Issue 88 'Clarification of BSC Arrangements relating to Complex Sites'

This Request for Information was issued on 29 September 2020, with responses invited by 21 October 2020.

Consultation Respondents

Respondent	Role(s) Represented
Carmarthenshire Energy	Generator, Community Organisation
Community Energy England	Representative body – 256 members
Dorset Community Energy Limited	Community organisation
E.ON Energy Solutions Ltd	Supplier, Supplier Agent
EDF	Generator, Supplier
Emrgnt Systems Ltd t/a Emergent Energy	License exempt operator
Energy Local CIC	Consultant, initiator of local energy scheme referenced in this RFI
Flexitricity Limited	Virtual Lead Party, Supplier
IMServ Europe Ltd	Supplier Agent (HHDC/HHMO)
Octopus Energy	Supplier
Salient Systems Ltd	Software Solutions Provider to Supplier Agents
Scottish Power Commercial Metering	Supplier Agent
South Denbighshire Community Partnership	Community organisation
SMS Plc	Supplier Agent (HH/NHH MOA/DA/DA)
SSE Energy Supply Limited	Supplier
Stark	Supplier Agent (HHDC, HHDA, NHHDC, NHHDA)
The Green Valleys CIC	Community organisation
TMA Data Management	Supplier Agent (HHDC, HHDA, NHHDC, NHHDA)

Question 1: Should the BSC allow multiple premises at geographically contiguous locations (and connected to the same substation at the same voltage) to be totalised under one MSID?

Summary

Yes	No	Neutral/No Comment	Other
15	1	1	1

Responses

Respondent	Response	Rationale
Carmarthenshire Energy	Yes	This will help communities near generation an opportunity to benefit directly from it, given them a sense of ownership and encouraging them to look at their energy use which can help with demand side management. It gives smaller organisations and individuals a more active role in the energy system
Community Energy England	Yes	It would provide a means for communities to work together in a practical way within the energy system and would help to create new community energy organisations and projects. When combined with netting it enables local balancing and encourages domestic and business demand side management, providing a practical reward for engagement (as outlined in question 3).
Dorset Community Energy Limited	Yes	Gives communities a means to work together in a practical way within the energy system. Provide people a stake within the energy systems and benefits their local generation. Helps create new entities, players and opportunities within the energy systems as proposed in the new European Renewable Energy Directive RED II, which will be transposed into national legislation of the 27 EU member states by the end of 2021. When combined with netting it enables local balancing and encourages domestic and business demand side management and provides a practical reward (as outlined in question 3).
E.ON Energy Solutions Ltd	Yes	We believe that many of the complex site scenarios detailed in BSCP 514 already cater totalisation under one MSID however greater clarity is needed so that parties understand the

Respondent	Response	Rationale
		purpose of the scenarios in terms of when they do & do not apply. For example, the calculation applied to totalise where the all power flows through the same system voltage which should mean that the calculation is less complex given that transformer losses to account for the voltage change would not need to factored in. The use of totalisation has a high potential to offer cost effective enduring solutions that should not be limited to totalising under a single MSID. We recognise that any such arrangements that includes an appropriate level of assurance with the BSC to assure that settlement risks to the industry are mitigated, as such we E.ON recommends that the workgroup could consider a similar approach to what is used when applying for standard & non-standard BM unit configurations where site specific settlement arrangements are facilitated in the CVA market. When considering that existing market rules are causing barriers to market innovation combined with growth in distributed energy resources coming online, E.ON believes that totalisation for "sites" should be given careful thinking as part of the issue 88 working group considerations.
EDF	N/A	-
Emrgnt Systems Ltd t/a Emergent Energy	Yes	This change can also bring important benefits that help meet the BSC objectives around promoting competition in electricity supply, and efficient network operation. These benefits would come from both allowing multiple premises to be totalised under one MSID and allowing netting of exports from imports. Our rationale for these benefits is therefore under Question 3. The BSC also has an important role to play in enabling the energy system transition and helping the UK meet its 'net zero' goals. The low carbon technologies we need to decarbonise exist, but they are not being rolled out fast enough. Ambiguity and a lack of financial incentives are both barriers to investment. This is an opportunity for the BSC to go from being a barrier to low carbon investment to a facilitator of it.

Respondent	Response	Rationale
		A contiguous site can traverse a substation boundary. It would therefore be logical for the BSC to go further than is proposed and allow premises across a contiguous site to be totalised under one MSID across adjacent substations.
Energy Local CIC	Yes	When multiple premises at geographically contiguous locations combine with netting (see Question 3) it allows for arrangements such as Energy Local, which bring communities together; encourage local balancing of the network; manage voltage rise and drop; and use of demand side management to run an efficient network and at scale, reducing the risk of imbalance without complicated contracts. Such schemes help create a value stack of benefits in terms of benefits to the settlement system and to local networks to create viable business models that are practical for participation by the average household. Having worked through this scenario, it is important that arrangements are such that all MPANs are marked as energised for reference for the DNO. This is something that Energy Local has worked through with Elexon, data collector TMA and DNOs.
Flexitricity Limited	Yes	In addition to the provided example of a local energy scheme, this could address some barriers to private wire schemes.
IMServ Europe Ltd	Yes	Providing within the same GSP
Octopus Energy	Yes	We are enabling the Energy Local scheme as this supports local communities to develop local renewable generation.
Salient Systems Ltd	Other	Effectively at a group of metering systems on a private network the BSC already accommodates a single MSID at the boundary meters between the private network and the wider distribution network. However, although a single MSID to accommodate metering at local generator and metering at individual premises within a community group could be considered we believe such configuration to be extremely problematic. A more flexible and manageable approach, although still with objections to overcome, would involve all metering points (generator and consumers) on the substation 'network' having their own MSID. The group of MSID's treated as a Complex Site so that adjustments to active energy quantities entering imbalance settlement can be adjusted by HHDC

