ELEXON webinar: how customers could buy power from multiple providers (Tuesday 5 June 2018)

Ref.	Question	Answer
	Conte	ext
1	Please advise how this arrangement will affect faster switching?	The proposal is independent of faster switching. It retains the Supplier Hub principle, so the customer will still have a default or primary retail Supplier. The primary Supplier's Settlement volumes will be adjusted to take into account energy bought from secondary Suppliers. It will be the primary Supplier that is registered in the industry registration systems, and so included in the new Customer Switching Service.
2	How would this tie in with end users (both domestic and commercial) on government renewable energy schemes such as solar panels?	Currently, most domestic PV covered by the Feed In Tariff Scheme is not registered for Settlement. This is likely to change with the smart Meter rollout, because deemed export payments cannot be made where export is metered. This would probably require export MPANs to be raised. If export is traded on a peer-to-peer scheme, the customer will no longer be entitled to a FIT export payment.
3	If you are going to use potentially the new CSS faster switching as a source, should this not then use the new 'Registerable Metering Point' data that is intended to potentially be used for identification rather than MPAN/MPRN?	MPRN is a gas identifier. From an electricity viewpoint, a Registrable Metering Point is largely synonymous with an MPAN, as we understand it.



Page 1 of 13 8 June 2018 © ELEXON 2018

	Proposed Solution		
4	Would the default retail supplier incur all GSP Group Correction Factor and Losses?	No. The adjustments to the energy volumes allocated to the primary and secondary Suppliers will be made to the metered volumes prior to the application of line loss adjustments and the GSP Group Correction Factor. So all Suppliers will incur GSP Group Correction and loss adjustments in proportion with their adjusted volumes. There is an open question on whether Distribution Use of System (DUoS) and Transmission Use of System (TNUos) charges should be billed on pre- or post-adjusted volumes. Under a neighbourhood energy scheme, the latter would result in some loss of DUoS income, but arguably this reflects the fact that less use is made of the network where energy is consumed close to the generator.	
5	Final Consumption Levies only apply to licensed supplier, not exempt. How will this be factored into the calculation of relevant costs allocated to different parties?	If a community energy scheme is supplying customers as an exempt supplier (under the Class A exemption for small suppliers), the supply falls outside the scope of final consumption levies (such as those levied for EMR by the Low Carbon Contracts Company (LCCC) and the Electricity Settlements Company (ESC)). However, BSC processes cannot currently exclude these volumes from the EMR Settlement Data used to charge the levies. This is an existing issue and is described in Panel Paper 279/14 . The White Paper proposal will help resolve the issue, because it will facilitate the provision of correct values to EMRS.	
6	How many secondary suppliers can you have?	In theory, there is no limit. In practice, you would be limited by the number of schemes that a customer could reasonably be expected to participate in. In the example of the Green family, they are members of an EV leasing scheme and a neighbourhood energy scheme, but you could add another one or two examples (for example, 'appliances with power'). The most extreme example would be 'rapid switching', but of the five example applications given, this is perhaps the least likely to take off in the short term, because of the challenges faced by the	



Page 2 of 13 8 June 2018 © ELEXON 2018

		primary retail Supplier. Rapid switching does not appear to be an attractive option for a primary Supplier, who would retain the burden of responsibility of metering, metering agents, social obligations etc, but would have difficulties in purchasing energy and would be responsible for a customer who could be buying most of their energy elsewhere.
	Community En	ergy Scheme
7	Under the community energy scheme, does all the energy go to one premise?	No, the export from the community generator would be allocated across all members of the neighbourhood scheme.
8	What if the community schemes output goes to multiple consumers? How would that be split?	Export would be allocated according to the rules of the neighbourhood scheme. Central systems would not need to be aware of these rules. The Customer Notification Agent would perform the calculations and notify the outturn volumes. Central systems would check that the re-allocated volumes don't exceed the HH metered volume for the generator.
9	Can you explain a little about multi-dwelling or private rental metering schemes?	Neighbourhood schemes are currently being trialled in blocks of flats with communal PV on the roof and also in a village where residents are benefitting from a share of a local hydro plant. In both cases the principle is the same and works along the same lines as the Green family example.
10	In the community generator example, how would you deal with a situation where the generation exceeds the total demand of the consumers in the scheme? Would the generator than need to have a PPA for the remaining export?	The export Supplier will be credited with the export metered at the generator. If the generator reallocates export to members of the community scheme, these volumes will be deducted from the total export for the export Supplier. If there is any residual export, after the reallocation, this will be credited to the export Supplier in Settlement. The export Supplier will presumably need a PPA for the residual volume.



