

Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

P402 'Enabling reform of residual network charging as directed by the Targeted Charging Review'

This Modification will provide data to the National Electricity Transmission System Operator for setting and recovering Transmission Network Use of System demand residual charges. This proposal supports the implementation of Ofgem's Targeted Charging Review Significant Code Review Decision.

This Assessment Procedure Consultation for P402 closes:

5pm on Tuesday 15 December 2020

The Workgroup may not be able to consider late responses.



The P402 Workgroup initially recommends **approval** of the P402 **Alternative** Modification and **rejection** of the P402 **Proposed** Modification



The P402 Workgroup does not believe that the P402 Proposed or Alternative Solutions impact the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC

This Modification is expected to impact:

- LDSOs
- NETSO
- Elexon as the BSCCo

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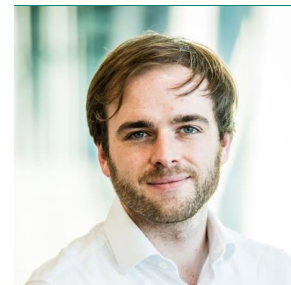


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About This Document

The purpose of this second P402 Assessment Procedure Consultation is to invite BSC Parties and other interested parties to provide their views on the merits of the P402 Proposed and Alternative Solutions. In particular, the Workgroup seeks your views on the Alternative Modification Proposal, which was raised by the Workgroup in response to the first Assessment Procedure Consultation. The P402 Workgroup will then discuss the consultation responses, before making a recommendation to the BSC Panel at its meeting on 16 January 2020 on whether or not to approve P402.

There are six parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the draft redlined changes to the BSC for the P402 Proposed Modification.
- Attachment B contains the Business Requirements for the P402 Proposed Modification.
- Attachment C contains the Business Requirements for the P402 Alternative Modification
- Attachment D contains the collated responses received to the first Assessment Procedure Consultation.
- Attachment E contains the specific questions on which the Workgroup seeks your views. Please use this form to provide your response to these questions, and to record any further views or comments you wish the Workgroup to consider.

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Why a second Assessment Procedure Consultation?

At its meeting on 2 November 2020, the Workgroup, in response to the first Assessment Consultation responses, decided to raise an Alternative Modification. This requires a second Assessment Procedure Consultation in order to seek industry views on the Alternative and establish its costs and impacts for market participants.

Why Change?

Following the conclusion of its [Targeted Charging Review](#) (TCR) Significant Code Review (SCR), Ofgem directed the National Electricity Transmission System Operator (NETSO) and certain¹ Licenced Distribution System Operators (LDSOs) to make changes to how residual revenues are recovered through Distribution Use of System (DUoS) and Transmission Network Use of System (TNUoS) demand charges.

The Balancing and Settlement Code (BSC) currently provides aggregated Metered Data and Metering System counts that the NETSO and LDSOs use to calculate TNUoS, Balancing Services Use of System (BSUoS) and DUoS charges.

Elexon and the Workgroup understand that the LDSOs have or can procure all data necessary to implement the TCR SCR changes, in relation to demand residual charging. However, NETSO does not have access to the relevant data. This is because NETSO relies on BSC processes to ensure it receives data it uses to calculate TNUoS and BSUoS charges. The data currently reported by BSCCo to NETSO is insufficient to enable the changes required for the TCR.

In order to maintain the BSC's existing role in providing data to NETSO, the Proposer believes the BSC must be amended in order that it ensures the provision of data that enables NETSO to set and recover TNUoS demand residual charges, in accordance with the TCR SCR decision.

The Proposer believes that the most appropriate way for NETSO to get the data it needs to recover TNUoS demand residual charges for the TCR is to require Elexon to send the data to NETSO, as NETSO already get data through the BSC and want to retain this relationship because it is well established.

Proposed Solution

P402 will introduce new reporting requirements on LDSOs and BSCCo that will ensure the provision of data to enable NETSO to set TNUoS demand residual tariffs and enable accurate billing of subsequent charges.

To ensure that NETSO receives the data it requires, P402 introduces processes that require the provision, consolidation and validation of three types of data to NETSO (Monthly Billing data, Annual Tariff Setting data and Unmetered Supplies (UMS) data), the creation of two new reports to NETSO and an update to the P0210 'TNUoS Report'.

The Balancing Services Use of System (BSUoS) charge recovers the cost of day-to-day operation of the Transmission System.

The Transmission Network Use of System (TNUoS) charges recover the cost of installing and maintaining the transmission system in England, Wales, Scotland and Offshore.

The Distribution Use of System (DUoS) charges Recover the cost of installing and maintaining the local distribution networks.

¹ Ofgem's direction only applies to LDSOs who are Distribution Services Providers, i.e. Distribution Network Operators (DNOs) not Independent DNOs (IDNOs). The BSC doesn't distinguish between DNOs and IDNOs.

The new Tariff Setting Reports and Billing Reports will be compiled following these overall steps:

1. LDSOs compile and send Half Hourly (HH) reports to BSCCo (Supplier Volume Allocation Agent (SVAA)) using a common file format to be specified in the SVA Data Catalogue. BSCCo extracts NHH data from existing Settlement data;
2. BSCCo consolidates each LDSO's report along with the NHH Settlement data into a single report (which will be specified in the SVA Data Catalogue); and
3. BSCCo will provide/enable access to the consolidated report to NETSO.

Additionally, P402 will introduce requirements for providing, maintaining and publishing how Line Loss Factor Classes (LLFCs) are mapped to Residual Charging Bands, which is essential to correctly convert Settlement and LDSO data for the calculation of TNUoS demand residual charges.

Please note that in order to set new TNUoS demand residual (TDR) charges to take effect from 1 April 2022, NETSO will require tariff setting data in October 2021. P402 will not have been implemented by this point and BSCCo will not have the data necessary to produce the Tariff Setting Report. Therefore LDSOs propose to provide, bi-laterally and directly, a one-off set of Tariff Setting Reports to NETSO in October 2021. The bilateral provision of this data sits outside this BSC Modification Proposal.

Alternative Solution

The original, Proposed Solution requires LDSOs to send data for Tariff Setting and Billing Reports to BSCCo (via SVAA) who compliment this with data for NHH sites, and then compile it into set of monthly Billing Reports and annual Tariff Setting reports, that would be sent on to National Grid.

The P402 Alternative sees LDSOs compiling this data themselves, sending it directly to National Grid and so not to relying on BSCCo or BSC Systems and Agents for these purposes.

This would require LDSOs to provide Billing and Tariff Setting data, including UMS data, to NETSO. It would draw upon existing BSCCo capability of data analysis to support LDSOs in the identification of CVA Registrants. The Legal Text for the Alternative will formally define what LDSOs must do and what the interfaces are, but the quick turnaround between the raising of this Alternative and the second consultation means that it has not been fully developed yet.

The Workgroup's discussions in developing the Alternative Solution are set out in Section 6.

Impacts & Costs

The Proposed P402 Solution will introduce new requirements on LDSOs to send reports to BSCCo and on BSCCo to aggregate this data and report to NETSO. This will impact LDSOs, NETSO and BSC systems and processes. We seek details on the costs and impacts on market participants via this Assessment Procedure Consultation. We estimate that the changes to BSC systems and processes will cost between £1.5 and £2 million and will require a 10-12 month implementation phase for the Proposed Solution.

The Alternative Solution will introduce new requirements on LDSOs to send reports to NETSO. This will impact LDSOs and NETSO and will not require any changes to BSC Systems – however BSCCo will provide support to Parties who need help in aggregating data and maintaining tables as part of Business as Usual (BAU).

The primary benefit of both the Proposed and Alternative for P402 is to enable NETSO to correctly calculate TDR network charges and thus enable the realisation of the TCR in compliance with Ofgem's direction. P402 does not improve Settlement processes therefore, taken in isolation, the benefits of the Proposed P402 Solution are difficult to assess and relate to efficiency gains with a centralised and transparent mechanism for provision of this data versus a more fragmented approach by individual LDSOs.

When combined with other Modifications resulting from the TCR, Ofgem's TCR SCR Decision estimates that significant savings to consumers of £3.8bn to £5.3bn and system benefit of £0.8bn to £2.9bn over the period to 2040 will be realised via levying residual charges in the form of fixed charges for all households and businesses.

The Authority's view is that this will have the additional benefits of the improving the fairness of residual charges and reducing harmful distortions in the electricity market related to both investment and operational decisions.

Implementation

To ensure consistent implementation of the TCR SCR across the Distribution Connection and Use of System Agreement (DCUSA), Connection and Use of System Code (CUSC) and BSC, all changes to systems, documentation and supporting processes need to be completed in time to meet the Implementation Date of NETSO's Direction, which is **1 April 2022**. The Workgroup therefore recommend P402 is implemented in the first scheduled BSC Release before this date, which is on 24 February 2022.

Recommendation

A **majority** of the Workgroup believes that P402 **Alternative** Modification would overall better facilitate the Applicable BSC Objectives compared with both the existing baseline and Proposed Modification and so should be **approved**. The Workgroup unanimously believes that P402 should be submitted to the Authority for decision (**not a Self-Governance Modification Proposal**).

2 Why Change?

The BSC describes processes necessary for reporting data to NETSO, which NETSO uses to calculate TNUoS and BSUoS charges. In particular, the BSC and its subsidiary documents specify the provision of the SAA-I014 'Settlement Report' and the P0210 'TNUoS Report'. Each of these reports aggregates Settlement Data (in particular Metered Data).

The BSC does not currently specify how any Party should report data to NETSO which it will require in order to implement CUSC Modification Proposals [CMP343](#), [334](#), [335](#) and [336](#). Collectively these CMPs are intended to make changes to the CUSC to give effect to Ofgem's TCR SCR decision and direction in relation to the setting and billing TDR charges.

The Proposer believes that the BSC needs to be changed in order to continue the BSC's central role in providing data to NETSO for network charging purposes. By continuing to make use of Settlement data for these purposes and handling this task centrally by BSCCo, efficiency gains can be unlocked with this approach than duplicating submission of the data to NETSO.

Background

Elxon (as 'BSCCo') is the code manager for the BSC, with responsibility for managing and delivering the end-to-end services set out in the BSC.

In accordance with the BSC, BSC Parties and Elxon ensure that metered data is collected and aggregated in order to perform imbalance settlement.

Because the BSC clearly sets out the rules for collecting, aggregating and assuring Settlement Data, it is also used to support a variety of other industry arrangements, including the calculation of BSUoS charges and both TNUoS and DUoS network charges.

How are Network Costs Recovered?

Allowed revenue

As network companies (NETSO and the LDSOs) are monopoly businesses, Ofgem sets price controls to encourage efficiency, innovation and stakeholder engagement.

Primarily, the price control sets a limit on the amount that each network company can recover from charging its customers to cover the ongoing costs of building, maintaining and operating network infrastructure. This amount is otherwise known as 'allowed revenue'.

Allowed revenues are recovered via Use of System (UoS) charges to Suppliers (and other users of the networks) who in turn pass these costs through to end-users.

Forward-looking charges and residual charges

Electricity network UoS charges have traditionally reflected underlying forward-looking charges and residual charges.

Forward-looking charges are targeted and cost-reflective, which signal to users how their actions can either increase or decrease network costs in the future.

Residual charges are designed to recover the rest of the relevant network company's allowed revenues once forward-looking charges have been set. Residual charges are set by working out the difference between the annual revenue expected to be earned from forward-looking charges and the total annual allowed revenue that may be recovered.

Currently, the methods used to recover residual revenues through TNUoS and DUoS charges are different. Also, the methods used to set and recover TNUoS and DUoS demand residual revenues may influence behaviour, which is an unintended outcome.

Targeted Charging Review

The Targeted Charging Review, launched in 2017, is an Ofgem-led project that assessed how residual network charges should be set and recovered in Great Britain. It also sought to keep other 'embedded benefits' (i.e. the differences in charges faced by smaller distributed generators and larger generators) under review. Ofgem set up the TCR in response to the changing role of the networks as more electricity is generated from a wider range of sources and more flexible demand.

The subject matter of the overall TCR is divided between matters which were the subject of the TCR Significant Code Review and certain other matters which were considered outside the scope of the TCR SCR, e.g. changes to the DCUSA and CUSC in relation to how Imports to storage facilities are treated within the TNUoS, BSUoS and DUoS charging arrangements.

The TCR is part of a wider review of network and system charges which includes Ofgem's 'Access and forward looking charges Significant Code Review' and an industry-led review of BSUoS charging arrangements.

As part of its TCR SCR decision, Ofgem directed NETSO and the DNOs to raise industry code modifications to give effect to the TCR SCR decision.

To summarise the findings from the TCR (with greater detail to be found in the [decision document](#)), Ofgem concluded that changes in network use and technology have meant that existing residual charging arrangements have created distortions in the electricity market related to both investment and operational decisions, allowing some consumers to avoid residual charges at the cost of other consumers. In particular:

1. Residual charges increase for consumers unable to avoid these costs to make up for lower overall revenues recovered from those users able to change their behaviour and avoid/minimise the charges; and
2. This encourages consumers to invest in technology or change their behaviour in ways which may increase rather than decrease the total costs of the system.

In its [TCR SCR decision](#) Ofgem noted that residual charges are significant, currently accounting for around £4bn/year across electricity transmission and distribution networks (around 10-15% of a typical electricity bill). Overall, '[Ofgem's] analysis indicates that [its TCR SCR] reforms will provide significant savings to consumers of £3.8bn to £5.3bn and system benefit of £0.8bn to £2.9bn over the period to 2040.'

Targeted Charging Review Decision and Direction

As communicated in the TCR final decision on 21st November 2019, in order to reduce the harmful distortions caused by the current residual charging arrangements which



What is a Significant Code Review?

A Significant Code Review allows Ofgem to initiate wide ranging and holistic change and to implement reform of a code based issue. The Significant Code Review (SCR) process has been added to the licence in order to facilitate significant industry changes in the most efficient manner. Ofgem has the sole right to raise SCRs, but will consult on scope of the review before commencing the SCR. Once commenced the SCR will utilise a number of industry workshops to develop an SCR conclusion. The period between the SCR commencing and SCR closing is known as the "SCR Phase". Further details on the SCR process can be found in the final licence modifications.

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encourage some organisations to reduce exposure to residual charges, Ofgem has decided that:

- Residual charges will be levied in the form of fixed charges for all households and businesses; and
- Liability will be removed for the Transmission Generation Residual from Generators and making changes to one of the 'Embedded Benefits' received by Smaller Distributed Generators in relation to balancing services charges.

In accordance with Ofgem's decision and related direction, the new transmission residual charges will be implemented in April 2022 and distribution residual charges in April 2023.

In response to the Direction on the recovery of the TDR, NETSO raised CUSC Modification Proposals (CMP) [CMP332](#), [CMP334](#), [CMP335/6](#), and [CMP343](#). The table below describes how collectively these CMPs are intended to implement different parts of an overall solution for delivering TCR residual charges changes in the CUSC.

