Making ‘No one left behind’ meaningful in our future energy system

Below is an article written in 2018 by CSE Chief Executive, Simon Roberts OBE, for Citizens Advice. It explores what the principle of ‘no one left behind’ means for regulating a smarter energy system.

Introduction – from principle to practice in a system facing disruption

“A Smart Grid for All”. “Equal participation by all customer groups”. “Maximisation of accessibility to services for vulnerable customers”.

Energy networks provide various formulations for what boils down to a common principle they have embraced as they articulate their future at the heart of a smarter, more flexible and responsive ultra low carbon energy system. “No one left behind” probably captures it most succinctly.

The widespread espousal of such a principle – whatever the final wording – reflects a recognition by the networks that our energy system, as a provider of services meeting essential human needs such as warmth and illumination needs to provide for everyone. And that their continuing social licence to operate undoubtedly requires them to do so on terms broadly seen as 'fair'.

But it also reflects a recognition that there are significant system changes underway – often characterised as 'decarbonisation, decentralisation, digitisation and decreasing consumption' – which will massively (and potentially rapidly) disrupt the current arrangements.

That's because these changes bring with them completely new ways to generate unfairness (in terms of the distribution of system benefits and system costs) and to leave people behind (in terms of the complexity and cost of participation in the full range of benefits of the future energy system).

Yet, to date, there has been little attempt to spell out what, in the face of these disruptive transformations, this principle actually means in practice. What behaviours should we expect in future of energy networks and the wider energy system? And what does Ofgem as the regulator need to do to secure those behaviours and to embed this principle in all of its regulatory work?

This article starts to explore these questions. In doing so, it identifies some key areas for Ofgem and others to consider to ensure the 'no one left behind' principle becomes central to the rules – from charging methodologies to RIIO-2 to the basic standards of consumer protection required of any market participant – which will shape our future energy system.

What does 'no one left behind' mean in practice?

While the 'no one left behind' principle implies a concern about everyone, its focus in practice should tend to be on those who have only limited capacity to 'keep up' or who risk suffering disproportionate detriment if they are left behind.

There are different aspects to each of these two categories which are examined below. In terms of membership, there is likely to be a significant overlap between the categories as both are drawn principally from consumers who broadly fit existing definitions of 'vulnerability' within regulatory thinking.

The questions raised by the first category – those with only limited capacity to 'keep up' – are: What is involved in 'keeping up'? And what capabilities does keeping up require?

In the context of a smarter energy future, 'keeping up' would effectively mean participating in 'value earning' smart energy activities, such as:

- **Being rewarded (through time of use pricing) for flexing electricity demand to avoid peaks or match the output of local renewable generation.**
- **Reducing use of the electricity system through installing demand reducing**

equipment or 'behind the meter' electricity generation and storage.

- **Becoming involved in 'local' or peer-to-peer energy supply (linked to local generation and potentially in future local green gas production) to secure lower than typical retail prices.**

Each of these requires consumers to have:

The capacity to participate. This depends on a customer having the intellectual capability to understand which technologies or services will be of benefit to them, the financial capability to buy or borrow or sign up for the right kit or services for their circumstances to enable participation, and the technical capability to use it appropriately to optimise the rewards.

The opportunity to participate. This may depend on (a) whether the part of the system to which the consumer is connected has a need for their participation and, more importantly, (b) on a service provider actually offering them a service so they can participate in the first place.

The willingness to take the risks involved in participating. This can be technical (that the typically innovative equipment or service will not deliver the value it has promised) and financial (that the markets won't actually reward the action to the level anticipated or the service provider will fail to deliver a decent service).

There are many households who are limited in all of these aspects of participation. This includes: those on low income with little access to capital or credit and an (appropriate) aversion to taking risks; those with limited understanding or capability to understand the emerging opportunities; and those (e.g. 'all day at home' pensioner households) with 'non-peaky' demand profiles who aren't the target market for new services.

So are there ways to increase the capacities and opportunities of such households to participate?

