

DCP 443

'Excess Capacity'

COLLATED RFI RESPONSES WITH WORKING GROUP COMMENTS

Company	Confidential/ Anonymous	1. What (if any) impacts, including the types of additional costs, does a customer cause when they exceed their capacity, and under what circumstances?	Working Group Comments
Party 1	Anonymous	N/A	
ENC	Non-Confidential	It is possible for an excess capacity to exceed the rating of the network supplying it. This could cause protection to operate, taking the customer off supply and causing a fault/emergency resource to be deployed to restore customers. (Typical out of hours response to reset protection could be around £2,500). If protection does not operate, it's possible that excess capacity on the network could exceed the rating of assets used on the network (e.g. exceeding cable rating, exceeding increase transformer load into emergency rating). Where this may not operate protection, it could cause a derating effect, or reduce the life of an asset (e.g. reducing the life of a transformer, or incurring additional or early maintenance costs). Where a customer is supplied via an Independent Distribution Network Operator (IDNO) a customers excess capacity could cause an excess in capacity on the Bilateral Connection Agreement (BCA) agreed load between the IDNO & the DNO.	
Engie	Non-Confidential	Under the current charging regime as a supplier we would not see any increase in costs to us, there may of course be costs to the network but we are not in a position to comment on these.	

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NPg	Non-Confidential	N/A	
SEPD & SHEPD	Non-Confidential	The DSO may have to procure and pay for flexibility services on the local network if usage is higher than expected. If kVA is higher than expected it would place additional strain on the local network which could result in faults or need for further reinforcement which would both have costs. If there is higher kVA being used in a network than expected it could cause additional safety risks if the local network has not been designed around it, it could also cause increased risk to people working on the local network (e.g. to repair faults or add reinforcement) if not accounted for.	
SPD & SPM	Non-Confidential	Our distribution network is design based on the information and requirements received from customers, such as their Maximum Import/Export Capacity, fault level contribution, etc. as well as our own measured data to determine the maximum flows our network will need to be capable of withstanding to ensure a safe, secure and reliable supply of electricity to all our customers. If customers exceed the agreed capacity, our network could see overloads in excess of what it's been designed for. In turn this can cause early ageing of assets (reducing their lifespan and incurring early asset replacement costs); damage to our assets (requiring repair or complete replacement and	

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		associated costs for which prolonged outages may be required) leading to network depletion, increased network risk, and potentially safety implications; and operation of back-up protection. All these could affect other customers. Customers are required to submit an application for a change of capacity requirements so that these can be planned safely and effectively.	
UKPN	Non-Confidential	The networks are built based on expected demand, and in a lot of areas there is little or no room for additional demand at peak times. When a customer exceeds their contracted capacity this puts the network at risk of impacting other customers. This can cause customers to lose their supply and will result in the Network Operator having to consider the need for additional and unexpected works to be undertaken due to the action of a limited number of customers, the cost of which is ultimately paid for by all customers	
Working Group Conclusions:			

Company	Confidential/ Anonymous	2. What are the potential impacts to other customers and suppliers when a site exceeds its capacity?	Working Group Comments
Party 1	Anonymous	N/A	

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ENC	Non-Confidential	Potential impacts to other customer could be triggered if the excess of a customers load cause upstream protection to operate (e.g. a circuit breaker trip at a primary substation). This would in theory result in a power outage/fault response affecting multiple customers. It is noted this is a theoretical impact, at present we have no examples of this occurring on our network.	
Engie	Non-Confidential	With the current charging regime from a supplier perspective we do not see any impacts when a site exceeds its capacity.	
NPg	Non-Confidential	N/A	
SEPD & SHEPD	Non-Confidential	Increased kVA running through a network will lead to increased losses which will then feed into the costs that are passed through to both suppliers and customers. If overuse leads to faults or needs for reinforcement it could cause customers to lose power which will then also be lost income for their suppliers.	
SPD & SPM	Non-Confidential	DNOs have a statutory obligation to develop and maintain an efficient, co-ordinated, economic, and secure distribution network for all users. If capacity constraints, including local, are not efficiently managed, they can have negative impacts, both directly on other users looking to connect and	

