NTS Charging Methodology Forum (NTSCMF) Minutes Tuesday 06 September 2016 Consort House, 6 Homer Road, Solihull B91 3QQ

Attendees

	(1.1)	1 : 1 0 55.
Les Jenkins (Chair)	(LJ)	Joint Office
Lorna Dupont (Secretary)	(LD)	Joint Office
Amrik Bal	(AB)	Shell
Andrew Pearce	(AP)	BP Gas
Anna Shrigley	(AS)	Eni UK
Charles Ruffell	(CR)	RWE
Colin Hamilton	(CH)	National Grid NTS
Colin Williams	(CW)	National Grid NTS
Chris Shanley	(CS)	Joint Office
David Reilly	(DR)	Ofgem
David O'Donnell*	(DO)	TGPP Ltd/Midstream Partners
Debra Hawkin	(DH)	TPA Solutions
Gerry Hoggan	(GH)	ScottishPower
Graham Jack	(GJ)	Centrica
Jeff Chandler	(JC)	SSE
John Costa*	(JCo)	EDF Energy
Julie Cox	(JCx)	Energy UK
Kieron Carroll	(KC)	PSE Kinsale Energy Ltd
Laura Johnson	(LJo)	National Grid NTS
Lucy Manning	(LM)	Gazprom
Mads Neilson	(MN)	DONG Energy
Mark Sneddon*	(MS)	Total
Marshall Hall	(MH)	Oil & Gas UK
Nahed Cherfa*	(NC)	Statoil
Nick Wye	(NW)	Waters Wye Associates
Nigel Sisman	(NS)	Sisman energy consulting
Richard Fairholme	(RF)	Uniper
Roddy Monroe*	(RM)	Centrica Storage
Sarah Chleboun	(SC)	National Grid NTS
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^{*} via teleconference

Copies of all papers are available at: http://www.gasgovernance.co.uk/ntscmf/060916

1. Introduction and Status Review

LJ welcomed all to the meeting. LJ introduced CS, advising that CS would take over as Chair at the next meeting (05 October 2016).

1.1 Approval of Minutes (03 August 2016)

The minutes from the previous meeting were approved.

1.2 Pre-Modification discussions

No business raised.

2. Workgroups

No business to consider.

3. Gas Charging Review

3.1 Producer/Shipper Perspective

Providing a generic overview of the background, MH noting that since the conclusion of Ofgem's GTCR the landscape had changed in a number of significant ways and that Oil & Gas UK believed it would be prudent at this point to make a reassessment of the potential changes, over and above the specific requirements to implement the EU regime. MH suggested that Ofgem should be taking into account more than just the one perspective and review the current set of objectives before embarking on any radical change. The final TAR NC now appeared to include a greater degree of national flexibility than had first been envisaged; a lesser degree of prescription provided Ofgem with an enormous amount of discretion. MH went on to outline a number of areas that had changed over recent months and in respect of which he believed it was essential the GTCR conclusions should be reassessed in the light of changed circumstances.

MH presented a graph illustrating the sources of supply of gas entering the NTS, the majority of which was supplied from the UKCS. North Sea production had recovered since 2013 and a number of other sources were coming onstream. This is the third year of rising output and this should stabilise for a few years. MH believed the view taken in 2013 regarding security of supply was somewhat premature and unfounded.

MH referred to the Wood Review relating to offshore fields, which led to a move towards maximising offshore resources. These offshore gas reserves underpin the development of much of the NTS. There was an excess capacity at most entry points (except at Bacton UKCS ASEP), reflecting output decline. The UKCS is mature area with a diminishing economic rent as resources are depleted however, whilst there is a *simultaneous* decommissioning of old fields and infrastructure, there is also new field investment. MER UK is now embedded in UK statute law, and there are new powers for the new, independent Oil and Gas Authority (OGA).

The aim is to avoid or minimise risk of early decommissioning of infrastructure and stranded assets (to review the economics more closely prior to taking any action), and to promote investment in exploration and new field development. The OGA identifies 10-20 bn boe still to be recovered (43 bn boe produced) – one third of which is gas. However there is a cost to recovering residual resources.

