GEIOS

Geothermal Power & Strategic Carbon Free Helium-4

A Dual-Revenue Clean Energy & Critical Materials Opportunity

Southern Africa | Zambia — Sponsored by GEIOS Technologies in Joint Venture with In-Country Development Partner

APRIL 2026

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Executive Snapshot

A rare opportunity to invest in a **first-of-kind integrated renewable energy and strategic materials project** in a politically stable, investment-friendly sub-Saharan African jurisdiction. The project co-produces baseload geothermal electricity and commercial-grade helium-4 from a single, independently verified resource.

~53 MW	300 t+	25+
Target Power Output	**Target Helium-4 Output-Ph2**	**Project Life (Years)**
Net baseload renewable electricity	170–300 t/yr, Grade 5.0 semiconductor/MRI	With significant resource upside

Resource validation has been completed through independent third-party laboratory analysis, peer-reviewed academic research, and over a decade of on-site exploration. A proprietary, protected technology platform has been validated in controlled laboratory conditions and is ready for phased field deployment.

A Dual-Revenue Project

Defensive Cash Flow

Long-term power purchase agreement with a state-backed utility offtaker, indexed for inflation.

Helium Pricing Upside

Supply-constrained critical material used in semiconductor manufacturing, MRI, quantum computing, and aerospace.

ESG Alignment

Zero-emissions baseload renewable qualifying under IFC Performance Standards and Equator Principles.

Helium co-production is expected to contribute a revenue stream **comparable to — or exceeding — power generation**, providing two uncorrelated income sources from a single capital deployment.

