

DCP 287 Collated Consultation Responses

Company	Confidential / Anonymous	1. Do you understand the intent of DCP 287? Please provide your rationale	Working Group Comment
ADE	Non-Confidential	Yes, we understand the intent of DCP 287	Noted.
Electricity North West	Non-confidential	Yes.	Noted.
Northern Powergrid	Non-Confidential	Yes.	Noted.
SmartestEnergy	Non-confidential	Yes	Noted.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	Yes.	Noted.
SP Distribution/SP Manweb	Non-confidential	Yes we understand the intent of DCP287.	Noted.

UK Power Reserve	Non-Confidential	Yes, UK Power Reserve understands the intent of DCP 287. We support the proposal to include credits for the avoidance of costs on behalf of the DNO relating to transmission exit charges, direct costs, indirect costs and network rates in the calculation of credits for embedded generation in the EDCM.	Noted.
UK Power Networks	Non-confidential	Yes, we understand the intent of this change is to consider other costs in the calculation of credits for generators in the EDCM.	Noted.
WPD	Non-confidential	Yes	Noted.
The Working Group noted that all respondents understood the intent of DCP 287.			

Company	Confidential / Anonymous	2. Are you supportive of the principles of DCP 287? Please provide your rationale	Working Group Comment
ADE	Non-Confidential	We support the principles of DCP 287. We believe generation should be rewarded for offsetting costs associated with exit charges, direct costs, network rates and any indirect costs that vary with demand. This is not the case under the current arrangements.	Noted
Electricity North West	Non-confidential	Yes, we support the principle that a consistent approach should be applied to both EDCM and CDCM generation customers. However, the approach chosen should be the one that best meets the DCUSA objectives.	It was agreed that any change would need to better facilitate the DCUSA Objectives.
Northern Powergrid	Non-Confidential	We are supportive of the principle of providing cost reflective Use of System tariffs to generators, reflecting both the costs they impose on, and benefits which they bring to, the DNO. We have not yet seen sufficient evidence that DCP 287 would result in this principle being better achieved.	The Working Group agreed that this would need to be drawn out in the second consultation and sufficient evidence would be required to support this.

<p>SmartestEnergy</p>	<p>Non-confidential</p>	<p>We are supportive to some extent, though we note that the proposer already identifies that there is an industry mechanism which provides access to transmission exit credits and this would need to be revisited if credit is additionally being given through DUoS.</p> <p>We have concerns that the change proposal implies a greater degree of clarity than may actually be the case about being able to allocate network costs; indirect costs, by their nature, have a more intangible relationship to generation.</p> <p>Additionally, we are concerned that an increase in DUoS credits for existing EDCM generators would ultimately be paid for by higher charges to consumers and not by reductions to DNO allowed revenues. If the proposal is implemented, we would suggest it would be more appropriate for the existing arrangements to be grandfathered for existing plant (i.e. additional credit only given to new build plant), as the existing generators made their investment decisions based upon the charging regime that was in existence at the time.</p>	<p>It was noted that the reasonings as to why the status quo is not appropriate needs to be made clear.</p> <p>The Working Group agreed that it is required to ensure that each aspect is understood in order that such a credit is acceptable to the industry.</p> <p>The Working Group noted that this will be born out upon completion of the impact assessment on the tariffs. It was also noted that a grandfathering arrangement would create a distortion in the market.</p>
<p>Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc</p>	<p>Non-confidential</p>	<p>No.</p> <p>We do not believe there is enough evidence within this consultation paper to support all of the stated benefits of embedded generators. We agree with the current approach that credits are applied based on the ER P2/6 assessment.</p>	<p>The Working Group agreed that it is required to ensure that each aspect is understood in order that such a credit is acceptable to the industry.</p> <p>It was also noted that this proposal does not seek to make amendments to the P2/6 arrangements and that the Working Group understands that they are happy with the current approach within the EDCM for applying credits.</p>

SP Distributio n/SP Manweb	Non- confidential	Yes, however it would need to be demonstrated that the generators are providing benefits i.e. offsetting spend.	The Working Group agreed that it is required to ensure that each aspect is understood in order that such a credit is acceptable to the industry.
UK Power Reserve	Non- Confidential	<p>UKPR is supportive of the principles of DCP 287 and agrees with the need to better reflect the full costs savings that can be attributed to embedded generation.</p> <p>33kV connections provide the same benefits to the system as the lower voltage connection. Therefore, the EDCM should reflect the methodology used in the CDCM, so that the DNO charge/credit system would become truly cost reflective and would guarantee a level playing field.</p> <p>In particular:</p> <p>On Transmission Exit Charges: it should be recognised also in the EDCM that embedded generators contribute to offset demand at the GSP, therefore reducing the need for future reinforcement at the GSP.</p> <p>On Direct Costs: UKPR supports the proposal to award additional credit to EDCM embedded generators for the avoided direct costs associated with increased infrastructure that may have been required should the embedded generators be not connected to the DNO network.</p> <p>On Indirect Costs: aligning the EDCM to the CDCM is necessary to guarantee a level playing field between embedded generators that have</p>	<p>The Working Group noted that at present, 33kV generators are not as prolific as LV generators. As such, there is less diversification at the 33kV level. The Working Group need to assess whether generation credits can be applied under certain criteria.</p> <p>These four points will be discussed during the questions below.</p> <p>Pilot analysis to be undertaken to overlay EDCM generation at each GSP with units entering the DNO network at that GSP.</p>

