity silica feedstock and downstream PV glass manufacturing. On the upstream side, companies such as Jiangsu Pacific Quartz Co., Ltd. and the privately held TQC define the benchmark for ultra-HPQ production serving semiconductor and PV wafer markets. These firms demonstrate the geological scarcity, purification complexity, and customer qualification barriers inherent in HPQ. On the downstream side, solar glass leaders, including Xinyi Solar Holdings Limited, Flat Glass Group Co., Ltd., and Borosil Renewables Limited, establish the global scale, capital intensity, and pricing dynamics of dedicated PV float operations. Together, these companies frame the competitive benchmarks for cost position, capacity scale, vertical integration, and margin cyclicality that investors would use to evaluate Homerun post-commissioning.

If Homerun successfully commissions both HPQ beneficiation and a 1,000-tpd solar glass facility (~365,000 tpy), it would enter the market at a scale comparable with mid-tier non-Chinese producers such as Borosil but materially smaller than Chinese leaders whose individual capacity often exceeds 10–20 million tpy. However, Homerun's differentiation would not be scale leadership but would be regional positioning and vertical integration. Unlike most solar glass producers that source silica externally, Homerun intends to control its high-purity, low-iron silica feedstock in Bahia, Brazil, potentially reducing raw material volatility and improving supply chain security. In Western Hemisphere markets seeking diversification away from China, this integrated model could command strategic premium valuation multiples relative to standalone silica developers or sub-scale float producers.

Relative to established HPQ producers, Homerun would initially compete more in the solar-grade silica and glass segment rather than directly in semiconductor-grade crucible feedstock dominated by Spruce Pine and Pacific Quartz. The barrier to entry in electronic-grade HPQ is significantly higher due to ultra-low impurity thresholds (which Homerun demonstrated it can achieve through bench and pilot trials) and multi-year qualification cycles with semiconductor OEMs, the real barrier to entry for a new market participant. Accordingly, Homerun's near- to medium-term competitive comparison would align more closely with regional glass-grade silica suppliers and mid-scale solar glass manufacturers, with valuation potentially driven by EBITDA per tonne capacity rather than geological scarcity premium. Over time, successful operational execution, stable furnace performance, and secured offtake contracts would determine whether Homerun is valued as a niche regional producer or as a strategically important non-Chinese integrated solar glass platform.

Valuation Considerations

Using HPQ pre-revenue peers exclusively for valuation benchmarking is analytically insufficient because the publicly traded universe of development-stage, HPQ companies are extremely small. Most HPQ supply is controlled by private operators or diversified industrial mineral groups, and the handful of listed silica sand developers often target bulk glass markets rather than true HPQ beneficiation. The limited sample size constrains statistical relevance and compresses the valuation dispersion range, making it difficult to derive a defensible market cap/NPV framework. In addition, HPQ projects vary materially in purity targets (glass-grade versus semiconductor-grade), processing intensity, and capital structure, which further weakens direct comparability.

For that reason, we broaden the comp set to include pre-revenue critical mineral developers with published feasibility-level NPVs and significant capex requirements, even if the commodity differs. Companies such as Greenland Resources Inc., 5E Advanced Materials Inc., Australian Vanadium Limited, Jindalee Lithium Limited, and VRX Silica Limited provide a more robust dataset for evaluating development-stage discount rates. These companies share key

attributes with Homerun, including defined mineral resources, published economic studies (in most cases), large upfront capital requirements, multi-year permitting pathways, and dependence on project financing. This cross-commodity approach better captures how equity markets price execution risk, dilution risk, and commodity cyclicality prior to construction.

VRX Silica Limited (HPQ / Silica Sand – Australia) controls more than 700MM tons of JORC-compliant silica sand resources across Western Australia, with flagship projects (e.g., Arrowsmith North) advancing through PFS-level economics. Target production is in the 2–3MM tpy range, primarily serving Asian flat glass markets. Permitting has progressed meaningfully relative to many juniors, though full construction financing remains outstanding. Compared with Homerun, VRX has substantially larger delineated resources and clearer bulk export orientation but lacks downstream glass manufacturing integration. Its capex profile is lower and operational complexity simpler than a solar float glass build.

Greenland Resources Inc. (Molybdenum – Greenland) controls a large, high-grade molybdenum deposit (~245MM tons measured & inferred), with feasibility-stage economics supporting ~24MM lbs/year of molybdenum production. The project carries a published after-tax NPV exceeding $1 billion under certain price assumptions but faces substantial capex requirements and Arctic permitting considerations. Relative to Homerun, Greenland is further advanced technically (full feasibility study complete) but carries greater single-asset geopolitical and financing concentration risk. Both companies face meaningful capital raise requirements prior to construction, though Greenland's project scale is larger.

