apse membership resources

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The Clean Growth Strategy

To: All APSE main contacts

Key Issues:-

- This briefing considers the long awaited 'Clean Growth Strategy – Leading the way to a low carbon future' which was published on Thursday 12th October 2017.
- The strategy intends to link Clean Growth to economic growth, protection of the natural environment, continued progress in carbon emission reductions and the production of record amounts of renewable energy.
- These are all pertinent issues for UK local authorities.

1. Introduction

The Government published the long awaited '**Clean Growth Strategy – Leading the way to a low carbon future'** on Thursday 12th October 2017. It can be found **here.**

The introductory pages to the strategy, quoting the Prime Minister and the Business, Energy and Industrial Strategy Secretary, point to the fact that clean growth is not an option and that is must go hand in hand with economic growth, protection of the natural environment, continued excellent progress in carbon emission reductions and the production of record amounts of renewable energy. Opportunities for business are highlighted with the potential for the low carbon economy to grow being estimated at 11% per year between 2015 and 2030 which is four times faster than the growth of the whole economy.

2. The Strategy

The Strategy is closely linked to the Industrial Strategy (published in January 2017) whilst the paper states that *"It will increase our productivity, create good jobs, boost earning power for people right across the country, and help protect the climate and environment upon which we and future generations depend."*

Positive progress in this agenda is reflected in the paper citing that we have been among the most successful nations in the developed world in growing the economy while reducing emissions. Since 1990, emissions have been cut by 42% whilst the economy has grown by two thirds, a faster rate than any other G7 nation. Progress with technology is also promoted such as the fact that one in every 5 electric vehicles driven in Europe is made in the UK and that the UK provides global leadership in green finance.

However the strategy acknowledges that having achieved significant results in the power and waste sectors, this success needs to be replicated across the economy, particularly in the transport, business and industrial sectors. Reducing the emissions created by heating homes and businesses, which account for almost a third of UK emissions, is a further fundamental requirement.

The strategy is focussed on the fourth and fifth carbon budgets (covering the periods 2023-2027 and 2028-2032) with a requirement to drive a significant acceleration in the pace of decarbonisation.

3. Clean Growth

The Strategy sets out policies and proposals that aim to accelerate the pace of "clean growth", i.e. delivering increased economic growth and decreased emissions. In the context of the UK's legal requirements under the Climate Change Act, the strategy's approach to reducing emissions has two guiding objectives:-

- to meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses; and,
- to maximise the social and economic benefits for the UK from this transition.

It goes on to say that in order to meet these objectives, the UK will need to nurture low carbon technologies, processes and systems that are as cheap as possible, so there remains an attention to cost.

The 3 commitments which underpin the Strategy are:-

- to reduce our emissions in the most cost-effective way
- to maximise innovation to develop world leading technologies and
- to seek the maximum possible benefits from investment for improving the productivity of the UK economy.

4. Key policies and proposals in the strategy – items relevant for local government

The following are a selection of all proposals which are of relevance to local government.

Accelerating clean growth

- Develop world leading Green Finance capabilities, including setting up a Green Finance Taskforce.

Improving Business and Industry Efficiency – 25% of UK Emissions

- Improving the energy efficiency of new and existing commercial buildings
- Demonstrate international leadership in carbon capture usage and storage (CCUS)
- Support the recycling of heat produced in industrial processes, to reduce business energy bills and benefit local communities
- Innovation: Invest around £162 million of public funds in research and innovation in Energy, Resource and Process efficiency, including up to £20 million to encourage switching to lower carbon fuels

Improving Our Homes – 13% of UK Emissions

- Support around £3.6 billion of investment to upgrade around a million homes through the Energy Company Obligation (ECO), and extend support for home energy efficiency improvements until 2028 at the current level of ECO funding
- All fuel poor homes to be upgraded to Energy Performance Certificate (EPC) Band C by 2030 and our aspiration is for as many homes as possible to be EPC Band C by 2035 where practical, cost-effective and affordable
- Develop a long term trajectory to improve the energy performance standards of privately rented homes, with the aim of upgrading as many as possible to EPC Band C by 2030 where practical, cost-effective and affordable
- Consult on how social housing can meet similar standards over this period
- Build and extend heat networks across the country, underpinned with public funding (allocated in the Spending Review 2015) out to 2021
- Phase out the installation of high carbon fossil fuel heating in new and existing homes currently off the gas grid during the 2020s, starting with new homes

