All-Party Parliamentary Group on

# Deep Geothermal

## Monday 18 March 2024, 11:00 – 12.30

Room O, Portcullis House, SW1A 2LW

Attendees

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| **Name** | **Job title (industry) or Constituency (MPs)** |
| Ann-marie Wilkinson | Chief of Staff, Star Energy Group |
| Damien Moore MP | MP, Southport |
| David Townsend | Founder and CEO, TownRock Energy |
| Douglas Chapman MP | MP for Dunfermline and West Fife |
| Juan Anzola | Parliamentary Assistant to Kieran Mullan MP |
| Kieran Mullan MP (Chair) | MP, Crewe and Nantwich |
| Kishan Rana | External Affairs Executive, REA |
| Mark Sommerfeld | Deputy Director of Policy, REA |
| Nils Sordot | Intern, REA |
| Philip Dunne MP | MP, Ludlow |
| Polly Tandy | Advisor Drilling Engineer, MWEM Services |
| Poppy Airey | Heat Policy Analyst, REA |
| Richard Day | Director, EGS Energy |
| Robin Jones | Caseworker for Kieran Mullan MP |
| Rollo Maschietto | Public Affairs Manager, REA |
| Royston Smith MP | MP, Southampton Itchen |
| Saskia Goacher | Geologist, Angus Energy |
| Stephen McPartland MP | MP, Stevenage |
| Tom Grand | Director, Bedrock Geothermal |

Actions

* KM to reach out to Marine Energy APPG to explore how a CfD for tidal power was secured from DESNZ.
* APPG Secretariat to reach out to unions and representative bodies in the oil and gas sector to discuss workforce transition and skills.
* KM to discuss endorsement of geothermal energy from the National Infrastructure Commission.
* APPG Secretariat to engage with local government representatives.
* AMW – and other attendees if applicable – to share information on relevant Prospective Parliamentary Candidates with APPG Secretariat.
* Industry attendees to send cost comparison on European geothermal real market prices to KM’s office.
* APPG Secretariat to establish connections with Scottish Government and organise a meeting with relevant parties.

Minutes

KM welcomed everyone to the meeting and thanked everyone for coming, before handing over to MS and PA to start the first topic for discussion.

**General discussion on the Public Sector Decarbonisation Scheme, a Geothermal Development Incentive, and other policy proposals**

MS started off by giving the wider context to this workstream, particularly with a view to engagement with Labour and how the first 100 days of the next government might be influenced.

PA provided an overview of the work the REA has been doing investigating the current and potential future policy mechanisms to support the geothermal sector. Current mechanisms include the Public Sector Decarbonisation Scheme, Green Heat Network Fund and Contracts for Difference, however receiving funding through these schemes is challenging for Deep Geothermal. Reform of the PSDS might include ring-fencing part of it for geothermal energy.

In terms of potential policies for the future, a Geothermal Development Incentive is a possibility, as based on the report conducted by REA and Arup.

The REA has also researched policy mechanisms deployed in Europe, including grants in Switzerland which cover up to 60% of costs; loans in Germany; and feed-in-tariffs and risk insurance schemes are also used in various countries.

KM said the challenge with the PSDS is that the scheme is over-subscribed; they are not struggling to get money out of the door. This is why we would like to pivot to the NHS as a focus point – given they have set themselves a target of reaching Net Zero by 2040. To that end, KM has had various meetings with people in the NHS as well as Government but despite positive conversations no-one is willing to pay money. A possible solution is a “mini PSDS” for certain NHS sites specifically using geothermal energy.

Not only does it have to be cheaper than gas, but we have to show geothermal will be cheaper than other renewable energies.

There are two “non-spreadsheet benefits” of geothermal energy. One is that it can assist with the transition of workers from the oil and gas sectors. The second is levelling up – the sites where geothermal energy has potential corresponds to priority areas.

PD congratulated KM on his report. He suggested investigating how a CfD was secured for tidal power from DESNZ to see if there are any learnings for the sector. They received £30m altogether. The focus on the jobs transition is right. He also mentioned the £1.1bn still to be announced by the government for the PSDS.

KM agreed it would be a good idea to reach out to the Marine Energy APPG to ascertain how this was secured for their industry. He also said he spoke to Kwasi Kwarteng when he was Energy Secretary about this issue. Suggestion that the APPG should focus primarily on heat.

AMW is working with hospitals through the PSDS and the Green Heat Network Fund. The biggest issue is that it takes time to go through the consent, planning and permitting process. AMW believes a proof of concept is needed to show that geothermal energy can work for a hospital site.

RD said another issue is risk. Insurers do not understand the risk. The more the industry can de-risk, the more successful it will be in attracting money. Currently getting the risk underwritten is very difficult.

DT is also working with a hospital through PSDS. The hospital is already served by an air source heat pump. He suggested that a better approach from government might be opening up a pot of money to be bid on by industry as a whole.

KM talked about his proposals. An issue raised by an Icelandic company he spoke to is one of scale. One site is not enough for large companies to care about. Another potential issue is around the use of PFI due to the political baggage surrounding the idea.

DT asked if we should consider the three different technologies separately: mine water, granite, basins. KM said these can be difficult to identify, and the mines should be in the remit of the Coal Authority. Our focus is on basins, which currently receives less funding than the other two.

In conversations with KM, DESNZ made clear they need evidence to show that the real market price of geothermal energy will come down in time, as we have seen it come down for other forms of renewable energy. KM asked if it was possible to gather data from European countries to show this.

