

Committee Response

26th October 2015

EUA response to the Investor confidence in the UK energy sector inquiry

This submission is from the Energy and Utilities Alliance (EUA) a not for profit trade association that provides a leading industry voice to help shape the future policy direction within the energy and utilities sector. Our association comprises 5 associations: Utility Networks, Heating and Hotwater Industry Council, Hot Water Association, Manufacturers of Radiators and Convector and the Industrial & Commercial Energy Association.

EUA welcomes the Energy and Climate Change Committee inquiry into the effect climate change policy has on investment into the sector.

EUA represents a wide range of companies from the energy supply chain. Many of these are small companies, or companies that deal with a small section of the wider energy industry. However, they are all either looking for investors or investing in processes and systems that are affected by the government's energy policy.

This response will list a number of the most prominent examples that have affected our member companies. We would like to be invited by the Committee to expand on this and can prepare more evidence if required.

- **Micro CHP**

Micro CHP is an innovative product that uses gas to generate electricity. It does this on a small scale so it can be cased to look like a boiler. In addition to that, it uses the waste heat from its electricity generation process to heat homes and domestic water. The advantage for the UK energy sector is that it produces electricity at peak times and so helps with grid balancing.

As we move to a low carbon future, this technology will be vital in ensuring efficient gas use for homes, and to balance the grid. It can also be used with smart controls and time-of-use tariffs in a way that other technologies cannot.

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In 2010, it was included in the Feed-in Tariff (FIT). However, the tariff assigned did not provide a rate of return that encouraged widespread deployment. This was in contrast to Solar PV and Wind, both of which received very generous tariffs.

The presence of the Feed-in Tariff has encouraged research and development (R&D) to continue, so products are still entering the market. R&D is heavily dependent on investors; without it, the products will not be created and will not enter the market. Investors are investing because there is a Feed-in Tariff.

Government announcements about the end of subsidies and the risk that the whole FIT scheme may be cut have harmed investment in this industry. Recently, DECC have stated that they wanted to encourage innovation to create products that will help us cut carbon in the future. Micro CHP is one of those innovative products, but it needs support.

The wording of the Feed-in Tariff is also unhelpful. There is a declared cap of 30,000 installations. After this time DECC can review the Micro CHP tariff. This nominal cap reduces the amount of investment available because it is seen as a limit on the number of installations, thus discouraging more innovative products that may be later to market, such as fuel cells.

EUA believes that development of this product is vital, but it needs DECC to keep supporting it so that it can enter the market. Recent announcements and consultations have diminished the potential for it to secure investment for the future of Micro CHP.

- **Green Deal Home Improvement Fund (GDHIF)**

In 2014, DECC announced that certain products would be eligible for a cash voucher to incentivise installation. One of the measures was a Flue Gas Heat Recovery Unit (FGHRU). If installed with another measure it could get a cash voucher of up to £1,500.

A FGHRU is a device that connects with a gas boiler to recycle the condensate produced to help preheat the water coming into the boiler. This operation reduces the gas required to heat a property. This innovative product is supplied by all of the major boiler manufacturers in the UK. It is however only sold in small numbers because of the additional cost of installation; consumers are often reluctant to pay for additional features to heat their homes.

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A FGHRU is normally installed with a new boiler. The GDHIF offered vouchers for homes installing two technologies or more. As a new boiler was on the list, this created a substantial amount of demand ahead of the scheme launch.

After Greg Barker announced the scheme in 2014, our member companies started to manufacture the product in order to meet anticipated demand. This meant switching production lines, which is expensive.

Our members also created marketing campaigns and promotional features in anticipation of the scheme launching in June that year.

A number of weeks after the scheme went live government informed industry that anticipated demand was too high so the scheme would be changed. On the 22nd of July 2014 they announced that FGHRU would no longer be eligible. DECC said this would apply from the 5th of August 2014. It was claimed that EPC data showed a spike in demand that would have impacted on the overall budget. This data was never shared with industry despite our requests. On the 24th of July DECC closed the scheme to all new applicants.

This meant that a with production underway and marketing campaigns in the press, the GDHIF would no longer apply to this product. This led to losses for manufacturers and loss of engagement from heating engineers who were preparing to use the scheme.

Manufacturers and installers invested in this government scheme only to have it removed without sufficient prior warning, which resulted in damaging costs. GDHIF became a vehicle to simply install solid wall insulation with other measures not attracting demand.

This reversal affected investment, not only at the time but also any future investment. Heating manufacturers are now wary of government schemes and will not be as willing to get involved in bringing innovative products to market.

- **RHI – injection into gas grid**

Our members are involved in the production of biomethane and biogas. This is currently supported by the Renewable Heat Incentive (RHI). The RHI has been a key driver for projects to develop biogas.

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One example is a Severn Trent facility near Birmingham where an anaerobic digestion process at Minworth has now operated for approximately 9 months. In this time it has produced 40 GWh of renewable gas for grid injection, enough to heat around 2750 UK homes for a year.

There are an increasing number of similar plants opening across the country, producing renewable gas that can be used in the mains gas network, thus reducing the carbon from every mains gas appliance. It also reduces our dependence on gas sourced from foreign countries.

EUA believes that greening the gas grid is the most cost effective and achievable way of meeting our carbon reduction goals. Shale gas and renewable gas will play a huge part in this. They both provide secure, home-grown energy supplies.

