

Meeting Notes

Government/Industry Contact Group to support future development of off-gas grid heating

25th October 2018, 11:00-14:00

BEIS, 1 Victoria Street, Westminster, London

Attendees

Paul Rose (co-chair)	OFTEC
Aaron Gould (co-chair)	BEIS
Barry Gregory	Riello Burners
Colm Murphy	Firebird Heating Solutions
Guy Pulham	FPS
Ian Waller	Consultant
Jason Woods	Consultant
Jennifer Pride	Welsh Government
Malcolm Farrow	OFTEC
Mark Bingley	Ecoflam Burners
Martin Cooke	EOGB Energy Products
Martyn Bridges	Worcester Bosch
Niall Kerr	Scottish Government
Peter Davidson	Tank Storage Association
Ross Anderson	ICOM
Roz Tandy	BEIS
Sophia Danes-Gharbaoui	BEIS
Tim Lock	OFTEC
Tony Brown	FPS
Verena Leckebusch	DfT

Apologies

Guy Crabb	Guy Crabb Plumbing and Heating
Johnnie Black	Warmflow Engineering
Nick Hawkins	Deso Engineering

Agenda Items

Item 1 - Arrivals and introductions

BEIS welcomed everyone to the meeting and introductions were exchanged.

Item 2 - Review of minutes and actions from the meeting on 3rd May 2018

The notes of the last meeting were reviewed. All actions from the previous meeting had been completed except the publication of an evidence framework that sets out the criteria for the provision of information, which was carried over to the next meeting (**Action AG**).

Item 3 – Industry presentation of bio-feedstocks and sustainability

Industry consultants In Perpetuum reported on their research so far into the viability of bioliquid fuels for heating. They explained the methodology behind their research which involved analysis of seven areas:

- Feedstock
- Logistics
- Sustainability
- Policy and legislation
- Markets
- Technology
- Economics and investor return

So far, the feedstock and sustainability sections had been completed, but once all seven areas had been done a full appraisal of the potential of biofuels for heat, and the policy opportunities and intervention required, would be clear.

Industry reported that, based on the work so far, there were grounds for cautious optimism that enough biofuel would be available to replace kerosene, and it was possible to begin to see a pathway, although this was dependent on the speed of change required by government and other factors.

Research had indicated that biofuel producers would welcome access to new non-transport markets, partly because demand for some existing applications is expected to decline. Analysis suggested that the most viable pathway could be based on using biodiesel blends with fossil kerosene in the short to medium term and moving to 100% biokerosene in the medium to long term as production and availability increases.

Recent falls in the price of biodiesel derived from FAME suggest that supply already exceeds current demand, and there is also good evidence of developments in the production of biokerosene for aviation, with material likely to be available at scale from the late-2020s.

It is thought that the specification for aviation grade biokerosene will be very strict, so good fuel outside of the spec will be looking for other markets. The likely demand for heating also dovetails well with the normal winter fall in the aviation demand. Because the oil heating industry infrastructure is already in place, the changeover may have little impact on the end user.

One important area needing further research is to establish the whole cost and CO₂ impact of competing transition options, rather than simply comparing the CO₂ emissions of the actual technologies. This is essential if cost to end-users is to be minimised.

The research suggested that the most viable raw material for the production of biofuels is considered to be waste and residues from a range of sources as this provides the best sustainability model. Some Low Indirect Land Use Change (ILUC) feedstocks may also be acceptable. However, it is unlikely that enough of this raw material will be available within the

UK/Europe and so imports will be needed, most likely from the US and South America. Supply resilience will need to be considered but the evidence is positive. This was discussed, and it was suggested that the concentration of biofuel material in a blended fuel may need to vary slightly in some years, depending on the actual availability of raw material and the competing demands of other sectors. The practical consequences of this on boiler performance would need to be assessed.

It was suggested that the industry should adopt existing sustainability standards such as RSB, as these are credible and robust and will help to achieve the necessary societal acceptance for a biofuel.

Industry highlighted that greater clarity from BEIS over timelines would be helpful in assessing the future development and availability of biofuels. However, industry stated that there was cautious confidence that biokerosene would be available during the timelines stated so far (i.e. the late 2020s). Part of the reason for this confidence is that insurance requirements for aviation fuels present significant barriers for new feedstocks to enter the market. Consequently, producers were seeking other outlets for their product.

It was also noted that, while not their official policy, a prominent environmental NGO had indicated that they would be unlikely to oppose the use of biofuels if they were sourced from waste materials. However, this was not guaranteed. In the medium to long term there may also be other raw material opportunities, such as reusable plastic and car tyres from municipal waste, that could be used to make raw material that could then be used to make kerosene.

Industry noted that it would be possible to dovetail its research with that currently being undertaken on behalf of BEIS by NNFCC.

