

# Renewable Energy Supply Chain Opportunities and EU Funding

David Terry, RESCO

17<sup>th</sup> March 2010



# Renewable Energy Supply Chain Opportunities

*Helping businesses access the commercial opportunities in the supply chain of the new and renewable energy marketplace.*

*It will provide a range of support activities with innovation as a core element.*

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# Content

- Scope of RESCO – 3 strands
- Areas of Focus – 5 themes
- Support Partners
- Accessing the Project
- Summary

# Scope of RESCO - General

- Renewable Energy Supply Chain Opportunities
- Funded by Advantage West Midlands
  - £1.4M October 2009 – March 2012

Supply Chain Support programme for Businesses based in the UK West Midlands.

Operated by Staffordshire University' s Institute for Environmental Sustainability and Regeneration

Working with academics in Warwick University and Harper Adams University College

Access to industry Specialists – University and Support Framework



# Scope of RESCO - Markets

- Company Specific Market Research
  - Market Sector Definition - for each of the five key areas
    - Where are the best markets for Midlands Companies
- Definition, scope and description
- Key Market opportunities and drivers within each sector e.g. Policy, Supply Chain, Funding and overseas market initiatives. E.g. Green New Deal, Offshore Wind
- Identification of key barriers to growth or entry into each market sector
  - Skills needs development
  - Quality Standards
  - Information access
  - Funding

# Scope of RESCO - Support

- Company Specific Support
  - Sector Diagnostic Study
    - A detailed assessment to identify appropriate market opportunity and market readiness
  - Supply Chain Development Groups
    - Development Projects
    - Key Industry Speakers
  - Mentoring and Support
    - Industry Experts to support selected clients
    - Planned ongoing support package
  - Market Support
    - Overseas Markets – UKTI
    - Key Sector Engagements – Key Customers, DECC, Crown Estate Local Authorities, Offshore Developers etc.

# Scope of RESCO - Information

- Events / Conferences
  - Supply Chain Conferences – e.g Crown Estates
  - Academic / Industry – e.g. Hydrogen Fuel Cell Conference 25<sup>th</sup> March
- RESCO.ORG.UK
  - Information and documentation e.g. Consultation
  - Funding, News and Partner Search
- UKTI / Advantage West Midlands / EU
  - Market Intelligence – Integrated with Environmental Technologies Cluster
  - EnviroTRADE Directory – moving to online(?)
  - Representation with Trade Bodies - UK and Overseas
  - Renewable Energy Transfer Systems (RETS)



# RESCO Structures

## Market Research Activity

Pre-selection and  
Diagnostic Assessment

Ongoing  
Mentoring

Development  
Groups and  
Events

Ongoing  
Market  
Intelligence

Opportunity  
Searching

# RESCO Focus Areas

- Power Generation and Transmission
- Wind and Marine Power
- Bio-Energy opportunities
- Small Scale renewable energy generation
- Hydrogen Fuel Cell Supply Chain

# Power and Transmission

- **Definition**

- Grid Connection – Large and Small Scale
- Efficient Energy Transmission Technology
- Energy Conversion and Storage

- **Opportunities and Markets**

- Grid Upgrade – Ofgem £300M project most recent
- Offshore Transmission Operators (OFTO) Tender process open – 33GW connections
- Small Scale Connections & Distributed energy schemes

**Key Markets – Component Supply, Technical Innovation**

# Wind and Marine 1

- **Definition**
- Offshore and Onshore Wind.
- Marine and Tidal Energy
  
- **Opportunities**
- Component Manufacture,
- Turbines and Component
- Structural - Towers and Fabrications
- Marine Construction – Offshore and Ports
- Operation and Maintenance
- Planning and Legal Services
- EIA consultancy
- Wind / Wave modelling etc



# Wind and Marine 2

- **Key Markets**

- UK – Phase 3 Offshore Wind Announced January 2010.

