



# POWERING THE FUTURE

Creating positive loops  
with clean, abundant  
energy for all

**INFORMATION  
MEMORANDUM**

**ENG8**  
CLEAN ABUNDANT ENERGY

“These devices could be so small and powerful that you could put one in your pocket and run your home or car for years with just a couple of drops of water.”

– GEORGE EGELY, ENG8 CHIEF PHYSICIST



## THE PROBLEM

# REVOLUTIONISING TOMORROW'S ENERGY LANDSCAPE

We find ourselves in the midst of an unprecedented global energy crisis, marked by its depth and complexity, highlighting the vulnerability of our fossil fuel infrastructure. The stability of electricity and gas supply in many countries is faltering, leading to skyrocketing energy prices that are triggering a cost-of-living crisis affecting the world's poorest and most vulnerable.

Yet, the journey to zero emissions is riddled with obstacles. Even renewable energy sources, once a beacon of hope, reveal limitations in scope and impact. Powering our homes, offices, and cars with sustainable energy can exacerbate financial burdens and pollution; and global regulations, while necessary, disproportionately affect low-income communities, pushing them into fuel poverty.

We are hurtling toward a future where energy becomes a privilege for the few. In 2021, 675 million people were without electricity, and 2.3 billion people relied on harmful cooking fuels. Current projections estimate that by 2030, 1.9 billion people will lack access to clean cooking, and 660 million will be without electricity if we do not act now. [Source: International Renewable Energy Agency]

We can change how we power our world and conserve the planet's natural resources.

THERE WILL BE WINNERS AND LOSERS

## CATALYSED FUSION ENERGY

As countries and industries pivot towards greener solutions, companies embracing innovative, sustainable technologies will lead the new energy era. Those clinging to fossil fuels will find themselves on the wrong side of history, grappling with regulatory pressures, market displacement, and a tarnished public image. ENG8<sup>®</sup> stands at the forefront of the renewable energy revolution, offering a solution that transcends the limitations of the past.





## OUR SOLUTION

# INTRODUCING THE ENERGICELL®

EnergiCells possess the potential to decentralise energy generation, decarbonise the economy, and slash energy prices. It's not just a product; it's a transformative shift towards a cleaner, more sustainable energy landscape and a fairer world.

- Decentralised
- Low-cost
- Sustainable
- Portable
- Efficient
- Emissions-free
- Versatile

THE BASIC IDEA

# HOW ENERGI CELLS WORK



# EVOLUTION OF THE TECHNOLOGY

## ORIGINS



In 2010 Russian theoretical nuclear physicist and academic, Professor Vladimir Leonov, published his Theory of Superunification Via Cambridge International Science Publishing, based

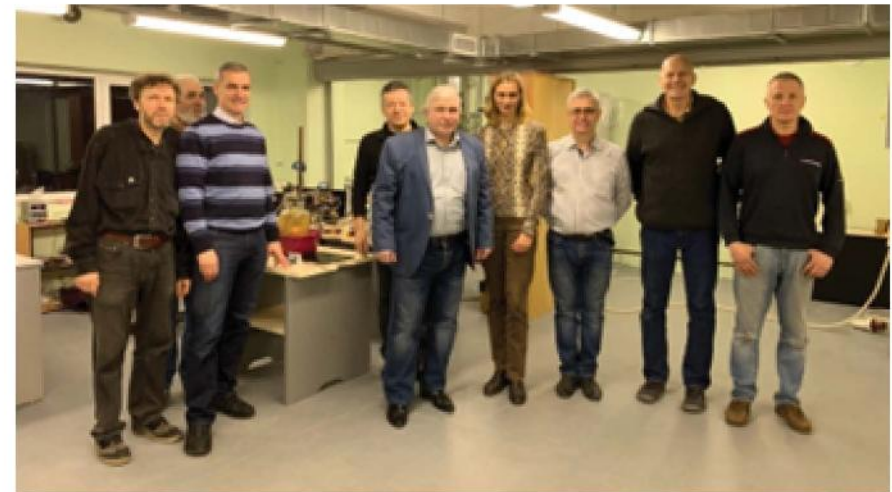
on Quantum Energetics / super-strong electromagnetic interaction, and began working on a precursor of the ENG8 catalysed fusion EnergiCells.