Respondent	Response	Rationale
		against a managed set of rules. The Supplier (assumed one Supplier, holds the PPA and is Imbalance responsible party) receives metering data from the HHDC which will support customer invoicing splits and PPA commitment. If such policy/model were to be considered then objections arising from various parties may implicate need for metering dispensation(s)? (Losses on local network, avoidance of DUoS charges ??). Any compensating dispensations could be accommodated at addition CS data attribute(s) detailing measurement adjustments that should be made). However, P379 outcomes will likely enable more flexible and responsive mechanisms to achieve the objectives of Community Energy schemes. It will be some time before proposals here are implemented but in the interim we believe that existing BSC mechanisms may be successfully tested and implemented to achieve interim solutions (Shared SVA metering arrangements).
Scottish Power Commercial Metering	Yes	In principle we agree with this but the term "geographically contiguous locations" would need to clarified/agreed on and possibly a cap would need to be applied to the number of premises allowed to be totalised due to the potential complexities involved in the totalisation process.
South Denbighshire Community Partnership	Yes	We are a small organisation that works in an area where the network could be overloaded in future from EV chargers and renewable generation. Working with partners this helps facilitates means by which we can participate in managing the network and contributing to local carbon systems. It facilitates us being able to engage with our members and give them a stake within the energy systems and get more value from their local generation. We are interested in how we can participate as a geographic entity for the benefit of our community and the energy system and this will help this process. We want to explore how netting and local balancing can benefit us and this totalisation in a geographic area is needed to enable this.
SMS Plc	Yes	We believe that this should be allowed, local energy schemes as described in the RFI are presumably going to become increasingly common with the move towards a smarter energy network.

Respondent	Response	Rationale
		The risk to settlements will increase as the number of the premises increase, would a limit to the number involved be considered? Furthermore, the Complex Site form could become onerous to manage; data flow alternatives could be considered, however, this would mean attempting to standardise Complex Site information.
SSE Energy Supply Limited	Yes	We believe that these premises should be totalised under one MSID as consistent charging can be applied to all premises.
Stark	No	It adds unnecessary complications to the current issue; may be more relevant when future developments implemented.
The Green Valleys CIC	Yes	We have been undertaking community focused work on energy for almost a decade. Communities of householders, businesses and generators need to be able to work together to make more efficient use of the grid as no one wants to see (or pay for) new overhead lines – least of all in a National Park (where we work). Very few community members understand how the distribution network operates and so cannot see how their energy use impacts upon it. If we are to see better network balancing there must be a mechanism for action at a community scale, backed up by appropriate support, enabled through open and flexible regulatory means.
TMA Data Management	Yes	TMA are currently working with Energy Local so that multiple premises at certain geographical locations are netted together. This allows local communities to be brought together and encourages local balancing of the network.

Question 2: Should the BSC allow multiple premises at geographically contiguous locations and connected to the same substation (but at different voltages) to be totalised under one MSID?

Summary

Yes	No	Neutral/No Comment	Other
13	2	1	2

Responses

Respondent	Response	Rationale
Carmarthenshire Energy	Yes	Depending on the strength of the network connection of local generation at LV may not be practicable and therefore connect at 11KV is preferable. This will help the weaker parts of the network by demand side management and local balancing as outlined above.
Community Energy England	Yes	See Q1 for benefits. It is also not always possible to connect local generation at LV and must connect at 11KV because there is weak network. It is unfair that some communities can then not benefit from the above especially when these networks often need local balancing the most.
Dorset Community Energy Limited	Yes	Benefits are as above. It is not always possible to connect local generation at LV and must connect at 11KV because there is weak network. Ii is unfair that some communities can then not benefit from the above especially when these networks often need local balancing the most.
E.ON Energy Solutions Ltd	Yes	Whilst we agree that the BSC should allow multiple premises to be totalised at different voltages, identifying the substation a site is connected over differ voltages is not straight forward without engagement with the DNO, at this time we are aware that digits 3-10 within an Mpan core may offer some insight into substation however how they correlate to substations is not clear. We believe that the Access & forward looking charging SCR may help identify substations should the outcome determine that the associated network charges are derived at substation level, however that is not expected to deliver until 2023 which

Respondent	Response	Rationale
		would only lead to direct contact to the DNO where applicable.
EDF	N/A	-
Emrgnt Systems Ltd t/a Emergent Energy	Yes	From our own experience totalised usage across voltages would be less common, but there is no advantage in limiting the size and extent of the potential applications of a positive change.
Energy Local CIC	Yes	We support this as it would enable Energy Local clubs to be set up where there are generators at 11kV and customers at LV. Without this provision it would exclude areas where the network is weak and generators are connected at 11kV that would be connected at LV in the rest of the country. Including this provision would enable local balancing of the network in areas of the weak network where it is most needed. However, this a more complicated situation than where both are at the same voltage level as line loss factor may be different. We have not been gone through this in detail, however, we believe that it is possible for the DC to assign the correct line loss factor for different consumption or to provide a specific line loss factor. We have discussed relevant dataflows with Electralink previously.
Flexitricity Limited	Yes	The WG should consider that complex site meter mapping with the DA/DC and MOP to enable difference metering has proven extremely time-consuming for an established Flexitricity customer project. The process will need to be made more transparent for both non-domestic and domestic customers to be able to benefit meaningfully.
IMServ Europe Ltd	Yes	This arrangement is already in place at a small number of MSIDs. Again we would limit the arrangement to the same GSP
Octopus Energy	Yes	We are enabling the Energy Local scheme as this supports local communities to develop local renewable generation.
Salient Systems Ltd	Other	As in Question 1, yes with caveats

