

## **A smart, flexible energy system: Call for evidence**

### **Consultation response from Plymouth Energy Community, 12<sup>th</sup> January 2017**

#### **Introduction**

The success of Plymouth Energy Community clearly demonstrates the benefits of a local approach across the fields of fuel poverty, energy efficiency and low carbon generation. In the last year alone our projects generated £4.058m of household savings, reduced household debt by £73,710 and our renewable energy installations generated 4,734 MWh of clean energy. Our vision is a future where the local energy system is fair, affordable, low-carbon, and has local people at its heart.

We welcome the transition to a smart, flexible energy future but believe that the government is overlooking the crucial role of local organisations in this transition.

#### **1. Local approaches**

BEIS have recognised the role of local delivery models in the creation of the new Local Energy Team. The central aims of the Local Energy Team are to collaborate with local authorities and communities to deliver local energy projects and to develop local capability and capacity around a range of energy activities including domestic energy efficiency. This follows the previous DECC Community Energy Strategy (2014) which also recognised an important role for local groups.

##### **a. The need for consumer engagement**

Chapter 4 acknowledges that consumer participation and engagement in a transition to a smart energy system is important and invites *views on how to ensure that consumers can participate in a smarter energy system where they may benefit from doing so.*

The call for evidence document focuses on technical barriers and proposals, but does not propose strategies for how the engagement with consumers or education around the transition will be delivered. This represents a gap in the Government's delivery plan for the smart agenda, with the missing strategies constituting an aspect of the rollout upon which its success will rest.

Consumer engagement with the energy market is consistently low, with the majority of residents still paying higher tariffs despite a multitude of national campaigns to encourage tariff switching. If greater engagement in a smart and flexible energy system is required, then new approaches to engagement and advice provision are needed to avoid the majority of residents failing to engage. This supports the recommendations set out in the Committee on Fuel Poverty's report. Recommendation 15 highlights the need for high quality energy advice

([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/5539](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/5539)

[31/CFP report -final.pdf](#)). Leaving this engagement to energy suppliers or price comparison websites will set the smart agenda up to fail as these companies are already unable to communicate existing arrangements and options effectively, especially to vulnerable consumers.

Our headline comment in response to the call for evidence is that a plan for engagement is critical before further steps are taken and that local organisations will be needed to play a key role in the delivery of engagement regarding the smart and flexible energy transition.

#### **b. The role of local organisations**

Local organisations are able to provide bespoke support to residents which bridge the gap between energy supplier relationships and the hardware and digital interfaces which residents will need in order to become confident with using energy in a smart way. Local organisations are also able to link the provision of information on smart energy use to a far broader and more holistic suit of advice according to individual need, such as financial, debt, benefits or housing advice for example.

DECC's June 2016 Help to Heat consultation paper also recognises the need to encourage local responses to supporting fuel poor households stating that the key principals of the transition to ECO3 are to '*encourage greater involvement of local actors, especially where vulnerability is a concern*' (page 4 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/531964/ECO\\_Help\\_to\\_Heat\\_Consultation\\_Document\\_for\\_publication.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531964/ECO_Help_to_Heat_Consultation_Document_for_publication.pdf))

DNOs are well placed to take a key role in demand aggregation and sharing benefits of this between consumers – because they are local operators who have the potential to fully understand local demand profiles and technicalities. However, they will need local partner organisations to lead on the engagement required to achieve this, including with consumers who have additional needs.

## **2. Evidence – case studies:**

### **a. Local organisation and DNO partnership – The South West Vulnerable Customer Affordable Warmth Campaign**

The South West DNO Western Power Distribution (WPD) is required to respond to social needs within the communities they serve. WPD are responsible for the Priority Services Register (PSR) and wish to ensure that more of those vulnerable consumers eligible for priority services are identified. WPD also recognise that many vulnerable consumers would benefit from a wider package of support, beyond the PSR, such as help to switch supplier, access to Warm Home Discount and a range of energy advice and measures.

