

STEGS™ SOLAR THERMAL GENERATION AND STORAGE

Always on. Always clean.

Capital plan · Q1 2026

EXECUTIVE CHAIRMAN

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ENTITY

EnviroMission Group LLC

Jenks, Oklahoma

Firm renewable power. Around the clock.

Demand is doubling by 2050. Gas generation is meeting the shortfall renewables cannot supply.

| No commercial technology delivers clean firm power 24/7.

COST / MWH · 24/7 FIRM

\$18.59

vs. \$36.38 gas · \$60.66 PV+BESS.

ANNUAL CAPACITY FACTOR

>90%

Modelled. Confirmation pending 2028.

STORAGE DURATION

48 +hr

No batteries needed.

ASSET LIFE

40 +yr

vs. 25 yr utility-scale PV.

Solar only works when the sun shines.

Solar and wind generate only when the weather cooperates. Storage at scale is capped near 4 hours. Gas fills every shortfall today.

The energy transition has a missing piece.

CAPACITY GAP BY 2050

20,000 GW

New global capacity needed.

DATA CENTRES BY 2034

200 GW

US firm load growth.

GAS RETIRING BY 2050

900 GW

No clean replacement.

Every other path has a structural ceiling.

PV + WIND

Intermittent by physics

- Generates only when sun shines or wind blows
- Backed by gas or batteries to firm
- Battery storage capped near 4 hours at scale
- Rare earths and Chinese supply chains

NATURAL GAS

Firm but high carbon

- Carries combustion emissions
- Fuel price volatility
- Pipeline infrastructure required
- 900 GW retiring globally by 2050

NUCLEAR • SMR

Decades from scale

- Regulatory and permitting timelines
- High capital cost per MW
- Public opposition in many markets
- Limited siting flexibility

No commercially available technology delivers clean firm power around the clock today.

STEGS™.

A new category of power.

EVMG's patent-pending Solar Thermal Energy Generation & Storage system is the first commercially viable firm and dispatchable renewable power platform, built on three patent-pending innovations that integrate proven thermodynamics with proprietary materials science.

01 · COLLECTOR

Solar collector

Proprietary flat-panel collector reaches up to 350 °C+. Patent-pending selective surface technology captures the full solar spectrum. Tuned by DOVET AI thermodynamic modelling.

02 · STORAGE

Thermal storage block

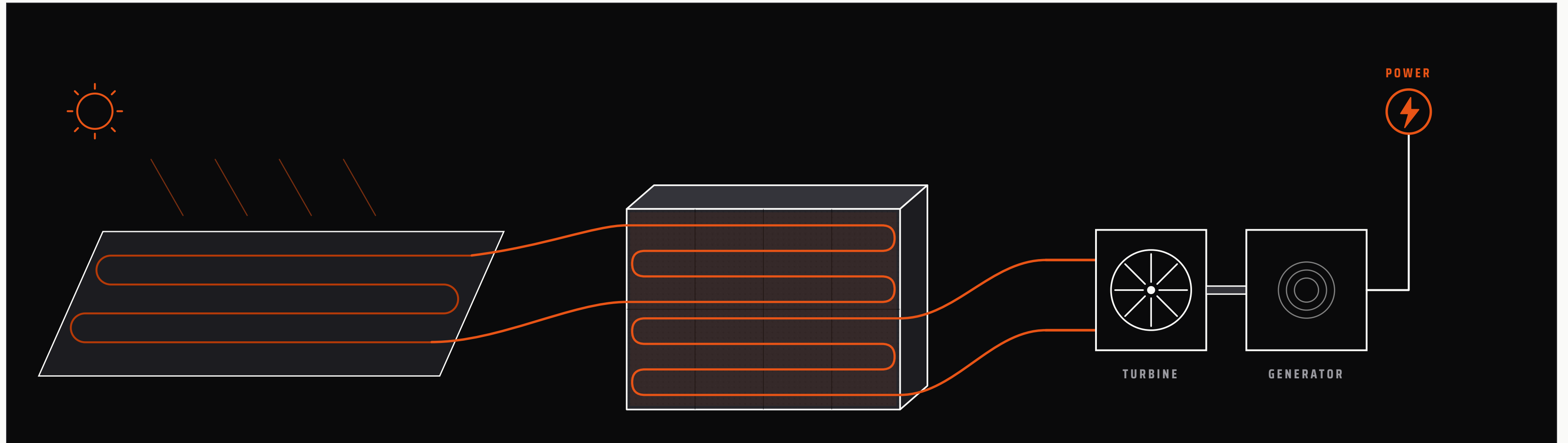
Concrete co-engineered with CEMEX. Holds 48+ hours of heat. Lab-validated at 400 °C in 2025. Modular and expandable.