Respondent	Response	Rationale
Scottish Power Commercial Metering	Yes	Same as question 1
South Denbighshire Community Partnership	Yes	We believe that the same benefits as above could be achieved. Although not relevant for us we are aware of other groups who would like to participate who have generation connected at 11kV because the network is weak who wish to participate. Above this size it is probably not necessary.
SMS Plc	Other	We are undecided but believe that this should be considered further. Multiple voltages will increase the risks of errors, but not allowing it would unfairly prevent participation in local energy schemes.
SSE Energy Supply Limited	No	Whilst we are not against the idea in principle, we believe that differing network charges and treatment of losses for different voltage levels makes this impractical.
Stark	No	It adds unnecessary complications to the current issue; may be more relevant when future developments implemented.
The Green Valleys CIC	Yes	Consumers get no choice on what voltage they happen to be connected at, or which network cables happen to be closest or easiest for connection. If there is no technical reason why this can't be done then it seems deeply unfair/inefficient to consumers and generators to place unnecessary restrictions upon them
TMA Data Management	Yes	Whilst we have not yet worked through this scenario we believe that this scenario should also be allowed as there are many benefits to local communities which should be allowed to be realised.

Question 3: Should the BSC allow netting of Exports from Imports (in certain clearly defined circumstances circumstances) to facilitate local energy schemes, such as the one described in the example provided? What would be the benefits of doing this?

Summary

Yes	No	Neutral/No Comment	Other
16	2	0	0

Responses

Respondent	Response	Rationale
Carmarthenshire Energy	Yes	This encourages people to get involved in local renewable energy generation and increases the viability of community renewable energy schemes. It encourages local balancing that helps the strengthen the network and helps connect more renewables at lower cost.
Community Energy England	Yes	Incentivising local balancing benefits the network and helps to connect more renewables at lower cost. Netting generation and consumption via a complex site enables community energy schemes by making them more viable. It provides additional incomes for renewables in a post subsidy world and could help to reduce network connection charges. Local people must be given a stake in local renewables. The net-zero transition will require local innovation in energy demand and supply as well as public buy-in and behaviour change. Community energy organisations are trusted, knowledgeable, well-placed and highly motivated to advocate for and deliver the change and innovation necessary to achieve net zero.
Dorset Community Energy Limited	Yes	Incentivising local balancing that benefits the network and helps connect more renewables at lower cost. The benefits of netting generation and consumption via a complex site is that it enables community energy schemes by making them more viable. It provides additional incomes for renewables in a post subsidy world. Importance of giving local people a stake in local renewables. As indicated in the recent report from the Committee on Climate Change, household and

Respondent	Response	Rationale
		community engagement and active participation is required in order to meet the UK's net zero emissions by 2050 target Could be means to reduce network connection charges.
EDF	No	We support the development of local energy schemes. These schemes must operate on the basis of fair and effective rules and, until they are changed, the existing BSC rules. There are existing BSC modifications in flight that aim to deliver robust arrangements to facilitate local energy schemes. It would therefore be more constructive and efficient to use these modifications to seek an enduring and fair set of arrangements. Issue 88 is looking to expand the definition of a "site" in the context of a new geographical area; our immediate concerns are that increasingly network costs are being recovered at a site level. Grouping several individual sites together to form a larger complex site could lead to significant network charging distortions to other customers which are beyond the scope of Issue 88 or the BSC.
E.ON Energy Solutions Ltd	Yes	E.ON supports the BSC allowing for the provision of netting exports from imports In clearly defined circumstances provided they ensure that such scenarios have mitigations against risks associated to both settlement risk and do not create unfair distortions across the market. For example, netting of import and export metered volumes across locations could impact the recovery of certain policy costs as they are incurred against gross final demand volumes, so any reduction associated with netting will lead to those costs being covered across a reducing supply volume, thus increasing the £/MWh value to supply customers not able to participate. Conversely, the use of netting volumes over export and import may be necessary in order to facilitate exemptions for sites which already meet from the criteria from certain policy costs under The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001 but have complex connections and/or site arrangements in have been granted site wide exemptions from the secretary of state.

Respondent	Response	Rationale
		We believe that the use of netting has high potential to remove Innovation barriers which could lead to increased investment in local energy schemes, however we do not believe that a one size fits all approach can be considered. Final demand volumes entered into settlement hold an integral part of the data requirements needed across many market roles so it's imperative that the integrity of the existing settlement arrangements can be assured to BSC parties. As such we recommend that considerations are given to adopting approaches taken for site specific metering dispensations (which facilitate time bound & lifetime dispensations) and/or build upon the CVA trading unit arrangements currently in place.
Emrgnt Systems Ltd t/a Emergent Energy	Yes	Promoting effective competition In short, this change would boost competition and widen consumer choice. It would do this by supporting the business model of community energy schemes such as our own, the Local Energy scheme mentioned in the RFI, and many others potential ones. Enabling them to unlock commercial value from balancing would make schemes viable on many more sites. Wherever a community energy scheme operates, local consumers have an additional option for their electricity supply. And a local energy supply is materially different from the tariffs available from the ~60 national licensed energy suppliers. A greater profusion of community energy schemes would therefore give more consumers a greater and more varied choice, spurring competition. So, there is a clear link to the BSC objective of "promoting effective competition in the generation and supply of electricity". Reducing network reinforcement costs Creating/clarifying an incentive to match generation and demand at a very local level has the potential to improve electricity system balancing efficiency and reduce network reinforcement costs. This links to the BSC objective of "efficient, economic and co-ordinated operation of the national electricity transmission system". Such local balancing is important now, and will become increasingly important with rising electrification of heat and transport.

