LOTUS ENERGY

HEAT WHERE YOU NEED IT

A new generation of decentralized hydrogen-based heating

Hydrogen produced on demand.
Heat produced where it is needed.

No fossil gas.
No oil.
No external hydrogen supply infrastructure.

From individual buildings to local energy networks.

Investment opportunity: €15 million strategic scale-up round

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01 — THE OPPORTUNITY

Heating is one of the world's largest energy challenges

Buildings, industry and public infrastructure require reliable heat every day.

Existing heating solutions can depend on:

- Natural gas
- Heating oil
- Solid fuels
- External fuel infrastructure
- Large storage systems
- Outdoor equipment
- Centralized energy networks

At the same time, governments, businesses and building owners are under increasing pressure to:

reduce fossil-fuel dependence
reduce emissions
improve energy security

modernize aging heating systems
and control operating costs.

LOTUS ENERGY addresses this fundamental market.

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02 — THE LOTUS SOLUTION

HEAT WHERE YOU NEED IT

Lotus has developed a decentralized hydrogen-based heating platform in which hydrogen is generated **on demand inside the heating system**.

Electricity + water

↓ ### Hydrogen generation ↓ ### Controlled hydrogen reaction ↓ ### Heat ↓ ### Heating water / hot water

The Lotus architecture is designed to eliminate dependence on:

external hydrogen delivery
hydrogen storage infrastructure
natural-gas pipelines
oil delivery
large fuel-storage systems

The system can be integrated with electricity from:

grid • solar PV • batteries • wind • renewable electricity

One technology platform.

Multiple heating markets.

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03 — TECHNOLOGY

A DIFFERENT HEATING ARCHITECTURE

Lotus uses a proprietary plasma-based process in which hydrogen is generated within the heating system.

According to Lotus' existing technical documentation:

- Hydrogen is produced on demand inside the system
- The process takes place within the boiler
- Hydrogen combustion temperatures can reach approximately **2,500°C within the controlled combustion zone**
- The heating system regulates the delivered heating water to approximately **75°C**
- Documented system performance is reported at approximately **95%**, subject to the exact definition and test conditions in the supporting test documentation

The key architectural difference

Traditional system

Fuel → transport → storage/infrastructure → boiler → heat

LOTUS

Electricity + water → hydrogen on demand → heat

Lotus brings energy generation and heat generation together in one decentralized platform.

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04 — VALIDATION & TRACK RECORD

TECHNOLOGY — ALREADY IN THE FIELD

Lotus is not starting from a laboratory concept.

30+ YEARS

of technology development

1,000+

installed systems

CE

conformity/certification documentation

KIWA

safety testing

PATENTED

technology / IP in Turkey

REAL-WORLD REFERENCES

including schools and municipal/public buildings in Turkey

The investment question is therefore not:

“Can Lotus develop the technology?”

It is:

“How quickly can Lotus industrialize and scale it internationally?”

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05 — PERFORMANCE

DOCUMENTED PERFORMANCE

Lotus reports extensive testing, including comparative testing in Austria against conventional heating technologies.

Lotus documented performance

Up to approximately 95% system performance

Comparative testing

Lotus has been tested against conventional heating technologies including:

- Electricity
- Coal
- Oil
- Natural gas
- Wood

Investor due-diligence principle

All headline performance claims will be supported by the underlying:

test protocol
measurement conditions
input/output measurements
duration
system configuration
independent laboratory documentation

This is critical.

Lotus will not ask investors to rely on marketing claims.

The technical data room will contain the evidence behind every material performance claim.

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06 — WHY LOTUS

A NEW OPTION FOR BUILDINGS WHERE CONVENTIONAL SYSTEMS HAVE LIMITATIONS

Technology	External fuel infrastructure	Outdoor unit	Fossil fuel dependency	High-temperature heating potential	Lotus differentiation
Gas boiler	Yes	Usually no	Yes	Yes	No external gas
Oil boiler	Yes	No	Yes	Yes	No oil
Wood/pellet	Fuel delivery/storage	No	Biomass	Yes	No solid fuel
Electric resistance	No	No	Depends on electricity	Yes	Different heat-generation architecture
Heat pump	Electricity	Usually yes for air-	No direct fossil fuel	Application-dependent	No outdoor air-source

Technology	External fuel infrastructure	Outdoor unit source	Fossil fuel dependency	High-temperature heating potential	Lotus differentiation unit
LOTUS	**No external H_2 supply**	**Designed for indoor installation**	**Designed for fossil-free operation**	**Yes**	**H_2 generated on demand inside system**

Important positioning

Lotus does **not** need to claim that it is superior to every heat pump in every application.

