

## Notes from event: *Price Caps and Time-of-use Tariffs*

APPG on Electric Vehicles

20<sup>th</sup> May 2019, Palace of Westminster, London

### Panel

- **Iagan MacNeil**, Head of Policy and Communications, Smart Energy GB
- **Dr Stephen Hall**, Research Fellow at the University of Leeds and author of Smart Energy GB's report [The Smart Route to Electric Vehicles](#)
- **Clementine Cowton**, Director of External Affairs, Octopus Energy
- **Simon Daniel**, Chief Executive, Moixa
- **Event Chair: Rebecca Pow MP (Con)**

### Introduction from the event Chair – Rebecca Pow MP (Con)

- Rebecca Pow MP welcomed attendees to the first event under her Chairmanship and thanked predecessor Dame Cheryl Gillan MP for all her work in setting up the APPG.
- As of the 1st January this year, Ofgem's Price Cap came into full force meaning that households can no longer be charged more than £1,136 per year on typical usage default tariffs. Rebecca Pow stated that she was on the Price Cap Bill
- While the Price Cap discussions were prevalent in Government, a revolution was taking place in the shape of Time-of-use Tariffs which track price signals allowing for cheaper charging tariffs whilst balancing the grid.
- This has the potential to transform the way in which consumers and commercial businesses charge their electric vehicles.
- This transition towards smart charging is signalled by 90% of the public claiming that Time-of-use Tariffs are appealing and the Government's Electric Vehicle Homecharge Scheme, which will see all homecharge points having to be smart, coming into force on the 1st July.
- The rise in Time-of-use Tariffs also lends themselves to a number of other clean technologies, in particular solar and energy storage.

### Introduction of the panellists

#### **Clementine Cowton, Director of External Affairs, Octopus.**

- Octopus offer a number of Time-of-use and Smart Tariffs including Agile Octopus and Octopus Go.
- Agile Octopus allows consumers to access half-hourly energy prices, tied to wholesale prices meaning consumer bills fall in line with wholesale price drops.
- Octopus Go allows consumers to charge their Electric Vehicles at a 5p/kWh rate for four hours every night between 12.30 and 4.30am.

- Octopus also offer their own version of the Smart Export Guarantee (SEG) which offers a fixed payment for all surplus power exported to the grid at a fair market rate and a 'smart' tariff which enables consumers to benefit from higher rates when exporting at 'peak' times when power is more expensive.
- Octopus also offer a Vehicle to Grid Tariff called Powerloop.

**Simon Daniels, Chief Executive, Moixa**

- Moixa is a leading smart battery company, making batteries for households and GridShare software to manage smart charging across fleets of Home and Electric Vehicle Battery.
- Moixa optimise smart charging for solar and new smart tariffs, and predict overall energy profile for homes/EVs to help Utilities manage supply costs and networks overall demand and network constraints.
- The GridShare software can also aggregate large fleets to deliver flexibility and DSR services for Utilities, Networks and Grid.
- Moixa have over 60MWH of residential storage under management in the UK and Japan, across 6000 households, and also recently formed a partnership to support HONDA's EU energy business by managing and smart charging ESS and EV devices.
- Last month it was announced that Moixa is delivering a large VPP for West Sussex County Council where Moixa will deliver solar/storage/charging across 250 homes, as part of this £40m large UK demonstrator project (under the recent £100m BEIS project awards)

**Iagan MacNeil, Head of Policy and Communication, Smart Energy GB**

- Smart Energy GB is the campaign for a smarter Britain, helping everyone in Great Britain understand smart meters, the national rollout and how to use their new meters to be cleaner and greener with their energy use.
- The campaign is focused across households in England, Scotland and Wales.
- So far, the campaign has managed to increase the awareness of smart meters to 98% amongst the public.
- Smart meters signal the beginning of the process towards smart charging and a cleaner and greener Britain not the end.

## Presentation from Dr Stephen Hall

- The presentation focused on the key findings of Smart Energy GB's report, *The Smart Route to Electric Vehicles*.
- The report centres around four main pillars; keeping it cheap, keeping it green, making it fair and making it productive.
- Smart meters and the transition to smart charging lend itself to the keeping it cheap pillar by offering cost reflective prices, rewards for off-peak energy use and automated switching.