Respondent	Response	Rationale
		Reducing ambiguity that blocks low-carbon investment Allowing the totalisation of distributed generation and consumption under one MSID would remove a barrier to the wider roll-out of solar generation, storage, and other low carbon technologies. It would do this by removing ambiguity in the current arrangements that make it harder to be certain of the potential returns from the installation of such assets. This uncertainty can curtail investment, as investors including major infrastructure funds require predictable returns to be able to allocate their capital. Creating incentives that boost low-carbon investment As is clear from the Octopus Energy/Energy Local example given in the RFI, smoothing the process for consumers to buy local energy gives them an incentive to invest in nearby low carbon generation and storage. This is true for non-domestic consumers, as well as the domestic ones mentioned in the example. Our business works with housing companies who invest in low carbon assets and provide energy to their residents, and this is described in more detail in Question 5
Energy Local CIC	Yes	Allowing the netting of generation (export) and demand (import) enables schemes that: a) Incentivises consumers to balance the local network and manage voltage rise and drop within statutory limits. If consumption shifts to coincide with generation then there are fewer instances of high voltage, when generation is high and demand is low or low voltage when generation is low and demand is high. This reduces network strain and the need for reinforcements, bringing overall system benefits, as well as benefits to the communities involved. This is in line with the Ofgem BEIS Smart Systems Flexibility Plan, which calls for DNOs to implement innovative techniques and explore market-based solutions as alternatives to network reinforcement. Note we are working with a DNO on a NIA project and have an InnovateUK funded project investigating how communities can participate in flexibility contracts via this mechanism.

Respondent	Response	Rationale
		b) Opens up a new form of domestic demand side response and means to run networks more efficiently as DNOs are being encouraged by Ofgem and BEIS to facilitate under the their joint Electricity Flexibility Programme. c) Supports local renewable generation and decarbonises the electricity network, an Ofgem priority. It provides value for money and increased income to generators in a subsidy free manner. d) Reduces the risk of spill into SVA by encouraging matching of local consumption to local generation output and reducing the risk of imbalance by encouraging shifting from peak times of usage to help manage the power market nationally. This helps with Applicable BSC Objective D, promoting efficiency in the implementation and administration of the balancing and settlement arrangements. e) Encourages new entities into the market to give consumers greater choice and increase competition, whilst maintaining the supplier's role in providing customer care and license responsibilities, which is in line with Ofgem's priorities. f) Helps promote Applicable BSC Objective C of promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity Overall continuing to allow netting of generation and demand in complex sites, supports Elexon's aim for a flexible, low carbon energy system. As per previous legal advice from Elexon netting of import & export within a complex site is currently not prohibited. We have developed the Energy Local clubs, with both generators and consumers on this basis. Under Energy Local consumers pay a

Respondent	Response	Rationale
		lower rate for their power if they use it at the same time as the club generator is producing power (this power is netted); however, the generator receives more for this "matched power" than they would under a standard PPA Energy Local is an innovative approach to enabling new renewables. We are working with DNOs, BEIS, universities and innovative tech companies to develop our basic model further: incorporating automation to maximise the local balancing from the club as a whole and exploring ways in which the Energy Local model could be used as part of new connection agreements to allow new renewable generation on parts of the network that might otherwise be unable to support them without expensive upgrades.
Flexitricity Limited	Yes	-
IMServ Europe Ltd	Yes	From a HHDC perspective, we are unsure how a site would qualify under 'clearly defined circumstances', nor how a HHDC might know this. In reality, if we receive a D0268 from a HHMO that indicates a site is Complex and a form that instructs us to net, this is what we do and data submitted by us would reflect that. Therefore the concept of 'allowing' this is irrelevant to us as HHDC. We believe we have a number of MPANS settling under such an arrangement at present. The limited volume of such MPANs does mean the process can be handled using Complex forms but it would not support significant growth. Should this happen, a much more efficient, robust approach would be required with greater consistency across parties. As HHMO, how the site would be treated would be based on the customer and Supplier's requirements and would be considered via site survey activity. The current applicable rules would have to be considered by the HHMO at this point. We would have great difficulties in supporting much larger volumes both as HHDC and HHMO without a revised approach i.e. move away from the paper based forms or use of spreadsheets. The implications of the effect of new rules need to be

Respondent	Response	Rationale
		carefully considered in light of the practicalities of administering a potential much larger volume of sites and what this places on Agents.
Octopus Energy	Yes	We are enabling the Energy Local scheme as this supports local communities to develop local renewable generation.
Salient Systems Ltd	Yes	Where same supplier to all consumers, same metering agents, dispensations or agreements exist regarding network losses and network charges. All consumers and the generator have own individual MSID, all MSID's are member of CS group of Msid's. Rules for applying adjustments to metered consumptions at MSID's are transparent and auditable.
Scottish Power Commercial Metering	Yes	Allowing netting would make the use of local energy schemes more attractive to potential clients and potentially increase the amount of Renewable energy sources being installed and utilised.
South Denbighshire Community Partnership	Yes	We have been working on how we can benefit our members to tackle fuel poverty, get more value from our local generation and provide an incentive to support the local network. We work with our local DNO to help reduce network costs. In a post subsidy world, this is important for use to continue to contribute to decarbonisation.
SMS Plc	Yes	We believe that this should be allowed, local energy schemes as described in the RFI are presumably going to become increasingly common with the move towards a smarter energy network. This would better enable Supplier Agents to trade the settlements data linked to local energy clubs using a clearly defined process and increase the accuracy of the settlements data submitted against the Import/Export supplies. Further realising the benefits brought by the installation of Smart meters.
SSE Energy Supply Limited	Yes	We believe that allowing netting of Exports from Imports in the circumstances defined should be allowed as it encourages innovative solutions to be developed.
Stark	No	The local energy schemes introduce some different parameters & as the circumstances require being clearly defined, it would be better served by having specific rules & criteria for these arrangements; many of which are in development & evolving.