Industry also expressed concern about the environmental credentials of a biopropane fuel, a bi-product of NESTE's HVO production, which is being used by Calor in the UK market. The view was expressed that palm derivatives may still be used.

Industry then commented on the existing oil supply chain which was described as fragmented but very efficient. Currently, the UK is a net importer of kerosene and existing storage is usually 95% utilised. Therefore, although heat is a very small part of the overall liquid fuel market, any transition where both fossil and biofuels were in the marketplace during a transition period would require additional storage capacity, and this would need careful planning. Clarity from BEIS was essential to enable appropriate planning and investment, but there was confidence that, providing transition requirements and timelines were realistic, then industry could manage the changes successfully. It was preferable for any blending to be done 'upstream' to ensure the fuel then delivered to customers met the correct specification.

Item 4 - Principles of future decisions

BEIS informed the group that future decisions would be based on a set of considerations that in some ways are similar to filters used by In Perpetuum in the work they have undertaken for OFTEC. The BEIS model considers the following elements:

- Emissions reduction potential
- Potential economic cost and benefits
- Environmental impact

- Consumer experience
- Energy system impact

Industry thanked BEIS but expressed concern that requests for clarity on the actual expectations of BEIS in relation to off-grid decarbonisation, and other industry concerns set out in two letters to BEIS minister Claire Perry, had not yet been addressed. In particular, industry was concerned about the BEIS definition of high carbon in relation to coal and oil, which had allowed the LPG industry, a competitor fossil fuel technology, to present LPG as a 'low carbon' technology. Industry also reiterated that more clarity is needed from BEIS to enable industry to compare potential options and undertake necessary planning.

BEIS replied that it understood industry's need for clarity and that following on from the 'call for evidence' it was necessary to understand the full impact of different potential pathways. As part of the process to achieve this, BEIS officials propose to develop and evaluate a range of potential scenarios, looking at what would be the potential benefits, pitfalls and challenges of each. This work would then lead to the development of appropriate policy options, through consultation with industry.

As an illustration of this BEIS then put forward a hypothetical scenario, based on the oil industry's assumption that sufficient and sustainable biofuel would be available to meet demand across all sectors. In the hypothetical scenario, BEIS could regulate that by various dates during the 2020s, heating fuel must have progressively higher concentrations of renewable content, for example starting at 30% in 2023, 50% in 2025 and 100% by 2029. BEIS and industry then discussed the key issues that would need to be addressed in evaluating whether such a scenario could be achieved. This included the storage and supply chain, adjustments to end-user equipment, price and consumer protection. Industry collectively proposed that having specific milestones was the best option and noted that to do this effectively it would be best to look for synergies with the transport sector. By dovetailing policies for both it would help to minimise the cost and enable supply issues to be managed. It was expressed that a step change inside of two years would cause practical difficulties for consumers.

BEIS emphasised that the hypothetical scenario indicated complete decarbonisation by the end of the 2020s, as indicated in the Clean Growth Strategy. Industry replied that there was some optimism that the fuel may be available, but that storage further up the supply chain could be a constraint. It was indicated that this scenario could be delivered more cost effectively against a less ambitious timeline. There was also discussion about where the obligation should fall, with industry expressing a preference that it should be 'upstream' i.e. with the refiners/blenders. The representative from the fuel storage sector reiterated that this would create cost and administrative challenges for their members, but given sufficient time those challenges could be addressed.

BEIS noted that, if an oil specification-based pathway were considered the best option, then it would be necessary to justify that consumers and the economy would be protected in the event that supply falls short of demand. The industry's cautious optimism was appreciated, however given the level of debate over this matter the question of how consumers are protected from a theoretical shortfall must be addressed.

[Drafters note: Relating to the above paragraph, it is one thing to say whether a scheme is possible, but something altogether more difficult to say what happens if that scheme fails. The

debate around whether supply can meet demand is important, but in a sense it is less important than what level of risk the industry is prepared to take on. If the industry is satisfied that demand can be met then presumably there is little risk in backing that up with some sort of responsibility for resolving the problem if there is a shortfall. If that is too high a risk for the industry then that indicates a possible lack of confidence, which is at least as important as any analysis of feedstocks etc.]

BEIS invited industry to consider the hypothetical scenario, find the weaknesses and propose options for consideration that would ultimately deliver a workable pathway to decarbonise off gas grid heating.

Item 5 – Future consultation and long-term framework

BEIS confirmed that the NNFCC research would report by March and this work would help shape policy proposals that would be consulted on. Industry confirmed that its own research could also be delivered to this timetable, and this was welcomed by BEIS.

Item 6 - Review of actions and next steps

Industry to consider the hypothetical scenario described above

(Outstanding from July meeting) BEIS to publish an evidence framework that sets out the criteria for the provision of information.

Item 7 – Date of next meeting

TBC