		substantially the same impact on the network, although at different voltage level. On Network Rates: UKPR recognises the need to amend the methodology of Charge 1 to reflect the avoidable costs for DNOs.	
UK Power Networks	Non-confidential	We can understand the principles behind the change, but we feel it needs further work to be undertaken to fully justify and support these principles.	Noted.
WPD	Non-confidential	Yes	Noted.
Ahead of the next consultation, justification for each of the four elements will be developed and included within the consultation document, outlining what the status quo is and why this change is better or worse in respect to Transmission Exit Charges. Additionally, it will be considered whether there are any conditions that must be applied in regard to the application of generation credits, including justification as to why the discrepancy between EDCM and CDCM is appropriate.			

Company	Confidential / Anonymous	3. Can parties provide any documentation to support why the EDCM does not apply credits (apart from transmission exit credits for qualifying generators)?	Working Group Comment
ADE	Non-Confidential	We have no additional information regarding this.	Noted.
Electricity North West	Non-confidential	No.	Noted.
Northern Powergrid	Non-Confidential	We have no further information to provide in this area than that which has already been provided to the Working Group. We would suggest that the Working Group focus on justifying the change against the DCUSA objectives rather than looking for historic reasons why the methodology is as it is.	Noted.

SmartestEnergy	Non-confidential	We recall that there were discussions at the time as to the complexity of actually determining the extent to which EDCM embedded generation did actually offset costs.	Noted.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	Not aware of any.	Noted.
SP Distribution/SP Manweb	Non-confidential	No.	Noted.
UK Power Reserve	Non-Confidential	The lack of reasons as to why credits were not initially awarded to EDCM embedded generators is indicative of the fact that such credits should indeed have been considered since the beginning. Although credits for CDCM embedded generators are automatically included by default, and therefore did not require any further consideration, credits for EDCM should have been considered and calculated in an effort to create a level playing field between embedded generators at different voltage levels.	The Working Group noted that there are credits applied to Transmission Exit Charges under certain criteria. See UKPN response below.
UK Power Networks	Non-confidential	The EDCM does apply credits for applicable non-intermittent generation. This approach is similar to the approach used in the CDCM where credits reflect the off-set of the forecast forward looking reinforcement costs. Credits are not applied to intermittent generation as it was believed that intermittent generation on the EHV and 132kV network was not sufficiently persistent and also lacking in diversification or	Noted.

		enough individual sites to make a critical mass to be able to support the network enough to avoid the DNO needing to reinforce the network at that voltage level.	
WPD	Non-confidential	No	Noted.
The Working Group agreed that in the absence of supporting documentation as to the historical decisions made, this proposal would be measured against the DCUSA Objectives in its own right.			

Company	Confidential / Anonymous	4. Do you agree with the principle that EDCM embedded generators should receive a credit for offsetting transmission exit costs? Please justify your rationale.	Working Group Comment
ADE	Non-Confidential	Yes. Transmission exit charges recover the capital cost of building grid supply points. Embedded generation reduces the need to reinforce GSPs and effectively frees up spare capacity on GSPs which protects the network against future increases in demand that may occur. This is particularly important as we transition to a low carbon future with more EV and the electrification of heat load. Reinforcement at a GSP can be costly as it is not possible to just add a small amount of capacity. Generation, on the other hand, can free up small amounts of capacity which is a more efficient way of managing the system. Consequently, EDCM generators should be rewarded for offsetting National Grid exit charges.	The pilot analysis will overlay EDCM generation at each GSP with units entering the DNO network at the GSP.
Electricity North West	Non-confidential	We support this principle as the transmission exit costs are based on peak demand. This approach relies on peak demand being a true cost driver, and reductions in peak demand resulting in lower transmission costs over the long term.	Noted.
Northern Powergrid	Non-Confidential	No.	Clarification received from NPG: This ought to be Yes for

