

Gas Charging Review



NTSCMF – 07 July 2017

Final slide pack – Update provided on 6 July. 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
Modelling Update	<ul style="list-style-type: none">• Updates made in June<ul style="list-style-type: none">• CWD• Non-Transmission Services Model
Output from sub-workgroup	<ul style="list-style-type: none">• Summary of recent sub groups<ul style="list-style-type: none">• Revenue Recovery Mechanisms• Multipliers (ad-hoc meeting)• Avoiding inefficient bypass
UNC Modification	<ul style="list-style-type: none">• Status of UNC 0621 Modification
Plan and change process	<ul style="list-style-type: none">• Overall timeline• Overview of the future sub groups and NTSCMF meetings and their focus
Next Steps	<ul style="list-style-type: none">• Next Steps

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EU Tariff Code – Current Outlook



EU Tariff Code – Current Outlook

- As per slides shared at Transmission Workgroup on 6 July 2017

<https://www.gasgovernance.co.uk/tx/060717>

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Modelling Updates in June 2017

Non-Transmission Services Model

- Model published in June 2017
 - Updated with latest Long Term Revenue forecast data published on 2 June 2017

CWD Model

- Model published in June 2017
 - Updated Exit formulas to take into account Interconnector discount for Yearly Standard Capacity products.
 - Update current prices to include new Exit prices produced May 2017 for capacity from 1 October 2017 and new Annual Quarterly prices for IP points.
 - Updated with latest Long Term Revenue forecast data published on 2 June 2017
 - Updated "Set Adjustments" in User Inputs so if don't set an adjustment then will not produce a CRRC value.



Modelling – further changes

- There are number of changes that are still to be made to the Transmission and Non Transmission Models
- These are being developed and a plan of what will be available and when will be shared and discussed via forthcoming NTSCMF meetings and Charging Review sub groups

Gas Charging Review



Output from sub workgroups

Gas Charging Review: Output from sub workgroup (1)

- Three sub group since 5 June NTSCMF
 - 14 June – Revenue Reconciliation/Recovery mechanisms
 - 26 June – Multipliers (additional sub-group)
 - 29 June – Avoiding Inefficient bypass of the NTS
- All documentation and outputs, when updated from the meetings will be available:

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

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

Sub workgroups – Joining and Contributions

- Inputs in advance of the meetings are welcome
 - Questions or comments or any position papers, for example
 - The one-pager documents can also be used to frame the discussions

<http://www.gasgovernance.co.uk/ntscmf/subg1page>

- To receive joining instructions for the meetings (or to join a specific sub group on a particular topic) please contact National Grid

box.transmissioncapacityandcharging@nationalgrid.com

Sub-group output

- From each of the sub-groups we have produced a set of summary slides which give an overview of what was discussed at the meeting

Gas Charging Review



Revenue Reconciliation/Recover sub-group (14 June) summary

Objectives

- Agreed high level objectives of Revenue Reconciliation/Recovery Mechanisms:
 - More Stable charges (year to year changes)
 - Less Volatile charges (within year changes)
 - More Predictable*
- Consideration needs to be given to:
 - Licence objectives (e.g. recovery of allowed revenue minimising 'K', Existing Contracts, GTCR, Entry and Exit treatment, single vs dual regime, relevant and customer/stakeholder objectives)

* Consideration of the 'K' value can also feed in here

Options for recovery of Transmission Services Revenue

- Two main options for administering revenue recovery beyond CWD calculation (which may include some additional adjustments), via:
 - A capacity charge uplift
 - A flow based charge
 - Both options would have denominator based on aggregate bookings or flows
 - No disaggregation by Entry / Exit point.
- Under the EU TAR the CRRC is not allowed to be charged to IP's but can be charged to all other points.

Discussions (1/2)

- Revenue Recovery currently has different mechanisms for Entry and Exit. This should be considered in the options for future treatment.
- Commodity charges have been a feature of the charging regime for some time. High commodity may not be an issue for all parties.
 - Some have suggested commodity rather than capacity for revenue recovery could lead to a smoother transition (or softer landing) come 2019 changes.
- Links into other topics that must be addressed to see how they collectively impact charging (e.g. Existing Contracts, Multipliers, Interruptible, Specific Capacity Discounts).

Discussions (2/2)

- Whilst a postal capacity charge or postal flow based charge are options, it is possible that both could be applied, although this may be overly complicated
- If using a CRRC for the purposes of revenue recovery, this cannot be applied at IPs. The Cost Allocation test will be a measure to apply.
- More parties on the sub-group call favoured the flow based option.
- Multipliers – due to the links – initial discussion added for 26th, in addition to those scheduled for July and August.