Instead:

> **Lotus is designed for applications where decentralized, indoor, high-temperature and infrastructure-independent heating creates a compelling alternative.**

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07 — MARKET

A GLOBAL HEATING MARKET

The global heating equipment market is estimated at approximately:

USD 120.95 BILLION — 2026

and is projected to reach approximately USD 196.94 billion by 2034.

The US residential heating equipment market alone is estimated at approximately:

USD 31.63 BILLION — 2026

with projected growth to approximately USD 44.61 billion by 2031.

Europe represents a particularly attractive market because buildings account for around **40% of EU energy consumption**, while approximately **75% of EU buildings have poor energy performance**.

Lotus target markets

Europe → UK → USA → Middle East → Asia → Global

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08 — TAM / SAM / SOM

A LARGE MARKET WITH A REALISTIC ENTRY STRATEGY

TAM

Global heating equipment market

≈ USD 121 billion in 2026

Lotus-defined initial SAM assumption

For planning purposes, Lotus can initially target approximately **20% of the global market** across selected residential, commercial, public, industrial and special-application segments.

Illustrative SAM

≈ USD 24 billion

This 20% figure is a Lotus planning assumption, not a third-party market estimate.

SOM scenarios

Using an illustrative average Lotus selling price of **€7,500**:

Market penetration of illustrative SAM	Units	Revenue
0.1%	~32,000	~€240M
0.5%	~161,000	~€1.21B
1%	~322,000	~€2.42B
3%	~967,000	~€7.25B

The investment case does not require Lotus to dominate the heating market.

It requires Lotus to capture a **small share of a very large global market.**

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09 — PRODUCT ECONOMICS

ATTRACTIVE HARDWARE UNIT ECONOMICS

Current Lotus production cost assumptions:

Product class	Manufacturing cost	Illustrative selling price	Gross profit
Small	€1,500	€4,500	€3,000
Medium	€2,500	€7,500	€5,000
Large	€5,000	€15,000	€10,000

At a 3× selling-price-to-manufacturing-cost relationship:

Illustrative gross margin

≈ 66.7%

Important

This is **gross margin**, not "250–300% gross margin."

The 200% figure is the **markup on manufacturing cost**.

The investor data room should separately model:

- manufacturing cost
- installation
- logistics
- warranty
- service
- distribution margin
- certification
- sales commission
- working capital

Target

Maintain strong gross economics while scaling production.

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10 — BUSINESS MODEL

HARDWARE + DISTRIBUTION + PROJECTS + SERVICES

1. Equipment sales

Direct sales of Lotus heating systems.

2. Distributor network

Exclusive or non-exclusive national/regional partners.

3. Commercial projects

Hotels, schools, municipalities, hospitals, apartment buildings and businesses.

4. Industrial applications

Factories, agriculture, greenhouses and process-related heating.

5. Energy-system integration

Solar, batteries, microgrids and local energy systems.

6. Service & maintenance

Long-term technical support and service contracts.

7. Strategic manufacturing

Local manufacturing, licensing or joint ventures in selected markets.

Long-term objective

Build Lotus into an **international heating technology platform**, not simply a boiler manufacturer.

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11 — GO-TO-MARKET

EUROPE FIRST — THEN GLOBAL

PHASE 1 — 2026–2027

European commercialisation

Priority:

Denmark
Germany
UK
Sweden
Norway
Austria
Netherlands

Objectives:

- European reference installations
- Distributor agreements
- Strategic industrial partnerships
- Commercial pilots
- Production scale-up

PHASE 2 — 2027–2029

European expansion + USA preparation

- France
- Italy
- Spain
- Poland
- Central Europe
- US regulatory and market preparation

PHASE 3 — 2029+

Global expansion

USA
Turkey
Middle East

Asia
other high-value heating markets

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12 — €15 MILLION SCALE-UP ROUND

LOTUS ENERGY IS READY TO SCALE

Capital sought: €15 million

Proposed allocation

Area	Investment
Industrialisation & production	€5.0M
European & international market entry	€3.0M
Certification / compliance / testing	€2.0M
R&D / next-generation systems	€2.0M
Sales, distributors & marketing	€2.0M
Working capital	€1.0M
TOTAL	**€15.0M**

The objective

Move from:

validated technology

to:

industrial production

to:

international commercial scale

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13 — WHAT €15M UNLOCKS

FROM TECHNOLOGY TO INTERNATIONAL COMPANY

1

Industrial production capacity

2

European market entry

3

Professional international sales organization

4

Distributor network

5

Large-scale pilot projects

6

International certification and compliance

7

Next-generation product development

8

US market preparation

9

Strategic manufacturing partnerships

10

Follow-on Series A/B financing

5-YEAR AMBITION

Build Lotus into a **global decentralized heating technology company** with thousands of systems deployed internationally.