Respondent	Response	Rationale
		Many these allowances would add complications, especially as it would, potentially prove difficult to determine the "clearly defined circumstances".
The Green Valleys CIC	Yes	Small scale renewables have a huge role to play in the Governments decarbonisation plans. These are achievable for householders, farmers and community groups. As there are no longer any subsidies, it is essential that these schemes can maximise income when scale is not possible. Any and all mechanisms allowed across the energy supply/market are to be welcomed and are essential. Many communities in National Parks and AONBs have higher than average carbon footprints and anything that enables consumers to connect with, and benefit directly from renewables is important as this will generate support for the installation of renewables in protected landscapes. Through our work with communities we often explain the need for local network balancing. While this is understood, few will take the personal responsibility needed to reduce peak demand without some benefit/incentive to do so. Any regulatory mechanism that enables consumers more choice on how/when they use electricity should be allowed.
TMA Data Management	Yes	Yes, the BSC should continue to allow the netting of Exports from Imports. The process of netting has been worked out carefully alongside Energy Local and all relevant industry parties were consulted along the way including Elexon, DNOs, BEIS etc to ensure that all parties were happy with the proposed process. Continuing to all the netting of generation and demand provides the following benefits: a) Encourages customer to shift demand in line with generation there reducing the demand on the grid as under the Energy Local scheme the customer would pay a lower rate for consuming at a time of peak generation. b) Under the Electricity Flexibility Programme which is encouraged by Ofgem and BEIS this would allow a new form of domestic demand side response. c) Supports local renewable generation as under the scheme with Energy Local they receive more than they would under a standard PPA.

Respondent	Response	Rationale
		d) It also helps promote effective competition in the generation and supply of electricity, enhancing competition.

Question 4: Do you think it is necessary to define 'site' in the context of SVA to add clarity to the existing Complex Site arrangements as described in BSC Procedures?

Summary

Yes	No	Neutral/No Comment	Other
16	1	1	0

Responses

Respondent	Response	Rationale
Carmenthenshire Energy	Yes	-
Community Energy England	Yes	Due to the additional benefits that are brought by small-scale and a sense of use by the local community.
Dorset Community Energy Limited	Yes	It is important to keep it small-scale with sense of use by the local community. There is currently a high level of innovation in countries where Complex Sites allow local trading of renewable electricity. For example in Western Australia there are pilot projects to enable householders with solar PV to rent storage in a utility-funded community battery connected to the same substation and have the power back in the evening. https://westernpower.com.au/faqs/community-batteries/community-batteries/
EDF	N/A	-
E.ON Energy Solutions Ltd	Yes	The lack of a clearly defined site definition for SVA arrangements may have led to confusion as to what a site is and may have led to several sites that have complex site arrangements in place that may not be necessary but provide a commercial advantage due to individual market participant interpretation of what a site constitutes. We feel that has been compounded over time by several factors, such as interrupting the CVA site definition as applicable in the SVA market along with a historical lack of definitions associated to network charging. As Part of Ofgem's Targeted Charging Review direction site definitions have been created for

Respondent	Response	Rationale
		network charging purposes via DCP 359 & CMP334 which are specific to network charging, removing previous ambiguity. eon believes that a SVA site definition can be clearly defined what is specific to the required settlement arrangements.
Emrgnt Systems Ltd t/a Emergent Energy	No	Generally, the most beneficial situation is to have clear and consistent definition of all terms across all codes, regulation, and legislation. However, to fully realise the benefits described in this response the definition of a 'site' in the BSC should align with the definition of a 'site' in the Electricity Class Exemptions, as these are commonly used by local energy schemes. We know many schemes operating under these exemptions, which we also use. Unfortunately, the definition of 'site' in the Class Exemptions is widely regarded as ambiguous. The best approach would be to invite BEIS to clarify the Class Exemptions, and then update the BSC to reflect the legislative definition of 'site'. In the meantime this existing definition seems adequate: *(iii) any combination of one or more Generating Plants and/or sets of premises which may, in the CDCA's reasonable opinion (having regard, among other things, to their physical proximity), be considered to be managed as a single site; or*
Energy Local CIC	Yes	A "site" should be limited to where all meter points are on the same part of the network, at the very least beneath the same primary substation (i.e. not either side of a normally open point) and connected at 11kV or LV. The line loss factors should be the same or a limited range of generic line loss factors (to facilitate a complex site between 11kV and LV on weak networks. As discussed above, the benefit of allowing netting within a complex site is that it incentivises local balancing reducing the need for reinforcements at other parts of the distribution network or the transmission network. If there is no geographic or network limitation to what can be considered a site, then it would reduce the benefit to the system overall.
Flexitricity Limited	Yes	The current lack of clarity may be enabling differing interpretations between suppliers. Clarifying the definition of a site may be important in the context of a domestic customer's 'right to switch' from behind a private wire site.

Respondent	Response	Rationale
IMServ Europe Ltd	Yes	Additional clarity is always a good thing and may be useful some cases.
Octopus Energy	Yes	Defining 'Site' will clarify where schemes such as Energy Local are viable.
Salient Systems Ltd	Yes	CS definition should focus upon being able to support/confirm the integrity of a set of proposed 'adjustments' to metered data entering settlement from across a group of MSID's that are viewed together as a Complex Site. If the adjustments proposed and active energy quantities provided together to settlement reflect accurately the 'balance' across the CS as a whole then fine. Gives some flexibility so that geography may be argued as not necessarily critical criteria. Removes confusion around netting/grossing – replaced by requirement to be able to illustrate that an adjustment action makes sense to overall settlement view of what's happening at site, irrespective of netting of grossing going on.
Scottish Power Commercial Metering	Yes	This would remove the current ambiguity and be of benefit to all. It would also allow the MOA and DC/DA to potentially see all the "site" metering point information, as they would be appointed to them. The current situation means that there can be metering points within the "site" which the agents are not appointed to, so validation of the complex mapping is difficult as there are unknown factors.
South Denbighshire Community Partnership	Yes	We want to maintain sense of use by our local community and thus limit the size.
SMS Plc	Yes	Defining the word 'site' would beneficial, either staying with the word site to mean all types of Complex Sites (single sites or contiguous sites) or adding an additional term to account for multi-'site' Complex Sites.
SSE Energy Supply Limited	Yes	We believe that the meaning of and understanding around what is a complex site has become blurred, and that a definition of a complex site would provide clarity around this issue.
Stark	Yes	Currently definition of 'Complex Site' in respective BSCP's is; "any site that requires a 'Complex Site Supplementary Information Form' to enable the HHDC to interpret the standing and dynamic Metered Data relating to SVA MS for Settlement purposes to be provided to the

