Local Electricity Bill
Briefing by Power for People

Power for People drafted the Bill and are organising the coalition campaign for it to become law. www.powerforpeople.org.uk

The problem that the Bill is trying to solve

Imagine if someone who wanted to set up a local delivery business in their town or city faced huge set-up costs because they were told that they had to pay for things like the road network. Imagine if these costs were so large that the business would only be viable if it delivered to the whole country on day one. The business would never be started. *This is the reality for smaller-scale energy*.

To avoid catastrophic levels of climate change we know that within the next few decades we must deploy a lot of renewable generation. Yet the deployment is not happening anywhere near fast enough. In the UK only 29.3% of electricity is generated by renewable sources.[1] The government has acknowledged that "the shortfall we have over the [Committee on Climate Change's] fourth carbon budget has increased, from 133 MtCO2e last year to 187 MtCO2e".[2] This threatens our ability to meet the tougher fifth carbon budget.

If a community organisation or local business wants to raise money to invest in building new local renewable generation they currently would receive around 4p/kWh (pence per kilowatt-hour) from the electricity that they generate and feed into the grid. Meanwhile end customers pay around 14p/kWh to energy suppliers – those companies licensed by OFGEM allowing them to sell to end customers.

If that same community organisation or local business wanted to become a supplier themselves they must not only obtain a supply licence from OFGEM but they must employ technical specialists and set up bespoke computer systems in order to interface with complex grid balancing codes and network agreements. The codes and agreements are controlled by the largest utilities that currently control 85% of the market. The set-up process is complex and costs hundreds of thousands of pounds.[3] This means that it only makes financial sense to set up as a national supplier which is why the UK only has national suppliers.

This therefore means that in many places where new renewables could potentially be built they currently are not being built.

The solution

The costs and complexity of being a licensed electricity supplier need to be made proportionate to the size of the supply operation. It would then be financially viable for current and future/potential renewable generators to supply locally. This would then boost the deployment of renewable energy generation as it would allow local electricity suppliers to spring up all over the country.

1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/736148/DUKES_2018.pdf (page 11)
2 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/501292/eepReport2015_160205.pdf (page 5)
3 https://www.theguardian.com/sustainable-business/2015/jul/10/uk-energy-system-in-thrall-to-giant-utilities-customers-budget-renewables and presentation by Julian Packer (Low Carbon Investment Director at the Greater Manchester Combined Authority, April 2014 to April 2017) that it would cost 'several million pounds' to set up a Greater Manchester Energy Company, Carbon Co-op's Hacking the Energy System conference, Manchester, 29th September 2016

This has been shown to be the case in Germany where there are 1,000 supply companies[4] (in comparison to around 60 in the UK), most of which are local suppliers and owned by communities and almost all of which supply renewable energy.[5] Their four large utilities only control 40% of the market.[6]

The benefits

Being able to sell to local customers would reduce the need for renewables subsidies because renewable generators would be receiving significantly more than their current 4p/kWh and they would be being paid by customers, not the state.

Community energy organisations would spring up across the country, communities would benefit from the revenue, prices would be cheaper and local economies would be more resilient as local skilled jobs were created. There would be greater acceptance of the change to sustainable energy and greater choice of suppliers. Air quality would improve and energy supply would be more secure. This is in stark contrast to the current centralised situation that is dominated by six big utilities and detached customers.

How the Bill creates the solution

The Bill is a first attempt at laying out a mechanism that will fix the UK's local supply problem. We fully accept that it could be improved and we welcome and are actively seeking ideas from experts and academics on how that could be done.

Clause 1 states the purpose of the Act: to enable local supply of electricity. Clause 2 states that it is generators of electricity that can become local suppliers. This is intended to achieve the aim of smaller scale renewables generators being able to supply their electricity to the local area. There is an argument to be made for amending this clause to allow any organisation to become a licensed local supplier. The logic for this is that currently licensed suppliers do not need to also be generators.

Clause 3 is the heart of the Bill and gives the task of setting up the local supplier licence process to OFGEM and also requires that this process ensures that local suppliers face set-up costs and complexity proportionate to the scale of their operation. The exact details of that process are not laid out in the Bill as we believe that OFGEM should carry out this task.

Part 1 of Clause 3, requires OFGEM to set up the local supply licence mechanism and, Part 2, for that mechanism to ensure that the costs and complexity of becoming a local supplier are proportional to the size of the operation. Part 3 allows for the local supply operation to be based on a radius area though this could arguably be improved if amended to be a defined area.

Possible questions and responses to them

Question: Doesn't the fact that a handful of local authorities have set up supply companies (e.g. Nottingham, Bristol, Islington, Derby and Liverpool) using the 'white label' approach and that the first Licence Lite licence has been granted show that local supply is effectively happening anyway?

> Answer: The problem of the insurmountable costs and complexity for local generators setting up as local suppliers still remains.

4 http://www.respublica.org.uk/our-work/publications/creating-local-energy-economies-lessons-germany/
5 https://www.thenews.coop/108839/sector/energy/nimbyism-co-operatives-germanys-energy-transition/
6 https://www.newstatesman.com/politics/2014/01/fix-our-broken-energy-market-we-need-help-supply

Licence Lite was set up by OFGEM in 2009 as a way of becoming a licensed supplier without the high levels of cost and complexity involved. It works by the applicant partnering with an existing fully licensed supply company and thereby 'standing on their shoulders' to reduce set-up costs. However, since 2009 only one Licence Lite licence has been granted by OFGEM and that was in September 2017 to EVenergi, a small company offering electricity to electric vehicle users. It remains to be seen whether this is a special case or can be replicated and, even if it can be, partnering with a national supplier is still required.

