



The Business of
Marine Energy

Thursday 26 May, 2011 | 08:45 – 18:00

Oceania Room | Te Papa Tongarewa | Wellington

The Business of Marine Energy

A real world example

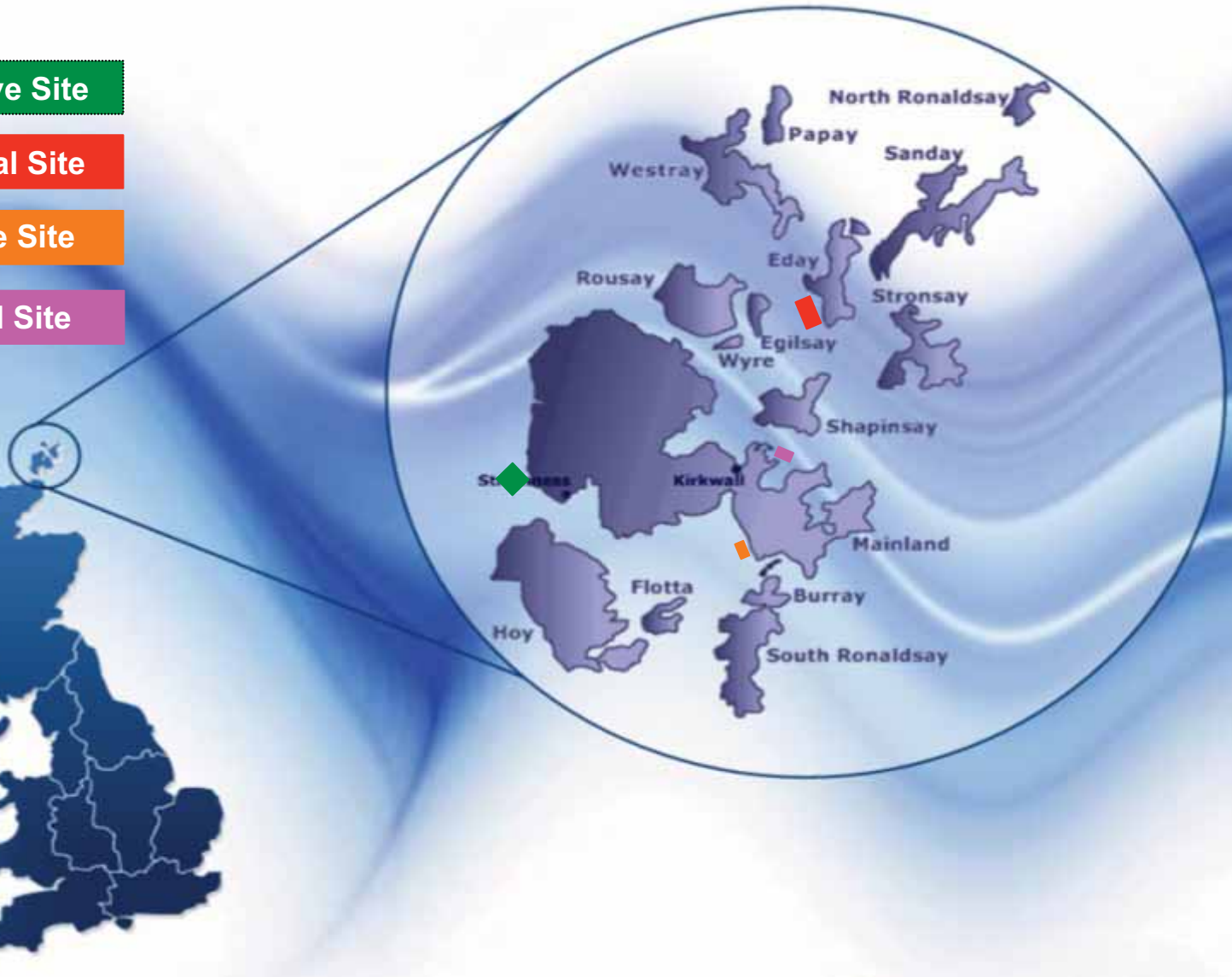
www.emec.org.uk

Full Scale Wave Site

Full Scale Tidal Site

Nursery Wave Site

Nursery Tidal Site



EMEC – the history

- 1999 DTI Foresight committee
- 2003 wave site construction
- 2005 tidal site construction
- 2010 wave & tidal site extensions
- 2010/11 Nursery sites finished
- Funders provided roughly £30m

‘EMEC is still the world’s only accredited, grid connected wave and tidal test laboratory’