03 · POWER UNIT

ORC turbine

Standard ORC turbines from Ormat, Exergy, Turboden. Constant temperature and flow. Bankable, proven equipment. Zero fuel cost.

Capture. Store. Dispatch.



01 · COLLECT

Solar collector

Flat-panel collector captures heat across the full spectrum. Up to 350 °C+ operating temperature.

02 · STORE

Thermal block

Heat stored in concrete co-engineered with CEMEX. 48+ hours. Modular and expandable.

03 · DISPATCH

Power unit

Stored heat drives a commercial ORC turbine. Firm electricity to the grid, 24/7.

04 · DELIVER

Contracted load

Dispatchable electricity serves contracted load: on demand, load-following, always available.

Placeholder · How it works image.

Chris requested a standalone how-it-works visual between Capture/Store/Dispatch and Technology. Our s06 already renders the SVG flow diagram inline; decide whether to split it out into its own slide using the website hero image.

▶ INSERT CAPTURE / STORE / DISPATCH IMAGE

CJD SLDID 277 · "INSERT THIS IMAGE"

Three pillars.

Solar capture, concrete thermal storage, and commercial ORC generation integrated into a single closed-loop system. Three patent-pending innovations. Twenty years of materials and modelling work behind them.

01 · COLLECTOR

Flat-panel solar collector

OPERATING TEMP **350 °C+**

EFFICIENCY VS PV **4x**

SPECTRUM **Full-spectrum**

RARE EARTHS **None**

Patent-pending selective surface. Tuned by DOVET AI thermodynamic model.

02 · STORAGE BLOCK

Thermal storage concrete

STORAGE DURATION **48+ hr**

VALIDATED **400 °C, 2025**

COST / MWH **\$7,970**

MODULARITY **Expandable**

Co-developed with CEMEX. Independently lab-validated at 400 °C in 2025. Modular and expandable.

03 · POWER UNIT

Organic Rankine Cycle

OPERATION **Constant flow + temp**

FUEL COST **\$0**

VENDORS **Ormat, Exergy, Turboden**

COMPONENTS **Commercial off-shelf**

Lower pressure and temperature than combustion turbines. Extends equipment life and reduces O&M.

The STEGS™ Collector.

EVMG has engineered a unique flat-panel solar collector that combines cutting-edge materials with proprietary transmissive, insulative, and loss-mitigation properties. Unlike conventional PV, the STEGS™ Collector achieves and sustains temperatures of 350 °C+. Four times more efficient at capturing solar energy than PV alone.

TEMPERATURE

350 °C+

Sustained operating temperature.

EFFICIENCY VS PV

4 ×

More energy per MW installed.

SOLAR SPECTRUM

Full

Selective surface captures all wavelengths.

MATERIALS

No exotics

No rare earths. Western supply chain.

| Tuned by DOVET™ AI thermodynamic model. Patent-pending selective surface.

Storage block + power unit.

Concrete co-engineered with CEMEX holds heat for 48+ hours. A standard ORC turbine converts that heat to firm electricity. No exotic components anywhere in the loop.

STEGS™ STORAGE BLOCK

Thermally conductive concrete.

Proprietary concrete co-engineered with CEMEX. Independently lab-validated at 400 °C in 2025. Stable through repeated thermal cycling.