CMP interactions	Element of TCR addressed
CMP334 – Transmission Demand Residual (TDR) Definitions	This will identify who will be liable for the TDR by defining 'Final Demand' and 'Site'.
CMP332 - TDR Methodology	Creation of a methodology to calculate the TDR, determine charging bands and set tariffs for each band.
CMP343 - Transmission Demand Residual bandings and allocation for 1 April 2022 implementation (TCR)	The Authority issued a modified Direction to NETSO requiring them to withdraw CUSC Modification Proposal CMP332 and raise a new CUSC modification, CMP343, to give effect to the TCR Decision with an Implementation Date of 1 April 2022 instead of 1 April 2021. This CMP will deliver that Decision.
CMP335/6 – TDR Application	Update all of the of 'post tariff' processes (e.g. billing, band allocation, securitisation etc.) to reflect the TDR methodology created under CMP332.
CMP340 - Consequential changes for CMP343 (TCR)	CMP340 will provide the definitions required for CMP343.

Elxon response to Ofgem's TCR consultation

On 3 October 2019, Elxon responded to [Ofgem's consultation](#) entitled 'Future Charging and Access programme - refined residual charging banding in the TCR'. At the time CUSC changes needed to go live in April 2021, whereas now it is April 2022. In our response we highlighted the challenge of developing and implementing cross-code modifications by April 2021 – particularly if industry code modification Workgroups were expected to develop the explicit and detailed cross-code business requirements. We also described how a BSC-based solution might work and set out a preference for using new registration details dedicated to supporting TCR rather than re-using existing details which might disrupt their current use.

P402 forms part of a programme of proposals raised to develop and implement detailed business requirements across the DCUSA, CUSC and now the BSC. In general these

proposals are progressing in accordance with NETSO and LDSOs' plan published by the Energy Networks Association (ENA) on 21 December 2019.

However, it is only since the beginning of 2020, following consideration of Ofgem's TCR decision that Elexon and industry participants had begun to develop the more detailed requirements and options for reporting data necessary to deliver the TCR SCR. A consequence of this work is that assumptions made during planning have proved not to be practical or possible to progress. Consequently the solution proposed by this proposal became clear in mid-February 2020.

What is the issue?

The TCR SCR decision included directions on LDSOs and NETSO to make changes to the way they set and levy DUoS and TNUoS demand residual charges. In response to these directions, LDSOs and NETSO raised DCUSA and CUSC modification proposals to implement the TCR SCR decision.

In summary, NETSO will require data for performing three different processes as part of its TCR SCR solution: band setting, tariff setting and billing.

Whilst Elexon and the Proposer are led to understand that the LDSOs have or may procure all data necessary to implement the TCR SCR changes for DUOS demand residual charging, NETSO does not. Please note that the Workgroup's consideration of P402 supports ELEXON's and the Proposer's original view that LDSOs have the data they need for DUOS purposes.

NETSO currently relies on data provided to it by BSCCo to calculate TNUoS charges; in particular, the SAA-I014 'Settlement Report' and P0210 'TNUoS Report'. These existing BSC reports will not provide the data necessary to support proposed TCR TNUoS charging arrangements, in particular to set tariffs and bill.

In particular, this is because the TCR SCR decision and related CUSC and DCUSA modification proposals will introduce new concepts not currently or specifically required in registration details or the collection, aggregation and reporting of Settlement Data – in particular, 'Final Demand', 'Site' and 'Residual Charging Band'.

Therefore the Proposer believes a change is required to the BSC that requires LDSOs and BSCCo to provide and aggregate Tariff Setting Data and Billing Data before reporting it to NETSO to implement the TCR SCR decision and direction.

Overall NETSO requirements

Tariff setting and forecasting requirements

In order to set residual charge tariffs, NETSO must:

- Allocate its Transmission Demand Residual (TDR)² annual allowed revenue between Charging Bands based on each bands' proportional contribution to total gross annual 'final demand' Imports;

² TDR is a specific amount of residual revenue that NETSO recovers in relation to the electricity Imported by users of the Transmission System. By comparison, NETSO also determines a Transmission Generation Residual (TGR).

- For each band, divide the apportioned allowed revenue by the number of Final Demand Sites in that band to derive a pounds per site (£/site) rate; and
- Divide each bands' £/site rate by the number of days in the charging year (365 normally, 366 on leap years) to derive a pounds per site per day (£/site/day) residual charging tariff.

As is proposed by CMP334, CMP335, CMP336, CMP340 and CMP343 (the TCR CUSC Modification Proposals), these steps will be set out in detail in the CUSC.

In addition to the new method proposed by CMP340 and CMP343, NETSO has an existing CUSC obligation to provide a five-year forecast of TNUoS tariffs (see CUSC paragraph 14.29). This will apply to any TDR charge introduced by CMP340, 343, 334 and 335/6.

In order to support the annual setting of tariffs (for the forthcoming charging year and forecasts for the forthcoming five years), NETSO requires an annual report, each October, to set draft charges. Each annual report must contain the latest 12 months' sum of gross annual 'final demand' Imports (MWh) per Charging Band.

NETSO requires an annual report with the sum of Final Demand (i.e. gross Imports for Final Demand Sites) over the last 12 months per Charging Band, per GSP Group.

Please note that 'Final Demand', 'Final Demand Sites' and 'Charging Bands' will be new concepts in the CUSC and BSC. Consequently the BSC neither receives data identified or aggregated using these terms, nor does it derive or aggregate data into these categories.

Billing requirements

NETSO must calculate a daily bill for each chargeable party – I.e. Registrants of Supplier BMUs and non-Supplier BMUs (e.g. for distribution connected demand facilities registered in CVA).

NETSO calculates a BMU's daily bill by multiplying the daily number of 'Final Demand' sites registered by each BMU Registrant in each Charging Band by the corresponding tariff rate (£/site/day) for the band. NETSO then sums the charges calculated for each day of the relevant month to determine a monthly bill.

In order to calculate each daily charge, NETSO requires a monthly report containing the number of Final Demand Sites per Settlement Day, per Charging Band, per Registrant, per BMU ID and per GSP Group. This report must be no less frequent than monthly.

NETSO already receives data for transmission connected sites with Metering Systems registered in Central Meter Registration Service (CMRS). Therefore this proposal's defect only applies to data related to sites connected to LDSOs' Distribution Systems with Metering Systems registered in Supplier Meter Registration Service (SMRS) or CMRS.



Proposed CUSC definitions

"Transmission Demand Residual Tariffs"

the £/site Transmission Network Use of System tariffs or £/kWh UMS Tariff that are levied on Final Demand Sites and Unmetered Supplies only

"Charging Band"

a band containing sites from one of the Residual Charging Groups created for the purpose of Transmission Demand Residual charging in accordance with 14.15.137 of the Connection and Use of System Code



What are Final Demand Sites?

DCP359 proposes that by default a Site will be defined as a single Import Metering System. However where a Site comprises more than one Import Metering System, DCP359 proposes that the Site is as defined in the Connection Agreement and that LDSOs will be responsible identifying a Site's Primary Metering System and Secondary Metering System(s). Therefore LDSOs will be responsible for only reporting the numbers of Primary Metering Systems in order not to over-count the numbers of Sites.

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P402 will ensure that NETSO receives the Billing and Tariff Setting data it requires to calculate TDR network charges in accordance with Ofgem's TCR SCR decision and its related CUSC Modification Proposals.

Proposed Solution

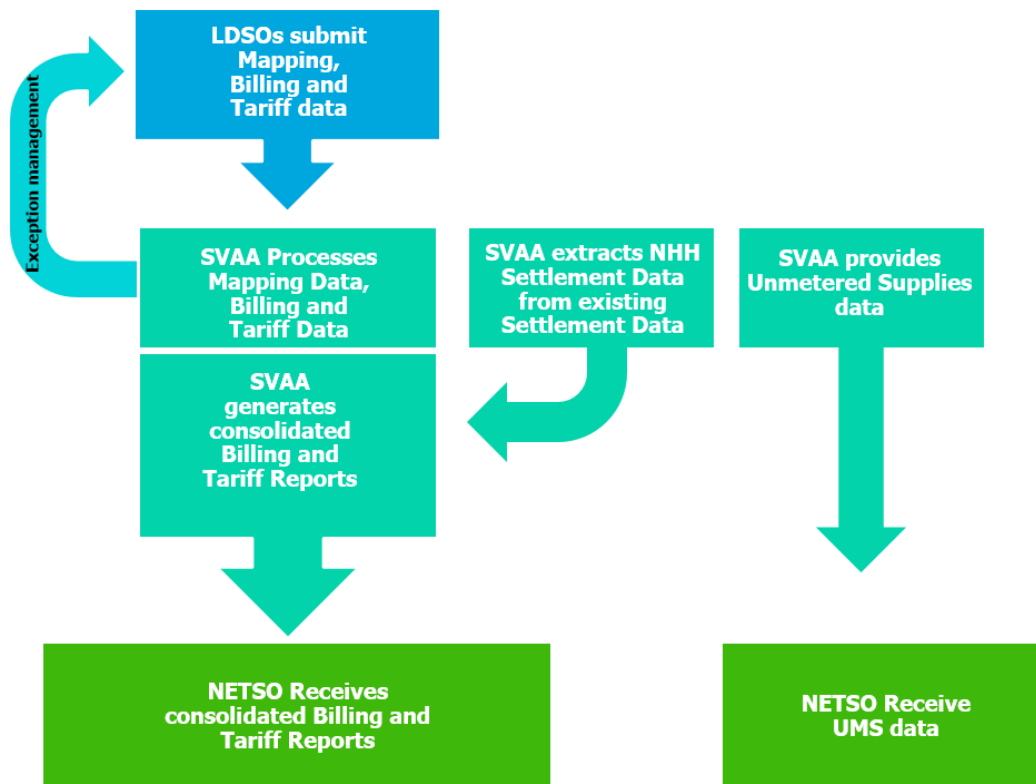
To ensure that NETSO receives the data it requires, the P402 Proposed Solution:

- Introduces processes that require the provision, consolidation and validation of three types of data - Monthly Billing data, Annual Tariff Setting data and Unmetered Supplies (UMS) data;
- Creates two new reports to NETSO (Billing and Tariff Report); and
- Includes additional UMS data in the P0210 'TUoS Report'.

The new Tariff Setting Reports and Billing Reports will be compiled following these overall steps:

1. LDSOs establish and maintain mapping tables in MDD;
2. LDSOs compile and send Billing and Tariff Setting Data for Sites with MC C and E HH MSIDs to BSCCo (SVAA) using a common file format to be specified in the SVA Data Catalogue. BSCCo extracts Billing and Tariff Setting Data for MC A, F and G MSIDs from existing Settlement data;
3. BSCCo consolidates all Billing Data (monthly) and separately all Tariff Setting Data (annually) into reports (which will be specified in the SVA Data Catalogue); and
4. BSCCo will provide access to the consolidated reports to NETSO and to BSC Parties via the ELEXON Portal.

High level illustration



Key elements

Overall, P402 proposes a solution that includes the following key elements:

- For sites with CVA Metering Systems and SVA HH Metering Systems equivalent to Measurement Classes (MC) C and E³, LDSOs send SVAA:
 - Billing Data on a monthly basis; and
 - Tariff Setting Data on an annual basis
- SVAA uses existing Settlement Data to determine Billing Data and Tariff Setting Data for sites with NHH Metering Systems equivalent to MC A and HH Metering Systems equivalent to MC F and G
- SVAA to combine Billing Data to produce a new monthly Billing Report and publish on the ELEXON Portal for NETSO, BSC Parties and those who pay for a licence to download as appropriate
- SVAA to combine HH and NHH Tariff Setting Data to produce a new annual Tariff Setting Report and publish on the ELEXON Portal for NETSO, BSC Parties and those who pay for a licence to download as appropriate
- LDSOs to provide and maintain new mapping tables in MDD, in particular:
 - An LLFC: Residual Charging Band mapping table
 - A 'dummy CVA LLFC:dummy MPID:actual CVA LLFC' table for CVA Sites

³ But excluding HH Metering Systems in Measurement Classes D, F and G.

- SVAA to specifically report HH and NHH UMS data to NETSO in the P0210 'TUoS Report'

The following sub-sections summarise these elements of the solution and the Business Requirements (see Attachment B) provide specific detail.

Solution development

The Proposed solution described in this Assessment Consultation document is not the same solution as originally proposed by the Proposer in its Modification Proposal or in Elexon's IWA. Instead the proposed solution was adopted by the Proposer following its consideration of options presented to the P402 Workgroup. For more information please see Section 6 'Workgroup's discussion' below.

P402 production of monthly Billing Report

LDSOs provide monthly Half Hourly Billing Data

Each LDSO will provide Billing Data for its HH Sites⁴ to SVAA. Billing Data will be the count of sites on each Settlement Day of the Reporting Period per Registrant, LLFC, and GSP Group.

LDSOs must provide Billing Data to SVAA each month within [2] WD of the Initial Volume Allocation Run (SF) for the last Settlement Day of the most recently completed 'Reporting Period'.

In the context of Billing Data a reporting period is a calendar month. Therefore, for the Reporting Period of 1-30 April, each LDSO will provide Billing data within 2WD of the SF Volume Allocation Runs (VAR) for 30 April.

LDSOs are responsible for reporting HH Billing Data because where more than one HH Metering System measures Imports to a HH site, the LDSO attributes each HH Metering System with the same LLFC. Therefore a simple count of HH MSIDs (e.g. by using Settlement Data derived from [D0040 'Aggregated Half Hour Data File'](#) data flows) would likely over-estimate the numbers of actual sites.

Only LDSOs know the relationship between HH MSIDs and Sites. Indeed, as demonstrated as part of the development of DCUSA [DCP359](#), LDSOs' billing systems currently differentiate between a Site's lead and secondary MSIDs and ensure they target network charges to the registrant of the lead MSID only. Therefore P402 proposes that LDSOs remain responsible for determining lead MSIDs for HH Sites and for determining the correct count of HH sites using these lead MSIDs.

For sites connected to Distribution Systems with CVA Metering Systems, LDSOs will create pseudo CVA MPIDs that represent the Registrant they have recorded in their billing systems and create pseudo CVA LLFCs that represent the specific sites.

LDSOs do not receive Metered Data for individual Metering Systems equivalent to Measurement Classes F and G and instead rely on Elexon to send them aggregated counts and consumption details for these Metering Systems. Consequently the P402 solution

⁴ Where a HH Site is a site whose lead Metering System (as determined by the LDSO) is a HH Metering System that is equivalent to Measurement Class C or E or is a CVA Metering System.

proposes that Billing Data and Tariff Setting Data for Sites with MC F and G metering are covered by the determination of NHH Billing and Tariff Setting Data described below.