5E Advanced Materials Inc. (Boron – United States) is advancing a boron project in California with phased development targeting boric acid production. The company has published prior economic studies and moved into early-stage construction activities, though financing structure and capital stack have introduced equity volatility. Resource scale is significant and strategically positioned for US critical mineral supply chains. Compared with Homerun, 5E is further along the construction timeline but has experienced capital structure stress, highlighting execution and funding risk typical of vertically integrated specialty chemical projects.

Australian Vanadium Limited (Vanadium – Australia) controls a ~200MM tons vanadium resource with DFS-level economics targeting ~10–12K tons V_2O_5 annually, including downstream processing integration. The project is capital intensive and positioned to serve energy storage and specialty steel markets. Permitting has progressed through detailed study phases, but full project financing remains a gating item. Compared with Homerun, AVL's integration model (mine + processing plant) parallels Homerun's upstream/downstream strategy, though AVL's resource base and NPV are larger in absolute terms.

Jindalee Lithium Limited's (Lithium – United States) McDermitt lithium clay project in the US hosts a very large resource (~3B tons) with PFS-level economics supporting 20–25K tons of lithium carbonate equivalent (LCE) annual production. The project's scale and strategic US jurisdiction are attractive, but clay processing complexity and large capex result in a significant pre-FID valuation discount. Relative to Homerun, Jindalee's resource scale is materially larger and technically more complex, but both companies share exposure to vertically integrated processing risk and multi-hundred-million-dollar capex profiles.

Figure 6: Peer Comp Valuation Table

Company	Ticker	Primary Commodity	Development Stage	After-Tax NPV (US$)	Market Cap (US$M)	MC/NPV
VRX Silica Ltd	VRZX-AU	HPQ Silica	PFS	~$300–350M	$32	~0.20–0.25x
Greenland Resources Inc.	GRLRF	Molybdenum	Feasibility	~$1.0–1.2B	$160	~0.10–0.15x
5E Advanced Materials Inc.	FEAM	Boron	DFS / early construction	~$400–500M	$43	~0.10–0.15x
Australian Vanadium Ltd	ATVVF	Vanadium	DFS	~$500–700M	$69	~0.10–0.15x
Jindalee Lithium Ltd	JNDAF	Lithium (clay)	PFS	~$1.0–1.5B	$41	~0.05–0.10x
Peer Comp Average					**$69**	**0.11-0.16x**
Homerun Resources Inc.	**HMRFF**	**HPQ + Solar Glass**	**Dev./Pre-FS**	**NA**	**$48**	

Source: FactSet, Company Filings, Water Tower Research

Homerun sits between upstream silica sand developers (e.g., VRX) and vertically integrated critical mineral developers (e.g., AVL, 5E). Its resource scale appears competitive within industrial minerals, though smaller than large-scale lithium or molybdenum deposits. Homerun differentiates itself through planned integration into solar float glass manufacturing, increasing both potential margin capture and capital intensity. In valuation terms, this positions Homerun closer to integrated, heavy-capex developers trading at ~0.10x–0.25x market cap/NPV rather than pure bulk silica exporters. Execution on permitting, feasibility publication, and project financing will determine whether it is ultimately valued as a junior resource optionality play or as an emerging specialty materials platform.

MANAGEMENT

Strong manageemnt team at the helm. Homerun's leadership team combines capital markets structuring (CEO/CFO), industrial operations (COO and VP Operations), materials science expertise (CTO), and regional execution depth in Brazil. Notably, the presence of senior glass industry operational experience strengthens credibility around plant construction and commissioning, while layered financing expertise reflects the company's export credit–oriented project strategy. The key execution variable will be integration of these competencies through BFS completion, financing closure, and large-scale industrial buildout.

Brian Leeners – Chief Executive Officer and Director. Brian Leeners brings a capital markets-driven leadership profile, holding both B.Comm. and LL.B. degrees from the University of British Columbia. Since 2002, he has led Nexvu Capital, a venture-focused merchant banking platform that has raised more than US$125 million across materials and technology ventures. At Homerun, he has repositioned the company from a resource-stage silica asset toward a vertically integrated silica-to-solar industrial platform. His background in structured capital formation, venture development, and strategic growth financing is directly relevant to Homerun's current stage, which requires layered project finance solutions and cross-border institutional engagement.