		<p>We believe that the existing means by which EDCM embedded generators can receive credits for offsetting reinforcement at the GSP is appropriate, and the difference between the CDCM and EDCM in this respect is justified.</p> <p>The number and variety of CDCM embedded generators gives rise to a high level of diversity, meaning that at the higher network levels (including the GSP), a certain level of generation output can be relied upon.</p> <p>The relatively small number of EDCM embedded generators means that this diversity is not as prevalent, and hence output from EDCM embedded generators cannot be relied upon to support the GSP unless the EDCM embedded generator in question can be relied upon to export at times of stress at the GSP, i.e. SGT outage conditions.</p>	<p>support, but only in specific scenarios.</p> <p>The Working Group noted that this is a NPG response, and there are other areas of the country where diversity may be sufficient to be of benefit to the GSP.</p> <p>It was noted that the current arrangements are for the DNO to have contracts in place for generators to protect the GSP at times of stress. There are instances where the generation capacity would meet the criteria, but no agreement is in place. To allow for additional credits, such a benefit is not guaranteed and would result in increased charges to demand customers. If this change proposal seeks to put this in place, justifiable reasons are required to support this.</p>
SmartestEnergy	Non-confidential	Yes, we agree with the principle that EDCM embedded generators should receive a credit to the extent that they do offset transmission	See above.

		exit costs. However, we believe the availability of this credit already exists	
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	We agree conditionally that EDCM embedded generators should receive a credit for offsetting transmission exit costs where they are deferring/avoiding potential reinforcements at the GSP. However this may not be the case where the customer is located in an exporting GSP group.	Noted.
SP Distribution/SP Manweb	Non-confidential	It would depend on the location, not all generators provide a benefit.	Noted.
UK Power Reserve	Non-Confidential	Yes, UKPR agrees with the proposal to apply transmission exit credits based on peak time exports. This solution would capture the peak shaving purpose of embedded generators, and the positive impact on the distribution network should be recognised. EDCM embedded generators should not be rewarded only in the circumstances of super grid transformers outage. This approach does not consider the real value of embedded generators and should be changed as the proposed legal text suggests.	Noted.
UK Power Networks	Non-confidential	We are supportive but only to generators who export during the supered period which is in line with the view of the working group. Our support however, does need to be considered with whether there is enough critical mass of generators to allow for any reinforcement needing to be avoided.	

WPD	Non-confidential	WPD agree with the principle that EDCM embedded generators could in the long run reduce future transmission exit charge but the extent of this needs to be fully understood. The amount of generation as a percentage of total network demand for each half hour varies greatly throughout the year.	Noted.
A question will be added to the second consultation document regarding Transmission exit charges at GSP level rather than across all GSPs.			

Company	Confidential / Anonymous	5. Do you agree that only EDCM embedded generators which are eligible for Charge 1 should receive credits for offsetting transmission exit costs? Please provide your rationale.	Working Group Comment
ADE	Non-Confidential	We believe that there is a case for both intermittent and non-intermittent generation to receive credits for offsetting transmission exit charges. As these costs are incurred at the highest voltage level (ie at the GSP), most generation flows are fully diversified at this point. Therefore, even intermittent generation such as wind provides some benefit to offsetting peak demand as part of a diverse portfolio of generation that sits below a GSP. The only case where this does not hold true is for intermittent generation that connects directly into a GSP or possibly, at the 132kV network level.	The Working Group agreed that a consultation question on eligible and/or non-eligible generation would be required.
Electricity North West	Non-confidential	Eligibility for charge 1 credits is based on the F-factor of a site. The F-factor gives a measure of persistence and is aligned to the engineering standard (P2/6) which determines the design of the network. We agree that only embedded generators that are able to offer a recognised level of persistence should be eligible for the credits as it is only these generators that provide a level of benefit that can be recognised in the construction and operation of the network and system as a whole, including the super grid transformers.	The Working Group noted that this would extend status quo.

Northern Powergrid	Non-Confidential	We believe credits for offsetting Transmission Exit Charges should only be given to EDCM embedded generators which can genuinely offset costs at the GSP. We do not believe sufficient evidence has been provided that all EDCM embedded generators which are eligible for Charge One credits do offset costs at the GSP; hence we favour the existing arrangements whereby those generators who do offset costs at the GSP (those with an agreement with the DNO to export during SGT outage conditions) receive credits for doing so and the remainder do not.	It was agreed that a pilot analysis will be undertaken by the Working Group to this effect.
SmartestEnergy	Non-confidential	Yes, system peak is aligned with the derivation of TNUoS charges	Noted.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	We agree with the current approach that EDCM embedded generators should receive credits for offsetting transmission exit costs based on the ER P2/6 assessment. If credits were provided to all EDCM embedded generators this could lead to the situation where the DNO would be providing credits to embedded generators but still be obliged to reinforce the network if it was not P2/6 compliant.	The Working Group agreed that a question will be added in the next Consultation as to whether it should be GSP specific.
SP Distribution/SP Manweb	Non-confidential	If proven that a generator eligible for Charge 1 will offset the demand during the Charge 1 then yes.	Noted.
UK Power Reserve	Non-Confidential	As Charge 1 represents costs associated with demand-led reinforcement, estimated by reference to power flows in the maximum demand scenario, we would in principle support this approach.	Noted.
UK Power Networks	Non-confidential	Yes, in line with the views of the working group, those generators who do not receive charge 1 credits should not be entitled to receive any	Noted.