Also note that Pseudo HH Unmetered Supplies (equivalent to Measurement Class D) are excluded from HH Billing Data. This is because UMS consumption is treated separately under the TCR solution and specific NHH and HH UMS data will be reported to NETSO in the P0210 TUOS Report as described below. Nb if an LDSO includes Site Counts for Sites with Measurement Class D metering in their HH Billing Data, then these will be mapped to non-chargeable bands and will be excluded from SVAA's final Billing Reports.

When compiling and sending HH Billing Data, LDSOs will report on the most recent Reporting Period and also earlier Reporting Periods where the final day in such an earlier Reporting Period has been the subject of a Reconciliation Volume Allocation Run during the most recent Reporting Period. Please see Business Requirements in Attachment B for an example.

Monthly Non Half Hourly Billing data

Within 2 working days of the Initial Volume Allocation Run for the last Settlement Day of the most recently completed reporting period, SVAA will determine NHH Billing Data from existing Settlement Data. In particular, SVAA will use the data sent to it by NHHDA's in [D0030 'Aggregated DUoS Report'](#) and by HHDAs in [D0040 'Aggregated Half Hour Data File'](#) data flows.

For each Billing Period, SVAA derives NHH Billing Data by counting the SPM Total EAC MSID Count and SPM Total AA MSID Count from D0030 data and Data Aggregator HH MSID Count from D0040 data to determine a daily count of NHH and Measurement Classes F and G MSIDs, per Registrant, per LLFC, per GSP Group.

When determining NHH Billing Data for the most recent Reporting Period SVAA must also determine NHH Billing Data for earlier Reporting Periods where the final day in such a Reporting Period has been the subject of a Reconciliation Volume Allocation Run during the most recent Reporting Period. Please see Business Requirements in Attachment B for an example.

Exelon will be responsible for aggregating Measurement Classes A, F and G data because it would be more efficient to do so. That is, LDSOs rely on Exelon sending them aggregated NHH and Measurement Classes F and G Metered Data in the D0030 Aggregated DUOS Report. Rather than LDSOs waiting for and then processing the D0030 data sent to them by Exelon to determine Billing Data, it would be more efficient for SVAA to derive Billing Data for Measurement Classes A, F and G at the same time as compiling D0030 reports.

Please note that this proposal relies on the following factors:

- there is typically a 1:1 relationship between Measurement Class A, F and G MSIDs and sites;
- where a site's Imports are measured by more than one NHH MSID (e.g. for Economy 7 tariffs) or by more than one MC F or G MSID (e.g. to support separate EV charging), that one of the MSIDs is represented by an LLFC mapped to a chargeable Charging Band and the other MSID(s) are represented by LLFCs which do not map to a non-chargeable Charging Band;

- Customers who have had MC F or G Metering Systems installed no longer require multiple Metering Systems to support multi-rate Supply contracts because the different time patterns and rates are mapped to different registers on a single smart or advanced Metering System.

The approach proposed under P402 assumes that a count of NHH and Measurement Classes F and G MSIDs with LLFCs mapped to a chargeable Charging Band is the same as counting Final Demand Sites. Because only Lead MSIDs have an LLFC mapped to a chargeable Charging Band and associated MSIDs are mapped to non-chargeable bands, it does not over count MSIDs and therefore produce an inaccurate count of NHH and Measurement Class F and G Final Demand Sites.

Produce and publish a monthly Billing Report

Using the LDSOs' Mapping Tables (described below), Elexon will aggregate the HH and NHH Billing Data (described above) to determine a monthly Billing Report. The Billing Report will contain Final Demand Site Counts by Charging Band for each Registrant and BMU, by GSP Group, on each Settlement Day of the most recent Billing Period and for Billing Periods whose last Settlement Day has been the subject of a Reconciliation Volume Allocation Run since the last report was published.

SVAA determines the count of Final Demand Sites within each Charging Band by aggregating the Billing Data MSID and Site Counts for groups of LLFCs that correspond to chargeable Charging Bands. Site and MSID counts for non-chargeable bands are not aggregated or reported to NETSO.

SVAA must produce Billing Reports within four Working Days (WDs) of the Initial Volume Allocation Run for the final Settlement Day of the most recent Reporting Period (i.e. calendar month). SVAA will produce Billing Reports even if at the point it generates a Billing Report it is still aware of discrepancies in or missing Billing Data - i.e. unresolved exceptions identified through structural and business validation processes. Any discrepancies or missing data ought to be resolved over time because LDSOs will send SVAA updated Billing Data as Reconciliation VARs are performed.

Please note that because LDSOs' billing systems do not differentiate between Suppliers' Base and Additional BMUs, LDSOs will report HH Billing Data by MPID only. Consequently SVAA will attribute all Site Counts where the related sites have SVA metering to each Suppliers' Base BMU (taking note of the GSP Group). CVA Sites will have their site counts attributed to the specific BMU and Registrant identified through Mapping.

Within 5WDs of the Initial Volume Allocation Run for the final Settlement Day of the most recent Reporting Period, SVAA will publish the Billing Report on the Elexon Portal for NETSO, Parties and any other company with a licence to access and download.

Reports will be hosted on the ELEXON Portal so they can be downloaded on demand or be 'pulled' from the website using a programmable interface, e.g. API or FTP.

P402 production of an annual Tariff Setting Report

LDSOs provide Half Hourly Tariff Setting Data each year

Each year within 2WD of the Initial Volume Allocation Run for the 30 September, each LDSO must provide Tariff Setting Data to SVAA.

HH Tariff Setting Data is the sum of gross Imports measured by HH Metering Systems (specifically MC C and E registered in SMRS and CVA Metering Systems; including the imports from lead and associated Metering Systems where appropriate) (KWh), categorised by LLFC within each GSP Group for the reporting period.

The LDSO will use Imports based on the most recent Settlement Run available at the time of producing the data.

The reporting period will be the most recent 12-month period from 1 October to 30 September. For example, when producing Tariff Setting Data in October 2021 the reporting period is 1 October 2020 to 30 September 2021.

Nb if an LDSO includes Imports for Sites with Measurement Class D metering in their HH Tariff Setting Data, then these will be mapped to non-chargeable bands and will be excluded from SVAA's final Tariff Setting Reports.

SVAA must determine annual Non Half Hourly Tariff Setting Data

Each year, within 2WDs of the Initial Volume Allocation Run (SF Run) for the 30 September, SVAA will determine NHH Tariff Setting Data from Settlement Data.

NHH gross Imports are determined by summing the D0030 Daily Profiled SPM Total EAC and Daily Profiled SPM Total Annualised Advances for each Settlement Day of the Reporting Period. Also by summing gross Imports for Measurement Classes F and G Metering Systems as reported in the D0040 'Aggregated Half Hour Data File'.

The reporting period will be the most recent 12-month period from 1 October to 30 September. For example, when producing Tariff Setting Data in October 2021 the reporting period is 1 October 2020 to 30 September 2021.

Produce and publish an annual Tariff Setting Report

Each year within 4WDs of the Initial Volume Allocation Run for the 30 September, SVAA must aggregate HH and NHH Tariff Setting Data to produce a Tariff Setting Report which it publishes on the Portal for NETSO and any other user to access. The Consolidated Tariff Setting Data reports sum of gross Imports (I.e. Final Demand)(MWh) by Charging Band and GSP Group.

Within 5WDs of the Initial Volume Allocation Run for the final Settlement Day of the Reporting Period (I.e. 30 September), SVAA will publish the Tariff Setting Report on the Elexon Portal for NETSO, Parties and any other company with a licence to access and download.

Reports will be hosted on the ELEXON Portal so they can be downloaded on demand or be 'pulled' from the website using a programmable interface, e.g. an API or FTP.

Validation of HH Billing and Tariff Setting Data

The SVAA will perform structural validation of Billing and Tariff Setting data provided by each LDSO. It will also perform limited business validation to determine any significant changes in the volumes reported from one period to the next. However, because the relationship between MSIDs and sites is only truly known by the relevant LDSO and so not open data, e.g. in SMRS or in Settlement Data, it is not possible for SVAA or any other person except LDSOs to validate that the numbers reported by LDSOs are accurate.

SVAA will generate and send exception reports to LDSOs if Billing or Tariff Setting Data fails structural and business validation tests. SVAA will seek to resolve any perceived discrepancies or missing data with LDSOs and will report any outstanding exceptions to NETSO. Please note that any missing data or discrepancies may be resolved over time as LDSOs refresh Billing Data by sending the latest values as each Reconciliation Settlement Run is performed.

Mapping requirements

In order to produce Billing and Tariff Setting Reports, SVAA must aggregate Billing and Tariff Setting data received by LLFC to Charging Bands.

To do this, LDSOs must provide and maintain mapping tables in MDD. These mapping tables are described below. In addition, Elexon will use the LDSOs' mapping tables to identify the correct relationship between Billing Data and CVA BMUs.

Whilst mapping tables will be defined in MDD, published on the ELEXON Portal and governed by the MDD change processes described in BSCP509, the mapping tables described below will not be added to the MDD data set sent to Parties and Party Agents using the D0269 and D0270 data flows.

Provision of LLFC:Charging Band mapping tables

Each LDSO must provide and maintain a table that maps LLFCs to Charging Bands in accordance with rules that will be set out in [BSCP509 'Changes to Market Domain Data'](#).

The mapping must show how all LLFCs used in SVA and 'dummy' CVA LLFCs are mapped to chargeable Charging Bands (as defined in the CUSC) and non-chargeable bands (as determined by LDSOs). Nb Dummy CVA LLFCs are created and used by LDSOs to simplify the production of Billing Data and Tariff Setting Data, i.e. Dummy CVA LLFCs will use the same specification as SVA LLFCs (i.e. three alpha-numeric characters). Dummy CVA LLFCs and Dummy CVA MPIDs will be mapped to actual CVA MSIDs as described below.

Provision of Dummy LLFC:Dummy MPID:Actual MSID for CVA Sites

In accordance with rules to be set out in BSCP509, each LDSO must provide and maintain an MDD table that shows how Dummy CVA LLFCs and Dummy CVA MPIDs are mapped to actual CVA MSIDs. Using the actual CVA MSIDs, Elexon will map dummy CVA LLFCs and dummy MPIDs to CVA BMUs and Registrant details stored in CRA and CMRS. This enables SVAA to ensure that CVA Site Counts are attributed to the correct CVA BMU and Registrant when compiling and sending Billing Reports to NETSO.

Provision of NHH and HH Unmetered Supplies (UMS) data

SVAA will extract HH and NHH UMS data from existing Settlement Data and provide to NETSO without adjusting it for distribution losses or applying Group Correction Factor. SVAA will include this UMS data in the P0210 'TNUoS Report' which will be amended to include two new data items for HH and NHH UMS uncorrected and unadjusted data.

Traditionally NETSO has used corrected and adjusted Settlement Data to calculate TNUoS and BSUoS. However, because this solution relies on LDSOs aggregating HH Import data (i.e. HH Tariff Setting Data), it is necessary to ensure that all Import data used as part of this solution remains unadjusted and uncorrected to ensure consistency. In addition, this approach will ensure that DUoS and TNUoS Residual Charges are set consistently using unadjusted and uncorrected Import data.

Data retention

This solution proposes that data provided by LDSOs, derived by SVAA and reported to NETSO should be retained for assurance and audit purposes. In particular, the proposal is to mirror or expand the existing BSC data retention provisions in Section U 1.6, which currently only apply to the execution of Settlement – nb P402 would establish a non-Settlement process so U1.6 would not apply as is currently defined.

Section U1.6 requires that Settlement data is held for at least 28 months after a Settlement Day in a format that can be sent for use in carrying out a Settlement Run or VAR, and thereafter until 40 months after the Settlement Day in an archive or other form.

Initial and enduring reporting

Ofgem's Direction to NETSO requires that its TCR SCR decision is implemented and takes effect from 1 April 2022. In order to set new TDR charges to take effect from 1 April 2022, NETSO will require Tariff Setting Data in October 2021.

Elxon indicated to NETSO during the preparatory work to this proposal that changes to BSC Systems would be unlikely to support reporting requirements before April 2022.

Consequently, P402 proposes that LDSOs provide a one-off set of Tariff Setting Reports directly to NETSO in October 2021 and October 2022. LDSOs must provide data in October 2021 because P402 will not have been implemented by this point. LDSOs must provide data in October 2022 because even though P402 will have been implemented, a full 12-months of Import data using the correct TCR LLFCs will not be available. Following discussions with the Workgroup, it was agreed that this will be handled bi-laterally between NETSO and LDSO's, falling outside the scope of this Modification's solution/change to the BSC.

BSCCo will provide its first Tariff Setting Report to NETSO in October 2023 and its first Billing Report to NETSO in March 2022.

P402 Alternative Solution

The original, Proposed Solution requires LDSOs to send data for Tariff Setting and Billing Reports to BSCCo (via SVAA) who compliment this with data for NHH sites, and then compile it into set of monthly Billing Reports and annual Tariff Setting reports, that would be sent on to National Grid.

The P402 Alternative sees LDSOs compiling this data themselves, sending it directly to National Grid and so not to relying on BSCCo or BSC Systems and Agents for these purposes.

This would require LDSOs to provide Billing and Tariff Setting data, including UMS data, to NETSO. It would draw upon existing BSCCo capability of data analysis to support LDSOs in the identification of CVA Registrants. The Legal Text for the Alternative formally defines what LDSOs must do and what the interfaces are.

The following sub-sections summarise key elements of the Alternative Solution and the Business Requirements (see Attachment C) provide specific detail.

LDSOs provide monthly combined data to NETSO

Within 10 Working Days of receiving the D0030 'Aggregated DUOS Report' data flow sent as part of the Initial Volume Allocation Run (SF) for the last day of a calendar month, each Licensed Distribution System Operator (LDSO) must provide the following data to NETSO in a single report for each day of the calendar month:

- 1) Count of Final Demand Sites
- 2) UMS data for Single Sites (HH and NHH)

LDSOs provide updated monthly billing data to NETSO

Within 10 Working Days of receiving the D0030 'Aggregated DUOS Report' data flow sent as part of the Initial Volume Allocation Run (SF) for the last day of a Reporting Period, each LDSO must provide updated billing data to NETSO for applicable Reporting Periods that occurred before the Reporting Period being reported to NETSO.

That is, LDSOs must resend the most up to date site counts and UMS Import data for each day of a reporting period(s) where the last day of the reporting period(s) was the subject of a Reconciliation Volume Allocation Run since the last time the LDSO generated a report.

When reporting updated billing data for a reporting period(s) LDSOs must identify the Volume Allocation Run Type that occurred for each day of the reporting period(s).

