Stage 02: Workgroup Consultation	At what stage is this document in the process?
# CMP275: 'Transmission Generator Benefits in the provision of ancillary and balancing services – levelling the playing field'	01 Initial Written Assessment 02 **Workgroup Consultation** 03 Workgroup Report 04 Code Administrator Consultation 05 Draft CUSC Modification 06 Final CUSC Modification Report

Purpose of Modification: CMP275 seeks to introduce a principle of financial mutual exclusivity to prevent BM units from accessing multiple sources of duplicate and overlapping revenue from ancillary services on the same asset.

	This document contains the discussion of the Workgroup which formed in February 2017 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 6 of this document. **Published on: 13 June 2017** **Length of Consultation: 15 Working days** **Responses by: 4 July 2017**
	**High Impact**: Generators Transmission Company Ancillary Service Providers

Contents

Timetable

The Code Administrator recommends the following timetable:

Workgroup Consultation issued to the Industry	13 June 2017
Modification concluded by Workgroup	17 August 2017
Workgroup Report presented to Panel	25 August 2017
Code Administration Consultation Report issued to the Industry	31 August 2017
Draft Final Modification Report presented to Panel	19 October 2017
Modification Panel decision	27 October 2017
Final Modification Report issued the Authority	13 November 2017
Decision implemented in CUSC	28 December 2017

Any questions?

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1 Format of this report and Terms of Reference

This report contains the discussion of the Workgroup which formed in February 2017 to develop and assess the proposal.

Section 2 (Original Proposal) and Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 5 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

The CUSC Panel detailed in the Terms of Reference the scope of work for the CMP275 Workgroup and the specific areas that the Workgroup should consider.

The table below details these specific areas and where the Workgroup have covered them or will cover post Workgroup Consultation.

The full Terms of Reference can be found in Annex 1.

Table 1: CMP275 ToR

Specific Area	Location in the report
a) Clarify which revenue streams are excluded from mutually exclusive arrangement ensuring consideration includes the interaction between both the Balancing Mechanism (BM) and Balancing Services.	Covered via the services matrix- please refer to table 4.
b) Demonstrate how this proposal will interact with the existing procurement of services ensuring that this did not lead to over procurement in the market.	Covered in the assessment of the impact of the proposal on other markets.
c) Demonstrate how this modification does not discourage providers from tendering for services.	Covered under the discussions by the Workgroup and that it will be up to the commercial decisions of the providers which services they tender for. Certain Workgroup members considered that this would discourage parties from tendering for providing more than one service as they would otherwise effectively be providing the additional service(s) for free.
d) Define the assets affected by the proposal.	Covered via the services matrix- please refer to table 4.
e) Demonstrate that they have considered the impact of wider strategic issues being	Covered via section 5 (item 8 CLASS Project and item 9 Simplification of services. However consideration of Ofgem Flexibility

pursued by the industry in their proposal.	call for evidence which stated that we should look to increase stacking of services where possible are still to be considered and for the Proposer to provide information on how the Proposal aligns to Ofgem's Flexibility call for evidence.
f) Consider how this modification interacts with Ofgem's Flexibility Call for Evidence which is seeking ways to allow participants to access multiple revenue sources and EU Balancing Code.	The Workgroup is still to consider this item.
g) Clarify how the proposed changes to the CUSC would impact Distribution Networks.	The Workgroup is still to consider this item but the group's initial view is that it wouldn't have an effect.
h) Ensure individual power stations are not identified within the report.	No named power stations in report or analysis.
i) Define the practical implementation of the solution, so that it is defined for all industry participants i.e. National Grid who will run tenders for the Balancing Services and parties who would like to tender for a Service.	High level more detail required
j) Consideration of the future development of Balancing Services.	Covered via section 5 (item 9 Potential simplification of services and Ofgem's consultation on Parties offering more services).

2 Original Proposal

Section 2 (Original Proposal) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 5 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

What

It is proposed that a principle of financial mutual exclusivity is introduced to prevent BM units from accessing multiple sources of duplicate revenue from ancillary services on the same asset.

Why

Currently BM units can access revenue streams from multiple ancillary services that overlap in their scope; this gives them a competitive advantage through over compensation over competitor parties.

How

It is proposed that a new section should be introduced under Section 4.4 of the CUSC that implements a principle of financial mutual exclusivity for BM Units in receipt of multiple sources of ancillary services revenue.

Detail on why change

Currently BM units can access revenue streams from multiple ancillary services that overlap in their scope, this gives them a competitive advantage through over compensation when taking part in the provision of Ancillary Services auctions as they are able to undercut other BM and non BM units through accessing duplicate Ancillary Service payments (i.e. not mutually exclusive). This is a distortion to the market and has a severe material impact in preventing a level playing field as well as increasing the cost to the end consumer and unduly rewarding some generating units above others.

This distortion is present in both availability and utilisation payments associated with the provision of balancing services such as Short Term Operating Reserve (STOR) from National Grid and is most pronounced where units are able to enter and/or tender into multiple ancillary services such as Black Start and Fast Start which do not exclude participants from taking part in other services such as STOR.

Charts 1 and 2 are extracted from the Monthly Balancing Services Summary show clearly the split of availability and utilisation payments between BM and NBM.

Chart 1: STOR BM & NBM Availability Costs

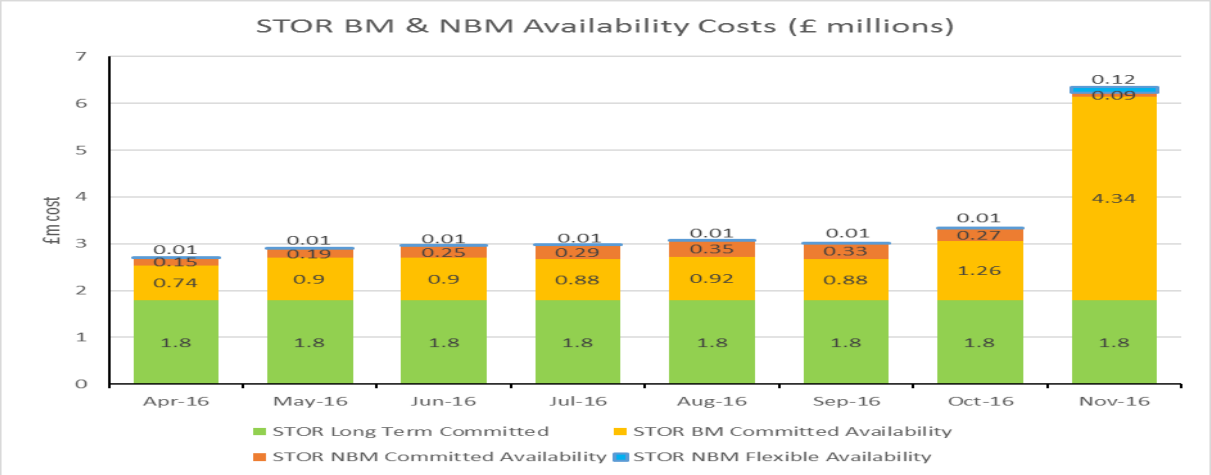
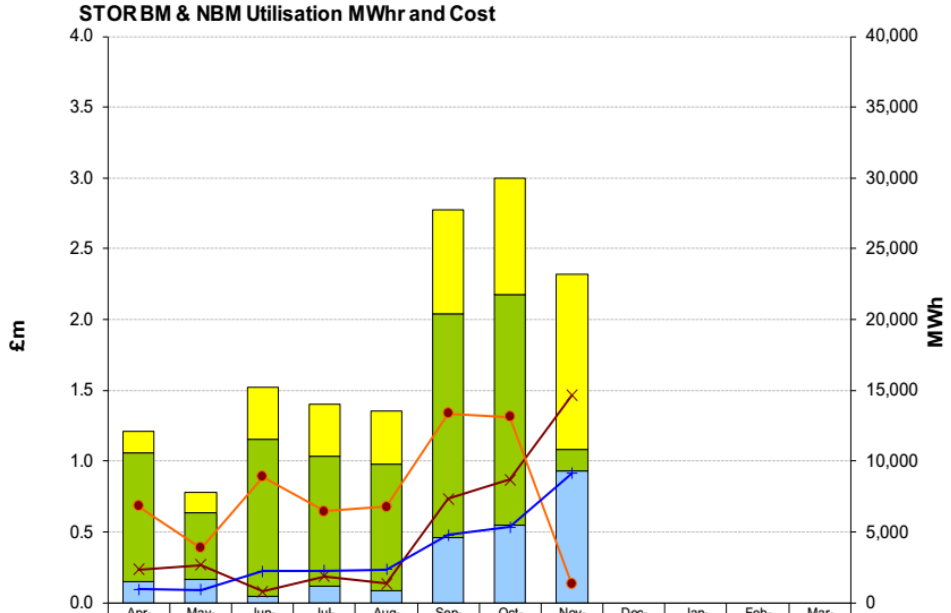


Chart 2: STOR BM & NDM Utalisation MW hr and Cost



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
STOR NBM Flexible Utilisation MWhrs (Inc Ramp Energy)	1,479	1,442	3,671	3,644	3,741	7,306	8,200	12,440				
STOR NBM Committed Utilisation MWhrs (Inc Ramp Energy)	9,135	4,681	11,094	9,215	8,948	15,798	16,297	1,502				
STOR BM Committed Utilisation MWhrs	1,461	1,655	441	1,133	835	4,629	5,496	9,283				
STOR BM Committed Util Cost £m (Settlement)	0.232	0.266	0.076	0.184	0.133	0.731	0.869	1.464				
STOR NBM Committed Util Cost £m	0.680	0.386	0.888	0.646	0.677	1.335	1.311	0.132				
STOR NBM Flexible Util Cost £m	0.092	0.089	0.223	0.225	0.234	0.476	0.534	0.912				

Black Start units are currently paid to be available for restoring the National Grid to operation after a serious disconnection or power loss event, this represents a large amount of revenue in the form of availability payments to the plant to allow it to stockpile fuel and maintain independent operational capacity mainly in the form of Open Cycle Gas Turbines which can be gas oil fired to allow it to power up the main station capacity to respond to a Black Start request from National Grid to block load and reenergise the transmission system. As these units are unlikely to ever need to respond to a Black Start instruction except for scheduled testing (there has never been a requirement for a

Black Start in the UK) they are therefore commonly tendered into other services such as STOR where they are able to tender in and receive additional availability payments to support and maintain the exact same capacity as they are already receiving payment for under their Black Start contracts. Black Start payments can cover both operational costs and capital costs for black start capacity.