New investment opportunities have different risks associated (high cost (HPHT), small size, dependence on third-party infrastructure (offshore and onshore), etc., and Network entry costs are more significant for new projects at 30 p/th than at the 60 p/th of a few years ago.

MH observed that Upstream matters for the wider UK economy, and there are adverse effects related to the floating charge. The GTCR envisaged greater change to charging for entry capacity than exit capacity but took no explicit account of any possible Upstream consequences. The Entry capacity at UKCS ASEPs is unconstrained (except at Bacton UKCS ASEP in Q1 after an unwelcome CAM split). MH suggested that more holistic thinking was required.

There will be progressive change in commercial behaviour in booking entry capacity but some mature fields still have legacy long-term capacity bookings. There is a diminished ability of new fields to support higher entry charges, long-term capacity bookings or additional midstream commercial risks. Freely floating capacity charges would introduce new commercial risk for existing and new offshore projects, especially storage projects. MH reiterated that UKCS producers are simply seeking a level playing field, with no new barriers to investment and no incremental costs at vulnerable late-life fields where economics are already increasing the marginal costs. There needs to be a review of adequate storage capacity (both onshore and

offshore).

The political and financial landscape has significantly altered since the GTCR was concluded. MH drew attention to the wide-ranging issues, observing that a recognition and acknowledgement of these should prudently compel a reassessment of various areas and of the continuing validity of the GTCR's conclusions. Brexit in particular should give pause for reflection, because the direction is unknown; care needs to exercised regarding charging reforms that can potentially expose consumers to unintended economic risk.

GJ asked if there was any benefit in reducing floating charges by having higher multipliers. MH observed the GTCR had pointed out a potentially damaging disparity between short-term and long-term costs - this could be addressed. MH was not proposing a formula, but a better understanding of the current distortions before considering replacement with possibly more damaging distortions, i.e. be wary of making any radical change without a better understanding of effects. Perhaps options previously discounted under the GTCR might be worthy of reconsideration.

3.2 Total's Viewpoint

MS gave a short presentation on behalf of Total. Outlining the background, MS pointed out that St Fergus TOM terminal users have experienced a number of rising costs, (the combined impact of the high Entry Capacity costs previously purchased under long-term auctions, progressively increasing TO charges and also the compression charges levied at St Fergus TOM). A graph illustrated the National Grid Entry Costs figures from October 2006 - to October 2016 and MS explained the high entry costs at St Fergus present an economic disincentive to exploration and development of new gas fields (e.g. Northern North Sea, West of Shetland).

The landscape has changed adversely for Shippers over the years, and in Total's view the current marginal pricing model used by National Grid, which has resulted in high Entry Capacity charges for St Fergus under long-term auction, is no longer appropriate. MS believed that much of the historical investment in the NTS should already have been amortised, and that it would be reasonable for Entry Charges to be based on the current marginal costs of the system while still accounting for new investments. To this end, National Grid NTS' modelling indicates that the CWD methodology, applied to Obligated Capacity, appears to offer a more balanced charging structure than the existing LRMC (a bar chart illustration was provided).

MS concluded that St Fergus needed competitive and more economically attractive entry capacity charges to support development of gas from challenging offshore basins. This is aligned with OGA's goal to achieve MER UK, and would also remove a cost barrier to Norwegian gas coming to St Fergus compared to other UK terminals and also to Continental European terminals. Observing that gas can also come in from Vesterled, MS commented that Norwegian Shippers note this is the most expensive system and will only flow to that if it is economically viable; the current arrangements do not encourage Norwegian gas to flow to GB at this entry point.

KC queried if MS was proposing that amortised costs/assets be written off and NTS gross revenues reduced? DR queried if amortisation would be spread over the whole system? CW commented that entry capacity has no link to allowed revenue so there is an effect in high prices. MS observed that if costs were pushing 'old business' out, then different ways to attract new business needed consideration.