LDSOs provide an annual report of Final Demand Site Import data

Measured gross Import for Final Demand Sites

Each year, within 10 Working Days WD receiving the D0030 'Aggregated DUOS Report' data flow sent as part of the Initial Volume Allocation Run (SF) for the last day of September, LDSOs must send NETSO a report containing the sum of the last twelve months' actual metered Imports (MWh) to Final Demand Sites connected to the LDSO's Distribution System (excluding UMS), which are measured by Metering Systems registered for CVA or SVA, by each combination of Charging Band, Distributor ID and GSP Group.

The twelve month period to be reported must be the period running from 1 October to 30 September.

LDSOs must use Imports based on the most recent VAR available at the time of producing the report and exclude exports, i.e. it must not provide a net value of imports by subtracting exports.

This requirement takes effect from 1 October 2023. Until the 1 October 2023, LDSOs and NETSO will agree interim reporting arrangements that will enable NETSO to set residual tariffs in October 2021 and October 2022.

Common file format and interface

A single agreed file format must be used by all LDSOs to provide the billing report data to NETSO. The proposed fields for the file are set out in P402-BR-42 LDSOs provide monthly combined data to NETSO. The format will be set out in the relevant Code Subsidiary Document. This will be a CSV flat file.

A single agreed interface must be used by all LDSOs to provide the billing report data to NETSO.

Common file format - monthly billing report

A common file format must be used by all LDSOs to provide NETSO with monthly billing data. LDSOs will use a CSV file format.

The proposed fields and file structure for the file are set out in the Business Requirements. The detailed file definition will be set out in the SVA Data Catalogue.

Common file format - annual billing report

A common file format must be used by all LDSOs to provide NETSO with annual tariff setting data. LDSOs will use a CSV file format

The proposed fields and file structure are set out in the Business Requirements. The detailed file definition will be set out in the SVA Data Catalogue.

Common interface

LDSOs will send the data using the common file formats described above to NETSO using SFTP or by another means as may be agreed between the LDSO and NETSO.

Support the identification of CVA registrant details

BSCCo, e.g. via the BSC Service Desk, will support LDSOs with using existing BSC data flows and registration details, such as contained in the CDCA-I012 'Report Raw meter Data', CDCA-I014 'Estimated Data Report' and CRA-I014 'Registration Report', to identify the relationship between BSC Party IDs and CVA MSIDs. Where necessary BSCCo will help resolve any issues with the ordinary provision of this Settlement data which LDSOs may rely on to deliver the requirements of this Alternative Solution.

Data Retention

LDSOs must retain billing and tariff setting data provided to NETSO, for a minimum of 14 months from the provision of this data to NETSO.

Legal text

The proposed redlined changes to the BSC to deliver P402 Proposed can be found in Attachment A respectively.

The Legal Text for the Alternative will formally define what LDSOs must do and what the interfaces are, but the quick turnaround between the raising of this Alternative and the second consultation means that it has not been fully developed as yet.

Assessment Consultation Question

Do you agree with the Workgroup that the draft legal text in Attachment A delivers the intention of the P402 Proposed Solution?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

P402

Assessment Procedure
Consultation

2 December 2020

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Assessment Consultation Question

Are you satisfied that you understand the obligations and interfaces for the P402 Alternative Solution via its Business Requirements in Attachment C, without the addition of formal Legal Text at this stage?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

Responses to the first Assessment Consultation

Do you agree with the Workgroup that the draft legal text in Attachment A delivers the intention of P402?

Yes	No	Neutral/No Comment	Other
7	0	2	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Respondents unanimously agreed with the Workgroup that the draft legal text in Attachment A delivers the intention of P402, or remained neutral with no further rationale provided.

One respondent commented that they did not believe that there needs to be a requirement for distributors to provide mapping data, as Distributors are required by licence to publish charging statements which include the tariffs that will be applied and the LLFCs that map to that tariff. The respondent felt that this provides the information required and therefore it is inefficient to place an additional obligation on Distributors.

Code Subsidiary Documents

Further process-level descriptions of the processes will be developed and defined during the implementation phase of P402, following approval of the Modification. We expect to issue these documents for industry review by Spring 2021, subject to planning.

Estimated costs and impacts of P402 Alternative

The primary purpose of this second Assessment Procedure Consultation is to gather costs and better understand the impacts of the P402 Alternative, as these are not fully understood by Elexon, the Proposer or the Workgroup yet, but will be considered by the Workgroup and included in the Assessment Report.

Estimated central implementation costs of P402 Proposed

Elexon's costs to implement P402 Proposed are approximately £1.5million to £2million. These costs are driven by the BSC Central System development costs, along with costs to amend internal processes and documents.

BSC Central System development and implementation costs:

- 66WDs effort to implement new internal processes and documents; and
- 4WDs effort to implement document changes to the BSC and Code Subsidiary Documents (CSDs).

The costs to BSCCo and its service provider are indicative at this stage and assessed on the current baseline under a series of assumptions that does not reflect in flight changes to the baseline such as [P375 'Metering behind the Boundary Point'](#) and [P376 'Utilising a Baselining Methodology to set Physical Notifications'](#) that have yet to be finalised but are also targeting an implementation date around the same time. Further, there remains uncertainty around the need to implement EU related Modifications. We recognise that until a formal decision is made to approve these changes it is challenging to make assumptions about their likely combined impacts.

As such, there are lots of baseline permutations, resulting in uncertainty and risk being reflected in the estimated costs.

Indicative industry impacts of P402 Proposed

We invite market participants to detail any impacts that the implementation of the P402 solution would have on their organisation, quantifying where possible, the approximate lead times and estimated costs associated with the identified impacts.

Under the Workgroup's solution, BSCCo via the SVAA is responsible for receipt and loading of the Billing and Tariff Setting data from LDSOs, and SVAA is responsible for the ongoing aggregation of data to generate the reports and send these to NETSO. BSCCo is responsible for receiving and validating the Mapping Tables as part of existing MDD process, with SVAA responsible for loading the Mapping Tables, i.e. as part of existing MDD process.

NETSO must be able to receive and use the required datasets so that it can recover residual TNUoS charges from Parties in accordance with the new arrangements.

Responses to the first Assessment Consultation

Will P402 impact your organisation?			
Yes	No	Neutral/No Comment	Other
8	0	1	0

please note that replies the first Assessment Consultation apply only to the P402 Proposed Solution

Eight respondents to the first Assessment Consultation said they would be impacted by the Proposed Solution. Impacts described by LDSOs centred around the provision of monthly Billing Data and annual Tariff Setting data, but also working with Elexon to ensure that data for both reports is correctly aggregated for CVA sites and that mapping data between LLFC and the residual charging band is correctly submitted.

LDNOs described impacts resulting from need to develop and implement processes to ensure timely running and despatching of reports and mapping data and appropriate checks.

An IDNO respondent identified the need for system changes to ensure that HH Billing and Tariff Setting data is collated and provided in time to the specified timeframes.

Will your organisation incur any costs in implementing P402? If so, what do you estimate these to be?			
Yes	No	Neutral/No Comment	Other
8	0	1	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

A majority of respondents identified costs in implementing P402, however not all respondents were able to identify exact cost ranges or one-off system costs

An LDSO reported that the new reports needed to deliver the P402 Proposed Solution had been assessed by service provider St Clements as costing around £25k in total, with the cost to be shared across all DNOs).

Another LDSO reported costs to upgrade the DURABILL application to provide two new reports with the HH data for the Tariff report and Billing report to be in the range of £20K – £35k. Again, the total cost would be shared by the DURABILL consortium.

National Grid's response described the expected cost to NGESO of implementing the demand residual charges elements of Ofgem's TCR (i.e. excluding the generation residual and BSUoS changes) via implementation of the P402 Proposed Solution expected to be approximately £530k. A proportion of this will be dedicated to ensuring that the existing file flows and processes between NGESO and Elexon are updated to obtaining this data.

Respondents indicated a lead time of between 4 and 6 months from the point of Ofgem approval to implement the P402 Proposed Solution.

P402 Proposed Solution impacts

Impact on BSC Parties and Party Agents	
Party/Party Agent	Impact
LDSOs	P402 will introduce new reporting requirements on LDSOs to provide monthly Billing Data and Tariff Setting Data. BSCCo will also need to work with LDSOs to ensure that Billing and Tariff Setting Data for CVA sites can be aggregated correctly and attributed to Registrant and BMU details that NETSO ultimately uses for billing purposes.

Impact on NETSO
P402 will require updates to NETSO's systems to recover residual TNUoS charges from parties in accordance with the new arrangements. The estimated costs to implement P402 have been identified as approximately £530k

Impact on BSCCo	
Area of Elexon	Impact
Settlement and Invoicing	Exception Handling & Escalations/Incident Management. Updating LWIs & training materials and communicating the change to Parties
Participant Management	Exception Handling. Updating LWIs & training materials and communicating the change to Parties. Initial mapping of tables.

Impact on BSC Settlement Risks
P402 potentially influences risks related to LDSOs and the SVAA as it may affect the LDSOs and SVAAs ability to carry out normal Settlement duties due to the undertaking of new tasks. However, the Workgroup and Elexon do not expect this risk to be materially significant.

Impact on BSC Systems and process	
BSC System/Process	Impact
SVAA	Under the proposed solution SVAA is responsible for receipt and loading of the Billing and Tariff Setting data from LDSOs (i.e. define the flows as P-flows in SVA Data Cat), referencing mapping data maintained in MDD, extracting relevant NHH data from D0030 and D0040 source data and for the ongoing aggregation of data to generate the reports and send these to NETSO.

Impact on BSC Systems and process	
BSC System/Process	Impact
MDD	Existing MDD processes will be used to receive, validate and publish LLFC: Band and Pseudo-MPID: Supplier mapping details. BSCCo will be responsible for working with LDSOs to validate the MPID: Supplier mapping.

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Impact
SVAA	Service Providers will be responsible for the operation of SVAA systems and manual processes necessary to support this proposal.

Impact on Code	
Code Section	Impact
Section S – Supplier Volume Allocation	General description of processes and obligations necessary to support this proposal.
Section V - Reporting	
Section X Annex X-1 – General Gallery	

Impact on EBL Article 18 terms and conditions
No impacts on EBL Article 18 terms and conditions have been identified with the proposed solution, however the Workgroup have identified a possible expansion to Section U retention provisions, which would then impact EBL Ts and Cs.

Impact on Code Subsidiary Documents	
CSD	Impact
BSCP508 – Supplier Volume Allocation	<p>Detailed descriptions of processes and interfaces necessary to support the proposal.</p> <p>Elxon will develop redlining for these CSDs and submit such redlining for industry review as part of the implementation phase of this Modification, subject to its approval. We expect to issue these documents for industry review by Spring 2021.</p>
SVAA Service Description (SD)	
SVAA User Requirement Specification (URS)	
SVA Data Catalogue	

Impact on other Configurable Items

Configurable Item	Impact
None identified	

Impact on a Significant Code Review (SCR) or other significant industry change projects

P402 supports Ofgem's direction to implement the TCR SCR

Impact on Consumers

No direct impacts anticipated.

Impact on the Environment

No direct impacts anticipated.

Assessment Consultation Question

Will the P402 Proposed Solution impact your organisation?

If 'Yes', please provide a description of the impact(s) and any activities which you will need to undertake between the Authority's approval of P402 and the P402 Implementation Date (including any necessary changes to your systems, documents and processes) as well as any on-going impacts, post-implementation.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

Will the P402 Alternative Solution impact your organisation?

If 'Yes', please provide a description of the impact(s) and any activities which you will need to undertake between the Authority's approval of P402 and the P402 Implementation Date (including any necessary changes to your systems, documents and processes) as well as any on-going impacts, post-implementation.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

Will your organisation incur any costs in implementing the P402 Proposed Solution? If so, what do you estimate these to be?

If 'Yes', please provide details of these costs, how they arise and whether they are one-off or on-going costs. Please also state whether it makes any difference to these costs whether P402 is implemented as part of or outside of a normal BSC Systems Release.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

Will your organisation incur any costs in implementing the P402 Alternative Solution? If so, what do you estimate these to be?

If 'Yes', please provide details of these costs, how they arise and whether they are one-off or on-going costs. Please also state whether it makes any difference to these costs whether P402 is implemented as part of or outside of a normal BSC Systems Release.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

How long (from the point of Ofgem approval) would you need to implement the P402 Proposed Solution?

Please provide an explanation of your required lead time, and which of the activities are the key drivers behind the timescale. Please also state whether it makes any difference to this lead time whether P402 is implemented as part of or outside of a normal BSC Systems Release.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

How long (from the point of Ofgem approval) would you need to implement the P402 Proposed Solution?

Please provide an explanation of your required lead time, and which of the activities are the key drivers behind the timescale. Please also state whether it makes any difference to this lead time whether P402 is implemented as part of or outside of a normal BSC Systems Release.

The Workgroup invites you to give your views using the response form in Attachment E

5 Implementation

Recommended Implementation Date

The Workgroup recommends an Implementation Date for P402 of **24 February 2022** as part of the February 2022 BSC Release.

This approach will allow implementation of P402 in alignment with Ofgem's direction for TCR changes to go live by 1 April 2022.

Assessment Consultation Question

Do you agree with the Workgroup's recommended Implementation Date?

If 'No', please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

Responses to the first Assessment Consultation

Do you agree with the Workgroup's recommended implementation approach?

Yes	No	Neutral/No Comment	Other
8	0	1	0

Respondents unanimously agreed with the Workgroup's recommended implementation approach or remained neutral with no further rationale provided.

P402 Workgroup meetings were held on 31 March 2020, 6 May 2020, 5 August 2020, 28 September 2020, 2 November 2020 and 25 November 2020.

Throughout the Assessment Procedure for P402, discussions focused on the need for balancing the solution's principal goal of providing NETSO with the data it requires against considerations of impact on Distributors' processes and systems and providing assurance to both NETSO and Parties. There is an additional timescale consideration that was acknowledged throughout the assessment of P402, with a recognition that the Modification must provide the most optimal solution for the time available for industry to develop and implement the necessary changes, whilst not necessarily representing the optimal long term solution if time were not an issue and taking account of other policy initiatives that are being developed.

P402 Delivery Requirements

Withdrawal of CMP332 and new P402 timetable

P402 was initially raised under circumstances where Ofgem directed that the TCR TNUoS changes be implemented and take effect from 1 April 2021.

As described in the [IWA](#) for P402, the timetable set by the original TCR SCR decision meant that the development and assessment of P402 would have to be quick and efficient to allow Ofgem to reach a decision in enough time for market participants to amend systems and operations in time for the modification to take effect by April 2021.

Shortly prior to the first Workgroup, however, the P402 Proposer (also the CMP332 Proposer) informed Elexon that they had made an application to withdraw CMP332, citing the risks to market participants of an April 2021 implementation highlighted in CMP332 Workgroup discussions and responses to the CMP332 Workgroup Consultation.

In accordance with CUSC paragraph 8.17A2 and paragraph 4 of the TCR SCR Direction, NGESO can only withdraw CMP332 with Ofgem's consent.