This represents a duplicate source of availability revenue and allows such benefiting units to receive account for a second or more additional revenue streams to cross subsidise their tender strategies in competitive tenders compared to other parties by having paid for plant maintenance and overheads through availability from other sources, leading to a distortion of the market as well as added expense to the end consumer through paying for a service twice.

This distortion is also present in the Fast Start service where units are paid an additional utilisation revenue source as a benefit on their ramp profiles. Such units are however permitted to tender into STOR and other ancillary services and as such are able to achieve higher utilisation revenue streams for their generated MWh than comparable units that are purely tendered into STOR and not in receipt of duplicate revenue. This allows comparable cross subsidisation to the above example of Black Start where a such benefiting unit would be able to tender into completive auctions at a lower rate than similar competing plant due to its benefit of double revenue stream.

This effectively allows BM participants to take account of a second income stream when submitting tenders for other balancing services. Since this income stream is not taken into account in the procurement of STOR, this subsequently leads to inefficient procurement and also inefficient despatch decisions by the SO. It also places non BM STOR providers in a disadvantageous position compared to BM STOR providers who are able to access either Black Start or Fast Start revenues to subsidise their STOR tendering strategy.

In many cases the same transmission capacity is in receipt of black start and fast start payments as well as STOR payments meaning the prices tendered are not cost reflective. Thus creating a significant distortion in the STOR market and providing a significant competitive advantage to the units in receipt of these additional payments compared with other participants whom do are not in receipt of these revenue streams.

Post Workgroup meeting amendments:

From discussion in the workgroup meetings to date it is believed by National Grid that regarding Fast Start utilisation payments that this is already unofficially netted off in that the Control Room takes account of additional costs incurred from Fast Start when despatching STOR contracts relating to these same assets.

3 Proposer's solution

Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 5 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

It is proposed that a new section should be introduced under Section 4.4 of the CUSC that implements a principle of financial mutual exclusivity for BM Units in receipt of multiple sources of ancillary services revenue. The principle of this concept should be that both the availability and utilisation streams of revenue for ancillary services should net off so as to prevent duplicate revenue being paid to providers. National Grid would subsequently introduce this as a component of future tender rounds on all eligible ancillary services.

It is proposed that a principle of financial mutual exclusivity is introduced to prevent BM units from accessing multiple sources of duplicate and overlapping revenue from ancillary services on the same asset. This would be achieved through the introduction of a new principle as part of Section 4.4 of the CUSC which would then be featured in future tender round standard terms.

The basis of this principle is that units should not be paid for the same service twice; this would not prevent BM Units from taking part in multiple services simultaneously or receiving revenue from both simultaneously as well. However, it would introduce a netting process whereby duplicate revenue from additional ancillary services such as STOR would be netted off or retained by National Grid until they exceeded the availability revenue from Black Start or the utilisation revenue from Fast Start.

As an example, of this a site receiving £100,000 in availability on an annual basis from a Black Start contract that was also tendered into the STOR market and received £130,000 in availability payments over the same period would only receive £130,000 in availability from both products, £100,000 of its revenue from STOR availably would be netted against its Black Start revenue. This would be a removal of duplicate revenue and a direct saving to the consumer from paying for the availability of a generation asset twice over.

Chart 3: STOR fuel type

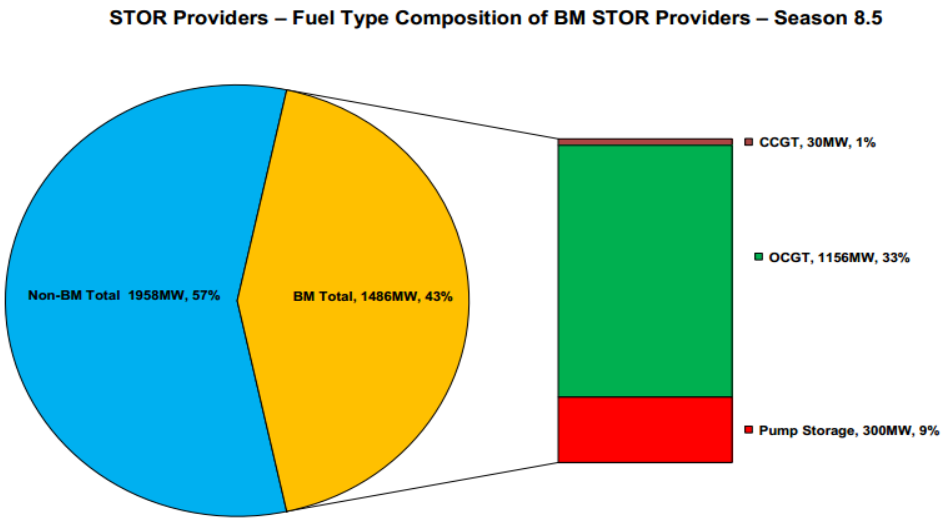


Chart 3 is from the STOR fuel type analysis carried out by National Grid shows over 1GW of STOR is provided by BM unit OCGTs of which it's likely the vast majority benefit from Black Start or Fast Start payments in addition to STOR payments on both availability and utilisation. This represents almost 30% of the capacity secured in the STOR market.

This will then allow non-BM and BM providers to compete efficiently for the delivery of services with resulting consumer benefits driven by improved levels of competition and optimal despatch decisions from the system operator.

Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

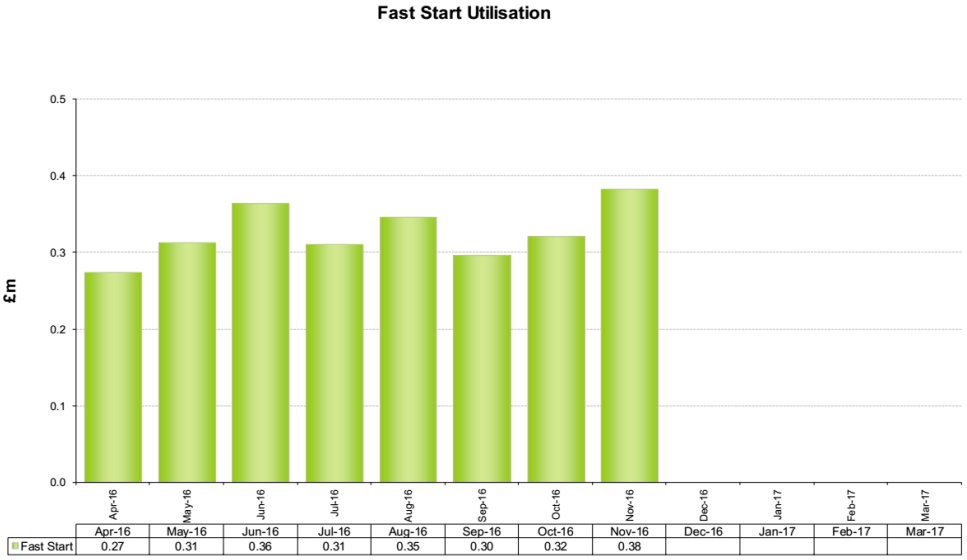
No

Consumer Impacts

We are of the view that there would be significant savings to the end consumer from stopping the over payment of these services. As National Grid contracts these service on a bilateral agreement basis and does not publish any breakdown due to security concerns we are unable to identify what the exact savings would be but believe National Grid would be able to calculate this via cross referencing with their other balancing services.

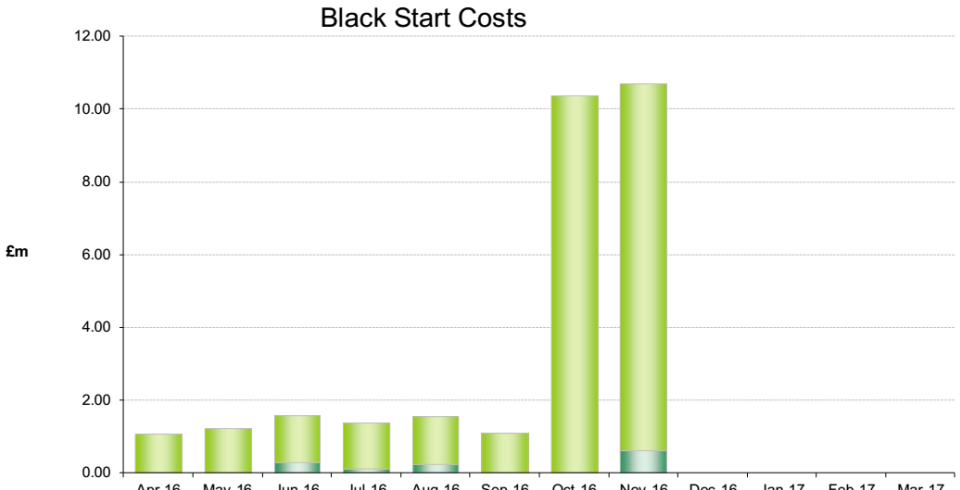
As the current black start contracting costs has risen so sharply (£10.1m on a monthly basis as per the most recent MBSS summary publication for November) we believe this will pose a growing issue to the end customer and therefore will present a growing opportunity for cost reductions as reflected in the below extracts of the Monthly Balancing Services Summary document produced by National Grid.

