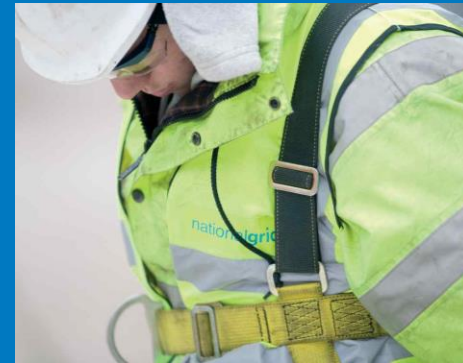


Gas Charging Review



NTSCMF – 23 August 2017

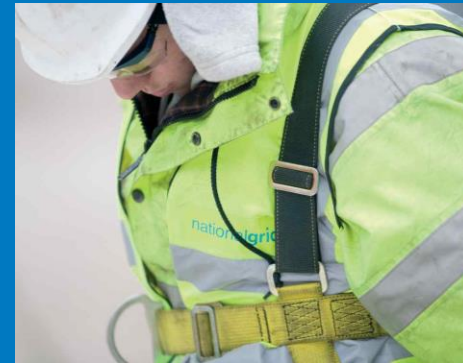
Final slide pack – Update provided on 22 August 2017. All slides added or update are marked with a blue star



Agenda

Area	Detail
Sub-workgroups	<ul style="list-style-type: none">• Output / summary of recent sub groups<ul style="list-style-type: none">• Interruptible
EU Tariff Code Update	<ul style="list-style-type: none">• EU Tariff Code Update
Specific Capacity Discounts	<ul style="list-style-type: none">• Reminder of the outcomes from recent discussions
Non-Transmission Services	<ul style="list-style-type: none">• Non-Transmission Services and options for charging arrangements
Action 0707	<ul style="list-style-type: none">• Influence on entry vs exit impact in the CWD model of existing contracts
Action 0801	<ul style="list-style-type: none">• Analysis of Exit capacity booking and revenue recovered long term and day ahead as an aggregate
Plan and change process	<ul style="list-style-type: none">• Overview of the future sub groups and NTSCMF meetings and their focus
UNC Modification	<ul style="list-style-type: none">• Any updates related to UNC 0621
Next Steps	<ul style="list-style-type: none">• Next Steps

Gas Charging Review



EU Tariff Code – Current Outlook
Colin Hamilton



ENTSOG 2nd TAR NC Implementation Workshop

nationalgrid

- **Second External TAR NC Implementation Workshop** has been changed to **5 October**.
- Venue is the Diamant Conference Centre – it has been renamed to **BluePoint Brussels**.
- Official notification with details on ENTSOG website is imminent
- Updated IDoc (Implementation Document) now being finalised



ENTSOG 2nd TAR NC Implementation Workshop

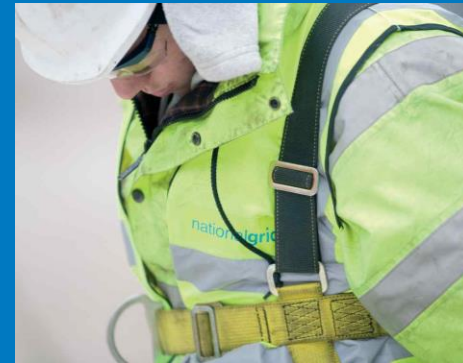
- Draft agenda compiled on the basis of feedback received at the 1st Implementation Workshop, stakeholder comments and the 2nd application date compliance
- 4 sessions:
 - 1st Session: Transparency
 - 2nd Session: NRA/ACER perspective
 - 3rd Session: Addressing stakeholder concerns
 - 4th Session: Up-coming year/Implementation and Effect Monitoring



Combined ASEP Mod

- Proposed Mod on treatment of capacity at combined ASEPs
 - Mod will consider introduction of different classifications of capacity at ASEPs to allow different charging treatments
 - E.g. “storage capacity”, “abandoned capacity”
- Industry Webex **29 August 2017**
 - To receive joining details contact box.transmissioncapacityandcharging@nationalgrid.com
- Industry discussion on **7 September** (after Trans. WG)

