



THE ENERGY GROUP

The Geological Society
Burlington House - Piccadilly - London

Annual Report 2026

Chair's Statement

The Energy Group of the Geological Society continued in 2025 in the same successful fashion as 2024, delivering a full programme of six conferences across the year. The Group's events continue to bring together geoscientists, engineers, and policymakers, reflecting the growing interest in understanding the role of geoscience in today's energy landscape and into the future. Across the full programme of events, we saw:

- 684 attendees across six diverse conferences
- 72% attending in person, 28% virtually
- ~150 presentations

The 2025 conference programme spanned discipline-specific topics, such as pore pressure and geohazards, as well as emerging sectors of energy geoscience. All events were held in a hybrid format, with strong in-person attendance. This year, the Group returned to hosting all events at Burlington House, where the preference for in-person participation remained high.

We greatly appreciate the efforts of the conference convenors and Geological Society of London staff, whose careful planning and logistics ensured the success of the hybrid approach and delivered technically excellent programmes, following our ethos of being at the forefront of energy geoscience. Given the continued success of this format, we will maintain hybrid delivery for future events to maximise accessibility.

Financially, the Energy Group had a very strong year, returning a surplus of £60,943 to the Geological Society, exceeding the forecasted £26,630. This success was underpinned by the conference programme. We thank our corporate sponsors: BP for their financial support, and Snowfox, Viridien, Global Maritime, NGI and Sequeent for sponsoring events throughout the year. In 2025, we were proud to introduce our Student/Early Career Contribution Prize, recognising contributions with significant potential impact in the energy sector. Congratulations to our inaugural winners. Looking ahead to 2026, the Energy Group plans to deliver five conferences covering a broad range of topics, continuing our efforts to expand the Group's remit beyond its traditional focus.

The Annual Dinner, held at Burlington House, provided an opportunity to celebrate the work of our community and recognise individuals making exceptional contributions to energy geoscience. Our award winners were: Energy Group Medal: Henk Kombrink, and Early Career Energy Geoscientist Award: Matt Sharp.

Finally, I would like to extend my sincere gratitude to all convenors, presenters, and attendees. Personally, I would like to thank the Energy Group committee, particularly members who have completed their terms—Munira Raji, Woody Wilson, Stuart Gilfillan, Eleanor Rollet, Michele Martins, Nick Lee, and Christopher Lloyd—whose contributions underpin the Group's success.

As I step down as Chair, it has been a privilege to serve both the Group and the Society, and I wish the Energy Group every success in the future. Reflecting on my time on the committee, I am reminded of the immense value of coming together to advance the future role of geosciences. While we may not always agree on every scientific detail, the collective voice of our community is crucial in championing the importance of geosciences within the energy sector, and in highlighting the ongoing need for high-quality geoscience education and research. To achieve this, we must

continue to demonstrate the tangible impact of our work on energy security, environmental sustainability, and economic growth.

I would like to express my gratitude to the Geological Society of London staff, whose dedicated support has been invaluable in the success of the Energy Group in 2025.

Conference Report

In 2025, the Energy Group delivered six conferences, with an average attendance of 114 delegates per conference (Figure 1). This indicates a strong and stable level of engagement, broadly consistent with recent years. While the average attendance per event was slightly lower than 2024 (121 delegates per conference), the Group maintained a robust programme and continued to attract a solid delegate base across its conference portfolio.

