

# HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

## OVERVIEW

9 responses were received to the PSRG consultation on 'Half Hourly Settlement for Dynamically Switched Meters (Impact Assessment)' (issued on 5 November 2014).

Additional comments were received from Cygnet Solutions, who are responsible for the operation and maintenance of the Radio Teleswitch (RTS) Central Teleswitch Control Unit (CTCU) on behalf of the Energy Networks Association (ENA).

The responses from Npower, Electralink and Cygnet are appended to the end of the question-by-question response tables.

No.	Company Name	Role of Parties/non-Parties represented
1.	TMA Data Management Ltd	NHHDC, NHHDA, HHDC and HHDA
2.	ElectraLink Ltd	Service provider
3.	E.ON Energy Solutions	4 Parties / Supplier
4.	Western Power Distribution	4 Parties / LDSO
5.	ScottishPower	2 Parties and 1 non-party Supplier, LDSO, Party Agent
6.	SSE Energy Supply Ltd	1 Party and 1 non-party Supplier, Party Agent
7.	EDF Energy	10 Parties and non-party Supplier, Party Agent, Consolidator, Generator, Exemptable Generator, Trader
8.	NPower	
9.	British Gas	1 Party / Supplier

# HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

## RESPONSES

### Question 1. Have we identified the main cost-drivers for servicing dynamically switched customers under the HH arrangements?

TMA Data Management Ltd	<p>Yes. The elements that can impact the cost of settling Dynamically Switched metering Half-Hourly have been identified in the Impact assessment. We agree that Metering is cost neutral as there is no need for site visit, change or reprogramming. We agree that proving test is an additional process that currently the metering system for dynamically switched metering are not subject too, however, a CP could be raised to exempt them from that. The DUoS charges should also be cost neutral following P300 implementation. We would argue that RTS costs are cost neutral in the sense that they exist whether the sites are settled HH or NHH.</p> <p>We disagree with the argument that no economy of scale would be realised until universal HH settlement. The addition of dynamically switched meters would increase the HH portfolio by 56%. Competition between agents will ensure that Supplier can choose agents providing quality services with efficient processes, making the most of any economy of scales.</p>
E.ON Energy Solutions	<p>With the exception of potential Data Communication Company (DCC) costs, we do not believe there are further cost drivers from those listed in the Impact Assessment documentation. It should be noted that as industry moves into the new smart metered world with communications and instructions via DCC there may be additional costs. For example as the DCC and Supplier systems bed in, there may be issues with the way in which Auxiliary Load Switches and Half Hourly data are managed within the DCC infrastructure which could not be foreseen at this time and therefore data retrieval and or communication charges for these meter types may be higher than currently anticipated.</p>
Western Power Distribution	<p>Yes. The rational is detailed in the previous consultation and the minutes of the relevant meetings.</p>
ScottishPower	<p>ScottishPower believe all the main cost-driver categories have been identified however within the Metering cost-driver there is no mention that move to HH metering will include a Change of Measurement Class (though this is briefly mentioned under the Data Retrieval driver). CoMC activity may involve a site visit which in turn</p>

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	could add cost to the transfer to HH.
SSE Energy Supply Ltd	<p>We would like the fundamental cost-drivers and current Smart developments to be receive greater attention. Secondly, we challenge some of the assumptions and descriptions of issues identified as cost-drivers (please see question 2). We would also like to highlight aspects of the broader environment deserving of attention.</p> <p>Fundamentally, a SMETS2 meter cannot under current DCC design be used for Half Hourly settlement. The HH profile data from the SMETS2 meter isn't for use by settlements or billing. Moreover, only the supplier can access the data from the SMETS2 meter, the HHDC cannot and therefore the handoff to HHDA is also compromised. If this issue is addressed we are also mindful of the challenge from consumers that they are unwilling to permit their supplier to access the data from their smart meter required to realise HH settlement. Given the location of many of these dynamically switched meters the ability to communicate with the meter may present a separate set of barriers requiring consideration.</p> <p>This Impact Assessment is focussed on Option 1 and 2 (our previously stated preference was for Option 4) and though we do see certain benefits to pursuing Option 1, the dependencies on smart developments mean we have not yet reached a timely juncture to pursue high level requirements or state potential costs of various options for HH Settlement for Dynamically Switched Meters. Notwithstanding, we do recognise certain long-term benefits of universal settlement and our path towards this end-point must be informed by and considered as being pragmatically achievable when viewing the realities of DCC design.</p>
EDF Energy	EDF Energy agrees that Elexon have identified the main cost drivers for servicing dynamically switched meters under the current HH arrangements. The current HH arrangements have evolved over time and are suitable for the volumes of meters that are managed under these arrangements, and the volume of energy that is settled for those meters.
British Gas	We agree these are the main cost drivers.

# HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

## Question 2.

What proportion of the overall cost of servicing dynamically switched customers under the HH arrangements would you ascribe to each of the cost-drivers listed in this section?

TMA Data Management Ltd	<p>1-HH Agents fixed costs / Data storage and Transmission cost                  2-Data Retrieval                  3-Other BSC processes (CP can be raised to cater to the different requirements of less powerful sites settled HH)                  4-Metering / proving tests (if CP raised to exempt dynamically switched meters)/DUoS charges/RTS cost</p>
E.ON Energy Solutions	<p>As noted in answer to Question 1, we are concerned there may be additional charges relating to data retrieval via Data Communication Company that may adversely impact the proportion of costs associated with changing settlement arrangements for these sites. Therefore we are not clear on the usefulness of ranking these at this time.</p>
Western Power Distribution	<p>The establishment of measurement class F (Domestic Whole-current Half-Hourly) is already underway in the DUOS systems and this means that RTS customers should not be affected by this change. We do not have the knowledge to assess any change in costs for suppliers and their agents.</p>
ScottishPower	<p>Metering 10%, Data Retrieval 0%, Data Storage &amp; transmission costs 20%, Proving tests 20%                  Other BSC processes 5%, HH agent fixed costs 20%, DuoS charging 20% &amp; RTS costs 5%.</p> <p>Data Retrieval Charges are dependent on the solution being arrived at with respect to submitting HH data to HHDCs and could increase significantly.</p>
SSE Energy Supply Ltd	<p>Our response to Question 1 highlights the more fundamental issues impacting the ability to pursue and analyse the options presented in this consultation. As such we are unable to ascribe costs (proportional or otherwise) to each cost-driver, we do however have comments on their representation,</p> <p><b>Metering:</b> We would challenge the assumption that SMETS 2 will comply with CoP10.</p> <p><b>Data Retrieval:</b> This is a significant area and the costs would be determined on the solution and thus how costs are met by industry</p>

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	<p>parties.</p> <p><b>Data storage &amp; transmission costs:</b> These should not be underestimated, should other barriers be overcome the size of these files are particularly large and the cost for managing this data would increase.</p> <p><b>Other BSC processes:</b> We expect there will be minimal change to other BSC processes.</p> <p><b>DuoS charging:</b> With the implementation in November 2015 of the new DCUSA Charging Structures for Domestic, and Non Domestic Whole Current, Half Hourly Settlement (DCP179), we would expect no see no changes to DuoS costs.</p> <p><b>RTS Costs:</b> The consultation document confirms costs will not reduce under Smart arrangements. We note that RTS is guaranteed till 2020, however the current contract extends to 2017 at which point a renegotiated contract will need to be in place. As such the costs may increase as of the early stages of the mass smart rollout.</p>
EDF Energy	We have not been able to undertake an accurate assessment of the proportion of costs that can be allocated to each of these drivers, especially as many of these tasks are undertaken by our HH Agents who aggregate these costs when charging us for their services.
British Gas	Priority cost would be Data Storage and Data Retrieval.

# HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

## Question 3. What is your estimate of the incremental annual cost per dynamically switched Metering System of servicing it HH rather than NHH?