STORAGE DURATION	48+ hours
COST PER MWH	\$7,970
LI-ION EQUIVALENT	\$600,000
EXPANDABLE	Modular

STEGS™ POWER UNIT

Organic Rankine Cycle.

ORC turbines from proven manufacturers (Ormat, Exergy, Turboden) operate at constant temperature and flow. Lower pressure than combustion turbines extends equipment life.

OPERATION	Constant flow + temp
FUEL COST	\$0
EQUIPMENT	Off-the-shelf
EXOTIC COMPONENTS	None

Placeholder · The AI platform.

A full digital twin of every STEGS™ plant: simulation, engineering, optimisation, and operations on one platform. Built by Doobls and Baikery as EVMG's exclusive technology partners. Distinct from DOVET™, which is the thermodynamic model inside the Collector.

01 · SIMULATE

Digital twin per plant

TBD · whole-system simulation across collector field, storage block, ORC, grid coupling. Scenario testing before steel hits the ground.

02 · ENGINEER

Design to dispatch

TBD · plant layout, sizing, P&ID, commissioning runbooks. Engineering work tightened by the same model that runs operations.

03 · OPERATE

Live optimisation

TBD · real-time dispatch decisions, predictive maintenance, performance benchmarking across the fleet.

WIP placeholder. Final copy + visuals from Doobls / Baikery.
CJD comment: "Insert slide highlighting AI platform" (sldId 278).

Lowest delivered cost. By a wide margin.

STEGS™ firm renewable dispatch at half the cost of gas combined cycle. A third the cost of PV plus battery storage.

3.7× more energy per MW than PV.

Same nameplate. Firm output. Round-the-clock delivery. Storage at one seventy-fifth the cost of lithium-ion.

► TBD · CJD comment (sldId 265): "The 3.7× line will change to MWh per acre. Text to come."

METRIC	STEGS™	UTILITY-SCALE PV
Annual capacity factor	92.1%	24.9%
Annual MWh per MW installed	8,066	2,197
MWh per acre	3,507	545
Footprint per MW	4.0 ac	2.3 ac
Storage cost per MWh	\$7,970	\$600,000
Firm 24/7 generation	Yes	No

Placeholder · vs PV (simplified).

Alternate version of the vs-PV table for non-technical audiences. Numbers rounded and softened with comparators (<, >, +/-) instead of precise decimals. The precise version stays as the canonical slide for technical reads.

METRIC · TBD	STEGS*	PV
e.g. Energy per MW	>3×	1×

CJD comments on slide 11: "Replace with website version" + "Create an alternate slide that rounds the numbers to be <, >, +/-, etc." Format here is the alternate.

Two decades of R&D led here.

Two prior generations of utility-scale solar thermal plant. AI-driven thermodynamic modelling. The breakthrough that eliminated the tower and made the system modular.

GENERATION 1

Solar Tower V1

200 MW · 1,000 M · 8,000 ACRES

2% solar efficiency. Proof of concept. Scale was the challenge.

BREAKTHROUGH

DOVET™

AI THERMODYNAMIC MODELLING

Dynamic optimisation. Re-engineered the approach. Eliminated the tower.

GENERATION 2

Solar Tower V2

200 MW · 600 M · 4,000 ACRES

5% efficiency. Major gains, still required massive infrastructure.

TODAY

STEGS™

1-100+ MW · 2 ACRES / MW

25%+ efficiency. Modular. No tower. The breakthrough.

The global solar belt.

STEGS™ is optimized for geographic areas with high sustained solar: an 8,000 km band on either side of the equator where 75% of the world's population lives and 80%+ of power is consumed.

US CAPACITY, NEXT DECADE	1.0–1.7M MW
US TARGET STATES	16
INTERNATIONAL, NEXT DECADE	4.5M MW
RENEWABLE SHARE OF PIPELINE	88–90%
EVMG SHARE OF PIPELINE	5%

► TBD · Chris is sending a corrected market-sizing table to replace these numbers (CJD comment, sldId 265).

