

## APPG PRESENTATION – A MORE AFFORDABLE ROUTE TO NET ZERO

### Are the White Paper and the CCC Budget consistent.?

The short answer is no and for those of you familiar with the politics of energy this should come as no surprise.

Differences in assumptions and approaches are highlighted by the varying cost estimates of reaching net zero over the next 30 years with the CCC suggesting £50bn pa and BEIS pitching in at £70bn pa – and with the National Grid weighing in with a massive estimate of £100bn a year!

For an ex- Treasury economist like myself, these are not small differences.

What they reflect is the fact that the scale and complexity of what is being proposed is unprecedented and that there are simply too many unknowns in the equation, such as the viability of the technologies being proposed and the likely responsiveness of consumers and investors to what could be a myriad of regulations and incentives.

Ever since Theresa May decided net zero was going to be her political legacy, the debate on the target has probably generated far more heat than light.

With only months to go before COP26, a detailed domestic assessment of the how and most importantly the “how much” and who will pay has barely begun. Yet, politicians are attracted to “gestures” and the Government seems determined on taking a huge policy leap that could back-fire.

In the wake of the COVID health and economic crisis and BREXIT uncertainties, some recent polling suggests a growing number of people do NOT believe that the UK (which accounts for less than 1% of global carbon emissions) has a “moral responsibility” to lead the world towards net-zero, given the lifestyle intrusion and highly regressive cost burden. These concerns have to be addressed.

So, to go back to the original question- the answer is that there is a lack of consistency where we need it most – NAMELY the need to agreement on a consistent set of net-zero policy guidelines, which embrace fairness, security and affordability.

In a recent media article “GOING GREEN IN THE DARK” I suggested FOUR net-zero policy principles:

What we do should be based on what others do to meet the global challenge;  
The transition to net-zero must underpin energy security and affordability;  
All net zero policies must have clear domestic economic and welfare benefits;  
Avoid prescribing technologies and let competition deliver least cost solutions.

So, with these in mind let me briefly outline what I see are the key components of a secure and affordable transition to a low carbon energy economy.

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Set an initial 15-year gradually rising trajectory for a carbon tax applied consistently across key emitting sectors.

This would reduce the risk to investors in “green” technologies and processes and would also underpin a more gradual and affordable decline in the use of unabated natural gas as well generating tax revenue to help Government fund new investment in “green” technologies.

Help manufacturing industry to adjust and protect competitiveness by

(a) implementing on a sector and/or company level a system of CO2 tax rebates and/or energy efficiency grants based on an agreed plan to reduce industry’s CO2 footprint and

(b) imposing a carbon equalisation tax on imports from countries where competing manufacturers operate under a less onerous carbon emissions regime.

There is an impending shortage of “firm” electricity generation capacity with no “dirty” coal after 2024 thanks to a sensible carbon price and the existence of reliable gas generation.

The Government sees every GW of base nuclear as saving massive subsidies to weather- dependent wind – but large scale nuclear far too expensive and wind is not the only alternative.

The time has probably come for no more nuclear after Hinkley C while keeping the door open to viable nuclear fusion.

Set a single FIT for future CfD wind power auctions but scale back new capacity target to 20GW by 2030 to save on escalating market balancing costs due to

intermittency and distribution constraints. Bidders should also provide bid bonds and declare average minimum load commitments.

Essential extra base load to be provided by unabated gas via a separate auction  
CCS is still an expensive prototype – requiring more gas and raising electricity costs – new CCGT plant should be CCS compatible but not compulsory – additional capex and opex incentives and preferential despatch could be available later when CCS proven.

Create a separate auction for flexible generation with unabated small -scale gas being allowed to compete with batteries and DSR on the basis of strict criteria relating to network locality, reliability and costs with penalties for non-delivery.

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Removing coal from the energy generation mix was easy compared with the challenge of decarbonising domestic heating.

In the debate on heat pumps v gas decarbonisation for domestic heating there are currently too many unknowns and so regulations which could force 25m consumers to undergo the significant expense of replacing their gas boilers should be deferred pending a more detailed feasibility and welfare impact assessment.

What is certain and needs to be more widely acknowledged in Government is that natural gas for heat and power has key transitional role to play and here gas security of supply is critical.

The UK will be almost totally dependent on imported gas from 2025 and with UK gas storage capacity at less than 2% of annual gas demand, policies are urgently required eg PSO or capacity payments to underpin new investment in seasonal and flexible storage capacity (inc allowing for the expected growth in hydrogen production to fuel heat and transport). This infrastructure investment will mitigate wholesale gas and electricity price volatility and help pave the way for a more secure and affordable transition to net zero.

Finally, I would stress that managing public expectations about benefits, costs and trade-offs is critical to the success of the whole net zero project.

And with the UK and the EU the only ones amongst the world's 18 largest greenhouse gas emitters to have submitted detail emission reduction plans ahead of COP26, then perhaps now is the time for the Government to “tell it

how it is” and say that for very good reasons – such as technological constraints, security of supply, industrial competitiveness and especially affordability – reaching the net zero target by 2050 might not be possible.

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