DCUSA DCP 205 Consultation responses – collated comments

Company	Confidential/ Anonymous	1. Do you have any comments on the proposed DCP 205 Change Proposal draft legal text?
BEAMA	Non-confidential	BEAMA very much welcomes the principle of socialising costs to facilitate heat pump installation but we do not agree with the clause 1.36 which sets a fully funded limit at 16 amperes. 16 amperes equates only to 4-5kW which represents applications in small dwellings or new and self-build. Only 37% ASHPs are up to 5kW and 21% GSHPs. In overall heat pump unit sales this can be expressed as only 30% of the market (less than 1,000 units for GSHPS and around 5,000 units for ASHPs).* To take this argument a step further, an aggregate load limit up to 16 amperes would present a problem if this includes immersion as it means **no heat pumps will be connected under the socialised cost rules**. If you assume a phased boost up to 6kW but starting at 2kW and counting only the 2kW, as back up to a 4-5kW heat pump would be closer to 20 amperes. The principle of the ED1 rules is to use the price period to facilitate growth in these technologies to support Government renewable energy policies; by maintaining either of the proposals this will not happen. * Numbers based on sales and MCS registration data
Electricity North West Limited	Non-confidential	No
GTC	Non-confidential	Paragraph 3.36 of the extract from Ofgem's RIIO-ED1 Final Position document states *"Without access to granular data or installing costly monitoring equipment, the only means DNOs have for identifying domestic or small business customers who may trigger reinforcement are through the types of appliances they install. DNOs are working, through the Energy Networks Association (ENA), to receive advanced notification of when certain devices are installed. However, they will not know with confidence when these devices*

		are used and hence whether they are triggering costs". We agree with Ofgem's comment and to that end, whilst we understand the intent of describing limits for the funding reinforcement in respect of disturbing generation or load, we are unsure how DNOs will apply this in practice, particularly in the future where there may be many premises connecting loads that introduce interference (e.g. heat pumps as well as generators). We think it is much harder in respect of deciding who will or who will not pay for reinforcement required to address harmonics on the network than it is for load. The legal text makes the provisions of this paragraph applicable to the installation of all equipment. It is presumed that this applies to equipment connected before this revised connection policy comes into force. There may be circumstances where customers have previously paid reinforcement charges either in respect of a new connection or an existing connection to allow for the connection of equipment that does not meet the 16 Amp limits. It is by no means certain that the relevant DNO will have entered into a connection agreement (particularly if no reinforcement was previously required). This comment applies more to DCP205 (Option c) than it does to DCP205A (Option d). In both options it is unclear how reinforcement costs will be treated in respect of such premises where the Company: • has previously agreed that generation equipment with an output of greater than 16 Amps can be connected, or • has previously agreed to the connection of other equipment and has not placed any specific restrictions on the customer (other than the general requirement in the ESQCRs) in respect of harmonic disturbance; but, where reinforcement is required as a consequence of new load (demand or generation). Reconfiguration of a network may result in changes to the level of harmonics on the network and the impact they may have on new or existing customers.