TMA Data Management Ltd	No comment.
E.ON Energy Solutions	Confidential response provided.
Western Power Distribution	<p>My presumption is that this data will be presented to DUOS in D030 format from the data aggregator against specified SSC/TPR combinations.</p> <p>Additionally, there are no dynamically switched systems in Swest, Swales or West Midlands. There are about 40,000 "heatwise" customers in the East Midlands but, as far as WPD is aware, these are operating as de facto static systems.</p> <p>In the case of "heatwise" dynamic tariffs it should be noted that the East Midlands DUOS system is "De-linked" from the SSC/TPR combination and would not need to be re-configured to bill this D030 data irrespective of the half-hours affected by any changes in switching.</p> <p>In the above scenario, there is no significant incremental annual cost to DUOS since the functionality is already provided under P300.</p>
ScottishPower	<p>In terms of servicing dynamically switched metering systems HH rather than NHH it is unlikely there would be an incremental difference in terms of DCC costs as these are smeared however DCC do reserve the right to periodically review this charging methodology and it is not currently clear on DCC charging related to HH data provision.</p> <p>There will be additional costs with respect to system changes to accommodate the increase in the number of sites to be settled and billed on an HH basis however the precise number of dynamically switched metering systems which will remain after SMART meter roll-out is unclear. We would expect the number of dynamically switched meters to reduce as consumers opt for more easily understood tariff arrangements, meaning that overall costs would be reduced.</p> <p>In combination, the 2 issues above make an overall cost assessment</p>

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	impossible at this time.
SSE Energy Supply Ltd	Based on the current Agent's cost for the Mandatory 100kW Settlement we would expect to see additional annual costs to be around £200 for Data Collector / Aggregator and £350 for Metering. Additionally, these may be impacted by wider system costs (one-off or ongoing) required to overcome the current limitations of BAU and Smart alignment.
EDF Energy	We have not been able to undertake a detailed analysis of the incremental annual cost of servicing a dynamically switched customer on an HH rather than NHH basis. As noted in response to questions below, the current HH processes would not be suitable for managing smart meters on an HH basis; we do not have a clear enough picture of what the HH processes would be for these customers to be able to provide an accurate assessment but we believe that the costs would be significantly higher for HH settlements.
British Gas	Unknown

## HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

Question 4. How should HH data from smart Meters be provided for Settlement purposes?	
TMA Data Management Ltd	A D0036 like format removes a level of granularity, consequently we would prefer to receive raw data.
E.ON Energy Solutions	Starting from an assumption that larger message packet sizes by collecting HH data at periodic interval e.g. monthly will not adversely impact DCC service provision our preference is to collect such data at this level of frequency.
Western Power Distribution	In the context of the RTS system we see no need to change from D030 data compiled by the data aggregator.
ScottishPower	P300 / DCP 179 solutions, which propose to amend the appropriate data flows, should enable HH data to be provided for Settlement purposes using traditional HH settlement processes however given that these sites will be DCC serviced a new solution (Supplier to HHDC or DCC to HHDC solution) is required. Without significant analysis performed, including clarity being provided on DCC charging and governance for provision of HH data, it is unclear what the best solution would be.
SSE Energy Supply Ltd	As referenced in our response to Question 1, current plans for Smart and DCC design are not allowing for HH data to be provided for Settlements Purposes. Given the population of dynamically switched meters is relatively small we support the view that universal HH settlement solutions do need to be addressed ahead of fully investigating solutions for dynamically switched meters.
EDF Energy	EDF Energy believe that the HH data from smart meters would need to be provided to the HHDC by the Supplier, as they are the only party who has access to that data under current SEC rules, and can demonstrate they have customer consent to access that data. We do not believe that a change to the SEC to enable HHDCs to be able to retrieve data from smart meters would be appropriate. Not only would this incur costs that would most likely be socialised across all SEC parties through the DCC's charging methodology, but it would make it more difficult to ensure that HH data is only retrieved where the customer has provided explicit consent, as the consent as the data retrieval would be split between the Supplier and the HHDC. A D0036 dataflow structure would seem to be a sensible mechanism for data transfer of HH data from Suppliers to HHDCs; however we are uncertain how Supplier and HHDC processes for validating, estimating and substituting data, where necessary, will operate with smart meters. Any new requirements will take time and effort to



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## Question 4. How should HH data from smart Meters be provided for Settlement purposes?

