P266 'Improving the allocation of Reactive Power flows between Import and Export Metering Systems' Consultation Responses

Consultation issued on 13 January 2011

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

We received responses from the following Parties

Company	No BSC Parties / Non-Parties Represented	Role of Parties/non-Parties represented
Fred.Olsen Renewables Limited	3/0	Generator (Renewable Energy – Onshore Wind)
TMA Data Management Ltd	0/1	NHHDC, NHHDA, HHDC and HHDA
Western Power Distribution	2/0	Distributor
SmartestEnergy Limited	1/0	Supplier/Consolidator
CE Electric UK	2/0	
SSE	6/0	Supplier/ Generator/ Trader / Party Agent / Distributor
UK Power Networks	4/0	Distributor
Baywind Energy Co-operative Ltd	0/1	Exemptable Generator
National Grid	1/0	Transmission Company
Accenture (for and behalf of ScottishPower)	5/0	Supplier, Distributor, HHDC, MOA
RWEnpower	10/0	Supplier/ Generator/ Trader/ Consolidator/Exemptable Generator/ Part Agent
Electricity North West Limited	1/0	Distributor

Question 1: Are there alternative solutions that the Modification Group has not identified, that they should consider?

Summary

Yes	No	Neutral/Other
1	10	1

Responses

Respondent	Response	Rationale
Fred.Olsen	No	We are an independent company that develops, builds

Respondent	Response	Rationale
Renewables Limited		and operates approximately £385 million pounds worth of onshore wind farms in Scotland, with a strategy to invest further in wind generation and other renewable technology as it becomes commercially viable. We have been receiving some extreme capacity charges, which are not justified by our wind farm's activities, on a month by month basis. The P266 proposal will add clarity and better apportion the reactive charges. It is expected that this will significantly improve our current situation.
TMA Data Management Ltd	No	-
Western Power Distribution	No	-
SmartestEnergy Limited	Yes	Do nothing to the BSC and suggest to the DNOs that the CDCM wording should be consistent with the BSC.
CE Electric UK	Potentially	We believe that a potential alternate solution exists which would involve a calculation rather than physical changes to metering. This alternate would see reactive power assigned to the correct measurement quantity with users using calculations rather than physically changing meter register configurations. However, this solution would require changes to the DCUSA and the recently implemented CDCM. We also note that in terms of data accuracy, the proposed solution is the preferred option but we do need to understand whether in implementing the solution the benefits exceed the costs.
SSE	No	-
UK Power Networks	No	We do not believe there is any other solution which assigns full responsibility for instances of generation of electricity from a premises and instances of supply of electricity to a premises in the same robust and consistent manner as the P266 proposal. The proposal better aligns to the two conceptual modes of usage set out in the electricity act, i.e. generation (licensed or exempt) or supply (licence or exempt).
Baywind Energy Co-operative Ltd	No	The solution proposed will work.
National Grid	No	No comment.
Accenture (for and behalf of ScottishPower)	No	We do not think that there is an alternative technical or practical solution that we are aware of, available at the present time which adds any more value than the proposal made by P266. We do believe that the CDCM (excluding EHV sites- EDCM to be implemented April 2012) has addressed a proportion of the allocation issues for Distributors. There is a view however that

Respondent	Response	Rationale
		this change has not been consistently implemented by DNO's.
RWEnpower	No	Currently, we do not believe an appropriate alternative solution is available.
Electricity North West Limited	No	However, it's worth noting that if a site moves into Profile Class 5 to 8 it would have to have HH Metering by Apr-14. Similarly, if there is already a HH Meter on site then both Import and Export should be HH Traded. The MOp would be the same Agent for both Import/Export as there would only be one meter.

Question 2 (Distributor specific): If Proposed Modification P266 is implemented, what would be the cost (if any) to your organisation as a Distributor of changing your billing procedures? Specific solution aspect for consideration is:

- Receiving amended D0036 and D0275 flows

Summary

Impacted	Not impacted	Neutral/Other
2	3	1

Responses

Respondent	Response	Rationale
Western Power Distribution	-	We do not believe there will be any significant costs in implementing P266, we are currently able to receive D0036 flows containing either RE & RI and the new functionality will use the greater for calculations. The proposed modification applies to sites that are newly registered or undergo a material change. Distributors will need to maintain billing systems to support both the current work rounds and P266 – we will need to add new processes to identify when a D0268 Meter Technical Details flow indicates that a metering configuration has changed to the new arrangements.
CE Electric UK	-	If within the D0275 for a specific MPAN there will be more than one RI or RE measurement quantity record (i.e. currently there is AI, AE, RI and RE and this moves to AI, AE, RI, RE, RI, RI) within that meter record then we would incur development costs estimated in excess of £50k in order to process the extra measurement quantity identifiers.
SSE	Unavoidable cost to amend any	Impact is seen as minimal in terms of change to coding, system test and UAT. Timing of P266 implementation with EDCM will reduce the cost as it