The Proposer clarified to the P402 Workgroup its intention for seeking to withdraw CMP332, confirming that this related to concerns raised by Suppliers and other industry participants that implementation timescales may not give industry time to make contractual and pricing changes, rather than concerns about making changes to LDSO, NETSO and BSCCo systems.

The Proposer also confirmed their intention was to raise a new CUSC modification proposal that in effect continued the work under CMP332 except that it reflected a new timeline for delivery to be specified by Ofgem.

In their acceptance of CMP332's withdrawal, Ofgem provided a new delivery date of 1 April 2022; one year later than previously required.

The Group recognised that the extension to the CUSC process offered an opportunity to reconsider the nature of the proposed P402 solution. In particular, the original P402 solution was intentionally pragmatic in order to take account of the limited time to develop and implement it by April 2021. Knowing that there may be more time to develop and implement P402, Elexon suggested the Workgroup might consider more enduring and transparent solutions at its next meeting.

The withdrawal of CMP332 and the incorporation of work to date into CMP343 lead the Workgroup to discuss whether there would be any governance concerns resulting from how scope of the issue as originally defined by the P402 Modification's Proposer in the Modification Proposal Form.

The group noted that they did not believe there are any hard dependencies between P402 and CMP332 within the defined P402 defect, which instead references a broad set of requirements introduced by the TCR decision. References to specific CUSC modifications are made to provide context to how these broad set of requirements interact, but the scope of P402 to change the BSC "to ensure it continues to facilitate the provision of data necessary for TNUOS charging" gave comfort that P402 could continue in the face of CMP332 withdrawal.

Ongoing need for swift modification development

The Workgroup was mindful, that even though a one year extension to the P402 delivery in theory bought more time to consider more optimal P402 solutions, there was a need for industry, particularly Suppliers and LDSOs to have certainty over the P402 solution as soon as possible. The Workgroup noted that CMP332's withdrawal had been driven by concerns from Suppliers about insufficient time to implement. In addition they noted that even if P402 was implemented later in 2022, there was still a need to ensure all related TCR code modifications were submitted to Ofgem in good time could consider all modifications as a package and to allow sufficient implementation lead time.

The Group also noted that P402 would be implemented during a period of significant industry change, not just driven by the TCR – e.g. Faster Switching, Market Wide Half Hourly Settlement (MHHS) and likely implementation of the Access and Forward Looking Charges SCR decision.

Outcome:

Following the news that CMP332 was withdrawn, the Workgroup agreed that alternative approaches to addressing the P402 solution should be considered.

Ultimately, the Proposer and Workgroup acknowledged that while circumstances have changed, these are chiefly related to timescales for implementation rather than the issue that P402 is trying to solve, and believed that there was still value in assessing the proposed solution and its requirements.

The Workgroup agreed that Elexon should present alternative options at its next meeting. The Workgroup's consideration of these options is described in more detail below.

The Workgroup also noted that despite the extension, there was still a need to adhere to tight timescales in order to achieve the revised Ofgem direction.

Implementation approach

Considering the requirements of NETSO and the pressures on NETSO, LDSOs and other participants from various market wide changes, the Workgroup discussed the most sensible implementation approach for P402.

The Workgroup noted that NETSO requires the first Billing Report at the beginning of March 2022 that will cover Site Counts for the February 2022 reporting period.

The Workgroup considered whether the February 2022 release or a standalone release was best. On the one hand the group noted the benefits to industry of sticking with the well-established BSC Release Schedule. They noted that the standard Releases provides a predictable and widely understood approach and timetable for when changes would be implemented. It may also benefit from being implemented alongside other changes, i.e. in terms of sharing common development and implementation resources.

On the other hand, a dedicated and earlier release, e.g. in January 2022, would mean that the P402 solution could be implemented early and so the legal framework would be in place providing certainty for LDSOs to begin to collect Billing Data to be reported at the beginning of March 2022. However, the group noted that should P402 be approved, this would provide certainty to LDSOs that they should prepare to send Billing Data in March 2022 even if P402 was implemented as part of the standard February Release.

Outcome:

Given the likely impact on Parties that would need to be accounted for in advance of implementation, the group thought it best to target the standard February 2022 Release, noting that it also offered some cost saving due to efficiencies when bundling P402 with other changes in a distinct Release.

Initial and enduring reporting

The Workgroup noted that, in order to set new TDR charges to take effect from 1 April 2022, NETSO will require Tariff setting data in October 2021. P402 proposes that LDSOs provide a one-off set of Tariff Setting Reports bi-laterally and directly to NETSO in October 2021. The provision of this data by LDSOs would be defined outside the scope of the P402 solution.

The need for this standalone provision of data is because P402 will not have been implemented in October 2021 and BSCCo will not have the data necessary to produce a Tariff Setting Report in October 2021 (i.e. 12 months of consumption using newly introduced LLFCs – see Workgroup discussion below regarding impacts on MDD), therefore LDSOs agreed to each provide, bi-laterally and directly, a one-off set of Tariff Setting Data to NETSO in October 2021.

The group discussed the practicality of including this obligation within the P402 Legal Text, given that the implementation of P402 will occur after this initial data provision. It was felt that, while the group are comfortable with this requirement sitting outside the Legal Text for P402, it should be noted as part of the development of the P402 solution and therefore captured in the P402 reports to the BSC Panel and Ofgem. This way the requirement is at least documented, even if does not form a formal part of the P402 solution and Legal Text.

It was noted that any further discussion of how best to fulfil this reporting requirement and manage any risk would be raised at the TCR Implementation Steering Group⁵.

⁵ A group established by NETSO, DNOs and some IDNOs and supported by the ENA. Elexon and ElectraLink are members too.

Outcome:

The Workgroup (including LDSO representatives) and Proposer agreed to progress with the bilateral approach for the initial provision of Tariff setting data, noting that it would provide LDSOs and NETSO flexibility to agree what data was appropriate and how best to provide it.

Responses to the first Assessment Consultation

Whilst P402 will not have been implemented nor will sufficient data be available to ELEXON to produce a Tariff Setting Report, do industry participants agree that the definition of and provision of data for setting Tariffs in October 2021 be agreed by LDSOs and NETSO outside the P402 solution?			
Yes	No	Neutral/No Comment	Other
9	0	0	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Respondents had no issue completing this element of P402 bilaterally, as it was not obvious that there is any other way of doing it. One respondent commented that they were concerned that if this sits outside of the official requirements it could go unnoticed by some parties, but recognised that documenting these processes would be potentially complex and have no lasting value as this would be a one off process.

National Grid responded to state their initial preference for Elexon to produce this data but accepted that is not possible and agreed that this data should be provided by other means in October 21. They believe that the data provision obligation including the scope, quality and timescale should be recorded to ensure that all parties involved are clear about the requirements.

P402 Proposed Solution Development

The original P402 proposal included a solution that relied exclusively on LDSOs providing Billing and Tariff Setting Data to SVAA. SVAA would then aggregate this data and report it to NETSO.

Following the decision to withdraw CMP332 and extend the NETSO direction to implement the TCR SCR decision until April 2022, the group considered the original solution and two additional options. The group's consideration of these three options is described below.

Consideration of original solution

Due to the original time pressures around delivery by April 2021, Elexon had worked with the Proposer and LDSOs to prepare a solution that could speed up the process of raising and developing a BSC Modification Proposal. Furthermore, in order to progress the Modification swiftly, Elexon prepared a set of business requirements for the first Workgroup to consider.

The original solution proposed to introduce new BSC obligations on LDSOs to produce and send new Tariff Setting Reports and Billing Reports (covering all Sites connected to LDSOs' distribution systems) to BSCCo, which BSCCo would aggregate and report to NETSO.

This solution relied exclusively on LDSOs correctly reporting the number of sites and their related consumption. This is because existing requirements to store Registration Data in SMRS does not identify how Metering Systems, and therefore related consumption, is related to a site (as defined by the DCUSA and CUSC TCR modifications). Unless additional registration data items were added to SMRS, LDSOs are the only Parties that understand the relationship between Metering Systems and TDR sites.

In the original approach both the Tariff Setting Reports and Billing Reports would be compiled following these overall steps:

1. LDSOs compile and send HH and NHH reports to BSCCo (SVAA) using a common file format to be specified in the SVA Data Catalogue;
2. BSCCo consolidates each LDSO's report into a single report using the same or a similar file format to the one used by the LDSOs (also specified in the SVA Data Catalogue); and
3. BSCCo sends the consolidated report to NETSO.

In general, the group were comfortable with the overall approach and the detailed processes described in the draft Business Requirements. However, some Workgroup members raised concerns about the timescales proposed for LDSOs to provide Billing Data, i.e. within 2WDs of SF for the last day of the calendar month being reported. In particular that for some LDSOs they may not have loaded Settlement Data they would ordinarily load for billing purposes within 2WDs of SF for the last day of the most recently completed month.

Given that Ofgem's revised direction deadline allowed for more time to consider alternative approaches, the Workgroup agreed that Elexon should follow up with a wider range of IDNOs that had joined the Workgroup and consider any alternative approach to addressing P402.

Alternative options

Elexon presented two alternative proposals to the Workgroup:

1. An alternative, centralised approach to processing NHH data proposed by IDNOs;
2. A "Party Agent approach" that relies on new registration items enabling Party Agents to use or mirror familiar Settlement aggregation processes and interfaces.

Option 1 - Alternative approach to NHH data

Following the first P402 Workgroup, Elexon arranged to discuss the proposal with the IDNOs (who had not been widely involved in the preparatory work before P402 was raised). It was noted that some LDSOs' systems are currently configured to load data for billing that would be incompatible with the original P402 requirements (i.e. within 2WDs of the SF run for the last day of a calendar month) and so would likely require costly system changes to load the data earlier in their billing cycles. Additionally, they saw little perceived benefit in making these changes aside from ensuring compliance by LDSOs with the BSC. That is, P402 is only necessary to support NETSO's calculation of TDR charges not the LDSOs'.

The IDNOs pointed out that requiring LDSOs to process NHH data may be unnecessary as the NHH data LDSOs would use is provided to them by Elexon (i.e. via the D0030 and D0314) and so it would be more efficient for Elexon to use this data to determine NHH Billing and Tariff Setting Data. They noted that if Elexon were to use the existing Settlement NHH data it would help to reduce the P402 costs for LDSOs to load and report it.

Based on this point, the IDNOs proposed the following alternative approach:

- SVAA uses existing NHH Settlement data (i.e. Supplier Purchase Matrix data received in D0041) to determine NHH Billing data and NHH Tariff Setting Data;
- LDSOs continue to report Billing and Tariff Setting Data for sites with HH Metering Systems (SVA and CVA) and to provide LLFC: Band and CVA MPID mapping tables; and
- Elexon continues to consolidate the NHH and HH data into monthly Billing and annual Tariff-setting Reports.

Elexon noted that relying on D0041 MSID counts would require the solution to assume a 1:1 relationship between NHH Metering Systems and sites. Elexon asked the Workgroup whether this was correct, noting that it was aware of some customers with multiple Metering Systems to support Economy 7 supply tariffs.

LDSO representatives noted that in such scenarios, NHH Metering Systems at a single site are given different LLFCs. Therefore, Elexon would be able to identify which Metering Systems to exclude from the Billing and Tariff Setting Reports based on the LLFC: Charging Band mapping tables provided by LDSOs.

Elexon highlighted that LDSOs would not be able to accurately allocate Imports for 'related MSIDs' to Charging Bands. An LDSO member noted that LDSOs planned not to report the volumes for related MSIDs at all. The Workgroup noted that this issue was likely to represent a very small proportion of Imports (~0.02%). The Workgroup were therefore not unduly concerned that there would be missing Imports from the allocation of NHH consumption to Charging Bands, noting that the issue is a diminishing one as legacy arrangements wind-down (e.g. RTS) and NHH meters are replaced with Smart Meters.

The group considered that this approach would offer greater transparency and efficiency for BSC Parties who could recreate the count of NHH MSIDs and therefore Sites. Also, because BSCCo would process NHH Data it already receives for Settlement, this would reduce the operational and system impact (and costs) on LDSOs by P402.

Option 2 - the Party Agent approach

As part of Ofgem's TCR SCR and prior to P402 being raised, Elexon had advocated an approach that relied on Party Agents (rather than LDSOs) to collect and aggregate site counts and consumption data before reporting to BSCCo to aggregate and report to NETSO.

This proposal requires the introduction of new Metering System registration details to be held in SMRS and CMRS, e.g. Residual Charging Band, Final Demand Site ID/Indicator, Primary/Secondary MSID Indicator.

These new registration details would enable Party Agents and BSC Agents to aggregate Metering Systems and consumption in a similar way to how they already aggregate MSID Counts and consumption for Settlement using existing registration details.

Under this option, LDSOs would simply be responsible for maintaining these new Registration details in SMRS and provide details to Elexon to ensure CVA Metering Systems were clearly identified in CMRS.

The group noted that this approach would build on existing interfaces and Party Agent roles, provide greater transparency to industry of the relationship between MSIDs and Sites for Network Charging purposes and offer greater opportunity to perform independent assurance checks.

It would also reduce the burden on LDSOs by removing the need to provide Billing and Tariff Setting Data and to maintain mapping tables. Instead LDSOs would only be responsible for ensuring Metering System registration details remained up to date.

The Workgroup also noted that introducing new registration details might establish a more durable baseline for other forthcoming industry changes. For example, the MHHS project is considering the long-term use of existing Settlement registration items, including LLFCs. In particular it is well recognised that whilst originally a Settlement registration item, LLFCs are used for a variety of other purposes, notably for identifying how Metering Systems are treated for DUoS charging. In order to restore the dedicated role of a loss adjustment factor, the MHHS project may conclude that LLFCs are no longer necessary in their current form. Therefore creating a dedicated set of Network Charging registration items might help to reduce or even divorce the reliance on LLFCs for non-Settlement purposes and provide a foundation on which MHHS can build.

Also, the forthcoming Access and Forward Looking Charges SCR is considering more targeted DUoS charges which might require LDSOs to group MSIDs together based on new characteristics, currently not described in the BSC or in registration details.

However, it was felt that there was unlikely to be enough time to develop and then to implement this solution. That is, Ofgem expects to assess all TCR related code modifications altogether, which means that there is very little time as part of the Assessment Phase to develop the solution. Furthermore, it is likely that this solution would require extra time to be implemented, which may not provide parties with the certainty and visibility of indicative charges – which are reasons for why CMP332 was withdrawn.

Whilst it might put in place a more enduring and transparent solution, ultimately it was felt that this option would not be possible until other industry initiatives such as the Access SCR were more fully developed, by which it would be too late to incorporate. Finally, it was recognised that this approach would also likely incur more costs to implement, and it was agreed not to pursue this option as part of the P402 solution.

A third option

It has been clear since P402 was raised that some LDSOs believe another option might be for LDSOs to provide data directly to NETSO. Such a solution would not be governed by the BSC and so would not require a BSC Modification Proposal or Change Proposal.