Thanking MH and MS for their contributions, CW reiterated that the output from Ofgem's GTCR was the starting position, and that all points raised were valid. NW suggested that the information provided and points raised by MH should be drawn upon to augment the objectives set out in the last meeting. GJ observed that note should be taken of investments and the increased overall use of the system which will help to keep charges down, and gave an example that encouraged as much use of system. DR commented that it was not really Ofgem's role to 'pick winners'.

Ofgem's current obligations would not permit a specific tariff regime that supports UK producers unless ordered to by government strategy. DR believed that MH had made some good points but Ofgem was not the route to achieve the desired outcome for producers. AB asked if Ofgem worked with the OGA, and a better understanding of any interactions would be useful. DR confirmed that he had a recent meeting with the OGA.

MH reiterated that other policies were being formed, outside the remit of Ofgem, that will affect the interests of downstream consumers, and that Ofgem would need to take account of these - it could not ignore the wider context. The GB regime should not be unintentionally creating barriers to other sources and should stop focusing on cross-border supplies to the exclusion of all else.

LJ observed that Ofgem's role was to implement policy, and it seemed to be common sense to maintain awareness of external factors. It was recognised that the next Ofgem/BEIS (was Ofgem/DECC) Stakeholder meeting on 21 September might be a good opportunity to raise the matter more widely.

3.3 Proposed Objectives/ToR

Referring to the updated high-level objectives, NW observed these now needed some substance and some real life examples to test against, so that reference back could be made when necessary.

3.4 Draft Plan

CW recapped on discussions to date, and outlined a number of elements for inclusion in the Plan. Referring to the EU Tariffs Code timescales, it was suggested that completion be aimed for by December 2018; this would allow for as much as possible to be accommodated into charges to be notified in 2019 (the more predictability the better). The lead times for required systems changes were discussed. Systems need to apply from the relevant auction/billing dates, and changes will need to be completed in good time, with a clear steer given in the modification. KC observed that December 2018 was leaving it very late - could it be done earlier? This was felt to be unlikely. RF noted that it was necessary to have a useful accurate model to call upon before doing anything, and the market needs at least 12 months' lead time.

CW then outlined the key assumptions for the draft Plan. Referring to the EU decision, the GB UNC Modification decision (NRA) and any required Licence changes, MH pointed out these involved three different processes and sequencing might be an issue; parallel changes would probably be required, with an alignment of the GB process against an updated set of Licence and charging objectives. MH and NW again suggested a review of these objectives for fitness for purpose. There may be more than one possible model, but it may not then fit with the objectives; there should be an opportunity to revisit and adjust the Licence objectives if necessary to provide acceptable and more appropriate criteria against which to measure.

NW noted that cost reflectivity was an issue. DR reiterated that EU law requires us to have cost reflective tariffs. MH believed that Shippers and GTs needed to review the current objectives before making any changes. DR realised that Shippers did not like volatility but it was often difficult to avoid it. JC suggested a description of what is meant by cost reflectivity was required, observing there could be many different interpretations. DR directed parties to the Tariff regime interpretation of this and gave a brief outline, and examples of proxies to be used. If a User uses a system they should be prepared to pay for it. LJ added that there was nothing in Ofgem's current Workplan relating to performing a review of the relevant charging methodology objectives in the GT Licence; if parties wanted to suggest a change then they must present a reasoned case to Ofgem. Making reference to the Postage Stamp methodology, which was defined as a cost reflective methodology, NW believed there to be a number of flexible options, and remarked that if Ofgem believed that a

particular methodology was not an option then it needed to make it very clear as soon as possible to this audience. JC observed that would however just be an Ofgem 'opinion'. LJ summarised that it was up to this audience to agree and explain its preferred methodology, how it would meet the objectives, and any cost reflectivity aspects (positive and negative).

JC suggested to CW that the Plan should also build in time to accommodate a potential CMA referral, if parties do not agree with Ofgem's position, as it may be of sufficient commercial significance for parties to mount a clear challenge. It was recognised there would be winners and losers in any such decisions. It was pointed out that some of the GTCR's assumptions were challenged at the time but had never received a proper response. MH advised that if there were to be a proper industry led reform of charging objectives it would insure against a possible challenge. DR commented that Ofgem needed to be presented with the changes that industry thinks are necessary and justify why. JCx observed that it should be in the best interests of customers, not just what Ofgem prefers. DR explained Ofgem's views on predictability, stability and volatility, and cost reflectivity. JCx noted it was an aspiration that was very rarely capable of achievement.