DESNZ would also want to understand what is happening at the site for the upfront £1m to be necessary in order to support the business case.

AMW asked what use can be made of predictability in conversations with DESNZ. There is a predictability with geothermal energy that does not exist for oil and gas, for example. KM said this was a good point, but the question is how to translate that into monetary terms.

MS mentioned there is an industry/stakeholder group talking about this as well as de-risking.

KM mentioned the official progress is slow-going, as so much of it is reliant on spreadsheet-based questions.

MS suggested heat networks as an angle to deploy geothermal more widely. KM said we could use NHS sites plugged into heat networks to start off with. AMW suggested the existing site in Manchester could be used as a flagship.

MS said we need to be able to say to government, “if you fund this amount of money, this is what you’re going to get for it”. KM also said we need to be able to show better evidence for minimum energy that can be provided, such as with other energies.

DC talked about a coal mine area near his constituency in Scotland and the importance of a real life, tangible project that people (Parliamentarians) can go and see for themselves. KM agreed this was important and suggested REA could organise a site visit for Parliamentarians to see the technology in action for themselves.

DC also asked about the site in Southampton, which someone referred to as a “neglected borehole”. However, it raised the point of production being located where there is demand for the energy. Eden is a good example of production matching demand.

KM has met with the Net Zero Transition Authority. They are keen on considering geothermal energy, and would like to be asked by the government to do so. KM is working on it through his conversations with DESNZ. He cited this as a potential short-term win compared to a geothermal development incentive, which feels more like a manifesto ask.

**Skills and training in the geothermal sector**

Moving to the next agenda item, KM then asked AMW to speak about skills and training in the sector.

AMW talked about the benefits of the sector for workers in the current oil and gas sector. Universities are already developing programmes, including through a National Geothermal Centre spearheaded by Professor Jon Gluyas of the Durham Energy Institute based out of Durham University. AMW referred to a report Star Energy conducted with REA and Arup which looked at skills and suggested up to 35,000 jobs could be created. One direct job can lead to 2-3 other indirect jobs, as seen in other countries. Many of these will be high skill, high pay jobs e.g. for geologists, geophysicists. We are still in need of data of heat that can be gained from rocks.

PT mentioned the workforce is retiring in oil & gas sector so in order to secure institutional knowledge, skills and experience is passed onto the next generation we will have to move quickly. DT said there are people from oil and gas who, despite being retired, have been happy to provide advice and information.

KM asked if it’s worth talking to unions. AMW mentioned GMB is the big union and would be open to conversation. KM asked how the oil and gas sector talks to government. The main bodies are Offshore Energies UK and BRINDEX – these may also be worth talking to.

The problem with the big fossil fuel giants is they are looking for scale. They seem to now be focused on CCUS and hydrogen. Geothermal, by contrast, is dependent on small, local sites.

Others mentioned SSE, Vital, Veolia, One Energy, Hemiko, Vattenfall, as possible companies to talk to. KM said he is already due to talk to Veolia soon.

AMW said there is a risk of losing the skillset that we already have in the UK. We should be looking to apprenticeships and seeing where in the UK can be a “hub” for the industry to develop these skills.

DT said there is a gap between the academic/research side of things and the practical knowledge/skills the sector needs. We have enough of the former, not enough of the latter. There are people retiring from oil and gas who are willing to contribute and transfer their knowledge to the next generation.

KM reiterated we should start talking to unions and representative bodies with respect to workforce and skills.

**A quick funding win from Government**

KM then moved on to ask about a quick funding win from the Government.

Referring to the £15m to identify 10 sites, he asked if this is something that, rather than asking the Government, is something that can done by the industry itself.

Attendees responded that the Government needs to provide a signal that it takes geothermal energy seriously, such as through the National Infrastructure Commission. KM said he will organise to meet with the NIC to discuss endorsement. MS suggested the UK Infrastructure Bank as a more productive route, which KM mentioned is an ongoing conversation.

The “signalling piece” is important. DT spoke to potential investors in the US who were ready to come on board, but when they asked what the government had said about this sector, they couldn’t be given a reasonable response. Geothermal energy is tucked away in major documents, if mentioned at all. TG said even the second tier of businesses in the supply chain would be ready to do more for geothermal energy if they get a signal from Government.

DT mentioned along with signalling the regulatory lead time is also a barrier: it takes time to educate civil servants involved in the process.

KM suggested engaging with interested parties from local government. RD said involving the local community and the benefits for them has been positive in Eden.

**DESNZ Geospatial Platform and the APPG’s supportive statement**

PA was asked to speak about the geospatial platform. DESNZ is looking to collate geothermal meta-data into one central public platform and asked the APPG to provide a supportive statement. Attendees said much of this information already exists in the public domain on UKOGL or BGS but that it would be helpful to have this aggregated and could highlight the potential of geothermal with government.

**New APPG rules**

KR provided an update on the changes coming to APPG rules that will take effect from 31st March or after the next election.

**AOB and final remarks**

Drawing the meeting to a close, KM urged attendees to start thinking about engaging with parliamentary candidates. REA has already started doing so, although not specifically for geothermal issues. AMW offered to share with RM two candidates that she has already been in touch with. RM also mentioned REA will be circulating minutes and action points after this meeting.

KM asked for information about cost comparisons given experiences in Europe. Attendees agreed to send that information to him.

KM thanked everyone for coming and ended the meeting.