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14 — INVESTOR TARGETING

WE ARE LOOKING FOR STRATEGIC CAPITAL

TIER 1 — PRIORITY

Strong fit with climate-tech, energy, industry and scale-up. World Fund currently invests from seed to growth, with initial tickets typically €1–15M and follow-on capacity.

Strong fit with proven hard technology and commercialization. CEV reports $415M AUM and 30+ portfolio companies and emphasizes technologies where the science is proven and the commercialization pathway is clear.

Extremely relevant hard-tech investor. Climentum invests €1–5M initially, with follow-on capacity up to €10M, and explicitly supports industrialisation, manufacturing, market entry and commercial scaling.

TIER 2 — STRATEGIC

Energy Impact Partners

Capital + energy-industry network + strategic corporate relationships.

Danish growth capital and potential co-investment platform.

Energy transition and European scale-up.

European climate hard-tech and industrial transformation.

TIER 3 — LARGE GLOBAL CAPITAL

Global climate technology.

Strategic capital for US market entry.

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15 — THE INVESTMENT CASE

LOTUS ENERGY

HEAT WHERE YOU NEED IT

30+ years of development

1,000+ systems installed

CE documentation

KIWA safety testing

Patented technology

Municipal and school references

Documented performance

Hydrogen produced on demand

No external hydrogen supply infrastructure

Global heating market

WE ARE NOT RAISING CAPITAL TO PROVE THE IDEA.

WE ARE RAISING CAPITAL TO SCALE IT.

€15 MILLION STRATEGIC SCALE-UP ROUND

Technology → Production → Market → Global Scale

LOTUS ENERGY

HEAT WHERE YOU NEED IT

A new generation of decentralized hydrogen-based heating.

From one building
to entire local energy networks.

FAZ 1
FAZ 2
FAZ 3
TEHLİKE
380/220 VOLT
SU KAPAĞI
AÇMADAN
ÖNCE
ELEKTRİĞİ
KESİNİZ
UTET
LOTUS

LOTUS

HYDROGEN PLASMA HEATING SYSTEMS
% 100 GREEN ENERGY
"C" ZERO CARBON FOOTPRINT

ADVANTAGE & COMPARISON

MAIN BENEFIT
HOT WATER READY → PRODUCTION DOES NOT STOP

ADVANTAGES
- ✓ No waiting time
- ✓ Low energy loss
- ✓ Low risk
- ✓ Low maintenance requirement
- ✓ Minimum environmental impact

COMPARISON TABLE

Criteria	Coal	Natural Gas	Hot Oil	LOTUS
Total cost	High	High	High	Low
Energy loss	High	Medium	Low	Low
Water pollution	High	Medium	Medium	None
Risk	High	Medium	High	Low
Maintenance	High	Medium	High	Low
Modular structure	None	None	None	Available

GENERAL EVALUATION
In conventional systems, **cost is not only fuel:**
- maintenance
- breakdown
- energy loss
- quality loss
- energy loss

LOTUS reduces total cost

EUROPEAN COMMISSION

RITT BJERREGAARD
MEMBER OF THE COMMISSION

Brussels, 14 December 1995
RB/CDAe - 2873
A/95/304

Dear Mr Özçelik,

Thank you very much for your interesting letter concerning your "Hydrogen System". Air pollution and increasing traffic are among the main priorities of the Commission. Your system seems to address both of these problems.

I have transmitted your request to my services in DG XI (Environment), unit Urban Environment, but as a number of Directorate Generals work on this matter, I have also sent the information to other responsible units (DG XII.F3-Research and Technological Development and DG XVII.D3-Energy.

They may be able to give you some further suggestions for the development of your project.

Yours sincerely,

Rit BJERREGAARD

Mr Kemal Özçelik
P.I.A. TANITIM
attn: Ms Rayhan Pinar
Hayrullu Bahçe Sok.
Demet H. 12/41
(Donmen Tiyatrosu Arkasi)
Sisli/Istanbul