Accelerating the Shift to Low Carbon Transport – 24% of UK Emissions

- End the sale of new conventional petrol and diesel cars and vans by 2040
- Spend £1 billion supporting the take-up of ultra low emission vehicles (ULEV), including helping consumers to overcome the upfront cost of an electric car
- Develop one of the best electric vehicle charging networks in the world
- Announce plans for the public sector to lead the way in transitioning to zero emissions vehicles
- Invest £1.2 billion to make cycling and walking the natural choice for shorter journeys
- Innovation: Invest around £841 million of public funds in innovation in low carbon transport technology and fuels

Delivering Clean, Smart, Flexible Power – 21% of UK Emissions

- Reduce power costs for households and businesses by: Implementing the smart ystems plan, which will help consumers to use energy more flexibly and could unlock savings of up to £40 billion to 2050; Working with Ofgem and National Grid to create a more independent system operator to keep bills low through greater competition, coordination and innovation across the system; Publishing a draft bill to require Ofgem to impose a cap on standard variable and default tariffs across the whole market
- Innovation: Invest around £900 million of public funds, including around £265 million in smart systems to reduce the cost of electricity storage, advance innovative demand response technologies and develop new ways of balancing the grid

Ensuring the Benefits and Values of Our Natural Resources – 15% of UK Emissions

- Establish a new network of forests in England including new woodland on farmland, and fund larger-scale woodland and forest creation, in support of our commitment to plant 11 million trees, and increase the amount of UK timber used in construction
- Work towards our ambition for zero avoidable waste by 2050, maximising the value we extract from our resources, and minimising the negative environmental and carbon impacts associated with their extraction, use and disposal
- Publish a new Resources and Waste Strategy to make the UK a world leader in terms of competitiveness, resource productivity and resource efficiency
- Innovation: Invest £99 million in innovative technology and research for agri-tech, land use, greenhouse gas removal technologies, waste and resource efficiency

Leading in the Public Sector – 2% of UK Emissions

- Introduce a voluntary public sector target of a 30 per cent reduction in carbon emissions by 2020-21 for the wider public sector
- Provide £255 million of funding for energy efficiency improvements in England and help public bodies access sources of funding

5. Improving Our Homes

The section which refers to housing provides a description of the energy performance of the housing stock and how it has changed over recent years. The link is made between cold homes and ill health with the cost of cold and damp homes to the NHS being estimated at approximately £760 million per year. The paper states that since 2013, ECO has driven the installation of 2.1 million energy efficiency measures in 1.7 million properties. Also the domestic Renewable Heat Incentive has enabled householders to install over 55,000 low carbon heating technologies such as heat pumps, biomass boilers

and solar water heating. One of the ambitions of the strategy is to have 2.5 million fuel poor homes in England improved to energy efficiency rating C or better by 2030. More broadly, the aspiration is that as many homes as possible are improved to EPC Band C by 2035, where practical, cost-effective and affordable.

It goes on to say that "*Decarbonising heat is our most difficult policy and technology challenge to meet our carbon targets.*" Although a number of technologies are mentioned including heat pumps and district heating networks, it is currently not clear which option will work best at scale.

The government will also look at how social housing can also meet similar standards on the same timetable i.e. as many homes as possible being upgraded to EPC B and C by 2030, where practical, cost-effective and affordable. A review of building regulations currently underway will support these objectives whilst all homes will be offered a smart meter by the end of 2020.

6. Accelerating the shift to low carbon transport

The transport sector now accounts for 24% of the UK's emissions. In terms of progress the paper states that The UK now has over 115,000 ULEVs on the road and that government has invested £37 billion in the public transport system between 2011 and 2016 with rail passenger journeys now at their highest level since the 1920s. Aims include almost every car and van will need to be zero emission by 2050. Encouragement of ULEV take up and heavy investment in the EV charging and hydrogen refuelling networks are further planned actions.

Regarding electric vehicle and battery technology, government investment will help bring down the cost of EVs and increase their range. Through the Industrial Strategy Challenge Fund (ISCF), there will be investment of £246 million over four years in the design, development and manufacture of batteries for the electrification of vehicles, as part of the 'Faraday Challenge'. The Government has also awarded £10 million to build UK capability in the development and commercialisation of automotive battery packs. In terms of charging and grid support at least £70 million will be provided over the next five years to support innovation in energy storage, demand side response and other smart energy technologies, including up to £20 million for vehicle-to-grid products and services. This is focused on how an expanded fleet of EVs could provide network flexibility and system balancing while potentially offering benefits to bill payers

7. Delivering Clean, Smart, Flexible Power

The paper notes that last year, 47 per cent of our electricity came from low carbon sources, coal use fell to record low levels and on 21 April 2017, for the first time since 1882, we did not use any coal for a 24-hour period. It highlights Clayhill solar farm and energy storage facility in Milton Keynes as the first to be built in the UK without subsidy. Government is

publishing a draft bill to require Ofgem to impose a cap on standard variable and default tariffs across the whole market.