The option stems from some LDSOs concerns about the costs and cost recovery of a BSC solution and whether a BSC solution provided any real benefits to NETSO and industry.

Regarding cost recovery, the concern is that the need for P402 is only necessary to support NETSO's calculation of TDR charges. Therefore it is NETSO's cost to bear and only

NETSO derives a direct benefit from the solution. However, the implementation of P402 or a similar solution will require others to incur costs to support the provision of data to NETSO. Furthermore, the BSC socialises its costs across all Parties. Some LDSOs and Workgroup members believe the costs of providing data to NETSO should be borne by NETSO, not by the community.

It was considered early in P402's development that the argument that NETSO bear the costs of the solution were particularly relevant if the overall cost of the solution was high. Based on the Impact Assessment for changes to Central Systems, some Workgroup members believe the costs to be very high, which reinforces the argument that NETSO should pay.

LDSO members believe an alternative option, though not a formal BSC Alternative Modification Proposal, would be for LDSOs to provide Billing and Tariff Setting Data, equivalent to that described by this solution, directly to NETSO. NETSO would then be responsible for transforming the data from Site Counts and Imports per LLFC to Final Demand Site Counts and Final Demand per Charging Band. These arrangements, including the means of cost recovery, would be defined outside the BSC.

LDSO members have suggested that they will provide further details on the practicalities and costs of such a solution in response to this consultation document.

Accurate determination of Non Half Hourly Billing data

Elexon highlighted that based on the proposed solution LDSOs would not be able to accurately allocate NHH Imports for associated MSIDs' to the same Charging Bands as their Lead MSIDs. An LDSO Member confirmed that because LDSOs cannot accurately match associated MSIDs to the correct Charge Band, LDSOs planned not to report the volumes for related MSIDs at all.

The Workgroup noted that this issue was likely to represent a very small proportion of Imports (~0.02%). The WG were therefore not concerned that there would be missing Imports from the allocation of NHH consumption to Charging Bands, noting that the issue is a diminishing one as legacy arrangements wind-down (e.g. a large proportion of associated NHH MSIDs are used for Radio Teleswitch services which are being retired) and NHH Meters are replaced with Smart Meters.

Responses to the first Assessment Consultation

Is the approach to treating NHH MSIDs (and MC F and G MSIDs as described below) reasonable under the circumstances? Are there alternative approaches the Workgroup should consider?			
Yes	No	Neutral/No Comment	Other
8	0	1	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Respondents believed that the approach for treating NHH MSIDs is reasonable, recognising that the approach to treating NHH MSIDs is not ideal but this is believed to be

the only suitable option given the small (and shrinking) scale of the issue and the timescale restrictions compared to the benefits this Modification will provide.

On respondent noted that the approach adopted for NHH MSIDs is a positive development which contains reporting efficiencies for LDSOs and the SVAA compared to the initial P402 proposal that had been proposed as part of the Initial Written Assessment.

Outcome:

The group agreed that the alternative approach (Option 1) by which BSCCo extracts NHH data from existing Settlement datasets and sends this data in a consolidated report to NETSO is preferable.

It would reduce the operational and system impact on LDSOs and would be more efficient for Elexon to process existing Settlement Data it holds rather than wait for LDSOs to process it and send it back to Elexon.

The Proposer agreed that this seemed a more efficient approach for industry and agreed to adopt the centralised BSC Agent approach to aggregating NHH Settlement Data as part of the proposed P402 solution.

The Workgroup agreed on this amended P402 solution, noting that it better addressed concerns about undue impact on some BSC Parties by offering a more centralised approach to the provision of NHH data, however they welcome industry views on the merits of Elexon consolidating NHH D0030 Data on behalf of LDSOs.

Whilst the 'third option' will not be raised as a formal Alternative Proposal, we expect LDSOs to describe how they plan to develop this option and to provide illustrative costs and benefits in response to this consultation.

The Workgroup considered that the approach to aggregating NHH and MC F and G MSIDs is a proportionate approach. Whilst it will result in an underreporting of Imports to NHH MSIDs, this should only be a small and diminishing volume.

Treatment of measurement classes F&G (smart meters and advanced Meters)

Elexon noted that they had initially assumed that Measurement Classes F and G MSIDs should be included in HH Billing and Tariff Setting data, as Measurement Classes F and G represent HH MSIDs. However, LDSOs treat these classes as NHH, even though they are technically HH Settled. Furthermore, LDSOs do not receive Metered Data for individual MC F and G Metering Systems. Instead they rely on Elexon aggregating Measurement Classes F and G Settlement Data and including it with aggregated NHH Settlement Data in the D0030 and D0314 reports.

Using the same arguments in support of Elexon aggregating NHH data, it was agreed that Elexon should also aggregate Measurement Classes F&G data when determining NHH billing and tariff data.

This issue described above relating to the accurate allocation of Imports for NHH MSIDs also applies to MC F and G MSIDs. Based on correspondence with Workgroup Members representing LDSOs, LDSOs treat MC F and G MSIDs similarly to NHH MSIDs. That is, lead MSIDs and associated MSIDs are given different LLFCs and the associated MSIDs will not be mapped to chargeable Charging Bands.

Given that Smart Meters are replacing traditional NHH Meters, this may mean that the volume of Imports measured by associated MSIDs not being accurately reported will grow. However, an LDSO Workgroup Member pointed out that where Smart and Advanced Meters are replacing multiple NHH Meters at a single site, rather than installing multiple smart/advanced meters, Suppliers are able to configure different registers on the same Smart Metering System. Therefore the rollout of Smart and Advanced Meters ought to improve the reporting of Imports to NHH and MC F and G MSIDs.

P402 Mapping

The proposal is for mapping tables to be maintained using MDD governance. The Workgroup considered that MDD governance is generally well understood and provides 'off the shelf' rigour, certainty and transparency. It would also enable LDSOs to make targeted changes to individual LLFC to charging band relationships because each relationship in MDD has its own Effective From Date (EFD) and Effective To Date (ETD) rather than EFD and ETDs that relate to the entire data set. Therefore MDD governance would enable LDSOs to make changes to specific combinations, rather than have to apply the same EFD and ETD to the entire dataset.

The Workgroup considered different options for establishing Mapping Tables. In particular they considered different means of identifying CVA Sites so that SVAA would be able to correctly attribute Billing Data to a specific BMU and Registrant.

The original solution envisaged ELEXON and LDSOs working together to agree mapping tables that matched registration details held by LDSOs with registration details held in BSC Central Systems. This approach would require a level of intervention between ELEXON and each LDSOs to agree the correct mapping.

As part of developing the detailed solution ELEXON recognised that it would be simpler for LDSOs to identify how the billing records they use to populate Billing Data (I.e. Dummy LLFC and Dummy MPID details) map to actual CVA MSIDs. This way ELEXON could use the CVA MSID to easily match LDSO's Billing Data to BMU and Registrant details held in BSC Central Systems without needing any liaison with the LDSO.

Consequently the Group and Proposer adopted ELEXON's simplified CVA mapping approach.

P402 Validation

The Proposer was keen that the solution provided it and Parties with assurance that the data reported to it is collected in accordance with the rules set out by P402.

Consequently the P402 solution proposes both structural and business validation.

However, because the solution relies heavily on LDSOs to determine which HH Metering Systems are lead Metering Systems and this information is only known by interrogating LDSOs' billing systems, the Group considered that it would be impossible for SVAA to use Settlement Data to accurately validate the accuracy of LDSOs' submissions.

One Workgroup member was concerned that the solution does not provide enough visibility of Sites and MSIDs base registration details to allow Parties to independently validate the data sent by LDSOs and ultimately reported to NETSO. ELEXON pointed out that its preferred solution would be to create new registration details that provided clear records showing the relationship between Lead and associated MSIDs, and how MSIDs

relate to Sites. As summarised above, the Group considered there was not enough time to develop and implement such a solution

Recognising the limited opportunity to validate the accuracy of LDSOs submissions, the group were comfortable with a level of basic validation and exception handling that BSCCo (via SVAA) could be expected to perform, noting that it would likely be limited to checking that a file met expectations for format and uniformity of data entry for a given Billing or Tariff setting period, with BSCCo (via SVAA) seeking to resolve this within 2WDs of identifying the validation failure.

Residual Charging data transparency, retention and publication

The Workgroup also considered how to maximise the transparency of the data provided to SVAA by LDSOs and the reports produced by SVAA. The National Grid representative noted that transparency is desirable if the data is not commercially sensitive and their ideal scenario would involve publishing on input, calculations, final figures and bands.

The Workgroup considered whether there are reasons Elexon should not make Billing and Tariff Setting Reports available to any person, e.g. for commercial or confidentiality reasons. The Workgroup were satisfied that Tariff Setting Reports, which aggregates Tariff Setting Data to Charging Bands and is not attributed to any one person or company or Party, is not sensitive and could be published for all to access. They also concluded that whilst Billing Reports contain Site Counts for individual Parties, that this was likely not to be commercially sensitive and may be derived from other sources anyway. One Workgroup member noted that they believed that if it wasn't made public now, it would likely be made public in future.

The Workgroup overall agreed that both Billing and Tariff Setting Reports should be published on the Elexon Portal and made available to all BSC Parties and others who pay for a licence to access this data.

Responses to the first Assessment Consultation

Do you agree with the Workgroup that both Billing and Tariff Setting Reports should be published on the Elexon Portal and made available to all Parties and those who pay for a licence? Would publishing the output data (in particular the Billing Reports) be commercially sensitive?			
Yes	No	Neutral/No Comment	Other
7	2	0	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

A majority agreed that both Billing and Tariff Setting Reports should be published on the Elexon Portal and made available to all Parties and those who pay for a licence, while minority disagreed with this approach.

It was felt by some that publishing the data will help the energy industry to make data more open and accessible. One respondent stated that they believed that the Tariff Setting Report should be freely available (i.e not require a Licence for non BSC Parties to access it).

There was broad support for transparency where it is efficient. National Grid supported the principle of making suitable data transparent and accessible however added that this is only beneficial if it is economic to provide this data and it will be used.

2 respondents disagreed, being unconvinced there is genuine benefit in publishing additional information and did not think the additional information publication, beyond what was published pre-P402, was justified.

No respondents identified any commercially sensitive concerns with publication of this data, as billing data is aggregated and not split out to identify an individual company. National Grid's understanding was that this data is already available for individual metering systems and could be created if a party was willing to create this dataset from individual records.

Publication of input billing data

The Workgroup also considered whether input Billing and Tariff Setting Data sent to SVAA by LDSOs should be published and made accessible by all. In general the group considered that for similar reasons to publishing the output reports, the input data could be published. However, Elexon pointed out that this was not part of the requirements in the Impact Assessment carried out by its service provider. However, Elexon agreed to investigate the potential impact of expanding the solution requirements however this would be impossible to do before consulting. In the meantime the group agreed that this consultation should seek views on whether input billing data should also be published alongside output reports.

Responses to the first Assessment Consultation

Should input billing data also be published alongside output reports so that Parties can trace how input data is transformed? Would publishing the input data be commercially sensitive?			
Yes	No	Neutral/No Comment	Other
5	3	1	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

A majority supported the idea that input billing data also be published alongside output reports. One respondent was of the view that, given the sentiment's towards Open Data and Modification P398 that is currently in progress, he supported the view that it should be available to non-BSC Parties.

3 respondents disagreed, stating that they did not understand what benefit this would offer, other than transparency for transparency's sake.

One respondent also noted that, as this option has not been included in the impact assessment, indicative costs provided were likely to see a further cost impact on the industry.

No commercial confidentially concerns were identified, as billing data is aggregated and not split out to identify an individual company.

GDPR

The group are comfortable that the P402 solutions are unlikely to conflict with GDPR restrictions as it is concerned with aggregated information from organisations, rather than collecting and sharing data on individuals.

UMS Data

The Workgroup also considered whether the UMS data to be added to the P0210 should be published as well. This would ensure that all data used by NETSO to set and bill TDR charges is available to Parties.

ELEXON noted that the P0210 is not currently published. The Group considered whether because the P0210 provides a Settlement Period breakdown of Supplier BMU Imports and Exports by Measurement Class that making it widely accessible might be commercially sensitive.

The Group considered alternative approaches for publishing the UMS data. One suggestion was to include it in the Billing and Tariff Setting Reports. ELEXON pointed out that the UMS data would need to be reported at SP level which would not be compatible with the Billing and Tariff Setting Reports which would provide Billing Data at Settlement Day level or for a whole 12 month period. Another option might be to publish a dedicated UMS report that then gave Parties visibility of the UMS data reported to NETSO in the P0210.

All of the options had only been considered by the Workgroup at its latest meeting and so had not been formally assessed alongside other proposed changes to central systems. Consequently the Group agreed not to include requirements to publish UMS at this stage. Nevertheless they welcome views on whether and how to publish UMS data that NETSO will use to set and recover TDR charges.

Responses to the first Assessment Consultation

Should the P402 solution include a requirement to publish UMS data that SVAA will send to NETSO? If so, why and how would you recommend that this data is published?			
Yes	No	Neutral/No Comment	Other
1	3	5	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Respondents were mostly indifferent to UMS data being published, with several respondents disagreeing as they felt it unclear if any other parties outside of NETSO would benefit from having this data available.

Data retention provisions

The Group also considered data retention provisions. Initially the solution recommended that reports would be made available for up to 12 months from their date of publication. As part of developing the detailed requirements ELEXON pointed out that the BSC already specifies obligations for retaining data for at least 28 months and up to 40 months in an archive or similar format. ELEXON recommended that these provisions are extended or

mirrored for P402 and apply not only to the output reports but also to input data provided by LDSOs. The Group considered whether retaining data for 28 months and 40 months would provide NETSO with sufficient access to historical data. ELEXON noted that NETSO may only need data up to the Final Reconciliation VAR. That is, TNUOS is not recalculated beyond RF.

Responses to the first Assessment Consultation

Is the proposed approach to data retention appropriate? Do you have a preference for expanding existing Section U1.6 provisions to apply to non-Settlement data and processes or for creating new retention requirements that mirror Section U1.6?

Yes	No	Neutral/No Comment	Other
5	0	4	0

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Respondents agreed that the data retention provisions were appropriate or otherwise remained neutral. Those in favour described it as sufficient, appropriate and in line with the settlement timetable.

One neutral respondent stated that, providing data retention is in line with relevant data protection requirements such as GDPR, they do not have a view on this.

EBGL Impacts

No impacts on EBGL Article 18 terms and conditions have been identified with the Proposed or Alternative solutions.

Assessment Consultation Question

Do you agree with the Workgroup's assessment that P402 does not impact the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

Responses to the first Assessment Consultation

Do you agree with the Workgroup's assessment that P402 does not impact the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC?