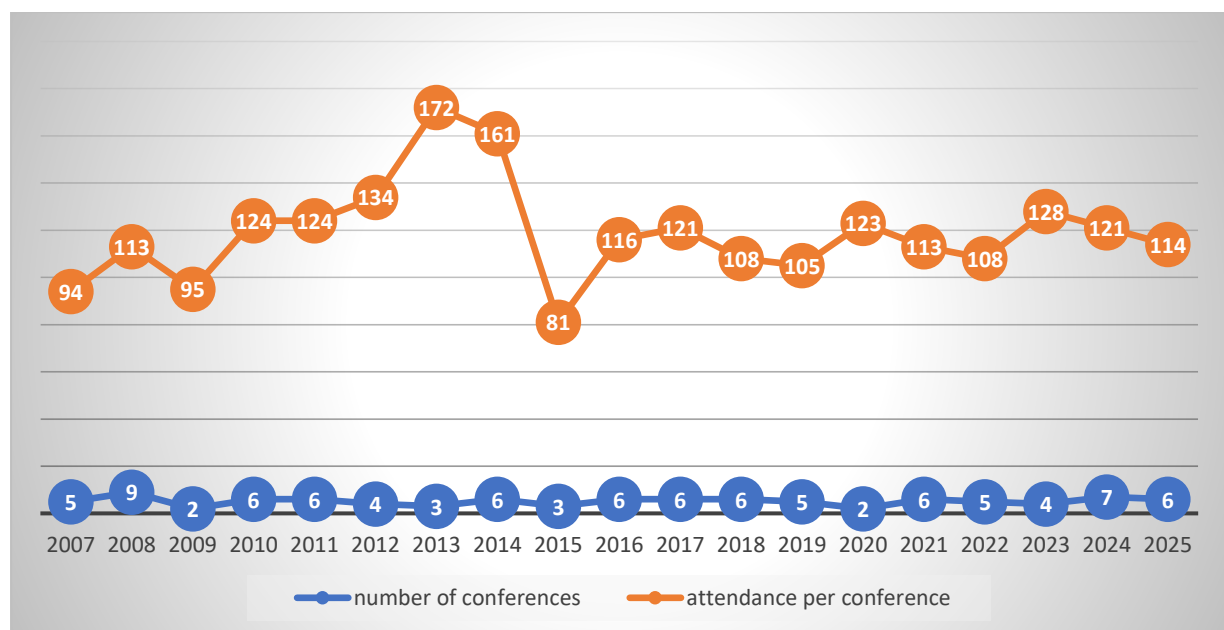


Figure 1. Summary of Petroleum Group/Energy Group conference held each year

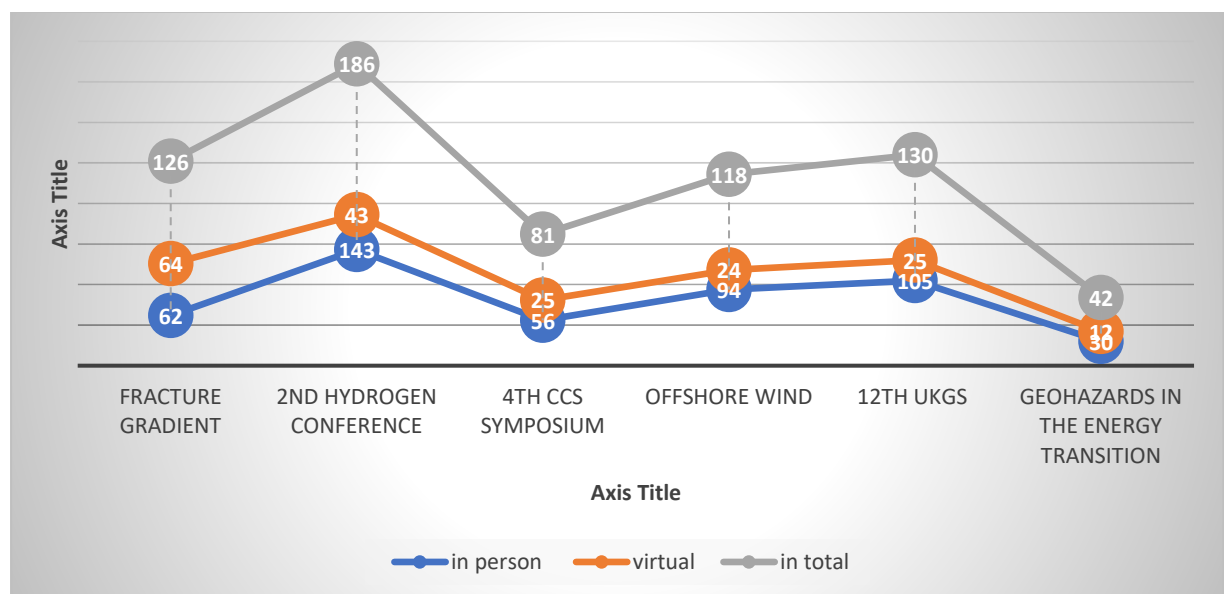


Figure 2. In person vs virtual attendees for 2025

Figure 2 summarises delegate registrations across six conferences we organised this year, split by in-person and virtual attendance. Total registrations ranged from 42 (Geohazards in the Energy Transition) to 186 (2nd Hydrogen Conference). Overall, the events attracted 683 registered delegates, with 490 in-person ($\approx 72\%$) and 193 virtual ($\approx 28\%$), highlighting a clear preference for in-person participation across most events. The 2nd Hydrogen Conference was the largest event (143 in-person; 43 virtual), while 12th UKGS and Offshore Wind also drew strong in-person audiences (105 and 94, respectively). Fracture Gradient showed the most balanced hybrid engagement (62 in-person; 64 virtual), and 4th CCS Symposium recorded a more modest total attendance (81).