Page 3 of 13 8 June 2018 © ELEXON 2018

	Electric V	ehicles
11	For Electric Vehicles, if the meter is in the car. This makes it difficult for suppliers to offer tariffs where EVs are charged at a different rate or even free. Especially if a household has more than one EV.	For the primary Supplier, it should be easier, because they can offer a tariff based on the customer energy use, excluding EV charging. The challenge lies with the providers of the EV charging arrangements. As the service provider, they will be incentivised to meet these challenges.
12	EV's will also be charged at different locations, making it difficult to look at reads from the vehicle. It would need to store information on charges such as volume by location	Yes. Some EVs have measurement devices in the car or in the charging cable and can be charged at multiple locations. Depending on the nature of the EV charging scheme, it may require technology solutions from the car manufacturers themselves or charging infrastructure providers in order to for the Customer Notification Agent to be able to provide BSC Central Systems with the data needed to adjust Supplier volumes. An EV company who offered to pay for all the power used by the vehicle (wherever it was charged) would have more complexities to address than one who merely offered to pay for power used to charge the vehicle at the owner's home (or a fixed set of other locations). This is something for EV companies to consider when designing their offerings.
13	As a supplier we are responsible for the meter, how would this be monitored if the meter was in the car or at the charging point? Or if the meter went faulty and required changing? How is this power then accounted for?	The primary Supplier will only be responsible for the boundary Meter at the customer premises, as now. If there were a fault in the measuring device used to determine the energy used in charging the EV, the customer would need to claim back any overpayments from the EV charging scheme.
14	Your scenario assumes that the EV company is unable to benefit from a supply licence exemption, so a licensed supplier (supplier B in your example) needs to be involved in the arrangement. If in fact the EV company could, in principle, benefit from an exemption, would it nonetheless need to involve a	There are currently no class exemptions that would allow this to happen. EV companies are likely to be offering vehicle-plus-charging at scales which would put them well outside the likelihood of an exemption. Even if they could benefit from an exemption, they would need a BSC Party to take responsibility for any



Page 4 of 13 8 June 2018 © ELEXON 2018

	licensed supplier in any event in order to give effect to the supply of electricity to the customer (Green family) via the grid? It would seem that the solution outlined in the webinar assumes that supplier B is a licensed supplier/BSC participant and so is capable of taking responsibility in settlement for the electricity supplied to the EV.	energy imbalances.
15	You touched on metering a couple of times, but to clarify: (i) would the meter associated with the EV need to be a meter capable of being recognised in settlement on a half hourly basis with an associated MPAN or pseudo MPAN? (ii) where the customer's main import is not half hourly metered, what adjustment is made to Supplier A's imbalance position in respect of a particular half hour to reflect electricity supplied by Supplier B to the EV, as measured by the relevant EV meter.	 (i) Boundary metering will ensure that the total volume of energy being settled is correct. This total volume will be reallocated between Suppliers according to the trades notified by the Customer Notification Agent. The reallocated volume could be determined by a measurement device, a contractual agreement or even be unmetered, if a device is completely predictable. Anecdotally, the digital systems associated with EVs and other devices are so good that data is likely to be as reliable or more reliable than anything that could be obtained from a half hourly Meter. The Modification workgroup and the Performance Assurance Board will need to consider what level of assurance is required of the Customer Notification Agent. (ii) The volume notified by the Customer Notification Agent will be netted off Supplier A's aggregate HH volume and added to Supplier B's. The trade will be notified to both Suppliers.
16	Can this naturally be extended to other household appliances in addition to EV charging?	Yes, the proposed approach would support this. We are not aware of any appliance-plus-power services in this country as yet, but have heard of examples in Germany.
17	I look forward to the day when the hub can look at demand by application. e.g. heater, lights, oven, fridge, etc. as well as EV's, and other energy on-site generation. Then this multiple supplier arrangement would be very interesting as there could be much more!	Yes.



