

NON-VERBATIM MINUTE

DATE: Monday April 25 2022

TIME: 16:00 - 17:00

VENUE: Zoom Meeting

CHAIR: Jacob Young MP, Chair of the All-Party Parliamentary Group on Hydrogen

Jacob opened the session and welcomed attendees. He stated energy security was particularly poignant given the recent events in Ukraine and the expansion of hydrogen targets in the Energy Security Strategy (ESS). He handed over to Dan Sadler, Vice President of UK Low Carbon Solutions at Equinor.

Dan Sadler introduced himself and said his role covers blue and green hydrogen and the Hydrogen Advisory Council. He said that Equinor have extensive hydrogen product ambitions, including their 2018 project on building energy infrastructure across the North of England from natural gas to hydrogen, adding that they are now working on the Humber cluster which makes a significant contribution to hydrogen production. He added that outside of the Humber Cluster, Equinor have a number of maritime projects.

He stated that Equinor welcome the expansion of hydrogen targets in the ESS, which will be critical to providing energy security. He added that to develop 10GW of hydrogen will need a government policy that supports both blue and green hydrogen, adding that he thought it was a great ambition.

Jacob thanked Dan and handed over to Jo Coleman, UK Energy Transition Manager at Shell.

Jo Coleman introduced herself and said she was responsible for net zero and hydrogen energy infrastructure at Shell. Shell operate around 15 hydrogen refuelling stations, and are looking at opportunities to link hydrogen with offshore wind. She added that hydrogen will be particularly important for energy security, stating that Shell welcome the ESS but wish it had gone further on offshore wind. She added that the new 10GW ambition is far more in line with what industry wants to be able to deliver, and welcomed the green/blue hydrogen split within it, as well as the new Low Carbon Hydrogen Standard.

Jacob thanked Jo Coleman, said he also welcomed the increased ambition in the ESS. He introduced Baroness Natalie Bennett, former Leader of the Green Party.

Baroness Bennett stated that the Green Party believes that hydrogen has a role in energy security, albeit limited. She touted the benefits of other renewables including onshore wind, and added that the benefits of hydrogen are clear for the hard to decarbonise sectors, especially steel, and cited the example of Volvo taking delivery of steel manufactured via hydrogen rather than coal. She added we should not be using blue hydrogen, and stated that the Green Party is cautious when it comes to hydrogen, with blue hydrogen a real risk.

Jacob thanked Baroness Bennett and put her sceptical points to Dan Sadler and Jo Coleman. Dan said the most important thing was the Low Carbon Hydrogen Standard, added that the timescales were so long that it needed to give time to properly develop the hydrogen economy. We don't currently have enough renewables, and while there is promising progress for example in



steel, the change needs to be taking place on a wider scale. We should ensure an appropriate scale of production to justify the hydrogen economy.

Jo Coleman added that she agreed with Baroness Bennett that saving energy consumption was critical, noting that hydrogen is not a silver bullet but still an important part of decarbonisation. Heating in homes is a crucial area when hydrogen can play an important role. She agreed that the Low Carbon Hydrogen Standard is absolutely crucial, and stated that we will need blue hydrogen to scale up the hydrogen economy. It is possible to make blue hydrogen very low carbon, just not zero carbon.

Jacob noted regarding green hydrogen that it was great that the 5GW target had been set for that in the ESS. He asked Baroness Bennett how the upscaling of production of green hydrogen could work.

Baroness Bennett said that ramping up production of renewables, for example onshore wind was crucial. She said the Government needed to understand the idea that energy is finite meaning that storage solutions were needed – more joined up thinking is needed. Managing this extremely complex shift is difficult.

Jo Coleman said managing industrial carbon capture and storage (CCS) clusters was crucial. Dan Sadler added that Equinor's hydrogen ambitions aimed at CCS 2030 targets.

Simon Weeks from the Aerospace Technology Institute asked what applications green hydrogen should be prioritised for.

Baroness Bennett said that industrial sectors such as steel should be prioritised. We need to look at essential parts of the economy that hydrogen should be prioritised for, since green hydrogen is scarce. Jo Coleman added that hard to decarbonise sectors should be prioritised, but that we need some flexibility, such as when blending hydrogen into the gas grid.

Alex Cunningham MP asked how we make sure that the experts from across industry work more cooperatively in terms of delivery.

Dan Sadler said that companies are coming together to create a high-scale hydrogen economy. You need a best-in-class system to deliver that. We need to bring together industry across the value chain and bring industry together. We also need a proper business model and political framework to kickstart a strong move towards a hydrogen economy. Jo Coleman added that she agreed but that we need to work together on the demand side to ensure users of hydrogen can make the amendments they need. Industrial customers need to be able to switch easily to hydrogen, it is not just about production but about the whole value chain as well.

Baroness Bennett emphasised the importance of a political framework and momentum, on the scale of that seen somewhere like South Korea or Germany – decisions need to be made and the UK Government is still at the 'floating ideas' stage which isn't good enough right now. Dan Sadler emphasised the importance of solutions in mass transport industries such as shipping, and welcomed the notion of discussing solutions to hydrogen transportation in rural areas. He stated that we need to be looking at a holistic approach and noted the Climate Change Committee's recommendations on this, noting that hydrogen needs to be able to help areas such as rural Wales.

Jo Coleman noted the importance of developing an ecosystem that promotes continued development, she added that what we are seeing in the UK isn't sufficient, whereas in somewhere like Germany the ecosystem they are delivering is.



Jacob asked Dan Sadler for final comments. He said that UK has a very pragmatic approach to low carbon hydrogen versus its international peers, and now needs to get hydrogen to a gigawatt scale so as to justify the scaled-up approach seen in the ESS.

Jo Coleman closed by stating that hydrogen is not a silver bullet but that it has excellent applications in certain areas, adding that both blue and green hydrogen are crucial to achieve net zero.

Baroness Bennett added that hydrogen has an important but niche use, it is important that we have this discussion and not pretend that hydrogen is a silver bullet. We need to build wider awareness of this and build education among the public, and there needs to be both political and public consensus around this.