GSHPA	Non-confidential	GSHPA, in line with BEAMA and HPA very much welcomes the principle of socialising costs to facilitate heat pump installation but we do not agree with the clause 1.36 which sets a fully funded limit at 16 amperes. 16 amperes equates only to 4-5kW which represents applications in small dwellings or new and self-build. Only 37% ASHPs are up to 5kW and 21% GSHPs. In overall heat pump unit sales this can be expressed as only 30% of the market (less than 1,000 units for GSHPS and around 5,000 units for ASHPs).* To take this argument a step further, an aggregate load limit up to 16 amperes would present a problem if this includes immersion as it means **no heat pumps will be connected under the socialised cost rules**. If you assume a phased boost up to 6kW but starting at 2kW and counting only the 2kW, as back up to a 4-5kW heat pump would be closer to 20 amperes. The principle of the ED1 rules is to use the price period to facilitate growth in these technologies to support Government renewable energy policies; by maintaining either of the proposals this will not happen. * Numbers based on sales and MCS registration data
Heat Pump Association	Non-confidential	It is unclear if the term 'where the installation of generation equipment with a rated output less than 16 amperes per phase;…' relates to heat pumps as this equipment is not power generation but heat generation. If heat pumps are deemed within scope then we recommend that heat pumps above 16amps be included as long as they comply with EN61000-3-11 and EN61000-3-12 (up to 75 amps). The limit of 16 amp (section 1.30a) seems very low in relation to the incoming supply of 100 amp. Would this mean for instance that an induction cooking hob (which can easily have a rating above 16 amp) also require notification and potential network up grade costs? We understand the point of ED1 is to facilitate the up take of HP's & EV's in order to assist with the UK reaching it's renewable energy targets within the EU. At this threshold level (16A/ph) the figures available show that the vast majority of heat pump installations (c 70%) could be severely penalised and become uneconomic. The result will be, rather than facilitating the uptake of HP's, it will virtually wipe them out by virtue of the fact that very few would be covered by socialised cost and the on-cost applied would likely render any HP

		installation un-economic. In addition small heat pumps make very small contributions to renewable energy to the UK targets. Being based on initial start up/worst case current this would even severely limit Heat Pumps with soft start/inverter in size (<4.8kW thermal) but be a complete death sentence to DoL Heat Pumps. This current therefore also has competition and market distortion consequences.
Northern Powergrid	Non-confidential	We recommend that the legal status of the quoted standards is checked as EN 61000-3-2 is part of the European 'EMC-directive', which must be complied with. The EMC directive covers most electronic and electrical equipment destined for sale in the EU. It is important to comply with the EMC directive if someone wishes to CE Mark their product. Therefore if a manufacturer doesn't comply then clarity is required on whether they are allowed to market their product in the first place. If they are not allowed to market their product without firstly complying with the standard then there is no condition where the customer will pay for reinforcement since all products will comply. Alternatively if a customer advises that the equipment that they wish to connect does not comply with the standard then would the distributor charge for the reinforcement, refuse the connection on the grounds of non-compliance with EU standards or charge for the reinforcement and ask the customer to disconnect later if a disturbance still occurs?
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	No
UK Power Networks	Non-confidential	Whilst the intent of the drafting is understood we believe that the text should be reviewed and modified to ensure it achieves that intended. This is mainly in respect of the "and where relevant" condition and the linkage of the bullet point items.

Western Power Distribution	Non-confidential	No

Company	Confidential/ Anonymous	2. Do you have any comments on the proposed DCP 205A Alternate Change Proposal draft legal text?
BEAMA	Non-confidential	See response to Q.1 above
Electricity North West Limited	Non-confidential	No
GTC	Non-confidential	Paragraph 3.36 of the extract from Ofgem's RIIO-ED1 Final Position document states *"Without access to granular data or installing costly monitoring equipment, the only means DNOs have for identifying domestic or small business customers who may trigger reinforcement are through the types of appliances they install. DNOs are working, through the Energy Networks Association (ENA), to receive advanced notification of when certain devices are installed. However, they will not know with confidence when these devices are used and hence whether they are triggering costs".* We agree with Ofgem's comment and to that end, whilst we understand the intent of describing limits for the funding reinforcement in respect of disturbing generation or load, we are unsure how DNOs will apply this in practice, particularly in the future where there may be many premises connecting loads that introduce interference (e.g. heat pumps as well as generators). We think it is much harder in respect of deciding who will or who will not pay for reinforcement required to address harmonics on the network than it is for load. The legal text makes the provisions of this paragraph applicable to the installation of all equipment. It is presumed that this applies to equipment connected before this revised connection policy comes into force. There may be circumstances where customers have previously paid reinforcement charges either in respect of a new connection or an existing connection to allow for the connection of equipment that does not meet the 16 Amp