Yes	No	Neutral/No Comment	Other
8	0	2	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Respondents unanimously agreed with the Workgroup's assessment that P402 does not impact the European Electricity Balancing Guideline (EBGL) Article 18 terms and conditions held within the BSC or remained neutral with no further rationale provided.

Elexon also clarified that, while at the time of consultation there had been a question about whether Section U provisions needed to be expanded, this has since been resolved, with Elexon confirming that the existing Legal Text had been drafted with the need for data retention in mind.

Related impacts on MDD necessary to deliver the TCR

ELEXON noted that the related DCUSA and CUSC TCR modification proposals will require LDSOs to create approximately 16,000 new LLFCs and 320,000 new valid sets in MDD. This will result in a very large increase in the size of the MDD and LLFC data sets used in Settlement. The BSC Panel, SVG, industry participants and ELEXON have raised concerns that Central Systems and participants' systems may not handle the enlarged datasets. Some have suggested that the impacts of increasing the numbers of LLFCs and Valid Sets should be assessed under P402.

ELEXON pointed out that the impact on MDD and systems would exist irrespective of P402, I.e. the need to create new LLFCs and valid sets exists to support the other CUSC and DCUSA modification proposals and is not a direct requirement of P402. The group agreed and confirmed that they consider the wider impacts on MDD and systems to be outside the scope of P402 and should therefore be assessed and considered independently. At the time of writing ELEXON had published an update on its separate work to assess the impacts of increasing the MDD and LLFC data sets – see the ELEXON website [here](#).

Workgroup views on Self Governance

The Workgroup unanimously believes that P402 should not be progressed as a Self-Governance Modification, on the basis that it is likely to materially impact criteria iii) 'the operation of the national electricity transmission system' and potentially iv) 'matters relating to sustainable development, safety or security of supply or the management of market or network emergencies'; depending on level of costs to parties involved.

The Workgroup consider that, as the proposals calls for new obligations to be placed on LDSOs, Ofgem should consider the proposal as the default approach.

Benefits of Solution under the BSC

During the course of assessment of P402, the group considered the benefits and drawbacks of NETSO implementing this aspect of the TCR direction via the BSC.

The Proposer described their rationale for seeking a BSC-based solution, noting that NETSO (and LDSOs) currently relies on BSC interfaces and on aggregated Settlement Data provided to it by BSCCo to calculate TNUoS and BSUoS charges.

The proposer considered that the BSC processes and systems provide a centralised mechanism for collecting, aggregating and sharing data with NETSO and LDSOs for network charging purposes.

By building on existing BSC-based arrangements that support network charging arrangements, the solution can take advantage of existing set of processes and interfaces and use Settlement and registration data to deliver an efficient and robust solution via the BSC.

However, this view was not universally shared among the Workgroup. One Member expressed a view that P402 passes liabilities to acquire and process data from National Grid on to LDSOs and effectively transfers the cost of delivering licence obligations onto other Parties.

Bearing in mind the proposed central system costs, another member challenged the value of the P402 solution when LDSOs could simply report all data directly to NETSO, which may be a more cost effective and efficient solution

Ultimately, it was felt that the tight timescales needed to deliver a solution forced the issue somewhat, with a majority of Workgroup members happy to support a BSC solution that would take advantage of efficiencies.

Development of P402 Alternative Solution

Prior to the issuing of the Assessment Procedure Consultation, the Workgroup did not identify any alternative solutions, although some Workgroup Members expressed concern that P402 may not be the most efficient or cost effective means of providing NETSO with the data it requires.

Alternative Solutions proposed by respondents to the first Assessment Procedure Consultation

Do you agree with the Workgroup that there are no other potential Alternative Modifications within the scope of P402 which would better facilitate the Applicable BSC Objectives?			
Yes	No	Neutral/No Comment	Other
4	4	1	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

Shortly prior to the 5th Workgroup, and after the issuing of the P402 Consultation, Elexon learned that an alternative approach to the handling of the TCR Decision had been developed by some LDSOs and referenced in replies to the P402 Consultation - centering around LDSOs issuing data directly to National Grid, rather than centrally via SVAA.

Four respondents agreed with the Workgroup that there are no other potential Alternative Modifications within the scope of P402, while four disagreed and one remained neutral.

Respondents who disagreed noted that basic P402 issue that NGESO does have the data it needs to produce the relevant invoices or set tariffs, and that the relevant data can only be provided by third parties, could be alternatively solved by DNOs providing the data directly to NGESO.

Several respondents described an alternative whereby LDSOs compiling data for Tariff Setting and Billing Reports themselves, sending it directly to National Grid and so not to relying on BSCCo or BSC Systems and Agents for these purposes.

Workgroup's discussions on raising an Alternative Solution

Noting that the alternative approach avoided using BSC Systems and processes and the fact that the obligations needed to underpin this approach could sit just as easily under the DCUSA or Grid Code as the BSC the Workgroup discussed whether to raise the proposal as an official BSC P402 Alternative Solution or whether to progress via a new CUSC modification or otherwise non-BSC route.

The group wished to proceed with raising a BSC Alternative to give visibility of the proposal to the BSC Panel and ultimately Ofgem, also noting that this approach would draw out the costs and benefits of the approach.

The group voted by majority to raise an Alternative Solution for P402 on the basis that it better facilitated BSC Objective (d) than the original solution.

Assessment Consultation Question

Do you agree with the Workgroup that there are no other potential Alternative Modifications within the scope of P402 which would better facilitate the Applicable BSC Objectives?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

National Grid requirements for provision of consumption data for tariff setting

In response to some challenges from some of the LDSOs in the Workgroup that National Grid could make do with forecast data instead of the latest actual data in order to set tariffs, National Grid were invited to explain the rationale behind its data requirements, in particular why it requires historical "actual" consumption data in rather than make use of forecast consumption data that is already published by LDSOs.

National Grid explained the methodology and mechanism for TNUOS which is used to recover the maximum Allowed Revenue on behalf of all Transmission Owners in Great Britain. National Grid are not financed to carry the financial burden of the estimated £233 million that it must pay TOs each month and so, to mitigate that, they charge TNUOS in advance of time.

Because of all the data that is required to feed in to the transport model that calculates TNOUS and because National Grid bill in advance, one of the key principles for TNUOS is that National Grid bill using forecast data and reconcile this liability using "actual data" further down the line.

The representative also added that the TCR didn't remove any parts of the TNUoS methodology, but instead introduced some complexity and that Demand Residual charges need to be a "£ per site per day charge" while still acting as that mop up mechanism to make sure National Grid collect the correct amount of TNUOS. Effectively what we need to implement that "£ per site per day charge" is site count of consumption, of Final Demand Sites by charging band, and that this is fundamentally this is what P402 is looking to achieve.

He clarified that P402 data will be used to allocate what percentage of TNOUS is to be recovered from each charging band. Site counts will have a triple purpose of tariff setting, forward billing and reconciling those forward bills.

He noted that CUSC provisions are very prescriptive and that for reconciling, they must use latest data (CUSC 14.17.24 and 14.28) and invoice/credit within 30 days (3.13.6a).

Furthermore – he explained that the P402 will introduce a new type of data will be the only data used in Tariff Setting that isn't calculated by NGESO and can't be validated by NGESO for accuracy, thus introducing a new risk into the TNUOS methodology and that believe using the latest actual data presents less risk for industry than using forecast data which could present uncontrollable forecast error.

A Workgroup member pointed out that, as the TCR Direction was an instruction on NGESO and DNOs to bring forward whatever Modifications are necessary, it would in fact be perfectly possible to change the TNOUS methodology as described in the CUSC in service of a practical solution. The National Grid representation agreed in theory but pointed out that rewriting the TNOUS methodology is unlikely to be practical in comparison with either the P402 Proposed or Alternative Solutions.

A Supplier representative commented that he would prefer for National Grid to be able to set tariffs using actual data rather than forecast data.

Ultimately the LDSO members of the group were mostly comfortable with accepting this requirement as actual data is available in their systems for them to send, depending on the timing of this data provision for Tariff Setting in case pulling it out at the end of the month places an extra burden on systems at the same time they're doing ordinary billing runs. An LDSO member described feedback from their service provider that strongly advised an annual timetable, rather than monthly, to avoid undue strain on their billing system and to make sure this requirement is deliverable.

National Grid responded that they would only need this data annually, and the group reached a consensus position of an annual report of actual consumption data, because it gives National Grid the data that it says it needs for tariff setting and satisfies a Supplier representative. Additionally, the annual aspect helps to minimise risks to existing billing processes and systems for LDSOs. This was felt to be the lowest risk and highest reward outcome for now, and it was agreed that reporting site counts would be aggregated on a monthly basis and consumption on an annual basis for the P402 Alternative.

Report by Charging Band or LLFC?

The group considered 2 options for the reporting of data. 1 option was for LDSOs to report by LLFC. This would mean National Grid would have to convert the site counts and consumption from LLFC to Charging Band and would require National Grid to receive some instructions and support related to mapping. An identified downside of this approach could be a potentially significant amount of extra cost and implementation time that would need to be added to the P402 Alternative solution.

Another alternative was discussed whereby LDSOs use their mapping understanding to report the site counts and consumption by charging band so as to minimise the cost and effort for National Grid and likely end up with a cheaper solution overall.

LDSO members discussed the impacts this 2nd option could incur and felt that it may not be onerously expensive, however took issue (as a point of principle) with the shouldering of costs by LDSOs for a National Grid obligation. On this point National Grid responded

that they were looking for the cheapest solution for the industry as a whole, rather than passing costs on to other Parties.

There was some debate around this point, with several group members maintaining reservations about the strength of National Grid's counterargument. In the absence of consensus, ultimately, the group had to choose a position to gather views, costs and benefits against, and went with "reporting by Charging Band" as the P402 Alternative default, but acknowledged that this position may change in the future once costs are better understood. In order to draw out the costs and make it clear which option is more or less costly, the group agreed to ask a specific consultation question on this point to draw out the costs and implications of each approach.

A benefit of DNOs transforming data to Charging Bands was drawn out, in that a report that is "by LLFC" will be much larger to collate and send – "by charging band" will be slimmer which could be beneficial for smaller IDNOs with bespoke systems.

Assessment Consultation Question

Do you agree with the Workgroup that data should be aggregated and reported by Charging Band? What are the costs and implications of aggregating and reporting by Charging Band for your organisation?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

Assessment Consultation Question

What would be the costs and implications of aggregating and reporting data by Line Loss Factor Class for your organisation?

Please provide your rationale.

The Workgroup invites you to give your views using the response form in Attachment E

Timescales for sending data to NETSO

In consideration of the Alternative P402 requirements, LDSOs challenged the proposed timings for the sending of data to National Grid, describing them as restrictive and wanting to make sure they would be practical in application.

An IDNO member described the proposed 2 Day as problematic, as the turnaround time between receiving the final D030 flow, committing this data and sending it on National Grid could become an undue burden for some market participants linked to a commercial decision of when to bill, and this could be an unachievably harsh timescale.

The group noted the benefits associate with newer, more recent data but felt that holding LDNOs to a 2 Day turnaround would not be practical or pragmatic, so the group considered a wider window in which to send data.

The IDNO member who had raised this concern felt that 10 Days would be definitely achievable. When challenged if 5 Days would also be achievable, the IDNO member stated that 5 Days could be achievable but that her preference would be for 10.

NETSO's concern with this approach is that they may require Suppliers et al to put up extra security money because NETSO are having to wait longer to bill.

The group considered whether to adopt 5 or 10 WD as the default for the Alternative Solution, hearing from different members representing LDSOs, National Grid and Suppliers and noting the challenged each face. They note that a 10 Day period appears to overlap with National Grid's billing arrangements and may be unworkable, but decided by majority that there is value in setting it at 10 days for National Grid to provide their rationale for or against this timescale via the consultation. This is on the basis that it works around system constraints, which in effect challenges National Grid to justify why it should be shorter. Expect Grid to oppose that and set out the rationale for discussion.

Assessment Consultation Question

For the P402 Alternative, do you agree with the Workgroup that each LDSO should provide data within 10 Working Days of receipt of the D0030?

Please provide your rationale and highlight any impacts and specific costs associated with this element.

The Workgroup invites you to give your views using the response form in Attachment E

Reporting BM Units

When discussing the requirement for LDSOs to send monthly combined data to NETSO, the group discussed whether reporting by BM Unit is efficient and/or practical.

The National Grid representative clarified that they would prefer a field for BM Unit but would be able to use Supplier ID if necessary. It was suggested that LDSOs would prefer to just report the Registrant ID, which would be the Supplier ID for SVA and Party ID for SVA.

Additionally it was noted that the simplest solution would likely be for LDSOs to pull the SVA Party ID out of the various CDCA and CRA data that Elexon send to suppliers, however this would mean that Grid would have to work with the 8 character Party Id. A member commented that National Grid would end up converting everything from 4 character to 8 character Party Id for the invoice, and National Grid confirmed that they could live with either 4 or 8 characters for the reporting of sites.

Which Code's definitions to point to for the Alternative?

In consideration of the P402 Alternative, the group considered whether to rely on DCUSA or CUSC definitions.

The default approach had been to use the CUSC definitions for "Single Site", "Final Demand Site", "Non-Final Demand Site" and "Charging Band" in reference to the P402 Alternative Requirements, however the group examined whether this was the most appropriate route.

Feedback from members suggested making sure CUSC and DCUSA definitions are the same or at least comparable so there aren't differences in what LDSOs produce vs what Grid need"

It was noted how there are differences in some of these definitions between the two, but that the CUSC definitions use the DCUSA as the source of their base meaning (adding to them to cover transmission-connected sites).

On the one hand – P402 Alternative could foreseeably tie to CUSC because P402 supports CUSC requirements drawn out in their parent Modifications. It was felt to not matter too much as long as it is clearly referenced and therefore LDSOs clear on what they are expected to do, with National Grid clear on what they expect to receive.

On the other hand it was noted that DCUSA may be less risky for LDSOs as any changes to it would have to pass through the DCUSA governance process.

One member noted that, as P402 deals with LDSO obligations it should naturally align to DCUSA as the most logical relationship.

The impact of any changes to definitions in DCUSA was considered as any changes to DCUSA would mean that LDSOs would then be reporting inconsistently with what the CUSC is expecting. In order to resolve this, either National Grid or LDSOs would need to raise both a BSC and CUSC Modification to bring reporting requirements in line with what CUSC needs or to otherwise find a workaround to make sure that LDSOs don't find themselves non-compliant with both BSC and DCUSA.

It was noted that DCUSA doesn't have an explicit defined term for "charging band". Charging bands are instead defined within a schedule, so the requirements would have to link to the paragraphs in the DCUSA that describe the charging bands.

Ultimately it was felt that it would be better to refer to DCUSA definitions for the P402 Alternative, with the rationale being that the obligations are on LDSOs. The content of what is in their systems is, in the first instance, defined in the DCUSA, therefore this was felt to be the more logical relationship.