	<p>develop, and could require a change to the format of the D0036 dataflow.</p> <p>As with all dataflow transactions we believe that it should be possible for two parties to bilaterally arrange to exchange data via alternative methods other than DTC dataflows, as long as it can be proven that the same data is being exchanged. The BSC should be focused on achieving the appropriate outcomes, in this case the transfer of validated data. It may be possible for parties to achieve those same outcomes in different ways and potentially more efficient/accurate ways based on their operating model.</p>
British Gas	<p>Using the D0036 is the straight forward option here, and will possibly be the most popular choice, but should not be mandated as a better more sophisticated option could be found.</p>

## HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

### Question 5. Which of the changes listed as 'optional' would need to be made to accommodate HH Settlement for dynamically switched domestic and small non-domestic Metering Systems?

TMA Data Management Ltd	<p>Two of the optional changes listed would be useful. Proving tests might not be as beneficial for the class of meters that are dynamically switched. It would make sense to exempt Profile F and G from the proving test process.</p> <p>A default EAC appropriate to the Measurement Class should be introduced. The default EAC is not only used in HHDA but also in HHDC when the Supplier has not provided a site specific EAC in the D0289 during the appointment process and no other means of estimation is possible. The default EAC is punitive to ensure that agents and Suppliers do everything they can do to obtain better data, the same principle should be used for profile class specific default EAC but with a more reflective level of consumption appropriate to the type of sites represented.</p> <p>The Estimation described in BSCP502 is a scale of methods to be used in a certain order to ensure that the most appropriate method is applied; we do not see any issue with applying the same estimation process to the Dynamically switched meters.</p>
E.ON Energy Solutions	<p>We believe it is highly likely that all three 'optional' changes (Proving Tests, Estimation, HHDA Default) would be needed.</p>
Western Power Distribution	<p>WPD would support the exemption of whole current HH meters from requirement for proving tests.</p> <p>Regarding the method of estimating data, WPD would be likely to support solutions proposed by the HHDC's as this is their area of expertise.</p> <p>It is also sensible that the new measurement classes be given appropriate "EACs".</p>
ScottishPower	<p>It would be helpful if Measurement Classes F and G could be made exempt from Proving Tests for HH meters as this would help reduce costs which would ultimately be borne by customers with Dynamically Switched meters.</p>
SSE Energy Supply Ltd	<p>We do not envisage Proving Tests would provide a benefit based on DCC obligations in this area. We suggest changes to Estimation and HHDA Default processes should not yet be looked into before universal HH settlement plans progress.</p>
EDF Energy	<p>EDF Energy believe that all of the changes listed as 'optional' would</p>

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	<p>be required to accommodate HH Settlement for dynamically switched domestic and small non-domestic Metering Systems. Making all of these changes effectively creates a new set of processes, alongside the current HH and NHH processes, to be able to manage a limited set of customers. We believe that making such changes and increasing the variation within HH processes creates a significant settlement risk for all meters that are settled on an HH basis.</p> <p>We believe that creating a new set of smart-specific HH processes for a small number of meters for a short period of time would be an unnecessary distraction and waste of effort given that any arrangements will be replaced by the end of 2020. We would prefer to keep things as simple as possible, and retain smart meters under the current NHH arrangements wherever possible until the market moves to universal HH settlement.</p>
British Gas	<p>As most of these systems are likely to be on Measurement Class F and G meters if they are HH Settled then an exemption to the proving test could be beneficial helping to lower this cost.</p> <p>But there is no major impact from this to us.</p>

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### Question 6. Are there any additional changes that would be needed?

