

# Homerun Resources Inc. Confirms Optimized +4N Purification Plant Pathway and Advances CAPEX Configurations for the SME High-Purity Silica

written by Raj Shah | July 9, 2026

June 09, 2026 ([Source](#)) – Homerun Resources Inc. (TSXV: HMR) (OTCQB: HMRFF) (“Homerun” or the “Company”) is pleased to provide an update on Phase 2 of its Three-Phase Integrated Purification Platform for the Santa Maria Eterna (“SME”) silica sand district in Belmonte, Bahia, Brazil, following completion of the complementary leaching test work by Dorfner Anzaplan GmbH (“Anzaplan”), see [News Release dated May 28, 2026](#).

Based on the reported test work and technical review, Homerun and Anzaplan have determined that the preferred pathway for processing to +99.99% SiO<sub>2</sub> (+4N) silica in the Company’s planned Purification Plant is calcination (thermal treatment) followed by acid leaching of the silica feedstock produced by the 350,000 tonne per annum 99.9% SiO<sub>2</sub> (3N) Purification Plant ([see news release dated June 8<sup>th</sup>, 2026](#)).

Anzaplan’s testing and the previous research and development conducted by the Company with the US Department of Energy (NREL/NRL) provides two potential configurations that are both expected to produce +4N silica from the planned +4N Plant for commercial sales and as a critical feedstock for Homerun’s +99.999% SiO<sub>2</sub> (5N) Silica and Advanced Materials development. As the next step, Anzaplan will proceed with process design and

AACE Class 5 CAPEX development for two +4N Purification Plant configurations:

- Traditional calcination (thermal pre-treatment) followed by acid leaching.
- Acid leaching only (after alternative thermal pre-treatment)

Homerun is simultaneously advancing an integrated CAPEX study which will utilize the Enduring Energy Storage system to thermally pre-treat the silica prior to acid leaching, in a hybrid +4N purification plant configuration. The Company's overall plan incorporates the Enduring Energy Storage system utilizing the SME silica sand as the medium of energy storage, in the form of heat as a key component of the general industrial development at Santa Maria Eterna. The Enduring Energy Storage system would provide electricity storage of both grid and PV inputs and output both industrial heat and power for the Silica Valley operations.

View a detailed explanation of this news release in video format [HERE](#).

## **THE ENDURING ENERGY STORAGE SYSTEM INTEGRATION**

The [Enduring Energy Storage System](#) is under an exclusive global intellectual property (IP) agreement between Homerun and Alliance for Sustainable Energy, LLC, the manager and operator of the U.S. Department of Energy's National Renewable Energy Laboratory ("NREL" which is now the National Laboratory of the Rockies "NLR"), and this IP includes the recently filed patent application covering a thermal energy storage system integrated internally with silica sand purification. The successful R&D testing with NLR thermally pre-treated Homerun's raw silica sand at 1,000°C.

The Enduring Energy Storage integration into the Silica Valley Industrial Facilities is strategically important because it creates a purification and commercial extension of the Company's Phase 1, 350,000 tonne per year 3N primary silica sand purification, enabling purified silica streams to move up the value chain while at the same time improving the power and thermal efficiency of the Silica Valley Industrial Facilities and avoiding the need to allocate capital and build traditional dedicated calcination into the purification processing.

This new Dorfner Anzaplan test specifically compared direct acid leaching without thermal pre-treatment against acid leaching after thermal pre-treatment at 1,000°C. The results support the Company's decision to proceed with processing the 3N Feedstock through a calcination plus acid leaching configuration as the preferred route for the best purification pathway for +4N silica.

The recently announced 3N Plant CAPEX is for a minimum 350,000 tonne per year primary purification plant targeting industrial grade 99.9% SiO<sub>2</sub> silica sand, establishing the upstream base from which higher value +4N and future 5N modules will be developed. Under Homerun's integrated model, the 3N plant is expected to provide a strong feedstock and commercial foundation for modular higher-purity processing, while the Enduring system offers integrated thermal processing and energy storage into the same high-purity silica powered value chain.

Brian Leeners, CEO of Homerun, stated: *"When I first encountered the NRL Enduring System almost three years ago, it immediately presented as an opportunity to provide an integrated energy storage and silica purification strategy. Now after the combined testing with NRL and Anzaplan we have confirmed that view. Enduring calcination followed by acid leaching is the preferred pathway for achieving the +4N product at our Silica Valley*

*Facilities. Homerun and its partners will now advance the CAPEX planning under both the traditional and Enduring-integrated configurations, which preserves operating flexibility while quantifying a potentially important capital and operating advantage. This reflects how the Homerun operating team and its partners continue to leverage strategic disruption to build an integrated value chain for silica purification into advanced materials for energy and tech.”*

Further updates will be provided as Homerun advances the process design, mass balance, equipment definition and CAPEX cases for the +4N Purification Plant in the Silica Valley of Belmonte, Bahia, Brazil.

**About Homerun ([www.homerunresources.com](http://www.homerunresources.com) / [www.homerunenergy.com](http://www.homerunenergy.com))**

Homerun is building the silica-powered backbone of the energy and technology transitions across multiple focused verticals: High Purity Silica and Advanced Silica Materials, Solar, Energy Storage, and Energy Solutions. Anchored by a unique high-purity low-iron silica resource in the Silica Valley of Bahia, Brazil, Homerun is transforming raw silica sand into essential materials, products and technologies that accelerate clean energy and technology solutions and deliver durable shareholder value.

- **Silica:** Secure supply and processing of high-purity low-iron silica for mission-critical applications, enabling premium solar glass and advanced energy and technology materials.
- **Solar:** Development of the first dedicated 1,000 tonne per day high-efficiency solar glass plant in the Americas and the commercialization of extra-clear, antimony-free solar glass designed for next-generation photovoltaic performance.

- Energy Storage: Advancement of long-duration, silica-based thermal storage systems and related technologies to decarbonize industrial heat and unlock grid flexibility.
- Energy Solutions: AI-enabled energy management, control systems, and turnkey electrification solutions that reduce costs and optimize renewable generation for commercial and industrial customers.

With disciplined execution, strategic partnerships, and an unwavering commitment to best-in-class ESG practices, Homerun is focused on converting milestones into markets-creating a scalable, vertically integrated platform for clean energy and technology solutions in the Americas.

**On behalf of the Board of Directors of  
Homerun Resources Inc.**

**“Brian Leeners”**

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