# BERWICK BANK & MARR BANK

## OUR DIGITAL EIA JOURNEY

**12 May 2021**

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sse Renewables | For a better world of energy

# AGENDA

## Berwick Bank and Marr Bank

1. SSE Group and Renewables  - overview and vision
2. Berwick Bank and Marr Bank wind farms - overview
3. Digital EIA focus – data management, information events and reporting
4. Digital EIA - Challenges and opportunities
5. Digital EIA progress to date and future vision



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# OVERVIEW OF THE SSE GROUP

## Our vision is to be a leading energy company in a net zero world

Our purpose is to provide energy needed today, while building a better world of energy for tomorrow.

We create value for shareholders and society in a sustainable way through successful development, efficient operation and responsible ownership of energy infrastructure and businesses.

### Ambitious goals for 2030 relating to decarbonisation and electrification

GOAL #1

**Cut our carbon intensity by 60%**

Reduce the carbon intensity of electricity generated by 60% by 2030, compared to 2018 levels, to around 120g$CO_2$/kWh*.

GOAL #2

**Treble renewable energy output**

Develop and build by 2030 more renewable energy to contribute renewable output of 30TWh a year.

GOAL #3

**Help accommodate 10m electric vehicles**

Build electricity network flexibility and infrastructure that helps accommodate 10 million electric vehicles in GB by 2030.

GOAL #4

**Champion Fair Tax and a real Living Wage**

Be the leading company in the UK and Ireland championing Fair Tax and a real Living Wage.

# SSE RENEWABLES

## A leading developer, owner and operator in the UK and Ireland

### ONSHORE WIND

Operational c. 2,000MW

Development c. 1,000MW

### OFFSHORE WIND

Operational c. 600MW

Development c. 6,000MW

### HYDRO & PUMPED STORAGE

Operational c. 1,450MW

Development c. 1,500MW

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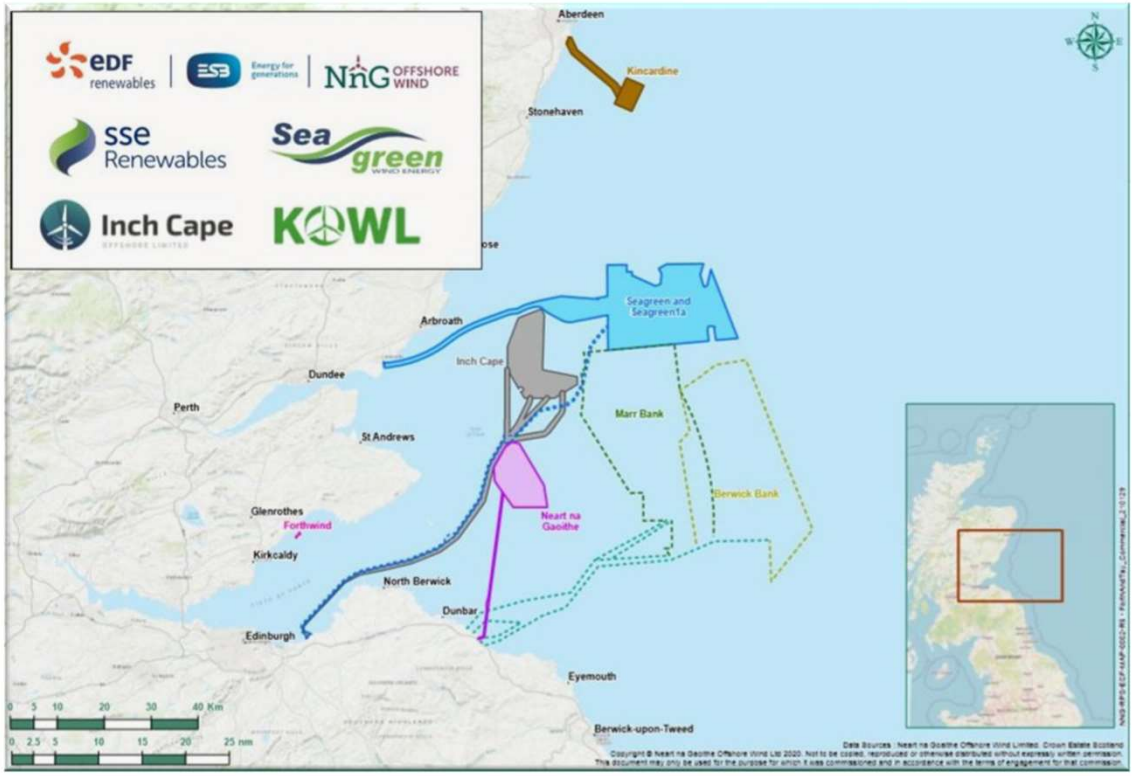
# PROJECT OVERVIEW