TMA Data Management Ltd	No comment
E.ON Energy Solutions	There will likely be a requirement for potential changes to data-flows to cope with extra decimal points for low consumption data.
Western Power Distribution	No.
ScottishPower	<p>It will be essential to carry out a full and detailed comparison of SMETS2 compliance with COP10.</p> <p>It is apparent that there are many differences e.g. COP10 states "to cater for continuous supply failures, the clock and calendar shall be supported for a minimum period of 20 days without an external supply connected and maintain time accuracy in accordance with clause 5.5.2;" whereas SMETS2 holds no such requirement and is very much a minimum specification where no battery requirement is specified.</p> <p>Therefore, it is expected that there will be additional costs incurred for metering and for associated communication hubs provided by the CSP's and operated by Suppliers.</p>
SSE Energy Supply Ltd	-
EDF Energy	We have not identified any further changes that would be required. We note that if further changes are made to accommodate dynamically switched meters within HH processes, the complexity of those processes and the risk to all meters settled on an HH basis would be increased.
British Gas	None

## HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

**Question 7. To what extent would the cost of servicing dynamically switched customers incurred by your organisation under the HH arrangements be reduced if these additional changes were made?**

TMA Data Management Ltd	The removal of proving tests for Measurement class F and G would lower the cost incurred, mostly when the COMC is carried out. The cost of any proving test triggered after would be marginal compared to the initial process and would likely be absorbed by normal operation.
E.ON Energy Solutions	We do not see these as a cost reduction and believe these changes would be needed to ensure an efficient running of processes.
Western Power Distribution	At present, there are no costs associated with dynamically switched customers in the distribution areas covered by Western Power. We cannot envisage a scenario where this changes.
ScottishPower	Without detailed comparison of SMET2 and CoP10 and details about cost it is difficult to quantify these figures accurately at present.
SSE Energy Supply Ltd	Whilst these additional changes may make a saving to managing these customers as HH, the saving is not significant when set against the additional costs incurred. The issues and associated costs required to allow HH arrangements for dynamically switched meters are fundamental and high, respectively. Pursuing these current options is likely to challenge the ability to support this metering system in an economically sound manner.
EDF Energy	We do not believe the costs of servicing dynamically switched customers would be significantly reduced if these additional changes were made. The costs of making these changes to Supplier and Agent systems and processes would almost certainly outweigh the reduction in cost that would be achieved through the changes, especially relative to the number of metering systems that are likely to be dynamically switched in the period before implementation of universal HH settlement.
British Gas	Unknown

## HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

### Question 8. Do you believe that a mandate is necessary?

TMA Data Management Ltd	A mandate is necessary to ensure that all dynamically switched meters are settled HH, therefore settled accurately.
E.ON Energy Solutions	No. Our preference is to transition to HH arrangements through an elective process at a time when the new supplier and DCC systems are proven, stable and mature to cope with the additional volume of data. We view this as a natural progression and one that suppliers should be able to choose to take at a time of their choosing to manage the impact of such changes.
Western Power Distribution	Yes. It is best that the classes of customers are clearly defined within a mandate in order to minimise the incidence of disputes between the various BSC parties.
ScottishPower	While a mandate may well be helpful, additional issues could delay or prevent the move to HH Settlement for dynamically switched meters and hinder consumer buy-in to the change given that, traditionally, it can be difficult for customers to understand these tariffs, it is considered, in some quarters, to inhibit market competition and the additional hurdle of requiring express consent to collect HH data from domestic customers' metering systems.
SSE Energy Supply Ltd	Without first addressing a number of barriers expressed in our response a mandate is not possible. Beyond the system and design constraints referenced throughout our response, we cannot obligate customers to agree to provide HH data given guidance from the Information Commissioner's Office (ICO). Therefore, any obligation placed on Suppliers to gain HH data would be unfeasible.
EDF Energy	<p>EDF Energy strongly believes that a mandate to settle these consumers on an HH basis is not necessary and should be avoided; implementing such a mandate will create a number of issues not only for Suppliers, but for dynamically switched consumers.</p> <p>Were any mandate to be implemented, it would create a barrier to consumer switching as Suppliers who do not operate dynamic meter switching would need to undertake a Change of Measurement Class in order to acquire those consumers as customers. This is likely to make the acquisition of these consumers unattractive and mean that they are less likely to be able to switch Supplier.</p> <p>Both Ofgem and Citizen's Advice have recently both expressed concerns regarding dynamically switched customers and their ability to switch; mandation of HH settlement is only likely to exacerbate this problem. This barrier to switching will also exist where</p>

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## Question 8. Do you believe that a mandate is necessary?