		limits. It is by no means certain that the relevant DNO will have entered into a connection agreement (particularly if no reinforcement was previously required). This comment applies to more to DCP205 (Option c) than it does to DCP205A (Option d). In both options it is unclear how reinforcement costs will be treated in respect of such premises where the Company: • has previously agreed that generation equipment with an output of greater than 16 Amps can be connected, or • has previously agreed to the connection of other equipment and has not placed any specific restrictions on the customer (other than the general requirement in the ESQCRs) in respect of harmonic disturbance; but, where reinforcement is required as a consequence of new load (demand or generation). Reconfiguration of a network may result in changes to the level of harmonics on the network and the impact they may have on new or existing customers.
GSHPA	Non-confidential	See response to Q.1 above
Heat Pump Association	Non-confidential	It is unclear if the term 'where generation is installation, generation equipment with a rated output less than 16 amperes per phase.' relates to heat pumps as this equipment is not power generation but heat generation. If heat pumps are deemed within scope then we recommend that heat pumps above 16amps be included as long as they comply with EN61000-3-11 and EN61000-3-12.
Northern Powergrid	Non-confidential	We believe that this option will have the effect of creating circumstances where customer behaviour causes reinforcement costs to be incurred by the DUoS customers i.e. by customers who may be acting outside of their connection agreement, the Distribution Code and the Electricity Safety, Quality and Continuity Regulations.
Southern Electric Power	Non-confidential	No

Distribution plc and Scottish Hydro Electric Power Distribution plc		
UK Power Networks	Non-confidential	Whilst the intent of the drafting is understood we believe that the text should be reviewed and modified to ensure it achieves that intended. This is mainly in respect of the "and where relevant" condition and the linkage of the bullet point items.
Western Power Distribution	Non-confidential	The text does not take account of the connection of disruptive loads on the network.

Company	**Confidential/ Anonymous**	**3. Do you have a preference for DCP 205 Change Proposal draft legal text or DCP 205A Alternate Change Proposal draft legal text? Please provide your reasoning.**
BEAMA	Non-confidential	We believe the wording to proposed legal text C is closest to the required wording to ensure the energy policy related intention of ED1 with respect to socialised costs and innovation investment is met. We would propose that the legal text is changed to incorporate heat pumps over 16 amperes but with a requirement to meet additional standards EN61000-3-11 and EN61000-3-12. Heat pumps over 16amps complying with 3-11 and 3-12 represent a low technical risk and capture suitable data to assess the need to reinforce. These are being installed today so evidence suggests they are suitable for connection so the risk therefore is limited to costs to the DNO and is a political question of whether it is acceptable to charge a majority of customer for a minority of installations. That said, we see no better mechanism for facilitating the growth of the heat pump market than through ED1. The alternative is to charge customers up to £11,000 each for reinforcement which will stifle growth. *Proposed revised text:*

		1.30A We will fully fund Reinforcement carried out to allow the installation of all equipment at an existing premises which remain connected via an existing low-voltage single, two or three phase service fused at 100 amperes or less per phase and with whole-current metering and where relevant: - The reinforcement is carried out to allow the installation of equipment as part of a single application for a single or multiple installations, and - It may be necessary to remove a low-voltage single, two or three phase looped service for these existing premises so long as the customer's Required Capacity remains less than or equal to the Existing Capacity - Any generation equipment installed with a rated output not greater than 16 amperes per phase (or not greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-2 Limits for harmonic current emissions (equipment input current 16 A per phase) - BS EN 61000-3-3 Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current 16 A per phase - Any generation equipment installed with a rated output greater than 16 amperes per phase (or greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-11 Limits-Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq$75 A and subject to conditional connection - BS EN 61000-3-12 (Reference TBC)
Electricity North West Limited	Non-confidential	Providing DCP 205 specifies a suitable standard then we would expect equipment purchased in the UK to comply with this. This then would not pose an overly onerous standard for customers.
GTC	Non-confidential	We prefer DCP 205. The purpose of this DCP is to change the connection charging methodology so that it is compliant with Ofgem's