Page 5 of 13 8 June 2018 © ELEXON 2018

	Peer to Peer	
18	Specifically looking at P2P, would this work within limited "schemes only" - i.e. a local micro-grid effort or in true ebay style, do you envisage this opening up to a larger market. I'm coming from an I&C perspective so am really interested in how businesses can engage with flexibility and access other ways to make demand management add up financially.	A "true ebay style" peer to peer application would require an "ebay style" innovator and customer appetite to make it real. All we can do under the BSC is to remove any barriers that prevent this from happening. In theory, the proposed Settlement solution is scale-able, but would need a more efficient method of accessing registration data to work at volume.
	Rapid Sw	itching
19	In the context of rapid switching per se, would there still be a concept of primary supplier?	Yes. However, of the five example applications given, rapid switching appears to be the least likely to take off, because of the challenges faced by the primary Supplier. Although the proposal supports rapid switching in theory, in practice it is likely to need a more radical overhaul of the Supplier Hub principle.
20	Does the ELEXON proposal for faster tariff switching allow for multiple suppliers through a single MPAN?	ELEXON is not proposing rapid switching (see response above). The ELEXON proposal for multi-provider Settlement would support rapid switching through a single half hourly metered MPAN. The volumes for each Settlement Period would be allocated to different Suppliers according to the notified trades. This would be the most challenging of all the potential schemes for Suppliers, so we do not envisage that this will happen any time soon.
21	Automatic switching tools such as Flipper and Labrador, if they grew to be used by a significant no. of customers, could potentially cause problems with this in a rapid switching environment - would contingencies be built in for this?	These are two different methods of "shopping around" for energy – one in which you purchase energy services from different providers at the same time, whilst retaining your primary Supplier and the other where you change your primary Supplier frequently in search of a better deal. Consumers would be ill-advised to use both methods at the same time.



Page 6 of 13 8 June 2018 © ELEXON 2018

	Customer Notifi	cation Agent
22	Do you have a sense of what the set-up / entry costs for a Customer Notification Agent would be compared to say a licensed supplier?	In terms of BSC costs we are envisaging a lighter role than that of a licensed Supplier, along the lines of the Virtual Lead Parties proposed under modification P344.
23	Referring to Notification agents, in the electric vehicle world, would the assumption be that agent would be the manufacturer or selling agent i.e. car selling company?	It would depend on the nature of the scheme and who was offering it, whether it be a manufacturer, selling company, scheme facilitator, technology platform provider.
24	In what timescale would the trades need to be submitted. Hard to see how they could be all in advance. So can they be submitted up to 14 month ahead?	There would need to be obligations on Customer Notification Agents to notify trades within reasonable timescales in support of customer billing.
25	What happens if a CNA is late submitting notifications?	Although adjustments can be made in subsequent runs for Settlement purposes, there need to be timescales for notifying trades to support customer billing.
26	Are there any restrictions on who can act as a CNA?	No. The Customer Notification Agent would need to sign up to the BSC and undergo a qualification process. We anticipate that they will be the commercial facilitators of energy services or the technology platform providers for these services.
27	How is CNA compensation planned to be regulated?	The CNA will be regulated through contracts with the company (e.g. EV manufacturer) on whose behalf they are notifying trades. There will need to be a BSC qualification and assurance process for Settlement purposes. In the event of the commercial failure of a CNA, the EV company (for example) would need to procure the services of another CNA.



Page 7 of 13 8 June 2018 © ELEXON 2018

	Metering Metering		
28	Your EV example is dependent on a meter 'behind the settlement meter' - how is this governed?	This will need to be considered by the Modification Group (and potentially the Performance Assurance Board (PAB). Electricity consumers (and prosumers) are now operating in a digital world that opens up entirely new possibilities. It is entirely feasible that a company selling EV-plus-power (or dishwasher-plus-power) as a service may well have technology that provides a level of diagnostics and validation far in excess of anything the electricity industry would get from a 'smart meter'.	
29	You answered the EV meter question. So would similar metering arrangement be used for fixed battery/CHP/PV installed in premises for import/export	As above, we are seeing an increasing interest in how energy services can be delivered using behind-the-meter devices and assets.	
30	Does this require half hourly settlement or will it work with profile classes?	It depends on the type of scheme. In the case of a neighbourhood energy scheme, the community generator would need to be half hourly metered. However, the local residents benefitting from the export would be allocated a share of the export, which could then be netted off their Supplier's profiled, aggregated imports for the Settlement Period in question. So they could be NHH metered, subject to a Modification Group not identifying any adverse impacts.	
31	How could NHH work if you are seeking to check the energy consumption - which is not available via an HHDA?	In the case of the neighbourhood scheme, you would be checking that the volume reallocated from the generator (which would need to be half hourly metered) doesn't exceed the total export volume. So only the generator would need to be half hourly metered. If a Modification Group concluded that the local residents also needed to have their import volumes checked, then the scheme would require elective half hourly metering.	
32	Will SMETS2 support these types of solutions?	SMETS2 meters will support any schemes where NHH metering is sufficient. They	