SCOTTISH EXECUTIVE



Project Part-Financed
by the European Union
European Regional
Development Fund



The Present



2003/4



2006/7



2008/9



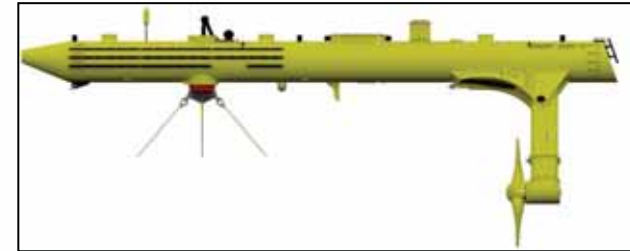
2009/10



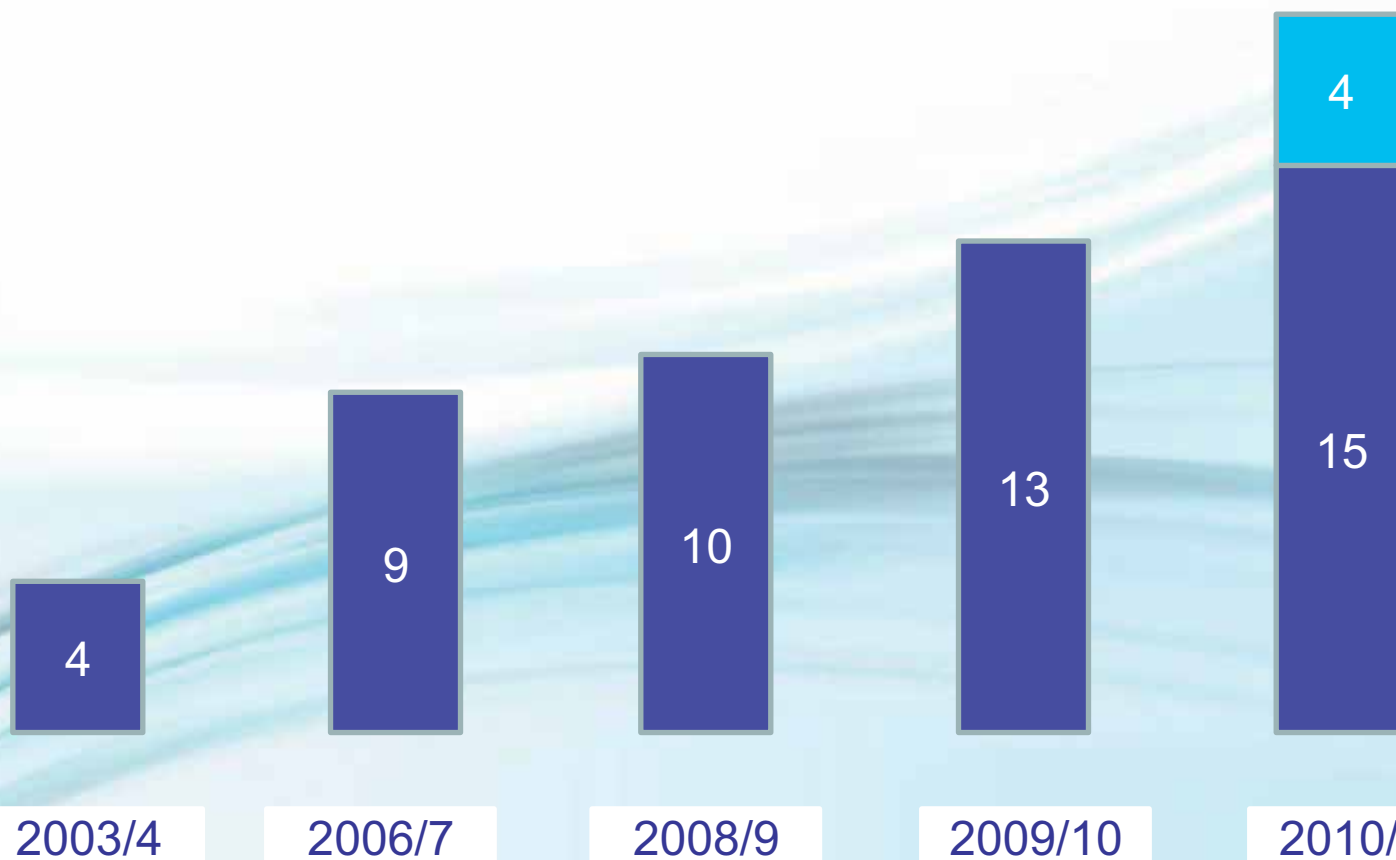
2010/11

The Future

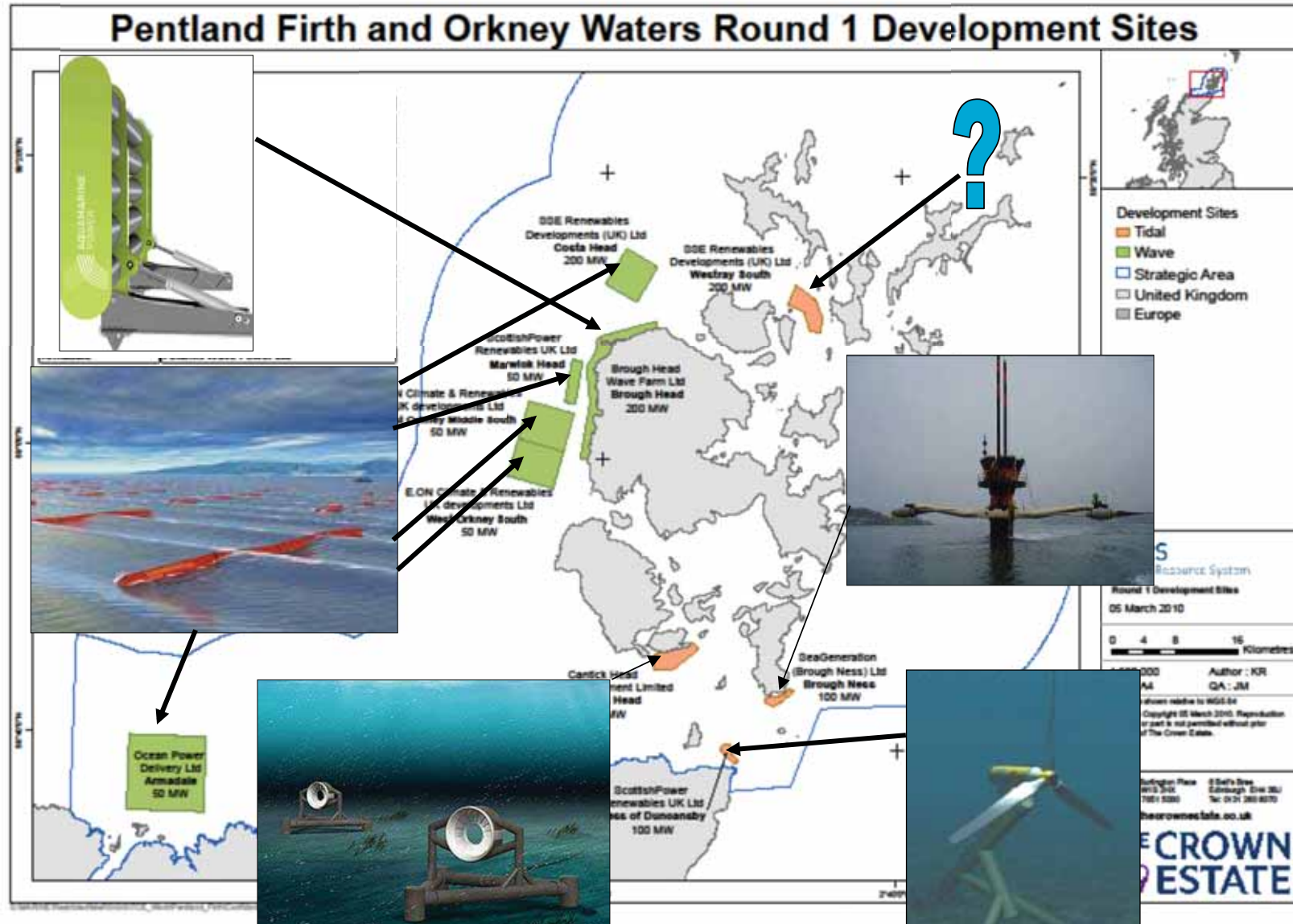
- Coming in 2011
 - Scorenewables
 - Wello
 - Oyster 2
 - SPR (Pelamis) 2
 - Hammerfest Strom
 - Voith monopile
 - Albatern
- Expected in 2012
 - Voith device
 - Seatricity
- On going
 - 5? new technologies per year?



Achievement: EMEC Berths



Is using a test site worth it?



Orkney Energy Resources



What does Growth Mean locally?

- Increased Harbour facilities
- Increased office space
 - New business centres
- Expanded storage and fabrication
 - Shipyard revitalisation
- Expanded tourism
 - In the off season
- Increased supply chain



Education and Employment

- ICIT students
 - 250 MSc graduates
 - 10 PhD graduates
- Navigation school
 - 100s of mariners, many with global experience
- Archaeology
 - World class expertise
- Environmental
 - International experts across a range of areas
- Marine
 - Pilotage service and numerous master mariners
- Engineering and electrical
 - Full capacity, especially with Caithness partners

Over 250 people now employed for/studying renewables related activity in Orkney



Spend in the Local Community

- EMEC
 - 48% of all spend is local, in 2007/8 = £800,000
 - 2010/11 - £8M expansion – new cables, scale sites
 - Over 500 visitors per year
- Aquamarine Power
 - Worked with 27 different businesses in Orkney, 7 FT staff, local spend £1M + per year
- OpenHydro
 - Raised 40M Euro private equity from testing at EMEC, local spend £4M+ since 2006

The Importance to Locals

- Presently
 - Employment
 - 50-100% of 150 jobs
 - @ £30k = £2.25-4.5M
 - Facility/equipment hire
 - 10-20k/wk = £1M
 - Total £3.25-5.5M/yr
- Future
 - 25% of capex installation = £50M/yr
 - 50% of opex = £50M/yr



OR



The Message for New Zealand

- Not easy – but you already have developers interested
- Not cheap – but you have Government backing and utility interest
- Not quick – but the Industry is at a more advanced pre-commercial stage than when EMEC started

‘But it is possible, feasible and achievable’

EMEC[®] ORKNEY

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