## DEVELOPMENT

Professor Leonov's work was taken up by colleagues at a purpose-built laboratory, funded since 2018 by Valeria Tyutina, CEO of ENG8, and other investors.

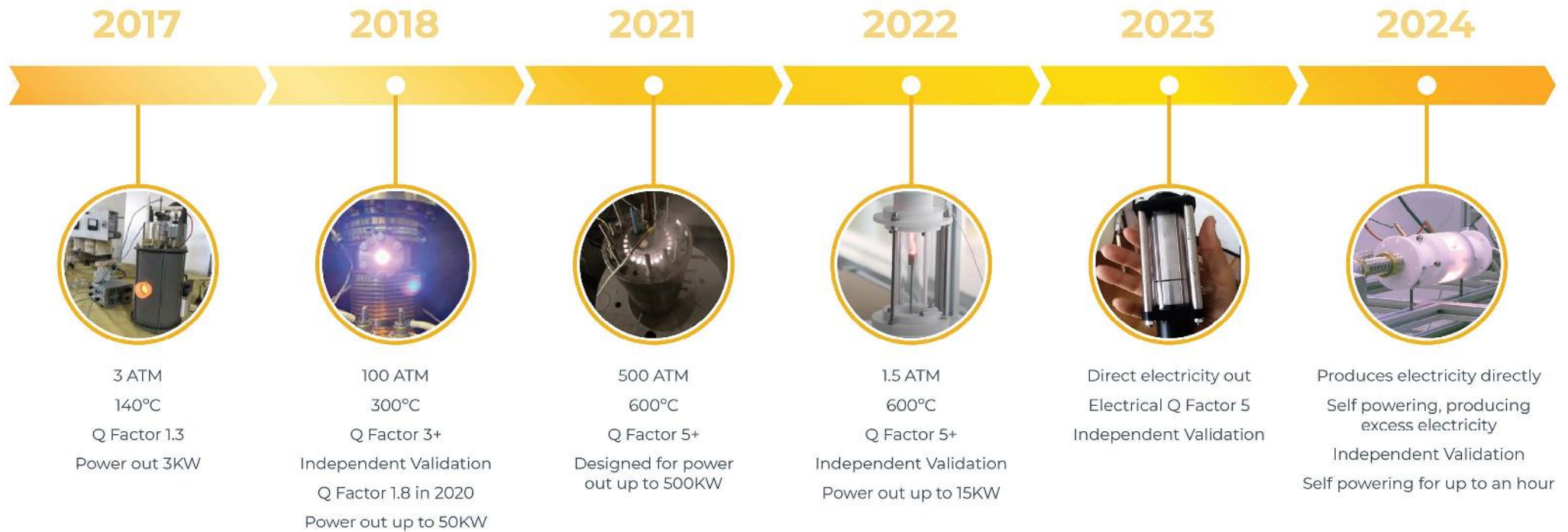
## TODAY

ENG8's teams in Europe are developing the EnergiCell technology which has so far been independently validated to generate twice as much thermal and electrical energy than they consume. The team in Europe and North America are now focused on increasing the efficiency of the EnergiCells and preparing ENG8 to start generating revenues from energy sales whilst field testing in 2024.



A BRIEF OVERVIEW

# GENESIS OF THE ENERGICELL





## KEY FEATURES & BENEFITS

The challenges of Net Zero transition by 2050 are universal: financial burdens, regulatory constraints, and ethical concerns. ENG8 tackles these head-on with innovative catalysed fusion technology, poised to unravel the “energy trilemma” of security, equity, and sustainability.



### **MODULARITY**

Adaptable in various sizes, EnergiCells cater to diverse applications, from powering individual homes to fueling entire industries.



### **ACCESSIBILITY**

Crafted from readily available materials, EnergiCells aim for a scalable energy revolution.



### **DIRECT ENERGY CONVERSION**

Unlike other renewable sources, EnergiCells directly convert fusion energy into usable power, bypassing the inefficiencies of intermediate processes.



### **NO HARMFUL EMISSIONS**

ENG8 upholds the promise of zero-emission energy, aligning with the global mandate for a cleaner planet.



