



Creating Local Energy

Innovation in community energy: *Lessons from Local Energy projects*



REPOWERING is a Community Benefit Society

We specialise in co-producing community-owned renewable energy projects

Our vision is to create resilient, empowered communities that control and own the generation and usage of renewable energy.

Introduction



- “Community energy” is a movement to redefine the relationship between energy users and the wider energy system
- Through local mobilisation and crowdfunding, communities have begun to develop, own and operate energy infrastructure
- The current electricity supply market structure remains heavily centralised and reliant on pre-digital technologies
- It is time for change- community energy provides an opportunity to innovate while creating a fairer energy future
- This presentation summarises Repowering’s experience so far of testing new local energy business models

Since 2010 we have helped develop over 230kW of rooftop solar on block of flats like Elmore House on the Loughborough Estate in south London



However unlike rooftop solar on houses, the residents are unable to use the electricity being generated above their heads to reduce their electricity bills



Repowering are working with a number of community groups to test ways of giving residents a fair share of the energy produced by the solar installations on their flats



Everyone is different...



- Particularly in community energy!
- Our local energy projects have the following features:
 - Relatively small scale generation (<50kW) connected to Low Voltage distribution network
 - We are focused on benefiting domestic customers not businesses
 - Our (potential) customers are very close to where the generation is located (same building or nearby)
 - Our projects are in existing buildings not new build
 - Our target generating capacity is 6MW and target customer numbers are c2000
 - We want to ensure that our customers get a real saving not just a guarantee of where the electricity is coming from

Decisions, decisions.....



- We have looked at a lot of different options:
- ‘White label’ supply
- Fully licensed supply
- License lite
- License exempt supply
- Private wire
- Virtual private wire
- Behind the meter/ on-site PPA

Decisions, decisions.....



- And this is what we have decided to focus on:
- ‘White label’ supply – didn’t create sufficient savings
- Fully licensed supply – too expensive
- License lite
- License exempt supply
- Private wire – disruptive to retrofit
- Virtual private wire
- Behind the meter/ on-site PPA

‘License Lite’



- How it works: a form of licensed supply where an existing supplier discharges some of the regulatory responsibilities of a new ‘junior’ supplier
- Set up: similar to fully licensed supply application but needs to be accompanied by contract with existing supplier which shows which responsibilities are being delegated
- Example: Greater London Authority
- Issues: Ongoing dependence on existing supplier

License exempt supply



- How it works: the distribution or supply of electricity is exempt from licensing in certain circumstances (“class exemptions”) e.g. <math><2.5\text{MW}</math> supply to domestic customers
- Set up: Straightforward on private wire networks, requiring only commercial contracts; more complex where using the public distribution network because of *other* industry codes e.g. BSC
- Example: Findhorn Community, Morayshire
- Issues: Hard to scale up on the public network due to regulatory ‘grey areas’

Virtual private wire



- How it works: Generally used to describe metering arrangements that allow the calculation of bespoke tariffs for specific local customers and generators. Will normally require a licensed supplier.
- Set up: *Should* be low cost and straightforward but currently still at trial/pilot stage
- Example: Energy Local Bethesda, North Wales
- Issues: New 'data flows' from smart meters required; new network charging arrangements could also support this model where there are benefits to the DNO/network users

On-site PPA



- How it works: Generation and electrical demand located behind single 'MPAN' (supply meter), therefore individual generator per property . Additional metering required to calculate on-site usage, which is then billed to the customer.
- Set up: Technically straightforward, challenge is managing capital and operational costs of metering and administration
- Example: Low rise block in Clapham, South London (under development by Repowering)
- Issues: Only viable in specific circumstances for domestic projects (normally street level properties)

Non-technical life lessons



- It always takes longer
- Find allies
- Stay in touch with other community groups
- Keep the end goal in sight....
-but be flexible how you get there

Wishlist



- Keep the Ofgem 'sandbox' for new business models but *add funding* so that smaller organisations can apply
- Make sure industry codes allow non-licensed entities to participate/ contribute
- Encourage more integrated innovation trials involving DNOs, suppliers and community groups

Thanks for your time



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