Gas Charging Review



Output from sub workgroups

Gas Charging Review:

Output from sub workgroup

- One sub group since 02 August NTSCMF
 - 08 August – Interruptible
- All documentation and outputs, when updated from the meetings will be available on the NTSCMF pages as part of the meeting material:

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

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

- And will also be updating the summary documents in the document library

Gas Charging Review:

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

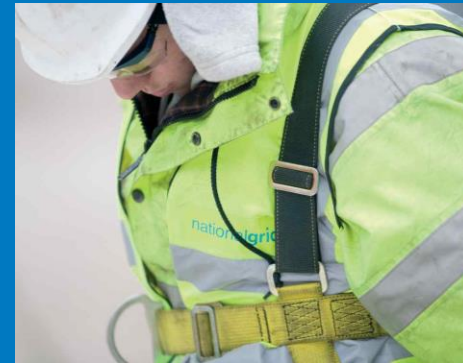
box.transmissioncapacityandcharging@nationalgrid.com

Gas Charging Review:

Sub-group output summary

- 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
- These are presented in the relevant parts of the NTSCMF material

Gas Charging Review



Interruptible (08 August) summary and additional supporting information



Gas Charging Review:

Interruptible – Background information

- Following the sub group on 8 August some background information was requested
 - Comparison between Entry interruptible and Exit off-peak
 - Proportions of capacity bookings and revenues associated to interruptible / off-peak
 - Links to supporting information
- This is provided in the following slides in addition to the summary of the 8 August discussions



Interruptible : Links to supporting information

- Incentive Information Booklet:

<http://www2.nationalgrid.com/UK/Industry-information/Gas-system-operator-incentives/Incentives/>

Further information on the Gas System Operator Incentive schemes, including past performance is provided on this page

- Constraint management webinar:

<http://www2.nationalgrid.com/UK/Industry-information/Gas-transmission-operational-data/Webinars/>

- National Grid's capacity guide (relevant section of UNC = TPD Section B 2.5.10 and 3.6.2):

<http://www2.nationalgrid.com/UK/industry-information/Supporting-information/>

- TAR Implementation document:

https://www.entsog.eu/public/uploads/files/publications/Tariffs/2017/170322_ENTSOG_TAR%20NC%20IDoc_High-Res.pdf



Comparison of Entry and Exit Interruptible/Off-Peak

Both products	<p>Can be scaled back by National Grid dependent on the ability of the system to provide the capacity on the day in question.</p> <p>Will always be “scaled back” prior to any buyback of firm capacity</p> <p>If there is a requirement to reduce Interruptible/Off-Peak capacity the affected customers will not receive compensation.</p> <p>Primarily an “anti-hoarding” mechanism and is made available via a daily auction. Hoarding is where a party holds onto capacity but does not use it. By doing this others are prevented from gaining access to the market and it is therefore anti-competitive.</p>	
	Entry Interruptible	Exit/Off-Peak
Release quantity calculations	UIOLI + discretionary	UIOLI + MNEPOR + discretionary
Shippers	Multiple shippers at each ASEP	Predominately single shipper points
Recent history of interruption	Some history of scale back in last year	No history of scale back in last year
Allocation times	DADSEC is allocated at 2pm, 5pm and 1am on D-1 DISEC is allocated at 2pm on D-1	DADNEX is allocated at 3pm on D-1 DISEC is allocated at 3pm on D-1