	<p>Suppliers optionally choose to settle smart meters on an HH basis; our preference is for dynamically switched meters to remain under the NHH settlement arrangements wherever possible, at least until industry smart HH solutions have been fully developed.</p> <p>Mandating HH settlement for dynamically switched customers may also mean that Suppliers will defer rolling out of smart metering to these customers as long as possible, putting them at the end of the rollout. This has a number of impacts, given the unstable nature of the RTS system it may be the case that they lose their switching capability before they have a smart meter installed, which could be to the customer's detriment. If the RTS systems does remain in place the costs are likely to be mainly borne by dynamically switched consumers. Citizen's Advice have already expressed concerns that dynamically switched customers will be exposed to a 'death spiral' of rising costs and falling standards of service as others move onto smart meters and they are left behind.</p> <p>It is also worth remembering that HH settlement requires Suppliers to have customer consent to access the HH data on their smart meter. Mandation would mean that either the customer may be pressured to give to consent to provide their personal data to the Supplier to retain their current dynamic tariff, or they will need to move to a static or semi-static tariff.</p> <p>We do not believe that there is any clear indication of the number of smart meters that will have dynamic switching applied in the period prior to universal HH settlement, and therefore the adverse impact that settling these customers on an NHH basis (as noted within the paper) will have on the overall accuracy of settlement. There is no clear case that HH settlement of dynamically switched meters would have an overall benefit.</p>
British Gas	A mandate is unnecessary based on relatively low number of systems.

# HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

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## Response from NPower

Dear Sirs,

I am writing in response to your impact assessment on Half Hourly Settlement for dynamically switched meters. Please consider this letter as npower's response.

We agree with the main cost drivers that have been identified by the Profiling and Settlement Review Group. Mandating half-hourly settlement for dynamically switched metering systems in the current industry framework would lead to notably higher costs. This concern is supported by the requirement for suppliers to continue funding the Radio Teleswitch Service (RTS) infrastructure costs until all customers with RTS technology have this replaced with a smart meter. In addition to this, the implementation of CP1411 in June 2015 will mean that proving tests will be mandated for all HH metering. The requirement for additional metering to require proving tests should be considered in the wider context of universal HH Settlement due to the additional cost that this could present.

There are a number of cost drivers which are based on assumptions and we are not able to provide indicative costs behind servicing some of our Domestic consumer base under the half-hourly arrangements.

Aside from the assumed costs outlined by PSRG, there would be increased costs around the associated half-hourly agents. This would fluctuate between different agents and the contracts that they were tendering at that time. There could be additional costs to consumers if the metering equipment failed and a meter reader was sent to site to obtain the data. It would therefore be essential to have a method of estimating metered data under smart arrangements and not purely mirror those that exist currently. Given some of the Foundation learning in the industry, at least three scenarios will need to be considered:

1. no data file (e.g. comms is down);
2. partial data (i.e. some time periods contain zero);
3. zero data (i.e. file is communicated with all periods erroneously as zero)

This would need to be consistent across the Domestic and non-domestic markets to ensure that customers are not disadvantaged by data estimation. Carrying out this piece of work independent of the Settlement Reform work could result in customer types being discriminated.

The subject of half-hourly settlement for dynamically switched metering should be raised as a wider point of consideration to the Ofgem Smarter Markets Settlement Reform work stream. This would ensure consistency across the market when looking at half-hourly settlement and the customer impact. This would also need to be worked in conjunction with the industry Smart Program to develop a solution for both areas of work and avoid any contradiction and additional complexity. Ensuring that this is done in conjunction with the wider reform work will avoid suppliers having to make multiple changes and establish a consistent way of handling half-hourly data across the electricity market.

In addition to the settlement aspects of this change there would need to be considerable development around the customer engagement. This will empower customers to use the metering more efficiently as well as providing an opportunity to educate consumers around the half-hourly requirements. In addition, progress around the data protection aspects of half-hourly consumer data will need to be made. The PSRG paper assumes that Suppliers will have access to half-hourly data from a smart meter which we believe is still to be determined.

