REA response to Consultation on VAT Rates for 'Energy Saving Materials'

The Renewable Energy Association (REA) is pleased to submit this response to the above consultation. The REA represents renewable electricity, heat and transport, as well as Electric Vehicle companies and Energy Storage. Members encompass a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are around 550 corporate members of the REA, making it the largest renewable energy trade association in the UK.

Introduction

The VAT proposals risk the transition to a flexible, low carbon energy industry, and with it lost jobs and investment. They must be taken in the context of a myriad of negative policy change in recent years, making it very difficult to develop new renewable electricity capacity beyond offshore wind, therefore putting at risk the UK's legally binding carbon targets and wider Industrial Strategy goals. Recent REA research suggests a possible 6,200 job losses from changes to other policy measures (inadequate replacement of the FiT for example), and this would further increase the chance of and compound these job losses.[1]

With an unprecedented level of change in the energy industry and grid charging regime, tax considerations are a critical area for the renewable energy and energy storage industries. The Imperial College report "Blueprint for a post Carbon Society" shows the whole system benefit of residential flexibility could be up to £6.9billion. Therefore, the VAT rise is arguably not being considered against the negative impact this could have on the energy market and ultimately consumer pockets.

The reduced rate of VAT for certain installations has played an important role in helping solar, storage and biomass heat reach the current levels of deployment in the UK, especially on a domestic level where they provide huge benefits in terms of reduced energy bills and increased energy awareness. We note that the nature of VAT payments means that the people most likely to be impacted by this are those small companies and consumers who cannot claim back the VAT, hitting exactly those least able to pay.

Key asks

- Apply VAT relief for solar, energy storage, all renewable power (including wind and water trubines) and biomass boiler installations as environmental state aid (as opposed to merely implementing the VAT Directive), as Norway did to allow it to preserve and extend it's zero-rate VAT for purchasing electric vehicles. The VAT Directive doesn't make provision for reduced rates of VAT for EVs. So when the VAT Directive came into place, Norway notified it's pre-

[1] Survey of Renewable Energy Consumer Code Renewable Installation companies, autumn 2018, https://www.r-e-a.net/news/new-data-shows-significant-solar-job-losses-if-full-government-proposals-enacted

existing zero-rate VAT for EV purchases to the EFTA Surveillance Authority (which performs equivalent functions to the EC on state aid for EEA countries) to get approval of the measure as compatible environmental aid. The Authority approved it and, following a further re-notification in 2017, approved a further 3 year extension.[2]

- The REA and our members are calling for recognition of the value for the energy system, opportunities for jobs and investment, of flexibility and renewable technologies, by implementing VAT relief on Solar, Solar and Energy storage, Biomass boilers and stand-alone Energy storage systems. This would mean retaining the 5% VAT level for all such installations, not just those meeting the proposed criteria.
- Alternatively, we call for the threshold to be set to 85% of the total installation costs accounted for from equipment, rather than 60%, which appears an arbitrary number and would rule out energy storage and biomass boilers from the lower rate of VAT, despite their clear wider benefits.

- We note that the state aid clearance around allowing lower VAT on Energy Saving Materials is based around 'social good' not 'environmental good', but argue that such technologies can add key social value by tackling climate change, fuel poverty and lowering consumer energy bills directly and indirectly via a more efficient energy system. It has also been shown that households with Solar PV installed are often more aware of their energy consumption and therefore take additional steps to reduce the energy used.

- There is also be a case for solar, biomass boilers and possibly energy storage and combined systems to be classified as 'energy generation' and therefore eligible for the reduced VAT rate for these purposes. The same could apply to wind and water turbines.

Background to the decision – Why this is a Government U-turn

- The original consultation was 2015/16 before domestic storage was really being installed, as such discussions at the time mostly focused on solar.
- At the time there was quite a fight about this with the then Secretary for State Amber Rudd stating that they would not be increasing VAT on solar and the EU launching an "Action Plan on VAT" that was meant to give member states greater autonomy over setting VAT rates. After that was released the threat seemed to disappear although we are not aware that anything was written into legislation. Either way this has therefore come as a something of a surprise.
- In 2017 it was confirmed that residential storage could also benefit from the reduced rate of VAT when installed in conjunction with solar PV. It does not currently benefit from the reduce rate when installed separately, as in itself, it is not considered an energy saving technology – believing it needs to be part of a wider system.