01 · DATA CENTRES

Firm 24/7 power

200,000 MW of new generation needed in the US over the next decade.

02 · INDUSTRIAL OFF-TAKERS

Firm 24/7 power

Manufacturers, miners, processors requiring firm 24/7 power.

03 · UTILITIES & CO-OPS

Load growth

Replacing decommissioned plants; serving load growth.

04 · CRYPTO MINING

ERCOT pipeline

4,100 MW of new capacity requested in ERCOT (Texas) alone.

05 · MERCHANT POWER

Wholesale markets

Independent producers in wholesale electricity markets.

06 · GREEN COMMUNITIES

Eco districts

Eco districts and new residential and commercial developments.

A 105 MW data-centre site.

Two phases on the same footprint. Phase 1 commercial demonstration in 2028. Phase 2 expansion immediately after.



PHASE 1 · PILOT · 2028

15 MW

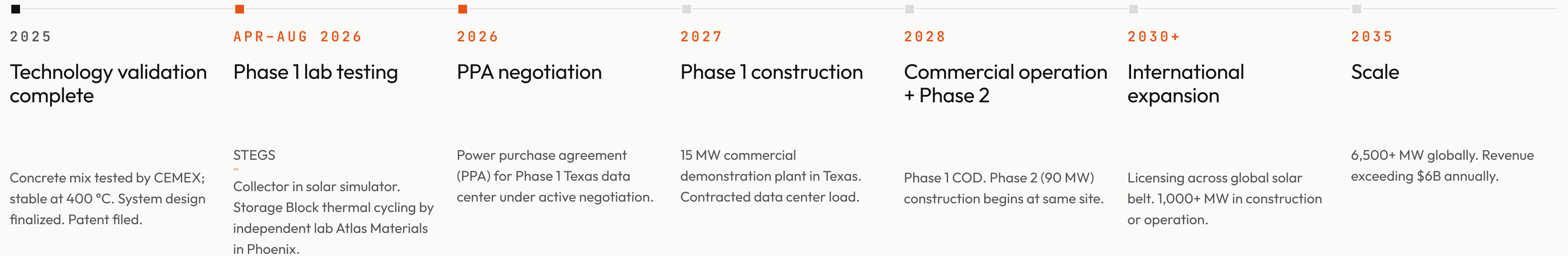
ANNUAL PRODUCTION	~121,000 MWh
CAPEX	\$50M
ANNUAL REVENUE	~\$7.2M
ANNUAL OPEX	~\$1.7M
PAYBACK	6 yr

PHASE 2 · COMMERCIAL

90 MW

ANNUAL PRODUCTION	~726,000 MWh
CAPEX	\$250M
EQUITY REQUIRED	~\$62.5M
ANNUAL RETURN	>14%
PAYBACK	4 yr

Global rollout roadmap.



First commercial dispatch in 2028. Phase 2 expansion immediately after.

Financial projections.

Zero fuel cost. Long asset life. Operating margin scales with capacity.

REVENUE · YEAR 3

\$58M

Phase 1 online.

REVENUE · YEAR 10

\$6B+

Global rollout.

EBITDA AT SCALE

50%+

No fuel, low O&M.

PROJECT IRR

50%+

Firm capacity scenario.

PLANT CF

90%+

Modelled.

AVG PPA

\$75 /MWh

Long-tenor offtake.

NET OP MARGIN

90%+

Zero fuel cost.

MWH / MW / YR

8,000+

vs. ~2,200 PV.

From 15 MW to 18,500+ MW by 2041.

2030

1,000 +MW

In construction or operation across pilot markets.

2035

6,500 +MW

Global installed capacity. Active states US + international.

