



Future Prospects for Onshore Wind:

The role of the PPA and the PPA market

Simon Proctor - Commercial Generation Team



Together we do this



Good Energy: Who We Are...

Electricity Supplier

- Good Energy is the UK's only dedicated 100% renewable electricity supplier
- We supply over 30,000 Domestic and Business customers all over the UK

FIT licensee

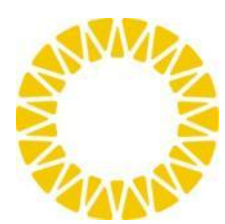
- We work with over 40,000 independent generators all over the UK

Generator

- £11m investment in Good Energy projects (Delabole Wind Farm)
- Target of 110MW generation capacity by 2016

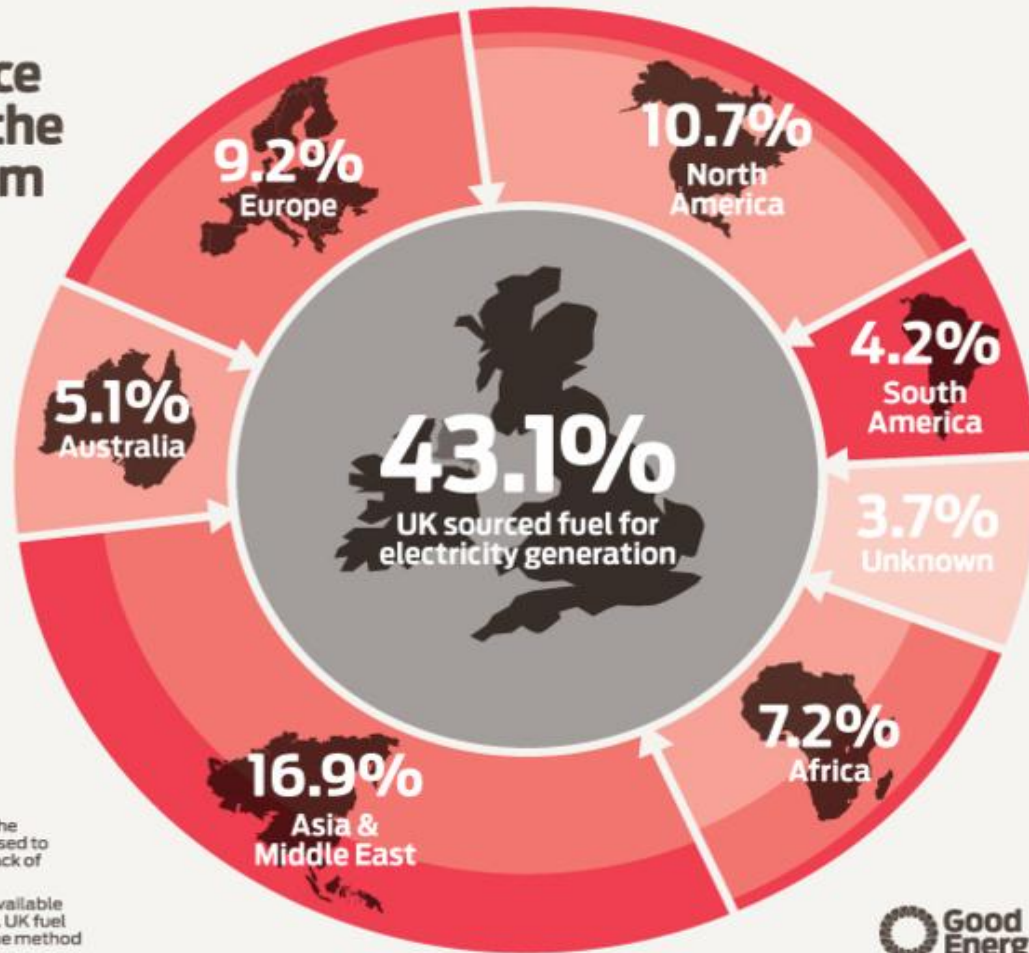
Power Purchase Agreement (PPA) Provider

- We buy power from 800 UK generators



The UK market today...

Where the fuel to produce electricity in the UK comes from



Key

- Coal
- Natural gas
- Nuclear

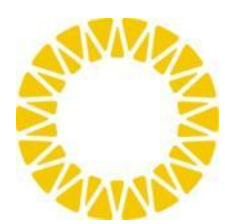
It has not been possible to calculate the country of origin for 3.7% of the fuel used to generate electricity in the UK due to lack of available fuel tracking data.