VALIDATION BY:



## TESTS & PROOF

# INDEPENDENT VALIDATION

Our EnergiCells are regularly validated by independent entities to prove fusion and performance.

An EnergiCell was first independently validated in the UK in December 2020 by Dr. Robert Morgan from Brighton University.

The independent validation showed that 1.8x more energy in the form of heat was released than from the electricity used to power the EnergiCell; thus, the Q Factor is 1.8.

In H1 2023 transmutation, the proof of fusion was independently validated by CICECO and the University of Cambridge.

In August 2023, IEP validated a thermal Q Factor of 6.4 and separately, an electrical Q Factor of 2. The following day, a leading US laboratory independently validated Q2 electrical.



## RESULTS

# STEP INTO A NEW ERA



### CLEAN

Embrace a new paradigm of clean energy, free from emissions, transforming the way we power our lives.



### ABUNDANT

Catalysed fusion promises not just efficient, but limitless energy, revolutionising our collective futures.



### FOR ALL

Imagine a world where energy access is democratised for everyone, driven by compassion for the planet and its people.



# INTELLECTUAL PROPERTY

As the owners of the breakthrough technology, ENG8 has a thorough IPR protection and exploitation strategy.

- First key patent has been applied for in December 2019 (UK and Netherlands) and in January 2020 at the WIPO (PCT/EP2020/084425 filed 3 December 2021 with priority date 11 December 2019). This has now been filed in multiple countries.

- A second, very comprehensive, patent has been applied for in February 2021 to protect all know-how related to the development of the EnergiCell during 2020. Second patent was filed at WIPO (PCT/GB2022/0504 73 with priority date 19 February 2021), and this has now entered national phase worldwide.

- A patent application was filed in February 2023 to include numerous claims from developments in 2021 and 2022.

ENG8 is registering its IPR rights in all major markets. ENG8 has engaged consultants and advisors with the highest level of industry experience to protect and exploit our IPR, including:

- Greg Sachs at VPS and Greg Sachs Associates – patent attorneys
- Joel Barry at Brandsmiths – leading IPR law firm

All patent rights, IPR, trade secrets, the confidential information, copyrights and trademarks to the EnergiCell technology have been novated to ENG8 International Limited.



Netherlands Patent Office  
*Netherlands Enterprise Agency*

OUR ENG8 JOURNEY

# THE ROADMAP

WHERE WE'VE BEEN



## TEAM

Finding the right people, scientists, engineers and partners for our team

2017



## TESTING

Proving the Energicell technology through independent validation

2020

2025



## COMMERCIALISING

Taking the Energicell from lab to scalable commercialisation

WHERE WE ARE NOW

# PRODUCTS & SERVICES

The EnergiCells that ENG8 is now developing and testing are currently scaled to meet over 50% of humanity's energy requirements. The capital and energy generation cost should be significantly lower than alternative energy sources.

## “SOLID STATE” 1 WATT TO 1KW RANGE

will be able to power electrical appliances from mobile phones, laptops, lighting systems, bicycles. These shown here are battery-sized units ideally coupled with batteries for load balancing. *Validated by leading US Laboratory*



