
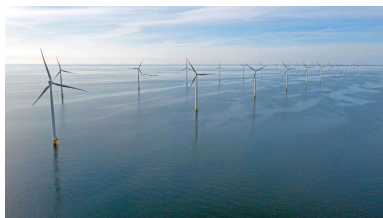


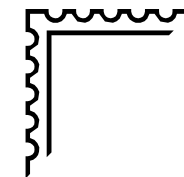
Discovery 'project on a slide': **Innovative Control and Energy Storage for Ancillary Services in Offshore Wind - INCENTIVE**

Challenge area	Whole systems
Project summary	INCENTIVE will investigate and demonstrate the use of innovative voltage, current and frequency control technologies coupled with energy storage at the point of onshore connection of offshore wind farms, to allow offshore wind farms to stabilise the onshore grid.
Objectives	<ul style="list-style-type: none"> • To ensure the continued fast-paced roll out of offshore wind to decarbonise the energy system • To study and demonstrate innovative technology to allow offshore wind farms to provide stability services • To develop commercial and regulatory models for the novel technology • To understand the market requirements for the novel technology
Key benefits	<ul style="list-style-type: none"> • Reduce CO2 by allowing more offshore wind to connect to the grid • Reduce costs to consumers of connecting more offshore wind to the network
Consortia members	
Core technologies	Integrated energy storage and power converter, for use at onshore connection point of offshore wind farm. Energy storage may take the form of battery or super capacitor. Converter possibilities include innovative grid-following or grid-forming architectures .
Funding requested	£121,001.85 for Discovery Phase (to add to £15,000 of private funding provided by Carbon Trust)



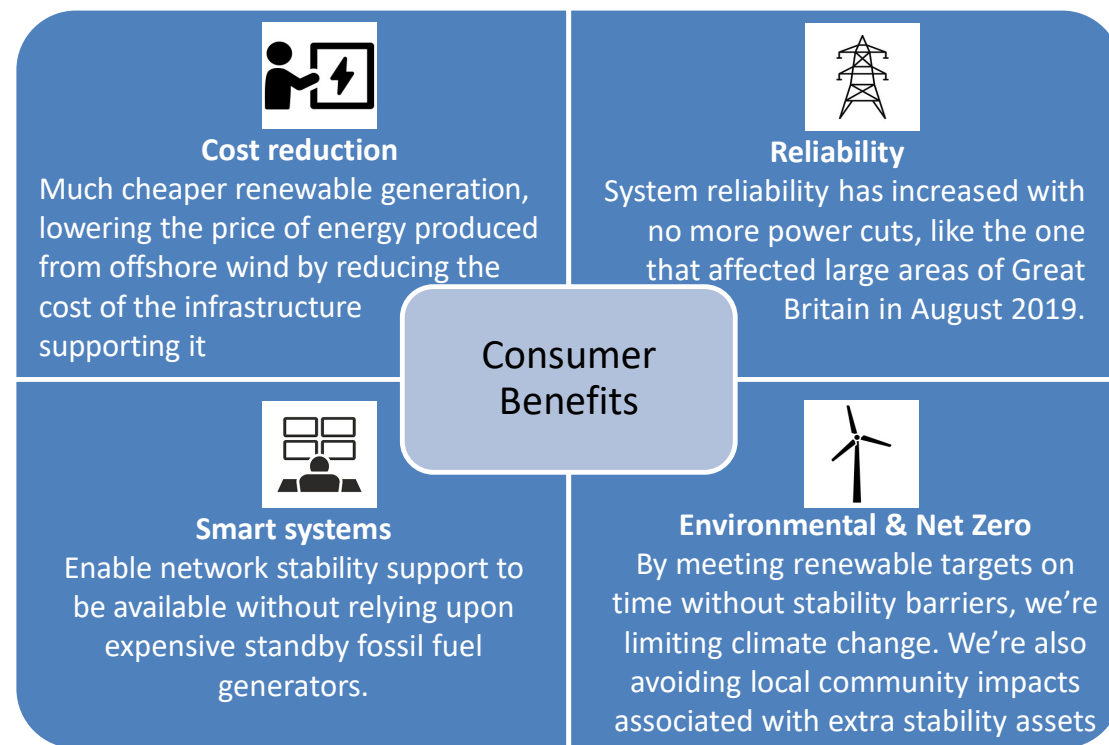
POSTCARD FROM THE FUTURE

Strategic Innovation Fund Project: Innovative Control and Energy Storage for Ancillary Services in Offshore Wind - INCENTIVE



Dear 2021 energy consumer,

- **We did it!** The electricity grid is no longer reliant on fossil fuel generation to stabilise the network.
- **Instead, renewable generators, such as offshore wind farms, are now connected to the grid using smart technologies that enable them to self-stabilise the network, whereas in 2021 they had the opposite effect.**
- **This has assisted the accelerated roll-out of offshore wind within the UK and internationally, and hence has enabled the energy system to rapidly decarbonise at best value supporting the transition to net zero.**
- **The INCENTIVE project's solution uses short term energy storage coupled with innovative voltage, current and power control located at the onshore substation of an offshore windfarm to inject large volumes of stabilised renewable energy into the grid network.**
- **The INCENTIVE project's solution has now been deployed commercially at a wide range of offshore wind farms that, as well as producing renewable energy, are now able to play an active role in grid stability markets, a "win-win".**
- **This has maintained the UK as the global leader in offshore wind and its position at the forefront of the global energy transition.**



Yours sincerely,
The INCENTIVE team