The draft Plan was then illustrated and the key activities were outlined and discussed. There would be opportunities for flexing in certain areas, with parallel running perhaps an option in some cases. LJ reiterated that it was to be hoped that industry discussions in this forum would obviate the need for the raising of alternates to any eventual modification(s) deemed to be necessary. As most of the analysis would take place in this arena, theoretically the UNC modification process should be much shorter than might otherwise be the case. Impact Assessments (IAs) might potentially be required, but the group should aim to minimise the requirement for any 'additional activities' by covering and assessing as much as possible within this forum.

3.5 EU Tariffs Code - Current Outlook

CH gave an update on the current position in respect of a number of issues identified for discussion in Comitology; none of these issues were of major concern to National Grid.

CH briefly outlined the Articles affected and noted which were likely to be challenged by many of the TSOs, and highlighting aspects of interest to GB parties.

AB referred to a potential issue in respect of information provision. If the code was implemented, could a party then look to its national legislation and point out that data cannot be published? CH responded that generally EU law supersedes national law, but certain areas might be out of scope, and gave some examples. At this point it was not possible to provide an answer. It had not been brought up in NRA discussions to date. AB suggested that Ofgem might consider clarifying this.

CH then outlined the different dates set out in the TAR NC for implementation of Articles, noting that a phased approach was required. Transparency/Publication requirements were applicable from 01 October 2017; a timeline was illustrated. CH briefly outlined the requirements, confirming that GB already published much of the information, however the current format(s) and location(s) may have to be reviewed.

3.6 Proposed Approach for Development (Strawman)

CW presented a proposed approach that would holistically look at implementation of the EU Tariffs Code and the Charging Review. This would include reviewing the purpose of the current framework, the use of the NTS and how it has potentially change over time (since the framework was put in place), and whether or not (and if not, why) it continues to meet the objectives on which the framework and pricing structure was originally based. Taking into account Stakeholder objectives, options

and models will be developed for investigation and assessment, to identify key principles fit for the current landscape and which areas to prioritise and consider for any change(s).

Analysis of Existing Contracts - Booked Entry Capacity

LJo explained that as part of developing the analysis for any change a key element to consider was the impact of 'Existing Contracts'. The terms of EU Tariffs Code Article 35 applied to NTS Entry Capacity only. LJo outlined the assumptions and basis of the analysis performed to date. A number of graphs were presented, illustrating the entry capacity booked and the revenue to be collected, and the flowed capacity against existing contracts, and the information was explained and discussed. Slide 44 indicated 'legacy' and fixed elements.

LJo took an action to provide a breakdown (monthly, quarterly, annually) of entry capacity bookings and an analysis/comparison of past and present behaviours (including storage and non-storage, etc) and how it might change going forwards.

Action 0901: Existing Contracts - Entry Capacity Bookings - National Grid NTS (LJo) to provide a breakdown (monthly, quarterly, annually) of entry capacity bookings and an analysis/comparison of past and present behaviours (including storage and non-storage, etc) and how it might change going forwards.

LJo summarised the position, noting that the Proportion of Entry Revenue is collected through existing contracts; that existing Contracted capacity is above the flowed capacity for the next 8 years; and that between 10% and 20% of TO Allowed Revenue will be collected from Existing Contracted capacity, within each year for at least the next 5 years.

Transmission and Non-Transmission Services (EU Tariffs Code, Article 4)

CW gave an overview of how the criteria for Transmission Services might be applied and how this could impact the revenues/charges for the recovery of Allowed Revenue. Some changes to the current arrangements might be likely but would be kept under review. Shorthaul was discussed and how the revenue was collected. DR noted that commodity charges were not paid by all Users, so a charge that needs to recovered from all Users may have to be included in capacity charges. JCx commented that the actual split is an internal one for National Grid and not really of interest to Shippers - what matters to Shippers is what they have to pay in charges. This needs a Shipper perspective. LJ observed that the split was relevant depending on how a Shipper operated – for instance sourcing at NBP might bring a different viewpoint. NW believed that if CWD is favoured then revenue becomes a bigger issue.