		decision. We think it is unclear as to how easy it is for the Customer/DNO to ascertain whether equipment complies with the relevant standard and thereby ascertain whether a customer should pay for reinforcement. Also, in addition to the technical specification of the equipment, it is about how it is operated that will influence the decision on whether reinforcement is required. Further, in the extract from Ofgem's policy document, paragraph 3.33 states that DNOs *"…will continue to recover the costs of any reinforcement caused by load or generation growth by domestic (as defined in the electricity distribution licence) and small business (profile class 3-4) customers through DUoS charges*". We think that this relates to load growth rather than the broader context that the fourth bullet point sees to apply. We think the proposed drafting of DCP 205 goes beyond load growth and seeks to put in arrangements for all types of disturbing load. The ESQCRs already place requirements on customers in respect of equipment that causes interference. Where reinforcement is required to accommodate harmonics we are not sure whether that using the British standard to determine who should or should not pay results in a solution that is either workable or fair.
GSHPA	Non-confidential	We believe the wording to proposed legal text C is closest to the required wording to ensure the energy policy related intention of ED1 with respect to socialised costs and innovation investment is met. We would propose that the legal text is changed to incorporate heat pumps over 16 amperes but with a requirement to meet additional standards EN61000-3-11 and EN61000-3-12. Heat pumps over 16amps complying with 3-11 and 3-12 represent a low technical risk and capture suitable data to assess the need to reinforce. These are being installed today so evidence suggests they are suitable for connection so the risk therefore is limited to costs to the DNO and is a political question of whether it is acceptable to charge a majority of customer for a minority of installations. That said, we see no better mechanism for facilitating the growth of the heat pump market than through ED1. The alternative is to charge customers up to £11,000 each for reinforcement which will stifle growth. Proposed revised text: 1.30 A We will fully fund Reinforcement carried out to allow the installation of all equipment at an existing premises which remain connected via an existing low-voltage single, two or three phase service fused at 100

		amperes or less per phase and with whole-current metering and where relevant: - The reinforcement is carried out to allow the installation of equipment as part of a single application for a single or multiple installations, and - It may be necessary to remove a low-voltage single, two or three phase looped service for these existing premises so long as the customer's Required Capacity remains less than or equal to the Existing Capacity - Any generation equipment installed with a rated output not greater than 16 amperes per phase (or not greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-2 Limits for harmonic current emissions (equipment input current 16 A per phase) - BS EN 61000-3-3 Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current 16 A per phase - Any generation equipment installed with a rated output greater than 16 amperes per phase (or greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-11 Limits-Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <75 A and subject to conditional connection - BS EN 61000-3-12 (Reference TBC)
Heat Pump Association	Non-confidential	We believe the wording to proposed legal text C is closest to the required wording to ensure the energy policy related intention of ED1 with respect to socialised costs and innovation investment is met. We would propose that the legal text is changed to incorporate heat pumps over 16 amperes but with a requirement to meet additional standards EN61000-3-11 and EN61000-3-12. Heat pumps over 16amps complying with 3-11 and 3-12 represent a low technical risk and capture suitable data to assess the need to reinforce. These are being installed today so evidence suggests they are suitable for connection so the risk therefore is limited to costs to the DNO and is a political question of whether it is acceptable to charge a majority of customer for a minority of installations. That said, we see no