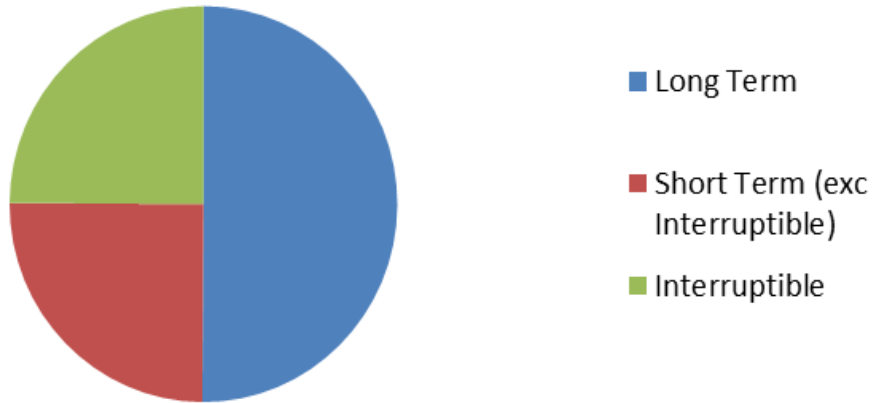
Interruptible: Release quantities of Day Ahead Interruptible/Off-Peak

	Entry Interruptible	Exit Off-Peak
Day Ahead Release calculations	<ul style="list-style-type: none">• <u>Unutilised (commonly known as Use it or Lose it (UIOLI))</u> - based on a rolling quantity of unutilised Firm capacity over the preceding 30 day period (from D-7). Calculated point by point and offered point by point.• <u>Discretionary</u> – National Grid can make additional Interruptible Entry Capacity available to the market at its discretion.	<ul style="list-style-type: none">• <u>Unutilised (commonly known as Use it or Lose it (UIOLI))</u> – based on a rolling quantity of unutilised Firm capacity over the preceding 30 day period (from D-7). Calculated point by point and offered point by point.• <u>Unutilised Maximum NTS Exit Point Offtake Rate (MNEPOR)</u> – At 13:30 D-1 the NTS Demand Forecast is published for D. Where this demand forecast is less than 80% of the annual peak 1 in 20 peak demand, National Grid is obligated to release any remaining capacity up to the MNEPOR level as Off Peak capacity• <u>Discretionary</u> - National Grid can make additional Off Peak capacity available to the market at its discretion.

