



# All Energy 2011

Offshore Wind – Potential Major Contribution from Oil & Gas Industry

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Energy Supporting Energy

# Key Differences – Offshore Wind and Oil & Gas

- Offshore wind – smaller less complex installations but with particular assembly and installation challenges
- Oil & gas very focused on the safe control of hydrocarbons
- One off project -v- production line – different mindset
- Manned -v- unmanned – particular challenge of platform access for offshore wind
- Technology specific to each – but huge common ground



# Offshore Wind and Oil & Gas – Common Ground

- Project & construction management and planning
- Structures and foundations – engineering, fabrication, installation
- Life of Field planning
- Marine installation capability
- Diving and underwater services
- Subsea engineering services
- Deepwater cabling plus pipeline
- Helicopters and vessel support
- Logistics and supply chain capability
- Predictive and preventative maintenance – condition monitoring
- Inspection and testing
- Skill and competence development and enhancement
- Development of standards for quality, safety, environment etc

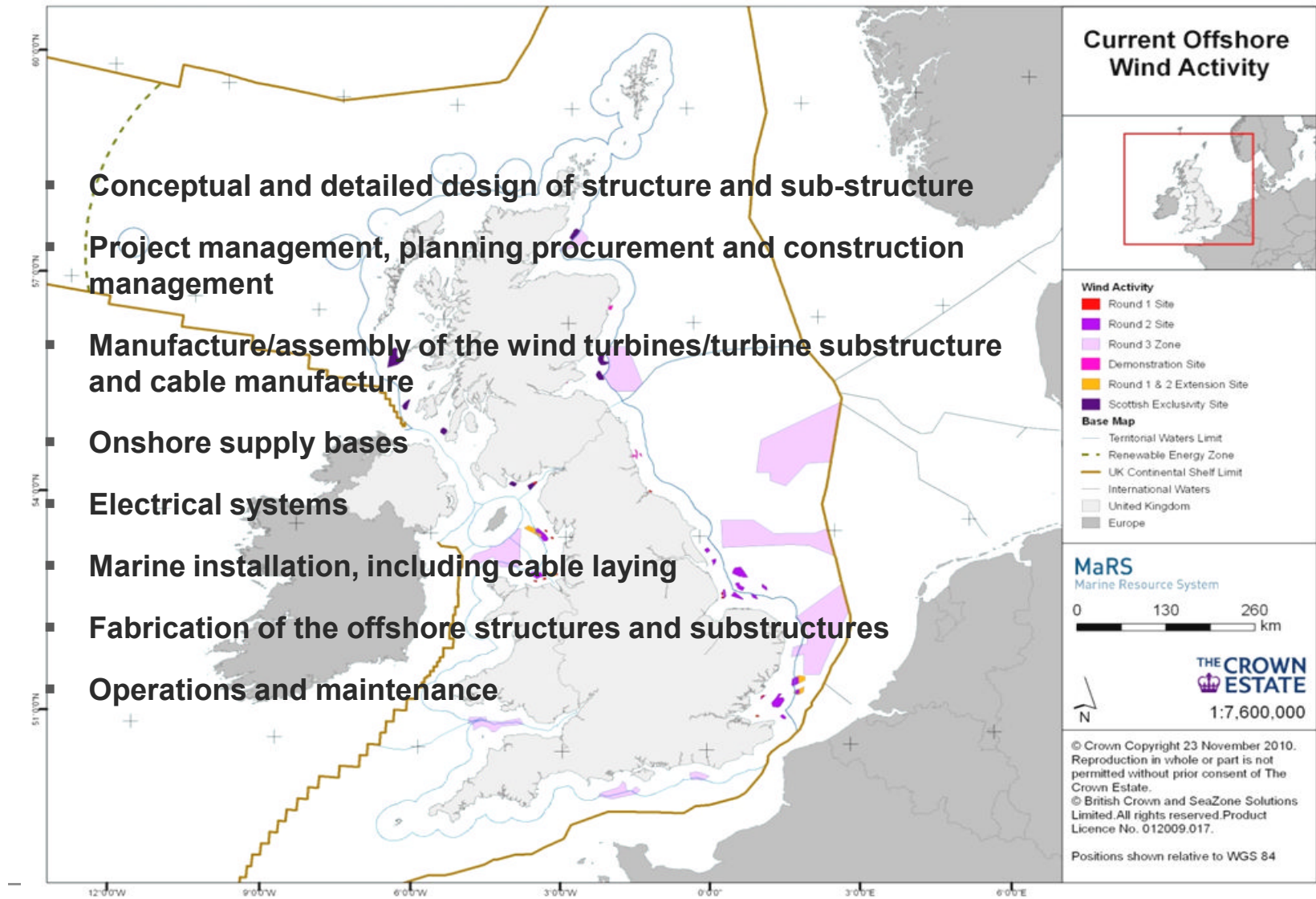


# Differences Onshore/Offshore

- (a) Logistics – remote environment – weather and sea conditions – need to maximise supply chain efficiency
- (b) Different labour pool prepared to work offshore schedules and conditions
- (c) Huge focus on safety and the environment
- (d) Difference even more pronounced with the move to deeper water, with oil & gas expertise much more relevant
- (e) Cost base