Commentary on Capacity vs Commodity

Topic	Capacity Charge	Commodity Charge
EU Compliance	<ul style="list-style-type: none"> • “TAR NC shall be recovered by Capacity based Transmission Tariffs” – might be considered more compliant 	<ul style="list-style-type: none"> • A flow based charge for the purposes of revenue recovery, can only be applied to Non IPs. If charge is too great a proportion of Transmission Revenue then might be considered less compliant • Commodity charge cannot be applied at IPs so may be a more minimalist approach to compliance
Denominator	<ul style="list-style-type: none"> • Based on aggregate bookings 	<ul style="list-style-type: none"> • Based on aggregate flows.
Existing Contracts (ECs)	<ul style="list-style-type: none"> • Might be applied to EC’s even if no flows if levied on bookings • Treatment of ECs and article 35 of TAR NC needs to be considered. Application of capacity “top-up” or uplift could charge on bookings irrespective of flows. 	<ul style="list-style-type: none"> • Only applied to flows. For any EC’s with no flows against them, not charged. • Treatment of ECs and article 35 of TAR NC needs to be considered. Might mean EC treatment is simpler as no change to overall Capacity charge from when Capacity purchased.
Single / Dual regime	<ul style="list-style-type: none"> • Same treatment for IP and Non IP 	<ul style="list-style-type: none"> • If levied for revenue recovery then may not be applied to IP therefore dual regime would be required.
Cross subsidy / discriminatory approach	<ul style="list-style-type: none"> • Cost Allocation assessment under TAR NC would need to be considered and levels of how user groups or points are charged differently 	<ul style="list-style-type: none"> • Cost Allocation assessment under TAR NC would need to be considered and levels of how user groups or points are charged differently

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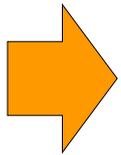
Multiplier sub-group (26 June) summary

Gas Charging Review: Multipliers

- Following the discussion at the 14 June Sub Group on revenue recovery mechanisms, the subject of multipliers came up
- Agreed to have an additional sub group to start the multiplier discussion – in addition to all those currently planned
- 1hr Sub Group held on 26 June to start the discussion on Multipliers and help support the discussions already scheduled
 - Proposed some key questions to help the discussion
 - Started to discuss – to continue at NTSCMF and future sub groups

Objectives – Key questions to address

Suggested questions / areas to address



- **What are multipliers for?**
 - **E.g. Trade – NBP liquidity – ST flex – SoS**
 - **Revenue recovery – encourage booking behaviour ST vs LT ?**
 - **Should pricing facilitate any of these / can pricing be detrimental?**
- Short term relative to Long term multipliers – should they incentivise a certain behaviour?
- Should multipliers facilitate access? – How to consider when combined with the revenue recovery options – do certain combinations work more effectively in this regard?
- Measurement against Relevant Objectives, GTCR and Stakeholder Objectives and EU (Multipliers at IPs need to be consulted on each year)
- Levels of Multipliers
 - Can be a number between 0 and 1, not just these values (and could be higher than 1, subject to the questions above).
 - TAR NC Consultation obligation
- Capacity access – views on the charge independent of the amount flowed? Is this an issue?
- Which aspects work under the current regime? Views and discussion (including output from this discussion)

Overview of options for Multipliers: nationalgrid

General discussion

- Three options main focus of the debate
 - Multipliers less than 1, Multipliers of 1, Multipliers greater than 1
 - Depending on the purpose of the Multipliers then each of these may have more focus
- Who should bear the cost of the NTS (recovery of the Transmission Costs)
 - Between Long Term (LT) and Short Term (ST)
 - Is the split between LT and ST less important in unconstrained system?
 - Will also depend on the revenue recovery mechanisms applied
- Multipliers at IPs need to be consulted each year
 - Can do the approach differently at IPs and Non IPs
 - Cross subsidy may become an issue with separate approaches

What are Multipliers for?

Discussions (1/3)

- Will need to consider alongside Interruptible (including Entry and Exit Off Peak). Whilst a separate topic, it has strong links to the multipliers.
- There are currently different capacity products for Entry and Exit. Treating Entry and Exit differently could be considered in the options for future treatment.
- Concerns on existing Long Term contracts and potential costs they may incur if discounting Short Term capacity
 - Clarity on Existing Contracts (ECs) will be beneficial including any arrangements specific to ECs
- Stability, reduced volatility, improved predictability of charges
 - Does this lean towards multipliers of 1?
 - Instability may be more driven by levels of bookings

What are Multipliers for?

Discussions (2/3)

- Whilst Multipliers could be used to facilitate revenue recovery, generally not favoured as an option – more preferable was linked to behavioural drivers
 - Does not rule option out but considered less favourable
- More parties on the sub-group call favoured having multipliers of less than 1 than other options
 - Does this mean that for these parties, they favour lower cost short term access (capacity charges) therefore willing to pay higher short term “top up” charges (e.g. flow based charge)?
 - Broadly agreed this is the case
- Ofgem’s GTCR policy letter - Reduction of reserve price discounts for short-term capacity products at all NTS entry and exit points.

What are Multipliers for?

Discussions (3/3)

- Low multipliers will increase revenue under recovery and lead to greater socialisation of costs through commodity charge or unit capacity charge
- Should multipliers be a factor in releasing maximum amount of capacity to the market
- Would level of multipliers act as a barrier to access or limit cross border trade?
 - Discounts considered by most to promote trade
- Should other EU member states be compared to? Whilst other countries have ST higher priced than LT, their charging regimes can be different
- Who should bear the cost of infrastructure? All users will bear costs and the allocation will depend on form of adjustments.