Armando Farhate – Chief Operating Officer. Armando Farhate brings more than 37 years of industrial experience, including 13 years in mining, with prior C-level and senior management roles across Brazil, Canada, Namibia, and Botswana. His expertise spans operations, engineering, sales and marketing, and mineral resource development, an unusually broad operational skillset for a development-stage company. His international exposure and operational depth are particularly relevant as Homerun transitions from upstream silica resource positioning toward downstream industrial glass manufacturing. His background suggests a capacity to manage complex multi-jurisdictional industrial buildouts.

Nancy Zhao – Chief Financial Officer. Nancy Zhao is a CPA with more than nine years of experience in public company financial leadership, having served as CFO for TSXV-listed entities, including First Hydrogen Corp and Neo Battery Materials Ltd. Her academic background combines financial management training from the British Columbia Institute of Technology with a bachelor's degree in chemical engineering, providing technical literacy alongside capital markets competence. Her prior procurement experience with Sinopec adds supply-chain familiarity in industrial contexts. At Homerun, her mandate focuses on equity capital raising, financial reporting, project-level financial modeling, and preparation for structured debt and export credit financing.

Antonio Vitor – Country Manager, Brazil. Antonio Vitor provides in-country execution oversight with experience spanning large multinational corporations including Transpetro, PwC, and Shell, alongside approximately a decade in mining project development. His project exposure includes graphite, gold, rare earth, and copper ventures across Brazil, giving him operational familiarity with permitting, local stakeholder engagement, and mining development workflows. As Country Manager, he anchors Homerun's Brazilian presence, coordinating regulatory processes, local partnerships, and site-level implementation. His IBGC membership and MBA credentials reinforce governance alignment within Brazil's corporate framework.

Dr. Mauro Cesar Terence – Chief Technology Officer. Dr. Mauro Cesar Terence brings deep academic and applied expertise in materials science, nanotechnology, and polymers, holding a PhD and postdoctoral credentials in Nuclear Technology from the University of São Paulo. A former 25-year professor and coordinator of postgraduate programs in materials engineering and nanotechnology, he has led research initiatives in graphene, graphene oxide, ionizing radiation, and advanced material characterization. His technical background is directly aligned with Homerun's focus on high-purity silica processing and advanced material applications. His research credentials and CNPq productivity grant recognition add scientific depth to the company's silica beneficiation and downstream materials ambitions.

Odir Julio Pedrazzi Jr. – VP Operations (Brazil). Odir Julio Pedrazzi Jr. is a seasoned glass industry executive with 37 years of experience, including specialization in glass processing from the University of Glass in Paris and MBAs in Strategic Planning and Business Management. He has served as Director of Operations and Industrial Manager at major Brazilian glass companies and has led implementation of complete glass plants and furnace installations. His direct plant construction and furnace commissioning experience is highly relevant to Homerun's 1,000-tpd solar glass project, materially strengthening in-country operational execution capability.

Joel Rovaris Ferrari – VP Business Development (Brazil). Joel Rovaris Ferrari leads business development efforts in Brazil, focusing on commercial partnerships, government relations, and downstream market integration. In a vertically integrated silica-to-solar platform, this role is central to aligning raw material supply, glass manufacturing output, and PV industry demand. His mandate likely includes cultivating strategic alliances, negotiating commercial agreements, and supporting localization initiatives tied to development bank engagement.

RISKS

Going concern and ongoing capital requirements. The company remains in the exploration and development stage and has not generated recurring operating revenue, resulting in cumulative losses and negative operating cash flow. The audited financial statements highlight a going concern uncertainty, indicating that continued operations are dependent on the company's ability to raise additional equity or debt financing. Failure to secure timely and sufficient capital on acceptable terms could materially delay project advancement or necessitate asset divestitures.

Exploration and development risk. Homerun's mineral properties are at an early stage of exploration and development, with no established mineral reserves and limited economic studies underpinning long-term viability. Geological uncertainty, variability in grade and tonnage, and potential metallurgical challenges could result in lower-than-expected project economics or impairment of capitalized exploration assets. There is no assurance that ongoing work programs will lead to commercially viable operations.

Permitting, regulatory, and jurisdictional risk. Project advancement is contingent on securing and maintaining environmental licenses, land access agreements, and other regulatory approvals. Delays in permitting, evolving environmental standards, or changes in mining policy within the company's operating jurisdiction could materially affect project timelines and capital intensity. Increased regulatory scrutiny or community opposition may also introduce incremental compliance costs and execution risk.