DNOs like WPD are specialist organisations responsible for the delivery of power to homes and the maintenance of all the hardware in the distribution networks. They are not public facing organisations, lack a public identity and their role is not well understood by the public, making it difficult for them to deliver advice services. WPD are working in partnership with local organisation Plymouth Energy Community (PEC) to deliver the South West Vulnerable Customer Affordable Warmth Campaign. This involves PEC signing up consumers to PSR and offering a range of other energy advice, switching and physical energy measures. WPD are able to take advantage of PEC's strong local identity, as well as their existing relationships with a range of local organisations who can offer holistic, tailored advice around energy efficiency, finance, housing, benefits and health.

The PEC/WPD partnership works because PEC has the profile, experience and reach that is required to meet WPDs requirements. PEC has a team of advisors and case workers who offer flexible support. WPD have adopted a flexible approach too, building partnerships according to local factors, structured to make best use of local assets. PEC are enabling WPD to reach vulnerable consumers across Devon and Cornwall by subcontracting advice and PSR support to smaller regional organisations with whom they have existing relationships. DNOs could also use partnerships of this nature with local groups to enable a greater role in local network balancing.

#### **b. ECO past record and structure of new offer**

The latest round of the Energy Company Obligation (ECO) has now closed and a transitional round is due to launch in April 2017 in advance of the launch of ECO3 in 2018. BEIS have indicated that ECO3 will be targeted at fuel poor households and we suggest that local organisations will be needed to achieve this.

DECC's June 2016 Help to Heat consultation paper highlighted the failure of ECO to reach fuel poor and vulnerable households, in saying that *'often the recipients of energy efficiency measures were households that could have afforded to pay for the measures themselves'* (page 1

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/531964/ECO\\_Help\\_to\\_Heat\\_Consultation\\_Document\\_for\\_publication.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531964/ECO_Help_to_Heat_Consultation_Document_for_publication.pdf)). DECC provided a research grant for Forum for the Future and the Energy Saving Trust to produce a study titled 'The current and potential roles of community groups in the uptake of energy efficiency by UK householders'. The first recommendation from this study for ECO3 is to *Make the involvement of community groups a priority*. The report finds that *there is evidence of a link between uptake of household energy efficiency and the level of participation of community groups with the deployment activities*. The report also recommends *taking an area based approach and appropriate financial structures*. We suggest that deployment of advice around smart and flexible energy is no different.

The study supports our experience of providing 1-1 energy support to over 300 households, the majority of whom are or were fuel poor. We have found that a bespoke, flexible, face to face package of support is required by fuel poor households in order for energy efficiency measures and related services to be taken up. This also supports our experience of participation in the delivery of ECO funded external wall insulation, where PEC's trained and branded representatives achieved a 4.5 times higher uptake for home energy assessments than British Gas trained and branded counterparts promoting the same scheme.

### **3. Elements required for local energy participants to access the flexibility market**

#### **a. Unique positioning of local organisations**

Trusted local intermediaries can engage with a wide range of individuals, organisations and businesses, including domestic consumers both engaged and those that are hard to reach, schools and community facilities, the public sector and businesses. For example, over the past year PEC supported 3,509 local households including vulnerable and hard to reach groups. PEC has also worked with local SMEs, a large leisure centre and a number of schools to install solar and energy efficiency measures.

The energy transition should provide opportunities for a local organisation to benefit local consumers and enable further deployment of low carbon technologies by engaging in further generation projects, local supply, demand side response, aggregation and storage. At present there are a number of barriers preventing local organisations from fully engaging in these areas. We have listed a few of these barriers and potential solutions below.

#### **b. Needs of local organisations to enable the smart, flexible energy system**

At present the value of flexibility is assessed in a number of ways, including; the value of embedded benefits, the price determined at a capacity market or EFR auction and the difference in the cost of energy at different times of the year or day. These elements underpin the value in areas such as energy storage, demand side response and time of use tariffs. Hence, for local organisations to enable mass participation in areas such as storage, DSR and time of use tariffs, the value provided needs to be assessed in a fair and consistent manner.

