

Gas Charging Review



NTSCMF – 5 April 2017

Final slide pack – Update provided on 3 April 2017. All slides added or updated are marked with a blue star



Agenda

Area	Detail
EU Tariffs Code – Current Outlook	<ul style="list-style-type: none"> • Key updates relevant to Gas Charging Review
Output from sub-workgroup	<ul style="list-style-type: none"> • Summary of the March sub workgroups and outputs available • Key discussions and status on topics (RAG status) • Focus of future sub group meetings
Charging Spreadsheets for Modelling	<ul style="list-style-type: none"> • Overview and demonstration of the charging spreadsheets developed to help in the Gas Charging Review to model potential changes to Gas Transportation charges
Behavioural assessment of charge changes	<ul style="list-style-type: none"> • Behavioural Questionnaire – Summary of responses and some key themes to help inform behavioural assessments
Plan and change process	<ul style="list-style-type: none"> • Update on UNC Modification Development, change process and timescales • Discussion on GB Change Processes, the required EU Change processes and how these are most effectively managed
Issues Log	<ul style="list-style-type: none"> • Review of Issues • Discussion on proposed new items
Next Steps	<ul style="list-style-type: none"> • Further development including future NTSCMF sub workgroups

Gas Charging Review



EU Tariff Code – Current Outlook
Colin Hamilton

EU Tariff Code

- **17 March 2017:** TAR NC published in Official Journal
- *COMMISSION REGULATION (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas*
 - <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2017:072:FULL&from=EN>
- **Entry into Force = 6 April 2017**

EU Tariff Code – final tweaks

- No material changes in this final version of code except some dates:
 - **Art 34:** Agency to publish report on methodologies on determining allowed revenues before **6 April 2019**
 - **Art 35:** Existing contracts protection: applies to capacity bookings concluded before **6 April 2017** with TSO to send information on bookings to NRA before **6 May 2017**

ENTSOG Activity: Implementation Workshop

- Workshop held in Brussels on **29 March 2017**
 - Materials can be found here:
<http://www.entsog.eu/events/implementation-workshop-for-the-tariff-network-code-for-gas#downloads>
- Consultation on Implementation Guideline
 - Respond by **30 June 2017** to TAR-NC@entsog.eu
 - updated version of the TAR NC IDoc to be published before the second TAR NC Implementation Workshop planned for **October 2017**.

TAR NC: GB Implementation

- UNC MOD 0611 raised February 2017
 - Amendments to the firm capacity payable price at Interconnection Points
 - Progress can be followed here:
 - <http://www.gasgovernance.co.uk/0611>
 - Small Mod to support CAM Mods 0597 & 0598s
- Capacity Release Methodology Statements are currently being updated (consultation expected in April) to reflect CAM NC Amendment (Mods 0597 & 0598S) and include concepts that are referenced in 0611.



Forecasted Contracted Capacity (FCC)

- How is FCC calculated elsewhere in EU?
- Forecasts have two major components:
 - Known bookings of longer term products plus forecast of future bookings
- Level of known bookings depends on when in the year the FCC is calculated
- Forecast components can be based on
 - History
 - Forecast behaviour
 - Negotiation with NRA



Forecasted Contracted Capacity (FCC)

- **Example 1: (assuming tariff year of Jan – Jan):**
 - FCC calculated in November of year Y for Y+1
 - Outcomes of long-term auctions known (annual, quarterly)
 - This can often account for most of capacity bookings where there is little activity in short term bookings
 - Forecast of residual bookings for FCC (monthly/ DA-WD)
 - Based on weights of previous year total allocation
 - Regarded as reasonable approach where only a small proportion of FCC made up of short term products



Forecasted Contracted Capacity (FCC)

- **Example 2:**
- FCC calculated each year
- Known already booked capacity (depends on whether DSOs obliged to book all their capacity before tariffs are calculated)
- Use booking and usage profile of last two years
- Impact of multipliers on behaviour
 - Optimise booking from shipper perspective
 - Minimise costs based on past usage profile



Forecasted Contracted Capacity (FCC)

■ Overview:

- Where bookings are largely from long term products a TSO may simply base FCC on a simple projection of history (i.e. as bookings largely known, just use previous year's short term bookings as residual forecast)
- More complex approach required where behaviour may change due to value of multipliers
 - Use minimum cost approach from shipper perspective
- NRA may then adjust FCC values to maximise capacity availability