'White label', similar to Licence Lite, also allows a new supply company to partner with an existing fully licensed supplier and so reduce set-up costs. However, the five local authorities that have used it to set up energy companies have each set up *national* supply companies.

Question: Local grid networks and the national grid won't be able to handle all the new renewable generation this will lead to. Who will pay for the costly grid upgrades that will be needed?

Answer: Who pays for grid expansion and modernisation is not something affected by this Bill. As we shift to increasingly more renewables this will have to be paid for anyway.

That said, District Network Operators (DNOs – the local monopolies that run the 9 regional electricity distribution grids across the UK), have stated that they intend to upgrade their infrastructure to make it more efficient and better able to handle increasing levels of distributed renewable energy.[7] The DNOs could afford the upgrades: from 2010-2015 they made £10bn in profits, which was an average annual profit margin of 32%.[8]

Research shows that our grid system can also be made much more efficient (or 'smart', a term currently used a lot) by using the increasing numbers of batteries (stand alone and in electric vehicles) and distributed renewable generation to level periods of peak demand. This will mean that less is needed to be spent on upgrading the grid's infrastructure.[9] New data technology like blockchain can also help the grid become more efficient and so handle more distributed renewable generation. Microgrids in Brooklyn, New York[10] and Perth, Australia[11] are already doing this.

Question: What's the point of making it viable to become a local energy supplier whilst the government have a planning moratorium on onshore wind in England, our most abundant source of renewable energy?

Answer: The moratorium is wrong and should be addressed but doing so is not the purpose of this Bill. As a matter of principle, small companies should be just as able as large ones to enter this market, we should have a level playing field for energy generators. That said, smaller scale renewables are likely to benefit most from this levelling and as more people realise that the cost of onshore wind has fallen so dramatically[12] and can participate in local co-operatives providing them benefit the already small number of people objecting to wind farms is likely to fall still further - which can only accelerate the much needed rethink on this.

Question: Isn't this unnecessary because fast falling energy storage (i.e. battery) costs will mean that soon a lot more renewable energy generation will be built anyway?

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7 http://www.energynetworks.org/assets/files/news/publications/ENA%20Electricity%20Storage%20Guide.PDF
8 http://eciu.net/reports/2017/monopoly-money
9 https://www.green-alliance.org.uk/people_power_consumer_choice.php
10 http://www.decentralized-energy.com/articles/2016/03/brooklyn-to-host-pioneering-microgrid-project.html
11 https://bravenewcoin.com/news/power-ledger-trials-blockchain-based-energy-grid-and-market-near-perth/
12 http://www.bbc.co.uk/news/business-41220948

Answer: This Bill would increase the likelihood and speed of renewables and battery deployment because new local suppliers could also provide battery services. The one helps the other.

Question: This won't work. What happens when the badly run local supply company messes up my bill, or even worse fails resulting in me getting cut off?

Answer: OFGEM already ensures that a customer will not have their electricity cut off because of a supply company making an error or ceasing to operate. Any company can make a mistake over things like billing and it does not follow that a national company won't and a local company will. The system works very well in Germany where there are over 1,000 suppliers, most of them local, operating.[13]

Question: Won't this set up a postcode lottery on prices whereby some areas will build lots of renewables, set up great local supply companies and so have cheap energy whilst other areas don't or simply can't?

Answer: All areas will still be connected to current national suppliers so no one will be made worse off. If some areas - and we hope this happens - get much better deals with cheap, clean energy, this will make it likely that similar local suppliers will set up elsewhere, which would be great news.

Question: What about places like school roofs with solar panels that aren't using the energy and are getting only 4p/kWh for exporting it whilst customers pay 14p/kWh, will they become local suppliers?

Answer: It is more likely that a group of solar roofed local schools would get together, or a local community co-operative would form and bring them together as part of a new local supply company. That would mean those schools could receive more than their current 4p/kWh whilst charging local people less than they currently pay.

Question: Is local supply needed if small scale renewables will soon be so cheap that their deployment will exponentially increase anyway? (e.g. the new Clayhill 10MW unsubsidised solar farm in Bedfordshire that used energy storage and design innovation to avoid needing subsidies)

Answer: Yes the Bill is needed, because it will mean the deployment happens much faster, as the German experience suggests.[14] Also Clayhill solar farm is the only example of a subsidy free renewable energy generation project,[15] and it relied on particularly favourable local circumstances, so it does not appear to be something that is easily replicable, if at all, under the current circumstances.

Question: Isn't the Bill unnecessary now that OFGEM are doing their 'Regulatory Sandboxing' as part of their new 'Innovation Link'?

Answer: The Regulatory Sandbox, in relation to energy supply, is a process where OFGEM can allow selected pilot scheme projects to trial different ways of supplying that are not in line with current regulations. Some are about trialling new blockchain technology. This initiative is welcome, but it is different from what the Bill would set up, which is for local suppliers to face proportionate cost and bureaucracy when setting up. Indeed the one may help the other as learning from the Regulatory Sandbox projects may be useful when formulating how the new local supply process works.

13 http://www.respublica.org.uk/our-work/publications/creating-local-energy-economies-lessons-germany/
14 https://www.cleanenergywire.org/factsheets/germanys-energy-consumption-and-power-mix-charts
15 https://www.gov.uk/government/news/subsidy-free-solar-comes-to-the-uk

Question: Aren't organisations like Energy Local in north Wales doing this already?

Answer: Whilst we welcome what Energy Local is doing, it is different from what the Bill seeks to do. Energy Local is an example of virtual net metering and requires the agreement of a licensed *national* supplier. Virtual net metering is where a group of small scale generators who are also energy users, e.g. a local group of houses with solar panels and a nearby school, form a local organisation like a co-operative and use smart meters to show when they are, as a group, using more energy than they are generating. They then buy that excess energy from a licensed supplier.