## AIRCOOLED 1KW TO 10KW RANGE

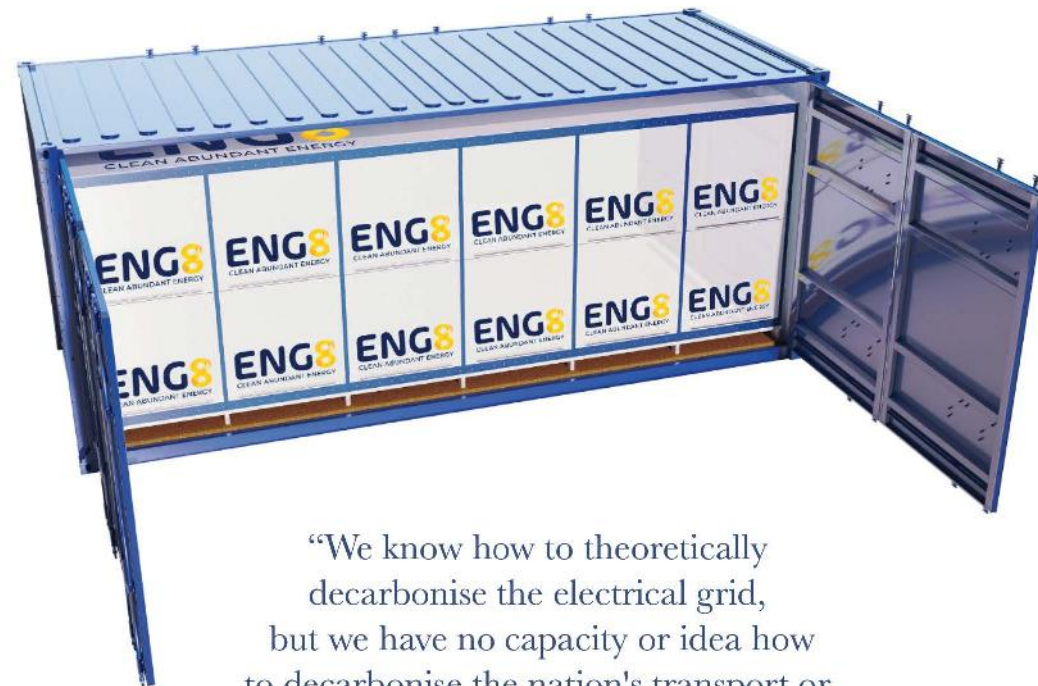
will power the majority of houses and electric cars worldwide. Here is a pallet mounted unit in development that could be placed outside or inside a house.

*Validated by Electrical Technical Institute of Portugal.*



## 10KW TO 100KW RANGE

10kW to 100kW range is enough to power most vehicles and buildings, especially when combined into “quantised” or modular power plants that could produce megawatts of energy. *Validated by Prof. Robert Morgan, University of Brighton.*



“We know how to theoretically decarbonise the electrical grid, but we have no capacity or idea how to decarbonise the nation's transport or heating requirements.”

- UK National Grid PLC

## THE PEOPLE BEHIND ENG8

# TEAM SPOTLIGHTS

We have over forty scientists and engineers, with eight collective PhDs among them, involved in the development of ENG8 and the EnergiCell technology.



**VALERIA TYUTINA**  
**CEO**

ENG8 co-founder with a background of 20 years in science and technology innovation, Valeria oversees the planning and day-to-day operations of the ENG8 business inline with its mission.



**GEORGE EGELY**  
**CHIEF PHYSICIST**

George is a seasoned research engineer with over three decades of experience in renewable energy production and catalytic low energy nuclear fusion. He contributes extensively to advancing the field of clean, renewable, affordable, safe heat and energy production.



**HASLEN BACK**  
**BDO**

ENG8 co-founder with a wide range of management and commercial skills combined with first hand experience of applying the ENG8 technologies. Haslen is responsible for business development.



JOIN THE POSITIVE LOOP

## INVEST IN POWERING THE FUTURE

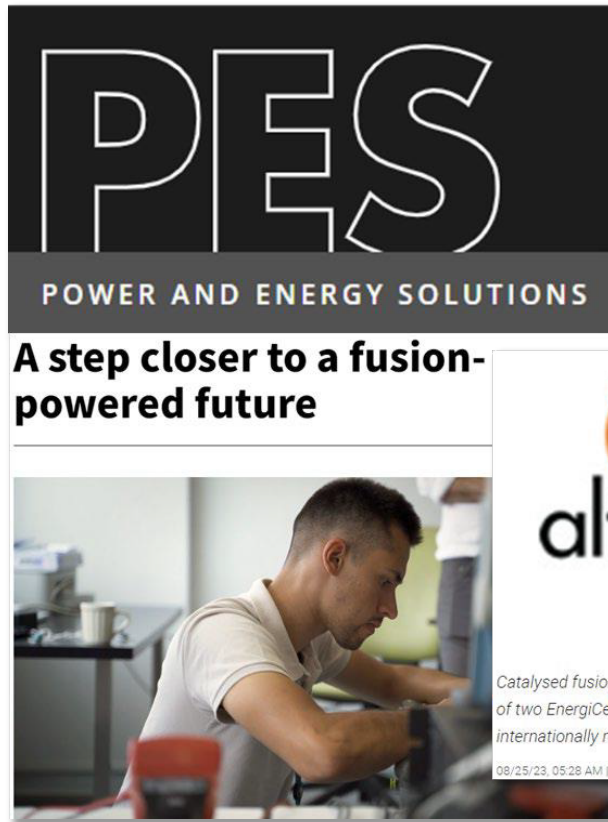
Be a part of our movement towards a greener, cleaner, and more accessible energy landscape. It's time to make a real difference—because the future starts now.