Chart 4: MBSS Fast Start Utilisation Costs (MBSS February Fig 3.3.1)



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Fast Start	0.27	0.31	0.36	0.31	0.35	0.30	0.32	0.38				

Chart 5: MBSS Black Start Costs (MBSS February Figure 3.2)



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Black Start Contract costs (£m)	1.06	1.22	1.28	1.25	1.31	1.08	10.37	10.10				
Other Black Start Costs (£m)	0.00	0.00	0.30	0.12	0.24	0.00	0.00	0.61				

4 Urgency Request

The Proposer requested that CMP275 be treated as an urgent proposal and should not be treated as self-governance as:

- It has significant commercial impact upon the Transmission Company, Industry parties and customers;
- The Modification Proposal is linked to an imminent date-related event in that many ancillary services are due for tender, which would propagate the defect further if unaddressed; and
- The Modification should not be treated as a self-governance due to its material impact on some parties.

It was the view of the Proposer that as the next STOR tender round will take place on the 26th May 2017, with the following one on the 11th August 2017 there was some urgency for National Grid to take account of this issue to prevent its further impact on the provision of balancing services.

Table 2: National Grid STOR tender milestones

Tender Round	Tender Milestones					
	ITT Pack Published	Framework Agreements Deadline	Market Day	Results Day	Market Report Published by	Service Start Date
TR31	16-Dec-16	06-Jan-17	13-Jan-17	24-Feb-17	24-Mar-17	01-Apr-17
TR32	21-Apr-17	19-May-17	26-May-17	07-Jul-17	11-Aug-17	21-Aug-17
TR33	14-Jul-17	04-Aug-17	11-Aug-17	15-Sep-17	20-Oct-17	30-Oct-17

The CUSC Modification Panel agreed unanimously that CMP275 did not meet the criteria for urgency and as such considered that it should not be treated as an Urgent CUSC Modification Proposal[1]. The Panel concluded that the Proposal related to cyclical processes relating to revenue and charges, this in it itself could relate to all charging modifications and could not be considered to be a truly imminent issue.

The Authority in its urgency decision letter, agreed that urgency should not be granted and agreed with the Panel's concerns on the complexity of the proposal and the imminent nature of the issue. A copy of Ofgem's Urgency decision letter can be found in Annex 2.

[1] The CUSC Panel and Ofgem's views on Urgency for CMP275 is available using the following link: http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP275/

5 Workgroup Discussions

The Workgroup convened four times to discuss the issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the CUSC Applicable Objectives. The Workgroup will in due course conclude these tasks after this consultation (taking account of responses to this consultation).

The Proposer presented the defect that they had identified in the CMP275 proposal and highlighted that whilst there is a diverse set of ancillary and balancing services, the main focus of the modification was on Black Start and Short Term Operating Reserve (STOR). This was because they considered these services to be the most pronounced examples of the proposed defect but that the solution would apply to those ancillary and Balancing Services listed. One of the main drivers for the Proposer raising the modification was the increased Black Start costs and that in the future different classes of Parties such as Embedded Generators may be able to offer ancillary and balancing services and exploit this defect. The view from the Proposer was that this should be applied to BMUs and non-BMUs, as whilst currently some ancillary and balancing services are only offered by BMUs, in the future non-BMUs may also have the opportunity to offer these services. CMP275 looks to introduce an overarching principle to be applied to current and any future ancillary and balancing services and allow for future proofing.

The Workgroup explored a number of aspects in its meetings to understand the implications of the proposed defect and solutions. The discussions and views of the Workgroup are outlined below.

1. Special Condition C16 and Procurement Guidelines

The Workgroup noted that the CUSC governed the arrangements for procurement of mandatory services only (mandatory frequency response and mandatory reactive power, Section 4). The procurement of all commercial services is governed under the Transmission Licence through the Condition 'C16 Procurement Guidelines Statement'. This statement is governed by National Grid[2] with any proposed changes being approved by Ofgem. National Grid is required to consult on the statement annually (as a minimum), however only National Grid can propose changes. The National Grid representative explained to the Workgroup that this was to allow the SO the flexibility to create and modify the services that it buys as and when circumstances on the system require it.

The Workgroup explored whether the CMP275 defect as described should be rectified via an amendment to the CUSC or to National Grid's Procurement Guidelines[3]. A

[2] For the avoidance of doubt, the Procurement Guidelines Statement does not come under CUSC governance.

[3] The National Grid Procurement Guidelines can be found here: http://www2.nationalgrid.com/UK/Industry-information/Business-compliance/Procurement-and-System-Management-Documents/

number of Workgroup members asked for clarification on how the defect raised under CMP275 interacted with Special Condition C16 of the Transmission Licence and the requirement to consult annually with the industry, particularly the Procurement Guidelines.

The concern of the Workgroup members was that a number of the services referred to in the defect did not have specific details in the CUSC and that whilst it may be possible to add items into the CUSC, if nothing is amended within the Licence and / or the Procurement Guidelines, the overall position is that nothing will change. The Workgroup requested that the Proposer considered whether a more appropriate option to a CUSC Modification would be to request that National Grid propose an amendment to the Procurement Guidelines to resolve the defect identified in CMP275.

The National Grid representative confirmed that whilst there is a requirement on National Grid to review the Procurement Guidelines on an annual basis there is nothing to preclude National Grid proposing changes and for these to be considered and agreed to by the Authority on an ad-hoc basis.

The Proposer confirmed to the Workgroup that as only National Grid can propose a change to the Procurement Guidelines they considered that the most appropriate place to make a change would be in the CUSC itself and that this would then require National Grid to propose amendments to the Procurement Guidelines.

2. BSC Modification P354

A Workgroup member raised whether BSC Modification P354[4] should be considered and whether the CMP275 & P354 Workgroups should be aligned. The views of the Workgroup were that it was important that both the CUSC and BSC Workgroups had an understanding of each of the modifications but that no further alignment was needed at this point. The Proposer confirmed to the Workgroup that CMP275 will not require a change to the BSC.

The Workgroup received an overview of P354, with focus on how the defect related to how charging works for BMUs and non-BMUs (non-BMU would get the energy* the utilisation price PLUS energy * the spill price, which the Proposer of P354 considered was not the most cost efficient monetary choice).

It was noted by the CMP275 Workgroup that this defect had been raised under the BSC arrangements and not the CUSC as the arrangements and solution are not in the CUSC. Furthermore it was noted by the CMP275 Workgroup that the BSC Modification had been raised to facilitate National Grid amending its Procurement Guidelines.

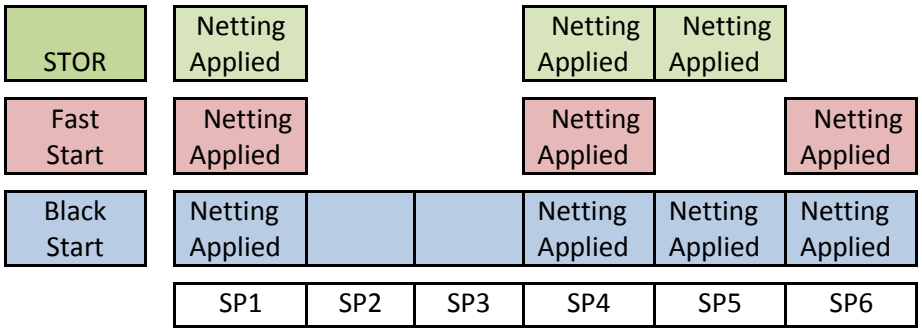
[4] Information on P354 can be accessed using the following link: https://www.elexon.co.uk/mod-proposal/p354/

3. How the concept of 'overlapping' should be defined

A number of Workgroup members asked for clarity from the Proposer on how the concept of 'overlapping' should be defined in respect of the proposed CMP275 defect. An example given was around the costs to have a unit ready for Black Start and what would be considered as the overlap. Would it be all Settlement Periods in a year or only those Settlement Periods where an additional service, such as STOR, overlapped with, say, the provision of a Black Start service (which would be expected to apply across all Settlement Periods in a year)?

The Proposer confirmed that netting would only apply to the immediate overlap. For those ancillary and balancing services which involved availability payments then it would only apply to the Settlement Period where availability is also being paid for a further ancillary or balancing service. The example given was that one service lasted 4hrs and another service offered lasted 30 mins. The view of the Proposer was that this should not be an issue as the idea behind the netting arrangement was that it would only have netting applied in the same delivery settlement period. If one product is 30mins and one product is 4hrs then the netting would only occur for the overlapping 30min period. The Proposer noted that the asset could not physically deliver the 2 services at the same time.

In the example below a Party offers STOR, Fast Start and Black Start and demonstrates how netting would be applied.



4. Services to be included under the proposed solution for CMP275

The Workgroup were presented with a high level schematic on the different ancillary and balancing services that are procured in order to operate the Transmission System, with focus on the Ancillary Services. The Workgroup in its discussions went through all the ancillary and balancing services currently offered and identified those that already had a mutual exclusivity clause. This is detailed in Appendix 1.