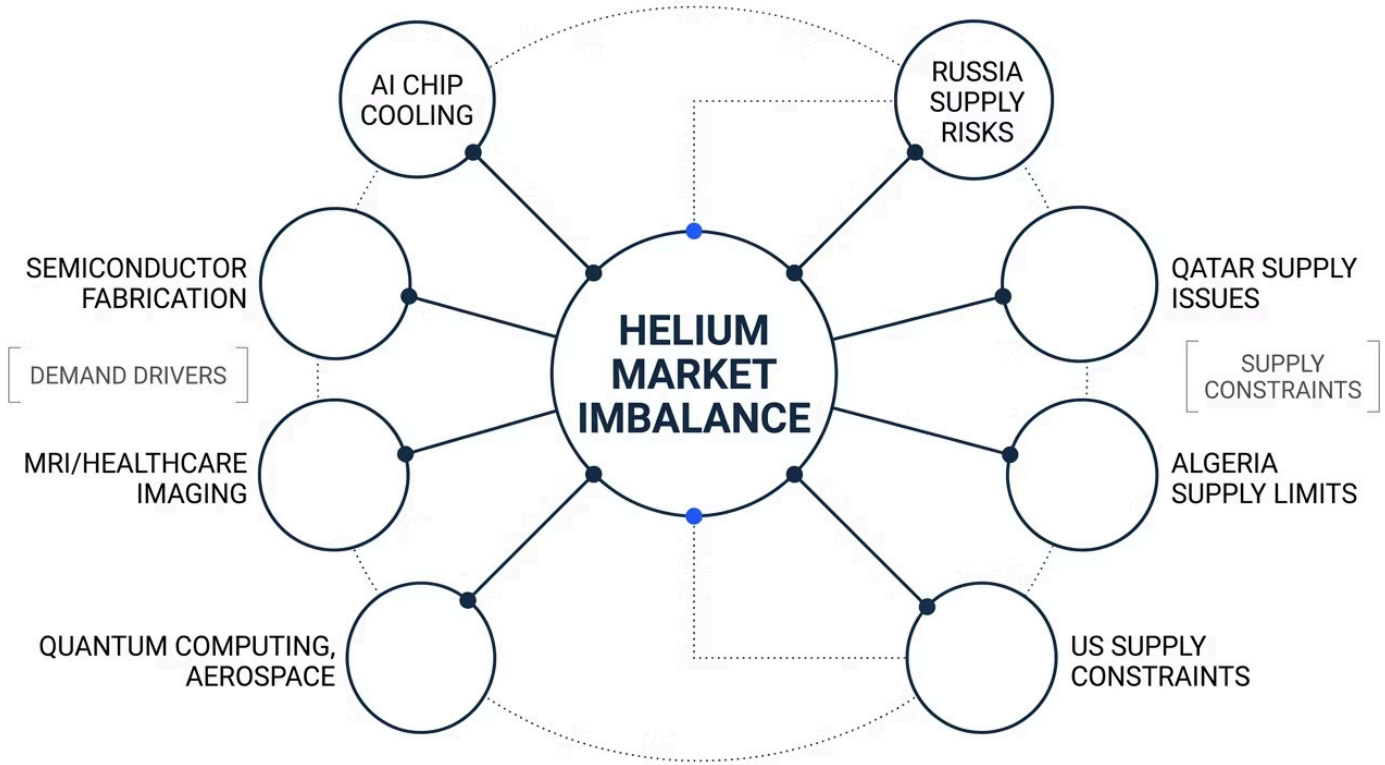
A Market in Structural Deficit

Global Supply Crisis

Three of the five largest global helium supply sources face operational, geopolitical, or geological constraints simultaneously.

Demand Compounding

AI chip cooling, semiconductor fabrication, and healthcare imaging are driving demand at high single-digit annual growth rates. Buyers are actively seeking diversified, non-OPEC, ESG-aligned supply — a category this project is positioned to fill.



What Makes This Project Different

Validated Helium and Heat Resource

Helium resource independently validated by a Tier-1 European industrial gas major (volumetric and grade analysis). Heat resource confirmed through world-leading radiogenic isotope analysis and geochemical studies.

Proprietary Technology

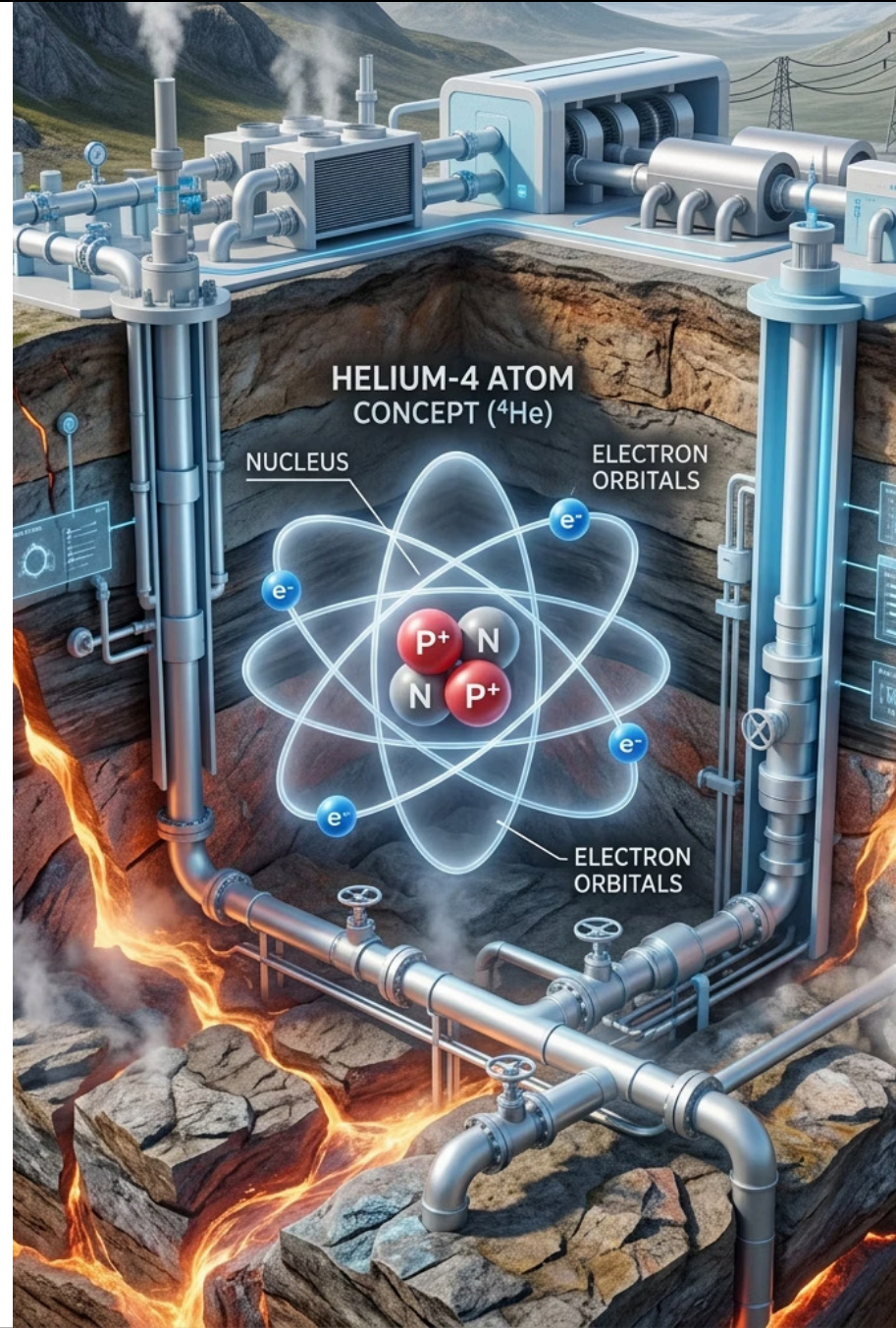
Protected subsurface engineering platform covered by multiple patent families, designed to materially enhance heat extraction and gas recovery.

