# EnerGeo Newsletter

Count Down Net Ø Carbon

NOVEMBER 2024 ISSUE

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### CEO Message

My COP29 Call to Action for Our Planet

Karl Farrow
- CEO CeraPhi® Energy

Distinguished delegates, honored guests, and citizens of the world.

It is both a privilege and a sobering thought to address COP29 gathering at a time when the stakes for our planet's future could not be higher. The world is watching, not just for our commitments, but for decisive action to secure a livable, equitable, and sustainable future for all.

The evidence is clear: the impacts of climate change are no longer distant warnings; they are unfolding before our eyes. Communities in every corner of the globe are grappling with rising sea levels, unprecedented wildfires, devastating floods, and prolonged droughts. The biodiversity of our planet is under siege, with species vanishing at an alarming rate. And while these challenges affect everyone, it is the most vulnerable among us who bear the heaviest burden.

The latest science tells us that global emissions must peak by 2025 and be halved by 2030 to keep the 1.5°C target alive. Yet, current efforts are falling short. Don't gather to debate the urgency of the crisis — that is beyond question. We must act.

This is the decade that will define the trajectory of life on Earth for generations. Our decisions must rise to meet this historic moment.

We must accelerate the transition to renewable energy. Investments in renewables must double by 2030, and subsidies for fossil fuels must be redirected to green innovation and infrastructure.

We must prioritise climate justice. Developing nations, though least responsible for the crisis, face its harshest impacts. It is our collective moral obligation to deliver on climate finance pledges, including the long-overdue \$100 billion annual commitment, and to operationalise the Loss and Damage Fund agreed upon in COP28.

We must safeguard our natural ecosystems. Forests, wetlands, and oceans are our best allies in mitigating climate change. Protecting and restoring these ecosystems is not optional — it is essential.

Finally, we must ensure accountability. Words without action are meaningless. Nationally Determined Contributions (NDCs) must be strengthened, and mechanisms for transparent monitoring and reporting must be robust and binding.

Together, we can bend the arc of history toward justice and sustainability.

A Call to Action

This is not a moment for incrementalism. The climate crisis is moving faster than we are, and every delay has dire consequences. The world looks to us, not just for promises, but for tangible progress.

Let COP29 be remembered as the turning point — the moment when humanity chose courage over complacency, action over inaction, and solidarity over division. Together, let us ensure that the legacy we leave behind is a thriving, equitable, and resilient planet.

The time to act is now. Let us rise to this moment, for the sake of our shared home and the generations yet to come.

Karl Farrow





## ESG Commitment

### ESG Changes to UK and EU

As Environmental, Social, and Governance (ESG) standards rapidly evolve in the UK and EU, CeraPhi Energy is committed to upholding and enhancing our ESG practices across every area of our business. Recent regulatory developments, including the EU's Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS), as well as the UK's sustainability frameworks, are setting a new bar for transparency, environmental accountability, and social impact. These frameworks, along with global standards from the International Sustainability Standards Board (ISSB), align closely with CeraPhi's core values and mission to drive sustainable geothermal energy solutions.

In particular, the UK has shown leadership by advancing rigorous, standardised ESG disclosure requirements to ensure consistent, high-quality sustainability reporting across sectors. At CeraPhi, we view this commitment as a model and take it as an opportunity to deepen our own ESG efforts. From reducing our carbon footprint and implementing sustainable geothermal technologies to ensuring ethical business practices and

fostering community partnerships, we are dedicated to meeting and exceeding these standards, with a strong commitment to transparency and clarity.

Sustainability reporting frameworks like the ESRS, ISSB, and UK-specific standards emphasise robust, comparable data. CeraPhi is dedicated to providing investors and stakeholders with reliable ESG information. CeraPhi is also preparing for the regulatory shifts anticipated in 2025 by aligning our practices with the new UK and EU standards to stay at the forefront of sustainability.

CeraPhi Energy is proud to contribute to a more sustainable and socially responsible future, integrating our ESG goals with regional and global standards to remain a responsible and innovative force in the energy sector.



### Company Update

### New Website Launch

We're proud to announce that CeraPhi Energy has a new website, CeraPhi.com! This update represents a major step forward in showcasing our commitment to advancing geothermal energy and sustainable solutions.

The new site is designed to provide a clear and concise overview of who we are, what we do, and where we're headed. You'll find the latest information on our geothermal projects, innovations, and strategic goals as we continue to push the boundaries of clean energy.

Our CEO, Karl Farrow, said, "This new website reflects CeraPhi's evolving vision and commitment to leading the geothermal sector. We're thrilled to offer a platform that not only highlights our achievements but also engages with our partners and stakeholders."

The launch coincided= with World Geothermal Day on the 17th October.

We invite everyone to explore the new website and learn more about our journey towards a cleaner energy future at www.CeraPhi.com!



### Projects Update

# Shared Prosperity Fund Awards to Kirby Misperton and Habton



CeraPhi Energy has partnered with local Parish Councils on Geothermal Heat Networks.