Page 8 of 13 8 June 2018 © ELEXON 2018

		are half hourly capable so will support schemes where HH metering is required, subject to being settled elective Half Hourly.
33	How do you see this fitting in with Elective HH for SMETS meters?	In some cases elective half hourly will be needed for participating customers.
34	Does the split require sub metering? How else would the 0.5kWh total import be apportioned between suppliers in the example?	In the example, the Green family would have a boundary Meter measuring the total import to their premises. The community generator would be subject to a separate MPAN with its own Meter. The electric vehicle could have its own measuring device in the vehicle itself, in the cable or at a rapid charging point in the house. Measurement arrangements for EVs are still evolving.
35	All those who want to participate need mandatory meters at each service type? Some could have several meters?	In the example of the Green family, there is only one Meter in the house. In other cases, there may be the need for additional metering, including 'behind-the-meter'. This is an area that ELEXON is looking to explore with industry as part of a separate initiative.
36	Would this work for domestic customers via DCC in future? If so, how would volumes be collected to understand supply thresholds and existing obligations for domestic suppliers.	The primary Supplier will continue to be the main interface with the DCC and be subject to their existing obligations. This is equally true for all meter types, where the primary Supplier remains responsible for the metering and the metering agents.
37	Would this see an increase in complex mapping arrangements?	No, it shouldn't. This is not a metering proposal, so much as an energy reallocation proposal.
	Customer	billing
38	Would the responsibility for providing customer bills showing all adjustments be given solely to the main supplier, or would customers be receiving multiple bills from multiple suppliers, in order to give the customer full	It is not within the remit of the BSC to place customer billing obligations on Suppliers. However, or expectation is that, in the interests of customer service, the primary Supplier would issue a bill with the volume and cost of the energy



Page 9 of 13 8 June 2018 © ELEXON 2018

	documentation of what energy they have bought/sold?	they are supplying. Additionally, they would itemise the volumes (only) of the energy purchased from secondary Suppliers. The secondary Suppliers would bill the customer independently for the volumes that they supplied. The customer could reconcile the bills from secondary Suppliers with the itemised bill from the primary Supplier.
39	How are/what is the thought process as to how each supplier is supposed to know what is going on, so that supplier A can actually produce an itemised and accurate bill to reflect such arrangements?	BSC Central Services will notify the relevant Suppliers of all the trades notified by Customer Notification Agents and the corresponding adjustments made to Suppliers allocated volumes.
40	Why should supplier A be responsible/absorb additional costs for providing supplier B/supplier C's breakdown of consumption?	Effectively we are facilitating a market in which consumers can "shop around" for energy services. Participation by Suppliers is optional. Non-participating Suppliers are not subject to any additional burdens in terms of billing complexity. Suppliers who choose to participate will do so because they want to sell services to consumers. They will be looking to be Supplier B as often or more often than they will be Supplier A. Participation becomes a commercial decision for Suppliers.
41	Why shouldn't supplier A just bill the customer as normal, and then customer sends their bill to supplier B/Supplier C to get a refund for the %age of their consumption as agreed in any arrangements that they have?	Supplier A would be paying the Settlement bills for Suppliers B and C.
42	Would suppliers have visibility of the volumes customers are receiving from schemes/ other suppliers?	Yes. See response above on notifications from BSC Central Services.
	Forecasting and	d Imbalance
43	Are we expecting any mechanism to support this in terms of the imbalance prices we see currently and the challenges to forecasting that this presents?	The reason that the idea of consumers purchasing energy from multiple sources is gaining traction, is that new possibilities are being opened up through electric



