

Hot Jobs Workshop Note

On May 9th, 10:10 Climate Action in collaboration with The University of Exeter and UKERC ran a workshop which considered how heat decarbonisation could affect jobs, the economy and industrial growth. This workshop was part of the UKERC funded 'Heat Network' project. The workshop was held at the Museum of London and was held under Chatham House Rules.

Presentations

The first part of the workshop heard from a number of speakers. Slides are available here. Richard Lowes from the University of Exeter who introduced the event and set the scene considered the various pathways and options for heat decarbonisation and the big issues around heat decarbonisation and the economy. Professor Goran Strbac from Imperial College London then provided a detailed look into his energy system modelling which forms the most detailed and up to date analysis for the Committee on Climate Change regarding low carbon heating. This presentation suggested that the UK could become a world leader in energy system flexibility and renewable energy integration.

Lesley Rudd from the Sustainable Energy Association then presented their views on the potential changes needed for the heating installer sector and explained the need for a 'just transition'. Unnada Chewpreecha then discussed the macro-economic considerations of heat decarbonisation based on economic modelling carried out for the EU commissions suggesting that energy leadership could drive economic growth. Finally, Stuart Fegan from the GMB union discussed his thoughts on heat decarbonisation focussing on protecting existing employees in the sector and how converting the gas grid to hydrogen could do that.

Workshop

Following the presentations (and lunch), attendees were separated into two tables and were given 20 minutes to discuss each of the issues of focus for the day. This section briefly summarises the conversations.

Economic growth/industrial strategy

- The idea of leadership was raised as something which could have significant economic benefits with international examples of leadership on solar PV or electric vehicles.
- The UK could export potential expertise on flexibility and renewables in the future through consultancy etc.
- Offshore decommissioning of oil and gas could be a good export industry because of the UK's status.
- Energy efficiency was seen to be a good investment because among other benefits, it could save the NHS significant costs.
- It was suggested boiler manufacturers could move into heat pump assembly fairly easily with one suggesting they were ready to do this.

- Many of the service/installation jobs are local jobs and would be spread across the country. Could other jobs link up to regions.
- Could the idea of 'heat as a service' support economic growth?
- A better understanding of upstream subsidies would be useful.
- Local energy markets could maintain some of the value in local areas.

Skills

- There was recognised to be a significant skills gap particularly around the installer workforce with regards to installing heat pumps.
- The ageing workforce issue was also seen to be a potential problem with not enough younger engineers entering the market to replace those retiring. It was also suggested that some older installers were already struggling with some of the technology changes such as web connections for boilers.
- Engineers in the future would need to expand from the role of installer to electricians, integration, new technologies and system designer. Gas boilers are seen as very familiar. Heat pumps need to be more recognisable.
- Heat pump installations may also need two engineers as the install can take longer and require heavy lifting.
- Because installers are often self-employed, it was suggested that government should provide support for additional training needed. It was also suggested that mandatory training should cover energy efficiency and renewables.
- Appliance manufacturers were not seen to necessarily need new skills.
- Better regulation could potentially drive better skills around new build homes.
- There was also a big question over how whole house packages can be delivered.
- Local authorities could be particularly important to support households and to regulate/assess work.

Energy security:

- It was widely agreed that adopting energy efficiency measures would increase energy security (and reduce prices).
- Diversity of supply was seen to be important including heat networks, storage and interconnection.
- The role of nuclear and imports was unclear but renewables and storage were seen to be beneficial. International treaties could possibly help but these can be politically difficult. Nuclear was seen as something other countries were moving away from.
- Flexibility was widely seen as important for system stability maximising storage and renewables. Smart appliances are cheap and available and can help with this.
- Where the energy to produce hydrogen would come from was questioned although it was suggested that producing it from natural gas could be secure.
- It was suggested that if heat was electrified as in Goran Strbac's presentation, this could support the use of more renewables.

- It was also suggested that climate change could impact energy security.
- Looking local at waste heat could also support energy security and untapped heat sources (e.g. computing heat) could be tapped.
- A 'heat sector deal' like the 'offshore wind sector deal' was suggested to be a potential good outcome.
- It was suggested that we don't have a fully secure source of fossil fuels at the moment so total energy security may not be a realistic goal.
- Some individuals liked the idea of energy independence for their homes, could this be built on to provide wider security.