The Workgroup requested information on the steps the SO Control Room take when tendering for a service to ensure that a Party does not tender an asset for a service that is mutually exclusive when already associated to an existing service. It was confirmed that the SO Control Room Support function has a database of service providers for each service; these are cross-checked at tender assessment to ensure that the tenders accepted are valid.

The Workgroup explored the contracted capacity on Black Start and whether Black Start is a power station service versus a unit service. National Grid confirmed that Black start is a power station service and not based on MW. The criteria for this requirement

relate to the station's technical ability, proximity to the MITS, geographical spreads of other providers, and any TSO/DNO interactions. There is not a MW volume requirement for Black Start. Further it was confirmed that National Grid cannot comment on the volume contracted due to commercial sensitivity and national security requirements.

It was noted that STOR availability payments are on a unit basis and are £/MW/Settlement Period whereas Black Start is a power station service that is paid £/Settlement Period. It was also noted that the GTs at Black Start power stations that may also participate in STOR are a very small fraction of the total MW power station capability.

In relation to the question of how Black Start is settled to the Generator and how it was paid; e.g. frequency and £/ Settlement Period. It was confirmed that Black Start is paid monthly as part of the normal settlement run, and is on a £/Settlement Period basis.

For those ancillary and balancing services that remained and that did not already have a mutual exclusivity clause the Workgroup discussed how the services could be grouped into those that related to utilisation vs. availability. It was confirmed that services that only received a utilisation fee would not be covered by the scope of this CMP275 modification as this payment is made when a service is instructed and so is distinct. It is physically not possible for a unit to provide two services at the same time.

Availability: this is considered to be where assets are paid for the plant to be available for despatch decisions and so they are present in the market for a specific service. A commercial frequency service is paid an availability fee but if the service is dynamic it will automatically adjust active power in line with frequency changes and so there is no formal instruction for this service and so is out of scope of this CMP275 modification.

The following table describes the availability payments and the technical reasons for it. Availability Payments are used to ensure units are there within the market, however they are being paid to be available to provide distinct services with unique purposes.

Table 3: Availability payments and the Technical Specification of the service

Service	Purpose	Technical Specification of service
Black Start	Black Start providers are paid an agreed annual fee (applied across all per settlement period) for their availability and a Utilisation payment for testing purposes. National Grid will, where a service provider makes the Black Start service available, pay for the availability on a £ / settlement period basis.	Purpose is to recover the GB transmission system from a total or partial shutdown. Therefore, the running of the service will not overlap any others as this will only become active when the system has shut down partially or full.
Fast Start	No longer procured but remains 'live' in terms of payment to providers in	No details available.

	perpetuity.	
Mandatory Frequency Response	No availability fee, just a Holding Payment for the capability of the unit to provide response when the unit has been instructed into frequency response mode. Response Energy Payment (£/MWh): Remunerates the amount of energy delivered to and from the system when providing Frequency Response. These payments are both detailed in the CUSC (4.1.3.8)	Mandatory Frequency Response helps to fulfil National Grid's obligation to ensure that sufficient generation and/or demand is held in automatic readiness to manage all credible frequency change contingencies. All generators caught by the requirements of the Grid Code are required to have the capability to provide Mandatory Frequency Response. The capability to provide this Service is a condition of connection for generators connecting to the GB Transmission System. This service is an automatic change in active power. As there is no availability fee this service should not be in scope of the CMP275 modification.
FFR	Availability Fee (£/hr.) - for the hours for which a provider has tendered to make the service available for. There are also other fees but these are out of scope of the CMP275 modification.	Primary response - full output with 10 seconds (s) sustained for 20 seconds. Secondary response - full output within 30 seconds sustained for 30 minutes. High response - reduction in active power within 10 seconds and sustained indefinitely. Therefore this service cannot be provided at the same time as any other.
FFR Bridging	Payment is made on a rate not an availability basis and is split into a day and night rates. Depending on performance, this service is paid monthly. This service is currently not being procured as requirements have been met.	Small units, maximum 10MW, vehicle to encourage growth in smaller providers. Same service principles as FFR.
FCDM	For each site where Availability has been accepted by National Grid in a Settlement Period, an Availability Fee (£/MW/h) is paid against the Metered Demand in the Settlement Period of the site specified in the Agreement.	The demand customers who provide the service are prepared for their demands to be interrupted for a 30 minute duration, where statistically interruptions are likely to occur between approximately ten to thirty times per annum. This service is procured bilaterally. Service must be provided within 2 seconds of instruction.
EFR	Availability fee (£/MW/hr.) – for	This service achieves 100% active power

	making the service available to National Grid	output at 1 second (or less) of registering a frequency deviation. The 9 seconds sustainable time was the theoretical time between the delivery of Enhanced response and the delivery of Primary, however it has now been decided to move to a definition of Enhanced that includes both Primary and Secondary timescales, in order to facilitate a continuous service. Therefore, as with FFR, this service cannot physically be provided at the same time as any other service.
Fast Reserve	Providers of the service will receive an Availability Fee (£/h) for each hour in a Tendered Service Period where the service is available. A utilisation fee (£/MW/h) is payable for the energy delivered. The provider may also be entitled to a holding fee (£/h).	Fast Reserve is the quickest acting reserve service. It is capable of commencing within two minutes following instruction, at rates of 25MW or greater per minute and providing a minimum of 50MW and sustained for at least 15 mins. Within this time frame a provider cannot provide any other service.
STOR (BM & Non-BM)	Availability Payments (£/MW/h): service providers are paid to make their unit/site available for the STOR service within an Availability Window.	Offer a minimum of 3MW or more of generation or steady demand reduction (this can be from more than one site); Deliver full MW within 240 minutes or less from receiving instructions from National Grid; and provide full MW for at least 2 hours when instructed. Due to the nature of the service no other service can be provided at the same time.
STOR Runway	The provision of Availability payments will begin from the associated Go-Live date of the Growth Gate in which the STOR Runway volume is notified and confirmed as available.	Service is the same as STOR provision for a smaller volume of MW to encourage growth.

The Proposer confirmed that as services for utilisation and services for availability were distinct that netting off would **not** be applied when considering one service from utilisation and one service from availability. This distinction was to allow for the delivery of ancillary and balancing services where the revenue did not overlap and as such did not contribute to the defect identified in CMP275. The Black Start payments are to secure the availability of the plant and a STOR utilisation payment being to purchase

the MWh generated from plant assets. As with the defect however a STOR availability payment would be captured as it would be duplicate revenue from ancillary services on the same asset to secure the same or similar service, i.e. the availability of the plant.

Table 4 details the breakdown of ancillary and balancing services in terms of 'utilisation' and 'availability' and it identifies whether 'netting off' would (or would not) be applicable. The core principle of CMP275 is that the listed services (shown in purple in Table 4) when applying to an asset that is also contracted to a yellow service would trigger the netting off principle for revenue accruing from the impacted services. Yellow on yellow services are already contractually prohibited currently by National Grid but in the interests of future proofing the impact of CMP275, it would be the aim that if any yellow services where possible to be delivered on the same assets with existing yellow services then netting off would apply.

For clarity it is the intention of CMP275 that these tables would not apply between the availability and utilisation tables. For example a generator partaking in Black Start (a purple *availability* service) would be free to receive BM STOR *utilisation* payments with no netting off taking place. Appendix 2 contains the table 4 on one full page.

Table 4 CMP275 Impacted Service Tables

	Purple	Yellow	White
Purple	Netting	Netting	Free
Yellow	Netting	Netting	Free
White	Free	Free	Free

Utilisation		Availability	
Mandatory	Primary Frequency Response	Mandatory	Primary Frequency Response
Frequency Response	Secondary Frequency Response	Frequency Response	Secondary Frequency Response
	High Frequency Response		High Frequency Response
Commercial Frequency Response	Primary Firm Frequency Response	Commercial Frequency Response	Primary Firm Frequency Response
	Secondary Firm Frequency Response		Secondary Firm Frequency Response
	High Firm Frequency Response		High Firm Frequency Response
Reserve	Fast Reserve		FFR- Bridging
	BM-STOR		Frequency Control Demand Management
	Non-BM STOR		Enhanced Frequency Response
	STOR-Runway	Reserve	Fast Reserve
	BM- Start-up		BM-STOR
Reactive Power	Obligatory Reactive Power		Non-BM STOR
	Enhanced Reactive Power		STOR-Runway
Demand Turn-Up			BM- Start-up
Intertrip		Reactive Power	Obligatory Reactive Power
Fast Start			Enhanced Reactive Power
Max Gen		Black Start	
Low SEL / Footroom		Demand Turn-Up	
Constraint Management		Intertrip	
		Fast Start	
		Max Gen	
		Low SEL / Footroom	
		Constraint Management	

5. Materiality of the proposed defect?

The Workgroup also explored the implication of netting off and what would be included to be netted off. A Workgroup member questioned what the real monetary impact of the proposed CMP275 defect was, as in the example of a 2,000 MW contracted Black Start power station with 50MW of GTs participating in STOR, what would be netted off as it would not be appropriate to net the whole of the Black Start payment as only a small proportion (50MW of 2,000MW) of the cost would be attributable to the GTs. The Proposer agreed to consider these points but noted that the CMP275 defect was not just about Black Start and related more to applying a principle of mutual exclusivity to all providers of ancillary and balancing services.

The Proposer noted that National Grid have been unable to provide any details on the financial details of Black Start due to concerns on the security implications on identifying individual units. However the intent of the modification has been to only address the defect where it exists in regard to assets that are tendered into multiple ancillary and balancing services. For the above example only the 50MW GT would be operating in the STOR markets as part of its existing Black Start portfolio and so the remaining 1950MW of plant would not be liable for netting off.