		credits in relation to transmission exit costs, as they need to support the network at the time its required.	
WPD	Non-confidential	Not necessarily. We believe that more analysis needs to be done to understand the future reduction in transmission exit charges before answering this question.	Noted.
The Working Group agreed that the pilot analysis exercise being undertaken by Working Group members will provide evidence for this question, and a second consultation question will be added to clarify.			

Company	Confidential / Anonymous	6. Do you agree with the Working Group that the issue regarding exporting GSPs is out of scope? Please provide your rationale.	Working Group Comment
ADE	Non-Confidential	Yes. Exporting GSPs is an issue that needs to be addressed, but falls outside of the scope of this change proposal.	Noted.
Electricity North West	Non-confidential	Yes, we agree that this is a separate issue that is out of scope for this change. However, the issue of exporting GSPs remains relevant when considering the impact of the proposal against the objectives including cost reflectivity.	The Working Group agreed that from a Modelling perspective, the exporting of GSPs is out of scope of DCP 287.
Northern Powergrid	Non-Confidential	Not entirely. We agree that any change to the EDCM which establishes a different methodology for customers connected at exporting GSPs to those connected at importing GSPs is out of scope of this change. However, the Working Group cannot ignore the existence of exporting GSPs when looking to derive 'average' charges across DNO licence areas. Whilst the charges for EDCM embedded generators are site specific, the proposed approach to calculating an element of the super-red unit credit for offsetting Transmission Exit Charges is based on the average £/kW/year derived from the total expected Transmission Exit Charges in the year and the expected peak demand in the year. This	The Working Group agreed that the use of Charge 1 credits have an element of control as generators connect to export dominant areas of the network will have zero Charge 1.

		effectively assumes that every unit generated by eligible EDCM embedded generators offsets costs at the GSP, which is not the case at exporting GSPs. The Working Group should consider whether the 'average' credit calculated being based on all GSPs importing at all times is appropriate.	
SmartestEnergy	Non-confidential	We believe that exporting GSPs should be considered in the round of the proposal. Whilst not specifically being in scope of the DCP, a core part of the proposal is about the application of transmission charging. Industry needs to address the costs associated with exporting GSPs and not to take account of this now will mean that a) proposals to address the issue will be less likely to come forward and b) if and when they do the arrangements currently being proposed will need to be revisited. In essence, the change proposal has identified where embedded generators could pick up more benefit but excludes the issue of exporting GSPs which ignores where perhaps embedded generators should pick up more of the costs.	The Working Group agreed that there is a potential impact, however this falls outside the intent of the Change Proposal.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	We agree that the issue of exporting GSPs is outside of the scope of the DCP as the current methodologies assume demand dominated networks. However, we would like it noted that in Ofgem's decision on DCP137, they state that they 'support the underlying principle that, where generation drives reinforcement, it may not be appropriate for those generators to continue receiving credits, as they no longer provide the same benefit to the network'.	The Working Group agreed that this would not be the case if Charge 1 was used. This will be sense checked during the Impact Assessment.
SP Distribution/SP Manweb	Non-confidential	This can only be fully analysed by taking account of exporting GSPs too.	Noted.

UK Power Reserve	Non-Confidential	An exclusion should be considered on a case by case basis. Although the current methodologies assume the DNO networks are demand dominant, the future energy system might look very different from today's. We are already witnessing a range of natural geographical differences, which should be taken into account before excluding <i>a priori</i> certain elements, such as exporting GSPs, from the application of credits.	The Working Group believes that a further change proposal would be required to address exporting GSPs from a charging methodology perspective.
UK Power Networks	Non-confidential	Yes, we do not believe that this element is in line with the scope of this change and as such a separate DCP would need to be raised to address any potential issues with exporting GSPs.	Noted, and the majority of WG members agree.
WPD	Non-confidential	No. Embedded generation causing GSPs to export could increase transmission exit charges.	Noted.
The majority of respondents agreed with the Working Group's view that a different methodology for calculating charges for embedded generators connected to exporting GSPs is out of scope of DCP 287, but that exporting GSPs cannot be ignored when assessing the change proposal.			