The collaboration with Kirby Misperton and Great & Little Barugh Parish Councils on two innovative geothermal heat network projects in North Yorkshire are well underway. Supported by the UK Government's Shared Prosperity Fund and match funded by Third Energy, these projects aim to convert existing gas wells into sustainable, low-cost heat sources for local communities.



In Kirby Misperton, CeraPhi Energy will assess the feasibility of converting three former gas wells to supply heat to the village. A similar project will explore converting four wells for heat in the villages of Great & Little Barugh. These initiatives represent a significant step toward greener, more secure energy solutions for rural areas, helping reduce carbon emissions while providing cost-effective heating.

Both Kirby Misperton and Great & Little Barugh Parish Councils have expressed excitement about the potential to transform fossil fuel infrastructure into renewable energy sources, and CeraPhi Energy is proud to lead the technical studies in these groundbreaking projects.

### Supporting NHS Sustainability Goals

CeraPhi Energy is working closely with more than a dozen NHS hospitals to bring geothermal solutions that support sustainability and significantly reduce carbon emissions across healthcare facilities. As part of this commitment, we are revisiting the feasibility study we previously conducted for James Paget University Hospital (JPUH) to align with the hospital's updated infrastructure plans.

Using CeraPhi's geothermal expertise we are helping organisations like NHPower and the Carbon and Energy Fund to access funding pathways. This, in turn, enables NHS Trusts to support geothermal infrastructure projects. These collaborations showcase our commitment to making low-carbon energy solutions a reality for healthcare facilities nationwide.

Our approach involves implementing a hybrid geothermal system with heat pumps to meet the majority of each hospital's heat demand. Initial assessments suggest this setup could supply approximately 85% of the required heat while using 80% of the available energy from geothermal wells.

This balance is key, as it maximizes well utilisation without overexerting the system, ultimately reducing the cost per kilowatt-hour of thermal energy.

Additionally, maintaining some spare capacity in the system enables well recovery during low-demand periods, providing flexibility, redundancy, and resilience against unseasonable weather. This adaptable design ensures that our geothermal solutions are sustainable, efficient, and capable of meeting the demands of NHS hospitals throughout the year.



### CeraPhiWell Recognised for Enhancing Energy Security in Defence Sustainability Report

We are excited to announce that CeraPhiWell has been highlighted in a significant government report on Defence Sustainability, showcasing our contributions to energy security.

The report's introduction emphasises the collaborative efforts of AECOM, BAE Systems, Frazer-Nash, the Royal United Services Institute (RUSI), and the Defence Science and Technology Laboratory (DSTL). Together, they conducted a series of roundtable discussions, supported by the Directorate for Climate Change and Environment (MOD), to tackle the critical challenge of bridging the affordability and incentivisation gaps in adopting innovative solutions for Climate Change and Sustainability (CC&S). These discussions brought together leading experts and innovators from various institutions.

Published in October 2024, the report, titled 'Defence: Sustainability as a Competitive Advantage (DSTL/ PUB161887)', highlights the myriad benefits of CeraPhiWell. Identifying one of the many benefits of the CeraPhiWell it states: "CeraPhiWell provides a noiseless, resilient, and maintenance-free source of heat that can replace existing generators or plants when drilled deep enough. This innovation not only reduces logistical resupply needs but also allows for a streamlined maintenance team, optimising resource allocation."



Karl Farrow, CEO of CeraPhi Energy, remarked: "It's fantastic to see our team's efforts recognised in this pivotal report. CeraPhi is dedicated to supporting the Armed Services alongside our commercial clients."

To explore the full report, click here: Defence: Sustainability as a Competitive Advantage

For more information about our innovative solutions, visit www.ceraphi.com.

### Events

# CeraPhi Strategy Day: A Time for Connection and Alignment



On July 30th, the CeraPhi team gathered at The Waterside in Rollesby for our bi-annual Strategy Day. These sessions are an essential part of our journey, providing a fantastic opportunity for us to reconnect, realign, and ensure that everyone is united in driving forward our mission. This time, we were pleased to be joined by several board members, further enriching the discussions.

Our CEO, Karl Farrow, kicked off the day with a welcome address, discussing the latest UK government energy agenda and how CeraPhi can contribute to solving the critical energy challenges ahead.

The next session, led by Ralph Hardwick, focused on Process Mapping. Ralph outlined the importance of this initiative, explaining what we are doing, how we are doing it, and why it matters. The goal is to set standards, enhance efficiency, and ensure that every team member understands their role in delivering successful projects. Through this exercise, we identified gaps in skills and staffing, choke points in processes, and established controls to streamline our operations.

After the hard work, we took time for team bonding, enjoying a boat trip on the Broad followed by a fun "How Well Do You Know Your Colleague" activity. We wrapped up the day with a BBQ and quiz, skilfully crafted by our in-house quizmaster (and Geologist), Barry Read.