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Output from sub workgroups
Colin Williams

Output from sub workgroup (1)

- Since March NTSCMF, sub workgroup meetings:
 - 15 and 27 March
- All documentation and outputs from the meetings will be available

<http://www.gasgovernance.co.uk/ntscmf> and

<http://www.gasgovernance.co.uk/ntscmf/subg>

Output from sub workgroup (2)

- Reminder, in relation to the Gas Charging Review:
- The Sub Group will continue to discuss a wide range of topics, issuing papers summarising discussions, conclusions (with rationale) feeding into NTSCMF.
- The sub group discussions, in addition to those at NTSCMF, will be used to inform Modelling and UNC Modification(s)
- Comments / questions welcome on material produced at or in between NTSCMF meetings.



Output from sub workgroup (3)

- Charging Spreadsheets development
 - March subgroups focused on reviewing and testing spreadsheets to facilitate modelling of potential options to help refine and enhance for wider release
- In addition discussion topics covered
 - Forecasted Contracted Capacity
 - Avoiding inefficient bypass of the NTS
 - Non Transmission Services
 - Multipliers



Sub workgroup – future development

- Future Sub Groups
 - Continue to focus on discussion topics to help and support Modification process
 - Charging spreadsheet development for behavioural impacts to be discussed and reviewed

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Charging Spreadsheets for Modelling
Sarah Chleboun / Colin Williams

Gas Charging Review: Charging Spreadsheets for Modelling

- Charging Spreadsheets have been developed to help model the potential impacts for:
 - Transmission Services Charges; and
 - Non Transmission Charges
- For these spreadsheets there will be a live run through of the content, how to use the models and to illustrate the flexibility in using them
 - Spreadsheets will not be shared before NTSCMF



Gas Charging Review: Charging Spreadsheets for Modelling

- In line with the discussions on the Reference Price Methodology (RPM) at NTSCMF and at the Charging Review Sub Groups, it is proposed not to continue with the LRMC Model
- Where a RPM is used it will either be using Capacity Weighted Distance (CWD) or Postage Stamp



Gas Charging Review: Charging Spreadsheets for Modelling

- Live demonstration of the Charging Spreadsheets that have been developed
 - Overview of the spreadsheets and their contents
 - Ability to modelling different options, changing inputs



Gas Charging Review: Charging Spreadsheets for Modelling

Next Steps

- Spreadsheets will be available 6 April 2017
 - Transmission Services – CWD Spreadsheet
 - Non Transmission Services Spreadsheet

- A Postage Stamp spreadsheet for Transmission Services will be available during w/c 10 April



Gas Charging Review: Charging Spreadsheets for Modelling - WebEx

- A WebEx/T-Con session is being held between midday and 2.30pm GMT on Friday 7 April
 - Hosted by National Grid
 - To provide more of a dedicated session and tutorial on the Spreadsheets and to their contents and usage
 - To allow any initial questions to be raised
- If you would like to join this session please contact:
box.transmissioncapacityandcharging@nationalgrid.com
- Joining instructions will then be sent.