Liquidity, dilution, and capital structure risk. As a pre-revenue issuer, Homerun is reliant primarily on equity issuances and convertible instruments to fund exploration, corporate overhead, and project development. Continued reliance on external financing exposes investors to potential equity dilution and overhang from outstanding warrants or convertible securities. Adverse market conditions, particularly within junior mining capital markets, could constrain access to funding and increase the cost of capital.

Concentration of assets and single-project exposure. The company's valuation and investment thesis are heavily concentrated in its flagship mineral property, with limited asset diversification. Any adverse development—whether geological, technical, regulatory, or financial—at the primary project level would have a disproportionate impact on overall enterprise value. The absence of producing assets or diversified cash flow streams amplifies volatility relative to more established mining peers.

Our Insights

Opportunities

Vertically integrated silica-to-solar platform in high-growth, import-dependent market. Homerun controls a 63.9MM ton NI 43-101 compliant HPQ resource at ~99.6% SiO_2 with ultra-low iron (<7 ppm raw, <1 ppm processed) suitable for antimony-free solar glass, positioning its planned 365K tpy facility to capture 15-25% of Brazil's current annual demand as cumulative solar capacity surged from <5 GW (2018) to >40 GW (2024). The integrated mine-to-glass model eliminates international freight, reduces breakage losses, and positions Homerun as LatAm's first dedicated solar glass producer in a structurally supply-constrained, non-Chinese market with forecast 20-30 GW annual installations through 2030.

Blended financing leverages Brazilian industrial policy and European export credit support. Project alignment with Brazil's neo-industrialization agenda creates eligibility for favorable BNDES/FINEP long-tenor financing, while the SORG LOI positions the company for German export credit-backed project financing through Euler Hermes guarantees, materially reducing blended cost of capital. The amended Sengi Solar offtake (100K tpy at $750/mt FOB, up from 20K tons) anchors >27% of Phase 1 capacity with a domestic manufacturer, strengthening commercial bankability ahead of 2026 BFS completion.

Secured mineral tenure and advancing permitting support 2027 production target. Homerun has secured ANM-granted mining concessions, executed surface rights agreements covering 64 hectares for facilities, and advanced environmental licensing toward 2026 LP issuance, with phased development (silica production ahead of glass plant) improving financing sequencing. The project's mechanical beneficiation flowsheet (no chemical leaching), location on established Belmonte infrastructure with port access, and strong federal/state support for clean energy manufacturing support constructive permitting outlook aligned to 2027 commercial operations.

Obstacles

Substantial capital requirement creates significant dilution risk absent project-level financing. Estimated capex for integrated silica processing and the 1,000-tpd solar glass facility (potentially low to mid-hundreds of millions of US dollars) materially exceeds the $54 million market cap and recent $9 million equity raises, which represent bridge capital rather than construction financing. The completion of the 2026 BFS and conversion of non-binding LOIs into definitive offtake contracts are prerequisites for institutional financing, while the company lacks operating cash flow as a pre-revenue entity, creating risk that construction-scale equity raises could result in significant shareholder dilution.

Permitting timeline, construction execution, and pricing volatility introduce multi-layered risk. Brazil's three-stage environmental licensing (LP, LI, LO) through state authority INEMA remains on critical path and subject to baseline study acceptance, public consultation, and water rights confirmation that could extend timelines beyond projections. Simultaneous development of mining, beneficiation, and large-scale furnace systems introduces technical complexity, while management has not yet demonstrated large-scale commissioning in Brazil's environment, and solar glass pricing remains cyclical with Chinese producers (Xinyi/Flat Glass controlling 55-60% global capacity) possessing materially lower cost structures from scale advantages that could compress margins during oversupply cycles.

ABOUT THE ANALYST

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Prior to joining Water Tower Research, Dmitry Silversteyn built a strong sell-side franchise on Wall Street as an equity research analyst focusing on the specialty chemicals and materials industries.

Over his 20-plus-year career, Dmitry was the senior analyst at Buckingham Research, Longbow Research, where he was a founding member, and FTN Securities. Dmitry began his career in finance at Lehman Brothers, Salomon Smith Barney, and First Analysis where he was also involved in investment banking and venture capital activities. Dmitry has received several industry recognitions including being ranked "#2" stock picker in chemicals by Reuters and StarMine and "#2" stock analyst in chemicals by the Wall Street Journal Best on the Street survey.

Earlier in his career, Dmitry was a process and project engineer and manager at firms in the water treatment, battery manufacture and fluid handling industries and was an early user of six-sigma programs.

Dmitry holds a BS in Chemical Engineering from Illinois Institute of Technology and an MS in Finance from the ITT Stuart School of Business.

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