

Marine Energy

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Marine Energy

- Energy from waves
- Energy from tides and currents
Electricity/Pumped Water/Hydrogen

(Not Offshore Wind or Ocean Thermal)

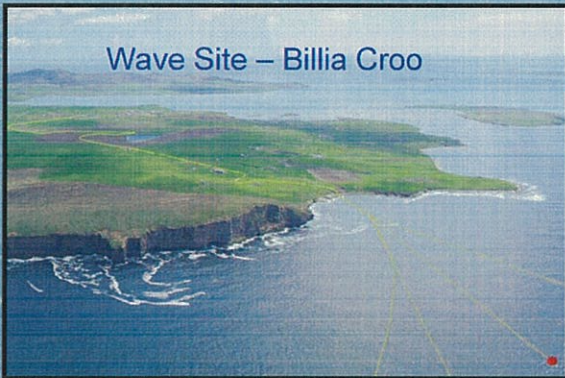
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EMEC's Mission:

To be the internationally acknowledged leading test and certification centre for marine energy converters.

Description

Wave Site – Billia Croo



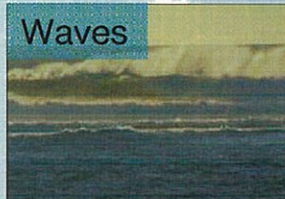
Cables



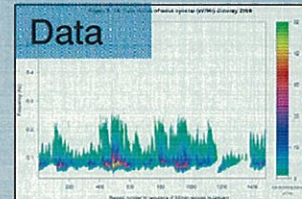
Grid



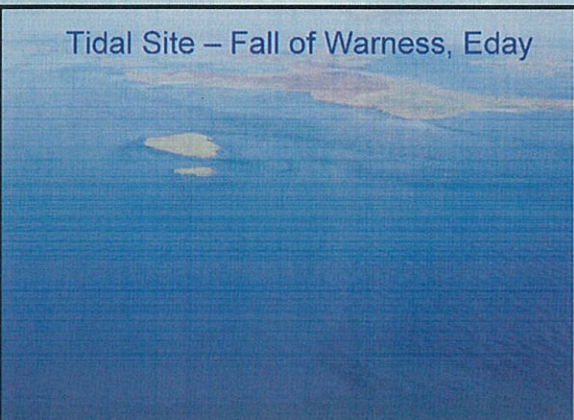
Waves



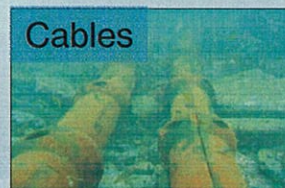
Data



Tidal Site – Fall of Warness, Eday



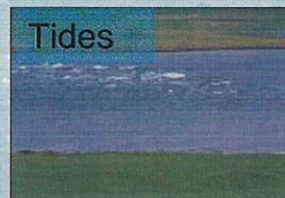
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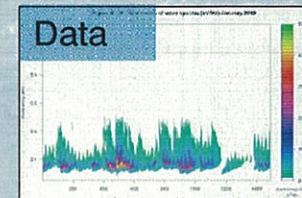
Grid



Tides



Data



Is it worth it?

20% of UK's electricity from Marine Energy

Develop technology for export

Security of supply

Jobs

Sponsors:

- Scottish Executive
- Scottish Enterprise
- Highlands & Islands Enterprise
- Orkney Enterprise
- Carbon Trust
- Orkney Islands Council
- BERR
- EU (Tidal)

Around £15M

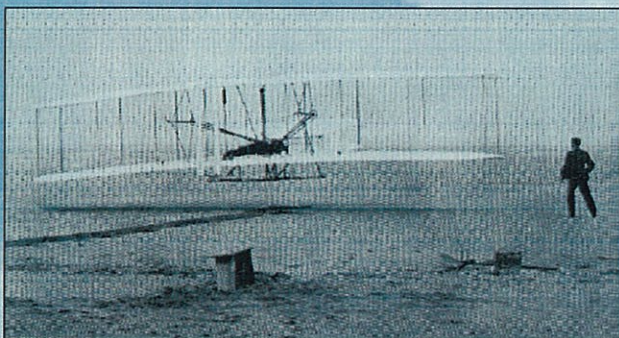
EMEC's Timeline

- 1999 BERR Foresight
- 2001 BERR & HIE Studies
- 2002 design & contract definition
- 2003 construction
- 2004 opening & 1st wave device
- 2005 tidal site commenced
- 2006 1st tidal device
- 2007 Cable connections



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Where are we now?



1904



2006

8

Where are we now?

Wave Site – Billia Croo



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Conclusion

- There is energy in the sea
- The results of tests at EMEC will be important across the world.
- The machines to harvest it are only now being built.
- There is along way to go.