Fracture Gradient – Fact or Fiction

On 25–26 March, representatives from major operators and technical service providers met in London for the conference “Fracture Gradient – Fact or Fiction?” to share insights and experiences on predicting rock fracture pressures and associated uncertainties, critical for safe well construction and CO₂ storage. The event featured over 30 presentations, including four keynotes, across ten topical sessions.

Key themes included the need for clear definitions and communication of fracture gradients across disciplines, the variability of casing and liner shoe integrity tests due to operational and geological factors, and the use of bespoke drilling fluid formulations to inhibit fracture growth and safely expand operating windows in sands, mudstones, and shales. Presentations highlighted the value of extended leak-off tests for understanding in-situ stress, the importance of analyzing appropriately adjusted pressure data, and remaining uncertainties in defining stress-path parameters during depletion and re-pressurization.

The conference was praised for its technical quality, breadth of experience, and open discussion, enabling participants to exchange knowledge and best practices effectively, with smooth organisation supported by the Geological Society.

Natural Hydrogen - Understanding the Geoscience

Following on from the successful Energy Group Natural Hydrogen Conference in 2023, this conference focused on recent developments in natural hydrogen geoscience, reviewed the potential realised so far, and assessed the uncertainties that remain. Between the first event in 2023 and this year, substantial progress has been made in advancing understanding of natural and geological hydrogen systems, from fundamental processes through to applied exploration.

The conference covered the full breadth of natural and geological hydrogen research, from fundamental science to applied exploration and technology development. A strong theme was hydrogen system fundamentals, including hydrogen generation through water–rock reactions, redox processes in ultramafic and serpentinized rocks, and multi-scale migration behaviour from planetary to basin scale. Advanced numerical and full-physics modelling approaches highlighted progress in quantifying migration efficiency, preservation, and system dynamics. A second major focus was geological hydrogen stimulation, with presentations addressing scientific challenges, reactive reservoir behaviour, catalytic and electrical stimulation methods, and early laboratory and field pilot studies aimed at controlled hydrogen production. The

programme also emphasised settings, plays, and case studies, showcasing exploration insights from diverse geotectonic environments, including ophiolites, rift-inversion orogens, sedimentary basins, and crystalline basement settings, with examples spanning North America, Africa, Europe, the Middle East, and South Asia. Finally, technology and data innovation featured prominently, including rock physics, geophysical interpretation, potential field analysis, spectroscopy, legacy well data reuse, and the integration of modelling and datasets to improve prospectivity mapping and exploration targeting.

The event featured approximately 45 contributions from across industry and academia, demonstrating the breadth of organisations advancing understanding of this potentially important new energy resource.

2nd Offshore Wind Symposium: Cables, pipelines and shallow infrastructure installation

The 2025 Geological Society Offshore Wind Conference brought together specialists from across the geoscience and offshore engineering communities to share emerging research, technological advances, and applied case studies in support of the rapidly expanding offshore wind sector, this year focused on subsea cables. The programme highlighted the increasingly multidisciplinary nature of offshore wind development, with contributions covering seabed characterisation, site investigation methods, cable burial risk assessment, and innovative approaches to data integration and interpretation.

The 2 days conference was well attended, with a mix of oral presentations and posters by academia and the industry. There were a total of 28 oral presentations and 7 posters. The sessions were organised on the following themes: Geological and Geo-engineering risks and hazards, Ground modelling, Technical and machine learning and Modelling, Floating wind and drag anchors.