Respondent	Response	Rationale
	billing system: average	can be incorporated within the EDCM change to billing.
UK Power Networks	Zero cost	We have recently modified our system to achieve CDCM compliance. Because of this our system is ready prepared to accept metering quantity IDs of RE and RI on the export MPAN account and the same on the import MPAN account in line with the Common Distribution Charging Methodology. The assignment of metering channel ID to relevant MPAN and its relevant metering quantity ID ensures that the delivery of the required channel of metering data is made to the relevant MPAN and the relevant quantity ID. As such we anticipate no system changes required.
Accenture (for and behalf of ScottishPower)	Yes	ScottishPower already utilise Reactive Readings for the calculations of both the Import and the Export MPAN DUoS. We create one MPAN for the Import side and one MPAN for the Export side. We "associate" (link) each Import MPAN with its equivalent Export MPAN on our Billing System. The Reads for the Import MPAN usually cover AI (active import), RI reactive import) and RE (reactive export) reads. The Reads for the Export MPAN usually only cover AE (active export) and we then get the RI and RE by looking up the reads from the Import MPAN. Currently, we use all 3 items for the DUoS Calculations and the inaccuracies that P266 refers to do not arise in SP, although there can be small differences within calculations of the half-hours where there is a switch between Import and Export. We understand the position can occur where the Import and Export supplies are Registered with different Suppliers, meaning that presently we would use readings from one Supplier to calculate charges for another Supplier. If under P266 all relevant readings come in for each MPAN then this would separate the need for the "association". However we may find a situation where Reactive Reads come in for one MPAN and not the other. The rules for validation and charging need to be determined for all occurrences i.e. if no reactive readings are received for any MPAN then agree to assume NIL Reads; if different reads come in then agree to use those with each MPAN, even though the charges would then be inconsistent between the MPANs. Once any changes in the rules are determined and agreed, please be aware that system changes would be required to our DUoS Billing Application. It is

Respondent	Response	Rationale
		difficult to determine costs and/or timescales until we are clear regarding the extent of the changes. It is likely that we will have to unwind the association of Import and Export MPAN and this may prove fairly complex. An alternative solution could be that other DNO parties amend their billing systems to pick up the data which should already be present.
Electricity North West Limited	-	Our billing system/procedures were changed to align with the CDCM; this solution would have a major impact, cost wise, on our system/procedures.

Question 3 (HHDC specific): If Proposed Modification P266 is implemented, what would be the cost (if any) on your organisation as HHDC? Specific solution aspects for consideration are:

- Reconfiguration of meter registers by the MOA and receipt of notification of this via the D0268;
- Allocation of the six meter register quantities to the appropriate Party, particularly allocation of three quantities to the Export Party; and
- Production of amended D0036 and D0275 flows

Summary

Impacted	Not impacted	Neutral/Other
3	0	0

Responses

Respondent	Response	Rationale
TMA Data Management Ltd	-	The cost of implementing the change is estimated to be 15 man days. The processing of updated D0268 is expected to be absorbed by "business as usual" activities.
Accenture (for and behalf of ScottishPower)	Yes	ScottishPower are unable to determine the cost implications until a final solution is agreed. From a HHDC/DA perspective, it is believed that there would be some relatively minor system changes to accommodate the additional measurement quantities in our systems to process the relevant flows (D0036 / D0275). Currently ScottishPower are capable of measuring the additional measurement quantities and are able to correctly identify both import and export Parties.
RWEnpower	-	Reconfiguration of meter registers by the MOA will place additional work on the HHDC. The reconfiguration of the D0268 could be prone to error if the configuration of the D0268 for import/export sites

Respondent	Response	Rationale
		is not strictly adhered to. We would need to investigate potential validation checks in our D0268 management system and processes to avoid potential 'double accounting'. Our core half-hourly data management system would need upgrading and testing to process the new AE/RI/RE combination to the Export party. We estimate costs in the region of £60k with an 18 month implementation timescale.