Commentary on options – Summary of views

Multiplier Level	Some of the views expressed on the options
Multipliers less than 1	<ul style="list-style-type: none"> • May incentivise ST bookings. Is this an issue if reliance moves to ST bookings over LT? • Could this drive a more unstable, less predictable “top up” charge? Generally thought that it won’t. • Some may feel it necessary to book to avoid substitution so book LT therefore subsidising ST capacity buyers. • Would this encourage more ST liquidity? Is this beneficial to GB (balanced against the expectation that any revenue shortfall is picked up by higher short term “top up” charges (e.g. a flow based or capacity based postalised charge) and therefore comfortable to pay these? • Might promote bookings more likely to be closer to what is needed (providing multiplier not too low), however shippers still value optionality in bookings
Multipliers of 1	<ul style="list-style-type: none"> • Might be most predictable in nature – no preference between Long Term and short term, lets the market decide what it prefers and does not time limit decision making with less price variance between LT and ST • Would it incentivise a certain behaviour? <ul style="list-style-type: none"> • lets market decide how they wish to book – less driven by price if LT & ST same price? • Might incentivise behaviour towards ST bookings if no difference between LT and ST as market needs flexibility • Might promote bookings more likely to be closer to what is needed, however shippers still value optionality in bookings
Multipliers greater than 1	<ul style="list-style-type: none"> • May incentivise longer term bookings, does not unduly penalise those who have chosen to book, or needed to book LT, depending on the adjustment mechanism • Does this value what ST bookings provide to the GB market? • Could reduce trading at NBP, might this impact security of supply or make it less attractive to direct gas to GB • If used for revenue recovery then would this make overall charges more un-predictable? Makes adjustments proportional and less evenly spread. • Might promote bookings more likely to be closer to what is needed, however shippers still value optionality in bookings

Most on the call on 26 June, but not all, favoured multipliers of less than 1 over other options and to not use Multipliers as a means of revenue recovery.

Additional reference information

- NERA report for the Gas Forum on Exit Reform from 2005:

<http://www.nera.com/publications/archive/2005/review-of-the-proposed-gas-exit-arrangements-a-report-for-the-g.html>

- Section 4 relates to charging

Gas Charging Review



Avoiding Inefficient bypass of the NTS sub-group (29 June) summary

★ Objectives – Key questions:

Avoiding inefficient bypass of the NTS

- Does the principle of trying to avoid inefficient bypass still exist?
- Are previous Shorthaul failing still relevant?
- What principle do we want to achieve? What is the purpose of avoiding inefficient bypass?
- Design needs to be fit for purpose
- Is the current formula structurally wrong?
- Flexibility of the product
- How to cost the product?
- Transmissions or Non-Transmission

Not in scope at this sub group discussion

- *The discussion is not about what avoiding inefficient bypass is a discount from, or an alternative to, and more focused on the purpose and initial calculation*
- *Recognise that we can't totally progress until progress on the main tariff structure is made. This discussion is on the basics, the final version can be focused more when we know if we are going for capacity or commodity under Transmission*



Gas Charging Review:

Avoiding inefficient bypass of the NTS (1/2)

Question	Comments from discussion	Summary of outcomes
<ul style="list-style-type: none"> Does the principle of trying to avoid inefficient bypass still exist? 	<ul style="list-style-type: none"> General agreement that the principle of discouraging inefficient bypass of the NTS is beneficial Alternative pipelines do exist so build can be a option for some rather than use NTS For exit points located near entry points, may not be using much of NTS, however as general principle, all benefit from a the network and the access it provides In a locational model, is it still required? 	<ul style="list-style-type: none"> A product to use NTS and discourage inefficient bypass considered beneficial to keep Should be a genuine alternative to investment and avoiding inefficient bypass
<ul style="list-style-type: none"> Are previously identified failings / issues still relevant from the current avoiding inefficient bypass product (shorthaul)? 	<ul style="list-style-type: none"> Analysis from NG presented (slides later in this deck) to show some trends (building on analysis done under NTSGCD11) Influence of Optional Commodity is high – some suggested this may be right, others thought the influence on other charges (i.e. cross subsidy) was high 	<ul style="list-style-type: none"> Influence / interaction needs to be considered. Provide analysis of how many sites are currently using optional commodity (with LDZ and Storage exit points taken out).
<ul style="list-style-type: none"> What principle do we want to achieve? What is the purpose of avoiding inefficient bypass? Design needs to be fit for purpose Is the current formula structurally wrong? 	<ul style="list-style-type: none"> Generally agreed that in some way it should reflect the cost of pipelines and be a form of discount against these investment costs Should planning be a feature in the design (typically planning can take up to 7yrs and optional commodity is available within days)? <ul style="list-style-type: none"> Acceptance that can get access to the product right away versus planning Should it be linked to capacity (e.g. LT Capacity) Current formula has a structure of combining a distance and non distance related components. Is this still relevant? Can the formula structure be self limiting in its nature to limit any application of constraining elements (e.g. distance, cost) 	<ul style="list-style-type: none"> Options for design to be reviewed Not considering any grandfathering Not much appetite to totally tear up the current product, consider in the options for reviewing. There is a preference for the product to be self limiting in design (e.g. through formula) rather than arbitrary parameters



Gas Charging Review:

Avoiding inefficient bypass of the NTS (2/2)