Non-Hydrocarbon "Green Helium-4"

Sourced from a crustal-radiogenic and mantle-associated system — not a natural gas by-product — positioning it for ESG-conscious industrial buyers.

Strategic Geography

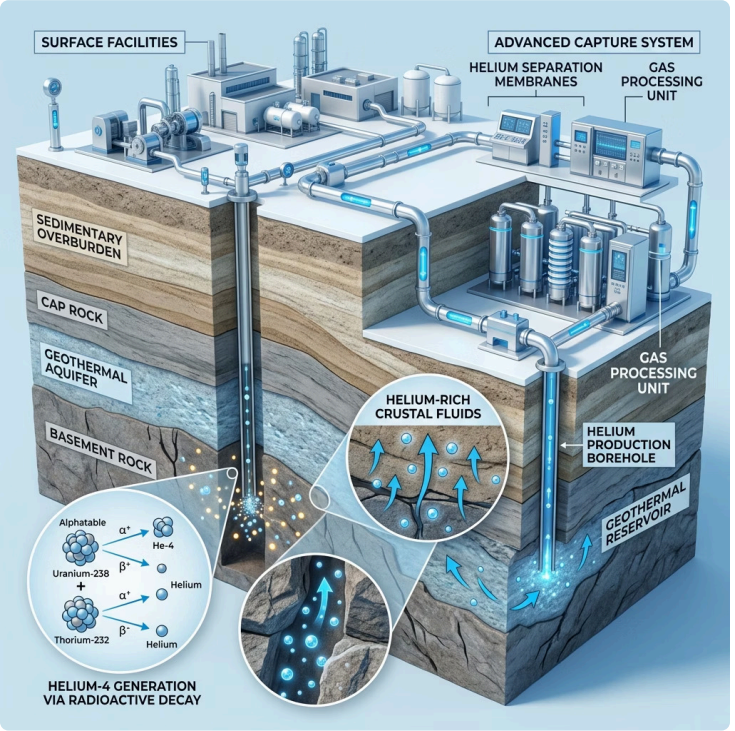
Stable jurisdiction with investment-grade regulatory framework, existing road and grid infrastructure, and Special Economic Zone fiscal incentives.



SUSTAINABLE HELIUM SOURCE

The Continuous Radiogenic "Tap" – A Sustainable Helium Source

Not a Finite Fossil Fuel, But a Geologically Renewable Resource



Our helium is not a one-time resource locked in a depleting reservoir. It is **Radiogenic Helium-4 (^{4}He)**, continuously produced by the same natural nuclear processes that power our geothermal plant.

The Science Behind the Tap:

01

The Engine

Radioactive decay of Uranium (U) and Thorium (Th) in deep basement rocks provides the Earth's internal heat and is the sole source of our helium.

02

The Product

Each decay event emits an alpha particle — which is, effectively, the nucleus of a Helium-4 atom.