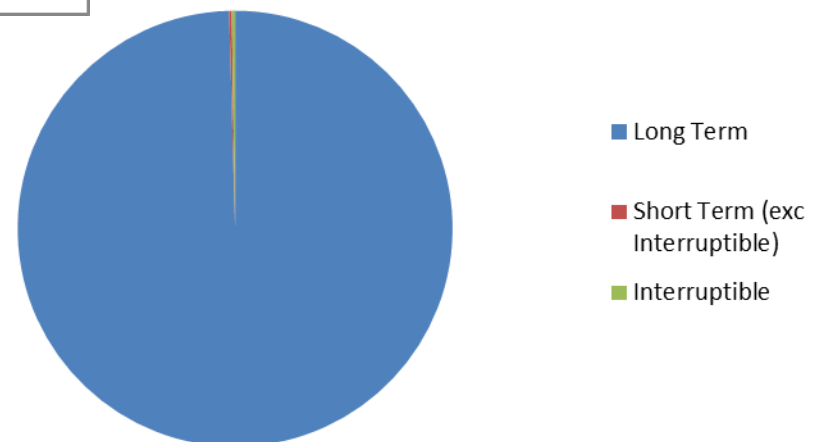


Entry Capacity Booked and Revenue for 2015/16

Entry Capacity Booked - 2015/16



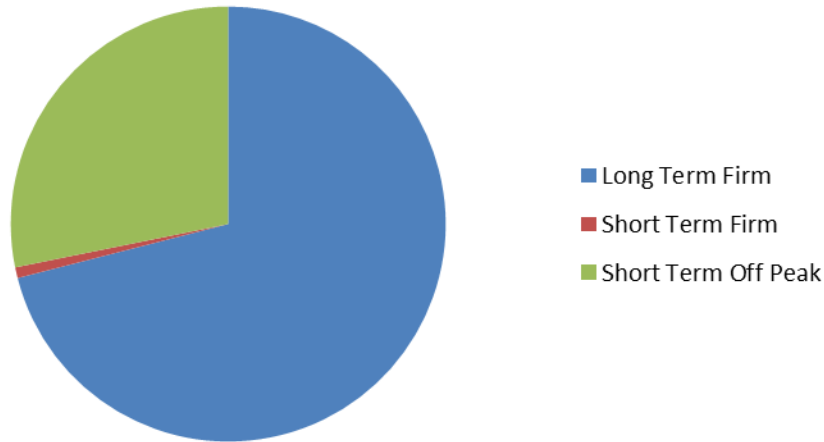
Entry Revenue - 2015/16



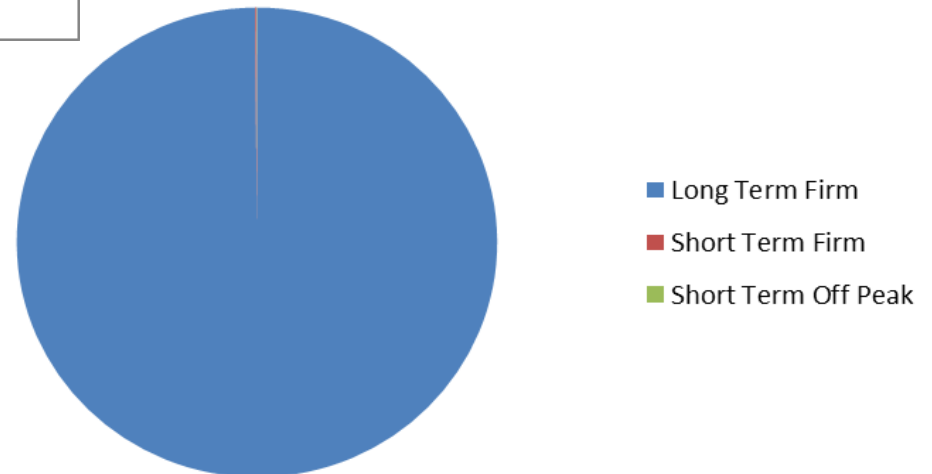


Exit Capacity Booked and Revenue for 2015/16

Exit Capacity Booked - 2015/16



Exit Revenue - 2015/16





Interruptible Capacity and revenues

	Summary of current arrangements
TO	<ul style="list-style-type: none">• No interruptible capacity income (Entry), Off-Peak (Exit) is treated as TO revenue
SO	<ul style="list-style-type: none">• Interruptible capacity income (Entry), Off-Peak (Exit) comes under the SO umbrella but revenues are redistributed via neutrality• National Grid is subject to a Constraint Management Incentive and encompasses both Entry Capacity and Exit Capacity Constraint Management actions.• Performance is driven by the difference between the net constraint management costs over a year (i.e. constraint management costs less revenues from the sale of certain capacity products) and a target value for such costs.• SO revenue is made up of baseline allowance plus a number of adjustments (e.g. shrinkage, incentives)• Through the CM incentive (subject to cap/collar and sharing factor) it adjusts the SO revenue for year t for t-2 performance under the RIIO-T1 price control

Gas Charging Review: Interruptible nationalgrid

Objectives – Key questions to address

Suggested questions/areas to address

- What is interruptible / off-peak capacity for? (e.g. anti-hoarding, quick access)
 - Should interruptible / off-peak capacity be priced differently to firm capacity?
 - Differences between Entry Interruptible and Exit off-peak capacity?
- What value is placed on Interruptible / off-peak Capacity?
- Firm Capacity versus Interruptible / off-peak
 - How important is interruptible / off peak capacity and why?
- Measurement against Relevant Objectives, GTCR and Stakeholder Objectives and EU
 - Interruptible under TAR NC – Article 16 – is IP Specific article
 - Article 14(1)b of Gas Regulation (Regulation (EC) 715/2009)
 - Rationale for treating differently or same across all GB points?
- How to price interruptible?
 - Recognise any approach would still need to be justified against all required objectives / compliance

Gas Charging Review: Interruptible (1)