8. Leading in the Public Sector

The paper states '*We want the public sector to be a leader in reducing carbon emissions'* and it goes on to say that '*Moving to a productive low carbon economy cannot be achieved by central government alone; it is a shared responsibility across the country. Local areas are best placed to drive emission reductions through their unique position of managing policy on land, buildings, water, waste and transport. They can embed low carbon measures in strategic plans across areas such as health and social care, transport, and housing.*'

9. APSE Comment

The admission in the strategy that the government expects to fall short of its ambitions, with emissions remaining 6% and 9.7% above budget in 2027 and 2032 respectively, even in spite of new policies, is not an ideal context moving forward .

It is noted in the Strategy that if the unquantified parts of the strategy are insufficient to bridge the gaps noted above, the Government could rely on flexibilities available under the Climate Change Act. These include carrying forward expected over-achievement in earlier budget periods, borrowing against over-achievement in future budgets, or the purchase of international carbon credits to make up the difference.

The plan, as noted by Lord Deben, Chair of the CCC should be to deliver our targets through our own actions over the stated period of time to "*keep the UK on the lowest cost path to the 2050 target to reduce emissions by at least 80% compared to 1990 levels. That should be the goal without the use of accounting flexibilities or reliance on international carbon credits*"

As is the case with many Government announcements, much of the strategy was already in the public domain with little being completely new. The focus on energy efficiency is welcome but there has been a cut back in resources for this area over recent years which announcements in the Strategy appear to reverse. Certainly there is greater attention paid to energy efficiency than there has been in recent years.

Although there are far more direct references to industrial and commercial buildings than there are to civic buildings, the principles for action and improvement within the strategy remain relevant to both. Local government has a responsibility to ensure it makes its portfolio of buildings as energy efficient as possible. Of course many councils have done just this through lighting refits, the introduction of more efficient boilers, insulation in civic buildings and housing stock, smarter heating controls and other efficiency measures. The generation of energy which can be used on site is also an approach which has been

undertaken widely across the civic estate and reduces reliance on the grid as well as cutting energy bills.

However there is much more which can be done. There is no lack of ideas nor assets to utilise but there are restrictions on funds to invest and capacity at many local authorities. Councils need to have a long term strategy in place to manage all of their assets, investment plans and energy performance and this can help to put what is a significant job into perspective. By taking a lead in addressing civic buildings the local authority is setting an example for other businesses, individuals and organisations within their locality as well as making a contribution to wider targets.

APSE through its bespoke APSE Energy service consistently notes the dynamic nature of the energy sector, the speed with which new developments are emerging and the need to keep abreast of changes. We welcome the support for new technologies noted in the strategy such as £70 million expected to be invested over the next five years to support innovation in energy storage, demand side response (DSR) and other smart energy technology with £20 million of this earmarked for vehicle-to-grid (V2G) to explore how the rapidly expanding fleet of electric vehicles could be used to provide network flexibility and system balancing.

It also provides details of energy efficiency schemes in buildings and a commitment to carbon capture and storage but does not necessarily provide enough support to ensure these approaches will have an adequate impact on the issues.

Although the Strategy notes 50 proposals there are some areas which have not been addressed. One area relates to preservation policies. There are references to building regulations but not to planning matters. Preservation policies for listed buildings and homes in conservation areas could mean the full benefits, which might be achieved through energy efficiency policies, will be missed. Preservation policies apply to around 10% of the UK's housing stock with data showing that uptake of energy-saving technologies such as UPVC windows, new boilers or cavity wall insulation is lower in areas where many properties are subject to such policies. Local authorities may need to review the rules on the use of certain materials to all items such as energy-efficient windows in order to gain maximum benefits.

The Strategy shows a clear commitment to cutting emissions and refers to significant investment in infrastructure to achieve that. We would expect it to take at least a generation to implement such investment so this must be taken as a long term approach by both central and local government.

Both this strategy and the wider sector acknowledge the scale at which some of the future developments will need to take place. A huge growth in low emission vehicles and charging networks, roll out of smart meters and use of associated data, housing growth and linked opportunities for energy generation as well as investment in the national grid

are examples. Local authorities have responsibilities in all of these areas and must put in place appropriate long term approaches if they are to have an impact on the energy agenda in their locality for the benefit of local communities and economies.

More details about the work of APSE Energy can be found in the dedicated APSE Energy area of the APSE website using this link.

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