Gas Charging Review



Behavioural assessment of charge changes
Output from questionnaire

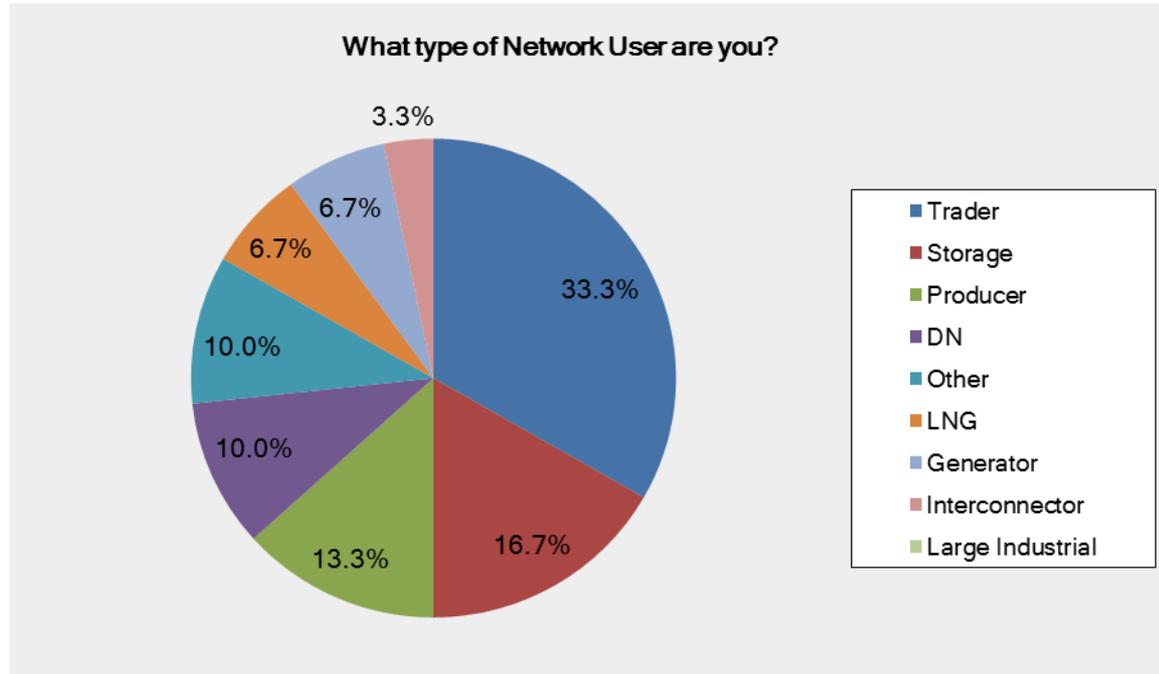
Behavioural assessment of charge changes

- Anonymous questionnaire was issued via the Joint Office from National Grid on 31 January 2017
- A copy of the questionnaire remains for reference on NTSCMF pages
<http://www.gasgovernance.co.uk/ntscmf>
- A total of 30 responses were received across a range of Network Users
- The following slides summarise some of the data and themes from the responses and next steps



Behavioural Questionnaire: Summary of responses (Q1)

What type of Network User are you?		
Answer Options	Response Percent	Response Count
Trader	33.3%	10
Storage	16.7%	5
Producer	13.3%	4
DN	10.0%	3
Other	10.0%	3
LNG	6.7%	2
Generator	6.7%	2
Interconnector	3.3%	1
Large Industrial	0.0%	0
<i>answered question</i>		30



Key points from numbers of respondents:

- 30 responses
- For some categories there were a low number of responses



Behavioural Questionnaire: Summary of responses (Q2)

Please rank in order of importance the factors which determine what form of capacity product you buy with 1 being the most important.

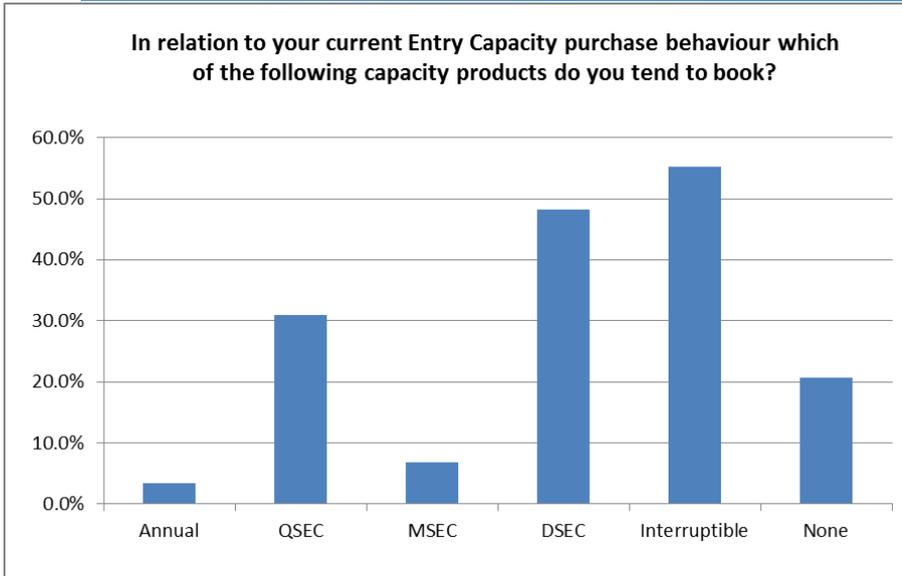
Answer Options	1	2	3	4	5	Rating Average	Response Count
Price	15	7	5	3	0	1.87	30
Certainty of obtaining capacity	13	9	7	1	0	1.87	30
Being able to use the capacity	2	12	7	6	3	2.87	30
Capacity will not be substituted away	0	2	9	12	6	3.76	29
Administrative costs of actively managing and purchasing capacity as it is of secondary importance to my business	0	0	2	7	20	4.62	29
<i>answered question</i>							30

