What does a good power purchase agreement (PPA) look like?

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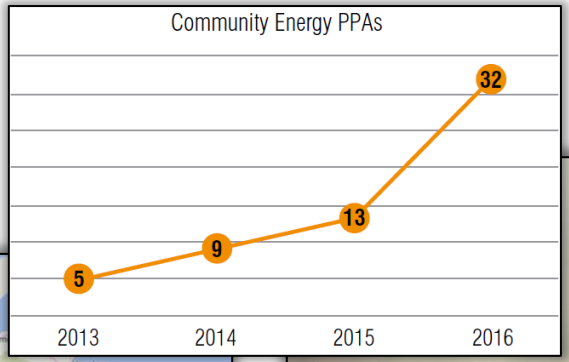
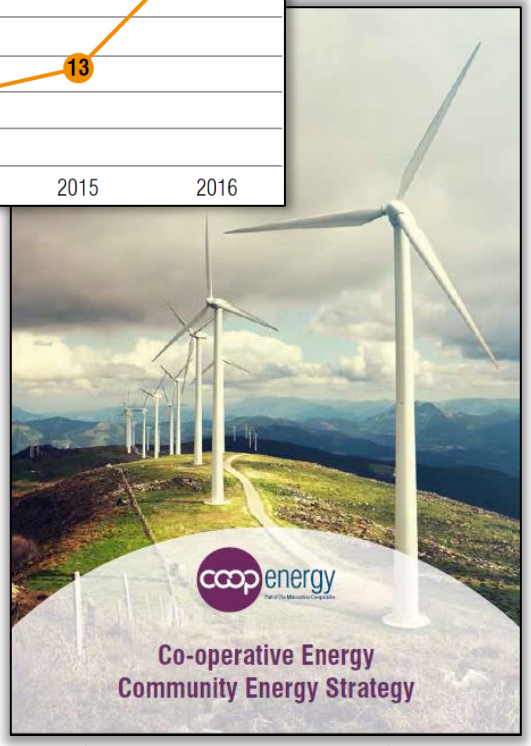
What is a Power Purchase Agreement (PPA)?

- A PPA is a legal agreement between a generator of electricity and a purchaser of electricity
- The agreement should define the contract length, terms and price agreed to be paid for electricity produced by the generator
- Agreement must be between the purchaser of energy and the legal owner of the site, not a third party
- As it is a legal document, legal advice might be required

Co-op Energy and PPAs

- In March 2017 Co-op Energy released our Community Energy Strategy
- One of the many targets set within the strategy is to increase the number of community PPAs to at least 60 before the end of 2019
- As a co-operative we want to support as many communities as possible





Why does Co-op Energy have PPAs?

- The electricity generated by the sites we have PPAs with becomes part of our energy mix, and is used by our customers
- This helps us to meet our target of 75% of our electricity coming from renewables by the end of the 2018 financial year
- PPAs are an effective way for us to support community energy
- **The variable nature of certain renewables (e.g. wind, solar) makes it challenging for us to forecast what will be produced by the sites accurately**

So many acronyms!

Simplification of PPAs

- We recognised how difficult it can be for Community groups to get involved in PPAs and ensure they are receiving a fair deal
- Therefore we carried out a review of the process and attempted to simplify the offering by:
  - Offering a fixed price for Embedded Benefits
  - Simplifying the terms and conditions
  - Educating community groups

What goes in to our PPA offers?

- We need to know:
  - Site location
  - Technology
  - Capacity (including any curtailment)
  - FiT/ROC
  - Commissioning date
  - Metering Point Administration Number (MPAN)
  - Meter Operator (MOP)
  - Data Collector/Data Aggregator (DCDA)
- We put this information in to our model which uses the latest market prices and includes an allowance of the seasonal nature of certain technologies (e.g. solar)
- The model gives a price we will offer, to which we add Embedded Benefits
- Certain technologies are conducive to a Summer/Winter split in price (e.g. solar/hydro)

Embedded benefits

- Embedded Benefits are those awarded to generation on the distribution network (sub-100 MW) as they reduce demand on the transmission network
- Embedded Benefits include:
  - **BSUoS** – Balancing Services Use of System – this charge recovers the costs incurred by National Grid in balancing the electricity transmission system. Generation is offset against demand to reduce Co-op's BSUoS charge
  - **AAHEDC** – Assistance for Areas with High Electricity Distribution Costs – this scheme reduces distribution costs for consumers in North Scotland, through NG charging an assistance amount from all authorised suppliers
  - **Distribution and Transmission Losses** – account losses on the Distribution and Transmission networks. Generation is offset against demand, reducing the total volume that losses are applied to, therefore reducing distribution and transmission loss charges
  - **GDUoS** – Generator Distribution Use of System – charges are levied by the UK's regional Distribution Network Operators (DNOs) and go towards the operation, maintenance and development of the UK's electricity distribution networks in relation to generating assets. These charges range from negative charges through to positive charges across the UK, and so to ensure we offer a fair, consistent price to sites Co-operative Energy has decided not to provide GDUoS charges to generators it has a Power Purchase Agreement (PPA) with. By implementing this decision it's removed the ambiguity of the charges, which then allows us to offer the fairest price we can

Embedded benefits

- Co-op Energy have recently made the strategic decision to offer a fixed price for Embedded Benefits and include it in to the power price we offer. This approach is intended to make the offer more transparent for both parties and also makes it easier to administrate, meaning that we can streamline the process and increase the number of PPAs we can take

Additional revenues

- **REGO** – Renewable Energy Guarantee of Origin – certificate issued by Ofgem to generators that certifies that their electricity was generated from renewable sources. Generators receive one REGO per MWh of renewable electricity generated. Suppliers will purchase these from the Generators
- **ROCs and Recycle Value** – Renewable Obligation Certificates – for Generation sites which are eligible to receive ROCs from Ofgem a payment will be made for each ROC successfully transferred. A recycle payment can also be made if a buy-out of ROCs is required, where the generator receives a payment from the redistribution of the buy-out fund
- **Triads** – are the three half-hour settlement periods with highest system demand and are used by National Grid to determine charges for demand customers with half-hour metering and payments to licence exempt distributed generation. They can occur in any half-hour on any day between November to February inclusive but are separated from each other by at least ten full days. Generators are paid for generating during these time periods
- Ofgem have carried out an analysis on triad benefit and issued a “minded-to” decision. This decision would drastically reduce triad payments. If implemented, it would commence in charging year 2018/19 and be phased in over a three year period
- **E.g. for a site in North West it has been predicted the Generator could receive £46/kW in 17/18, £29/kW in 18/19, £13/kW in 19/20, and £0/kW in 20/21**
- It is very likely that the minded-to decision will be implemented

What makes a good PPA?

For Co-op Energy, a good PPA is one which:

- Accurately represents the current market price
- Is with a site where the profits are going back to the community
- Is long-term (at least one year, preferably two)
- Has clear payment terms
- Has easily forecastable production
- Is easily understood by both parties
- Is with a reliable generator site (no extended downtime periods)
- Has a clear point of contact for any queries/issues

- Our PPA portfolio would ideally consist of a mix of technologies with a good geographical spread across Great Britain

Our PPA team

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Thank you

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Q&A

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