Furthermore the Proposer considered that it remains to be identified how National Grid could convert the existing Black Start contracts into an equivalent availably rate as other ancillary services receive on a £/MW/Hr. basis. This would potentially be resolved by either using TEC and existing contractual payments to create such a rate or for such a rate to be specified as part of future tenders of those services. This is however based on the assumption National Grid do not possess this information for internal use.

Workgroup members also requested that the Proposer clarify whether the defect should relate to a site or a BM Unit, such that sites do not have to be mutually exclusive but BM Units would have to be. The Proposer confirmed that they would consider the modification to apply more to the site than on a BM Unit basis as the defect may in the future not only apply to BM Units but also Non BM units, be that generation or demand side customers. Additionally the existing National Grid exclusivity on ancillary and balancing services is largely carried out on a site basis.

The Workgroup requested that National Grid clarify, for Black Start contracts, what proportion of the ongoing availability payments were linked to OCGTs and provide detail, if possible, on how costs are distinguished: e.g. capital costs. It was subsequently confirmed to the Workgroup, by National Grid, that the information requested was not typically provided to the SO during contract negotiation, unless they are upfront costs for feasibility studies etc. which do not form part of the ongoing availability payments.

<u>Analysis on materiality of the proposed defect</u>

Workgroup members as part of assessing the proposal agreed that they wanted to understand what the impact would potentially have been had CMP275 hypothetically been implemented.

The basis of carrying out this analysis was to investigate the potential impacts on ancillary and balancing services markets of this modification. There are some major challenges that need to be highlighted and explicitly taken into account:

- This analysis has been carried out by the SO using historical data where markets (BM, wholesale, ancillary services, capacity etc.) have since shifted over the past couple of years.
- Due to the bilateral nature of Black Start contracts, the SO can only provide an estimate figure to ensure that units remain confidential.
- The analysis the SO has carried out is a baseline scenario based on assumptions including:
    - Providers will completely pull out of one service.
    - Providers will re-allocate all costs from the withdrawn service into their tendered service of choice.
    - STOR Analysis:
        - The SO would seek to procure the same level of capacity as it did at the time of the tender round.
        - No other changes were made to the assessment.

From this analysis the SO has found that STOR procurement costs increased by up to **£5million** for a full STOR tender year. The SO then took costs of Black Start units in STOR and carried out the reverse analysis to estimate how much Black Start monthly costs (published in the Monthly Balancing Services Summary) could potentially increase by. The SO found that costs would go up between **£400k and £500k a month, which equates to £4.8m to £6m annually.**

In reality these costs may be much higher due the different market conditions that are present today.

Due to confidentiality of data, this report will not contain a breakdown but this can be shared directly with the Authority if they require further detail on the analysis.

6. Transitional Arrangements

In considering how a CMP275 solution could work, the Workgroup discussed what the impacts may be on existing contracts, whether grandfathering should be considered as part of the solution and what the timelines may be for future tenders of ancillary and balancing services.

Existing Contracts:

The Workgroup asked for clarity on what contracts (existing or new) would be captured under CMP275. The view of the Proposer was that the CMP275 change, if approved, would only be applied to future contracts entered into after the date of implementation of CMP275. However, the Workgroup questioned what would be the impact on existing contracts (short and long term) should CMP275 be approved and implemented. The Workgroup requested clarity on what would happen in the scenario that a Party currently contracts for both STOR and Black Start services but following the implementation of CMP275 the business strategy would be that the Party would rather be contract in the STOR market only. Clarification was requested on whether that Party could, if they wished, terminate their Black Start contract early as it would not be receiving the revenue stream for the additional services anymore. Would the Party have to honour the long term contract or will there be a transition period, so that in light

of CMP275, it could exit the longer term contract, say, for Black Start as it wished to continue with STOR. National Grid confirmed that the generic Black Start contracts terms (which are publically available on the National Grid website[5]) contain a clause on material change. Therefore National Grid confirmed that if CMP275 were approved this will automatically reopen any existing Black Start contracts which are materially affected. For other services National Grid confirmed there are no similar clauses.

For other services there wasn't a similar material change clause. The Workgroup noted that the transitional arrangements may need to consider whether a material change clause should be inserted into the contracts for all ancillary and balancing services captured by CMP275.

The Workgroup also requested that the solution and transitional arrangements be made explicit on when the netting off would be applied from e.g. would it be at the point that a Party successfully tenders for an applicable ancillary or balancing service (one that will have netting off applied) and would this mean existing contracts/services become open to netting off? The Proposer argued that the intention of the modification was to address the defect quickly whilst respecting current tendering signals, as such it would be expected that netting off would come into effect as soon as an asset is successfully tendered into a applicable ancillary or balancing service after the CMP275 implementation date and that this would potentially impact other existing contracts for ancillary or balancing services. The alternative would be to allow other existing contracts that perhaps will stretch for 10 years or more to perpetuate the defect.

Implications on how tendering may be affected – tendering and reviewing the tender

The Workgroup expressed some concerns about how CMP275 may impact tendering, in particular:

- Parties may choose not to tender into more than one ancillary or balancing service, if the revenue for that service is then netted off, as they would effectively be providing that additional service for free. National Grid would then have to accept more expensive tenders to make up the shortfall.

- In the event that a party did tender in for two ancillary or balancing services, how will National Grid assess a tender e.g. tendering for both STOR and Black Start: would they see the costs for STOR and Black Start separately and then work out the netted off value to then compare with another Party that is only tendering for STOR. The National Grid representative noted that this would increase the complexity of the tender assessment as it would introduce additional interactions which would need considering.

[5] The Black Start contract terms can be accessed here: http://www2.nationalgrid.com/UK/Services/Balancing-services/System-security/Black-Start/Black-start-about-the-service/

Grandfathering:

The Workgroup considered whether grandfathering was required and if so how these arrangements could work. The view was that as the proposal for implementation would be to apply it to all future contracts and that a Party would be free to re-negotiate or withdraw from providing a service no grandfathering arrangements were required for CMP275.

Tendering timelines:

The Workgroup considered the timelines associated with the points raised above for transitional arrangements. National Grid noted that the tendering and negotiation period for ancillary and balancing service services could take a long time. Looking at the (generic) Black Start contract where it references renewal, it notes that a provider can withdraw from the contract with a minimum of three months' notice; in exceptional circumstances National Grid can request an extension where there are system security concerns, although some Workgroup members noted that if National Grid was not, due to CMP275, paying for Black Start (due to netting off) then it would seem to be inappropriate to extend such a contract.

If there was not a straight withdrawal by the party from the contract then there would be a need to factor in additional time to allow for Parties to look to re-negotiate the contract with the SO. The shortest timescale for doing this for Black Start contracts is estimated to be three months; however, this is with negotiation only on price[6] and no other terms in the contract. For more complex negotiations on Black Start contracts, this could take one to two years.

The examples below illustrate what the potential timeline implications would be based on an approval for CMP275 being received, hypothetically in January 2018.

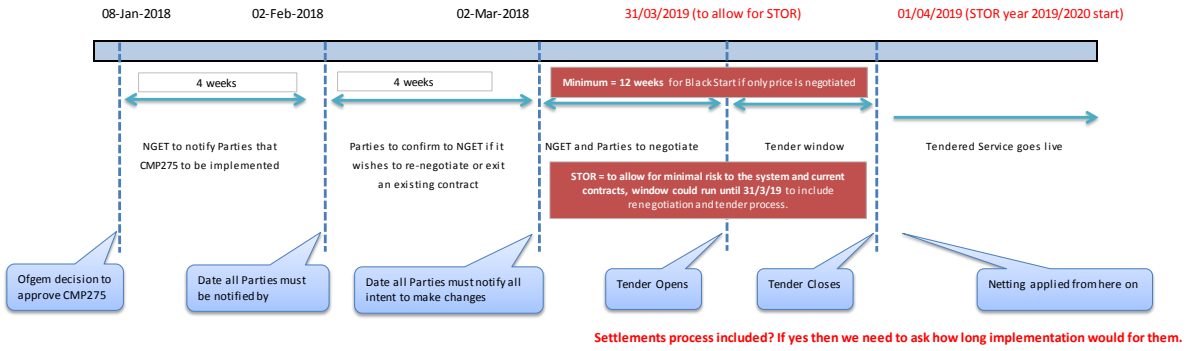
After consulting with National Grid's Assessments team, it was noted that the CMP275 timeline will need to be extended out to 2019. At the hypothetical implementation date (of January 2018) when negotiations might begin, National Grid will have had five opportunities to procure STOR for year 2018/2019. If currently contracted STOR units wanted to renegotiate from the 2nd March 2018, there will not be enough time to re-conduct the procurement process before contracts begin for the year starting 1st April 2018. Therefore, if providers terminate or want to renegotiate and so put a hold on service provision this may lead to the consequence that there may be increased costs to cover the loss of the STOR volume through more expensive STOR or through BM actions.

Therefore, the next plausible implementation date for netting off to take effect from is the 1st April 2019, as this is the start of STOR year 13 (2019/20). National Grid would have already procured long term STOR for this period but they may not have procured any other volume for this frame in March 2019. This would allow a smoother transition as the first opportunity to procure for year 13 is in January/February 2018 and the second in June 2018. This will need to be taken into consideration and so April 2019 can possibly be when netting off is first taken into account for the whole tender.

[6] Which given that this would be netted off under CMP275, this may not be the key contractual term being renegotiated.

Other impacts that could be considered would be on the SO Incentive scheme; however this could be deemed out of scope, also impacts on the SO assessment and settlement processes.