Company	Confidential / Anonymous	7. Do you agree with the principle that that credits should be awarded to eligible EDCM embedded generators for avoided costs associated with direct costs, indirect costs and network rates? Please provide your rationale against each.	Working Group Comment
ADE	Non-Confidential	Yes, we believe that EDCM generators avoid costs associated with direct costs, some indirect costs and network rates. If these generators did not exist, there would be additional infrastructure required by DNOs. This principle is already taken into account when deriving credits using a powerflow approach. However, if there is less infrastructure in place, there is also additional savings on costs associated with this infrastructure such as reduced direct costs, lower network rates and less indirect costs.	Noted.

<p>Electricity North West</p>	<p>Non-confidential</p>	<p>Direct costs and Indirect costs.</p> <p>The analysis of the working group does not seem to support the hypothesis that the offsetting of demand by generators has an impact on these costs. However, the principles of the methodology suggest that these costs should be considered in the calculation of credits. We are undecided if such costs are avoided given the evidence available.</p> <p>Network rates.</p> <p>No, please see our response to question 11.</p> <p>We are concerned that the change document seems to suggest an approach that would compound the uplift in credits.</p> <p>The uplift should be: $1 + \text{DOCR} + (\text{INCR} \times 0.6) + \text{NRCR}$</p>	<p>The Working Group need to consider further justification.</p> <p>The Working group agreed with the amended calculation.</p>
<p>Northern Powergrid</p>	<p>Non-confidential</p>	<p>We agree with the principle that embedded generators should be awarded credits in instances where there is a genuine cost saving to the DNO.</p> <p>Careful consideration needs to be given to the balance between cost recovery (i.e. the DNO recovering the costs they will incur in the year) and forward looking cost reflectivity (i.e. the DNO giving cost signals to customers reflecting the long run costs associated with a change in customer behaviour). At present, the calculation of the charging rates for the elements in question (referred to as DOCR, INCR and NRCR in the consultation document) results in a precise proportion of direct costs, indirect costs and network rates being recovered from EDCM customers in the year. Further, as these elements are recovered through demand capacity charges, there is no forward looking cost signal given to demand customers to shift load. As these elements are being recovered from EDCM demand customers on a 'cost recovery' basis rather than giving a forward looking cost signal, we do not believe it be appropriate to give a cost signal to embedded generators for these elements.</p> <p>If the Working Group considers that it is appropriate to give a forward looking cost signal to EDCM embedded generators then it will also be</p>	<p>The Working Group agreed that demand changes are considered outside of the scope of DCP 287, however the intent of DCP 287 will be assessed against the DCUSA Objectives and it was highlighted that this change may negatively impact some of the DCUSA Objectives. It was further noted that the request to the DCUSA Modelling Consultant must be prescriptive, and the Working Group must ensure that the expected outcome of the model should be clear.</p>

		<p>necessary to give a forward looking cost signal to EDCM demand customers. The potential of an additional unit generated to reduce direct costs, indirect costs and network rates is fundamentally the same as the potential of a unit of demand reduction (at the same point on the network) to achieve the same cost reduction, and hence it is difficult to justify giving a cost signal to EDCM embedded generators but not to EDCM demand.</p> <p>Further, if the principle that EDCM embedded generators do reduce long run future direct costs, indirect costs and network rates is accepted, this will not result in an immediate decrease in these elements for the year in question when DNOs are setting charges. Hence the total revenue to be recovered from EDCM customers for these elements (based on the calculation of DOCR, INCR and NRCR) will not change, so if credits are awarded to EDCM embedded generators, an adjustment will be required to EDCM demand tariffs to make up the shortfall.</p>	
SmartestEnergy	Non-confidential	No. Please see answer to Q2	See response to Q2.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	We agree with the current approach that EDCM embedded generators should receive credits based on the ER P2/6 assessment. We do not believe there is enough evidence on the stated benefits of embedded generation within this consultation document to comment on the principle of awarding of additional credits for direct costs, indirect costs and network rates.	The Working Group agreed that as part of the second consultation, further evidence would be required to support Direct Costs, Indirect Rates and Network Rates.
SP Distribution/SP Manweb	Non-confidential	Yes but only if the avoided costs can be clearly identifiable.	The Working Group agreed that as part of the second consultation, further evidence would be required to support

			Direct Costs, Indirect Rates and Network Rates.
UK Power Reserve	Non-Confidential	Yes, UKPR supports the principle that eligible EDCM embedded generators should receive credits for avoiding costs to the DNOs. Such credits should reflect as much as possible the CDCM methodology and should take into account the fact that some EDCM contribute to network security.	The Working Group noted that
UK Power Networks	Non-confidential	No we do not, as we believe that in general these costs are not reduced as a result of generators being connected.	Noted.
WPD	Non-confidential	There is a theoretical link between embedded generators and reduced direct costs, indirect costs and network rates but it is very difficult to prove an actual link. This would be very important to do to ensure that the correct level of credits are paid to the generators.	Noted.
The Working Group agreed that a table to look at direct, indirect and Network Rates looking at the contents of the individual pots will be included in the second consultation.			