Question 4 (MOA specific): If Proposed Modification P266 is implemented, what would be the cost (if any) on your organisation as MOA? Specific solution aspects for consideration are:

- Installation of the six meter registers; and
- Sending D0268 flow to HHDC

Summary

Impacted	Not impacted	Neutral/Other
3	0	0

Responses

Respondent	Response	Rationale
SSE	-	Although there would be no additional costs associated with the proposed amendments required to the D0268 flow, there would be, if required, a cost to install / replace metering Code of Practice 5 & 3 metering systems would require replacing for a type capable of six channel data storage. CVA Registered Code of Practice 2 metering installed requires more involvement, and therefore maybe more costly as a result. At present there is no allowance to identify Reactive energy other than Reactive Import (RI) and Reactive Export (RE), both of which are the sum Reactive Q1 & Q4 or Reactive Q2 & Q3. Therefore, additional Measurement quantity IDs will need to be added to further identify the four quadrants of reactive energy. This will require changes to our systems. Potentially, if this Mod is approved, a change to D0268 will be required as the DTC currently has no requirement for mapping reactive energy to the export MPAN.
Accenture (for and behalf of ScottishPower)	Yes	From a MOA perspective, there is a minor impact on meters procured by ScottishPower as they are capable of measuring the additional measurement quantities. However, changes to MARs will be required to process

Respondent	Response	Rationale
		MTDs (AI, RI, RE for the import MPAN and AE, RI, RE for the export MPAN). Without any actual evidence at this stage, it would still be difficult to estimate the costs, however, it is believed that they could be substantial and the change may take some time to implement.
RWEnpower	-	The MOA will be impacted if they are required to re-visit sites with embedded generation to reconfigure the existing metering systems. There is a reluctance to have to re-visit and reconfigure meters given limited Operative and time resources. Each reprogrammed meter will require a Proving test which will affect the HHMOA and HHDC. The HHMOA also envisage difficulty in recovering the cost of the site visit from Supply or the Customer. Suppliers should be responsible for any re-work. Costs to re-visit and reconfigure: £250 to £400 per CoP 5 meter; £450 to £600 per CoP 3 meter. The Modification may make some meters currently in operation and compliant with the CoP, unsuitable for use on import/export sites. Such limitations may be a burden to the Meter Operator.

Question 5 (Supplier specific): If Proposed Modification P266 is implemented, what would be the cost (if any) on your organisation as Supplier? Specific solution aspects for consideration are:

- Installation of the six meter registers; and
- Sending D0268 flow to HHDC

Summary

Impacted	Not impacted	Neutral/Other
3	1	0

Responses

Respondent	Response	Rationale
SmartestEnergy Limited	-	The document states: "Suppliers and Exemptible Generators would not be directly impacted by implementation of P266, but there would be a consequential impact on the DUoS bills they receive due to the change in how Reactive Power is allocated." It is untrue to say that suppliers would not be impacted directly. We would need to change the systems and processes of our consolidation business. This involves receiving in RI data and reconciling against DNO bills. It is wholly inappropriate that we should have to

Respondent	Response	Rationale
		change our systems to accommodate what is a pass through of a distributor charge.
SSE	-	Assuming this question relates to Supplier's receiving amended D0036 and D0275 flows - our existing systems can meet the proposed amendments.
Accenture (for and behalf of ScottishPower)	Some issues	Suspect possible minor changes to certain Settlement system screens. More significant changes to customer billing systems may be required.
RWEnpower	-	Party Agent costs identified in Q3 and Q4 that may be passed on to Suppliers. We may also incur costs in developing our billing system for Reactive charging at shared import/export sites.

Question 6: Do you support the implementation approach described in the consultation document?

Summary

Yes	No	Neutral/Other
10	2	0

Responses

Respondent	Response	Rationale
Fred.Olsen Renewables Limited	Yes	The sooner this can be approved and implemented the better. We would look to request a reprogramming of our meters to benefit from the changes at the earliest opportunity.
TMA Data Management Ltd	Yes	-
Western Power Distribution	Yes	-
SmartestEnergy Limited	No	-
CE Electric UK	Yes	The implementation of this change ensures that reactive power is proportioned accurately across import and export meters (providing it is cost reflective).
SSE	Yes	-
UK Power Networks	Yes with caveat	We would request that, where the suppliers and their agents are willing, on request of the customer, to migrate their metering configuration to the P266 basis of metrology at an earlier date that this is permitted. We would wish to see the proposed implementation date as a backstop so as to not prevent the earlier adoption of the P266, thereby giving earlier benefits to the customer (bills) and supplier (invoice validation) where all the relevant parties for that customer's