Question	Comments from discussion	Summary of outcomes
<ul style="list-style-type: none"> Flexibility of the product 	<ul style="list-style-type: none"> How flexible should this product be? What principle is this following? NG highlighted the current method of being able to change routes at short notice is not in keeping with the way in which genuine alternatives to investment may work. By restricting flexibility in some way, would this result in fixed price? 	<ul style="list-style-type: none"> Flexibility to be discussed further and how it should feature in the options for design of a charge.
<ul style="list-style-type: none"> How to cost the product? 	<ul style="list-style-type: none"> Costs are significantly out of date (some mentioned they'd see costs of £1m/km cost – to be reviewed as may be linked to connections) Generally agreed the costs need to be brought up to date If NG were to cost based on its typical investments, pipe sizes may be larger than would potentially be built as a bypass Cost information may be commercially sensitive Need to consider how to gather relevant up to date cost information What load factor should be used in the calculation? Currently 75%, what analysis can be done to review what a suitable LF might be? 	<ul style="list-style-type: none"> Look at options to which costs and what level of costs should be Produce analysis on utilisation of current optional commodity to see if this informs any views on LF
<ul style="list-style-type: none"> Transmissions or Non-Transmission 	<ul style="list-style-type: none"> Based on the cost inputs and the design, need to consider if this is a Transmission or Non Transmission related or both. May need to consider how IPs are charged and how / if options can be applied (e.g. CRRC if used not applicable to IPs) 	<ul style="list-style-type: none"> Further discussion needed. May be linked to how Transmission and Non Transmission are charged (Capacity / Commodity)

★ Gas Charging Review:

Avoiding inefficient bypass of the NTS

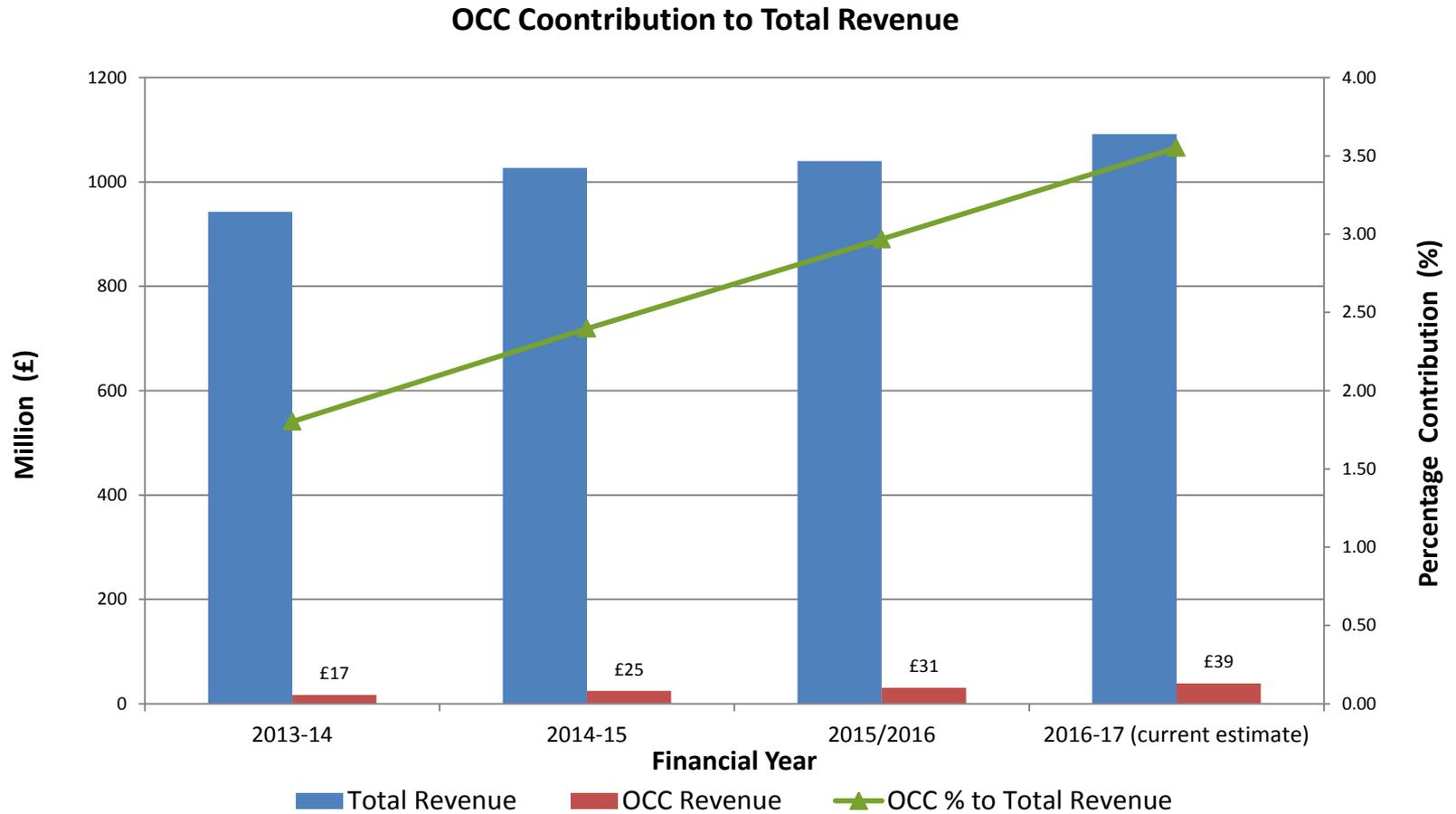
- Some general themes:
 - A product to use NTS and discourage inefficient bypass considered beneficial to keep
 - Generally agreed that in some way it should reflect the cost of pipelines and be a form of discount against these investment costs
 - Preference for the product to be self limiting in design (e.g. through formula) rather than arbitrary parameters