Key points from responses to this question:

- 30 responses to this question
- Of the ranking price and certainty of obtaining capacity joint top factor

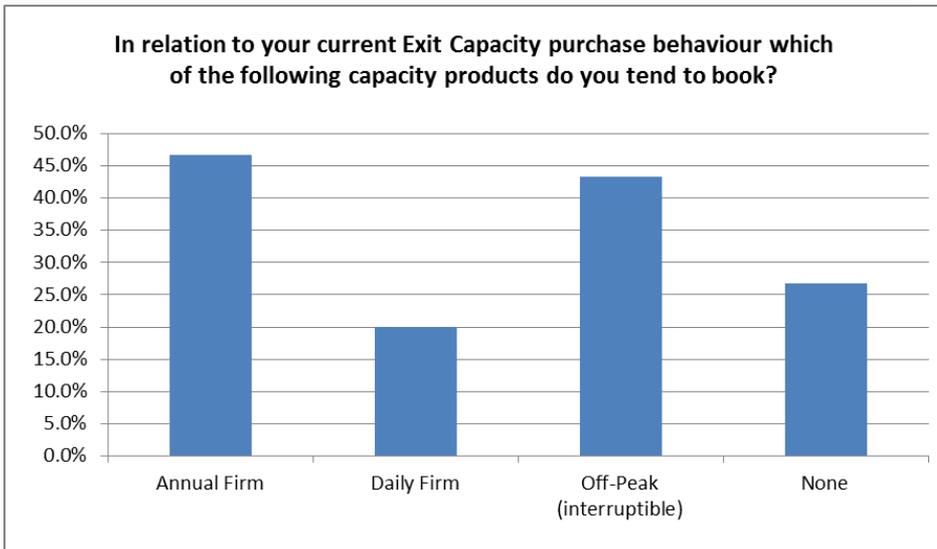


Behavioural Questionnaire: Summary of responses (Q3,Q4)



Q3. In relation to your current Entry Capacity purchase behaviour which of the following capacity products do you tend to book?

Answer Options	Response Percent	Response Count
Annual	3.4%	1
QSEC	31.0%	9
MSEC	6.9%	2
DSEC	48.3%	14
Interruptible	55.2%	16
None	20.7%	6
<i>answered question</i>		29



Q4. In relation to your current Exit Capacity purchase behaviour which of the following capacity products do you tend to book?

Answer Options	Response Percent	Response Count
Annual Firm	46.7%	14
Daily Firm	20.0%	6
Off-Peak (interruptible)	43.3%	13
None	26.7%	8
<i>answered question</i>		30



Behavioural Questionnaire: Summary of responses

■ Of some of the more behavioural questions

Q10. If prices were the same for all firm entry capacity products, long and short term, with no other changes to the capacity regime would you be more inclined to change your purchase strategy?

Answer Options	Response Percent	Response Count
No	50.0%	13
Yes I will tend to buy more non-daily firm capacity	26.9%	7
I don't buy entry capacity	23.1%	6
<i>answered question</i>		26

Q12. If price for off-peak (interruptible) Exit capacity increased to 50% of the firm price with no other changes to the capacity regime would you be more inclined to change your purchase strategy?

Answer Options	Response Percent	Response Count
No	75.9%	22
Yes I will tend to buy more firm capacity	6.9%	2
I don't buy Exit capacity	17.2%	5
<i>answered question</i>		29

Q13. If the TO commodity charge was replaced with a floating capacity charge to recover revenue not collected through the sale of capacity and this floating capacity charge was levied on all capacity holders irrespective of gas flows would this change you way you purchased capacity?