[2] Norway decision on zero rate VAT, http://www.eftasurv.int/press--publications/press-releases/state-aid/state-aid-esa-greenlights-support-scheme-for-zero-emission-vehicles-in-norway

- This consultation is a technical one that implements the original 2015/16 consultation. We note the seemingly unexpected timing and very short consultation period.
- We note that the decision appears to have been 'already consulted on' but that this is not clear and if so, was over three years ago now, with the situation having moved on in the meantime.
- This also affects residential biomass boiler systems, so we support an exemption being extended to such systems, because the heat sector is in real need of rapid decarbonisation - as the renewable heat target is currently only half way to being met, one year from the deadline.

Given the above, we argue that there is no need for Government to change the established position on reduced rates of VAT and this would in fact appear to be going back on a previous position that had come to be taken as final by industry. Nothing appears to have changed at the EU level (leaving aside higher level politics) since the 2015 decision and guidance, to justify such a change, as far as industry is concerned.

In the Netherlands we understand that a similar rule was introduced and then reversed in 2016 as too complex and unworkable - the split was first between work (at the lower VAT rate) and materials (at higher VAT rate). This was abandoned in 2016 as we understand it and there is no reason as to why the same will not be the case in the UK due to the complexity of applying the varying rates.

The REA would also argue that Solar PV and in the future energy storage in general are an important component of many low carbon building renovations, offering the opportunity for households to generate and use their own low carbon electricity. Biomass boilers fulfil the same role for low carbon heating. Solar PV works well alongside other energy efficient products such as LED lighting and smart appliances and the deployment of batteries will also allow households to use the electricity generated in the most efficient way possible. Energy storage offers huge potential for reducing energy demand from the grid and is ideally installed alongside Solar PV. It is often cheaper to install solar during a building renovation as households can take advantage of existing scaffolding and contractors being onsite.

In addition, the industry is currently transitioning through the Feed-in Tariff to the 'Smart Export Guarantee (SEG)' and the rates for this will be set by individual suppliers at a rate that will be separately calculated from the FiT and take no account of VAT rates having changed, if they do so.

What is at risk: The importance of a decentralised, smart energy landscape

The landscape for flexibility and embedded, distributed renewable generators has considerably deteriorated in the past few years due to a number of adverse policy and regulatory decisions and this must be acknowledged by Government. Quite simply, the proposals are another straw for the camel's back.

The past three years has seen the closure of key support schemes, the Renewables Obligation (RO), the ending of c.93% of the Embedded Benefits payments, lack of Contracts for Difference auctions and funding frozen to 2025 through the Control on Low Carbon Levies. This is to indicate how increasingly difficult it is becoming to develop new renewables projects in the UK, despite the need for new capacity as

coal and nuclear plants come off-line. The sector sees this as yet another challenge to deployment, for example in the light of low wholesale electricity prices and nascent flexibility markets.

There is also huge concern among related clean technologies – for example we see the business case for Electric Vehicle (EV) charging developing and shifting significantly in the next few years. Modelling by Aurora Energy Research on behalf of the REA and its members (available online) outlines the benefits of co-location of many types of EV charging C&I deployments with solar and battery storage. This is because charging projects can reduce costs for wholesale electricity procurement by co-locating solar, and can tap into ancillary services markets directly by installing storage onsite. This must be incentivised and encouraged, for the wide system benefits it creates, rather than being slowed with new hurdles being erected.

We also see the EV charging industry evolving in the coming years. We see a greater premium than at present put on the 'smartness' of chargers and the backend software that allows for demand aggregation and/or other new revenue streams (assuming of course the level of incentivisation given to smart charging by the future network usage and access regime). The REA is working with the Government's EV Energy Taskforce at present, in part on determining what smart charging will entail following the assent of the Automated and Electric Vehicles Bill and the Government's new ability to mandate smart charging for new units.