4th Carbon Capture Storage Symposium

The 4th CCS Symposium, now firmly established in the conference calendar, focused on what is required to enable success for this emerging industry. The 4th CCS Symposium held at Burlington House built on the success of the previous three years with a focused theme, underpinned by a strong scientific and technical focus on real world examples from appraisal and testing. The convenors were able to put together a solid programme, with several talks directly solicited from key industry projects. Despite the dates conflicting with the World CCS conference in Bergen and a glut of CCS conferences scheduled for September, 81 attendees in total and 28 presentation contributions.

From containment and injection testing to reservoir capacity and uncertainties around seal integrity, the symposium fostered invaluable dialogue. It's clear: CCS is no longer just a concept, it is being operationalised, and this event showcased how strategic site characterisation can accelerate safe deployment. It was encouraging to hear about positive developments in terms of first movers and the promising results from the Leman injection test.

We were also delighted to award the first ever Energy Group Conference Prize for "Best Student or Early Career Contribution" which went to Jonathan Alexander.

Overall, we were hugely impressed by all the student contributions, which clearly demonstrated the industry is in good hands for the future.

We plan to run the conference again in 2026; however, given the crowded CCS conference landscape and signs of industry slowdown, timing, focus, and format need careful consideration.

12th UK Geothermal Symposium

The 12th UK Geothermal Symposium featured 40 presentations, 20 posters, and interdisciplinary discussions, showcasing UK and international advances in geothermal energy. The conference spanned policy, governance, subsurface characterisation, technology development, and deployment pathways, with early sessions highlighting cost estimation, strategic planning, national platforms, and environmental and social considerations for co-located net zero subsurface activities.

Significant focus was given to thermal energy storage and shallow geothermal systems, including borehole heat exchanger design, fibre-optic monitoring, thermal plume characterisation, and numerical modelling, with lessons drawn from battery energy storage. Resource assessment and modelling studies demonstrated growing confidence in regional geothermal potential across the UK and Ireland.

Sessions on mine water geothermal examined techno-economic feasibility, thermochemical behaviour, and institutional frameworks, while deep geothermal and geothermal-lithium sessions highlighted flagship projects such as United Downs and opportunities for co-production of heat, power, and critical minerals. The symposium also showcased novel exploration.

De-Risking Geohazards in the Energy Transition

The inaugural De-risking Geohazards Conference, held on 4–5 December 2025, brought together UK and Northern European scientists to discuss hazards associated with sustainable energy production in the region. The open call for abstracts generated 26 submissions, resulting in 21 oral presentations and 6 posters, delivered to a small but engaged audience of 30 on-site and 12 virtual participants.

Despite modest attendance, the conference was technically excellent. Keynotes included Frans Aben (TNO), who reviewed Dutch de-risking practices in the post-production history of the Groningen Gas Field, and Gareth Wood (BP), who outlined offshore energy project risk assessment methods. Two particularly impactful talks prompted extended discussions: Simona Caruso on optimising marine desktop studies for geohazard screening, and Indrasenan Thusyanthan on soil liquefaction assessment, highlighting how inadequate early-stage de-risking can increase project costs by 10–20×. Patricia Persaud (LSU) delivered a standout virtual talk on seismic monitoring for underground energy storage, combining geotechnical and seismic risk assessment.

Participants highlighted the value of the small format, allowing extended discussion, networking, and idea exchange. Gender balance was good, with several female presenters contributing. Overall, the conference successfully showcased cutting-edge research and fostered collaboration in geohazards for the energy transition.

Energy Group Dinner and Energy Group Awards

Energy Group Medal

The Energy Group Medal is an annual award presented to individuals with a geoscience background who have made an outstanding contribution to the energy industry. The 2025 winner is Henk Kombrink. Henk earned a PhD on the Carboniferous of the southern North Sea (Utrecht, 2008) and built an 11-year industry career across TNO, Total and Lloyd's Register, spanning oil & gas, CCS and geothermal, while publishing 20 peer-reviewed papers. He co-founded and directs the North Sea Core C.I.C. charity to repurpose North Sea cores for education and has since moved into influential editorial leadership as Editor-in-Chief of the *Netherlands Journal of Geosciences* and chief editor of *GeoExpro*, making him a widely recognised voice on subsurface geoscience and the energy transition across the UK and Europe.