Answer Options	Response Percent	Response Count
Yes, I would tend to buy shorter term capacity products and profile my purchases	75.0%	21
No	25.0%	7
<i>answered question</i>		28



Behavioural Questionnaire: Drafting the assumptions to apply

- Assumptions for the purposes modelling can only be made at this stage based on the responses received
 - Some Network User groups have low level of responses. Without additional information behavioural analysis may exclude some behavioural responsiveness
- Considering the different user groups, overall each group can be split out. Key messages based on questionnaire responses
 - No major switch between Long Term and Short Term, or vice versa
 - Those in Short Term will stay in Short Term and may profile bookings



Behavioural Questionnaire: Drafting the assumptions to apply

- Draft assumptions based on the questionnaire responses:

Entry / Exit	User Group	Comments / Draft behavioural assumptions
Entry	Storage	Q1 book to peak capacity then use 50% of peak at daily for rest of year
	Traders, Shippers and Bacton	Use Daily. Base this on previous year's flows and scaled linked to demand forecast
	LNG	Use Daily. 50% of peak at daily for the year
Exit	DN	Book firm – annual
	Storage	50% of days at peak at cheapest daily product
	Power Generation	Use cheapest daily product, looking at historical flows
	Interconnectors	Use cheapest daily product, looking at historical flows
	I&C	Use cheapest daily product, looking at historical flows



Behavioural Questionnaire: Summary and next steps

- Next steps – with the Mid Stream Gas Group, the responses will inform an assumption for each Network User group identified
- Apply these into a version of the Charging Spreadsheets that are being used for model charges and the potential change options
- Additional updates will be discussed at future Sub workgroups and NTSCMFs

Gas Charging Review



Plan and change process
Colin Williams



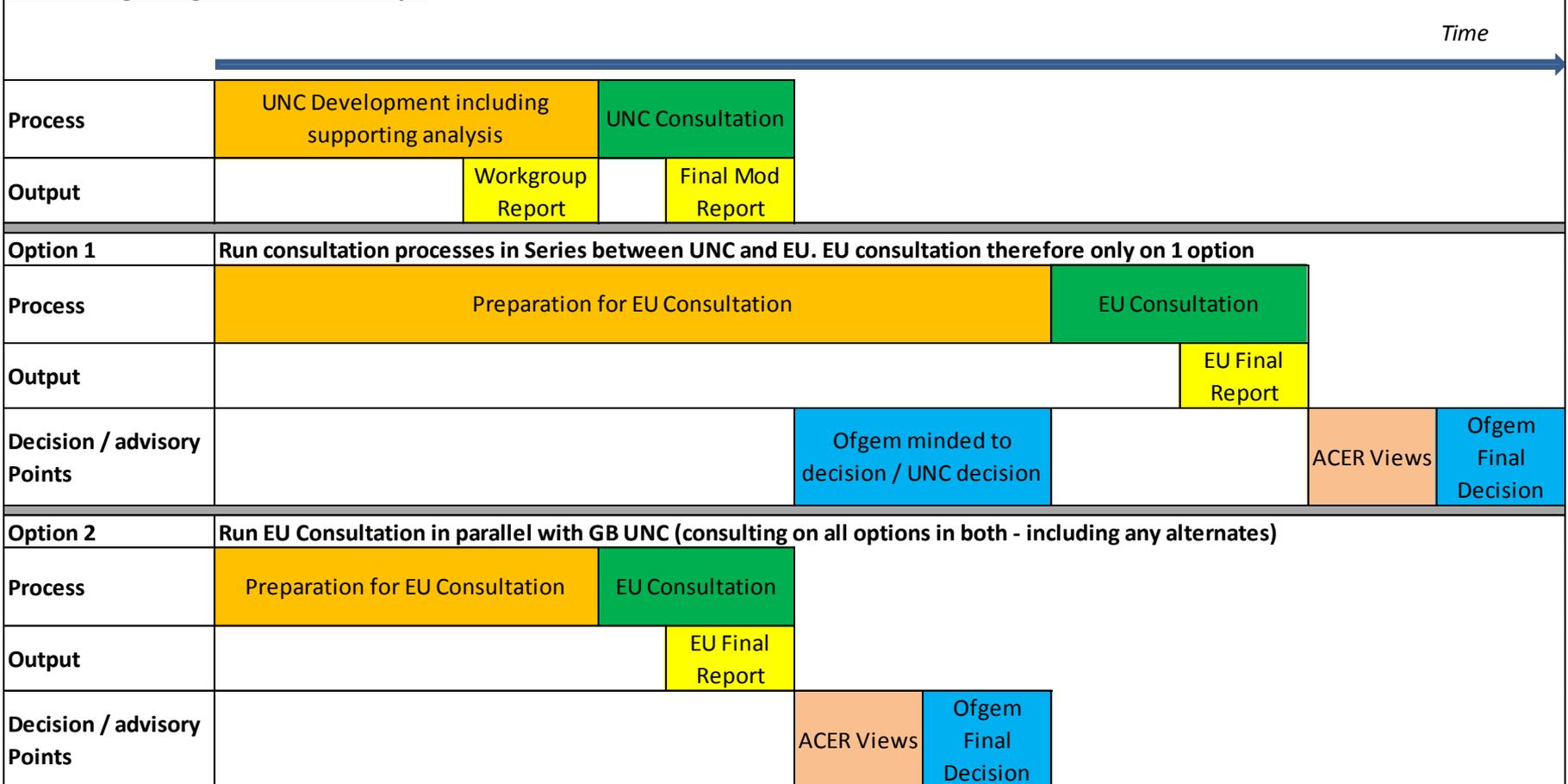
Gas Charging Review: Change process – GB / EU Processes