		better mechanism for facilitating the growth of the heat pump market than through ED1. The alternative is to charge customers up to £11,000 each for reinforcement which will stifle growth. *Proposed revised text:* 1.30A We will fully fund Reinforcement carried out to allow the installation of all equipment at an existing premises which remain connected via an existing low-voltage single, two or three phase service fused at 100 amperes or less per phase and with whole-current metering and where relevant: • The reinforcement is carried out to allow the installation of equipment as part of a single application for a single or multiple installations, and • It may be necessary to remove a low-voltage single, two or three phase looped service for these existing premises so long as the customer's Required Capacity remains less than or equal to the Existing Capacity • Any generation equipment installed with a rated output not greater than 16 amperes per phase (or not greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-2 Limits for harmonic current emissions (equipment input current 16 A per phase) - BS EN 61000-3-3 Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current 16 A per phase • Any generation equipment installed with a rated output greater than 16 amperes per phase (or greater than 16 amperes per phase at any single premises if a single application for multiple installations) which must meet the technical requirements of the following standards: - BS EN 61000-3-11 Limits-Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <75 A and subject to conditional connection - BS EN 61000-3-12 (Reference TBC)
Northern	Non-confidential	We prefer DCP205 though there needs to be a clearer distinction on when a customer's behaviour would cause

Powergrid		reinforcement costs to be incurred, including where such behaviour would potentially take the person outside of connection agreement, the Distribution Code and the Electricity Safety, Quality and Continuity Regulations.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	We prefer DCP 205 as we feel it more completely follows the intent of the Ofgem policy and proposals for RIIO ED1.
UK Power Networks	Non-confidential	We would prefer the DCP205 Change Proposal as this better reflects existing industry arrangements and the provisions within the draft licence condition.
Western Power Distribution	Non-confidential	Our preference is for DPC 205, this option provides a list of equipment standards based upon a BS document that can be updated from time to time to reflect the changes to the equipment available to the market.

Company	**Confidential/ Anonymous**	**4. Are there any unforeseen impacts from either change which the Working Group should take in to account?**
BEAMA	Non-confidential	The energy policy drivers for ED1 will not be met with the current wording and our proposal is the only way to open up the socialised cost aspect of the regulations. Note that whilst there is an equity argument to suggest that not all electricity customers should subsidise a minority connecting heat pumps, it should also be recognised that it is not equitable to expect a single customer to spend up to £11,000 to reinforce the network where perhaps other customers in the same street with a similar technology have not paid. We are aware that today, customers are in effect subsidising others just because they have an installation which has tipped the balance for the local distribution network.
Electricity North West Limited	Non-confidential	No

GTC	Non-confidential	1. The extract from Ofgem's RIIO-ED1 Final Position views Ofgem's policy decision to socialise reinforcement as being an interim measure and looks to the roll out of smart metering and demand side response providing a mechanism to address demand. We recognise as smart meters roll out DNOs will have much better information on demand. However, we do not think the development of smart grids will necessarily identify harmonic disturbance introduced by customers in the use of connected equipment. Therefore, we do see that how proposal in DCP 205 (in respect of harmonics) can only be an "interim" measure. 2. DCP 205 requires that the cost of reinforcement to domestic customers and (and customers trading on PC 3 and 4 customers) is socialised through DUoS charges. Whilst we agree that such reinforcement costs should be socialised, they should only be socialised across those customer groups that benefit from the reinforcement. However, the CDCM does not directly allocate reinforcement costs. Such costs are recovered implicitly through other costs drivers in the CDCM (such as MEAV from the 500MW model). Therefore reinforcement costs falling under the scope of DCP205 are recovered from all customer groups connecting at LV and HV. However, customers not falling under the scope of DCP 205 are required to pay directly through connection charges for any reinforcement work required for their connections. Additionally, where reinforcement cost is undertaken on the LV network the CDCM will allocate the costs in a disproportionate manner to higher network tiers. This is because the way the CDCM: • The 500MW model only considers a third of the excavation and reinstatement costs at the LV level, and even then the assumption is work is unmade ground: excavation and reinstatement for LV reinforcement is more likely to be in made ground and all the costs of such work needs to be considered. • The CDCM assumes that a high proportion of LV networks are funded through customer contributions. The point of DCP205 is that none of the work will be funded by contributions. For the reasons outlined above we believe the impact of DCP 205 is that customers not covered by its scope are unduly penalised in that they will be required to fund reinforcement twice: Firstly through connection charges for reinforcement they require in respect of their connections and secondly in the form of an undue cross subsidy to customers covered by the scope of DCP 205 provided through DUoS charges.
GSHPA	Non-confidential	The energy policy drivers for ED1 will not be met with the current wording and our proposal is the only way to open up the socialised cost aspect of the regulations. Note that whilst there is an equity argument to suggest that not all electricity customers should subsidise a minority connecting heat pumps, it should also be recognised that it is not equitable to expect a single customer to spend up to £11,000 to reinforce the network where perhaps other customers in the same street with a similar technology have not paid. We are aware that today, customers