- When it comes to keeping it green, green energy is already the cheap option.
- There becomes a dilemma when focusing on making it cheap and making it fair.
- The report found that 25% of people want more innovation. These tend to be the 'money conscious innovators'. However, there are 40% of the public identified as 'unengaged and unmotivated' who will not take advantage of innovation. This 40% will end up paying more in the transition.
- The dilemma then arises around how to 'make it fair'. On the one hand, everyone could pay for the networks based on peak capacity needs making it fair. However, this reduces the price signal for switching from diesel or petrol in the first place, so which should be prioritised, cheap, or fair?
- Moving forward, the future priorities should be; understand what new business models smart meters, EVs and electric heat can enable, explore who can access these and which consumers will access them and anticipate unfair outcomes and take action on them.

## Q&A from audience

- **Question:** Can you distinguish between electricity used for utilities and for cars? Is it displayed separate on the smart meters?

**Clementine Cowton:** How and where electricity is used will not be displayed on a smart meter. It takes the equivalent of a week of household energy to charge an electric vehicle which is why Time-of-use Tariffs are so appealing for EV owners. However, we shouldn't consider one form of energy to be different to another, henceforth, smart meters should not compartmentalise and display how much energy each appliance uses.

**Simon Daniels:** When a lot of EV's cluster it effects the grid and it becomes a local problem. Price control is not the issue, charging off-peak can cost less than a cappuccino; the network costs are what are expensive. In order to ensure fairness of access to charge, if a person wants a fast charger they should have to pay for it.

- **Question:** Consumer behaviour and awareness needs to be more holistic, how do we achieve this?

**Simon Daniels:** The data to support [this view?] isn't being captured yet. People are afraid of Artificial Intelligence; we need to look forward to what will be happening in five to ten years as opposed to right now.

- **Question:** How do we alleviate the problems and fears of smart chargers? This includes financial risk, automation and the time investment.

**Iagan MacNeil:** Younger people tend to be more open to smart charging. Communications need to be considerably improved around older generations and around the personal impacts one can have on mitigating climate change. There needs to be an understanding that the domino effect is what is needed. One person turning off a light might not make a difference but if hundreds do it, it will help with climate change.

- **Question:** There is a lot of confusion both inside and outside of the industry over what smart actually means, how do we address that?

**Dr Stephen Hall:** We can't focus too much on simple demographics such as gender and age. We need to focus on who we ask and how we ask them. For example, messaging around public transport, how do we get people on a bus? It's less about targeting specific demographics and more about what would get people on a bus e.g. air-con, Wi-Fi etc.

- **Question:** Are EV's being used to support smart meters or vice-versa?

**Clementine Cowton:** Officially neither but unofficially both. Smart meters and EV's complement each other but neither was created to advance the other. Worries over consumer behaviour need to be taken with a pinch of salt. The change of pace in society is remarkable and current statistics are not the be all and end all. For example, Nokia did a study that found people weren't interested in smartphones therefore didn't make one then Apple came along with the iPhone. As was the case with iPhones the early adopters taking on smart charging are good for predicting and they are helping DNO's (Distributed Network Operators) model networks.

- **Question:** How significant must EV savings be to instigate change?

**Simon Daniels:** It depends; current savings now can be between £0 and £450. To reap these savings consumers need to be engaged to the point where they are plugging into the grid when they don't even need to.

**Dr Stephen Hall:** We must also consider that behaviour change isn't always driven by money. People automatically recycle on a daily basis for free. Not all messaging needs to be based upon financial gain.

**Clementine Cowton:** Financial charges are a signal e.g. the 5p carrier bag tax. No one is planning on making substantial gains through saving 5p every time they go to the shop, the tax acted as a reminder to people that they shouldn't be using single-use plastic bags especially when there are so many cost-effective alternatives.

- **Question:** How do you protect those without access to home chargers and therefore the ability to benefit from Time-of-use Tariffs?

**Clementine Cowton:** There are a lot of conversations about collective chargers e.g. chargers in pub car parks after they close. A lot of these schemes could in fact be cheaper than paying for a parking permit. Another idea is that of work scheme charging in office car parks. All solutions would require better collaboration in local communities.

**Iagan MacNeil:** Smart Meters can't save money without behavioural change.

- **Final remarks**

**Dr Stephen Hall:** We need to look at what we can do for off street charging

**Simon Daniels:** When it comes to electrification we need to get behaviour change right to keep the lights on.

**Iagan MacNeil:** Time has never been so good to discuss behaviour change and what individuals can do

**Clementine Cowton:** Smart charging can play a key role in the EV roll out