03

The Process

This newly formed ^{4}He migrates through crustal fluids, where our proprietary technology efficiently captures it as a co-product of geothermal energy generation.

COMPARISON | GEIOS HELIUM

Key Differentiators: Traditional vs. GEIOS Helium

Traditional Natural Gas Helium

Static Pool

A finite byproduct of fossil fuels. Once extracted, it's gone.

Carbon-Intensive

Tied to methane (CH_4) extraction and processing, contributing to emissions.

Geopolitical Risk

Supply is concentrated in a few, often geopolitically unstable, regions.

Continuous Tap

Constantly regenerated by radioactive decay within the Earth's crust. A geologically renewable resource.

Inherently Green

Produced from a zero-carbon geothermal process, aligning with strict ESG criteria.

Strategic & Secure

Sourced from a stable, investment-friendly jurisdiction, diversifying global supply.

Investment Implication: This "always-on" regeneration underpins a project with a long-life, low-decline production profile and positions us as a supplier of truly sustainable, ESG-compliant "Green Helium" for decades to come.

Phased, De-Risked Capital Plan

Our strategy emphasizes a robust, dual-revenue approach to materially de-risk capital deployment and secure long-term returns.

Geothermal Power (20 MW)

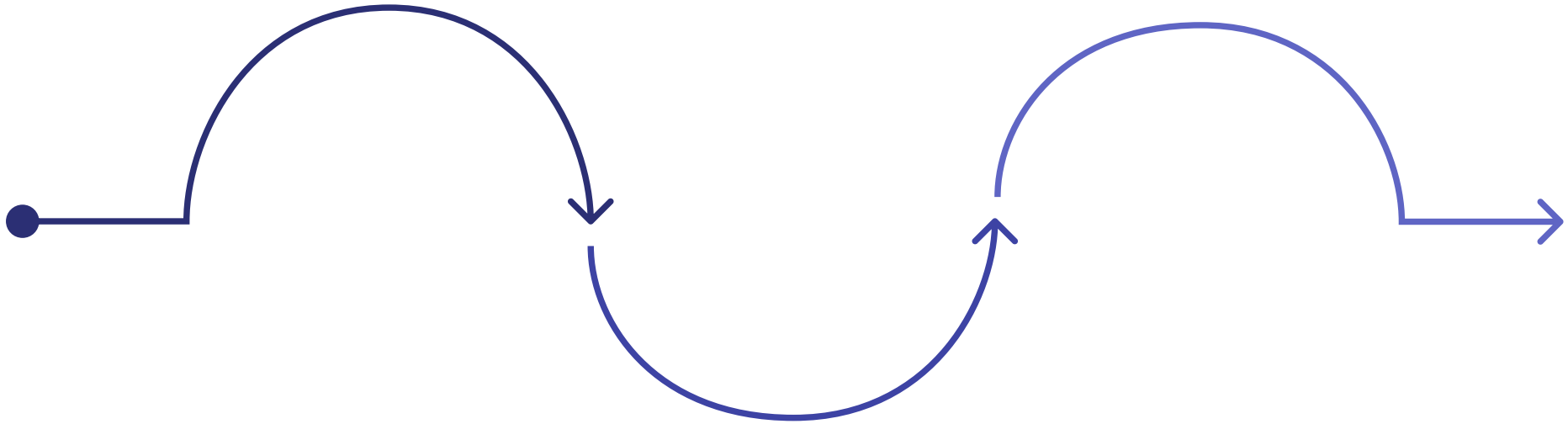
- 20-year Power Purchase Agreement (PPA)
- Fixed price, government-validated
- Secured baseload revenue stream
- 3 MW allocated for internal plant load

Strategic Helium (30 MW)

- Remaining 30 MW utilized for helium processing
- High-grade "Green Helium-4" targeting >$230,000/ton
- Export markets: USA or South Korea & Japan
- Dual revenue streams provide enhanced financial stability

Phased, De-Risked Capital Plan

Capital is deployed in two clearly separated tranches, with a formal **go / no-go investment decision** between them — protecting investors from technology and resource risk.