However, the RHI is being assessed in the comprehensive spending review and there is concern across the industry that the RHI will be axed. We believe axing the RHI for biogas and biomethane production would have a profound impact on green gas production. Without the incentive, investment in the systems and process to green the gas grid will stall. This seems particularly perverse if the government presses ahead with shale gas exploration.

In order to prevent investment in these new processes from halting, government has to be clearer with its long-term planning. If subsidies are not the future then it will have to be outlined how greening the gas grid can be delivered. Otherwise the threat of cessation of funding will prematurely end investment and stall development of new technologies. DECC ministers expect new technologies to reduce carbon in the future. Creating these products requires investment and it is contradictory to remove the mechanisms which provide the very basis for this investment... The net result will be less research, less innovation and fewer jobs.

- **SMETS2 (Smart Meter Equipment Tech Spec version 2)**

The smart meter roll out is correctly identified by DECC and the wider government as a key way of reducing demand for energy. However, the roll out has been hampered by the final

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specification for the product which in turn is restricting investment in the programme. This specification is SMETS2.

The delay in finalising the SMETS2 specification for smart meters and associated equipment has resulted in issues for both meter manufacturers and suppliers. The suppliers are reticent to install a large number of SMETS1 (Smart Meter Equipment Tech Spec version 1) meters as there is a potential risk that they may become a stranded asset. The new incoming supplier may prefer to have a SMETS2 meter so that they have full functionality and security. They would also be installing meters that do not communicate directly to the DCC (Data & Communication Company) as they will have been commissioned via the supplier's communications network rather than the versions provided by the CSPs (Comms Service Providers).

This has a knock-on effect on the manufacturers as they are not selling either SMETS1 or SMETS2 as they do not yet know what specification to build to. Meanwhile, the programme is getting delayed and the target for installation is becoming unmanageable.

The main reason for delay in the mandated rollout is that, with the delayed SMETS2 finalisation, the DCC is phasing its "go live" releases. They are having three or more releases of the system which will include varying levels of functionality, adding in the outstanding IRPs (Issue Resolution Proposals) across different releases.

This is resulting in many suppliers and manufacturers not wanting to test or certify any meters until at least release three because the earlier versions are considered by most of the industry (apart from DCC) as being inoperable. Testing early and then having to retest and certify will also be extremely costly as it is believed that they will require all DLMS and Zigbee protocols to be re-certified each time.

Lack of investment in new meters could seriously delay the installation of smart meters. There is a 2020 deadline set by the government, yet these delays are reducing investment in the required products and thus further delaying the process.

Note:

DLMS is Device Language Message Specification which is an open protocol used in machine to machine communication.

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Zigbee is an IEEE 802.15.4 based open specification used for high level machine to machine communication.

- **Gas Storage**

The UK has a strong dependence on gas for its energy. This is both to generate power and to heat our homes. However it has one of the lowest percentages of gas stored in Europe. This has a wide impact on the cost of gas and overall energy security.

For energy intensive industries, the lack of stored gas can increase the price they pay. This is because they are at the mercy of factors outside their control. Having a reserve of stored gas would allow for more security. This has a direct impact many other industries. For example on housebuilding because one of the industries affected is brick manufacturing. The fluctuations in the price of gas can increase the price and availability of bricks which can therefore slow down and increase the cost of housebuilding.

EUA has asked DECC to provide a storage obligation. This would allow the industry to invest in long term storage. DECC have to date turned this option down. A report by Redpoint found that, in two out of three scenarios, assisting gas storage would provide a cost benefit for consumers. Conversely, DECC chose not to follow this advice.

A number of high profile companies invested in planning for new gas storage facilities, the decision by DECC to not support gas storage halted this investment and may result in no new long term gas storage being developed.

- **Iron mains replacement**

Gas distribution network operators are currently replacing the old iron gas mains. This investment is vital for the long term future of the grid. This would facilitate not only today's gas, but it would also allow for green gas and potentially hydrogen.

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However, in DECC's heat policy it has been identified that gas will be replaced from around the mid-2030s. There has been some moderation of that stance in recent months, but gas is still scheduled to be replaced.

This means the gas grid could become a stranded asset and the GDNs would question their own investment in the future of the grid. There were also extra constraints placed upon the networks under the RIIO – GD1 programme (Revenue = Incentives + Innovation + Outputs re: gas distribution) which, in essence meant that the networks had to reduce failures from iron gas pipes but also justify the investment in particular areas.

This would impact on a DECC 'no regrets' scenario. If gas can be greened, and recent National Grid analysis says 50% could, then we need a grid. By prematurely signalling the end of gas this will lead to the option of a low carbon gas grid no longer being available in the future.

GDNs need DECC to signal that the gas grid has a role to play in the future. This will lead to greater investment in programmes like iron mains replacement. Certainty concerning the future of the gas grid will also lead to new products and processes entering the market. We are already seeing greater production of biomethane from sewage treatment plants. Northern Gas Networks are analysing the potential future hydrogen could play in heating homes. There are other schemes in the planning stages, with the potential to reach maturity much earlier if there was some certainty over the future of the gas grid.

Contact

If the Committee wishes EUA to clarify any of the points outlined in this response please contact us at:

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