Appendix 3 shows the timeline on one page.



The dates for the STOR tendering round for the 2017 period are below for reference* (the 2018/2019 dates are not yet available.

Tender Round	Invitation to Tender	Framework Agreement Deadline	Market Day	Results Day	Market Report Published	Service Start Date
TR31	16-Dec-16	06-Jan-17	13-Jan-17	24-Feb-17	24-Mar-17	01-Apr-17
TR32	21-Apr-17	19-May-17	26-May-17	07-Jul-17	11-Aug-17	21-Aug-17
TR33	14-Jul-17	04-Aug-17	11-Aug-17	15-Sep-17	20-Oct-17	30-Oct-17

* Please note that these dates are subject to amendments.

The following services are procured at the intervals detailed below:

- FFR = Monthly
- Fast Reserve = Monthly
- Black Start = Bilateral
- Fast Start = No longer procure

7. Unintended consequences

The Workgroup considered what the unintended consequences could be if CMP275 was to be approved and implemented. The Workgroup identified 2 key ones:

- If a Party that offered an ancillary or balancing service withdrew what would be the impacts on the volume that service provided (it was also noted that Parties may stop providing the larger service as profits may be higher when offering the lower sized service).
- Costs to procure and associated costs with having to re-tender/negotiate for both industry and National Grid

The view of the Proposer was that whilst there is potential that some assets would have to increase their availability rates to achieve the same revenue as they are currently receiving, that this may result in a fairer tender process and any such loss would represent a more economic unit taking their place. The majority of Workgroup members

considered that would not lead to more economic procurement as it would be replaced by more expensive units rather than more economic units.

8. CLASS Project

A Workgroup member asked the Proposer what the implications of the CLASS demand reduction project might be. This gave rise to the example where a single MPAN was providing; via two separate legal entities; two (or more) separate ancillary or balancing services and are doing separate actions and getting paid for each of these separately. How would this be captured in terms of CMP275 and how would the concept of netting off work in this example. The National Grid representative noted that the issues raised by the CLASS project were not unique to CMP275 but also applied to the provision of all balancing services, and therefore were being looked at by the CLASS project itself and the SO.

The Proposer responded that Project Class being a DNO voltage centric product, however other Workgroup members considered that as an individual MPAN might be contracted to provide more than one service for the SO that this situation should come within the remit of CMP275 to avoid undue discrimination. As is the current practice of the SO it is intended that the individual assets would be treated as the entity for purposes of the SO applying any netting off, therefore a party would not be able to avoid the intention of this modification by setting up different legal entities to manage different services: i.e. Generator A Black Start Ltd and Generator A STOR Ltd being setup to allow duplicate availability revenue. However, a Workgroup member noted that in the case of an asset covered by Project CLASS which, for example provided, via another entity, a further ancillary or balancing service then it would seem (from the Proposer's response above) they would be able to access payments twice from the SO for providing two ancillary or balancing services. It might be argue that this would amount to discrimination of treatment in terms of CMP275.

9. Potential simplification of services and Ofgem's consultation on Parties offering more services

The Workgroup raised the point to the Proposer of how CMP275 would interact with the discussions raised at the Electricity Transmission Operational Forum[7] that was held in March 2017 and in particular the changing system needs and the simplification of ancillary and balancing service products.

The Workgroup noted that the current timelines envisaged a consultation on the future market designs taking place June 2017, with outline change proposals in third quarter

[7] Slides and information from the Electricity Transmission Operational Forum can be assessed using this link: http://www2.nationalgrid.com/UK/Industry-information/Electricity-transmission-system-operations/Operational-forum/Electricity-Ops-Forum-Current-Slides-2017/

2017[8] and implementation in the first quarter of 2018. The Proposer confirmed that this simplification may aid the resolution of the defect and that should CMP275 be implemented the principle should be considered in the design of the new simplified ancillary and balancing service products.

It was noted that the recent Ofgem/BEIS joint Call for Evidence on Flexibility asked for industry feedback on how to increase the amount of service stacking to deliver more economic system outcomes. The Proposer was asked how CMP275 aligned with this strategic regulatory objective. The Proposer argued that CMP275 would not seek to prevent ancillary and balancing service stacking but would seek to address the defect of an asset accessing multiple sources of duplicate revenue from ancillary and balancing services on the same asset. It should be stressed that the Ofgem/BEIS call for evidence does not seek to allow assets to overlap ancillary and balancing services and that National Grid currently goes to some length to prevent customers from doing so on the majority of its current tendered services.

10. Impacts on consumers

The Workgroup challenged whether CMP275 would deliver real cost savings to the consumer as there may be potential that National Grid may receive tenders that are more expensive for ancillary and balancing services to make up the shortfall as Parties would increase the tender price to cover the missed revenue that arose from netting off. Further additional costs will be incurred through the potential for re-negotiation and having to re-tender for those services withdrawn. As highlighted within the materiality analysis the high level numbers indicate costs increases in the region of up to £5M per annum for STOR and circa £400-500k per month for Black Start costs.

11. Legal text changes

The Workgroup discussed at a high level what the changes could be to Section 4.4 of the CUSC. The legal text changes will be developed after the Workgroup Consultation but members noted that a new defined term could be added to the CUSC (e.g. Applicable Balancing Services) using the same approach as the Capacity Market. Additionally the service matrix as described in table 4 could be inserted into Section 4 of the CUSC depicting what combination of ancillary and balancing Service would and wouldn't have netting off applied if CMP275 was implemented.

[8] Information on the Future of Balancing Services can be accessed here: http://www2.nationalgrid.com/UK/Services/Balancing-services/Future-of-balancing-services/

6 Workgroup Consultation questions

The CMP275 Workgroup is seeking the views of CUSC Parties and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

Q1: Do you believe that CMP275 Original proposal better facilitate the Applicable CUSC Objectives?

Q2: Do you support the proposed implementation approach?

Q3: Do you have any other comments?

Q4: Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific CMP275 Workgroup Consultations:

Q5: With the planned implementation of the European Network Codes/Guidelines in GB and the obligations thus placed on National Grid, do you consider this to be the appropriate time to consider the proposed defect as procurement of, and the balancing services themselves will potentially require modification to meet the requirements of those Network Code/Guidelines?

Q6: Do you consider that the scope of this defect is out of scope of the CUSC and that the C16 Procurement Guideline statements of National Grid are, in this instance, the natural home for such changes to be considered and agreed between National Grid (as SO) and Ofgem?

Q7: Do you believe the potential additional complexity **added** to tendered ancillary and balancing services may reduce the breadth and depth of tenders received by National Grid and may therefore adversely impact the number of services and/or the costs of those services procured by National Grid?

Q8: Do you believe there are any services missing or any services included in the Appendix 1 and Appendix 2 that should not be included? If this is the case please provide supporting rationale.

Please send your response using the response proforma which can be found on the National Grid website via the following link: http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP275/

In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties, the Citizens Advice and the Citizens Advice Scotland may also raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available at the weblink below:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms_guidance/

Views are invited upon the proposals outlined in this report, which should be received by **5pm** on **4th July 2017**. Your formal responses may be emailed to: cusc.team@nationalgrid.com

If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response market "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential".

7 Relevant Objectives

Impact of the modification on the Applicable CUSC Objectives (Charging):	
Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	Positive

Charging Objective A

The Proposer considers that this modification will address the benefit being enjoyed by some BM Units that are able to access duplicate revenue streams for the same asset and as such enjoy a competitive advantage over comparable assets that do not enjoy such an advantage. This will improve competition in the market as well as reducing the cost to the end consumer through the removal of its current payment for the same service multiple times. The Proposer considered that the modification is neutral on the other objectives.

8 Implementation

Proposer's initial view:

The view of the Proposer was that CMP275 would have minimal impact to computer systems as the modification would simply be one of contractual changes and then a relatively simple process of National Grid's settlement taking affected revenues into account on specified ancillary products. As National Grid is the source of all the impacted revenues this should not pose a problem outside of the SO.

9 Legal Text

The legal text will be developed by the Workgroup after the Workgroup Consultation.

Appendix 1: Services with an existing mutually exclusive clause

Yellow	Already mutually exclusive
Purple	Not currently mutually exclusive
No fill ('white')	Service type out of scope of CMP275

Service Type	Service	Response Time	Response Duration	Minimum Capacity	Procurement Process	Payments	Exclusivity	Service Level
Mandatory Frequency Response	Primary Frequency Response	<10 secs	20 secs	Transmission Network dependant: NG ≥ 100MW SP ≥ 30MW SHET ≥ 10MW	On the Day Market	Capability £per MW response & Utilisation	All viewed as same as are classed as dynamic. Only exclusive with response and reserve services	Unit
	Secondary Frequency Response	<30 secs	30 minutes					Unit
	High Frequency Response	<10 secs	Indefinite					Unit
Commercial Frequency Response	Primary Firm Frequency Response	<10 secs	20 seconds	≥10MW	Tendered	Availability & Utilisation	Only exclusive with response and reserve services	Unit
	Secondary Firm Frequency	<30 seconds	30 minutes	≥10MW	Tendered	Availability & Utilisation	Only exclusive with response and reserve services	Unit