## Berwick Bank and Marr Bank

- Outer Firth of Forth
- Berwick Bank & Marr Bank (**up to 4.1GW**)
- Development area **~8 times size Glasgow City**
- **10 %** of the UK Govt's 40GW by 2030
- **37 %** of Scottish Govt's 11GW by 2030
- Consent Submission by **2022**
- Operational by **2030**
- Growing team ~ 50 FTE
- Working with many environmental consultants: ITPE, RPS, Xodus, Hi Def and others




The area of MB & BB combined envelope is: 1442 sq. km
Area of City of Edinburgh – 263 sq.km
Glasgow City - 175 Sq.km



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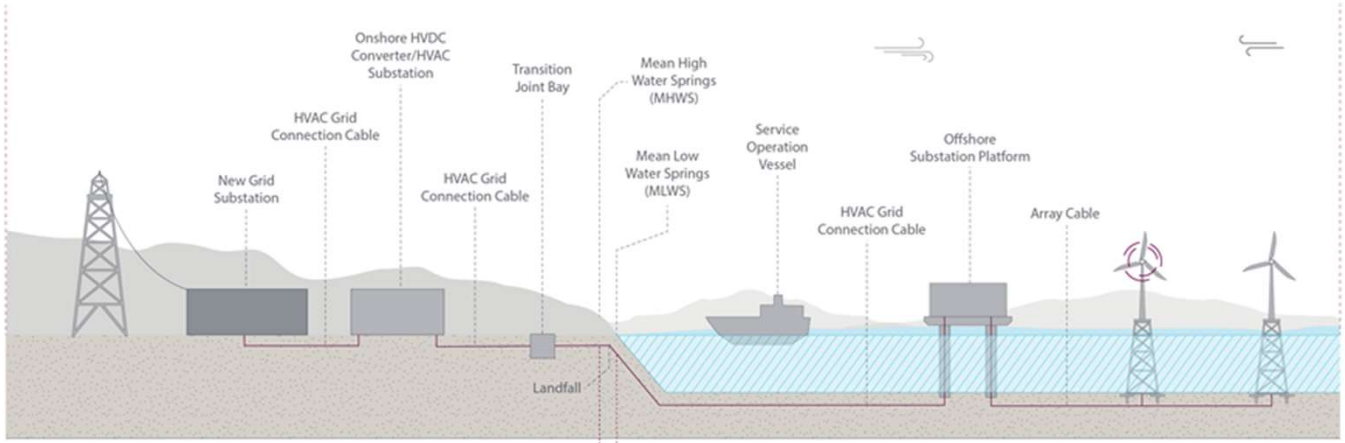
# PROJECT OVERVIEW

## EIA approach




| Onshore EIA Report | | Offshore EIA Report |
|---|---|---|
| Physical Environment | Geology, Hydrology, Soils and Flood Risk | Physical Processes |
| | | Subsea Noise |
| | | Airborne Noise |
| | | Air Quality |
| Biological Environment | Ecology and Ornithology | Benthic Ecology |
| | | Fish and Shellfish Ecology |
| | | Marine Mammals |
| | | Ornithology |
| Human Environment | Traffic and Transport | Commercial Fisheries |
| | | Shipping and Navigation |
| | | Aviation, Military and Communications |
| | Cultural Heritage | Marine Archaeology and Ordnance |
| | Landscape and Visual | Seascape and Visual Resources |
| | Land Use, Tourism and Recreation | Infrastructure and Other Users |
| | Socio-economics | Socio-economics and Tourism |
| | Noise | Addressed in offshore physical environment topics |