Early Career Geoscientist Award –

The Early Career Energy Geoscientist Award is an annual award presented to recognise Energy Geoscientists in the early stages of their career. Nominees must be within ten years (full time equivalent) of the award of their first degree in geoscience or a cognate subject, and either have already made a significant contribution to the understanding of Energy geoscience or be an emerging talent who is making a significant impact in the field. This year this award has given to MATT SHARP for his outstanding contribution in geothermal. Matt is geothermal exploration specialist with a focus on greenfield projects, Matt graduated from Durham University in 2015 with a MSci in Geoscience and is accredited as a Chartered Geologist and Chartered Scientist. With extensive operational experience across Africa, Indonesia, and the UK, Matt combines his technical expertise with strong capabilities in managing health and safety (H&S), environmental and social (E&S) responsibilities, and stakeholder engagement.

2025 Financial Report.

In 2025 the Energy Group has returned a total surplus of £60,943 to the Geological Society (Table 1). The surplus was ahead of the original budget forecast of £26,630 as a result of:

- Excellent numbers of delegates at three of the conferences organised this year, one of which – 2nd Hydrogen Conference - returned c. £37,500 in conference fees, not including sponsors.
- Corporate sponsorship from bp (£8,000) and target sponsors at the two of the conferences organised (£12,500)
- A sustained income from delegate fees at all 6 conferences held in 2025, returning a total conference surplus of £60,943
- No losses at the Annual Dinner, which generated a gain of £1,197
- Low administration costs as only -£1,079 were spent for AGM conference support.

		2024 Forecast	2024 Actual	2025 Forecast	2025 Actual	2026 Forecast
Income	Conference Income	£98,000.00	£150,405.00	£106,000.00	£134,713.00	£110,000.00
	Annual Dinner	£30,000.00	£35,000.00	£20,000.00	£8,600.00	£20,000.00
	Corporate Affiliate Sponsorship	£22,000.00	£20,000.00	£15,000.00	£8,000.00	£28,500.00
	Total Income	£150,000.00	£205,405.00	£141,000.00	£151,313.00	£158,500.00
Expenditure	Conference Costs	£31,500.00	£58,377.00	£58,300.00	£41,888.00	£59,320.00
	Publications	£0.00	£0.00	£0.00	£0.00	£0.00
	Dinner Expenses	£30,000.00	£45,845.00	£15,000.00	£7,403.00	£10,000.00
	Administration	£37,700.00	£36,665.21	£41,070.00	£41,079.00	£43,150.00
	Total Expenditure	£99,200.00	£140,887.21	£114,370.00	£90,370.00	£112,470.00
	Net Surplus/Deficit	£50,800.00	£64,517.79	£26,630.00	£60,943.00	£46,030.00

Table 1 *Energy Group Accounts Summary- 2024-2026.*

We thank our corporate sponsors BP for their support and our conference sponsors Snowfox, Viridien, Global Maritime, NGI and Sequent. The Energy Group will continue to look attract historical and new corporate sponsor across the different industries and new opportunities for targeted sponsorship are now being divulged through the Geological Society media. The new range of sponsorship options will likely result in a more diverse group of sponsors and will return good value for specific conferences in which Industrial interested in greater. We hope the energy sector will continue to provide a strong financial support to the group and the Geological Society. Sponsorship invitation letters have started being circulated and will continue during Q1 and Q2 of 2026.

Energy Group Communications

In 2025 the Energy Group continued to rely on LinkedIn as it's primary online presence, in conjunction with the Society's main webpages for event details and registration. A LinkedIn analytical overview of the Energy Group's LinkedIn organisation page for the 2025 calendar-year snapshot, covering **1 January to 8 December 2025**, shows that the LinkedIn page has matured into a high-performing communication channel for promoting Energy Group activities. Throughout the year, the page amplified and promoted major conferences organised by the Group. During this period, the page generated 56,664 total impressions, 4,289 engagements, and maintained an overall engagement rate of 7.6%, significantly higher than the typical LinkedIn benchmark of 3% for strong organisational pages.

Throughout 2025, the Energy Group recorded impressions on 335 out of 342 days, demonstrating a consistent presence and sustained audience interest. Daily visibility averaged 166 impressions, with 12 interactions per day through clicks, reactions, comments, and reposts. All activity during this period was 100% organic, confirming that the Energy Group's reach and engagement continue to grow without paid promotion.