★ NTS Optional Commodity Charge (OCC) Understanding the Calculations

- OCC pay for the flow from selected Entry point to Exit point
 - i.e. if one unit flows from Entry Point A to Exit Point B that would be one unit volume of data
- If this is not on OCC then the volume associated to TO and SO Commodity would need to be double the volume that was removed from the OCC as this would be attracting both the Entry and Exit Commodity charges
- For example:
 - 250Gwh volume on OCC
 - Increases TO Entry Commodity Volume by 250GWh
 - Increases TO Exit Commodity Volume by 250GWh
 - Increases SO Commodity Volume by 500GWh (250GWh for Entry and 250GWh for Exit)



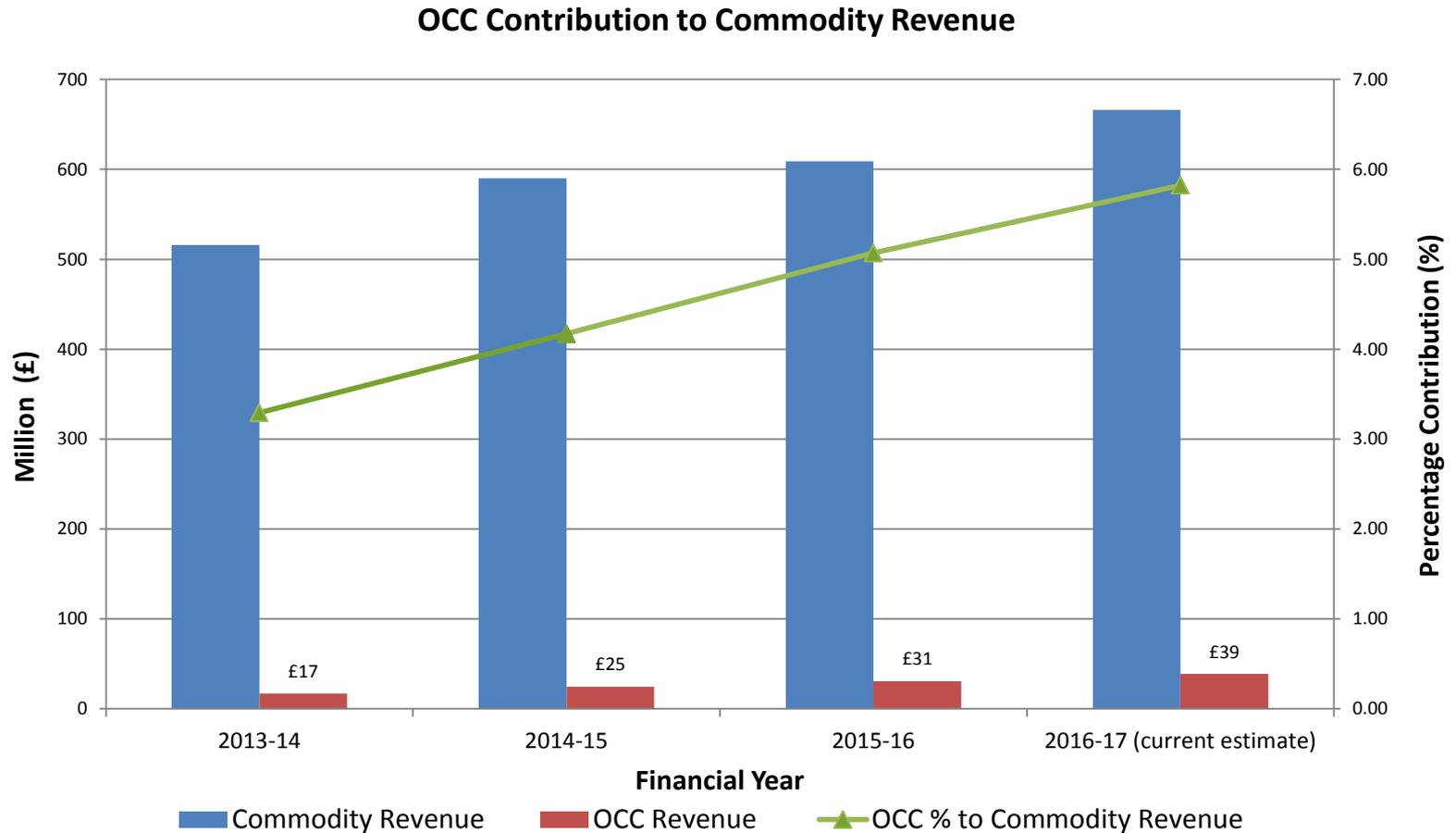
OCC Contribution to Total Revenue