Question	Some of the views expressed for each question
What is interruptible / off-peak capacity for?	<ul style="list-style-type: none">• The topic of backhaul was raised. Whilst not part of this discussion at this stage, acknowledged that backhaul is something that will be considered.• There was a discussion on the current status of Interruptible in the context of volumes of capacity sold and the revenue associated to this - National Grid to present some material to highlight this information at future meeting (NTSCMF).• In addition to its use as a capacity hoarding mechanism and a method of providing short term access, the use of interruptible as a constraint management tool was discussed and the potential avoidance of NTS reinforcement costs.• Some participants proposed that the reserve price of interruptible should be lower than firm, to highlight the risk of the potential to be scaled back.• Some suggested risk should be rewarded, depending on the capacity products they purchase. So the higher the risk associated with the capacity, the lower the reserve price.• For a comparison between Entry and Exit, there are differences between the rules for how Interruptible (Entry) and Off-Peak (Exit) capacity is released.• Request to highlight the differences between Entry and Exit for interruptible - NG to provide some info on this at next available meeting (NTSCMF)• Is interruptible useful as a tool if it is not, or less likely, to be used?

Gas Charging Review: Interruptible (2)

Question	Some of the views expressed for each question
What value is placed on Interruptible / off-peak Capacity?	<ul style="list-style-type: none">• For Entry is there a liquidity point that interruptible contributes toward? Does having interruptible capacity provide for the flowing of marginal sources of gas?• By allowing access to the market, if those users are willing to pay the relevant flow based charges, should there be a discounted capacity product?• One participant/attendee highlighted historical data in relation to topic of interruptible e.g. Exit Reform, NERA report 2005.• Relevance to constrained (demand for capacity outstrips supply) market - having an NTS that is not generally considered constrained for capacity - this does not necessarily remove the need for having a capacity product such as that for interruptible capacity• Reference to EU - the Third package about promoting cross border access. Through changes, if making access more expensive would this restrict the flow of gas?• From a market point of view, in some instances, a “fair price” may not be an affordable one. For some a discounted, interruptible product may be a more palatable option over more expensive firm capacity.• From a cost / revenue recovery point of view, any discounts or separate charging arrangements does mean that recovery is placed elsewhere• Whilst the Transmission charges shippers will be charged overall will not change (i.e. The total amount of revenue NG will be required to collect), the overall impact of NG’s charges remains at between 2 and 3% of the domestic bill.

Gas Charging Review: Interruptible (3)

Question	Some of the views expressed for each question
<p>How to price interruptible?</p> <p>Measurement against Relevant Objectives, GTCR and Stakeholder Objectives and EU</p>	<ul style="list-style-type: none">• Discussion on how revenues flow related to interruptible capacity - NG to present some information to help illustrate this at future meeting (NTSCMF). Impacts on incentives to be understood• The incentive is part of RIIO-T1, T2 process about to be discussed in preparation for 2021. Incentives look back too and can therefore reconcile and there are caps and collars within the incentive including sharing factors to manage the incentive.• Reflecting risk associated to the interruption of capacity - if the risk is low then should the price not be closer to that of firm?• If firm was bought in place of interruptible then would this cause any operational issues?• Marginal price of providing capacity - this may not be as appropriate with the current arrangements, the market environment has changed from the time when current arrangements were implemented - price for interruptible therefore should also be reviewed in light of GTCR policy, EU codes and proposals to move to CWD charging for the RPM.• Consequences of totally firm capacity sales if interruptible was priced such that none was purchased - some concerns raised• Different priced capacity products - need leeway to do this for flexibility and not to limit choice• Electricity interaction referred to in the RIIO-T2 open letter from Ofgem - should this be considered?• If firm and interruptible were the same reserve price - what is the point of pricing all products the same?• Challenges to Ofgem on how they will assess any proposed change?

Gas Charging Review:

Interruptible (4)

Question	Some of the views expressed for each question
Firm Capacity versus Interruptible / off-peak	<ul style="list-style-type: none">• Probability of interruption - is this different between. Entry and Exit? There were discussions about if this is easier to predict on Entry and more challenging on Exit (e.g. Due to there being more Exit points than Entry points and the nature of Entry / Exit bookings)• Forward looking approach to determine interruptible probabilities may be difficult to do. If looking at current arrangements, especially looking up to a year ahead, probabilities would likely be very low.• For pricing then the arrangement should consider how other products are impacted. If more firm is bought would this increase the risk of buy-backs?• On the subject of capacity utilisation - with the baselines high, and usage low by comparison then it is unlikely that capacity will be interrupted - then can interruptible be considered a real tool if it is not used?• Is there a higher risk for Exit over Entry? And at shared or single user points?• If there is no discount then does it work as a firm product? Is it fair to set the reserve price for interruptible the same as the firm reserve price, and pay the same as firm reserve price but with different capacity rights?