Page 10 of 13 8 June 2018 © ELEXON 2018

		vehicles, microgeneration, smart appliances, batteries etc. Arguably, it is the new technologies and innovations that present the challenges to forecasting. The multi-provider proposal alleviates some of these challenges and increases others.
44	How would this impact the default supplier's ability to manage expected imbalance as they approach gate closure? Any info from other suppliers is after then event.	The forecasting challenge will vary from scheme to scheme. It could be argued that an EV charging scheme reduces the unpredictability for the default, retail Supplier who only has to purchase energy to meet the customer's other needs. In the case of a neighbourhood energy scheme, there would be more of a challenge for the retail Supplier, but arguably there is already a challenge for customers with PV on their own roofs.
45	How is it different from the main supplier sourcing energy through PPA/virtual trading platforms from independent generators /aggregators, with added simplicity keeping the system same.	Some Suppliers already offer customers the choice of how their energy is sourced. The benefit of the proposal for an EV company, for example, is that they would have a single set of central arrangements, rather than having to negotiate agreements with every Supplier.
46	Would the energy from alternative suppliers all be bought in advance?	Yes. In our example, the Green family's retail supplier and the EV company's supplier would need to purchase power in advance. The export Supplier would not be purchasing power.
	Uptake an	d costs
47	Do multiple suppliers not create more complexity, considering engagement is quite low in the industry?	You could argue that the lack of engagement is because core retail offerings to consumers are insufficiently differentiated and that compelling energy service propositions are more likely to drive future customer engagement.
48	To add context, has Elexon carried out any modelling to understand what % of households/businesses would be likely to adopt a multiple supplier situation?	No, we haven't. We are approaching this from the perspective of removing barriers to innovation. There is a chicken-and-egg situation, whereby innovation depends on the removal of barriers and consumer appetite depends on



Page 11 of 13 8 June 2018 © ELEXON 2018

		innovation. We believe that we need to remove any BSC blockers in order to allow the market to find its own momentum.
49	Has there actually been any market research conducted/consumers canvassed as to whether or not there is any actual appetite for this? Apart from the odd community project etc?	No. See response above.
50	Why remove barriers/introduce innovation if there is no appetite for it in the first place?	You cannot test the appetite for innovative schemes, without first removing barriers to allow innovative schemes to be developed.
51	Are Elexon going to canvas all of the suppliers to see if they have an appetite to support/participate in this or not?	No, not individually, but we have aired the White Paper widely (including this webinar) and it has generated a lot of interest, particularly among innovators. The response from Suppliers has been varied, but we have had calls and correspondence with Suppliers who are interested in exploring the proposal further. We are happy to discuss the proposal further with anyone who is interested.
52	How does the new architecture you are done Proof of concepts for, link in with the Target Operating Model work that is ongoing?	The proofs of concept relate to BSC Central Systems, whereas the Target Operating Models under consideration for Half Hourly Settlement are looking at the "upstream" agency services. There may eventually be some overlap (for example, the source of half hourly data for validating trades may change), but they are currently independent pieces of work.
53	What was the feedback so far from current suppliers, if any?	As above, the response has been varied. The white paper has been thought-provoking for Suppliers and innovators alike.
54	Will there be an opportunity to trial the multiple supplier switching solution via the ELEXON sandbox - and if so when would this be possible?	The sandbox is intended to enable Parties to be derogated from specific obligations in the BSC to allow pre-competitive and innovative products and services to be tested in the live environment. In this case, the overall, end-to-end



Page 12 of 13 8 June 2018 © ELEXON 2018

		solution does not lend itself to the sandbox on account of the extent of the central system changes we would need to make, as well as Supplier billing changes. Having said that, there could be aspects of the solution that could be trialled and we are talking to interested parties about this.
55	Will Ofgem provide any support for this arrangement e.g. commitment to sort out non BSC issues such as consumer protection?	We have discussed our proposal with Ofgem and they are interested, in principle. Ofgem has launched its own strategic initiative looking at the future retail market and the Supplier Hub and consumer protection issues will play a key part in their thinking. If the ELEXON proposal progresses to a Modification Proposal, Ofgem will be taking an active interest in the consumer protections behind the proposal.



Page 13 of 13 8 June 2018 © ELEXON 2018