TALK WITH US

**QUESTIONS?**

# LATEST PRESS ARTICLES



**altenergymag.com**

**A step closer to a fusion-powered future**  
Visit <https://eng8.energy/register/> for further information

*Catalysed fusion specialists at ENG8 International have confirmed the successful validations of two EnergiCells by the Instituto Electrotécnico Português (IEPpt) in Portugal and internationally renowned Underwriters Laboratories (UL.com) in the USA.*

08/25/23, 05:28 AM | EVs and Fuel Cells

**LOAD BUSINESS**

**MEDIA RELEASE**  
Electrifying Developments at ENG8 take us closer to Clean Energy Commercialisation by 2024

## Electrifying Developments at ENG8 take us closer to Clean Energy Commercialisation by 2024

**BUSINESS INNOVATION NEWS**  
AUGUST 31, 2023

*[A close-up of a complex electronic device with various components]*

# VIDEOS



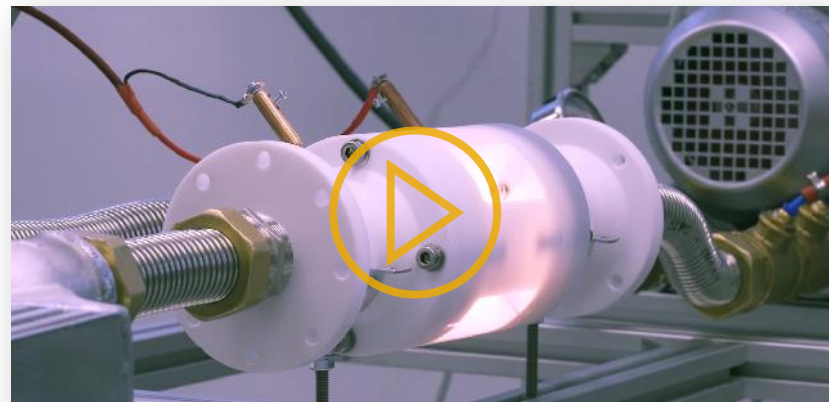
INVESTIGATION OF THE ENERGICELL



CATALYSED FUSION



ENERGICELL VALIDATIONS



ENG8 2024 UPDATE

## INVESTOR TESTIMONIALS

“this startup is in a leading position in the race to market”

LUTZ JAITNER, CP RESEARCH GROUP,  
CONDENSED-PLASMOIDS.COM

“evidence of measured power inputs and outputs, which clearly show that energy is being produced”

PETER CANNELL, MA (CANTAB), C.ENG,  
MIMECHE, MIET

“I believe ENG8 has the potential to truly disrupt the energy sector, providing clean, emission-free energy...”