Respondent	Response	Rationale
		connection are in agreement.
Baywind Energy Co-operative Ltd	Yes	Seems clear and straightforward
National Grid	Yes	We support the implementation approach.
Accenture (for and behalf of ScottishPower)	Yes	At this present time P266 offers the best available solution with the least impact on systems and aligns and improves the CDCM solution.
RWEnpower	No	Given that our Party Agent has identified an 18 month lead time to implement this change we do not believe the implementation approach to be appropriate. Working to a tighter timeframe may incur additional costs and would impact on existing system/process development work.
Electricity North West Limited	Yes	As we will be delivering the industry changes to implement the EDCM on 1 April 2012, we would prefer the implementation of this solution to be in the June 2012 Release.

Question 7: Do you believe the import bill and the export bill can be paid by different legal entities?

Summary

Yes	No	Neutral/Other
9	1	2

Responses

Respondent	Response	Rationale
Fred.Olsen Renewables Limited	Yes	We believe that the import bill and the export bill can be paid by different legal entities.
TMA Data Management Ltd	Yes	-
Western Power Distribution	Yes	I'm not aware of any reason why there can't be a single supplier or multiple supplier to multiple customer relationship at a shared metering point. However, LDSOs can only have a connection agreement with a single legal entity for any connection even when that entity chooses to trade import and export separately with different suppliers. LDSOs can't be in the position of not being able to de-energise/disconnect in the event of a breach of the connection agreement because there are multiple parties to the agreement and only one is in breach.
SmartestEnergy Limited	No	We think this is highly unusual. If customers are taking advantage of pre-meter netting then bi-lateral arrangements should be put in place if necessary. The alternative is separate metering.

Respondent	Response	Rationale
CE Electric UK	Yes	So long as usage is proportioned accurately across import and export meters as one party might be paying for charges, (i.e. excess capacity/excess reactive charges) associated to the metering system for different party.
SSE	Yes	This scenario is possible. The MPAN's assigned to Import and Export can be registered to two different Suppliers. Each Supplier would be unaware of who the legal entity was for the other. Although we specify in our supply contractual terms the Customer must be the legal entity to the connection, without sight of the agreement, we have no way of verifying this arrangement.
UK Power Networks	Yes with critical caveat	A single premises, by which we mean a single electrical connection used by the purposes of import (consumption) and optionally export (generation) is connected by a distributor on application from a single legal entity. The Electricity Act s16(1)(i) makes it clear that the connection is to "the owner or occupier of the premises" (singular) rather than to owners or occupiers of that singular premises. Thereafter the single owner/occupier of the singular premises becomes the connected customer in all respects of that single connection. It is our view therefore that there can never be true independence of one bill paying entity from the other on a given electrical connection. This is due to the fact that a distributor cannot, we suggest lawfully, be or put itself in a position of having two independent customers, in the meaning of the Electricity Act, sharing one connection as the breach of one customer may require de-energisation or disconnection so as to not breach its licence and yet to de-energise or disconnect that customer would lead the distributor to breach its licence in respect of the second customer who has not breached their terms of connection. It is self evident from this that there cannot be two different legal entities being connected customers for the given electrical connection. In that respect the question posed and we believe the thinking behind the question, namely that two truly independent entities can share a connection is invalid. This does not however prevent the Electricity Act connected customer from assigning some of their benefits to another party as a private arrangement, supplemented by clear letters of authority to the relevant parties such as electricity

Respondent	Response	Rationale
		supplier and distributor where required. Only where the connected customer's rights have been assigned can, for example, a third party legitimately manage the connected customer's export account that would otherwise managed directly by the connected customer themselves. Any consequences of sharing some of the premises benefit of the electrical connection are a private matter between the connected customer and the assigned party and it has to be accepted, we feel, that the invited third party must have reached an agreeable situation with the connected customer to continue to wish to share occupancy and use of the connected customer's electricity connection. As such we see it irrelevant whether different parties can pay some of the premises electricity bills. It also has to be accepted that it is the norm that the electricity supplier appointed to trade the export MPAN accounts is often different to the electricity supplier appointed to trade the import MPAN accounts and though we do not believe this was the thrust of the question, it is clear that splitting electricity usage into import and export accounts across different electricity suppliers is acceptable, despite of the division of charges that results. For completeness, we feel the question implicitly discriminates in implying an unacceptable levying of charges in the case where there is an invited assigned party trading one of the connected customer's accounts and yet the same charges in respect of the connected customer where it manages both its import and export MPANs does not seem to raise concern. We do not believe the matter of which party is managing the connected customer's accounts is a relevant factor and for the Electricity Act and breach of licence conundrum articulated above we do not believe the question has validity.
Baywind Energy Co-operative Ltd	Yes	The Proposed solution appears to permit this
National Grid	-	The proposed P266 solution will only apply to newly registered sites or those whose metering undergoes a material change. If two legal entities choose to share a connection, reactive power charges may be one of a number of agreements between the two.
Accenture (for and behalf of	Yes	Import and Export can be registered to different Suppliers therefore separate billing is a necessity.

