

Renewable Energy Supply Chain Opportunities

David Terry, RESCO

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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.

www.staffs.ac.uk/RESCO

iesr@staffs.ac.uk

01782 294110

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 25th 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**

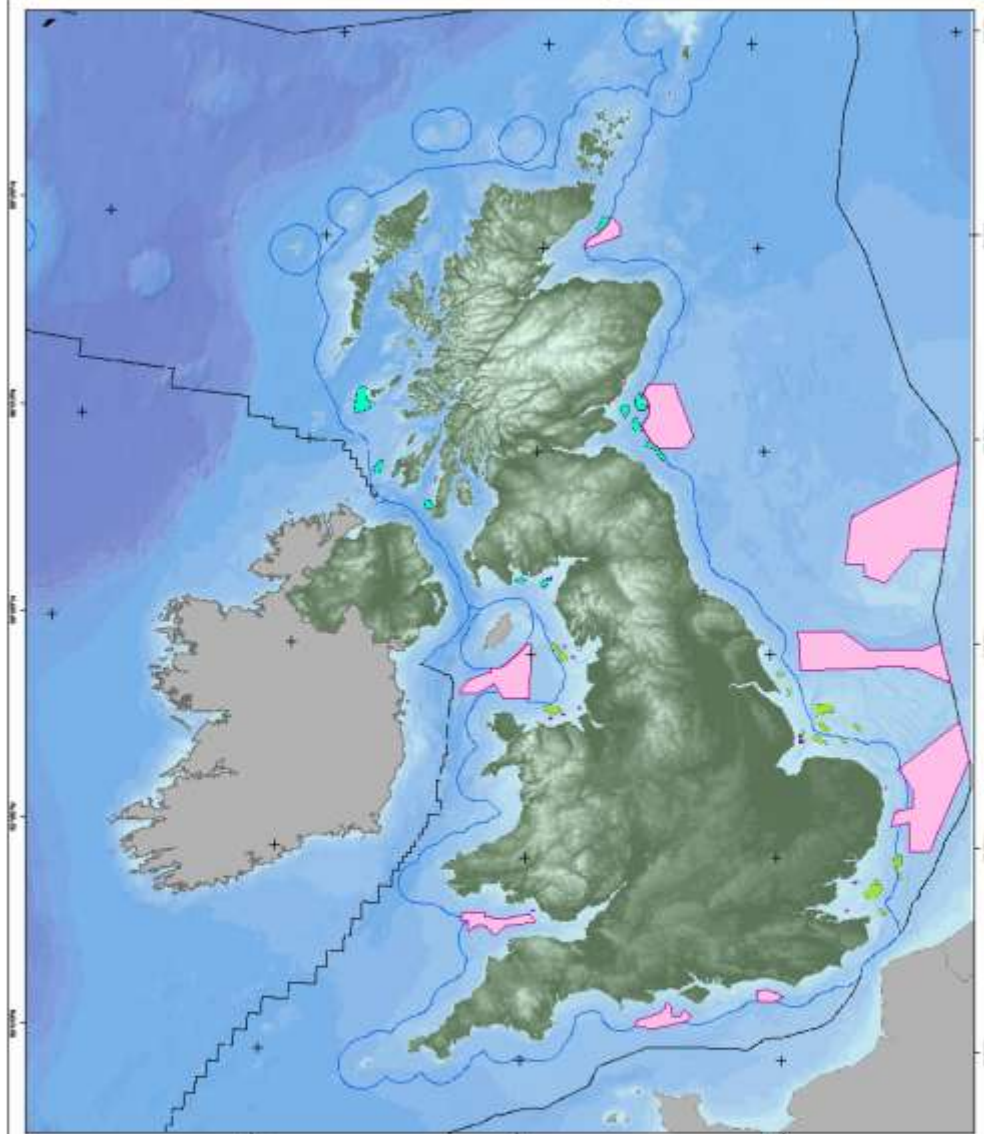
- UK – Phase 3 Offshore Wind Announced January 2010.
- Crown Estate and DECC promoting ongoing supply chain development
- Est. £75B market for the UK over 10 years

- Wave and Tidal Energy Leasing Round March 2010
- Drivers – UK Renewable Energy policy 15% 2020

Wind Activity

UK Offshore Wind

Phases 1, 2 and 3 STW



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 (light blue), Deep (dark blue)

MaRS Marine Resources System
22 September 2000
0 35 70 140 210 Kilometers 1:3,750,000

THE CROWN ESTATE
The Marine Estate
15 New Burlington Place
London W1S 2HX
Tel: 020 7651 5080
www.thecrownestate.co.uk