2040

14,500 +MW

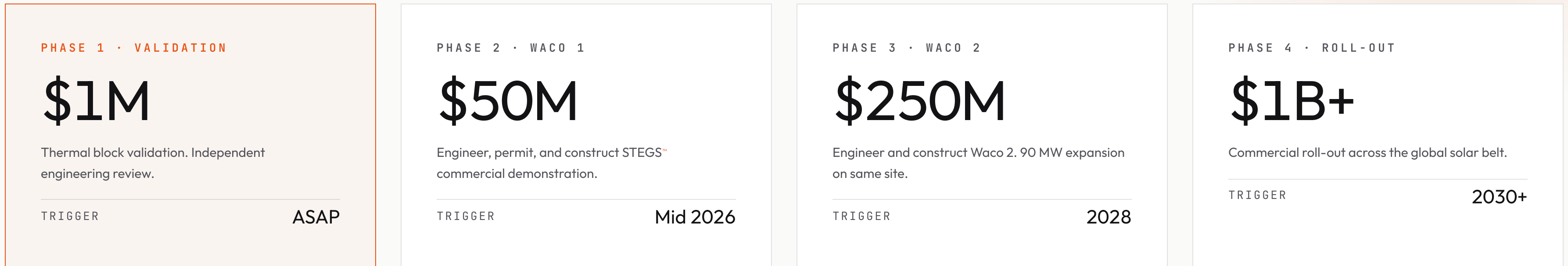
US and international, full solar belt deployment.

\$4.7B–\$6.8B of capital required to deliver 18,500+ MW by 2041. Revenue scales from \$58M in year 3 to over \$10B annually at full deployment.

\$1B+

Milestone-gated capital plan.

Capital deployed in four phases. Each tranche unlocks the next stage of commercialization.



Test, validate, build.

PHASE 1 · COLLECTOR

Solar simulator validation

Confirm 300 °C+ operating temperatures. Validate DOVET thermodynamic model. Test selective surface configurations.

PHASE 2 · STORAGE BLOCK

Independent lab cycling

Thermal cycling at 400 °C. Confirm conductivity and structural integrity. Verify storage capacity matches model.

PHASE 3 · INTEGRATED FIELD

Full-system trial

Simulate commercial operating profiles. Confirm heat transfer and storage match proprietary modelling.

INTELLECTUAL PROPERTY

Patent and trade-secret stack

- Patent application filed January 2026, encompassing two provisionals
- Multiple trade secrets and proprietary materials formulations
- DOVET AI model ported to Python for ongoing optimisation
- 20+ years of accumulated R&D · barriers to entry
- Future IP strategy guided by counsel: patent vs. trade secret

Proprietary concrete co-developed with CEMEX. Independently tested in 2025; met all thermodynamic specifications.

Operators. Engineers. Capital.

EXECUTIVE CHAIRMAN

Pierre Koshakji

Co-founder, Stream Energy (acquired by NRG, 2019). Chairman, National Energy Marketers Association. 20+ years in energy.

CHIEF EXECUTIVE OFFICER

Christopher Davey

Co-founder, EnviroMission. Former Co-Executive Director, Arizona Energy Consortium. Cleantech specialist.

DIRECTOR · FINANCIAL ADVISOR

J. Donald Porter

40+ years investment banking for utilities and governments in public and private capital markets.

VP ENGINEERING · PE

Valerie Schafer, PE

40+ years energy sector. Chemical engineering. Chief Technical Advisor to EnviroMission for five years.

R&D ENGINEERING LEAD

Mehmet Oezcan

Mechanical Engineering, M.S. Sustainable Energy. Specialist in computational fluid dynamics.

STRATEGY & RISK ADVISOR

Brian Pregler

20+ years energy industry. KPMG strategic consulting for the world's largest energy companies.

Always on. Always clean.

SOLAR THERMAL GENERATION AND STORAGE

► TBD · Western supply-chain row + advisory board (CEMEX, HDR, DPR, Ormat, Currie & Brown, Baikery, Prof. Krakowiak, Prof. Miller, RuggedEdge, LeLeux, Rowley). CJD comment: "This slide will evolve but we need to secure agreements before listing." Hold publishing logos until signed.

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