DR PETER J LENK, FIET

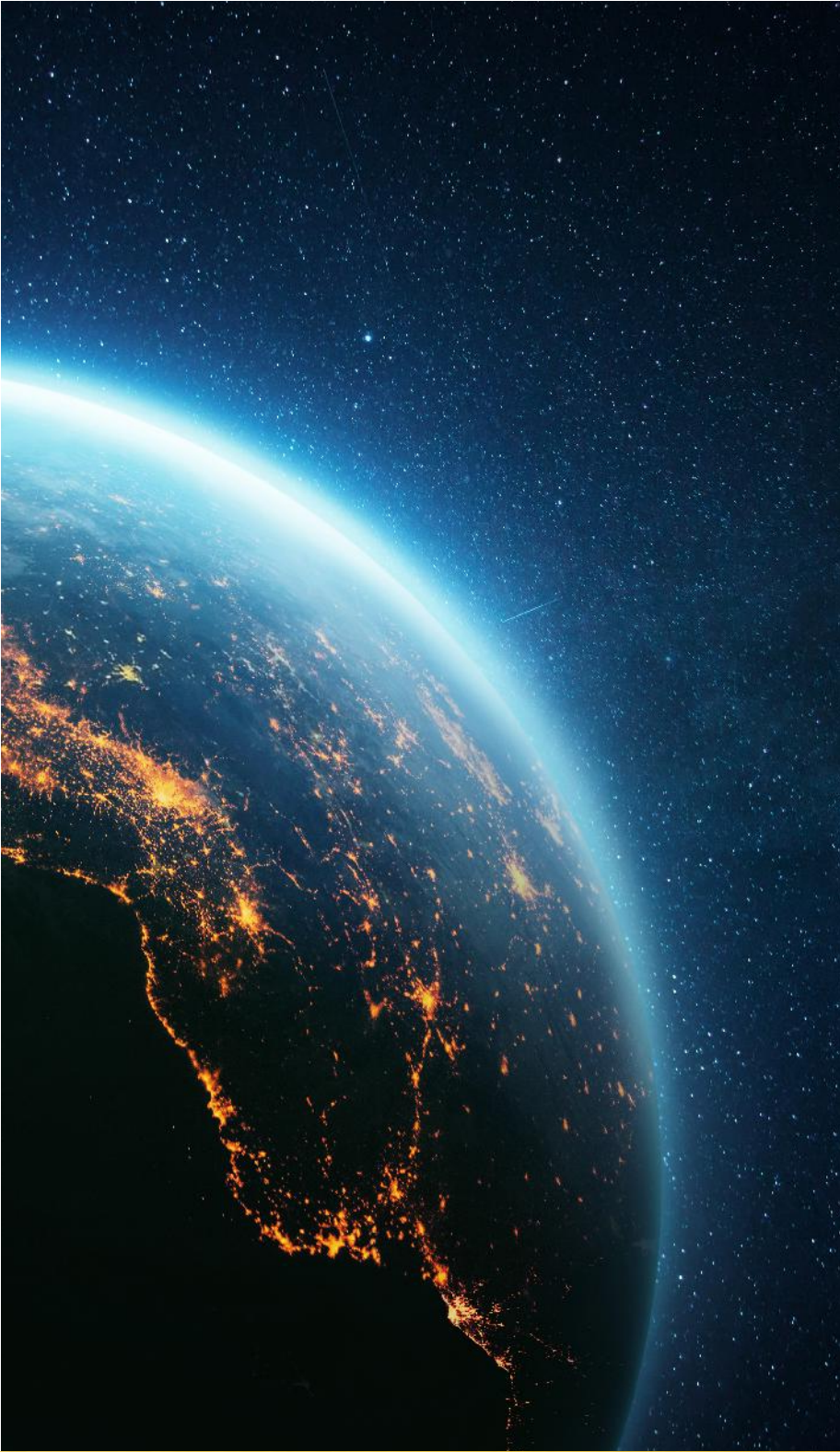
“revolutionary for the energy sector”

J BATES,  
FINANCE DIRECTOR

“They appear to be ahead of the marketplace...”

JOHN INSTON,  
SMALL TO MEDIUM INVESTOR

[READ MORE ON OUR WEBSITE >](#)



## USEFUL REFERENCES

- [How private companies are bringing clean, green, nuclear fusion energy closer to reality](#)
- [Introducing LENR](#) from Sabine Hossenfelder
- [What is Cold Fusion?](#) LENR-CANR.org (a library of papers about cold fusion)
- [DARPA funding LENR research 2022](#)
- [Fusion industry association](#)
- [News site for LENR](#)
- [Condensed Matter Nuclear Science conferences in the USA](#)
- [Solid State Fusion: The Formation of a Scientific Field](#) (ICCF-24 MIT 2022)
- [ICCF-25 MIT 2023](#)
- [Cold Fusion Now](#)
- [The LENR forum](#)
- [A Japanese company looking at deploying LENR products in 2026](#)
- [Toyota and Nissan Participating in Japanese LENR Research](#)
- [NASA on LENR](#): According to NASA, LENR has 8 million times the energy density of chemical processes. LENR does not require radioactive materials and does not seem to generate radioactive by products or risk dangerous chain reactions.
- A good reference book is Steven B. Krivit's [Explorations in Nuclear Research](#) three-book series.



## **ENG8 INTERNATIONAL LTD**

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