Respondent	Response	Rationale
ScottishPower)		
RWEnpower	Yes	We believe that this may be possible. The Suppliers could also be different, which may also add to the complexities associated with billing some 'shared' sites.
Electricity North West Limited	Yes	From a Distributor's perspective we can invoice two Suppliers.

Question 8: Under what circumstances will billing as per P266 result in inappropriate charges for separate legal entities at a shared site?

Summary

Circumstances identified	None	Neutral/Other
1	3	6

Responses

Respondent	Response	Rationale
TMA Data Management Ltd	Not known	-
Western Power Distribution	-	At a given metering point where there is demand and generation there is interaction between both and P266 allows the CDCM to be applied correctly and transparently even in change over half hours. At the metering point it will give the correct answer in all instances. However, if meters were connected to the import and export components individually then under some scenarios the charges from the individual meters would be different from those derived from metering at the combined metering point. During change over half hours where import and export both occur in the same half hour charges resulting from combined import/export metering will be different from those derived from separate import /export metering at the point of connection with demand and generation.
CE Electric UK	-	As long as the data is issued to us accurately and assigned to the correct measurement quantity we do not foresee any issues relating to inaccurate billing.
SSE	None	We understand P266 is to address the inconsistencies at the shared metering point (Distribution Boundary). Multiple parties having Connection Agreements with the Distributor, within the Boundary, would be made aware of these charging arrangements, and any inconsistencies would be resolved between those multiple parties.

Respondent	Response	Rationale
UK Power Networks	None for the reasons set out below.	Given the response to Question 7, we do not believe the charges arising in respect of the entry/exit point, namely the flows into and out of the premises would ever be inappropriate and the charges arising from a P266 allocation of metering data would better reflect the connected customer's premises usage of electricity and its impact on the distribution system during the relevant period. It is true that the activity of either or both of the connected customer or its invited third party generator could result in an undesirable pattern of usage at the premises connection to the distribution system. However this presumes that the parties do not or cannot work together and further presumes that the connected customer is not able to set out the terms upon which it permits a third party to share its connection as a key feature of its commercial invitation to share its premises. There is no basis for a truly independent party to obtain use of a settlement metering point other than by assignment from the true connected customer (owner/occupier of that specific premises singular) and for that reason we do not believe there are circumstances of the actions of one truly independent party impacting upon another truly independent party could exist, other than by commercial invitation that removes that 'separateness'. There are credible scenarios for dispute between the connected customer and its invited generator party, as both parties might not appropriately control their electricity usage. However we believe that the invited generator has the ability to ensure that it has suitable controls upon the connected customer to optimise their power usage, particularly reactive power and likewise for the connected customer to seek controls on the behaviour of an invited generator to minimise the reactive power usage. We also believe that where physical behaviours of use cannot be coordinated this in no way precludes the connected customer and the invited third party generator agreeing a means to transact any result use of system charges between themselves as a feature of their private agreement. We believe the ability of the connected customer to set out robust controls on its invited third party generator through commercial agreement and likewise the due diligence of a third party

Respondent	Response	Rationale
		over the terms of its invitation provide strong grounds for co-operation between the two parties.
Baywind Energy Co-operative Ltd	None	Having examined the solution, we believe it will work for our set-up
National Grid	-	See Q7
Accenture (for and behalf of ScottishPower)	Yes	Separate Suppliers for import and export.
RWEnpower	-	We believe that the current arrangements in some cases may not provide the full set of values for the export , and potentially give a distorted calculation. We recognise that P266 is not a 'one size fits all' solution and that in some cases anomalous charging may continue. However, for some types of 'shared' sites we believe P266 provides a more appropriate allocation of reactive power flows. We would view it as inappropriate to receive bills based on data that we are not party to. For 'shared' sites one Supplier will only have visibility of data recorded against the import MPAN and the other Supplier will only have visibility of data recorded against the export MPAN. Thus, validation of bills using data recorded against both the import and export MPAN may be an issue.
Electricity North West Limited	-	P266 will not result in a Distributor raising inappropriate charges.