Main wind turbine components

Rotor
Hub

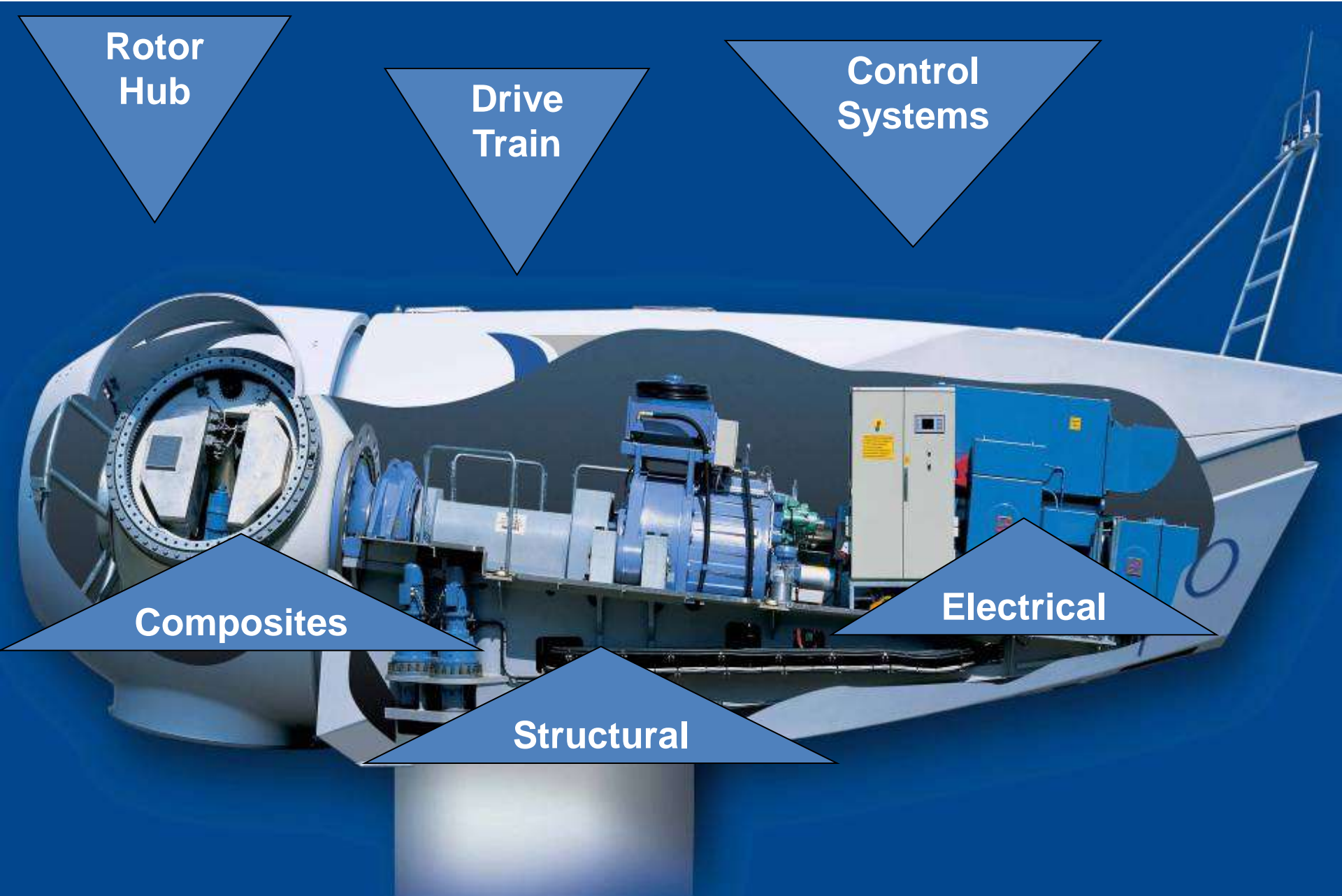
Drive
Train

Control
Systems

Composites

Electrical

Structural



Bio- Energy 1

•Definition

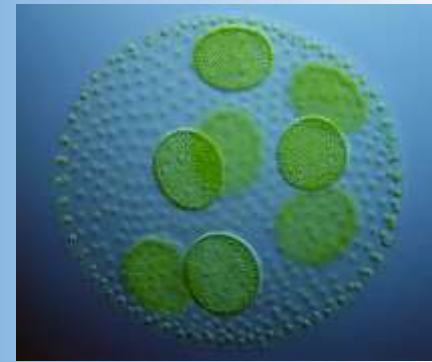
- Energy Generation from crop or organic waste
- Anaerobic Digestion
- Pyrolysis
- Biomass Boilers / CHP.
- Bio fuels
 - Crop, Algae
- Small or large scale

•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.

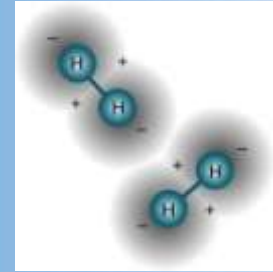
- **Opportunities**

- 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 and Science City projects

To Find Out More

Stand AWM 180

David Terry

Agne Prochorskaite

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