Smaller scale users must be treated fairly and not suddenly be confronted with rapidly increased fees for a micro rooftop solar installation they have had for several years, for example, without adequate communication and justification for this. The proposed small-user usage thresholds must also not become a barrier to new micro-renewables being installed. The same can be said for any new network usage fees incurred by households due to an existing or future home EV charging installation.

The proposed 60% materials threshold increases the cost of going solar for average households and creates perverse incentives that distort competition

The proposed 60% materials threshold that determines whether a residential installation attracts the reduced 5% VAT rate or not will increase the final (VAT inclusive) costs for an average 4kW solar and battery storage installation by around £2,000 (where the materials part exceeds 60%). In addition, analysis by members indicates that the change will create a significant market distortion between products by increasing the price difference between low power, low capacity solar + storage systems (which can get within the 60% threshold) and higher power, higher capacity systems (where the 60% materials threshold is exceeded) by between 20% - 30%[3].

This creates a market distortion that encourages solar + storage configurations that contribute less zero-carbon electricity generation and are less capable of fully shifting household grid demand away from peak demand times, thereby reducing the potential benefits that could be realised from increasing demand flexibility. To illustrate the point, some of the low powered residential battery storage products on the market are rated at less than 1 kW – which is not enough to power a kettle. Other products on the market have a rated power of 3 – 5 kW, which on the upper end,

[3] The exact figure depends on the product being compared.

can enable a household to substantially if not completely shift their grid energy consumption to avoid system peaks or times of system stress.

As such, this proposal works in a completely opposite direction to the policies needed to support a transforming energy system, does not help the UK to reduce emissions at least cost, operates to penalise average consumers for trying to support that effort and gives distorted price signals for choosing systems that have less technical capability to do so.

If the decision is not reversed, HMRC should increase the materials threshold to 85% to avoid these perverse incentives and market distorting outcomes. While still not ideal, this is a figure that REA members believe would mitigate the worst market distortions.

Key points

We note there are no individual questions set out as far as we're aware, but would like to make the following points:

- Flexibility and solar projects, especially energy storage, offer considerable benefits to the grid and system stability, while bringing down energy prices in the longer term.

- There is likely to be a significant impact on the willingness to invest in the provision of local flexibility resulting from the proposed change. We are concerned that the value of local flexibility is underplayed in considerations. The localised nature of some types of flexibility, such as that situated behind-the-meter, means that these are especially well-suited to providing services to avoid unnecessary network reinforcement.

- In terms of the operating environment for renewables and clean technologies, this has shifted considerably in the past two years, such that grid access and use of system charges have become critical to business cases. This is also the case with energy storage devices, which do not receive any direct public support. Therefore this is a very important matter for the renewables and clean tech sector.

- The industry is currently transitioning through the Feed-in Tariff to the 'Smart Export Guarantee (SEG)' and the rates for this will be set by individual suppliers at a rate that will be separately calculated from the FiT and take no account of VAT rates having changed, if they do so.

- Similarly, the renewable heat industry is currently preparing for the end of the Renewable Heat Incentive (RHI), transitioning to operating in a new policy environment, likely without fiscal support, after 2021. Reforms to the RHI tariffs in 2016 also meant a dramatic drop in the number of domestic biomass boiler installations, despite the technology currently being the cheapest form of off gas grid heat decarbonisations. This change to VAT will likely affect projects where Biomass Boilers are most suited, and be yet a further barrier to

renewable heat deployment despite Government targets and commitments to heat decarbonisation.

- While it is recognised that there remains the option for the application or the reduced rate of VAT on the labour proportion of an installation, where material costs are greater then 60% of the total costs, there are great concerns over the administrative burden this could place on small installation companies. Adding this complexity into the market is going to make costing projects difficult, leading to confusion for the consumer and placing a risk on small operators who could unknowingly fall foul of the new requirements. If the Government continue to implement such requirements detailed guidance shall be needed for ESM installers.