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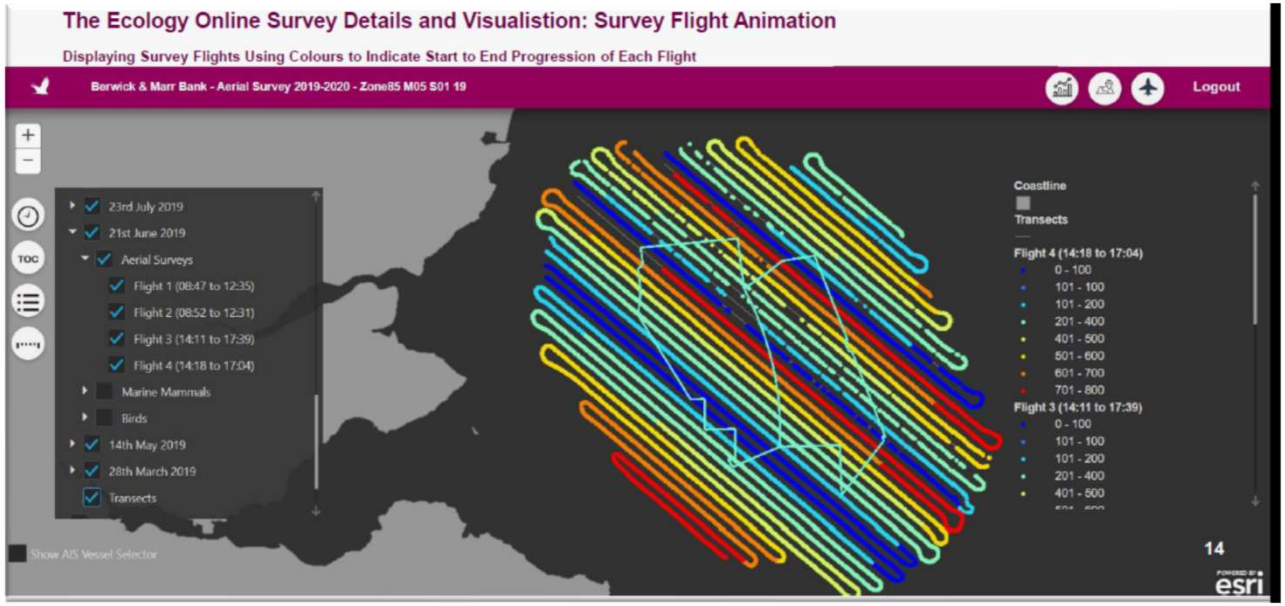
# DIGITAL EIA

## Ornithology and mammal data management

- **Ornithology and marine mammals** – largest aerial survey in world - 30 million footage frames were recorded over two years!
- '**Osprey**' interactive digital viewing platform by RPS


HiDef AERIAL SURVEYING LIMITED

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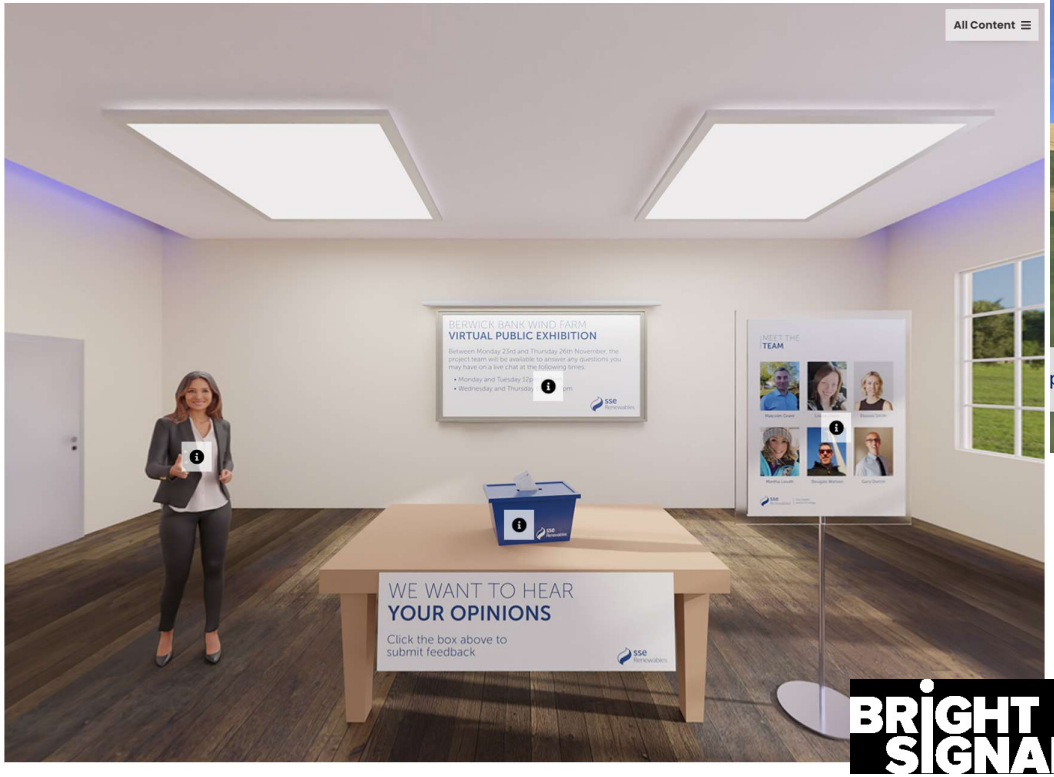
# DIGITAL EIA