Gas Charging Review: Interruptible – General Themes

- Summary of general themes:
 - Any pricing arrangement should recognise diverse range of NTS Users and the range of capacity products can suit varied requirements, that will include risk appetite and consider how this is reflected for interruptible
 - Products and methodology to release interruptible / off peak capacity to remain as per current arrangements
 - Entry and Exit can be considered separately re interruptible pricing
 - Can have IP and Non IP treatment
- Questions to address for pricing for both Entry interruptible and off peak Exit:
 - What is an appropriate arrangement to price interruptible / off peak relative to firm capacity justified against the required objectives?
 - How to determine the probability of interruption is key. All observations, in addition to that outlined in the TAR NC, should be provided to the group / NG.

Gas Charging Review

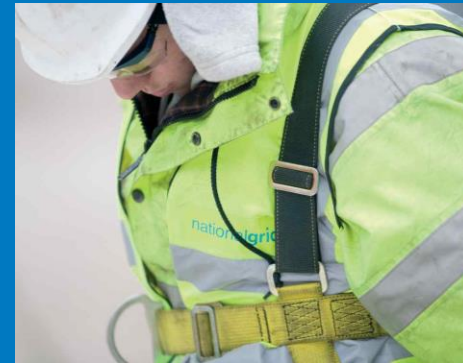


Specific Capacity Discounts

Re-cap of general themes from 17 July

- Some general themes:
 - 50% discount for Transmission Capacity charges for GB storage points Entry and Exit Capacity
 - No discount proposed for LNG or Interconnection
 - This is not necessarily a final position, and is subject to change to reflect proposals that may get adopted
 - Still need to discuss application of revenue recovery “top-up”, whether there is any cross over of logic or positions presented related to its application and for Non Transmission
 - Security of Supply is explicitly stated on Art 9 (and Recital 4) of the TAR Code. Any decision on a modification should consider how security of supply will be included.

Gas Charging Review



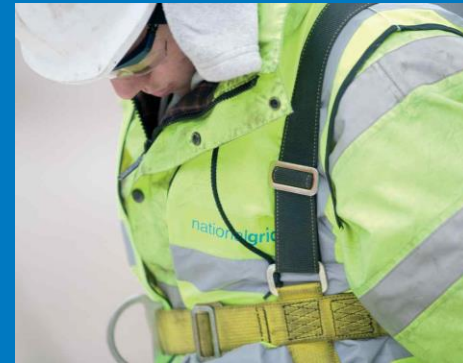
Non-Transmission Services

Gas Charging Review:

Non-Transmission Services Charging

- From earlier discussions there was a general view from the sub-group that using a commodity type charge (where a unit value is applied) was a simple, effective approach.
 - Using an aggregated view of flows (demand) would be similar to that used in the methodology in place when calculating commodity charges.
- If a flow based charge were used, there is a question of which flows this would apply to.
- Currently the Non Transmission Services Model available calculates applying to all flows
- We thought it useful to discuss Non Transmission Charging to further the development of a Non Transmission Charging Methodology

Gas Charging Review



Influence on entry vs exit impact in the CWD model of existing contracts (Action 0707)

