By email to: TCR@ofgem.gov.uk

04 February 2019

Dear Andrew,

Consultation on Targeted Charging Review: Minded To Decision/Draft Impact Assessment

You may recollect us meeting a few times over recent years in a professional capacity, when I have been representing the interests of owner/operators of gas reciprocating engines.

I therefore need to make clear this letter is written as a personal response from the standpoint of a domestic consumer. The views expressed are mine alone and do not necessarily agree with those of the organisations I have represented when meeting you.

The vast majority of the 20+ million domestic households in Britain are almost certainly blissfully unaware of this consultation taking place. I would suggest, in the context of the numbers presented by Ofgem as to the effect on their bills, most will not notice the difference of these changes in the context of much larger swings in other elements of their typical bill. This should not necessarily stop Ofgem taking action, but it does call into question the materiality for domestic consumers. The question I seek to answer here is whether the change, small as it is, is moving in the right direction.

As a household we are in the minority of those who currently own a 100% electric car. I wonder how many of those involved in regulation and policy development do have actual experience of living with this type of vehicle. For policymakers it is seen as the future, and Ofgem's consideration of change to the network charging arrangements is in part driven by anticipated growth of EVs.

For us our electric car is a second car – it is impractical for us to rely on it for long journeys owing to its limited range. It is however the vehicle of choice for shorter journeys because it is more convenient and more comfortable to drive, so it is used almost every day at least once. In terms of annual mileage, the two cars we own clock up roughly the same amount over the course of a year (8-9,000 miles). The car has approximately doubled our domestic electricity consumption; that is it consumes about as much as the rest of all our domestic consumption added together. It is worth us considering how we can reduce the cost of charging more than any other consumption in the home, by an order of magnitude.

The car is almost always charged up from our domestic electricity supply. The public infrastructure for charging during a journey is still too sparse and the time taken for charging (away from the motorway network) too long to be practical. Owing to a recent house move, we do not yet have a dedicated car charger. We rely on charging from the standard 13A supply and so a full charge (for 60-90 miles depending on season and average speed) takes 8-10 hours.

The reason for this letter is to convey how we actually behave. This was not our intention when we bought the car, but it is how we have ended up using it. The car is put on charge as soon as we return from a journey. We do not consider time of day charging for power. We have a standard tariff from our electricity supplier which does not offer time of day pricing. If we come in at 4pm on winter weekday, or 11pm on a summer evening, the car goes on charge. We do not care about the actual cost of wholesale power to our supplier, or the constraints (if any) on the networks.

The reason for this is that we own a car, not an electricity network balancing device. We want the car fully charged as quickly as possible in case we need to use it again (and many times we do). Particularly if one of us is away in the first car, the risk or threat of an emergency call or the need to use it for a longer journey means we want the car up to full charge regardless of time of day.

If we invest in a dedicated home car charger (which we intend to do soon), that behaviour may be modified but is unlikely to change radically. The impact on the networks will be to double our rate of consumption from the 3kW of the 13A supply to the 7kW offered by a fast charger. The incentive on us to manage when we take that power from the system is at the moment non-existent. (Understandably the DNOs are concerned about this, but we would want to see domestic consumers rewarded for providing services to the networks rather than forcibly being constrained on or off at certain times. If we need the car charged, we want the car charged.)

It is disappointing that so few suppliers offer time of use tariff aimed at consumers like us. . We support the findings of the Citizens Advice report published at the end of January 2019: finding a tariff best suited to our consumption profile has been very time consuming, with price comparison websites nigh on useless. For all the competition that is out there, the vast majority of suppliers do not yet offer tariffs that take advantage of the smart meters being heavily promoted. The smart meter by itself is useless for us – we have better things to do than monitor our consumption hour by hour when there is no price differential visible to us to respond to by moving that consumption around. Reading the meter once or twice a year and living with estimates at other times is not the most pressing problem in our lives that needs to be fixed. Even once time of day tariffs come in for domestic consumers, frankly we are unlikely to run to the meter to see how much our cup of tea costs before we switch the kettle on.

With a 7kW car charger we may be more prepared to allow our EV charging to be moved around a little, because we will know the time it takes to get the car charged has halved. We have recently been made aware of a supplier who is offering a tariff aimed at EV users which we think will benefit us, and we are in the process of switching to them. The issue of being unable to switch smart meters between suppliers has definitely put us off having one installed before now, so we will need to wait for that meter switch to happen once we have switched supplier. Our ability to take advantage of the new tariff arrangement therefore seems still weeks if not months away.

We also need a suitable home car charger. Part of the reason for deferring that installation following our house move was finding an intelligent one that can modulate the charging of the car according to price or other automated signal. Many chargers clearly do not even offer the potential, but even those that do offer some flexibility may not offer the full capability that we would like to see – and the economics of investing in a smarter charger need to be balanced by some revenue benefit or cost saving. The mandated installation of smart home chargers seems to me long overdue, as is the regulation or market that rewards the capability such chargers would bring.

This is all background to the question of whether network charges should reflect, even accentuate, the benefits of time of use of the network. Unless those signals are material we are simply not going to run to and from the car switching the charger on and off manually in response to them, nor even are we going to be bothered with a smartphone or other IT interface which requires us to be glued to screens to flick a charger on and off remotely or to set a time daily based on forecast pricing.

We would expect any switching to be done for us in an automated way, with at least some of the associated benefit passed back to us, with us having the ability still to override it if we need (we accept at a cost). Even with this automated interface, we would need some very strong price signals to allow our battery charging to be moved around, or to allow power to be taken from our battery to aid the network, or to leave some spare capacity in the battery for spill of excess power. We want to have the car fully charged as rapidly as possible after each use. Without really strong price signals our override would be almost always put on. If we are forced to make material concessions about whether or when we could charge the car, we would think seriously about its suitability as even a second car. It is hard to overemphasise the point that we own car, not a network balancing device.

With distribution residual smeared across all kWh this is a spur to overall energy efficiency. For electric car users like us our end cost will be higher than our non-EV owning neighbour. But that seems reasonable given we are using the network materially more. For vulnerable or low energy users they are able to make greater savings than with the proposed flat charge per meter. They would I think reasonably question why they are paying the same network charge as us (that is if the cost is enough for them to care, which it does seem is itself questionable).

The time of day/year signal feeds down from the transmission system via the current Triad and if it were reflected in our tariff then this could stop us charging the car at extreme winter peaks. There would seem a case for making this signal less extreme by increasing the number of periods when it is charged, but as a principle we probably do need this strong a signal on top of wholesale prices to change our habits and behaviour and avoid charging at winter peak.

As an EV owning household, the proposed change to residual charging therefore does seem to be moving in the wrong direction. It is reducing our signal to look at using our charging habits to respond to price and/or benefit the networks and it is a discouragement to energy efficiency, albeit of low materiality. It is my personal view therefore that the conclusion reached by Ofgem is the wrong one for the future, and (following the change made in DCP228 for distribution) a minor change to the existing charging structure at transmission level is all that may be necessary.

I am willing to discuss further should you wish – please contact me via email in the first instance.

Yours sincerely,

John Harmer