Respondent	Response	Rationale
		HHDC in addition to the D0268 'Half Hourly Meter Technical Details'. Within this definition further specific definition of "Site" is important as it can have different meanings. An example of this occurred during BSC modification P395 "Aligning BSC Reporting with EMR Regulations-an enduring solution" where repeated reference was made by proposer to "Complex site" arrangements which were meant in a separate context. It was mentioned in the associated document that definitions refer to "Metering system" arrangements; this is not explicit enough itself, & however is where the definition should focus, as "Metering system" is clearly defined in the BSC & is at the core of difficulties faced by MOP & DC agents. There is currently large scope for improvement in determining the criteria that can be commonly understood for setting up the metering system arrangements correctly such that Settlement values are accurate. With reference to questions 1-3 there is also a distinction to be made between Operational definitions & more Commercial definitions.
The Green Valleys CIC	Yes	Our community focused work relies in consumers working together within a geographic area they recognise and is manageable for them to understand and see the benefits.
TMA Data Management	Yes	It would be a good idea however as this is a new area, there will be scenarios which we cannot predict therefore we will need to allow flexibility and updates to be added quickly.

Question 5: Are you aware of any other scenarios (outside of those described in the RFI, or in the proposal form) that may be relevant to Complex Site arrangements (in relation to the content of this RFI) and should be considered by the Issue 88 Workgroup?

Summary

Yes	No	Neutral/No Comment	Other
0	4	8	6

Responses

Respondent	Response	Rationale
Carmenthenshire Energy	N/A	-
Community Energy England	N/A	-
Dorset Community Energy	N/A	-
EDF	N/A	-
E.ON Energy Solutions Ltd	Other	E.ON believes that it would be prudent to consider if any of the licence exempt supply scenarios can be appropriately facilitated in the BSC through Complex site arrangements. One such scenario is that Licence exempt supply allows for 33% of generation output to be shared through remote supply, which could be facilitated through a complex site arrangement albeit there is also an argument that calculation widened beyond a site and expanded as far as to within a GSP group.
Emrgnt Systems Ltd t/a Emergent Energy	Other	As mentioned above, Emergent Energy provide and operate microgrids for housing companies. Today, each microgrid includes a combination of heat pumps, solar PV, and energy storage, based around an electricity private wire network. All our existing clients are councils, and we all share a motivation to make renewable energy affordable to all, including people who live in social housing and would not have the capital to make an up-front investment in solar or batteries. Our model enables housing companies and investment funds to install low-carbon assets and recoup their investment by selling energy to residents while keeping prices low. A licensed supplier provides

Respondent	Response	Rationale
		electricity to the boundary meter for the private wire network, while all residents are provided with electricity under the licence exemptions. If you would like more detail on how we would plan to use this change we would be happy to discuss in, but this would need to be commercially confidential.
Energy Local CIC	N/A	-
Flexitricity Limited	Other	Flexitricity can provide an example of a private wire site providing balancing services with an asset behind a complex site MPAN. The site is also looking to extend to domestic customers, and is facing barriers created by complex site arrangements under consideration by the Issue Group.
IMServ Europe Ltd	Other	See question 8
Octopus Energy	N/A	-
Salient Systems Ltd	Other	We are particularly interested in the value that CS treatment is capable of bringing to the issue of assuring, validating and improving the accuracy of behind the meter generation contributions to opportunities at the Balancing Mechanism. CS has role to play to bring increased competition and flexibility to consumers at private networks, multi-occupancy and housing association situations.
Scottish Power Commercial Metering	No	-
SSE Energy Supply Limited	No	We are not aware of any other scenarios.
Stark	Other	Other issues: The example in the latest Issue 88 document may not cover all the possibilities. The suggested Strawman isn't fully helpful for DC's collection issues/ fault investigation timeline, but more for reference (as HHDC point of view).
SMS Plc	N/A	-
South Denbighshire Community Partnership	N/A	-

Respondent	Response	Rationale
The Green Valleys CIC	No	-
TMA Data Management	No	No at this moment however there will be more as this progresses.

Question 6: Do you believe the current estimation techniques are clear and robust enough to allow appropriate estimation to be applied in the case of Complex Sites? How do you currently apply estimation techniques in the case of Complex Sites?