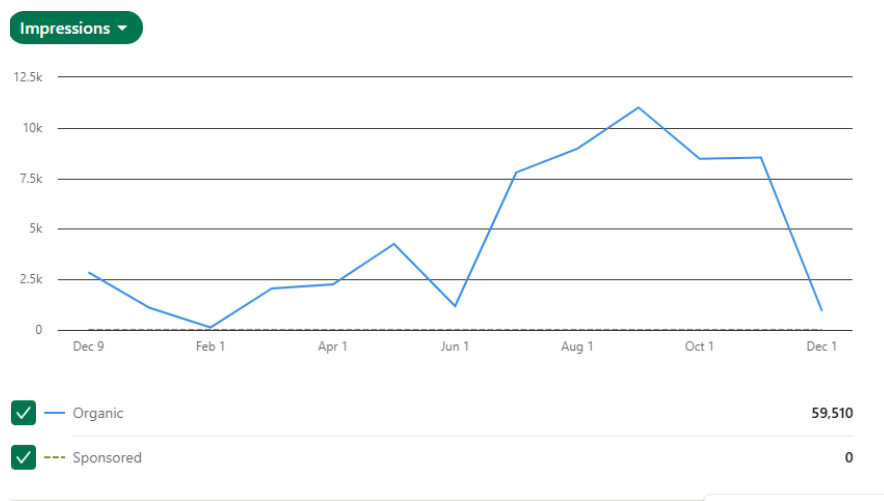


Figure 3. LinkedIn statistics, impressions for 2025

Quarterly analysis indicates clear trends in audience engagement. Q1 and Q2 delivered steady performance, with **3,271 impressions in Q1** and **7,686 in Q2**, and engagement rates around **5%**. The most significant growth occurred in Q3 (July–September), which generated an exceptional **27,768 impressions**, representing nearly half of the annual total. Engagement during this quarter reached a high of **8.5%**, driven by increased activity around events, abstract calls, and thematic content. Q4 (October–December 8) maintained strong momentum, recording **17,939 impressions** and sustaining a **7.6% engagement rate**, indicating continued resonance and audience interest heading into year-end.

On 4 September 2025, the page achieved 1,739 impressions with a 22.2% engagement rate, while 9 May, 12 September, and 2 July each generated between 1,348 and 1,582 impressions. The strongest engagement rates appeared between late September and mid-October, with 30 September (27.1%), 1 October (23.0%), and 5 September (17.5%) outperforming other periods. These results suggest that targeted event promotion with visually appealing photos and technically focused posts strongly resonates with the Group’s audience.

During the 2025 snapshot, the page recorded **811 new followers**, **3,207 clicks**, **957 reactions**, **42 comments**, and **83 reposts**, reflecting both breadth and depth of audience interaction, with **4,289 total engagements**.

Thanks to our Communication Officer, Holly-Marie Owen, dedication, the 2025 LinkedIn performance demonstrates that the Energy Group’s communication strategy is delivering sustained impact, particularly through event promotions and reminders supported by strong visual posters or photographs, thoughtful tagging of event organisers, and the active reposting by Energy Group Committee members.

Looking forward

In 2026 a diverse program of events that are planned.

- Transforming Subsurface Characterisation – April
- Deepwater Sandstones: New paradigms, new frontiers – 27-28 April

- Energy Storage/Energy Policy – TBC
- Seismic Conference – June
- 5th CCS Symposium – September
- 3rd Offshore Wind Symposium – October
- 13th Geothermal Symposium - November

We will continue to offer all Energy Group events as a hybrid format as we believe that by doing so, we will continue to offer more inclusive events by benefiting from a wider and more diverse audience.

Committee Updates

Several members are stepping down and new members are joining the committee. We take this opportunity to acknowledge the contribution of the members who are stepping down and welcome the new members who will take the committee forward.

The Committee is extremely grateful to the retiring members for their contribution and dedication to the events and conference programme over their time on the committee.

Retiring Committee Members

Chair- Mark Ireland

Communications Officer-Munira Raji

Publications Officer - Woody Wilson

Stuart Gilfillan

Eleanor Rollett

Michele Martins

Nick Lee

Chris Lloyd

2025 – 2026 Officers of the Energy Group Committee

The following were appointed or continue as officers of committee for the period 2026 – 2027.

Lin Ma – Chair

Tiago Alves – Treasurer

TBC – Publications Officer

Holly-Marie Owen – Communications Officer

Dr. Mark Ireland – Chair of the Energy Group