## Virtual Public Information Event





point 05 - View of Thorntonloch Holdings substation consideration from the John Muir Way

BRIGHT SIGNALS



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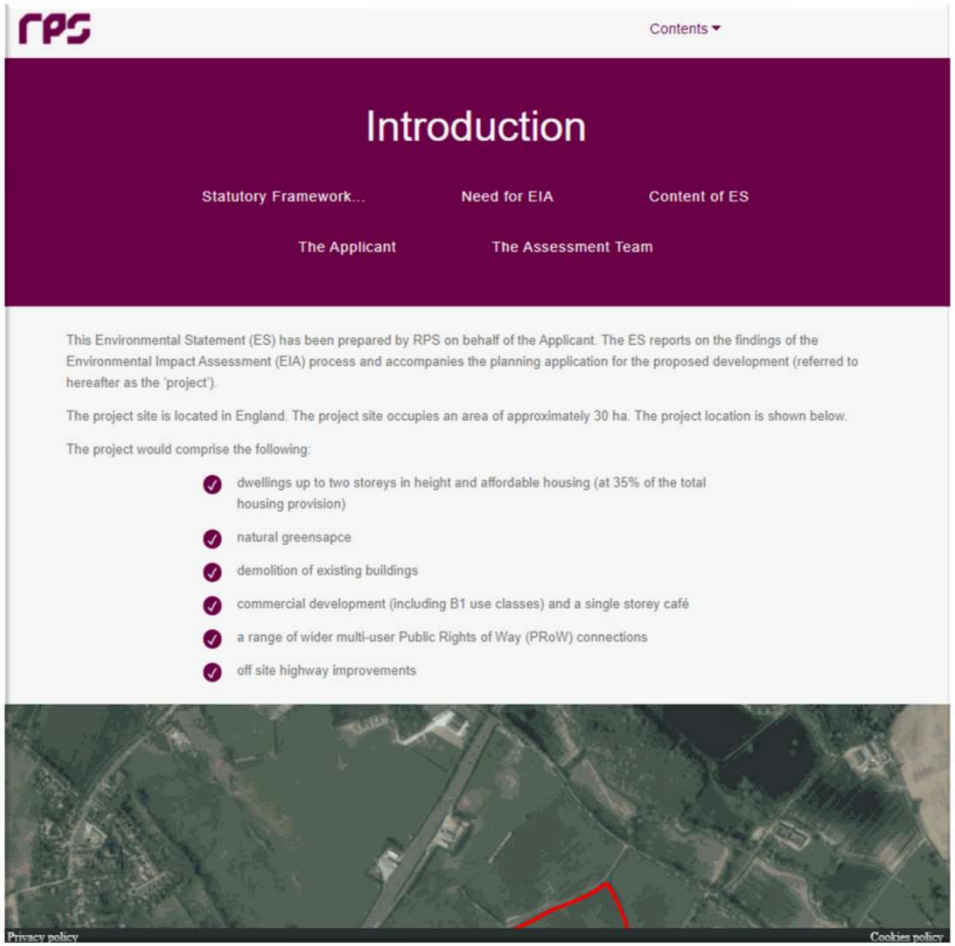
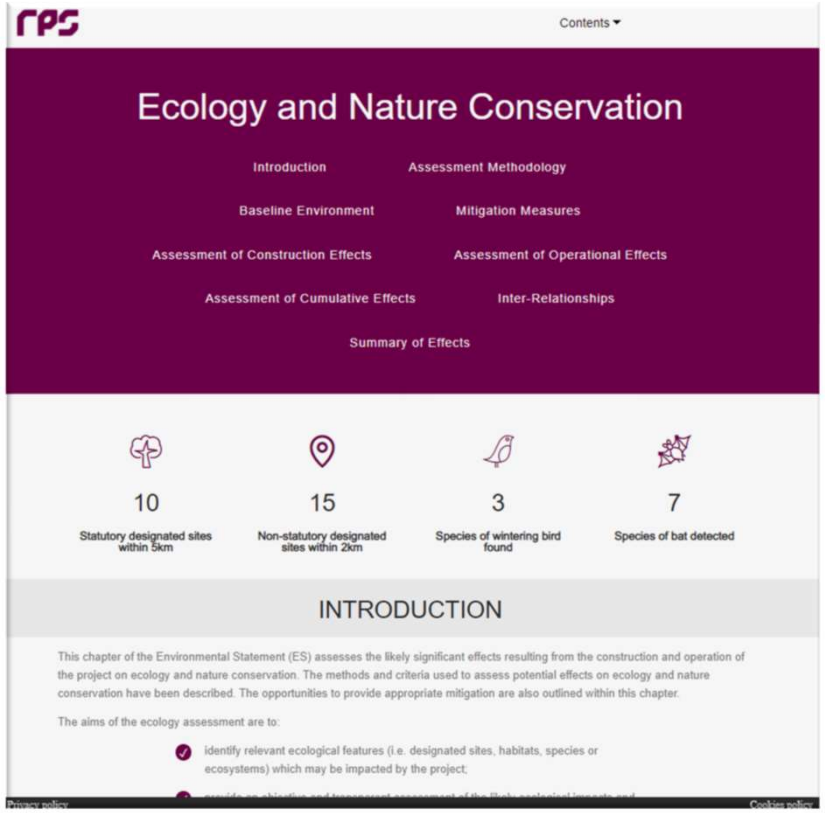
# DIGITAL EIA