Summary

Yes	No	Neutral/No Comment	Other
5	3	10	0

Responses

Respondent	Response	Rationale
Carmenthenshire Energy	N/A	-
Community Energy England	N/A	-
Dorset Community Energy	N/A	-
EDF	N/A	-
E.ON Energy Solutions Ltd	No	We believe that Suppliers and HHDCs often need to seek assistance and clarity on the best to address data estimations within Complex site calculations. Whilst we feel more clarity on the current estimation techniques is welcome, we feel that the problem encountered largely stem from the data estimations techniques for export as outlined in question 7.
Emrgnt Systems Ltd t/a Emergent Energy	N/A	-
Energy Local	N/A	-
Flexitricity Limited	N/A	-
IMServ Europe Ltd	Yes	Where the HHMO has informed us that a channel within an outstation is recording Active Export energy, we will use the estimation techniques appropriate for an Export Metering System (BSCP502, Section 4.2.2), while for import channels we will use the methods appropriate to Import Metering Systems (BSCP502 Section 4.2.1).
Octopus Energy	N/A	-
Salient Systems Ltd	No	Our systems currently follow BSC estimation policies. AE at a CS would be estimated to zero even if actual consumption values at some meters that

Respondent	Response	Rationale
		contribute to the AE going to settlement were available.
Scottish Power Commercial Metering	Yes	We currently apply the estimation techniques as per the relevant BSCP.
SMS Plc	Yes	The estimation techniques are clear to follow but are not particularly robust where a (non-netting/non-totalising) Complex Site is concerned; using the trend of previous actual data would be the most accurate, however, it will not consider variants which could mean an increased export output and therefore a reduced import or vice-versa.
SSE Energy Supply Limited	Yes	We believe that this information should be provided by data collectors who are the parties responsible for applying estimation techniques.
Stark	No	The BSCP states the different estimation rules for an import metering system and an export metering system. What is the definition of a metering system in this context? Is an import metering system an import MPAN or is it only referring to the import channels on a meter (that might also be programmed for export)? E.g. When a complex MPAN where HHDC collects both AI/AE from a meter, what estimation the BSCP is saying should be put into place (most notably AI on an export MPAN, but also AE on an import MPAN). For the simplified Complex Site scenario showed in the Issue 88 RFI document, HHDC do see settlement inaccuracies from time to time as a result of estimated zeros being put into place on an import MPAN where we are missing export data, based on the existing BSCP502 guideline - The Export MSID is estimated to zero; the Import MSID is estimated either to trend using historical data (where possible) or using an EAC. However, we also see such inaccuracies on export MPANs because of putting zeros in place instead of either/both import/export data. There should a clear estimation guideline specifically for complex site to clarify the following: i/ Irrespective of whether the Complex Mpan is Import or Export, if a meter stops remotely collecting where the AE measurement quantity is required as part of the mapping, how should we estimate that meter? Ii/ Is the answer to the above different if the Mpan is import or export. The 88 RFI document also references using an EAC but it is unclear how an EAC should be applied for a complex MPAN e.g. if HHDC have data from all

Respondent	Response	Rationale
		meters but one, and have never collected any actual data from that one meter (meaning unable to use surrounding actuals), how could an EAC be applied given that it can't be split between each feeder like on a non-complex MPAN?
South Denbighshire Community Partnership	N/A	-
The Green Valleys CIC	N/A	-
TMA Data Management	Yes	Yes, we believe this is currently fit for purpose. We use historic data to carry out the estimations.

Question 7: Do you believe it is appropriate to estimate Export Metering Systems to zero, as is currently required under BSCP502?

Summary

Yes	No	Neutral/No Comment	Other
3	4	10	1

Responses

Respondent	Response	Rationale
Carmenthenshire Energy	N/A	-
Community Energy England	N/A	-
Dorset Community Energy	N/A	-
EDF	N/A	-
E.ON Energy Solutions Ltd	No	In our experience export data, the best choice of data estimation on export metering system is often derived by the type of generation asset associated to the metering system, these have previously been referred too as intermittent and non-intermittent generation. For example, export volume is generated from a wind or solar farm can vary within a HH period due to weather variables so deriving the estimations could be widely inaccurate without considering such local factors, however a CCGT that produces consistent power outputs could use the surrounding data profile ad estimate with a high degree of accuracy. Therefore, a review of the current BSC estimation techniques to confirm sites that have consistent generation data, this would need to include capabilities within the data estimation process to ensure that only non-intermittent generation is estimated without the default to zero settlement period values.
Emrgnt Systems Ltd t/a Emergent Energy	N/A	-
Energy Local CIC	N/A	-

Respondent	Response	Rationale
Flexitricity Limited	N/A	-
IMServ Europe Ltd	Yes	We believe this triggers the right sort of behaviour from end customers, Suppliers and HHMOs – such as promptness of action to resolve issues, consideration of back-up metering, focus of attention so doesn't get lost. Allowing data to be estimated where no evidence exists would be contrary to this and could encourage 'gaming'. Further, historically, values of generation has been more unpredictable than supply, making the use of historic values less likely to be correct. Having said that, a case could be made that in future, export data might become more predictable under circumstance such as EV discharging to the grid any excess charge, so this might be one to revisit in the future.
Octopus Energy	N/A	-

Respondent	Response	Rationale
Salient Systems Ltd	Other	Where the MSID active export consumption accurately measures the export from a discrete asset or set of assets (rather than has been adjusted through CS for example) then yes, any absence of actual data at the HHDC should be estimated at zero. The legitimate expectation is that the Supplier (and DC on behalf of Supplier) will raise investigation processes with the MO to correct any problems at the meter and the Supplier (or MO, or MO and Supplier) will if desired provide replacement generation data (that can be verified/supported as accurate) to the DC to overwrite estimates. In the Suppliers interest to follow this process. Risky for the DC (and settlements) to assume that some generation was going on at site without any other data available to perhaps encourage such liberal view and estimate as per AI policies. At CS situations where active export energy entering settlement is adjusted metering data and those adjustments have been derived from a number of other meter/reg/MQ combinations at the CS then it may be appropriate to estimate to non-zero. Parameters including the historic profile of the MQ entering settlements, adjusted by current profile available at some, but possibly not all, of the meter/reg/mq consumptions that make up the adjusted export value entering settlements, could be used together to provide a non zero estimated value – of benefit to Supplier inbalance cash flows until metering problems are corrected.
Scottish Power Commercial Metering	No	The current requirement to estimate as zero disadvantages customers, as has been highlighted during the Covid period and this anomaly might well be manifest in group correction; especially if sites have continued to generate despite the reportedly dramatic drop-off in load. We would appreciate Elexon's views on this as you will have access to the data to confirm the impact.
SMS Plc	No	As you have noted in the RFI, many Complex Site scenarios have some form of netting or totalising, as such, estimation to 0 would be required. This would not truly reflect the happenings at site and can cause more issues when the actual data is recovered.