Company	Confidential / Anonymous	8. Which of the two options do you support? <ul style="list-style-type: none"> • Option 1 – amending the calculation for Charge 1 or • Option 2 – NUF? Please provide your rationale.	Working Group Comment
ADE	Non-Confidential	We support option 1. Option 1 would mean that credits become larger, where a generator is most benefiting the DNO (ie where charge 1 is high). Option 2 would enable all generators to receive a credit	Noted.

		regardless of the benefit they may bring to the DNO. This option is therefore not as cost reflective.	
Electricity North West	Non-confidential	Option 1, as this ensures that benefits are only applied when exporting at the time of system peak, and is applied only to generators that contribute to network security. It is most likely that the behaviour of exporting at system peak would give rise to the variable cost benefits that the credits represent.	Noted.
Northern Powergrid	Non-Confidential	Whilst we do not support the change, if implemented we would favour option 1. We do not support option 2. Where a site is determined to be demand dominant but has an element of generation, the NUFs calculated will be based on the proportion of assets which the demand element of the customer is deemed to use. Hence the NUFs do not accurately reflect the proportion of assets which the generation element of the customer is using. Where a site is determined to be generation dominant, the NUFs calculated are overwritten with minimum NUFs, which again do not accurately reflect the proportion of assets which the customer is using.	The Working Group noted that if Option 2 is supported the use of default NUFs would have to be reviewed as part of the solution.
SmartestEnergy	Non-confidential	Option 1 is preferable as it is more transparent.	Noted.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	If this DCP were to be approved, we would be more supportive of Option 1 because it maintains the locational and site specific nature of the EDCM which incorporates ER P2/6 compliance. We would not support Option 2 because the credit applied would be generic rather than site specific, and so would dampen the locational signal and in some cases the application of any credit would cause an incorrect location signal, for example in the case of exporting GSPs. This is due to the EDCM embedded generators qualifying for Collar NUFs as they would be mixed sites with generation dominance.	Noted.

SP Distribution/SP Manweb	Non-confidential	Option 1 – as this will be based on the congestion level of the network and more closely aligned to reinforcement.	Noted.
UK Power Reserve	Non-Confidential	UKPR supports Option 2 as all eligible EDCM embedded generators, irrespective of whether they have the potential to reduce the DNO asset base, would be rewarded.	Noted.
UK Power Networks	Non-confidential	We believe that further work needs to be undertaken to justify the change before the change report is drafted, as a result at this time we do not 'support' either option. However if this change is progressed further then option 1 which incorporates the credit into the unit charge would be the most appropriate option to take forward, as it's the unit element of the charge which needs to be rewarded, if deemed to be appropriate.	Noted.
WPD	Non-confidential	WPD cannot answer this question until the analysis has been done to determine correct level of credits.	Noted.
The Working Group agreed that the Charge 1 approach ensures an element of protection in terms of applying generation credits to exporting GSPs, whereas the NUF approach does not.			

Company	Confidential / Anonymous	9. Do you think there is a direct relationship between energy flows and indirect costs, direct costs and network rates incurred by a DNO, or do you think the nature of the relationship is more complex such that the reduction of demand flows caused by embedded generators may not reduce the costs incurred? Please provide your rationale.	Working Group Comment
ADE	Non-Confidential	We believe that the link is between reduced energy flows either leading to reduced infrastructure and its associated costs or by freeing up	

		capacity on existing infrastructure and reducing the need to reinforce. In either case there is a benefit to the DNO which needs to be reflected in the calculation of the EDCM credits.	
Electricity North West	Non-confidential	<p>The relationship is not direct, and is complicated by a number of factors.</p> <p>There are clearly costs that are not reduced as a result of lower energy flows, and indeed some that would be expected to increase as a result of new generator customers connecting.</p> <p>For large customers connecting at high voltage levels diversity has less impact than for smaller customers. Also, a large generator in a single point won't have the same impact as a large number of small generators spread across the whole network region. Not all energy flows are equivalent in the impact on the network.</p>	
Northern Powergrid	Non-Confidential	<p>We believe the situation is more complex than a direct proportional relationship between energy flows and costs incurred. Many of the costs the DNO incurs are more likely to be driven by customer numbers. Historically, demand and customer number changes have been broadly proportional (e.g. increased customer numbers led to increased demand), and hence demand could be used as a proxy for allocating all costs. This is no longer the case, with the increase in embedded generation leading to the proportionality between demand and customer numbers breaking down.</p> <p>We welcome the work of the CDCM/EDCM review in this area, and believe the CDCM/EDCM review to be a more appropriate forum for issues such as this to be discussed, alongside discrepancies between the CDCM and EDCM and the potential for a combined methodology.</p>	
SmartestEnergy	Non-confidential	We believe there likely is benefit to the DNO, but it is probably likely the data that would justify the value of it to an EDCM generator is not cost effective to obtain or would be difficult to be accurately allocated.	