- Similarly, the renewable heat industry is currently preparing for the end of the Renewable Heat Incentive (RHI), transitioning to operating in a new policy environment, likely without fiscal support, after 2021. Reforms to the RHI tariffs in 2016 also meant a dramatic drop in the number of domestic biomass boiler installations, despite the technology currently being the cheapest form of off gas grid heat decarbonisation. This change to VAT will likely affect projects where Biomass Boilers are most suited, and be yet a further barrier to renewable heat deployment despite Government targets and commitments to heat decarbonisation.

- While it is recognised that there remains the option for the application of the reduced rate of VAT on the labour proportion of an installation, where material costs are greater than 60% of the total costs, there are great concerns over the administrative burden this could place on small installation companies. Adding this complexity into the market is going to make costing projects difficult, leading to confusion for the consumer and placing a risk on small operators who could unknowingly fall foul of the new requirements. If the Government continue to implement such requirements detailed guidance shall be needed for ESM installers.

- HMRC's proposal to increase VAT is inconsistent with Government's stated commitment to take action on climate change and be a world leader in cutting emissions. In the week in which this consultation closed, the House of Commons declared a Climate Emergency, the Committee on Climate Change released its report recommending the Government take urgent action to implement a net-zero greenhouse gas emissions target, and the Government reaffirmed its commitment to take action on climate change. Yet HMRC's proposals pull in the opposite direction and will make it harder for residential households to make the switch to solar (and storage). It will also create perverse incentives that distort competition in the residential solar & storage market and push households towards low power low capacity systems that will contribute less to reducing emissions with less flexibility. Overall this will make it more expensive to reduce emissions and more difficult to do so at least cost.

- Given the history of this policy, we argue that there is no need for Government to change the established position on reduced rates of VAT and this would in fact appear to be going back on a previous position that had come to be taken as final by industry.

- The REA and our members are calling for recognition of the value for the energy system, opportunities for jobs and investment of flexibility and renewable technologies, by implementing VAT relief on Solar, Solar and Energy storage, Biomass boilers and stand-alone Energy storage systems. This would mean retaining the 5% VAT level for all such installations, not just those meeting the proposed criteria. Failing this, the threshold for equipment should be amended to 85% of project costs, as figures from REA members show that such a threshold would mean most clean energy installs falling outside this level.

- Apply VAT relief for solar, energy storage and biomass boiler installations as environmental state aid (as opposed to merely implementing the VAT Directive), as Norway did to allow it to preserve and extend it's zero-rate VAT for purchasing electric vehicles.

Summary

In conclusion, these VAT proposals outwardly appear to be a reversal of previous policy which was understood by industry, and must be considered 'in the round' with recent policy changes to renewable and flexible energy policy, changes which have effectively made most such projects financially unviable, at complete odds with broader Government policy and public support. We also oppose the removal of wind and water turbines from the list of eligible products.

The proposals are at odds with publically stated policies from Government and deter much needed inward investment to the sector. The localised nature of many types of flexibility, such as that situated behind-the-meter, also means that such capacity especially well-suited to providing services to avoid unnecessary network reinforcement, therefore saving consumers and industry costs in the longer term-savings estimated by the NIC as up to £8 billion per year by 2030.

<u>In terms of a way forward we suggest the following options:</u>

- The REA and our members are calling for recognition of the value for the energy system, opportunities for jobs and investment, of flexibility and renewable technologies, by implementing VAT relief on Solar, Solar and Energy storage, Biomass boilers and stand-alone Energy storage systems. This would mean retaining the 5% VAT level for all such installations, not just those meeting the proposed criteria.
- Alternatively, set the threshold to 85% of the total installation costs accounted for from equipment, rather than 60%, which appears an arbitrary number and would rule out energy storage and biomass boilers from the lower rate of VAT, despite their clear wider benefits and has a damaging distortionary effect on the residential market for solar and storage.
- Apply VAT relief for solar, energy storage and biomass boiler installations as environmental state aid (as opposed to merely implementing the VAT

Directive), as Norway did to allow it to preserve and extend it's zero-rate VAT for purchasing electric vehicles.

REA, May 2019