Data analysis by Good Energy using available UK Government and EU data for 2010. UK fuel exports excluded. For full details of the method adopted visit goodenergy.co.uk



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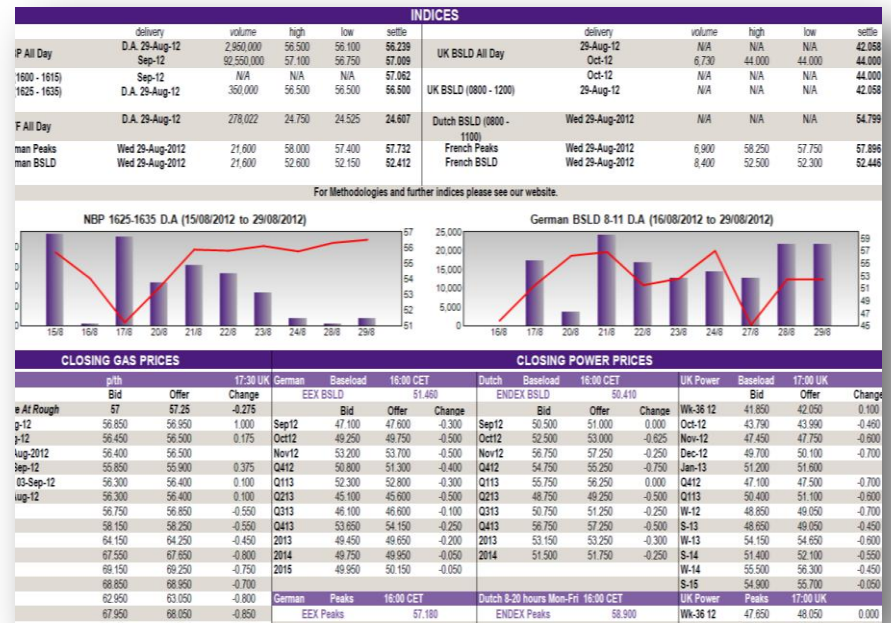


The UK market today...

World events such as Fukushima and political tensions in Libya and Syria have a big impact on electricity prices around the world

Wholesale electricity price is one of the most volatile indices in the UK...

- It can fluctuate by 2% to 5% in a single day
- It halved in 3 months from September 2008

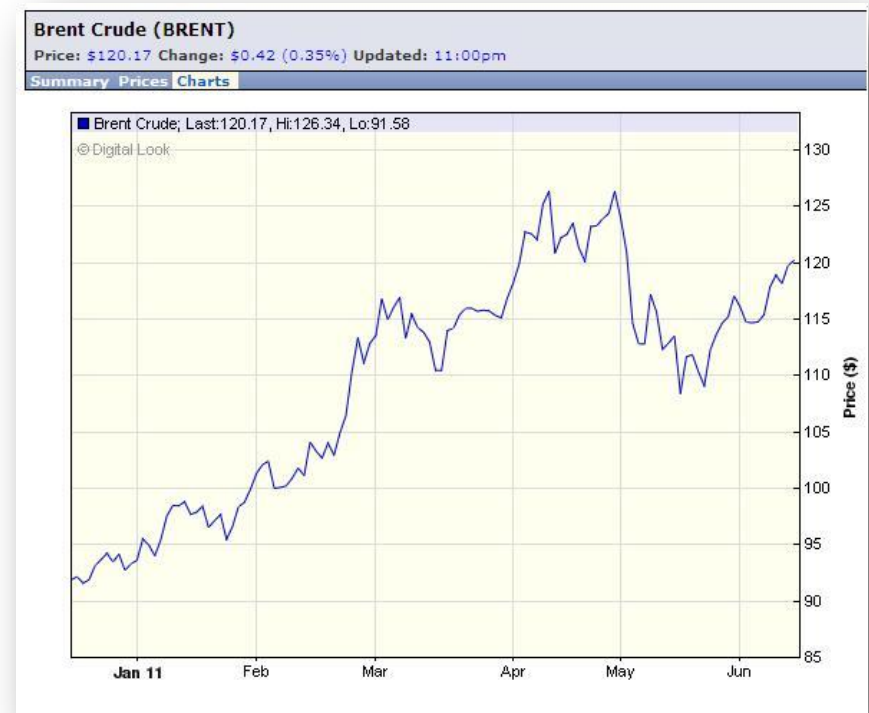




The UK market today...

Spot UK Baseload power followed a similar upward trend to oil prices in 2010/2011...

- Rising from around £32/MWh in the middle of 2010...
- To above £80/MWh in early 2011





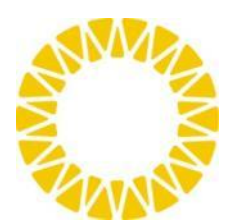
The role of the PPA

The UK's Wind resource means that Onshore Wind can play a key role in...

