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#### PRASEG Energy 101

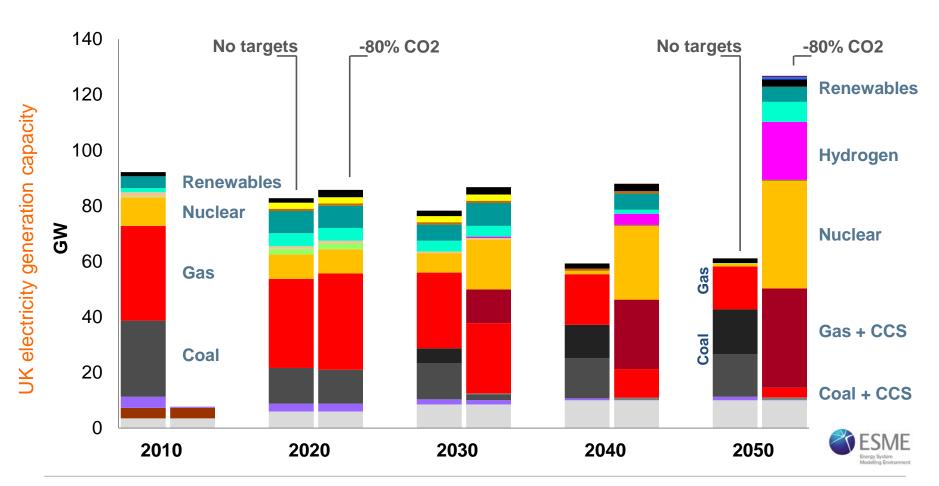
Mike Colechin







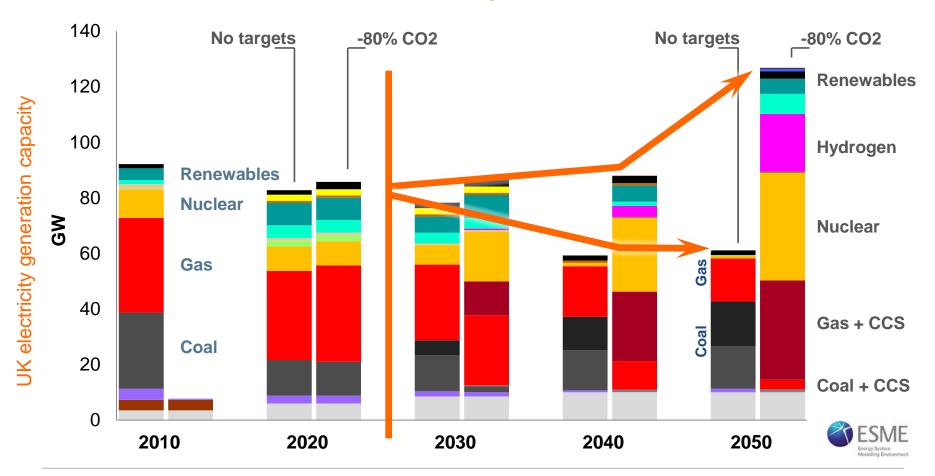
### "No emissions targets" and "-80% CO<sub>2</sub> in 2050" are very different worlds...







# As long as we prepare NOW, decisions on 2050 can wait... but not for long

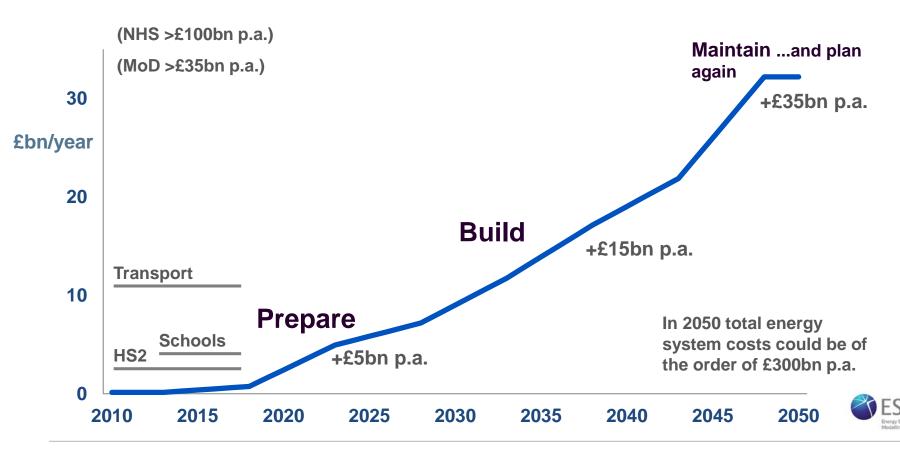






#### Prepare over next 10 years

creating platform for infrastructure roll-out and growth Incremental capital investment in a 'low-carbon' energy infrastructure