Respondent	Response	Rationale
		With the increase in Export MPANs being registered and utilised, a review of this rule would be beneficial.
SSE Energy Supply Limited	Yes	Over estimating export output could lead to advantages being gained and having zero estimates incentivises suppliers to correct any issues leading to estimates being necessary and so helps more actual readings enter the settlement systems.
Stark	No	A clearer guideline would be required for the following issues: A meter on a complex MPAN where we collect AI as well as AE. The definition of an export metering system, is it just the export channels on a meter, or is it all channels on a meter on an export MPAN? Putting zero estimation onto either AI or AE on either an IMP or EXP MPAN can cause estimation that is completely out of line with surrounding data.
South Denbighshire Community Partnership	N/A	-
The Green Valleys CIC	N/A	-
TMA Data Management	Yes	The issue estimating non-zero data is regarding the type of the generation and the consistency of the data. For example a wind farm would not have consistent generation and in order to estimate, weather forecasts etc would be required and each agent would need complex systems drawing on countless data sources just for estimation.

Question 8: Do you experience any other issues, not described in the paper, with the management of Complex Sites? If so, please describe

Summary

Yes	No	Neutral/No Comment	Other
5	4	8	1

Responses

Respondent	Response	Rationale
Carmenthenshire Energy	N/A	-
Community Energy England	N/A	-
Dorset Community Energy	N/A	-
EDF	N/A	-
E.ON Energy Solutions Ltd	Yes	The interpretation of a complex site and how it can be used on a site to site basis needs to be to be clearer, for example feeder status changes carried out by the customer that occur without letting the MOA / DC know can be problematic and often result in changes to complex site post investigations.
Emrgnt Systems Ltd t/a Emergent Energy	Yes	We have considered using the complex site arrangements in the past. They seem highly bureaucratic and process heavy for the types of small sites (e.g. a block of 40+ flats) we sometimes work on.
Energy Local CIC	N/A	-
Flexitricity Limited	No	-
IMServ Europe Ltd	Yes	1) From a HHDC perspective, it is detrimental to the process to not consider the registration of all metering assets that contribute to an algorithm of a single MPAN under that MPAN. Each MPAN should be able to stand on 'its' own two feet' and not rely on metering details registered under a completely separate MPAN, otherwise this increases the interdependencies between multiple MPANs and thus increases the risk to Settlement.

Respondent	Response	Rationale
		Having said this, this may be difficult for HHMOs to support without system changes so we accept that the overall worth of this approach would have to be considered before making any change. 2) Feeder status changes should trigger a new mapping form in all circumstances, this doesn't always happen and leaves the HHDC to imply what the mapping should be and to proactively track the changes in status. This seem contrary to BSCP requirements and places questionable responsibility on the DC. 3) It would also make sense for Complex sites to be subject to targeted TAA visits to ensure they're correct. HHMOs can be put under a lot pf pressure from customers to implement what they have requested (regardless of whether it's legitimate).
Octopus Energy	N/A	-
Salient Systems Ltd	Other	Would benefit from a separate Elexon discussion/illumination paper, perhaps as a result of this issue group, to highlight more examples of 'standard' and more innovative application of CS mechanisms, including consequent issues arising and mitigations etc.
Scottish Power Commercial Metering	Yes	The format and lay out of the Complex Site Supplementary Information Form as per BSCP 514/8.4.8a is difficult to work with. Consideration should be given to changing the format to make it easier to complete.
SMS Plc	N/A	-
SSE Energy Supply Limited	No	-
Stark	Yes	Appointment issue where the associated MPANs in the supplementary document don't have the same MOP or same HHDC at the point of the complex site becomes effective. There is no information of the complex site effective date provided in the supplementary documents. Often HHDC needs to clarify/confirm with MOP separately. Supplementary document contains unnecessary details for HHDC (e.g. CT ratio; PM; meter register

Respondent	Response	Rationale
		constant etc. Such information is already received in the D0268 flow). MOP unable to provide a full MTDs on the complex site MPAN to include all MSIDs required in the supplementary doc. The current MRA does not define the mandatory requirements for complex site in the D0268. MOP advised the MTD/ mapping document was incorrect due to error made from previous MOP. DC believe MOP should validate the details received from previous MOP (general D0268 and Complex site) before issuing to the current DC. Unclear about how re-active channels should be set up in the IMP or EXP complex site (e.g. Should all measurement quantity displayed in complex site D0268 or should they be unassigned?). Supplier obligation awareness: Supplier should have discussion with the customer and aware of the complex site status as they have obligation to manage and monitor the settlement data. Supplier should realise that if DC hasn't got mapping doc then supplier can't have actual data. Instant settlement performance impact where Complex site contains multiple meters and the associated (noncomplex) MPANs have NOCOMMS. In order for a HHDC to collect the data and manage a Complex site MPAN efficiently, the following would be required for HHDC: A complete registration process (where DIST, Supplier should communicate with customer and aware of complex site). Standardized supplementary doc including the complex site effective date. The same agents (MOP and DC) should be appointed prior to receiving the MTDs and supplementary documents. Full MTDs with associated meter in the supplementary doc and reliable comms for consistent actual data collection. A clear Estimation section for Complex site in the BSCP502.
South Denbighshire Community Partnership	No	-

Respondent	Response	Rationale
The Green Valleys CIC	N/A	-
TMA Data Management	No	-