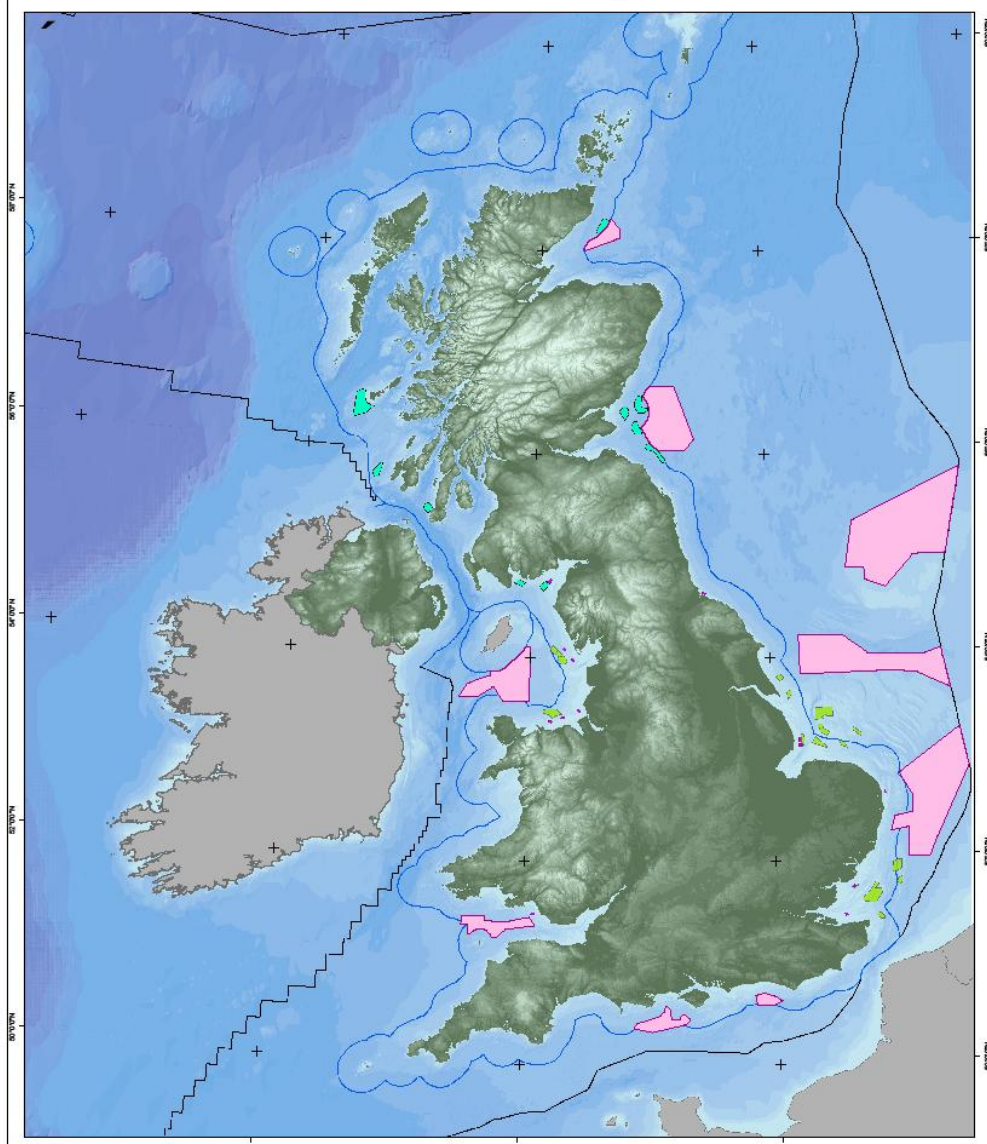
- Crown Estate and DECC promoting ongoing supply chain development

- Est. £75B market for the UK over 10 years

- Wave and Tidal Energy Leasing Round March 2010

- Drivers – UK Renewable Energy policy 15% 2020

# Wind Activity



**Legend**

- Round 1 Wind Farm Lease
- Round 2 Wind Farm Lease
- Round 3 Wind Farm Zone
- Scottish Windfarm Exclusivity Agreement
- Europe
- UK 12 nm Limit
- UK Continental Shelf

**Bathymetry**

Shallow  
Deep

**Wind Activity**  
22 September 2009

**MaRS**  
Marine Resource System

0 35 70 140 210  
Kilometers 1:3,750,000

Positions shown relative to WGS 84.  
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Elevation data supplied by STN.  
Bathymetry Data supplied by SBC/AV.