Service Type	Service	Response Time	Response Duration	Minimum Capacity	Procurement Process	Payments	Exclusivity	Service Level
	Response							
	High Firm Frequency Response	< 10 seconds	indefinite	≥10MW	Tendered	Availability & Utilisation	Only exclusive with response and reserve services	Unit
	FFR- Bridging	10 or 30 secs (depending on type of FFR offered)	30 secs – 30 minutes (Depending on type of FFR offered)	1-10MW	Bilateral Agreement	Availability	Only exclusive with response and reserve services	Unit
	Frequency Control Demand Management	2-10 secs	30 minutes	>3MW	Bilateral Agreement	Availability	Only exclusive with response and reserve services	Unit
	Enhanced Frequency Response	<1 second	15 minutes	1MW	Tendered	Availability	Only exclusive with response and reserve services	Unit
Reserve	Fast Reserve	Start in 2 mins, full output by 4 mins	15 mins	50MW	Tendered	Multiple Availability & Utilisation	Only exclusive with response and reserve services	Unit
	BM-STOR	Typically	2 hours	>3MW	Tendered	Availability &		Unit

Service Type	Service	Response Time	Response Duration	Minimum Capacity	Procurement Process	Payments	Exclusivity	Service Level
		20 mins, can be up to 240 mins.				Utilisation		
	Non-BM STOR	Typically 20 mins, can be up to 240 mins.	2 hours	>3MW	Tendered	Availability & Utilisation		Unit
	STOR-Runway	Typically, <15 mins, can be up to 240 mins	2 hours	3MW	Tendered	Availability & Utilisation	Only exclusive with response and reserve services	Unit
	BM- Start-up	89 mins	As agreed		Bilateral Agreement	Readiness	Not exclusive, but would not be instructed at the same time as any active or reactive power service	Unit
Reactive Power	Obligatory Reactive Power			~≥50MW	Generally, requirement of transmission connection agreement	Utilisation for mandatory	Can do both and isn't exclusive. Can do Active same time as reactive power.	Unit
	Enhanced Reactive			>Obligatory Reactive Power	Tendered	Multiple Availability &	Can do both and isn't exclusive. Can do Active same time as	Unit

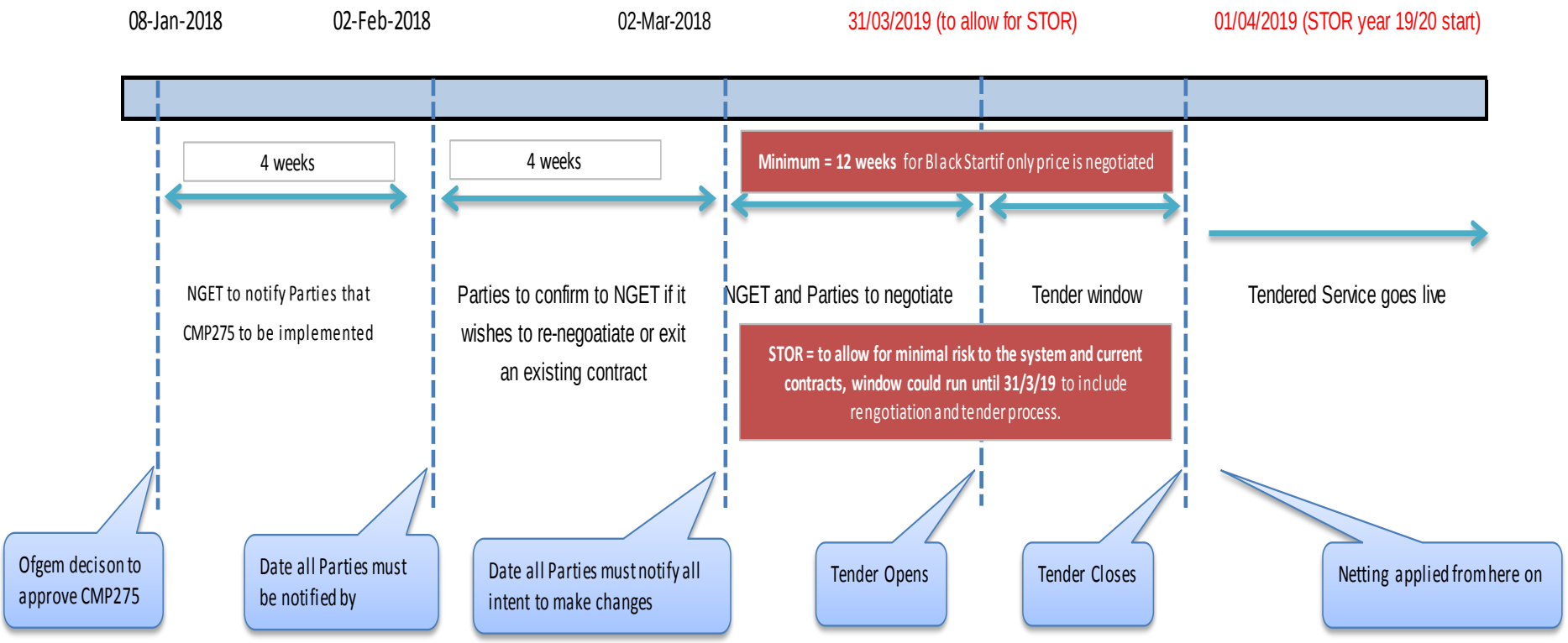
Service Type	Service	Response Time	Response Duration	Minimum Capacity	Procurement Process	Payments	Exclusivity	Service Level
	Power			Requirements		Utilisation	reactive power.	
Black Start		Energise part of the system in 2 hours			Bilateral Agreement	Availability	Not exclusive	Station
Demand Turn-Up				≥1MW	Bilateral Agreement	Availability & Utilisation	Only exclusive with response and reserve services	Unit
Intertrip		Soft-Hard deload (<1s)	Hours	Determined by National Grid	Bilateral Agreement	Capability Payment & Arming Fee & Activation Payment	Not exclusive	Station
Fast Start		7 minutes	variable	BM Party	Bilateral Agreement	Availability	Not exclusive	Unit
Fast Start		7 minutes	variable	BM Party	Bilateral Agreement	Utilisation	Not exclusive	Unit
Max Gen		BM Timescales	Variable	BM Party	Bilateral Agreement	Utilisation	Not exclusive	Unit
Low SEL / Footroom		BM Timescales	variable	BM Party	Bilateral Agreement	Utilisation	Not exclusive	Unit
Constraint Management		Variable	Variable	Determined by National Grid	Tender or Bilateral Agreement	Utilisation	Not exclusive	Unit

Appendix 2: CMP275 Impacted Service Tables

Yellow	Already mutually exclusive
Purple	Not currently mutually exclusive
No fill ('white')	Service type out of scope of CMP275

Utilisation		Availability	
Mandatory Frequency Response	Primary Frequency Response	Mandatory Frequency Response	Primary Frequency Response
	Secondary Frequency Response		Secondary Frequency Response
	High Frequency Response		High Frequency Response
Commercial Frequency Response	Primary Firm Frequency Response	Commercial Frequency Response	Primary Firm Frequency Response
	Secondary Firm Frequency Response		Secondary Firm Frequency Response
	High Firm Frequency Response		High Firm Frequency Response
Reserve	Fast Reserve		FFR- Bridging
	BM-STOR		Frequency Control Demand Management
	Non-BM STOR		Enhanced Frequency Response
	STOR-Runway	Reserve	Fast Reserve
	BM- Start-up		BM-STOR
Reactive Power	Obligatory Reactive Power		Non-BM STOR
	Enhanced Reactive Power		STOR-Runway
Demand Turn-Up			BM- Start-up
Intertrip		Reactive Power	Obligatory Reactive Power
Fast Start			Enhanced Reactive Power
Max Gen		Black Start	
Low SEL / Footroom		Demand Turn-Up	
Constraint Management		Intertrip	
		Fast Start	
		Max Gen	
		Low SEL / Footroom	
		Constraint Management	

Appendix 3: Example timeline for impacts on tendering



Settlements process included? If yes then we need to ask how long implementation would for them.

Annex 1: CMP275 Terms of Reference

nationalgrid

Workgroup Terms of Reference and Membership
TERMS OF REFERENCE FOR CMP275

CMP275 seeks that a principle of financial mutual exclusivity is introduced to prevent BM units from accessing multiple sources of duplicate and overlapping revenue from ancillary services on the same asset.

Responsibilities

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposal CMP275 tabled by **UK Power Reserve Ltd** at the Modifications Panel meeting on 27 January 2017.

2. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:

Use of System Charging Methodology

(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;

(b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C26 requirements of a connect and manage connection);

(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses*;

(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1; and

(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.

*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

3. It should be noted that additional provisions apply where it is proposed to modify the CUSC Modification provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

Scope of work

4. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.

5. In addition to the overriding requirement of paragraph 4, the Workgroup shall consider and report on the following specific issues:

a) Clarify which revenue streams are excluded from a mutuality exclusive arrangement ensuring consideration includes the interaction between both the Balancing Mechanism (BM) and Balancing Services.
b) Demonstrate how this proposal will interact with the existing procurement of services ensuring that this did not lead to over procurement in the market.
c) Demonstrate how this modification does not discourage providers from tendering for services.
d) Define the assets affected by the proposal.
e) Demonstrate that they have considered the impact of wider strategic issues being pursued by the industry in their proposal.
f) Consider how this modification interacts with Ofgem's Flexibility Call for Evidence which is seeking ways to allow participants to access multiple revenue sources and EU Balancing Code
g) Clarify how the proposed changes to the CUSC would impact Distribution Networks.
h) Ensure individual power stations are not identified within the report.
i) Define the practical implementation of the solution, so that it is defined for all industry participants i.e. National Grid who will run tenders for the Balancing Services and parties who would like to tender for a Service.
j) Consideration of the future development of Balancing Services.

6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.

7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.

8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.

9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.

10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of **15 working days** as determined by the Modifications Panel.