Impact on viability of P402 Proposed implementation

Given the BSCCo system changes needed to deliver the P402 Proposed and the requirement to deliver the TCR by 1 April 2022, P402 has always been under a challenging deadline which depends on swift and efficient progression.

The raising of the P402 Alternative at a late stage has put considerable pressure and a large potential knock on effect on the ability to comfortably deliver the P402 Proposed, should it be approved, under previously indicated timescales of February 2022.

Exelon communicated to the group that in order to go live in February, Exelon's service provider has indicated that work must begin in February 2021, following Ofgem approval. Meeting this schedule would be very challenging and require a very quick decision from the Authority, so the group considered use of interim reporting if need be, and how best to support the P402 Proposed, should it be approved, and there is an gap between TCR implementation and the P402 Proposed Solution 'go live'.

It was noted that the scope of an interim solution may depend on how long this period is, and that the piece of the puzzle that would be missing is the billing data (site counts), and the Workgroup would expect National Grid and LDSOs to work together to bridge that gap.

In the case that the Proposed Solution is unable to be implemented in February 2022. The initial view was that, should the Proposed Solution be chosen for approval, the best

approach would be for National Grid and the LDSOs to share data as is practicable to allow National Grid to start Billing from April 2022 in line with the TCR Direction.

An additional potential problem with both the Proposed and Alternative was also identified in that LDSOs will not have a full 12 months of gross imports by LLFC (therefore by charging bands) for the first year of Tariff Setting, and would therefore need to give Grid best estimates.

A bilateral approach between LDSOs and National Grid was felt to be the only way to address this.

The Proposer noted that a “middle ground” option may be for LDSOs to perform the transformation and Elexon perform the aggregation. He noted that the two main cost drivers for Grid are the actual aggregation of data and building the interfaces. He felt that the interfaces of Elexon already exist so would expect minimal cost there. The current Impact Assessment quotes for BSCCo performing both the transformation and aggregation and felt it would help to give the Workgroup and industry a fuller picture, even as a ballpark rough idea, the split of “How much is aggregation and how much is transformation?”

A Workgroup member was doubtful that this option would be the cheapest but felt it would be worthwhile for Elexon to investigate this, if possible, and spell it out.

Elexon responded that this may be challenging to pull together in time for the consultation, but would endeavour to do so.

Pros and cons of Proposed and Alternative

The group considered the benefits and risks of both the P402 Alternative and Proposed.

It was noted that both solutions lack independent validation of the data that is reported by LDSOs. For Settlement purposes, the data in and data out can be tracked and validated via a robust Risk Assurance Framework. However, this doesn’t apply to non-Settlement activities and so both the Proposed and Alternative P402 Solutions do not benefit from the full rigour the BSC would normally bring to Settlement activities.

Ultimately, the relationships between sites are only held within LDSO systems, and there is no feasible way for National Grid to check that they are being accurately reported.

The Proposer stated that the Proposed Solution could be seen as more futureproof in the face of any future changes resulting from the Access SCR or Faster Switching Programme, because you can change the input sources for P402 file whereas under the Alternative it would continue ad infinitum. Not all members shared this view, however, as it was pointed out that the Alternative could provide a nimbler solution should changes be required, and was expected to cost significantly less than the P402 Proposed.

Recognition of potential impact on IDNOs

The need for consideration of any undue impacts on the systems of smaller IDNOs was emphasised by the Workgroup.

The need to uncover costs and implications for all affected participants is really important and a central purpose for the second consultation – to give visibility of the solution and to allow IDNOs to judge and report impacts of the P402 Alternative on their systems.

As discussed among the Workgroup, 10 of the IDNOs are believed to be supported by a single service provider but not all are and the group are keen to make sure that any of these IDNOs' bespoke billing systems can accommodate the solution. While LDNOs have a shared billing cost system (and can therefore spread the cost of system changes among many), we understand that no such system exists for IDNOs and therefore the cost is applied individually, which has the potential to have a large impact on them and must be captured and then taken into consideration by the group.

Data retention

Elexon clarified that, while in the Proposed solution, data retention provisions extended to 28 months to tie in with existing BSC data provisions, the P402 Alternative described 14 months because this is the point at which RF is complete.

The group were comfortable with the explanation. The Proposer suggested adding wording to reference "a minimum of 14 months" so it would be overly not prescriptive should a party wish to hold data for a longer period and Elexon agreed.

7 Workgroup's Initial Conclusions

The Workgroup provided its views on both the P402 Proposed and Alternative Modifications against the Applicable BSC Objectives.

At this stage, the **majority** of the Workgroup believes that P402 **Alternative** Modification would overall better facilitate the Applicable BSC Objectives compared with both the existing baseline and Proposed Modification and so should be approved.

Members' views against each of the Applicable BSC Objectives are summarised below.

Does the P402 Proposed Solution better facilitate the Applicable BSC Objectives?

Obj	Proposer's Views	Other Workgroup Members' Views
(a)	• Positive	• Positive (unanimous)
(b)	• Neutral	• Neutral
(c)	• Neutral	• Neutral
(d)	• Positive	• Positive (Minority) • Neutral (Majority)
(e)	• Neutral	• Neutral
(f)	• Neutral	• Neutral
(g)	• Neutral	• Neutral

Does the P402 Alternative Solution better facilitate the Applicable BSC Objectives?

Obj	Proposer's Views	Other Workgroup Members' Views
(a)	• Positive	• Positive (unanimous)
(b)	• Neutral	• Neutral
(c)	• Neutral	• Neutral
(d)	• Positive	• Positive (unanimous)
(e)	• Neutral	• Neutral
(f)	• Neutral	• Neutral
(g)	• Neutral	• Neutral

Proposed Solution

Applicable BSC Objective (a)

The Proposer believes that the Proposed Solution better facilitates Applicable BSC Objective (a) as NETSO has been directed by Ofgem to give effect to Ofgem's TCR SCR Decision by raising changes to the CUSC and 'any such consequential proposals for modification to ... other industry codes'. P402 is intended to enable related CUSC modifications and therefore is necessary for the Proposer to comply with Ofgem's Direction, thereby better enabling NETSO to comply with its license.



What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administering the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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The Workgroup members unanimously agree with this assessment of Objective (a), noting a clear impact and obligation on the Transmission Licence that the P402 Proposed Solution addresses.

Applicable BSC Objective (d)

The Proposer confirmed that they believe the P402 Proposed solution better facilitates Applicable BSC Objective (d), noting that BSC processes and systems already provide a centralised mechanism for collecting, aggregating and sharing data with NETSO and LDSOs for network charging purposes. This approach has been maintained by industry because it provides a consistent, secure, efficient and cost effective means of enabling both Settlement and non-Settlement processes.

A majority of Workgroup members disagree that P402 Proposed Solution is positive against Objective (d), feeling that the high cost involved with making this change could not justify it as efficient. One member noted that if central systems processed more of the data and provided greater visibility of how MSID and Sites were reported and aggregated, then arguments for efficiency would be justifiable, but that at present, bearing in mind the costs of implementation, he considered P402 a 'post-box' for Half Hourly data and did not support the solution.

Other group members were sympathetic to this view on the limited benefits of P402, with others stating that the Access SCR may entirely overwrite the solution in a few years – leading to potentially wasted costs to implement the Proposed Solution as describing it as an “expensive sticking plaster”.

A minority agreed that the P402 Proposed better facilitates Applicable BSC Objective (d), noting that they believed it more efficient than the counterfactual example of National Grid having to establish a relationship with every customer to get the information they require.

Alternative Solution

Applicable BSC Objective (a)

The Proposer and Workgroup unanimously agree that the P402 Alternative Solution better facilitates Objective (a) for the same reasons as given for the Proposed.

Applicable BSC Objective (d)

The Proposer and Workgroup unanimously agree that the P402 Alternative Solution better facilitates Objective (d). This is based on their current understanding of the costs and impacts of the P402 Alternative, which the Proposer recognised as prevented him from being fully convinced in the overall efficiency of the Alternative versus Proposed, although he was comfortable with supporting (d) in terms of the P402 Alternative versus the baseline.

The Workgroup initially believe that the P402 Alternative offers a cost effective solution that positively impacts efficiency in the implementation of the balancing and settlement arrangements, based on current information.

It was noted that the view of whether P402 (Proposed or Alternative) better facilitates (d) rests on an interpretation of how broad each person's view is of the “balancing and settlement arrangements”. Confining the scope of this phrase to strictly BSC activities would leave most as neutral on this point, as P402 will not directly affect Settlement.

However, the group took a broad enough view of this an encompassing activities around balancing and settlement (such as invoicing) and the wider value chain of settlement arrangements to be able to form an opinion on the impacts each Solution would have in relation to this objective.

Assessment Consultation respondents' views against the Applicable BSC Objectives

Do you agree with the Workgroup's initial majority view that P402 does better facilitate the Applicable BSC Objectives than the current baseline, and so should be approved?			
Yes	No	Neutral/No Comment	Other
5	2	2	0

please note that replies to the first Assessment Consultation apply only to the P402 Proposed Solution

A majority of respondents agreed with the Workgroup's initial majority view that P402 does better facilitate the Applicable BSC Objectives than the current baseline.

Objective (a) was largely felt to be more demonstrably achieved, as P402 clearly supports NGESO's obligation to deliver the Direction. There was wider debate around Objective (d), with arguments for and against centring around the relative benefits and efficiencies achieved by the central approach in providing the necessary data to NGESO. One respondent highlighted the need to assess this change in isolation and therefore ignore potential inefficiencies related to wider change on the horizon resulting from the Access and Forward-Looking Charges Significant Code Review (the 'Access SCR'), and appreciated the benefits associated with a central approach in providing the necessary data to NGESO.

Some respondents described the solution as overly complex and too costly to better facilitate (d), describing the central systems costs as extremely high.

Appendix 1: Workgroup Details

Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P402 Terms of Reference	Conclusion
Can LDSOs deliver the data that National Grid require?	Addressed and incorporated into the P402 solution.
Specific definition of what needs to be reported and how frequently it needs to be reported.	Addressed and incorporated into the P402 solution.
How should the reporting specified by this proposal handle data or process errors and disputes?	Addressed and incorporated into the P402 solution.
Consider whether and if so how a one-off set of Tariff Setting Reports should be provided to NETSO before 1 April 2022, in order to set tariffs to take effect from 1 April 2022.	LDSOs will provide, bi-laterally and directly, a one-off set of Tariff Setting Reports to NETSO in October 2021.
How to ensure the P402 solution is compliant with GDPR regulations?	Following assessment, the group are comfortable that the P402 solution is compliant with GDPR regulations

Assessment Procedure timetable

P402 Assessment Timetable	
Event	Date
Panel submits P402 to Assessment Procedure	12 March 2020
Workgroup Meeting 1	31 March 2020
Workgroup Meeting 2	8 May 2020
Workgroup Meeting 3	5 August 2020
Workgroup Meeting 4	28 September 2020
Assessment Procedure Consultation	7 October – 27 October 2020
Workgroup Meeting 5	2 November 2020
Workgroup Meeting 6	25 November 2020
Second Assessment Procedure Consultation	2 December 2020 = 15 December 2020
Workgroup Meeting 7	16 December 2020
Panel considers Workgroup's Assessment Report	16 January 2020

Workgroup membership and attendance

P402 Workgroup Attendance							
Name	Organisation	31 March 2020	08 May 2020	05 August 2020	28 September 2020	2 November 2020	25 November 2020
Members							
Lawrence Jones	Elxon(<i>Chair</i>)				x	x	x
Claire Kerr	Elxon(<i>Chair</i>)	x	x	x			
Ivar Macsween	Elxon (<i>Lead Analyst</i>)						
Grahame Neale	National Grid ESO (<i>Proposer</i>)						
Phil Russell	Consultant						
Donna M Townsend	ESP Electricity Limited						
Richard Ellis	Western Power Distribution						x
Ian Hall	IMServ		x	x	x	x	x
Lee Stone	E.on						x
Andy Colley	SSE		x			x	
Lee Wells	Northern Power Grid	x	x		x		
Tony McEntee	Electricity North West					x	
Stacey Buck	BU-UK		x	x			
Attendees							
Nick Rubin	Elxon (<i>Design Authority</i>)						
Aditi Tulipe	Elxon (<i>Lead Lawyer</i>)	x			x	x	x
Shamaila Jawaid	Elxon			x			x
Kayt Button	Ofgem	x	x	x	x	x	x
Kundai Matiringe	BU-UK		x	x	x	x	x
Tom Cadge	BU-UK						x

Appendix 2: Glossary & References

Acronyms

Acronyms used in this document are listed in the table below.

Acronyms	
Acronym	Definition
BSC	Balancing and Settlement Code
BSCCo	Balancing and Settlement Code Company
BMU	Balancing Mechanism Unit
BSUoS	Balancing Services Use of System
BTM	Behind The Meter
CfD	Contracts for Difference
CM	Capacity Market
CMP	CUSC Modification Proposal
CSDs	Code Subsidiary Documents
CUSC	Connection and Use of System Code
CVA	Central Volume Allocation
DUoS	Distribution Use of System
ECOES	Electricity Central Online Enquiry Service
EMR	Electricity Market Reform
HH	Half Hourly
HHDA	Half Hourly Data Aggregators
MSID	Metering System Identifiers
SCR	Significant Code Review
SVA	Supplier Volume Allocation
SVAA	Supplier Volume Allocation Agent
TCR	Targeted Charging Review
TDR	Transmission Demand Residual
TNUoS	Transmission Network Use of System
TUoS	Transmission Use of System
UoS	Use of System Charging

DTC data flows and data items

DTC data flows and data items referenced in this document are listed in the table below.

DTC Data Flows and Data Items	
Number	Name
P0210	Use of System (TUoS) Report
D0030	Aggregated DUoS Report
D0040	Aggregated Half Hour Data File
D0041	Supplier Purchase Matrix Data File

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
2	Targeted Charging Review Direction	https://www.ofgem.gov.uk/system/files/docs/2019/11/cusc_direction_1.pdf
2	Targeted Charging Review: decision and impact assessment	https://www.ofgem.gov.uk/system/files/docs/2019/12/full_decision_doc_updated.pdf
3	CMP332	https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/cmp332-transmission-demand-residual
3	CMP334	https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/cmp334-transmission-demand-residual
3	CMP335/6	https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/cmp335-transmission-demand-residual-billing
3	DCUSA Change Proposal 359	https://www.dcusa.co.uk/change/ofgem-targeted-charging-review-implementation-customers-who-should-pay/
7	Elexon response to Future Charging and Access programme – consultation on refined residual charging banding in the Targeted Charging Review	https://www.Elexon.co.uk/documents/industry-consultations/2019-industry-consultations/Elexons-response-to-ofgems-consultation-on-refined-residual-charging-banding-in-the-targeted-charging-review/