Energy Flexibility

Notes from workshop at Sustainability Conference, Adur and Worthing

Started with a question about Lithium Batteries from the room. Does the environmental impact of constructing these batteries wipe out the benefits of making them worthwhile? Answer: Yes, sometimes it can, but there are lots of other types of batteries, and lots of research currently being done so this will become more efficient. Ultimately at the moment, using your existing car for longer outweighs any other option, including buying a new electric car.

We also need the political will to improve public transport (with some of this being electrified to future proof it) – examples were given of Transport for London ULEZ zone and the Greater Manchester area

The idea of moving to using electricity and gas at off peak hours is not new, we have had the equivalent of Economy 7 for a long time now, but we really need to ramp it up. A smart meter is the key opening into this. We need to consign the internal combustion engine and gas boiles etc to the past.

The current government want to put consumers at the hear of the energy system. The smart system flexibility plan is credible and consumers should benefit but we all have to buy in to it.

We also need to be honest about the challenges of this. It will need a significant shift in mindset. Some of the more innovative companies, such as OVO and Octopus are also at the forefront of a system of giving more money back to consumers in this way, as well as being innovative in other ways.

The use of smartphone technology also needs to be optimised going forward and it should be much easier to recoup your money from exporting your own solar power. It is now possible for smart home technology to e.g. plug in your devices when power is available at a lower cost.

There was a question about the potential for ‘secondary peaks’ – i.e. if everyone uses these options won’t we then have other times when demand is high., e.g. during night time charging. Answer: If that were to happen then the optimal times would automatically change as well

Another question asking if there is always an opt out option for these flexibility schemes, the answer was ‘yes’.

There are limitations to the ability of the national grid to utilise too much renewable energy – for example at the moment we can’t currently use all the renewable energy being produced in Scotland. There is currently a new scheme on the borders to increase demand for this excess renewable energy which involves paying people to use renewable energy.

The importance of insulation cannot be overestimated. This is particularly important if heat pumps are to work properly. With the right insulation, heat pumps are significantly more efficient than gas boilers. Economies of scale will also bring the prices down, so the more people who install them, the cheaper they will get.

Currently electricity incurs significantly higher levies than gas, which is likely to change as there is a lot of industry pressure for this to happen. At the moment, this is another political question.

And finally, the concept of Vehicle to Grid energy is coming. Large scale trials have been held in the UK. Also bi-directional charging, lots of car manufacturers are now looking into this very seriously.