There will be some additional changes that are required to facilitate HH Settlements for Dynamically Switched metering systems in the future. However, this will be reliant on the output of the Settlement Reform work stream. If



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the option of mandated HH Settlement is progressed through PSRG, there will be changes required in advance of the Settlement Reform change implementation which provides a risk of inconsistency and additional cost.

If option 2 was progressed, this could see an increase in the cost to serve for customers due to the nature of HH Settlement and funding the existing Radio Teleswitch Service. However, it is important that Suppliers treating customers fairly and without discrimination. As stated in the above we feel that this is not appropriate and would recommend that this piece of work is considered fully under the Settlement Reform work stream.

npower would also like to note the need to ensure that the industry's work on dynamically switched meters is joined up sufficiently to arrive at the optimum solution for consumers and all industry participants. The work being undertaken by PSRG and DCUSA change DCP204 consider specific aspects (Settlement and Demand Control) of the move away from dynamic switching arrangements to smart metering technology.

In summary npower, believe that there would need to be a co-ordinated approach to implementing HH Settlement across the market. Ofgem are leading on Smarter Markets and central to this they are leading on a piece of work that looks at Settlement Reform. We feel that to mandate HH Settlement for dynamically switched meters is not required at this point and it would be worth Elexon keeping a watching brief on the outputs for this work stream and carrying out follow up activity when required.

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## Response from ElectraLink

### Re: Half Hourly Settlement for Dynamically Switched Meters PSRG37/01

ElectraLink is pleased to respond to ELEXON's consultation entitled 'Half Hourly Settlement for Dynamically Switched Meters'. In accordance with our central role as service provider of the Data Transfer Service (DTS) to the GB electricity market we have focused our response on those areas most closely aligned with our experience, knowledge and core competencies.

#### About ElectraLink

ElectraLink was established in 1998 to procure and manage the regulated data transfer service that underpinned the newly formed competitive domestic electricity supply market. Since that date ElectraLink's Data Transfer service (DTS) has effectively facilitated electricity retail market competition by supporting customer switching, settlement agent management and meter administration business processes. ElectraLink has expanded into the gas retail market and supports the competitive gas meter market. ElectraLink is therefore unique amongst the central bodies in its offering of dual fuel services.

The DTS is based on highly resilient network architecture with component level resilience, automatic failover of communications links including fully managed security and disaster recovery services. The users of the service also have access to a functionally rich toolset and real-time audit information.

During 2014 ElectraLink will complete phase 2 of the DTS transformation programme which will result in a more cost effective and scalable DTS for the electricity market, based on open source software and enterprise cloud infrastructure. The new solution for the DTS is highly scalable and our design facilitates smaller, more granular upgrades to accommodate specific increases in messaging volume without incurring the costs of wholesale upgrades. As an outcome of the DTS Transformation project 2015 DTS charges will be 15% lower than for 2013 whilst at the same time accommodating message growth of ~13.2% over the same period.

The DTS continues to be provided by ElectraLink on a regulated, cost recovery basis. Where the addition of traffic processed by the DTS does not incur additional cost to ElectraLink, this will reduce the cost to industry of the DTS on a per Mbyte sent basis.

#### Initial Analysis

The consultation seeks responses on the main factors that will drive the costs of servicing dynamically switched customers under the HH arrangements. ElectraLink's analysis is focused on those costs affecting the DTS.

The DTS currently supports the transmission of existing Half-Hourly data flows between industry parties including ELEXON to facilitate the settlement process. ElectraLink's initial analysis of the impact to implement the HH Settlement of Dynamically Switched Meters is focused on the impact on the DTS and is based on two key Half-Hourly data flows transmitted across the DTS, specifically:

- D0036's (Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix) sent from Half-Hourly Data Collectors (HHDC) to Distributors, Data Aggregators and Suppliers ; and
- D0275's (Validated Half Hourly Advances) sent from HHDCs to Distributors and Suppliers.

