Is it worth it?

20% of UK’s electricity from Marine Energy
Develop technology for export
Transition to post-carbon
Security of fuel supply
Local industry
Jobs
Wave Resource
Wave Resource
EMEC’s Mission:

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

Test site to lead to:

• Local design
• Deployment
• Export of IP
EMEC’s Facilities

Wave Site – Billia Croo

Tidal Site – Fall of Warness, Eday

Cables

Grid

Data

Waves

Tides
Wave devices

- Attenuator
- Overtopping
- Wave Surge
- Point Absorber
- Oscillating Water Column
- Pressure Differential
Wind turbine

© EMEC 2008
Wind turbine
Learning by Doing

Opening costs for marine energy?
Where are we now?

1903

2006
EMEC’s Timeline

- **1999** DTI Foresight
- **2001** DTI & HIE Studies
- **2002** design & contract definition
- **2003** construction
- **2004** opening & 1st wave device
- **2005** tidal site commenced
- **2006** 1st tidal device
- **2007** Cable connection
- **2008** 1st tidal generation to grid
- **2009** 2nd tidal turbine, 2nd wave device
- **2010** 2 further wave devices & 2 further tidal devices
Tidal devices

Horizontal axial-flow

Venturi Effect

Oscillating Hydrofoil

Vertical axis
• 1MW barge deployment, Nova Scotia
Tidal Site – Fall of Warness, Eday
Next Steps

Priority:
• Get Metal Wet
• Find out what works (and for how long)
• Get ready to build it out.
What have we learned?

- There is an **appetite** to make this work
- Regulatory inertia **can** be avoided
- It is **slower** than you want
- It is **hard** out there!
- It is **achievable**
We are not alone
European Marine Energy Centre

www.emec.org.uk