The assessment of value in the current network charging arrangements is archaic and opaque. Changes can be made through code reviews and can be signalled at short notice from Ofgem in open letters. This uncertainty and lack of transparency raises the risk profile to unacceptably high for building long-term business models to provide services which access these revenue streams. We believe that the recommendations set out in the report from Regen SW 'Network charging for a flexible future'

(<https://www.regensw.co.uk/network-charging-for-flexible-future>), including that the network charging regime should *Incentivise long term reductions in network costs* would enable local organisations to provide services that would directly benefit consumers and aid the decarbonisation of the energy supply.

To enable local organisations to facilitate time of use tariffs by domestic and commercial customers requires smart meters and demand automation with technologies that allow flexibility in demand, such as, heat pumps and electric vehicles to be in place. Local organisations are well positioned to facilitate the roll out and offer engagement and education around smart meters and demand response technologies, together with the subsequent time of use tariff. However, price arbitrage is unlikely to provide the long term revenue streams required, hence a consistent approach to embedded benefits would also aid in the development of this area.

Auctions for flexibility services may provide competitive pricing but may not provide services in the locations where they are required. For example, the provision of a service to the grid may be most cost efficient in a location where there are relatively few issues with the grid but might be most needed in localities where there are potential problems with the network. Local organisations working with local network operators, e.g. a Distribution System Operator, could be best placed to deliver these services.

Development funding is currently difficult to obtain for local organisations that wish to innovate and try new business models. Government support in this area, in terms of inexpensive finance or development grants would aid in the development of this vital sector.

We agree with the consultation document that an integrated approach with the gas, heat and transport sectors will be required to deliver a smart, flexible energy system and argue that local organisations are in a unique position to facilitate this due to our reach and role as a trusted intermediary.

#### **4. Fuel poor and vulnerable households**

Opportunities to make use of smart technologies assume a basic level of home efficiency, such as wall insulation – ie a house that can retain heat for some time after heating is switched off. Removal of ECO has stopped progress on improving basic energy efficiency of homes and thus limits the ability of many households, especially the fuel poor to benefit from smart innovations, DSR or TOU tariffs.

Point 25 states that there should be a focus on information provision to domestic consumers and vulnerable consumers in particular, but no reference as to how this might be achieved – what type of information delivered in what way. The paper does not include a question regarding engagement strategies, only regarding the timescale for engaging consumers which seems less critical. It is also the case that engagement in

energy supply and use, including tariffs and TOU in particular, is low across the board already and therefore new and improved strategies for engagement will be essential in order for the smart transition to be a success with domestic consumers. These engagement strategies could include:

- National, generic advert campaigns about benefits of smart tech and how consumers can benefit regardless of who their energy supplier is
- Information and holistic support delivered by local organisations.

Households who are vulnerable due to personal circumstances such as age, disability or ill health are already particularly susceptible to fuel poverty as well as being less resilient to its adverse effects. Longer heating hours are often required due to poor health, immobility or longer hours spent in the home. Alongside these additional heating requirements, many vulnerable consumers are less confident with managing different aspects of home energy and are therefore penalised further when they do not proactively submit meter readings, switch tariffs or spot billing errors. The smart transition will compound these disadvantages by requiring additional knowledge and skills to respond, unless improved engagement strategies are made available and delivered in a flexible way according to individual need.

## **5. Concluding summary of recommendations**

1. A plan for public engagement in the smart, flexible energy system is needed
2. The involvement of local organisations should be a priority
3. The network charging regime should be transparent and should incentivise long term investment in flexibility infrastructure, reductions in network costs and should allow further deployment of low carbon technologies
4. Bespoke support will be needed in order for vulnerable customers to benefit from smart, flexible energy and local organisations are well placed to deliver this.