These two flows currently equate to approximately 20% (approximately 150GB) of total data by volume sent across the DTS each year in support of the 119,000 Half-Hourly installed meters. Using the two flows detailed above as a benchmark, the introduction of HH Settlement of Dynamically Switched Meters, and assuming all 165,000 meters identified in the proposal are settled Half-Hourly, would increase the volume of data by approximately 205GB per

## HH SETTLEMENT FOR DYNAMICALLY SWITCHED METERS (IMPACT ASSESSMENT) COLLATED RESPONSES

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annum. ElectraLink believes this is a worst case scenario as we understand that customers may be reluctant to be settled on a Half Hourly basis, choosing instead to switch to another tariff.

**The net impact of supporting dynamically switched customers under the HH arrangements, if treated in isolation of other industry changes, would not necessitate an upgrade to the DTS infrastructure and therefore can be accommodated by the DTS at no incremental cost to industry.**

It should be noted that the timescale of the implementation identified within the consultation is aligned to other industry changes, including the smart meter rollout between 2016 – 2020. The combination of this change with other approved changes, such as P272, may well result in an increase in the capacity of the DTS during the rollout period, which will incur additional incremental cost to industry.

The DTS transformation programme will ensure that any such an upgrade can be accommodated in a timely and cost effective manner. It should be noted that the traffic element of DTS charges is a cost recovery mechanism for ElectraLink and does not reflect the cost to industry of the delivery of incremental traffic by the DTS i.e. the incremental cost to industry (if any) of the additional DTS traffic generated by this change will be substantially less than that derived from multiplying the existing DTS traffic charge by the additional traffic.

ElectraLink has previously engaged with ELEXON to explore how the impact of its traffic on the DTS infrastructure could be reduce through the innovative use of message broadcast. With the completion of the DTS Transformation Programme it is ElectraLink's intention to revive these discussions and, with ELEXON's agreement, to introduce the use broadcast technology on the DTS as a means of mitigating the impact on the cost of ELEXON using the DTS (due to legacy DTS traffic charges) of the extension of half hourly settlement in the electricity market.

As you are aware with regulated access to the industry data that flows across the DTS, ElectraLink is in a unique position to report to ELEXON on the progress and take up of this change. Such a reporting function would provide significant benefits for all parties through reduced effort and cost as the data gathering process would only need to be implemented once for all participants. Reporting would be provided securely, in a consistent format and to an agreed timetable, thus making the data collation process much easier. With all the reports coming from a central data source, future analysis would also be made more reliable, efficient and effective.

Should you wish to discuss our response and how ElectraLink can support ELEXON in the successful implementation of this change, please do not hesitate to contact me.

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## **Cygnnet Comments on Half Hour Settlement for Dynamically Switched Meters. (Elexon ref. PSRG37/01 dated 05/11/14)**

1. The suggestion that dynamically switched Metering Systems could be defined using clock-switched SSCs (Page 4 Option 1, bullet 3; expanded on in page 7) is problematic. While the operating window is known in all cases, using this as the basis for a clock-switched SSC will produce a distortion in energy volumes (as the consultation acknowledges). The example given (7hrs from 10) might suggest that such distortion would be relatively minor and could be considered acceptable, but more dynamic switching regimes exist where this is certainly not the case. Consider as an example one supplier's weather dependent dynamic switching algorithm which, in a day, provides between 0 and 14 hours in a 14 hour window. The annual average daily availability is c. 3.5 hours, and daily switching times are chosen to select the lowest priced half hours. Treating this as a uniform load applied for 14 hours would obviously be quite inappropriate.
2. RTS costs (page 9) - The suggestion that RTS message costs are fixed may be somewhat unrealistic. GCSs are charged proportionally to their contracted daily message allocation, which is reviewed annually. If dynamically switched Metering Systems were prioritised for transfer to smart metering (assuming that smart meters will have load switching functionality at least as good as RTS) then, after transferring all customers, there would be the possibility of discontinuing the relevant RTS broadcasts, which would allow daily message allocation to be reduced with associated cost savings. This would, however, increase cost for other GCSs due to the nature of the charging mechanism.
3. If the new Smart Meters are to maintain minimum RTS compatibility then each device will require two, independent load control switches.