Optioneering

SC gave an overview, explaining that this was the start of the process to identify, explore and develop/refine options and any issues, and enable comparison to/assessment against the existing framework

SC then presented Option 1: Developing an initial CWD Model, observing that National Grid NTS had aimed to develop a dynamic model capable of adjustments and the immediate generation of results. The parameters were defined and the five scenarios modelled were outlined. A brief explanation was provided in respect of what was being shown in the illustrative charts that followed.

Looking at the Entry Capacity Price Comparisons chart (using each of the three forecasts), it was noted the higher the forecast the lower the price; which capacity is input and what is collected against affects the outcome. It was often a judgment call/choice as to what should be used.

The pie charts for each of the five scenarios were reviewed and SC responded to various questions and comments. The existing contracts figure remains the same in all five scenarios. It was noted that secondary adjustments will be required whichever scenario is used; capacity and flows will never be equal in practice. Under Scenario 3, under recovery would be minimal. Under Scenario 4, there would be a large under-recovery on both Entry and Exit. Under Scenario 5, it was questioned whether there would be under-recovery on Existing Contracts.

Different multipliers will give different outcomes. Flow scenario is profiled, obligated is not.

SC confirmed that the prices behind the scenarios were published in the spreadsheet that had been made available on the meeting webpage at www.gasgovernance.co.uk/ntscmf/060916.

SC summarised that in the initial CWD model scenarios (with multipliers all set to 1), under-recovery of revenue for the applicable year was linked to three factors: prices which are generated based on higher forecast/revenue figures than will be recovered through this mechanism (caused by Existing Contracts being taken off after prices are generated); application of Storage Discounts; and a forecast contracted capacity which is significantly higher than resulting actual bookings.

JCx suggested that perhaps it was now the time to consider a separate data repository or library so that the gradually accumulating information could be stored in one accessible location (rather than under each meeting) for ease of referral, ideally on the Joint Office website. This was agreed to be a sensible approach. LJ pointed out that, for publication on the website, each document was subject to a 20 megabyte limit; SC noted this.

Action 0902: NTS CMF Library - National Grid NTS to provide a current collection of documents for review at the next meeting, to be assessed for potential inclusion in an NTS CMF data store/library area on the JO website.

It was further agreed that the various scenarios, with unique identifiers, should be built up within a central repository (a spreadsheet?) as this would facilitate easy reference and assessment at a future date.

Action 0903: Scenario Tracker – National Grid NTS to provide a means of capturing and storing scenarios assessed, that easily identifies key variables and any assumptions/dependencies, for publication on the NTSCMF webpage.

3.7 Next Steps

CW suggested arranging a sub-workgroup that would meet in the intervals between NTS CMF meetings to consider modelling and other detailed matters. This was agreed to be beneficial and would facilitate progress, with a report on output to be made to the next NTS CMF meeting in October.

Action 0904: Interim Sub-workgroup Meetings - National Grid NTS to make arrangements for interim sub-workgroup meetings, and parties to register interest in participation with CW.

It was anticipated that work would continue in the following areas:

- Continued development and refinement of the detailed workplan
- Establishment/planning of sub-workgroups as necessary to consider detail of analysis, and presentation of any interim output to next NTS CMF meeting
- · Production of analyses summaries to support options
- Multipliers Consideration of implications and alternatives/remedies.

4. Issues

4.1 Issues Log

A skeleton Issues Log had been produced ready for population with any identified issues.

KC suggested 'derivation of multipliers'. NS suggested looking at meeting the revenue requirement and in future look at a global optimum strategy regarding the implications of relative size of multipliers. LJ asked KC to put his thinking down on paper for consideration at the next meeting, where an informed decision could be made about what the Issue might be.