Our Strategy Day was a great success, leaving us more aligned, energised, and prepared for the challenges ahead.

### We have been busy!

#### NHS Can Do Health and Care Expo

13th September, Colchester

Karl Farrow addressed delegates at the NHS Can Do Health and Care Expo in Colchester, showcasing how geothermal energy can decarbonise heating within the NHS. CeraPhi also had an exhibition stand to share more information.



#### GeoEnergy 2024 and Care

26th September

Karl Farrow participated in the International GeoEnergy 2024 event in partnership with Geothermal Ukraine, an insightful online event focused on global geothermal developments.



### Net Zero Supply Chain Conference & Exhibition 3rd October, Sedgefield

Gary Williams presented to over 200 delegates at the NOF Net Zero Supply Chain Conference & Exhibition 2024 in Sedgefield, highlighting geothermal's role in net zero strategies.



### World Geothermal Energy Day 17th October

CeraPhi celebrated World Geothermal Energy Day with the launch of our brand-new website. Internally, the team came together for a fun collaboration, building a geothermal well out of LEGO!



### Pickering Community Engagement Day 7th November, Pickering

CeraPhi, in partnership with Pickering CIC, ran a Community Engagement Day in Pickering to inform residents about the well transition plans at the KM8 well site.



### Upcoming

#### **FUTUREBUILD 2025** 4 - 6 March, London, UK

The most impactful event in sustainable innovation for the built environment.

As Futurebuild celebrates its 20th anniversary, the theme for 2025 is Impact—marking two decades of driving positive change in the built environment and the communities we serve. Be part of this milestone event and contribute to shaping a more sustainable future.

https://www.futurebuild.co.uk/



### **TEAM UPDATES**

### **Summer Students**

This summer, CeraPhi Energy was fortunate to host several bright students for valuable work experience, injecting fresh energy and ideas into our team.

Zack Walsh, a former East Norfolk Sixth Form College student, worked closely with our Chief Geologist, Barry Read, on an important research project examining granite formations across the UK. His work will play a key role in shaping future geothermal energy developments. Zack's dedication and effort was truly impressive, and as he studies for his Geology degree at Camborne School of Mines, University of Exeter, we know he will continue to achieve great things.



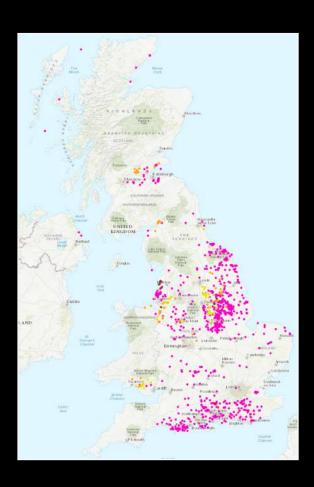


In addition, we welcomed two more promising students from East Norfolk Sixth Form College, Owen Nockolds and Bethany Gordon, for a 20-day industry work experience program at our Great Yarmouth office. Owen and Bethany dived into the exciting world of geothermal energy, contributing to valuable geological data that will inform our upcoming projects. Their growth in knowledge, confidence, and professionalism over the course of just a few weeks was inspiring.

We are incredibly proud and thankful for the contributions Zack, Owen, and Bethany have made during their time with us and look forward to seeing where their academic and professional journeys take them.

Here's to fostering the next generation of geothermal innovators!

### UEA Master's Students Tackle Geothermal-Solar Hybrid Solutions



We are excited to announce that two master's students from the University of East Anglia (UEA) have begun dissertation projects in collaboration with CeraPhi. These projects focus on two critical areas: integrating solar PV and solar thermal hybrid systems with geothermal energy and studying geothermal fluids and heat exchangers.

One of the projects, titled 'Solar PV/PVT Systems for Enhancement and Decarbonisation of Geothermal Power Plants', is exploring ways to make geothermal systems emissions-free. The student will assess the feasibility of using solar PV and solar PV-Thermal (PVT) systems to power geothermal fluid borehole pumps and boost fluid temperatures. The study will focus on evaluating the potential for these technologies in various regions across the UK, accounting for differences in solar radiation.

CeraPhi is providing essential data and support, and the research from both students will offer valuable insights for our efforts to develop emissionsfree geothermal solutions. We look forward to the results, which will no doubt play a key role in shaping future innovations at CeraPhi.

### Remembering Glen Falco

A year has passed since we lost our colleague and friend Glen Falco, and his memory continues to resonate deeply within the CeraPhi Energy family. Glen's legacy in geothermal energy and his unwavering support for his colleagues are still felt today. Over the past year, Ralph Hardwick and Jimmy Farrow have built upon Glen's contributions and his legacy continues to shape our work, reminding us of the lasting impact he had on our mission.

As we reflect on this past year, we honour Glen's memory, his spirit and influence remain strong.



# Global Energy Developer Delivering Integrated Geothermal Energy Solutions



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