		If it were possible, then CDCM generators and CDCM/EDCM consumers more widely should receive the benefit of that accuracy.	
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	The analysis undertaken does not highlight any particularly strong trends and no empirical evidence, which implies that the relationship is more complex.	
SP Distribution/SP Manweb	Non-confidential	This is complex with no clear link.	Noted.
UK Power Reserve	Non-Confidential	The consultation so far has identified that this is an area requiring more analysis. However the benefit of an embedded generator - especially those that help to reduce network peak demand in a local area - should result in lower costs, both for potential reinforcement to meet overall network needs and that of operating costs of the DNO (less assets required = lower future operating cost).	
UK Power Networks	Non-confidential	The costs incurred by the DNO for assets already installed will not be reduced by generation connecting onto the network. Even customers connecting today which have generation capacity will only have any positive impact upon a DNO with regards to indirect and direct costs and network rates if they were to export onto the network at the super red times.	

		Additionally it is likely that DNOs' cost will increase as they move towards managing dynamic networks due to the increase in embedded generation.	
WPD	Non-confidential	The relationship is very complex as answered in question 4.; The amount of generation as a percentage of total network demand for each half hour varies greatly throughout the year.	
The Working Group agreed that the responses to this question will be considered once the pilot analysis has been completed.			

Company	Confidential / Anonymous	10. Do you agree that the 60% value (as used in the CDCM) should be used to determine the proportion of indirect costs which EDCM embedded generators have the potential to offset?	Working Group Comment
ADE	Non-Confidential	Yes, this seems a sensible approach as this is a value that has already been approved by Ofgem as reflecting the proportion of indirect costs that vary with demand.	
Electricity North West	Non-confidential	We support the principle of consistency of application between CDCM and the EDCM. We agree with using the same 60% value on this basis.	
Northern Powergrid	Non-confidential	No. We believe a more fundamental review of how these costs are allocated is required. The Working Group's starting position should be an attempt to justify any change proposed against fundamental principles (and the DCUSA objectives), rather than simply taking a default position that the assumptions of the CDCM are appropriate and therefore aligning the EDCM to these assumptions. We welcome the work of the CDCM/EDCM review in this area, and believe the CDCM/EDCM review to be a more appropriate forum for issues such as this to be discussed.	

SmartestE nergy	Non- confidential	No comment	Noted.
Southern Electric Power Distributio n plc and Scottish Hydro Electric Power Distributio n plc	Non- confidential	If this DCP were to be approved, we would agree that a consistent indirect factor should be applied.	
SP Distributio n/SP Manweb	Non- confidential	No the figure should be based on analysis and not just a convenient figure.	
UK Power Reserve	Non- Confidential	Until better data is available to identify the specific indirect costs associated with a connection, and its operation, then this figure should be consistent with 60% figure used in the CDCM.	
UK Power Networks	Non- confidential	If it is decided that generators have the potential to offset indirect costs then the use of the 60% value (as used in the CDCM) would be appropriate to use in the EDCM.	
WPD	Non- confidential	This would add consistency to the models.	Noted.
The Working Group agreed that the responses to this question will be considered once the pilot analysis has been completed.			

Company	Confidential / Anonymous	11. Do you believe that embedded generators have the ability to reduce a DNO's overall network rates bill? Please provide your rationale.	Working Group Comment
ADE	Non-Confidential	Yes. To take the position to the extreme, if a DNO only had a small number of assets, the network rates bill would be minimal. A generator that reduces the asset base of the DNO therefore reduces the networks rate bill of the DNO.	
Electricity North West	Non-confidential	No, probably not in almost all cases. The rate calculation is complicated but primarily based on the revenue of the DNO and the assets deployed to deliver that revenue. It is unlikely that an embedded generator would result in lower numbers of assets (as opposed to reducing the costs and increasing the life) but if it did this would probably simply have the effect of increasing the rate costs of the remaining network assets.	
Northern Powergrid	Non-confidential	<p>On a long run basis, we agree that there is a potential reduction in DNO network rates in instances where embedded generators reduce the DNO asset base. However, there is also a potential increase in DNO network rates in instances where embedded generators increase the DNO asset base.</p> <p>The points made in our response to question seven are equally relevant here – we do not believe embedded generators have the ability to reduce the overall network rates bill for the year in question when setting charges, and the current approach used for EDCM demand is to treat these as costs to be recovered rather than used to give a forward looking cost signal.</p>	
SmartestEnergy	Non-confidential	We have no evidence to form a view	Noted.
Southern Electric Power Distributio	Non-confidential	Based on the information provided in the consultation paper, there does appear to be an ability for embedded generators to reduce the overall network rates with a demand dominated GSP group. However, this theoretical scenario cannot be applied universally, for example in the	