		are in effect subsidising others just because they have an installation which has tipped the balance for the local distribution network.
Heat Pump Association	Non-confidential	If heat pumps are deemed in scope, the proposed change would affect a large percentage of the renewable heat market. Our proposal in 1 and 2 above and use of the standards referenced will provide suitable information and allow the DNO to assess the need for reinforcement. Notification will assist DNO's keeping abreast of the situation until such time as smart meters are widespread, which the proposals will assist although this will be historic as opposed to predictive. The UK's energy policies will not be served by the current wording and an alternative to socialise the cost for a greater proportion of the heat pump market through regulations is the only way to meet these objectives.
Northern Powergrid	Non-confidential	DCP 205 can only operate as drafted if it is legally possible for the customer to connect additional load that does not comply with current standards. If all equipment has to comply with the standard before being sold in the UK then DCP205 and DCP205A have the same outcome. DCP205A will increase the costs borne by DUoS customers and will not promote efficient, low carbon solutions.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	There is likely to be an impact on all UoS customers in funding reinforcement caused by some existing customers adopting certain equipment. However this is a foreseen rather than unforeseen impact.
UK Power Networks	Non-confidential	Not that we are aware of.

Western Power Distribution	Non-confidential	We are not aware of any

Company	Confidential/ Anonymous	5. Are there any other National or International Standards that it would be reasonable that if installed equipment does not comply with, DUoS customers would not be expected to fund network reinforcement for (in addition to those already laid out in DCP 205 Change Proposal)?
BEAMA	Non-confidential	All installations must be MCS (or equivalent) compliant in order to ensure correct sixing and operation of heat pump. There is currently a very clear process to ensure DNOs know precisely where heat pumps are to be installed so we do not accept the suggestion that smart metering is the solution for identifying heat pump installations. Under the MCS rules (and RHI criteria), a customer must notify the network in advance of installation and commissioning using the agreed Forms A, B or C. Form A relates to products tested to BS EN61000-3-2 and 3-3 and Form B relates to products tested to BS EN61000-3-11 and 3-12. It should be noted that these forms are currently available and being used by the heat pump industry and DNOs accept them as notification, therefore there is no technical risk arising from unplanned load. This is contrary to the suggestion within this consultation. Given this situation, the DNOs could and should socialise connection costs for all heat pumps tested to the BS EN61000 series $\leq$75 amperes.
Electricity North West Limited	Non-confidential	The two identified set a reasonable expectation.
GTC	Non-confidential	
GSHPA	Non-confidential	All installations must be MCS (or equivalent) compliant in order to ensure correct sizing and operation of heat pump. There is currently a very clear process to ensure DNOs know precisely where heat pumps are to be installed so we do not accept the suggestion that smart metering is the solution for identifying heat pump installations. Under

		the MCS rules (and RHI criteria), a customer must notify the network in advance of installation and commissioning using the agreed Forms A, B or C. Form A relates to products tested to BS EN61000-3-2 and 3-3 and Form B relates to products tested to BS EN61000-3-11 and 3-12. It should be noted that these forms are currently available and being used by the heat pump industry and DNOs accept them as notification, therefore there is no technical risk arising from unplanned load. This is contrary to the suggestion within this consultation. Given this situation, the DNOs could and should socialise connection costs for all heat pumps tested to the BS EN61000 series <75 amperes.
Heat Pump Association	Non-confidential	EN61000-3-11 and EN61000-3-12. The MCS scheme is currently the most developed quality standard within the EU and is used by the UK government to provide some degree of quality within its Renewable Energy Strategy (i.e. RHI). This is a vehicle that could work in combination with DNO requirements providing they are developed in unison.
Northern Powergrid	Non-confidential	The licence requires distributors to comply with the Distribution Code which contains a number of recognised industry standards.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	None that we are aware of as relevant.
UK Power Networks	Non-confidential	Not that we are aware of.
Western Power Distribution	Non-confidential	We are not aware of any other National or International Standards that are appropriate for inclusion.