Investors participating in Phase 1 retain the **right, but not the obligation**, to participate in Phase 2 on agreed terms — a capital-efficient entry point at significantly lower exposure than full build-out.

Phase 1 — Pilot Validation

Scope

- Site preparation and pilot wellfield
- Subsurface gas extraction
- Pilot helium-4 separation and purification module
- Pilot processing installation
- Extended production test

Objectives

- Resource extraction deliverability
- Start technology field performance
- Enhance nanotech components
- Co-Extraction process
- Secure commercial offtake terms

Timeframe: ~12 months. All critical unknowns are tested against pre-agreed gate criteria before any decision to commit full-build capital.

Phase 2 — Commercial Build-Out

01

Full Wellfield Development

Scaled drilling program across the confirmed resource footprint.

02

Multi-Module Power Block

Installation of ~50 MW net baseload geothermal generation capacity.

03

Full-Scale Helium Processing

Commercial-grade Grade 5.0 helium-4 molecular purification and liquefaction modules.

04

Grid Connection & Commissioning

Final integration with national grid and commencement of commercial operations.

Timeframe: **~19–24 months** to commercial operations following Phase 1 gate approval.

Investment Highlights

Uncorrelated Revenue

Two independent streams — regulated power and merchant helium — from a single capital deployment.

Capital-Efficient Entry

Phase 1 pilot allows investors to underwrite at significantly lower exposure than full build-out.

Attractive Stable Returns

Long-life, low-decline resource with dual-revenue cash flow and significant helium-pricing optionality.

Platform for Scale

Extensive host geological province with multiple analogous exploration targets for future replication.

Permits, Concessions & Licensing Secured

All regulatory permits, concessions, and licensing are fully completed. Project also includes drilling of 21 verified well tests, significantly de-risking the resource.

Financial Snapshot

>$53M

Annual Gross Revenue

At full build (conservative 170 t/yr)

>3.0x

DSCR

Exceeds banking covenants

<4 years

Equity Payback

Rapid return on investment

>14%

Project IRR Conservative

At current helium pricing

Modeling with a mid-range output of 170 t/yr significantly enhances these metrics, projecting over **$65M** in revenue, an equity IRR exceeding **24%**, and a payback period of just **3 years**.

Strong ESG Credentials

Why ESG Matters Here

This project is fully aligned with international development-finance standards, making it accessible to ESG-mandated institutional capital and development finance institutions.

- **Zero-emissions** baseload renewable generation
- **Low-water-footprint** closed-loop design
- **Carbon-credit eligible** under applicable frameworks
- Compliant with **IFC Performance Standards** and Equator Principles

Use of Proceeds & Capital Structure

The Sponsor is engaging qualified investors for **Phase 1 pilot funding**, targeting a raise of **$70–80M**, structured to accommodate equity, convertible, or project-finance instruments.

GEIOS EQG Drilling for Helium and Heat Extraction

Pilot wellfield drilling for EQG and subsurface extraction using N2 for Helium-4 molecules underground

GEIOS Processing Equipment

Pilot helium and power processing module procurement and installation.

Compression & Export Infrastructure

Pilot-scale helium compression, purification, and containerized export logistics setup to enable first commercial deliveries.

Detailed financial models, technical documentation, and full resource data room access are available to qualified investors following execution of a mutual NDA.

Next Steps for Interested Parties

This document is an introductory overview only. Following execution of a **mutual NDA**, qualified investors will gain access to:

Full Feasibility Study

Multi-volume AACE Class 4 Engineering Feasibility Study

Resource Verification

Independent resource and gas-composition verification reports

Financial Model

Scenario analysis and sensitivities

Technology Overview

Protected-IP summary and platform architecture

Regulatory & Offtake Docs

Permitting, regulatory, and offtake documentation

Site Visit

On-site visit and management introduction

Contact GEIOS Technologies

Project Development & Investor Relations

Get in Touch

Email: **geios-helium4@geios.energy**

To mark digital interest through our Website Project:
www.geioshelium.com

Web: **www.geios.energy**

Offices

Miami, USA
3401 N Miami Ave STE 230, Miami, FL 33127

Incheon, Republic of Korea
Songdo Dong, D-1807 Smart Valley, 30 Songdomirae-ro, Yeonsu-gu

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