n plc and Scottish Hydro Electric Power Distribution plc		case of exporting GSP groups. Also, without evidence to show that a reduction in assets wouldn't then be offset by a reduction in operating costs, it is hard to be conclusive.	
SP Distribution/SP Manweb	Non-confidential	Potentially, however to properly answer this question you would need evidence of the assets involved both existing and avoided.	
UK Power Reserve	Non-Confidential	Embedded generators, when operating, reduce the nett demand at a particular BSP. Whilst DNOs should be able to more clearly demonstrate how embedded generation affects their overall costs, it would seem rationale, and consistent with our response to Q9, that they would require less (and usually upstream from most connection) assets to support a local network with embedded generation, in turn reducing their overall network rates bill.	
UK Power Networks	Non-confidential	No, we do not believe that it is possible for embedded generators to have a material impact on the DNOs Network rates bill.	Noted.
WPD	Non-confidential	See answer to question 7.	
The Working Group agreed that the responses to this question will be considered once the pilot analysis has been completed.			

Company	Confidential / Anonymous	12. Do you believe that this change proposal better facilitates the DCUSA Charging Objectives? Please provide your rationale against each objective.	Working Group Comment
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ADE	Non-Confidential	Yes, this change proposal improves the cost reflectivity of distribution use of system charges and therefore better meets the DCUSA charging objectives.	Noted.
Electricity North West	Non-confidential	Aspects of the proposal have merit, but currently we do not feel confident enough to determine if the proposal increases cost reflectivity enough to better facilitate the charging objectives.	Noted.
Northern Powergrid	Non-confidential	As suggested in our responses to the previous questions, we believe more work is required on this change proposal before a thorough assessment can be made against the DCUSA objectives. However, many of the questions we raise in this response are fundamental in nature. Until they are answered we do not believe this change proposal can progress, but the fundamental nature of the questions raised suggests that their solutions are likely to be out of scope of this change proposal. Hence we would welcome the valuable work done by this Working Group being considered in a more appropriate forum, such as the CDCM/EDCM review.	Noted.
SmartestEnergy	Non-confidential	The proposal potentially meets a cost reflectivity objective but this probably needs greater justification.	Noted.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	Unable to determine without the proposed legal text.	Noted.
SP Distribution	Non-confidential	It would only be more cost reflective if allocated on a site specific basis rather than across all EDCM generators.	Noted.

n/SP Manweb			
UK Power Reserve	Non-Confidential	<p>Yes, UKPR strongly believe DCP 287 better facilitates the DCUSA Charging Objectives.</p> <p>In particular, we see substantial positive impact on the following two objectives:</p> <p>Number 2, according to which compliance by each DNO Party facilitates competition in the generation and supply of electricity and will not restrict, distort, or prevent competition in the transmission or distribution of electricity or in participation in the operation of an Interconnector. Awarding credits to EDCM embedded generators would allow all embedded generators at higher and lower voltage connections to operate in a level playing field. This is the basis for promoting competition in the generation and supply of electricity, at the lowest cost to consumers.</p> <p>Number 3, according to which compliance by each DNO Party results in charges which, so far as is reasonably practicable after taking account of implementation costs, reflect the costs incurred, or reasonably expected to be incurred, by the DNO Party in its Distribution Business. A change of the methodology to calculate credits for EDCM embedded generators will result in a more cost-reflective recovery of avoided costs for DNOs. Since there seems to be no substantial reason for not awarding credits to EDCM embedded generators -compared to CDCM embedded generators- UKPR supports the modification proposal leading to a solution that would guarantee a uniform approach across different voltage levels.</p>	Noted.
UK Power Networks	Non-confidential	At this current time we do not believe that there is enough evidence that any DCUSA objective is better facilitated by this change.	Noted.
WPD	Non-confidential	This would depend on the results of the further analysis whether this DCP will make the charging methodology more cost reflective.	Noted.
The Working Group agreed that the responses to this question will be considered once the pilot analysis has been completed.			

