Good Energy

The Electricity Market for Community Renewable Energy Projects

Community Renewables Energy Workshop, Tuesday 26 February 2019
Institution of Mechanical Engineers, London
The evolution of the energy market

From a linear, centralised system…

- Fossil Fuel Production
- Centralised Power Generation
- Transmission & Distribution
- Electricity Supply
- User Demand
The evolution of the energy market…to a participative, decentralised and digital series of networks
This evolution is being driven by renewable energy

Good Energy’s fuel mix…

...and where it comes from

<table>
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<tr>
<th>Good Energy Total Generation</th>
<th>Independent Renewable Energy Generators</th>
<th>Good Energy Owned Wind and Solar Farms</th>
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<tbody>
<tr>
<td></td>
<td>524 GWh – 84%</td>
<td>8 sites 86 GWh - 16%</td>
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<tr>
<td>Power Purchase Agreements</td>
<td>195 sites</td>
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<td>(installed capacity of at least 100kW)</td>
<td>459 GWh - 88%</td>
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<td>SmartGen</td>
<td>1,267 Sites</td>
<td>65 GWh - 12%</td>
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<td>(10-100kW that export power to the grid)</td>
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How energy suppliers match renewable energy supply & demand

The good…

Aiming to match supply and demand every half hour

Supplier looks to match renewable supply and demand on a half hour by half hour basis – which is as close to real-time as can be tracked.

Annual supply of renewable exceeds whole portfolio demand – any excess REGOs are simply retired and not traded with other energy companies.

The not so good…

Retrospectively balancing supply & demand

Supplier has no process in place to match in real-time.

Supplier calculates how much renewable power has been supplied over the past year to customers and buys the volume of REGOs needed from the open market to claim this power as renewable.
How energy suppliers match renewable energy supply & demand

Addressing the flexibility gap...

- Distribution (Embedded) assets
  - Connected directly to the distribution network
  - Between 1 to 50 MW
  - Includes: Batteries and recips

- BTM assets – Demand side flexibility
  - Connected with existing metered demand load
  - Between 0.1 MW to 5 MW
  - Includes: Load-reduction DSR, battery and recips

- BTM assets – Co-located with RES
  - Co-located with renewable generators
  - Between 1 MW to 20 MW
  - Includes: Batteries and recips
Opportunities for community renewable energy projects

Helping match supply and demand – and getting the best rates for your energy

The Generator: Brixton Energy

“Our energy project in Brixton was one of the first schemes to use [Good Energy’s] new platform. Thanks to Selectricity we now know that the energy being generated by our solar panels is being matched with the Eden Project – something we would have never known before.”

Agamemnon Otero, CEO Repowering London

The Business: The Eden Project

“Selectricity is a great step forward for the smart grid: being able to match our electricity needs to a particular local supplier gives us transparency and takes the strain off the wider network. We are delighted to be part of such an important new offering.”

Augusta Grand, Head of Policy at the Eden Project
Contact

Email  tim.wynn-jones@goodenergy.co.uk
Call   07860 779 817
Web    goodenergy.co.uk

Thank you.