The answer to this is almost certainly 'yes'. One can easily envisage a programme of support for participation amongst specific vulnerable consumer groups. Which leads to the question of whether such a programme – potentially provided within RIIO-2 by network companies – should be treated as a system cost associated with putting this 'no one left behind' principle into practice. If so, the costs of such 'participation support' would be socialised across different system actors and treated as a legitimate part of any regulatory settlement.

But – and at the moment we're generating more questions than answers – what should be done about those who still are unable or unwilling to participate in 'keeping up'?

This links to the second category of 'ones' in our focus: those who are at risk of disproportionate detriment if (or when) they are 'left behind'.

What then are the issues associated with being left behind that the principle is seeking to avoid?

Aside from not participating and so losing access to the benefits of 'keeping up', being left behind would involve:

- **Paying system costs associated with benefits available to others but which you are unable to access (e.g. for the network reinforcement needed because owners of electric cars want to charge at home when they want rather than when and where would be optimal for the system) and which you will never be able to access (because, like most of the lowest income quintile households, you don't own a car).**

- **Not being offered a time of use tariff that rewards you appropriately for your existing 'system friendly' behaviour. For example, you are at home all day and already do your washing when it's sunny, so you're not in the target market for demand flexibility services and the systems benefits of your current behaviour are captured by others.**

- **Paying an increasing proportion of core electricity or gas network costs as other consumers install equipment which enables them to use the network less (e.g. 'behind the meter' storage) or not at all (by shifting from a gas boiler to a heat pump or to a communal heat network).**

The practical focus of the 'no one left behind' principle for this category of 'ones' would therefore be to find ways to reduce these (and other) risks of detriment by, for example, ensuring that:

- **Network charging fairly reflects both what (and who) is causing network cost pressures and the option value of having the network available even if rarely used.**

- **Service providers – including energy suppliers – are kept to their licence responsibility to 'know your customer' and, more specifically, to make sure they are offering their customers tariffs and services which suit their circumstances and which pass on the value of system benefits that their behaviour provides.**

It should also involve exploring whether and how those who are unable to participate might be protected from carrying the costs of the transition to a smarter energy system.

The implications for RIIO-2 and beyond

So what does this mean for RIIO-2 and the development of thinking by Ofgem and by the network companies as they start to turn their business strategies into business plans – and for Ofgem's regulatory practice more widely?

Applying the practical implications of the ‘no one left behind’ principle means the following need to be taken forward into RIIO-2 and wider regulatory practice:

1. **To understand fully the different ways in which the market and system transformations underway could create disadvantage, Ofgem should (a) work with others to develop a full inventory of the new ways which will emerge to generate unfairness and leave people behind and (b) consider, in the context of RIIO-2, the role of network companies as a key potential source of mitigation.**

2. **To ensure more vulnerable consumers have a chance to ‘keep up’, Ofgem, network companies and others should outline (a) what ‘participation support’ for smart energy services would look like, (b) how might it be developed and delivered to a decent standard across the market, and (c) how its costs could be recovered fairly across different system actors and cost-recovery mechanisms (from license obligations to allowable costs etc).**

3. **To protect those most at risk of being left behind and suffering disproportionate detriment as a result, Ofgem should (a) ensure licenced businesses follow through in full on their obligations to know their customers and (b) explore how the most at risk can be adequately protected from carrying undue costs and burdens they have neither created nor have the means to avoid.**

Simon’s article is one of a collection of authored essays on how RIIO-2 can deliver improved support for people in vulnerable circumstances. The others are An Outline of Vulnerability under RIIO-2 by Joel Atherton,, Citizens Advice; How can I help you? – A vulnerability incentive for RIIO-2 by Maxine Frerk, Sustainability First; Delivering positive social outcomes for fuel poor households from RIIO-2 by Peter Smith, National Energy Action; and Incentivising support for vulnerable customers by Dr Jamie Stewart, Citizens Advice Scotland. They can all be found together in one document here.

CSE

Centre for Sustainable Energy
St James Court, St James Parade, Bristol BS1 3LH
www.cse.org.uk | Charity 298740 | Company 02219673