Note: Latest data based on LT MAR Report produced May 2017



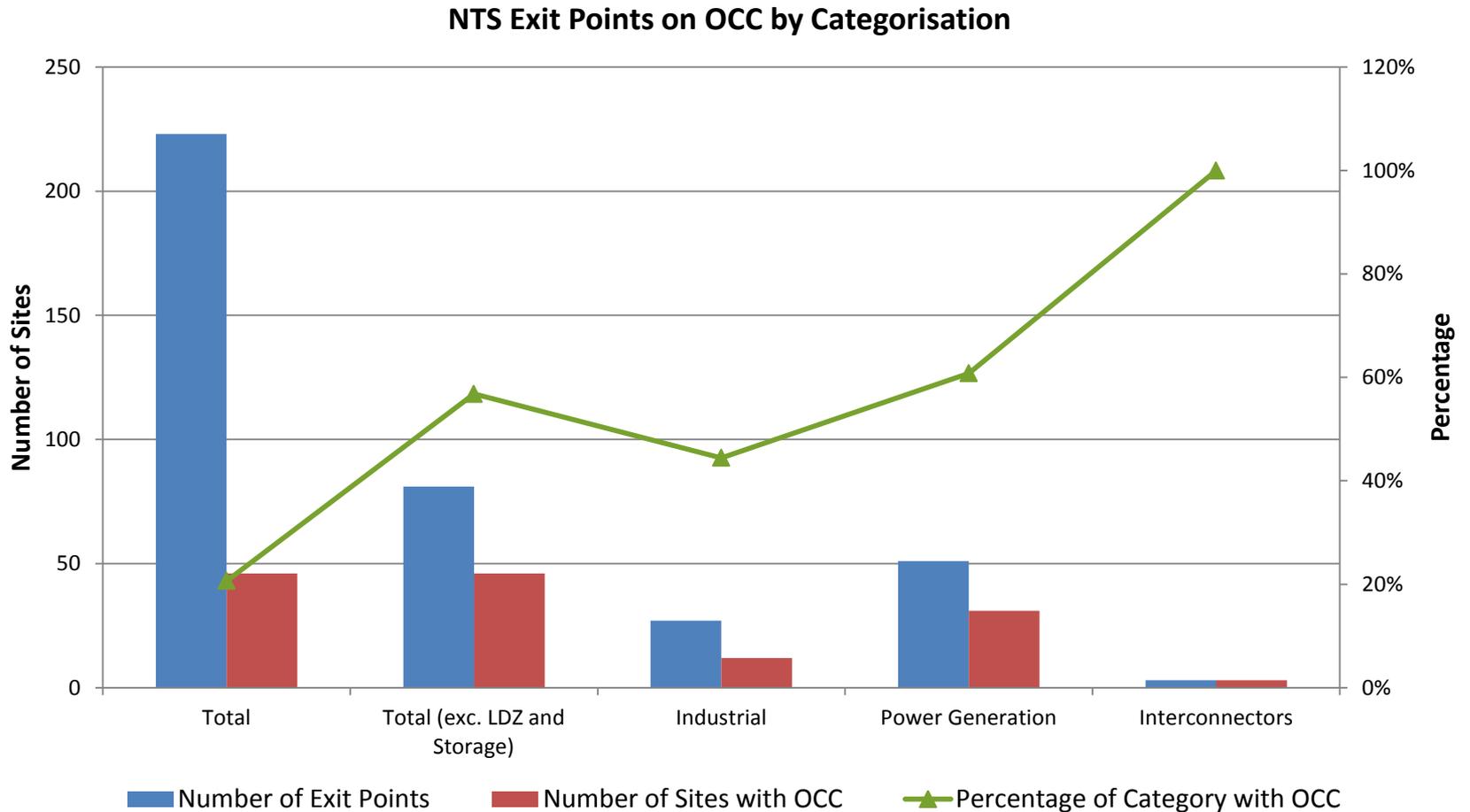
OCC Contribution to Commodity Revenue



Note: Latest data based on LT MAR Report from 2013/14 onwards



NTS Exit Points on OCC by Categorisation

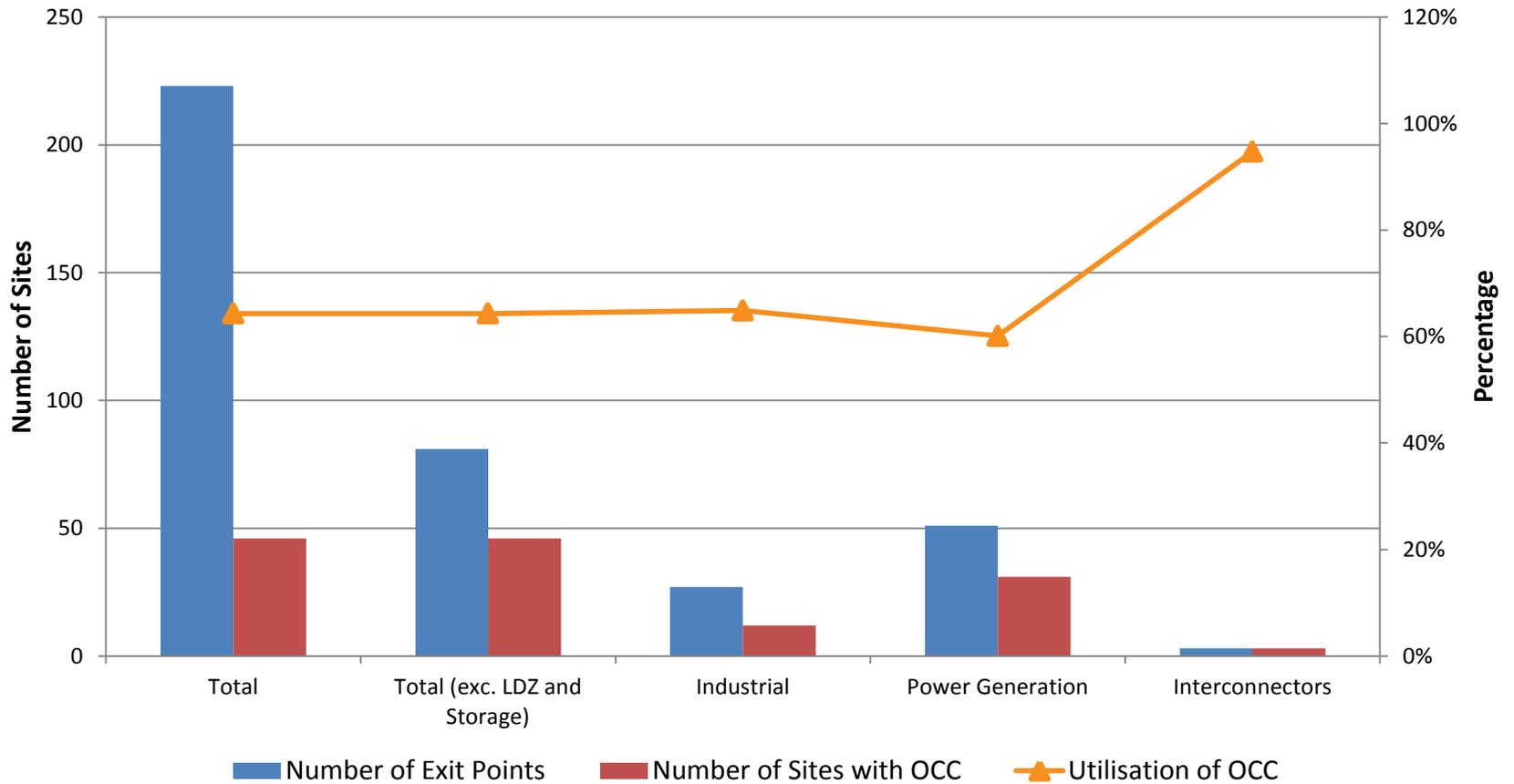


Note: Latest data based on April 2017 Final Commodity Charge Setting



NTS Exit Points on OCC by Categorisation

NTS Exit Points on OCC by Categorisation (including Shorthaul Utilisation Percentage)



Note: Latest data based on April 2017 Final Commodity Charge Setting

★ Impacts of NTS OCC on TO /SO

Commodity charges and Revenue Collection

	Financial Year	
	2014/15	2017/18
Revenue from NTS OCC (£m)	£16	£32
Revenues from commodity charge (excluding NTS OCC) (£m)	£624	£621
NTS OCC as % of commodity (£m)	2.56%	5.15%
Revenue from NTS OCC Users if paying adjusted TO/SO commodity rates (£m)	£142	£184
Revenue from TO/SO commodity users paying adjusted TO/SO commodity rates (i.e. without NTS OCC influence) (£m)	£500	£469
Total Commodity Revenue	£642m	£653m

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UNC Modification

★ Gas Charging Review: UNC 0621 Modification

- UNC 0621 Modification was sent to Panel on 2 June
- Voted to go to workgroup for development and back to Panel for January 2018
 - Twice monthly NTSCMFs, twice monthly Sub Groups
- As progress is made through the workgroups and sub groups UNC 0621 will be updated accordingly at the appropriate time