Company	Confidential/ Anonymous	6. How would customers be best notified of the Standards applicable (under DCP 205 Change Proposal) to electrical equipment to ensure that if purchased and installed the customer would not be liable for any network reinforcement if required?
BEAMA	Non-confidential	Trade association websites, DNO websites and relevant end user platforms such as the MCS and RHI websites.
Electricity North West Limited	Non-confidential	Unless notified by the customer (as part of the connection or modification) the distributor may only identify such equipment when there is impact on the supply to it. e.g. blown fuses or voltage complaints.
GTC	Non-confidential	Looking at the British Standards website we make two observations: • The cost of the standards described is £162 each. Therefore, they are unlikely to be used by customers. Their use is much more likely to be through allied trades and consultants. • The standards have been around for a number of years. We think the issue is a broader one about how the connection charging methodology can be better communicated. The existence of connection charging methodologies is still not known to parties who undertake connection works infrequently. Even then charging methodologies are quasi-legal/ regulatory documents and as a consequence are not in a form that is easy to understand for many readers. Whilst DCUSA parties can publish such documents on their websites, there are many organisations that could play a useful role; e.g trade bodies and associations. As noted in Ofgem's decision DCP 205 is only likely to be an interim measure. Therefore, we think publicity needs to be around the connection charging methodology and the requirement to comply with regulations (e.g. ESQCRs). This is because, even where reinforcement is funded, customers need to be advised that connecting prior to reinforcement could result in DNOs having to take appropriate actions where equipment causes interference, etc.
GSHPA	Non-confidential	Trade association websites, DNO websites and relevant end user platforms such as the MCS and RHI websites.
Heat Pump Association	Non-confidential	Use of the websites of TA's (especially electrical & HP), Ofgem, DNO's and also MCS (see above)

Northern Powergrid	Non-confidential	Standards could be listed in the common methodology or on the ENA or distributors websites.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	Through broad stakeholder engagement by the DNOs.
UK Power Networks	Non-confidential	Manufacturers technical specifications should specify which Standards are applicable to their equipment which would allow the customer to plan changes to their installation. It should also be considered that there is a requirement in the National Terms of Connection for customers to notify the Distributor of any material changes to their installation or equipment that they use or intend to use before connection or operation of changed equipment is made.
Western Power Distribution	Non-confidential	The professional installation bodies such as the IEE (Wiring Regulations), National Inspection Council for Electrical Installation Contracting (NICEIC).

Company	**Confidential/ Anonymous**	**7. Are there any alternative solutions or matters that should be considered by the Working Group?**
BEAMA	Non-confidential	Click here to enter text.
Electricity North West Limited	Non-confidential	No
GTC	Non-confidential	See response to Q4

GSHPA	Non-confidential	
Heat Pump Association	Non-confidential	Please see our comments above. More engagement with industry bodies such as ourselves. We only discovered this consultation by accident when we were asked to comment on HP capacities and market share. This is not a healthy situation.
Northern Powergrid	Non-confidential	A simpler solution may be that Relevant Customers do not pay for reinforcement where the requested increase in capacity is purely thermal in nature. However, if a requested increase in capacity causes harmonic issues and/or disturbance to other customers then the customer should pay the apportioned amount.
Southern Electric Power Distribution plc and Scottish Hydro Electric Power Distribution plc	Non-confidential	No
UK Power Networks	Non-confidential	Not that we are aware of.
Western Power Distribution	Non-confidential	No