



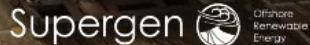
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POLICY AND
INNOVATION GROUP
UK OCEAN ENERGY
REVIEW

2023



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Scenario and Policy Development

2024 Supergen ORE Hub Assembly

Kris Grattan, Research Associate, University of Edinburgh



Overview

Recap of Supergen Phase 1

- Supergen Policy Guidance Report Series
- Benefits associated with a commercial ocean energy sector
- How do we unlock these benefits?

What's next in Supergen Phase 2

- Dissemination and outreach
- Tidal stream policymakers roundtable



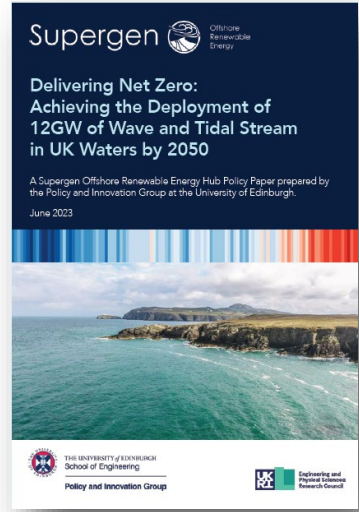
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Ocean Energy Research at a National Level

Deployment Modelling



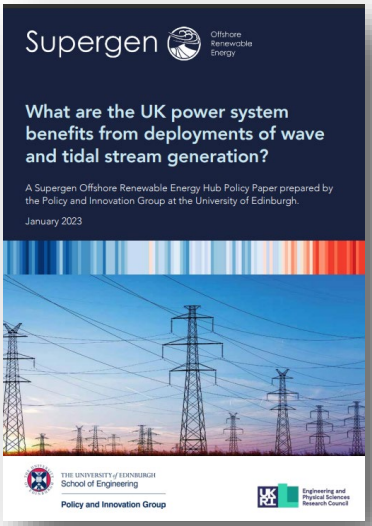
- UK Net Zero Targets**
By 2050 Net Zero GB energy system can have:
- **6.4GW** of wave
 - **6.2GW** of tidal stream
 - **45GW** of offshore wind

Economic Benefit (GVA)



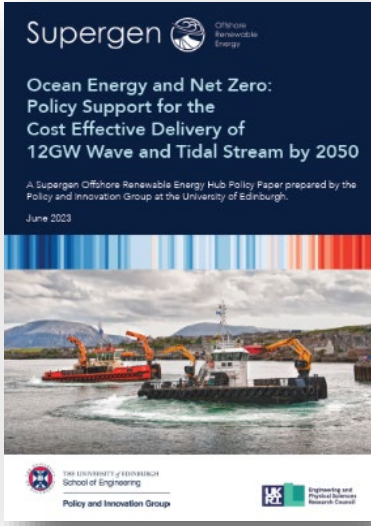
- GVA and Just Transition**
Combining domestic and international deployments, GVA to the UK by 2050 is:
- **£23.8bn** wave
 - **£18.2bn** tidal stream
 - **£38.6bn** offshore wind

Systems Benefit



- Wind and Solar Enabler**
Power system benefits can enable:
- **27TWh** higher renewable energy dispatch
 - **£1.03 bn** reduction in dispatch costs

Value of Innovation



- Balance MP and TP**
- Long-term market pull support is key
 - Overall cost can be greatly reduced by sustained innovation funding

Areas of Innovation



- Targeted Innovation**
- Identifying cross-cutting challenge areas can ensure that R&I happens efficiently and collaboratively

Policy Influence: Westminster Roundtables



Party: **SNP**

Party: **Labour**

Party: **Liberal Democrats**

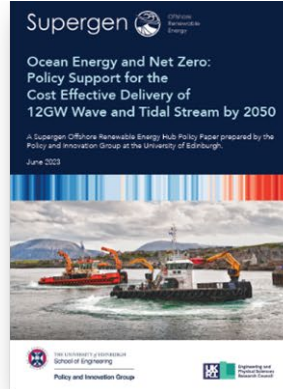
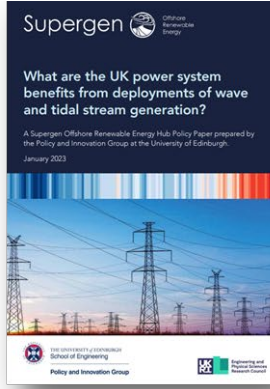
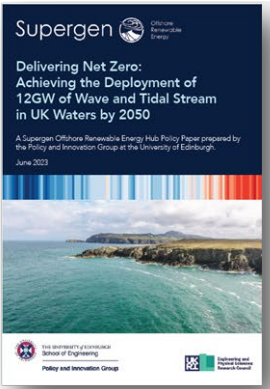
All Part Parliamentary Group (APPG)