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		more broadly on the cost of running and maintaining the network overall. The costs are borne by all users. Customers who regularly exceed their capacity could start to impact the network loading, particularly at LV, potentially triggering an earlier than planned requirement for significant investment for network reinforcement to ensure the network can support the increase/peaks in demand. If capacity subsequently becomes underutilised again, over time, users are left with the burden of cost of the early reinforcement, meaning all users would be paying more than they would otherwise have needed to if demand had been managed more effectively. A flexible approach to connection may not always be an option. Where users have uncertainty over capacity or security of supply, they may be reluctant to invest to gain access to certain areas/markets or providing services. This may limit the benefits they can offer to the network and ultimately the value they create for consumers. The cost of using the network should fundamentally be shared equitably between users. If a user persists in exceeding their capacity on an ad hoc basis, rather than correctly sizing their MIC/MEC to cover their peak capacity requirement during the year, potentially contribute less than their fair share of costs compared to other users who have fixed their MIC/MEC correctly.	
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UKPN	Non-Confidential	As stated in the response to Q1 this can ultimately cause other customers to lose their connection and be off supply where the demand on the network is exceeded beyond what it has been built to provide.	
Working Group Conclusions:			

Company	Confidential/ Anonymous	3. Could you please populate the template in Attachment 3 with the following data from April 2010 to October 2024: 'MIC Data' – Populate: - Table 1 with the sum of MIC (kVA) per customer group - Table 2 with the sum of Chargeable Capacity (Max of MIC and MD) per customer group. - Table 3 and 4 will populate themselves. 'Customer Numbers' – Populate - Tables 1 with the number of sites that exceeded their capacity - Table 2 with the revenue from exceeded capacity charges - Table 3 with the total number of sites on tariffs with capacity charges - Table 4 with the total revenue invoiced to customers on tariffs with capacity charges.	Working Group Comments
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Party 1	Anonymous	N/A	
ENC	Non-Confidential	Attached spreadsheet.	
Engie	Non-Confidential	N/A – as a supplier we do not have this data.	
NPg	Non-Confidential	Attached.	
SEPD & SHEPD	Non-Confidential	We have Table 1 filled from 2018 onwards but collecting the relevant parts of earlier years data would require additional time due to the data being held in different systems and formats. We have been unable to acquire any of the data for table 2 as it would require HH data to determine it, this request is being reviewed in attempt to find a more efficient method.	
SPD & SPM	Non-Confidential	N/A	
UKPN	Non-Confidential	See attached.	
Working Group Conclusions:			

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Company	Confidential/ Anonymous	4. Do you have any other comments?	Working Group Comments
Party 1	Anonymous	We are in support of the intent of this modification and accept any means that it is implemented.	
ENC	Non-Confidential	The process currently can mean that billing adjustments can cause one month to be shown in excess capacity where in reality the MPAN has not exceeded within that month. This should be considered as a scenario when looking at charging as a customer should not be penalised if they have not actually exceeded. i.e. if a customer exceeds and is then charged excess, but then a revised consumption figure adjustment means they did not exceed, then any excess charges would need reversing.	
Engie	Non-Confidential	Although we can see that there could be good reasons in terms of network management for introducing this change, from a supplier perspective it introduces an element of risk into cost recovery of distribution charges for fixed price contract customers as it will not be possible to predict the level of higher excess capacity charges that will be incurred. Managing this risk is may lead to higher costs for all the relevant customers if it is not possible to pass through excess charges on a per customer basis, alternatively, introducing functionality to enable such a pass through would also incur costs.	

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NPg	Non-Confidential	N/A	
SEPD & SHEPD	Non-Confidential	No.	
SPD & SPM	Non-Confidential	No further comments.	
UKPN	Non-Confidential	No.	
Working Group Conclusions:			