- Increasing energy security
- Insulating UK electricity customers from the rising cost of Energy Bills
- Reducing Carbon Emissions
- Providing attractive investment opportunities via Government schemes such as FIT and RO



Generators exporting to the grid also have the opportunity to earn additional income from selling the exported power to a supplier or PPA provider

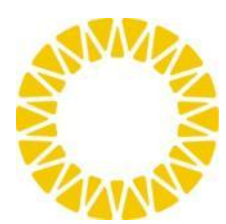


The role of the PPA

PPA's are flexible and can be tailored to the individual needs of the site...

- **ROC PPA, FIT PPA or Power Only**
- **Long term or short term agreements**
- **Fixed/Variable “tracker” rates**
- **Peak/Off-Peak**
- **Summer/Winter**





The role of the PPA

Aside from the purchase of electricity a PPA provider will normally also attach a value for “embedded benefits” or “additional renewable benefits” such as...

- **Climate Change Levy Exemption Certificates (LECs/CCLs)**
- **Renewable Energy Guarantee of Origin Certificates (REGOs)**
- **TRAID Payments**
- **Distribution Use of Services Payments (DUoS)**



The role of the PPA

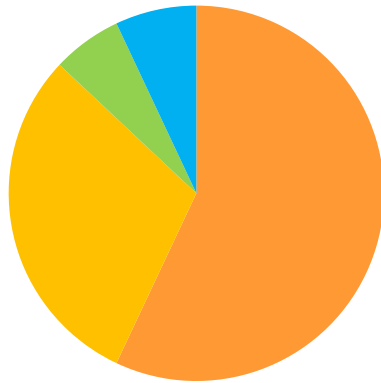
The flexibility of a PPA means that it is able to accommodate changes in the market...

Demand for longer term PPA's has increased recently as more large scale Wind sites are developed and then sold onto Investors.

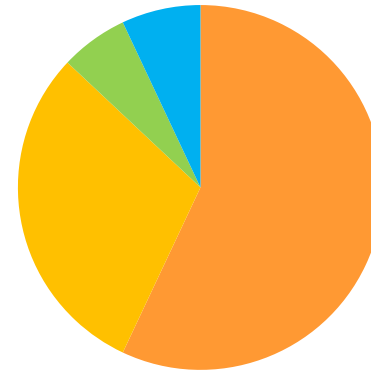
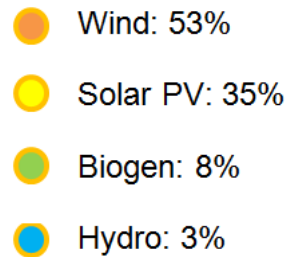
- **Good Energy is able to offer long term agreements with a built in floor price (up to 20 years)**
- **Good Energy PPA's are 'Bankable' and accepted by most banks**
- **Good Energy has dedicated account managers to manage portfolios on behalf of the generator**



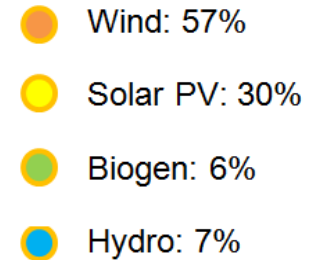
The PPA Market: A suppliers perspective



Good Energy Fuel Mix (January 2012)



Projected Good Energy Fuel Mix (2012 - 2013)



- Trading and forecasting is a core function of Good Energy's electricity supply business
- We need to purchase from a range of technologies to negate risk and match seasonal generation and consumption patterns as well as changes in the electricity market
- Wind is an efficient technology capable of matching Summer/Winter generation and demand patterns



Future Policy (EMR and CFD)

The RO ends in 2017 and DECC are proposing the Contract for Difference (CFD) mechanism as a replacement under the Energy Market Reform (EMR)...

- **A number of PPA suppliers feel that there are a lot of uncertainties regarding how CFD will work in practice**
- **Some feel that the current CFD proposal is too complicated**
- **Another concern is that it is has been designed for large transmission connected generators at the expense of independent, smaller scale renewables**



Future Prospects for Onshore Wind

Good Energy believes that Onshore Wind has a key role to play in a decentralised and stable renewable future

We are...

- **Committed to offering a competitive market place for Onshore Wind sites to sell their electricity via flexible PPA agreements**
- **Committed to supporting Onshore Wind Generators via our Generator products and services**
- **Committed to working together with Onshore Wind Generators to develop new and innovative schemes and products (e.g. Local Tariffs and ‘Sleeving’)**



Together we do this



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