

Delivering the Renewables Sector - financing emergent technologies

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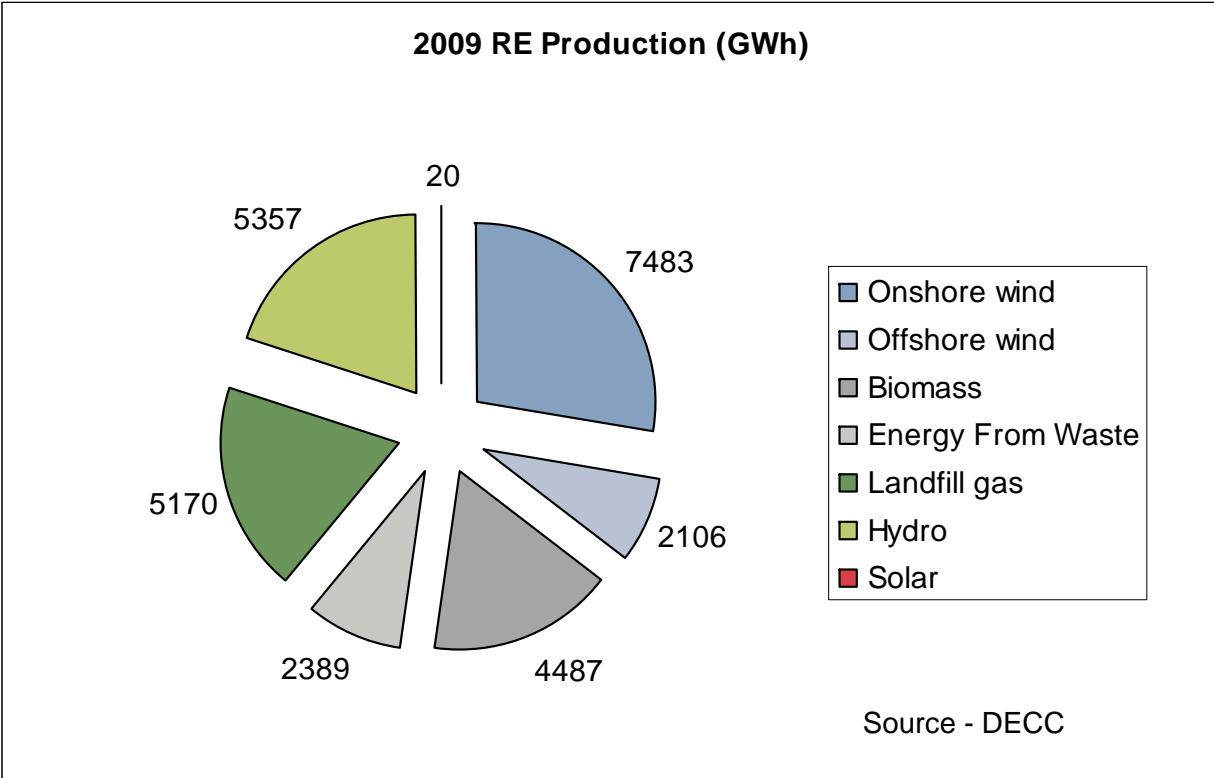
Setting the scene

- Range of technologies contribute to UK renewable fleet
- Most have been balance-sheet financed by utilities or other developers
- Project financing has largely been limited to wind sector
- Banks remain nervous of unfamiliar technologies

The Future:

- Significant funding gap identified in build out of projects to meet 2020 targets
- Utility balance sheets very stretched, with credit rating constraints
- Project Finance will become a more important source of funding across the renewable sector

Snapshot of UK renewables by generation type



Wind Technology

Wind projects, principally onshore, have been principal recipients of bank project finance

- However, wind faces changing regulatory landscape:
 - EMR will hugely impact the sources of revenue for the wind sector
 - Execution of CfD (counterparty, average price, etc)
 - RO transition period and impact on nature of offtake agreements
- In addition, offshore wind faces challenges in accessing investment:
 - Technological development and engineering skills required
 - Contractual structures
 - Newer entrants in the supply chain
 - Non-traditional offshore sponsors



Innovation – looking beyond wind

RBS seeking opportunities in less established technologies

- RBS has supported marine and tidal technologies through corporate lending. However, these projects as yet struggle to attract project finance:
 - High cost of capital
 - Uncertainty of energy yield
 - Questions around longevity and reliability
 - Scalability of technology
- RBS is pleased to support the Saltire Prize for tidal energy
- As marine technologies mature, bank funding should become increasingly feasible



Innovation – looking beyond wind

Building out emergent technologies will require fund providers to adapt their approach and develop greater familiarity with the technical and commercial issues:


In 2011 RBS has completed three market leading transactions to fund first of a kind generation projects in the UK

- rooftop solar PV;
 - biomass CHP; and
 - peaking power under STOR contracts for grid support
- We continue to work with clients on other opportunities





Solar Clean Energy Ltd

RBS innovation in solar financing

Eaga Plc	
	
GBP 228,500,000 Senior Debt & VAT Facilities 100MW roof-mounted solar PV installations	
Structuring Bank, Hedging Co-ordinator & MLA	
March 2011 United Kingdom	

- RBS arranged £228.5m senior debt facilities for the installation of up to 37,000 solar photovoltaic panels on the roofs of social housing throughout the UK.
- Allows each resident to benefit from free electricity produced. Expected to produce up to 100MW of power across a geographically diverse portfolio
- First large scale solar financing in the UK market
- RBS engaged with Eaga plc on the transaction from early 2010, and through our role as Structuring Bank structured ‘first mover’ transaction. RBS put together a club of five banks which took a pro-rata share of the debt facilities
- Capitalising on the knowledge developed and the success of the Eaga transaction, RBS is currently mandated on a number of other solar financings in the UK.
- Key challenges in this transaction included:
 - Hybrid project finance structure
 - Mitigating portfolio ramp up risk
 - Detailed assessment of individual sites and geographical diversification
 - Bespoke contractual agreements
 - Coordinating efforts across three separate equity sponsors and five banks

Helius biomass CHP plant

Helius CoRDe Ltd	
	
GBP 42,400,000 Term Loan & ancillary facilities for biomass CHP plant	
MLA, Hedging Bark	
April 2011 United Kingdom	

Innovative biomass CHP financing

- CHP plant partly fuelled by by-products of adjacent whisky distillery as well as other distilleries in the Rothes area.
- The project will take biomass co-products from the malt whisky manufacturing process and convert them into electricity and an animal feeds protein supplement (Pot Ale Syrup).
- Construction has started and the plant is expected to start operations in H1 2012.
- Key challenges in this transaction included:
 - First mover biomass project finance in the UK with whisky by-products as feedstock
 - Multi-contract strategy (understanding and mitigating interface risk) – c.30 different contractual counterparties
 - Feedstock strategy
 - Uncertainty over biomass support regimes including differentials between England & Wales and Scotland

Challenges for less-established technologies

Bank market generally remains nervous about less familiar technologies and project structures

Successful financing will require:

- Technological risks understood and proven with meaningful operational track record
- Stable and transparent regulatory regime
- Sustainable project economics
- Involvement of committed, long-term project counterparties with appropriate skill-sets
- Early projects likely either balance-sheet financed or backed by substantial recourse to creditworthy entities
- For newer asset classes, experience shows project finance should become available incrementally, as comfort levels with technology and regulations increase

Panel discussion

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