- As part of the GB and EU Changes process there are a number of necessary steps
- The method of incorporating the required EU processes, notably the consultation on the charging framework being proposed could be done in number of ways
 - In Series – run the EU Consultation based on one option decided as part of the UNC Change process
 - In Parallel – run the UNC / EU Consultations together (i.e. on all alternates proposed)
- The following is a simplified illustration of this for discussion at NTSCMF



Gas Charging Review: Change process – GB / EU Processes

GB / EU Consultation Process and linkages, options for discussion. This diagram shows the steps and not necessarily the time weighting to each activity.



■ Discussion Point: views on these options?



UNC Modification – Timeline update

Date	Meeting#	Detail
6 March 2017	NTSCMF	<ul style="list-style-type: none">• Present timeline for initial UNC Modification for discussion
5 April 2017	NTSCMF	<ul style="list-style-type: none">• High level pre modification discussions• Provide overview of scope of proposed UNC Modification• Discuss overview of what it will and won't contain at this stage, links to the key topics under discussion
24 April 2017	NTSCMF*	<ul style="list-style-type: none">• Continue pre-modification discussions
8 May 2017	NTSCMF	<ul style="list-style-type: none">• UNC Modification review and development
XX May 2017	NTSCMF	<ul style="list-style-type: none">• Additional NTSCMF (for discussion if necessary)
5 June	NTSCMF	<ul style="list-style-type: none">• UNC Modification review and development
15 June 2017	UNC Mod Panel	<ul style="list-style-type: none">• Decision on UNC Modification(s) recommending referral to workgroup (at NTSCMF)

**Additional NTSCMF proposed in April to support and facilitate UNC Modification and Charging Spreadsheet development*

#There will be opportunities to use the Sub group over this period and beyond to help support and facilitate UNC Modification process.



Gas Charging Review: Draft UNC Modification Structure

Modification Structure	Topics covered in Modifications	Comments
Principal Modification	Reference Price Methodology, Revenue Reconciliation approach, Multipliers, Specific Discounts (e.g. Article 9 discounts), historic treatment of capacity	<ul style="list-style-type: none"> • Covering topics that are closely linked and beneficial to keep together • For the “satellite” modifications the subject areas will be referenced to draw the link between Modifications • Placeholders / defaults for Multipliers / Discounts
Satellite Modifications – to be referenced in main modification with specific methodology or approach in separate modification.	Interruptible Approach	<ul style="list-style-type: none"> • Interruptible Capacity Charging Method
	Forecasted Contracted Capacity (FCC)	<ul style="list-style-type: none"> • Options and solution for FCC
	ASEP Splitting to facilitate Storage Discount	<ul style="list-style-type: none"> • Options and solution for how to identify capacity at combined ASEPs
	Avoiding Inefficient bypass	<ul style="list-style-type: none"> • Design, objectives and application of such a product

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Issues Log

Issues Log

- Review of Issues Log (review of the spreadsheet including links to the Gas Charging Review Decision list – and RAG Status)

- Discussion on any proposed new items

Gas Charging Review



Next Steps



Gas Charging Review: Next Steps

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