Vergleich bei einer Wohnfläche 100 m²	Lotus Plasma-Heizungsanlage		E-Wärmepumpe	E-Therme	Gas-Therme	Pelet - Kessel
Wohnfläche in m2	100.00 m²		100.00 m²	100.00 m²	100.00 m²	100.00 m²
Wärmedämmung	KEINE		KEINE	KEINE	KEINE	KEINE
kWh - Preise in Österreich	kWh Preis von 09.09.2023 / Österreich		1 kWh 0,35 Cent/€	1 kWh 0,35 Cent/€	1 kWh 0,40 Cent/€	1 kWh 0,275 Cent/€
Elektrolyse-Plasma Heizung	Lotus Heizkessel – 6 lm-Heizkörper		E-Wärmepumpe – 6 lm-Heizkörper	E-Therme – 6 lm-Heizkörper	Gas Therme – 6 lm-Heizkörper	Pelet Heizkessel – 6 lm-Heizkörper
	Temperaturen		Temperaturen	Temperaturen	Temperaturen	Temperaturen
Raumtemperatur	20.00 °C bis 22.00 °C		20.00 °C bis 22.00 °C	20.00 °C bis 22.00 °C	20.00 °C bis 22.00 °C	20.00 °C bis 22.00 °C
Außentemperatur	zwischen 0.00 °C bis 5.00 °C		zwischen 0.00 °C bis 5.00 °C	zwischen 0.00 °C bis 5.00	zwischen 0.00 °C bis 5.00	zwischen 0.00 °C bis 5.00 °C
Aufrechterhalten auf 22 °C	Tageswert	24 Stunden	24 Stunden	24 Stunden	24 Stunden	24 Stunden
Dauer der Halbarbeit zu Aufrechterhaltung auf 22 °C	Tageswert	6 Stunden	6 Stunden	6 Stunden	6 Stunden	6 Stunden
Kessel - Heizleistung in KW	Pro Stunde	4 KW	5,5 KW	15 KW	10 KW	12 KW
Messgerät Messwerte	Täglich	24 KW	33 KW	90 KW	60 KW	72 KW
Messgerät Messwerte	Monatlich	720 KW	990 KW	2.700 KW	1.800 KW	2.160 KW
Messgerät Messwerte	jährlich	4.320 KW	5.940 KW	16.200 KW	10.800 KW	12.960 KW
Stromrechnung	Täglich	€ 8,40	€ 11,55	€ 31,50	€ 24,00	€ 19,80
Stromrechnung	Monatlich	€ 252,00	€ 346,50	€ 945,00	€ 720,00	€ 594,00
Stromrechnung	jährlich (6 Monate)	€ 1.512,00	€ 2.079,00	€ 5.670,00	€ 4.320,00	€ 3.564,00

Haushalt > Stromtarif (Höchstwerte berechnet) 0,35 Cent/kWh
Haushalt > Gas-Tarif (Höchstwerte berechnet) 0,40 Cent/kWh
Haushalt > Pelet-Tarif (Höchstwerte berechnet) 0,275 Cent/kWh

Es sind ca. Messwerte (Lotus), welche bei Normalen Umgebungs- und Nutzungsbedingungen und gute Isolierung gemessen und berechnet wurden.

Ergebnis - Zusammenfassung:

Laut einer Hochrechnung könne man wie folgt circa werte annehmen.
Wie aus der Tabelle zu entnehmen ist, ist die Plasma-Heizungsanlagen die günstigste Variante zu heizen. Während die Beheizung eines Hauses mit einer Wohnfläche von 100 m2 mit Erdgas ca. 720,00 € pro Monat beträgt (einschließlich Einzel - Kombikessel - Warmwasser und Kombi-Stromverbrauch), heizt Lotus auf die gleiche Weise für einen monatlichen Betrag von 252,00 €.

Die nächst günstigere Variante zu Lotus Heizungsanlage, mit einer Differenz von PLUS ca. 19 % im Vergleich zu Wärmepumpen wird angenommen, dass die Lotus-Heizungsanlage mit der Einbindung an PV-Anlagen den Stromverbrauch abdecken kann, es wird kohlenstofffrei geheizt und somit die Abhängigkeit von Fossilien Energien zu Gänze abgeschafft, auch die Anbindung an Kamin entfällt. Nicht vergessen, Wärmepumpen brauchen bei minus Grade Außentemperaturen einer elektrischen Heizpatrone, welche die Stromkosten enorm steigern, wobei Lotus immer konstant mit gleicher Leistung auch bei minus 30 Grad Celsius verlässlich heizen kann.

Um den Strombedarf bei Luftwärmepumpen zu decken werden ca. 20-22 Stk. PV-Paneele und entsprechende Inverter benötigt, bei Lotus Heizungsanlagen können Sie mit 9-10 Stk. PV Paneele und entsprechend kleine Batterieanlage, die nötige Energieerzeugung produzieren und speichern, es wird wesentlich an Platz und Geld gespart. Außerdem benötigen Sie bei Lotus Heizungssysteme keine Außeneinheit und auch die Installationsleitungen in die freie, div. Chemische Flüssigkeiten und damit verbundene Aufwand an Montageleistungen und die Lärmbelästigung entfallen.