

Written evidence from Centrica

Dear Mr Dunne,

As a leading energy and services company, Centrica, has a critical role in the recruitment and training of the green workforce of the future. We recently announced that over the next two years Centrica will recruit 1,000 apprentices. I am aware that the Environmental Audit Committee are holding an inquiry into green jobs therefore I wanted to share with you the progress Centrica have been making and our submission to the Green Skills Taskforce.

Job creation and upskilling will play an integral role in the UK's transition to net zero and the apprentices we are recruiting now will be creating the low carbon homes of the future. Once qualified, these apprentices will become Smart Energy Experts, installing smart meters and providing energy efficiency advice to customers, with opportunities to upskill to fit EV charging points and to fit heat pumps, one of the solutions needed to decarbonise homes.

We have the ambition that 50% of these recruits will be women, and of the offers we have made so far, 47% are female. Women make up just 8 per cent of Centrica's field workforce, and we are acutely aware that we must improve gender diversity and better reflect the customers we serve. To help boost interest from female applicants, the company has launched a targeted recruitment campaign that includes virtual careers events and engaging with women seeking a career change due to Covid. It has also signed up to the Tech She Can Charter, a commitment by organisations to increase women working in technology roles. Centrica has already noted a significant increase in the number of applications from women.

I would be very happy to speak with you further on these issues, and as outlined, I would very much like to show you the excellent work our academies are doing, once we are able to. If you need any further information in the meantime, please let me know.

Yours sincerely

Matthew Bateman

Managing Director, British Gas Service and Solutions

Green Skills Taskforce – Centrica submission

22 February 2021

As the largest energy and services company in the UK, we are in an ideal position to help homes and businesses transition to the net zero economy. Central to this will be the need to recruit and train the next generation of the green workforce, and we hope to work closely with government to ensure we support the broader workforce, as well as our own.

Our British Gas business is the single largest installer of gas boilers in the UK. Our 8,000 British Gas engineers and technicians install, in more than 80% of cases, the most efficient (94% ErP) boilers available on the market.

We have experience in installing over 1,400 heat pumps in social housing through our PH Jones business, and offer heat pumps for our business customers, through Centrica Business Solutions, alongside solar, storage and smart flexibility services.

Our flexibility platform, FlexPond, has the capability to support the installation of heat pumps through providing additional revenue opportunities for customers via aggregation and grid level services. This forms a part of our ambition to deliver wider “Home Energy Management” services to customers, including battery storage, EV charging and solar PV.

As carbon budgets tighten further this decade, and new policies are introduced by Government, we are mindful of the need to bring forward cost-effective low carbon heating alternatives for our customers.

We are currently technology agnostic, recognising that different technologies will be suitable for different housing segments and geographical regions of the country.

We are building relationships with housing developers to help meet tightening building regulations for new build homes and are working to better understand the potential of low carbon heating technologies. As part of that work we will be progressing a hybrid-heat pump trial with around 75 households this autumn.

We are also active on the hydrogen agenda and are supportive of developing hydrogen as a potential future technology that will play a role in decarbonising heat. Our Rough gas field is part of the Zero Carbon Humber project in the north east where we are willing to explore, with the support of the right policy framework, options to re-purpose Rough to become a hydrogen store. That would enable Rough to support cost-effective hydrogen production in the region.

Centrica’s skills capability

We believe that the entirety of the Centrica business has a role to play in the decarbonisation of the economy, and as part of this, the green skills agenda.

We stand ready to put our British Gas Academy network at the service of not only our workforce, but all market participants. We have sites in Hamilton, Thatcham, Leicester and Dartford. Together they have the capability to train 300 people concurrently each day. Our academies have a long history of delivering quality training and producing the highest calibre of home service engineers. We have trained 6,375 apprentices and engineers since 2003.

With the right policy and government support in place, we can upscale them, further creating and upskilling thousands of people into green, skilled jobs. We have already trained many of our smart meter engineers to fit EV charge points and have ambitions to multi-skill them as electricians and heating and cooling experts.

The need for policy certainty

Decarbonisation of heat in homes

With the right policy frameworks and incentives in place to kickstart customer demand for greener homes, Centrica could respond by developing a skilled low carbon workforce to drive faster progress in this area.

Initially, this would be based around the smart meter rollout, where we estimate a further 6,000 engineers will be needed across the sector to reach 85% market penetration. British Gas stands ready to support this mission. With a clear mandate for installations and adequate funding we would happily recruit large numbers of new apprentices to complete the roll-out, as well as support the training needs of the wider industry through our world class training Academies.

Once the smart programme is complete, we think SEEs are well placed to be redeployed into energy efficiency, heat pump and EV charging point installations as they roll off the programme.

Based on our predictions about how the market could grow over the next five years - with the right government interventions and if market conditions are conducive - we estimate that the sector will require 25,000 green technicians to support low carbon home installations. At British Gas alone, we estimate we will need to cross-skill upwards of 1k British Gas engineers to install heat pumps and electrical vehicle charge points.