Alan Brown, MP
Spokesperson for Energy & Climate Change

Alan Whitehead, MP
Shadow Minister for Energy Security

Wera Hobhouse, MP
Spokesperson for Energy & Climate Change

Richard Graham, MP
Alistair Carmichael, MP



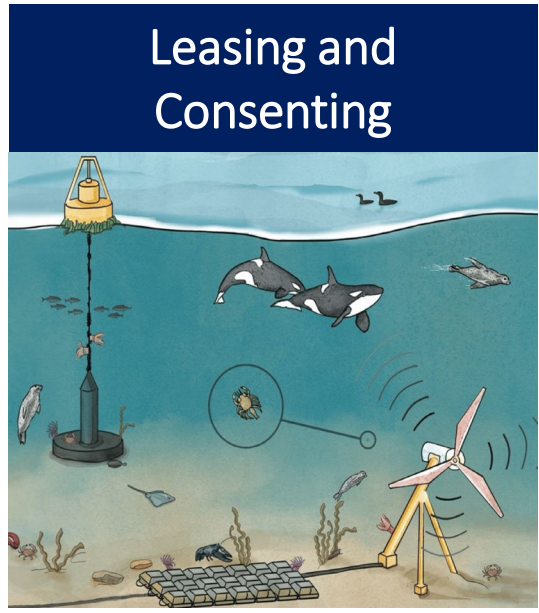
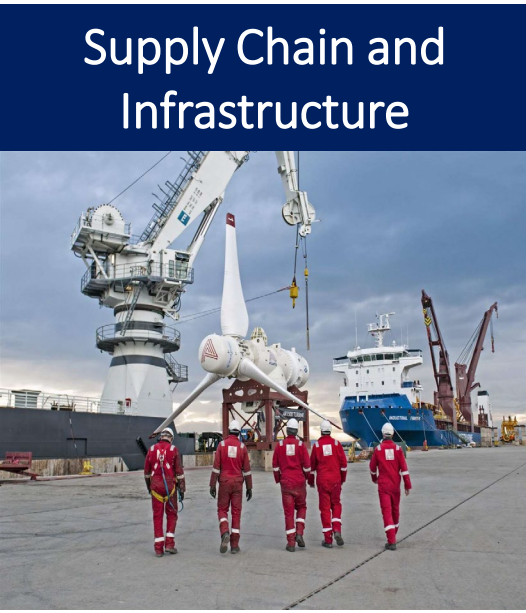
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Policy Engagement: Tidal Stream Roundtable

Supergen ORE Hub and DESNZ roundtable:

- **Department for Energy Security and Net Zero**
 - Scottish Government
 - Welsh Government
 - The Crown Estate
 - Crown Estate Scotland
 - Innovate UK
 - EPSRC
 - EMEC



IEA-OES to UK Review



2023 UK Ocean Energy Review

An expansion of the UK chapter of the IEA-OES report

Provides a concise summary of the policy and funding landscape, current R&D projects and the devices currently in the water

This year we are pleased to include a foreword by Andrew Bowie MP, Minister for Nuclear and Renewables

“On top of the £7.5million awarded by the EPSRC to the Supergen Offshore Renewable Energy (ORE) Impact Hub to accelerate the impact of current and future ORE devices and systems”

“We are proud to continue supporting academics who work tirelessly to help our understanding of the role marine energy could play in the future decarbonised energy system.” – Minister Bowie

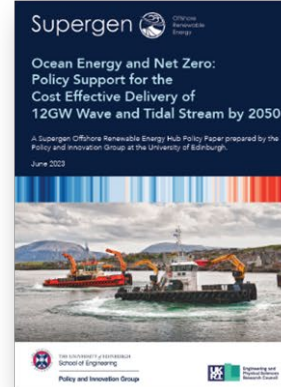
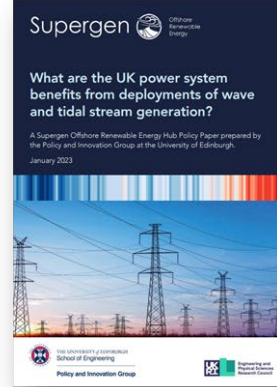
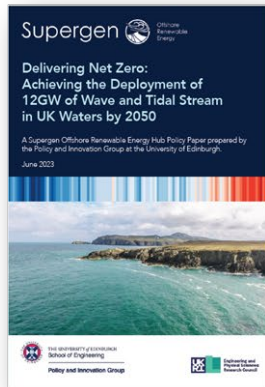


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Supergen Phase 2: What is coming next?

Phase 1 outputs: Demonstration of Scenarios



Phase 2 plans: Policy and Scenarios

To realise these benefits, we will need:

- supply chain competitive investigation
- skills and training assessments
- circular economy integration



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Thank you for listening!

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