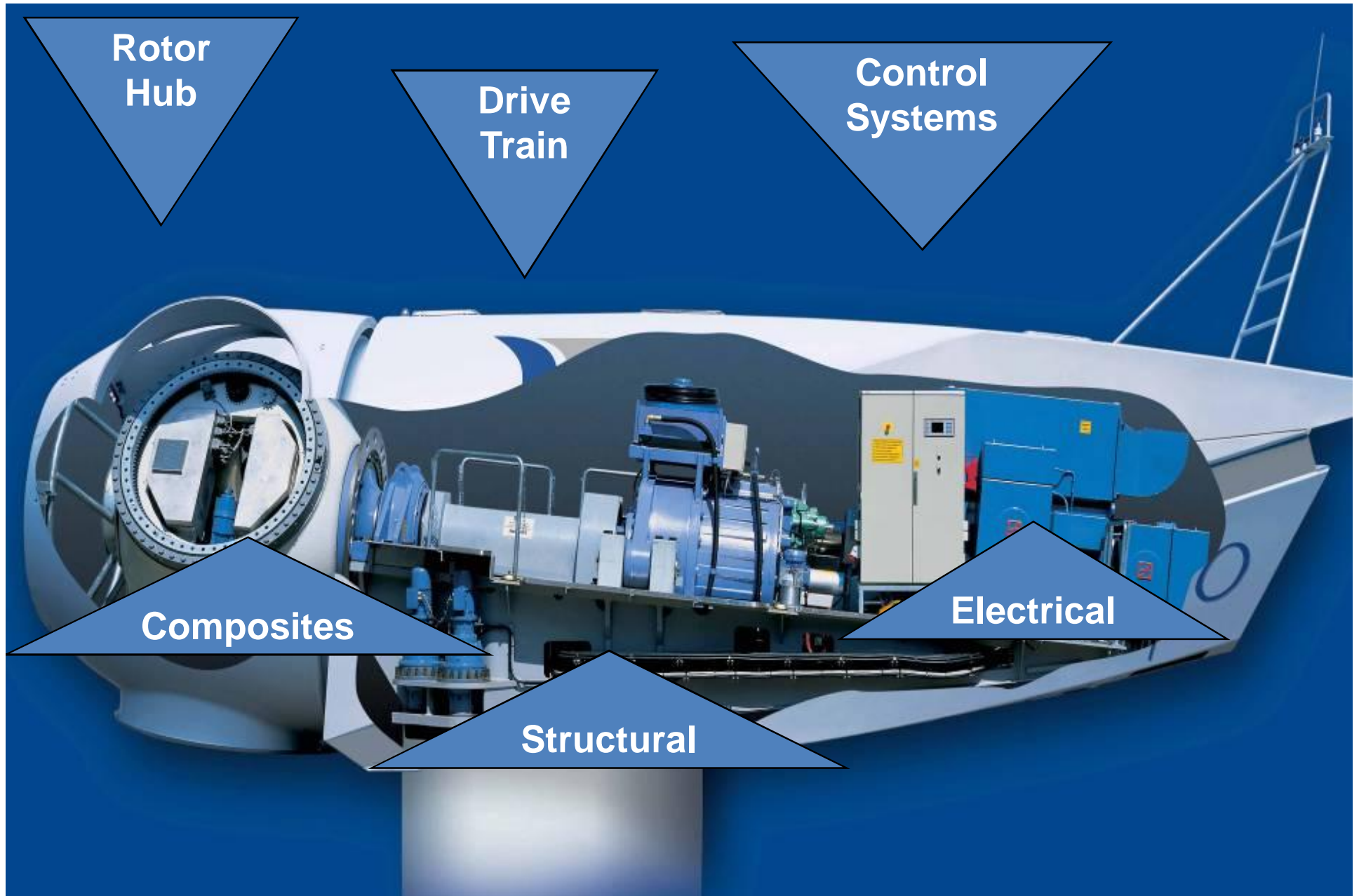
The Marine Estate  
16 New Burlington Place  
London W1S 2HX  
Tel: 020 7851 5080  
www.thecrownestate.co.uk

**THE CROWN ESTATE**

# UK Offshore Wind

# Phases 1, 2 and 3 STW

# Main wind turbine components



# Bio- Energy 1

- **Definition**

- Energy Generation from crop or organic waste
- Anaerobic Digestion
- Pyrolysis
- Biomass Boilers / CHP.
- Bio fuels
  - Crop, Algae
- Small or large scale

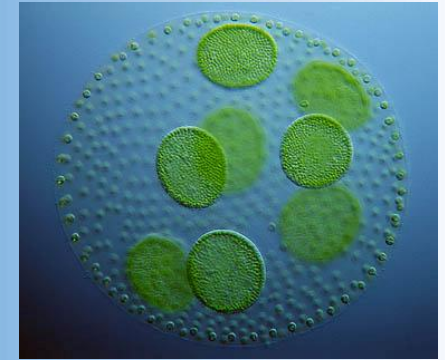
- **Opportunities**

- Crop growing, Waste separation and transport, plant operation, component manufacture, planning, legal service, training etc.



# Bio- Energy 2

- **Key Markets and Driver**
- Drivers – UK Renewables policy 15% 2020
- Feed In Tariff, Renewable Heat Incentive
  
- Small Scale AD – originally farm but other opportunities
- Large Scale AD – A number of plant are planned
  - LA Waste Targets – diversion
- Biofuel – Energy Security, sustainable supply
- EBRI



# Small Scale Renewable Energy

## •Definition

- Building or District scale
- Solar Heating, Photo Voltaic, GSHP, Hydro, micro CHP etc.

## •Opportunities

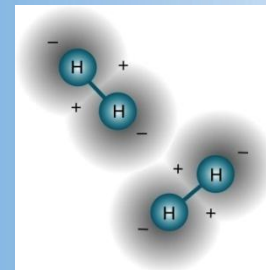
- Manufacture, Installation, planning, consultancy, modelling

## •Key Markets

- UK – Local Authority retrofit scheme.
- Drivers – UK Renewables policy 15% 2020
- Feed In Tariff, Renewable Heat Incentive



# Hydrogen Fuel Cell Supply Chains



- **Definition**

- Hydrogen Vehicles, generation and storage of hydrogen

- **Opportunities**

- hydrogen generation from biomass;
- hydrogen distribution and storage; and
- hydrogen utilisation by fuel cell chp

- **Key Markets**

- TBA
- Linked with UoB Scratch and Science City projects

To Find Out More Contact

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