# Development of the offshore wind supply sector



# Offshore wind – why North East of Scotland?

- Huge pool of offshore EPCM, installation and maintenance skills and experience
- The European Offshore Wind Development Centre
- Technip, Subsea 7, and others establishing their offshore headquarters in the North East of Scotland
- Scottish Government recognise the relevance of the oil & gas experience
- Two very fine Universities



# Offshore wind UKCS – Wood Group Targeted Services

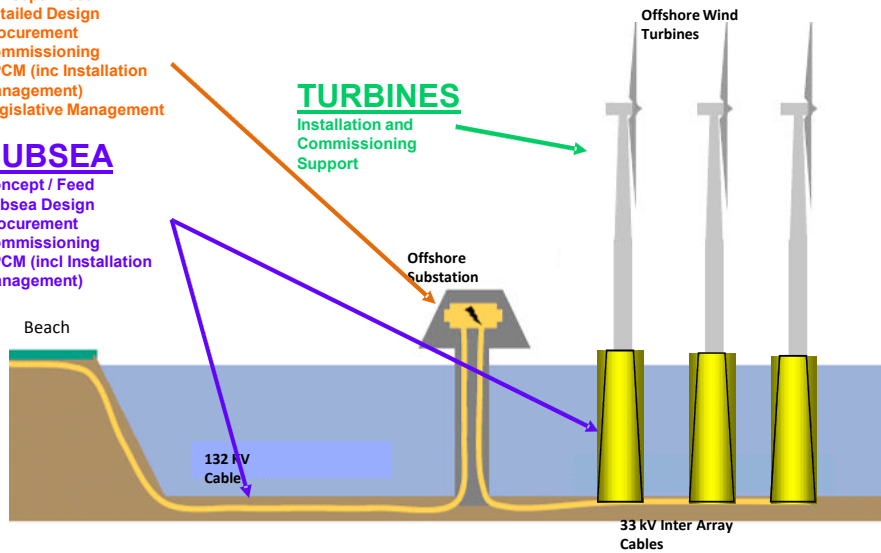
## Construction, Installation and Commissioning

### FACILITIES

Concept / Feed  
Detailed Design  
Procurement  
Commissioning  
EPCM (inc Installation Management)  
Legislative Management

### SUBSEA

Concept / Feed  
Subsea Design  
Procurement  
Commissioning  
EPCM (incl Installation Management)



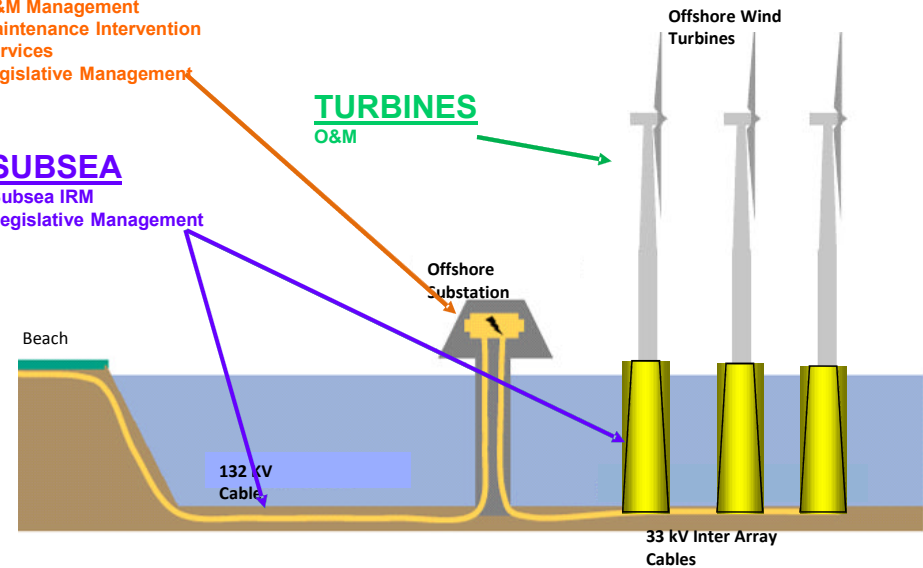
## Operations & Maintenance (O&M)

### FACILITIES

O&M Management  
Maintenance Intervention Services  
Legislative Management

### SUBSEA

Subsea IRM  
Legislative Management



# Aberdeen's Economic Future

- UK oil capital
- ↓
- European oil capital
- ↓
- Eastern Hemisphere oil capital
- ↓
- World energy centre