Question 9: How often such circumstances are likely to arise (now and in the future)?

Responses

Respondent	Response	Rationale
TMA Data Management Ltd	Not known	-
Western Power Distribution	-	These circumstances could arise at any site where there is demand and generation combined at a single metering point. As Question 8.
CE Electric UK	-	We believe that P266 will only facilitate more accurate billing in relation to reactive power.
UK Power Networks	Limited for reasons set out below	It is not possible to answer definitively given the answer depends so much on the behaviour of a given customer and their actions or inactions where they otherwise can or could have taken steps to optimise their premises electricity usage including

Respondent	Response	Rationale
		those of the third party it invites to share its premises. The circumstances would require of lack of co-operation and or alternatively a lack of commercial agreement between the two parties as should reasonably exist. In general we are considering the invitation of third parties onto connected customer's installations for the purposes of generation and the interaction of two parties usages within the premises. The probabilities are further limited by scope to just those parties who would be half hourly settlement traded as proposed by the scope of P266. Out of this subset, any half hourly metered customer, typically commercial or industrial customer, has the option to control their power factor either by their electricity usage or by compensation equipment or by benefitting from the right mode of operation of an invited third parties generating equipment (which they can dictate as part of any invitation agreement to the third party). We therefore believe every customer can improve the efficiency of their electricity usage if using consumption and production of electricity in an optimal way, whether this be by the connected customer themselves or by acting in co-ordination with an invited third party generator. It would appear discriminatory to consider that the inability of the connected customer and its commercial invited third party generator to co-operate requires any different approach than that of a connected customer who manages consumption and production of its own electrical energy and fails to do so to the same extent.
Accenture (for and behalf of ScottishPower)	Frequently	Again there can be multiple MPANs coming off one single connection point, therefore it is possible that you will deal with different Suppliers for either import or export sites.
RWEnpower	-	We do not feel we are in a position to give a meaningful response to this question. Further analysis would be required as to the type of 'shared site' that may be prone to inappropriate charges and a forecast of the number of such sites being developed. As the Modification is not retrospective we do not believe that it would add to anomalous charging for existing 'shared' sites.
Electricity North West Limited	-	These circumstances will not arise for a Distributor.

Question 10: Do you believe that different metering arrangements might give more appropriate charges in these circumstances?

Summary

Yes	No	Neutral/Other
3	7	0

Responses

Respondent	Response	Rationale
TMA Data Management Ltd	Not known	-
Western Power Distribution	No	At a given metering point where there is demand and generation there is interaction between both and P266 allows the CDCM to be applied correctly and transparently even in change over half hours.
SmartestEnergy Limited	Yes	-
CE Electric UK	Yes	-
SSE	No	-
UK Power Networks	No	In terms of metering arrangements, a move from separate import and export trading to single supplier single account trading (much like CVA trading) would remove the artificial split of accounts but would also restrict competition on generation (i.e. export). We do not see this as a viable option for that reason. In some circumstances the third party generator invited onto the premises might elect to apply for its own connection from the distributor and so be separate from the existing demand on its premises, effectively create a second premises. However, the generator would itself have some demand and reactive power considerations leading the generator's separate connection to be observed to have the same problems as are being questioned in this consultation. We do not therefore believe this option of physical separation solves the main problem that P266 seeks to remedy. Equally we do not believe many customers or indeed invited third party generators will wish to incur the expense of seeking additional independent connections as in the main it is the symbiotic relationship that affords the benefit. It is also often the case that the invited third party generation is process oriented or linked into the connected customer's network in a way in which it is not possible physical separation to be achieved. From a technical metering standpoint we also do not