Hydrogen storage and the repurposing of the Rough Gas Field

The Rough field began producing gas in 1975 before converting to a gas storage operation to meet seasonal supply and demand imbalances from 1985 through to 2017 when storage operation ceased¹. In 2018 the Rough field returned to a conventional gas production facility and the Undertakings were removed.

In light of the rapidly evolving assessment of the critical role hydrogen could play in decarbonising hard-to-abate sectors in the UK and our positive discussions with your hydrogen team at a working level, we have now undertaken an assessment of the future role that Rough could play by returning to an energy storage facility. This work has involved independent technical and economic assessments in order to assess the need for hydrogen storage to meet our Net Zero goal, the results of which we have discussed with your team.

These assessments have concluded that given the right set of conditions Rough is uniquely positioned to avoid decommissioning and could instead be re-furbished to provide up to two thirds of the hydrogen storage that is required under any of National Grid's Future Energy Scenarios that meet Net Zero.

¹ [Cessation of Storage Operations at Rough | Centrica plc](#)

Technically, the upgraded facility could be capable of cost-effectively storing up to 88% hydrogen from day one but also could accept any level of hydrogen blended with natural gas up to that whilst the hydrogen market develops.

An investment in Rough during the 2020s would support up to 2,000 jobs in the North-East during construction and 350 direct jobs during operations, plus an estimated 1,900 more indirect and induced supply chain roles.

However, given uncertainty over the future market for hydrogen, it will be impossible to finance the minimum £650m investment necessary without a regulatory backstop such as a 'Cap and Floor' regime. FTI Consulting have concluded it is unlikely such a backstop would ever be used but is necessary to provide investor certainty.

Viable consumer propositions – the role of subsidies

Industry will naturally 'follow the money'. Where there are viable consumer propositions, and therefore consumer demand, industry will seek to fill this. The current tension is that several low carbon technologies are only viable for households where there are subsidies and government funding. To compound matters, for industry to have the confidence to invest in the skills needed to deliver these technologies, it needs to have the confidence that the viability of the proposition is not short lived. The heat pump market is a good example of this tension.

The capital costs of heat pumps are not affordable for most households, and consumers will mostly only invest where these costs are mitigated through the RHI. However, the RHI will end in 2022 and with no confirmation of what will follow, businesses can be nervous about taking a gamble in this space.

Flexible standards driving consumer confidence, and business investment

As we move towards new, and for most consumers unknown, technology, it's critical that we introduce universally understood and well enforced standards for products and their installation. Without this, there is a risk that rogue traders will undermine consumer confidence, limiting updated we saw this occur through the solar trade in the past decade.

However, this need for high quality consumer standards needs to be balanced with qualification design that is flexible enough to allow businesses to tailor them for the specific business need. Developing modular apprenticeships that are not overly bureaucratic will be an important focus. Modular apprenticeships and standard frameworks to allow for tailoring to company need.

Ensuring a diverse workforce

It's critical that the new green skills workforce is also diverse. The business case for a more diverse workforce has been set out in numerous studies, but of particular relevance to green skills is the increased creativity and new ideas that result from a diverse talent pool.² In our experience, apprenticeships often attract a more diverse workforce, and we are willing to play our part in this as the case study below demonstrates. However, there is more that we can do working with government to ensure that this is a nationwide effort.

² <https://www.engineeringuk.com/media/1691/gender-disparity-in-engineering.pdf>, p.5

With low levels of engineers coming from under-represented groups, the UK has a huge opportunity to plug the nation's skills gap to ensure we have the skills necessary for growing our economy as well as a greener future. For example, less than 10% of engineers come from ethnic minority and LGBTQ+ backgrounds, while 12% of engineers are women which is the lowest in Europe. Centrica's working hard to attract and retain people from under-represented groups into engineering, but if we are to really shift the dial, more needs to be done to inspire young people from all walks of life to become the engineers of tomorrow.

Case study – 1000 new green apprentices

Centrica will recruit 1,000 apprentices over the next two years, with the ambition that 50 per cent are women. Once qualified, apprentices will become Smart Energy Experts, installing smart meters and providing energy efficiency advice to customers, with opportunities to upskill in other areas. With women only making up 8 per cent of Centrica's field workforce, we are acutely aware that we must improve gender diversity and better reflect the customers it serves.

To help boost interest from female applicants, the company has launched a targeted recruitment campaign that includes virtual careers events and engaging with women seeking a career change due to Covid. It has also signed up to the Tech She Can Charter, a commitment by organisations to increase women working in technology roles. Centrica has already noted a significant increase in the number of applications from women.

With the need to reach net zero by 2050, Smart Energy Experts will play an important role in Centrica's contribution to the green home's revolution. Many Smart Energy Experts have already been upskilled to fit EV charging points, to accelerate electric vehicle adoption, and heat pumps, one of the solutions needed to decarbonise homes.

Apprentices will receive technical skills training and the knowledge they need for the job at one of the company's award-winning academies in Dartford, Hamilton and Leicester.

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