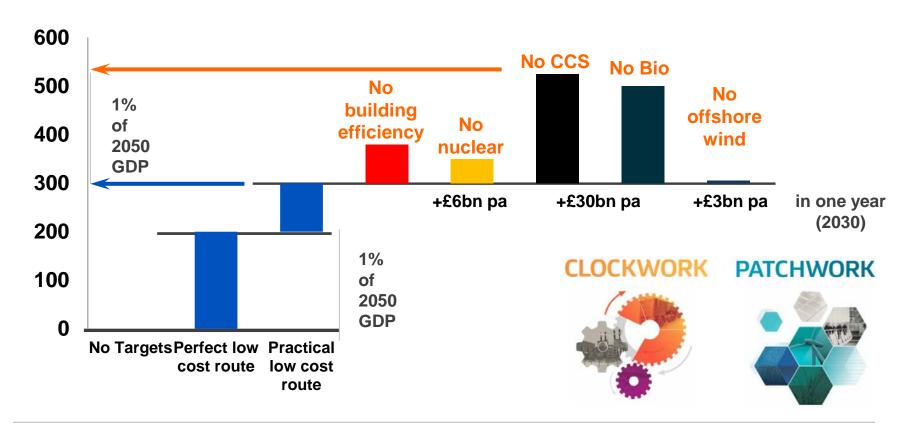






## The UK <u>can</u> achieve an affordable transition (1-2% of GDP) - system optimisation is key

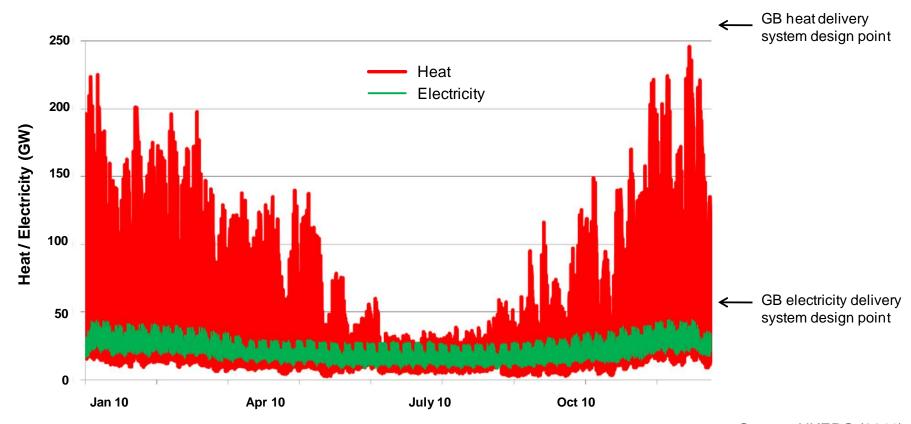
Additional cost of delivering -80% GHG energy system NPV £ bn 2010-2050







# GB heat and electricity demand variability (commercial & domestic - 2010)



Source: UKERC (2011)





### The UK needs innovation to help it meet its carbon targets







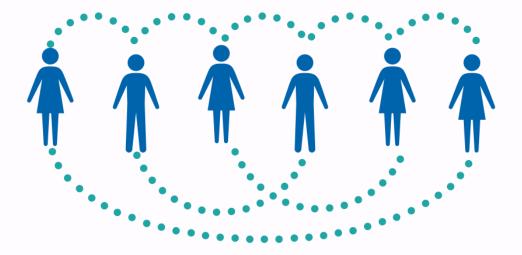


Successful innovation has several critical components: market confidence, finance, public policy and the capability to innovate





Successful innovation systems often involve open and iterative processes, which are complex



They depend on multiple interactions between different actors





#### Collaboration and shared understanding is required to help the innovation process



involving interactions across science, business and government to facilitate knowledge transfer and learning

it is easier to achieve a transition with a shared understanding of the drivers of new low carbon energy technologies









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