11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

As appropriate, the Workgroup will be required to undertake any further analysis and update the original Modification Proposal and/or WACMs. All responses including any WG Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised his right under the CUSC to progress a WG Consultation Alternative Request or a WACM against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the WG Consultation Alternative Request.

12. The Workgroup is to submit its final report to the Modifications Panel Secretary on **22 June 2017** for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on **30 June 2017.**

Membership

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
Chairman	Ryan Place	Code Administrator
Technical Secretary	Caroline Wright	Code Administrator
National Grid Representative	Urmi Mistry	National Grid
National Grid Representative*	Adam Sims	National Grid
Industry Representatives	Ian Tanner	UKPR (Proposer)
Industry Representatives	Gareth Graham	SSE
Industry Representatives	Paul Jones	Uniper
Industry Representatives	Joe Underwood	Drax
Industry Representatives	Simon Lord	Engie
Industry Representatives	Robert Longden	Cornwall Energy
Industry Representatives	Lisa Waters	Waters Wye
Industry Representatives	Simon Reid	Scottish Power
Industry Representatives	Laurence Barrett	E.ON
Industry Representatives	Bill Reed	RWE
Industry Representatives	Iestyn Jones	EDF
Authority	Maryam Khan	Ofgem

Representatives		

NB: A Workgroup must comprise at least 5 members (who may be Panel Members). The roles identified with an asterisk in the table above contribute toward the required quorum, determined in accordance with paragraph 14 below.

14. The chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP275 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.

15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise]. There may be up to three rounds of voting, as follows:

- Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
- Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal*;*
- Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.

17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.

18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.

19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

Appendix 1 – Recommended Standard Workgroup Timetable

The following standard timetable is indicative for CMP275 as per the determination of the Authority.

18 January 2017	CUSC Modification Proposal and request for Urgency submitted
27 January 2017	CUSC Panel meeting to consider proposal and urgency request
27 January 2017	Panel's view on urgency submitted to Ofgem for consultation
27 January 2017	Request for Workgroup members (10 Working days) (responses by 10 February 2017)
3 February 2017	Ofgem's view on urgency provided (5 Working days)
w/c13 February 2017	Workgroup meeting 1
w/c 6 March 2017	Workgroup meeting 2
w/c 27 March 2017	Workgroup meeting 3
10 April 2017 7 June 17	Workgroup Consultation issued (15 days)
5 May 2017 28 June 17	Deadline for responses
w/c 15 May 2017 w/c 10 July 17	Workgroup meeting 4
w/c 5 June 2017 w/c 24 July 17	Workgroup meeting 5 (agree WACMs and Vote)
22 June 2017 17 August 17	Workgroup report issued to CUSC Panel
30 June 2017 25 August 17	CUSC Panel meeting to approve WG Report

Post Workgroup modification process

3 July 2017 31 August 17	Code Administrator Consultation issued (15 Working days)
24 July 2017 21 September 17	Deadline for responses
31 July 2017 28 September 17	Draft FMR published for industry comment (5 Working Days)
8 August 2017 5 October 17	Deadline for comments
17 August 2017 19 October 17	Draft FMR circulated to Panel
25 August 2017 27 October 17	Panel meeting for Panel recommendation vote
31 August 2017 2 November 17	FMR circulated for Panel comment (3 Working day)
5 September 2017 7 November 17	Deadline for Panel comment
8 September 2017 13	Final report sent to Authority for decision

November 17	
13 October 2017 18 December 17	Indicative Authority Decision due (25 working days)
20 October 2017 28 December 17	Implementation date

Annex 2: Ofgem's Urgency CMP275 decision letter

Making a positive difference
for energy consumers

Michael Toms
CUSC Panel Chair
c/o National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Direct dial: 0203 263 9959
Email: Maryam.Khan@ofgem.gov.uk

Date: 06 February 2017

Dear Mr Toms,

CMP275 *'Tranmission generator benefits in the provision of ancillary and balancing services'* – decision on urgency

On 18 January 2017, UK Power Reserve Ltd (the 'Proposer') raised a Connection and Use of System Code (CUSC) modification proposal CMP275. This proposal seeks to introduce a principle of financial exclusivity, under section 4.4 of the CUSC, to prevent Balancing Mechanism (BM) units from assessing multiple sources of duplicate and overlapping revenue from ancillary services on the same asset. The Proposer requested that CMP275 be treated as an Urgent CUSC Modification Proposal.

The CUSC Modifications Panel (the 'Panel') considered the Proposer's urgency request at its meeting on 27 January 2017. On 27 January 2017, the Panel wrote to inform us of its unanimous view that CMP275 should not be treated as urgent because the proposal did not relate to an imminent issue, would require careful consideration and was potentially more complex than envisaged by the Proposer.

We considered both the Panel's and the Proposer's arguments. On balance, we have decided that CMP275 **should not be progressed on an urgent basis**. We have set out our reasoning below.

The proposal

The Proposer argued that the current charging arrangements allow BM units to use multiple sources of duplicate and overlapping revenue from ancillary services on the same asset to cross-subsidise their tender strategies and undercut other BM and non BM units. The Proposer thinks that this leads to inefficient procurement of ancillary services, distortion in the market and added expense to the end consumer. CMP275 would introduce a netting process to prevent duplicate revenue being paid to providers. National Grid would introduce this as a component of future tender rounds on all eligible ancillary services.

The Proposer considers that CMP275 should be treated as an urgent modification because the current arrangements grant certain BM units with a competitive advantage in Short Term Operating Reserve (STOR) tender rounds, which will take place in May and August this year. It argues that, as a result, if the defect is not urgently addressed, it

would have a significant commercial impact upon National Grid, Industry parties and customers.[1]

Panel discussion

The Panel considered the request for urgency by reference to Ofgem's Guidance on Code Modification Urgency Criteria.[2] The Panel's unanimous view is that CMP275 did not meet these criteria and should not be treated as an Urgent CUSC Modification Proposal.

The Panel concluded that the proposal refers to cyclical processes relating to revenue and charges which could in itself relate to all charging modifications and could not be considered a truly imminent issue. The Panel also agreed that CMP275 requires careful consideration by a Workgroup and is potentially more complex than envisaged by the Proposer. The Panel considered that full assessment of the proposal is therefore not achievable within urgent timescales.

Our views

We have considered the proposal, the Panel's views and the Proposer's arguments for urgency.

We have assessed the request against the urgency criteria set out in our published guidance, in particular, whether the proposal is linked to an imminent issue or a current issue that, if not urgently addressed, may cause:

a. a significant commercial impact on parties, consumers or other stakeholder(s); or
b. a significant impact on the safety and security of the electricity and/or gas system.

The Panel's letter contained an urgent indicative timeline for progressing CMP275 which was not recommended. This suggested that the earliest implementation date for any changes would be July 2017, which would occur after the May STOR tender round the Proposer used as an imminent event to require urgency. We agree with the Panel's concerns on the complexity of the proposal and the careful consideration needed and have decided that CMP275 should not be granted urgent status.

We would emphasise that, as for all proposals, we expect a sufficient level of analysis and stakeholder engagement to be undertaken in order to demonstrate whether or not CMP275 better facilitates the Relevant Objectives and is consistent with our principal objective and statutory duties.

Next steps

The Panel's letter contained a non-urgent indicative timetable for progressing CMP275. We agree with the timelines proposed as this should allow sufficient industry consultation and analysis to inform our decision.

Yours sincerely,

Mark Copley
Associate Partner, Energy Systems
Duly authorised on behalf of the Authority

[1] The Proposer's reasoning is set out in the CMP275 Proposal form at http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP275/
[2] https://www.ofgem.gov.uk/system/files/docs/2016/02/urgency_criteria.pdf

Annex 3: CMP275 Attendance Register

A – Attended

X – Absent

O – Alternate

D – Dial-in

Name	Organisation	Role	15 February 2017	15 March 2017	6 April 2017	9 June 2017
Ryan Place	National Grid	Chair	X	A	X	X
John Martin	National Grid	Alternate Chair	A	X	A	X
Caroline Wright	National Grid	Technical Secretary	A	A	A	A/D
Adam Sims	National Grid	NG Representative	A	A	X	A/D
Urmi Mistry	National Grid	NG Representative	A	A	A	A/D
Ian Tanner	UKPN (Proposer)	Workgroup Member	A	A	A	A/D
Garth Graham	SSE	Workgroup Member	A/D	A	A	A/D

Paul Jones	Uniper	Workgroup Member	X	A	X	X
Bill Reed	RWE	Workgroup Member	X	X	X	X
Tim Ellingham	RWE	Workgroup Alternate	A	A	X	A/D
Chris Edwards	RWE	Workgroup Alternate	X	X	A	X
Simon Lord	Engie (nominated by First Hydro Company)	Workgroup Member	A	X	A/D	X
Lee Taylor	Engie (nominated by First Hydro Company)	Workgroup Alternate	X	A/D	X	X
Robert Longden	Cornwall Energy (nominated by Fred Olsen Renewables)	Workgroup Member	A	X	A	A/D
Laurence Barrett	EON	Workgroup Member	A	X	X	A/D

Maryam Khan	Ofgem	Workgroup Member	A	A	A	A/D
Simon Reid	Scottish Power	Workgroup Member	X	A/D	X	A/D
Lisa Waters	Waters Wye	Workgroup Member	X	A/D	X	A/D
Peter Bolitho	Waters Wye	Workgroup Alternate	X	X	A	X
Iestyn Jones	EDF	Workgroup Member	A/D	X	X	X
Joe Underwood	Drax	Workgroup Member	A	A	A	A/D

