# A call for evidence on barriers to securing long-term contracts for independent renewable generation investment

Response by: [redacted], Director, EnergyQuote JHA

1. ***Please could you provide a summary of your experiences with the PPA market over the past three years? Specific areas for which detailed information would be particularly helpful are set out in the Annex.***

   EnergyQuote JHA is one of Europe's largest energy and carbon consultancies trading in excess of £4bn worth of energy per annum with a specialisation in Power Purchase Agreements (PPA's) and generation. We are uniquely placed in the fact that we work with Developers / Generators, Industrial and Commercial Companies and Suppliers across the following areas:

   - PPA Origination
   - PPA Price formulation (fixed, indexed, float) and benchmarking
   - PPA commercial negotiations and brokering
   - Feedstock origination
   - Metering services and bureau
   - Grid connectivity
   - Energy market overview and analysis
   - Feed-in-Tariffs (FiTs), Renewables Obligation (RO), Renewable Heat Incentive (RHI)
   - Renewable Obligation Certificate (ROC) forecasting
   - Alternative on-site generation opportunities and optimisation

   Over the last 5 years we have worked on multiple engagements from 0.5MW to 350MW; spoken to over 216 generators (baseload / intermittent) from biomass, energy from waste, solar, wind, AD, CHP, hydro to tidal; placing the PPA with either Suppliers or Industrial and Commercial users.

   The length of PPA's offered into the market place and the pricing structure required by the generators has been dependent upon their individual business model (source of finance, risk approach, future energy price deductions and pricing model: fixed, indexed or floating). The individual approach and optionality available is then sub divided into baseload and intermittent generators. Baseload generators generally have greater optionality due to the ability to forecast and provide a "guaranteed" (based upon tolerance levels) output which reduces potential additional costs (balancing etc) and risks.

   Other factors that affect the pricing structures available to generators include: experience within the market place, technology chosen, input fuel risk, price that the generators wish to achieve v current / future market price.

2. ***Have you seen significant changes to the PPA market over the past three years, and if so, what do you think has driven this? If you have asked PPA providers for explanations of why changes have occurred, what reasons have been provided?***

   The key changes that we have experienced within the marketplace are split into the following areas:

   - Generators / Investors now happy to use an Industrial and Commercial company as a counterparty when credit rating is investment grade or higher
   - Investors no longer insisting that only the top 6 Suppliers acceptable as a counter party for a PPA for an independent generator

- Industrial and Commercial companies are now looking at longer term physical power hedges (5-20yrs) as part of a longer term energy risk management strategy for dealing with price risk within their portfolio.

The main drivers behind this have been the emergence of knowledge experts as market makers, forecast of rising energy prices, security of supply of power from renewable sources and the significant increase in independent generators supported by incentives.

3. ***How does the GB market for PPAs compare to other international markets? If you operate in other markets, how do PPA structures and terms differ? If terms differ what are the drivers behind the differences?***

The UK market in terms of maturity within the area of PPA for independent generators, FiT and RHI is significantly behind our continental partners (Germany: FiT – 15 yrs; Denmark; RHI – 30 yrs) and there are many lessons that we can take from their approach into implementing similar schemes.

The consensus approach to key strategic political aims in continental Europe has removed a large degree of political / regulatory risk which has resulted in longer term country energy strategies being in place; however the drive behind carbon legislation (EU ETS etc) and the commitment to hit key targets on renewable energy has resulted in distortions in the European marketplace where individual technology have gained favour v others (mainly intermittent; solar, wind). In the USA / Canada the approach has been driven around security of supply (rather than carbon drivers) where significant gains have been made in terms of renewable generation. This has delivered greater certainty and a safer investment environment.

It should also be noted that generally domestic prices in the UK are lower than our European countries where the approach has been to encourage energy efficiency, by accepting higher prices for domestic customers, in order to provide a more competitive energy environment for industry

There is also a growing strong argument that the UK who led the energy market liberalisation in the 1990's and first part of this century is now falling behind our European colleagues where liberalisation area has continue such as self-balancing in Germany, Netherlands etc

4. ***What are the factors preventing or encouraging participation in the GB market? How (and why) do you expect these to change over time?***

The key driver in the market is the continuing regulatory uncertainty (ROC banding reviews, EMR, Carbon Price Floor etc) which when combined with a lack of a long term UK Energy Strategy is hindering a viable investment environment.

Often regulatory change does not taken into account the time frame that is required to get an independent generation project to commissioning stage (identify opportunity, fuel source origination, environmental certificates, planning process, build, commissioning)

5. ***Do you expect the EMR package to change the PPA terms that you might offer/receive and if so how do you believe they will change? What do you think is the primary driver for these changes?***

Our view is that the EMR proposal for CfD FIT will not be beneficial to the independent generator for a number of reasons:

- This is a "one fits all approach" and as such does not take into consideration
    - Generators business model approach (as outlined above)

    - Make a distinct difference between baseload and intermittent generators
- The recommended pricing mechanism will favour the existing larger incumbent Suppliers which from our analysis will result in lower prices for independent generators (especially baseload) who in the majority of instances do not use the day ahead price as a reference (intermittent more regularly); the norm is for 3,5,10 and 20yr fixed pricing and hence any priding mechanism should be in line with this.

6. ***What has been the determining factor in selecting a preferred PPA and PPA provider?***

   PPA Provider: Credit risk, price, length of PPA, fuel type

   PPA Recipient: Counterparty risk, tolerance levels, PPA Provider fuel risk, length of PPA, fuel type, % of total demand, business model (ability to pass on cost / sector), delivery risk

7. ***Have you seen a change in investment returns as a result of the changing nature of PPA terms and can you provide an example, including how this has been calculated? Do you expect the EMR package to change investment returns, and if so what is the driver for this?***

   We cannot comment on individual cases due to commercial confidentiality however would highlight the following:

   - Each technology has different input parameters (fuel cost, conversion unit, improving technology, busload / intermittent etc)
   - Investment returns have largely driven by government incentives which due to continuing changing environment has significantly increased investment risk
   - The pricing model that a Generators requires has been based upon their individual business model (cost input fuel, conversion mechanism, ROC banding, funding cost = output cost)

   We expect the EMR package to discourage independent generators in the favour of large generators who are vertically integrated.