Respondent	Response	Rationale
		believe more relaxed, more flexible, metering arrangements would be helpful to the supply and generation industry or for the meter manufacturers in producing and implementing standardised metering for import/export sites. Clear rules are required, as proposed by P266, so that where a single meter does not provide measurement for import and export, it is clear to both import and export meter operators how an import only or export only meter should be configured. The proposal set out in P266 provides the means to achieve standardised configuration of metering for these three modes of operation with consequence benefit for reduction of complexity and production of volume that would be hard to achieve with more flexible arrangements.
Baywind Energy Co-operative Ltd	Yes	Since early in 2010, (presumably coincident with the introduction CDCM) we have been inappropriately charged for reactive power taken for our exporting wind generators against our small (auxiliary demand/import) supply. As these are induction generators, and although they operate close to unity power factor, due to the reactive size of the import and export capacities, this is an unnecessary and unwarranted charge. (note that these generators have been operating since 1997 and the practise of charging for reactive power in this way was stopped early in the life of the project as it was clearly unjustified). This is a small site and the commercial implications of reactive power charges are financially unsustainable.
Accenture (for and behalf of ScottishPower)	No	The implementation of the six registers & the capabilities of the modern electronic meter should allow accurate allocation of energy flows. Currently cross over half hours from import to export and vice versa are ignored for charging (CDCM methodology). This will be rectified by P266.
RWEnpower	None	Further analysis of the different metering arrangements is required in order to provide a suitable response. We recognise that under the current arrangements and under P266, reactive charges for certain types of site may not necessarily be directed to the plant on site that is causing the reactive flow. For example, a CHP plant on an industrial site (such as paper mill), where the load is absorbing reactive power (because there is a lot of rotating machinery), but the site is exporting active power. We believe that this is not an issue, as for sites of this type there will be an energy supply contract between the CHP plant and the paper

Respondent	Response	Rationale
		mill, which should be able to figure out the various operational duties of both parties.
Electricity North West Limited	No	We feel this could have the opposite effect.

Question 11: Are you aware of other options to mitigate any inappropriate charges exist and whether these might be more appropriate?

Summary

Yes	No	Neutral/Other
2	8	2

Responses

Respondent	Response	Rationale
Fred.Olsen Renewables Limited	No	We are not aware of other options to mitigate any inappropriate charges.
TMA Data Management Ltd	Not known	-
Western Power Distribution	No	-
SmartestEnergy Limited	-	The document states: "Anomalous allocation of Reactive Power can lead to either DUoS under- or overcharging (compared with the charges that should have been incurred to reflect customers" actual behaviour). " This is a very disingenuous statement. The DNO gets paid appropriately. There is no under or over charging overall.
CE Electric UK	Yes	In line with our response to question one, we believe that a potential alternate solution does exist which could potentially be more cost effective.
SSE	No	-
UK Power Networks	No with caveat	Given the intention of the CDCM is to charge for usage on an ever more cost reflective basis, methods of data allocation which do not correctly reflect usage does not seem an appropriate direction of travel. The allocation of charges in any event should be no different were the connected customer to trade its import and export account itself, perhaps through two different suppliers, as opposed to assigning its export MPAN to a third party to manage. The question seems to propose an adjustment in the case of a third party being involved in account management but not do so when no third party is invited by the

Respondent	Response	Rationale
		connected customer to be involved and this would seem discriminatory. We do accept that where active power usage is around zero, either slight import or slight export at the same time that there is a relatively larger magnitude of reactive usage that there are consequences upon charges levied. But this is a general matter to be considered in the improvement of the CDCM rather than a matter peculiar to premises with generation or premises with invited third party generation. For example a customer with high reactive power usage that reduces less relative to a given reduction of active energy usage may be determined to have poor power factor and would cause similar issues to arise.
Baywind Energy Co-operative Ltd	No	-
National Grid	No	No further comment.
Accenture (for and behalf of ScottishPower)	No	We believe that P266 offers the best available fit in the current commercial climate.
RWEnpower	Yes	If P226 were to introduce inappropriate charging for some types of 'shared' site, we believe that these could be identified and a suitable workaround put in place.
Electricity North West Limited	No	-

Question 12: Would the Proposed Modification P266 help to achieve the Applicable BSC Objectives?

Summary

Yes	No	Neutral/Other
11	1	0

Responses

Respondent	Response	Rationale
Fred.Olsen Renewables Limited	Yes	We believe that P266 better meets the BSC objectives
TMA Data Management Ltd	Yes	By ensuring that the reactive power is allocated to the party responsible for the active power causing it, P266 helps better meet objective b, c and d.
Western Power Distribution	Yes	We agree with the working group's views.
SmartestEnergy Limited	No	We believe that the current arrangements are the most efficient i.e. where the import and export are