Action 0905: *Issue - Derivation of Multipliers -* KC to develop a paper looking at implications, with possible suggestions for alternatives/remedies, for consideration at the October meeting.

5. Any Other Business

None raised.

6. Review of Actions Outstanding

0403: National Grid NTS (CW) to provide, for circulation, a communication to apprise the wider community of the work that was being developed within this forum.

Update: Completed; industry communication issued via the Joint Office following this meeting. **Closed**

0801: National Grid NTS to develop a Strawman/modelling based on the criteria as set out in the Energy UK presentation and subsequent discussion, and include a plan that establishes an end date.

Update: Presented at this meeting. Closed

7. Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/Diary

Post Meeting Note: The programme of NTS CMF meetings for 2017 has now been arranged; please see details below.

2016 Meetings

Time/Date	Venue	Workgroup Programme
10:00, Wednesday 05 October 2016	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	See details at 3.7, above.
10:00, Wednesday 02 November 2016	Consort House, Prince's Gate Buildings, 6 Homer Road, Solihull B91 3QQ	To be confirmed
10:00, Tuesday 06 December 2016	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed

2017 Meetings

Time/Date	Venue	Workgroup Programme	
10:00, Wednesday 11 January 2017	Consort House, Prince's Gate Buildings, 6 Homer Road, Solihull B91 3QQ	To be confirmed	
10:00, Wednesday 01 February 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	
10:00, Monday 06 March 2017	Consort House, Prince's Gate Buildings, 6 Homer Road, Solihull B91 3QQ	To be confirmed	
10:00, Wednesday 05 April 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	
10:00, Monday 08 May 2017	Consort House, Prince's Gate Buildings, 6 Homer Road, Solihull B91 3QQ	To be confirmed	
10:00, Monday 05 June 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	
10:00, Monday 03 July 2017	Solihull	To be confirmed	
10:00, Wednesday 02 August 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	
10:00, Monday 04 September 2017	Solihull	To be confirmed	
10:00, Wednesday 04 October 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	
10:00, Monday 06 November 2017	Solihull	To be confirmed	
10:00, Wednesday 06 December 2017	Orange Room, ELEXON, 350 Euston Road, London NW1 3AW	To be confirmed	

Action Table (06 September 2016)

Action Meeting Minute Action Owner Ref Date(s) Ref
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0403	06/04/16	4.8	National Grid NTS to provide, for circulation, a communication to apprise the wider community of the work that was being developed within this forum.	National Grid NTS (CW)	Closed
0801	03/08/16	3.2	National Grid NTS to develop a Strawman/modelling based on the criteria as set out in the Energy UK presentation and subsequent discussion, and include a plan that establishes an end date.	National Grid NTS (CW)	Closed
0901	06/09/16	3.6	Existing Contracts - Entry Capacity Bookings - National Grid NTS (LJo) to provide a breakdown (monthly, quarterly, annually) of entry capacity bookings and an analysis/comparison of past and present behaviours (including storage and non-storage, etc) and how it might change going forwards.	National Grid NTS (LJo)	Due Wednesday 05 October 2016 Pending
0902	06/09/16	3.6	NTS CMF Library - National Grid NTS to provide a current collection of documents for review at the next meeting, to be assessed for potential inclusion in an NTS CMF data store/library area on the JO website.	National Grid NTS (CW, LJo, SC)	Due Wednesday 05 October 2016 Pending
0903	06/09/16	3.6	Scenario Tracker – National Grid NTS to provide a means of capturing and storing scenarios assessed, that easily identifies key variables and any assumptions/dependencies, for publication on the NTSCMF webpage	National Grid NTS (CW, LJo, SC)	Due Wednesday 05 October 2016 Pending
0904	06/09/16	3.7	Interim Sub-workgroup Meetings - National Grid NTS to make arrangements for interim sub- workgroup meetings and parties to register interest in participation with CW.	All parties	Pending
0905	06/09/16	4.1	Issue - Derivation of Multipliers - KC to develop a paper looking at implications, with possible suggestions for alternatives/remedies, for consideration at the October meeting.	PSE Kinsale Energy (KC)	Due Wednesday 05 October 2016 Pending