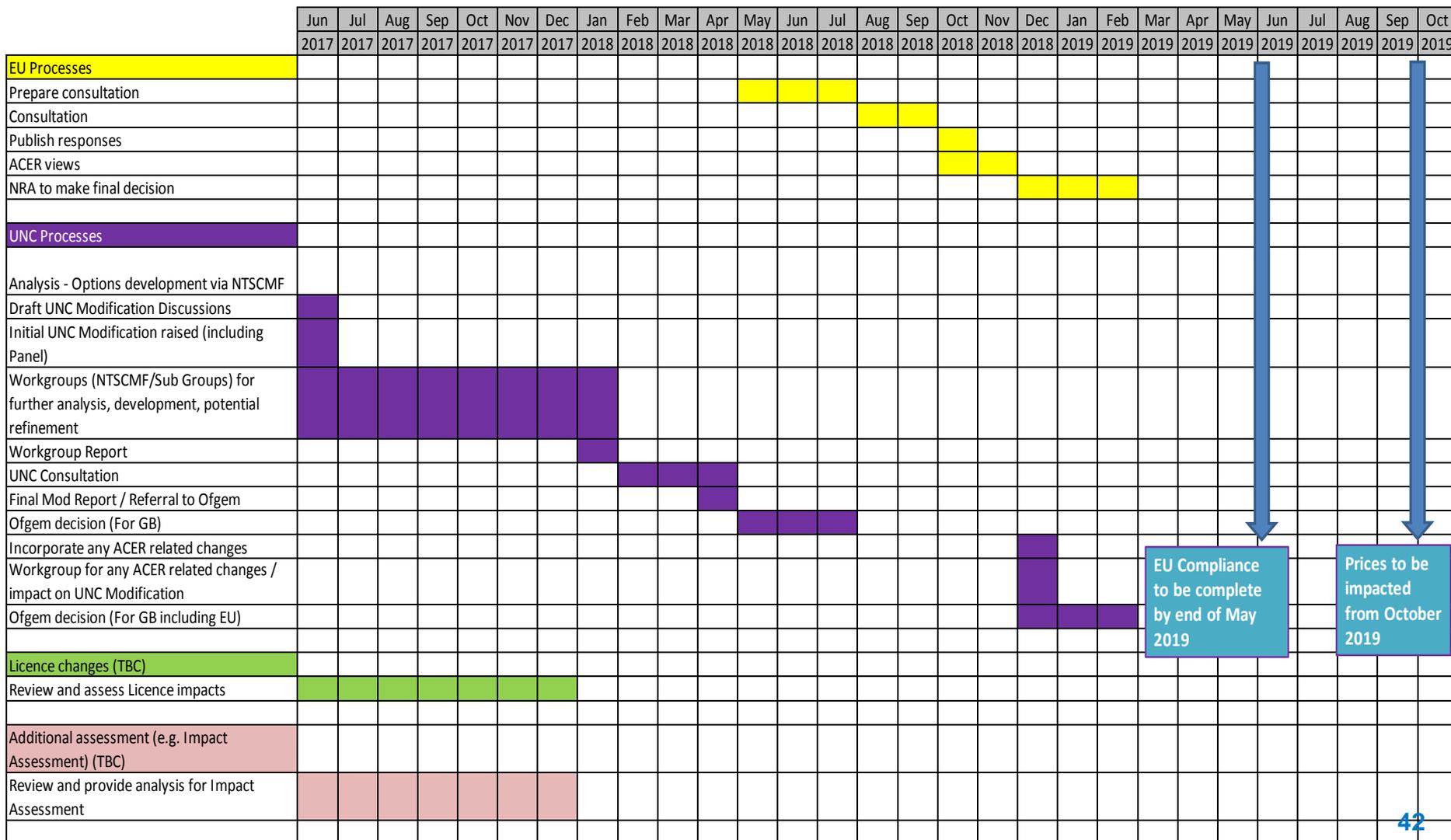
Gas Charging Review



Plan and change process

★ Plan and Change process

Timeline (simplified) for discussion



Gas Charging Review:

Topic Development – Discussion timeline (1/2)

Date	Meeting	Key topic to discuss [#]
30 May 13:00 – 15:00 (complete)	Sub Group	<ul style="list-style-type: none"> Forecasted Contracted Capacity
5 June (complete)	NTSCMF	<ul style="list-style-type: none"> Forecasted Contracted Capacity*
14 June 10:00 – 12:00 (complete)	Sub Group	<ul style="list-style-type: none"> Revenue Reconciliation / Recovery (may also include some views on Multipliers)
29 June 10:00 – 12:00 (complete)	Sub Group	<ul style="list-style-type: none"> Avoiding inefficient bypass of the NTS
7 July	NTSCMF	<ul style="list-style-type: none"> CWD Updated Model Revenue Reconciliation / Recovery* Avoiding inefficient bypass of the NTS*
11 July 13:00 – 15:00	Sub Group	<ul style="list-style-type: none"> Specific Capacity Discounts
17 July	NTSCMF	<ul style="list-style-type: none"> Specific Capacity Discounts* Non-Transmission Services Model*
25 July 13:00 – 15:00	Sub group	<ul style="list-style-type: none"> Multipliers

[#]There may be some occasions where the topic runs over a few meetings, we will revisit the sub-group / NTSCMF meeting topic if this happens.

* These topics will be relaying outputs from the sub-group in addition to further discussion at NTSCMFs

Gas Charging Review:

Topic Development – Discussion timeline (2/2)

Date	Meeting	Key topic to discuss#
2 August	NTSCMF	<ul style="list-style-type: none"> Multipliers* Avoiding inefficient bypass of the NTS
8 August 13:00 – 15:00	Sub Group	<ul style="list-style-type: none"> Interruptible
23 August	NTSCMF	<ul style="list-style-type: none"> Interruptible*
24 August 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> Existing Contracts
5 September	NTSCMF	<ul style="list-style-type: none"> Existing Contracts*
8 September 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> Forecasted Contracted Capacity
12 September 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> Avoiding inefficient bypass of the NTS
19 September 13:00 – 15:00	Sub Group	<ul style="list-style-type: none"> Multipliers / Interruptible
26 September	NTSCMF	<ul style="list-style-type: none"> Forecasted Contracted Capacity Avoiding inefficient bypass of the NTS Multipliers / Interruptible
28 September 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> To be confirmed

N.B. Meetings beyond September 2017 are to be confirmed

★ Gas Charging Review:

Topic Development – Additional Meetings

- As required there may be additional Sub Group meetings scheduled. All outputs will be shared with NTSCMF
 - E.g. short meeting was held on Multipliers on the 26 June
- These will be used to help keep to the timeline and to further the discussions on the necessary topics

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Next Steps



Next Steps

- Further development of the Calculation Models
- Sub Groups as per timetable
- Next NTSCMF on 17 July

Contact us:

box.transmissioncapacityandcharging@nationalgrid.com



Colin Williams
Charging Development Manager
Tel: +44 (0)1926 65 5916
Mob: +44 (0)7785 451776
Email: colin.williams@nationalgrid.com



Laura Johnson
Senior Commercial Analyst
Tel: +44 (0)1926 65 6160
Email: laura.johnson@nationalgrid.com



Adam Bates
Commercial Analyst
Tel: +44 (0)1926 65 4338
Email: adam.bates@nationalgrid.com

Jenny Phillips
Gas Capacity and Charging
Development Manager
Tel: +44 (0)1926 65 3977
Mob: +44 (0) 7776 318646
Email: jenny.phillips@nationalgrid.com

Colin Hamilton
EU Code Development Manager
Tel: +44 (0)1926 65 3423
Mob: +44 (0) 7971 760360
Email: colin.j.hamilton@nationalgrid.com