## Reporting



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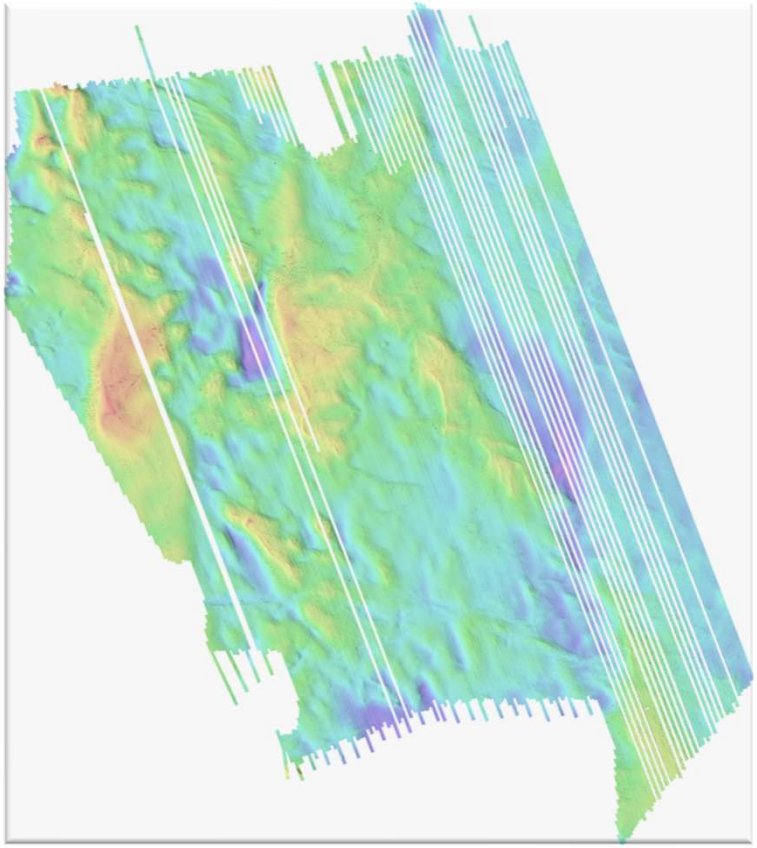
# DIGITAL EIA
## Challenges

- Data platforms and users – many
- EIA reporting – many software platforms, no standard
- Data – scale, size, portability – geophysical data **3.94TB**!
- Accessibility – is it accessible to all?
- Data security
- Duplication of effort in EIA reporting – EIA regulations


Bathymetry model from Geophysical Survey data – used to inform archaeology and benthic EIA surveys



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# DIGITAL EIA
## Opportunities

- Interactive and easy to use EIA reports for all stakeholders
- Less environmental impact – HS2 EIA 49,000 pages long, cost over £15,000 to print one copy
- Common, interactive data platform for many data sources and users
- Ability to more effectively use the EIA process throughout development design to reduce environmental effects



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# CONCLUSION

## Berwick Bank and Marr Bank – our digital EIA journey

- We have started and continue our journey with Digital EIA
- Virtual events, interactive data management and digital EIA reporting
- There are internal and external challenges with moving to a digital only EIA, not least project scale
- There are opportunities to work with stakeholders to present digital EIA in the right way
- Future goals include full digital EIA and thinking about common data platforms



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# THANK YOU

**For More Information contact:-**

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