Respondent	Response	Rationale
		split only one supplier needs get involved in settlement of the reactive power. We believe that in the vast majority of instances, the export and the import bills are settled by the same company and thus this modification is unnecessary. Where this is not the case there should either be two separate meters or the entities involved should have bi-lateral arrangements in place.
CE Electric UK	Yes	- Provides more appropriate allocation of reactive usage for charging purposes - Better view of network efficiency and performance which could result in a reduction in network reinforcement - Reduction in reactive charges for import systems as usage would be proportioned accurately across the import and export supply - Operational plant that is seen to be inefficient under current arrangements may not be due to the allocation of large flows of reactive power - We would like to suggest an implementation timescale of 9 months following modification approval.
SSE	Yes	We agree with the Group's view.
UK Power Networks	Yes	We agree with the benefits set out on page 20 of the consultation. The proposal improves the approach to operation of consumption and production of energy at premises, namely competition in supply and generation, in terms of efficient usage of systems. The P266 proposal will mean more appropriate charging is possible which differentiates more correctly between consumers or producers of energy with poor power factor and those consumers and producers of energy with good power factor.
Baywind Energy Co-operative Ltd	Yes	It is a welcome and sensible way to deal with this problem
National Grid	Yes	P266 will better facilitate applicable BSC Objectives, (b), (c) and (d). The proposed modification will more accurately target reactive power charges.
Accenture (for and behalf of ScottishPower)	Yes	ScottishPower support the group's views as detailed within the consultation document. In terms of BSC Objective B we believe that the Modification would achieve this through accurate allocation of reactive energy as this would focus both parties to take the costs of such generation into account and thus lead to efforts to reduce reactive energy to reduce costs thus helping to improve the network in the process. In terms of BSC Objective C we believe that the better allocation of reactive energy and more accurate DUoS billing will stimulate competition in this segment of the

Respondent	Response	Rationale
		market as more Suppliers would in our opinion be willing to accept these sites as Customers as they will be satisfied that they are not being unduly charged due to the incorrect allocation of DUoS charges and thus disadvantaged.
RWEnpower	Yes	We believe the Proposed Modification P266 would help to achieve Applicable BSC Objective (c) as it would allow a more appropriate and greater transparency on the allocation of Reactive Power flows and associated DUoS charges, thereby removing a barrier to participation in the market.
Electricity North West Limited	Yes	-

Question 13: Do you have any further comments on P266?

Responses

Respondent	Rationale
SmartestEnergy Limited	We do not understand the argument that the BSC should be aligned with CDCM. Firstly, why should CDCM rules dictate to the BSC when it was the DNOs who created something that was inconsistent? Secondly, and most importantly, where is the advantage to CDCM if this solution is only to be applied on a voluntary or forward-looking basis? The CDCM argument is clearly a red herring.
UK Power Networks	The industry requires a robust and effective metering solution that is understood, standardised, better aligns to the licence modes of use (supply and generation) and provides the opportunity to have meters that are easily configurable to modes of import only, export only or import & export. The change proposed primarily ensures that metering evolves in line with the improved capabilities of electronic meter, that has existed for many years, to better describe the usages being made of the distribution systems, something that could not have been done in the era of electro mechanical metering. The change now, is timely, in respect of active network management and reactive power services that require the P266 change basically to be practicable, over and above the charging benefits and invoice validity and verification benefits highlighted through the P266 work.
Accenture (for and behalf of ScottishPower)	From our billing perspective as Supplier: Our main feedback would be that CDCM has made no difference to the extra effort we have to expend in billing (as IMPORT supplier) the generation sites. We still cannot bill through our main billing

Respondent	Rationale
	system as we do not get all the information required to bill. This means having to use a workaround and a secondary billing system where Settlements send us data on the pass through charges to be placed on the invoice. P266 if implemented will help enormously and should eliminate the need for workaround on generation sites, saving effort from both Billing and Settlements. In relation to the Legal Text: ScottishPower disagree with the use of the word 'OR' within section 1.2.7.c.i. of the Legal Text. Page 10 of the Assessment Consultation explicitly states that where import is below 100kW AND export below 30kW compared to the legal text where the word 'OR' is used. This, we believe, could lead to unexpected outcomes when threshold exclusions are applied using the rule which could potentially lead to systems which should be covered by P266 not being included. Therefore, we believe that the 'OR' should be replaced with 'AND'. We would also prefer to see a stated threshold in section 1.2.7.c.ii as this would remove any doubt over the threshold.
Electricity North West Limited	We need to understand if this Working Group will discuss the circumstances surrounding missing data or whether it is more for the DCUSA to investigate default values i.e. If we are separating Import/Export data should we have common rules on how estimates are calculated, potentially by the DC.