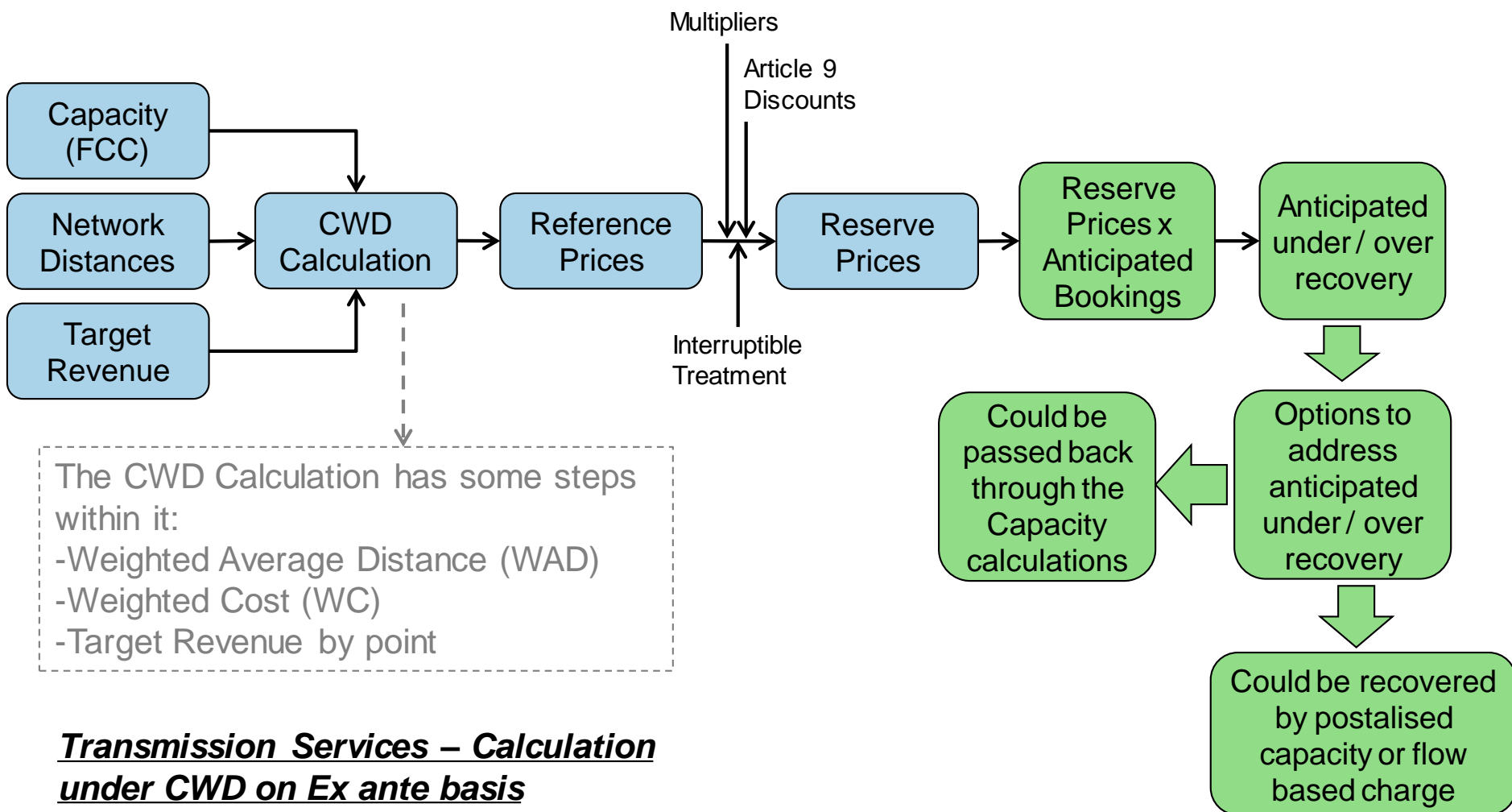


Gas Charging Review: CWD Calculation – Existing Contracts

- Existing contracts and how they are to be taken into account in any Capacity price calculations are not prescribed in TAR NC
- The method of inclusion in the modelling to date is as per material presented at NTSCMF on 2 August 2017 (replicated here for information in the following slides)



Gas Charging Review: CWD Calculation - simplified





Gas Charging Review:

Some key steps in CWD Calculations

	Entry Capacity Calculation	Exit Capacity Calculation
Weighted Average Distance (WAD)	$\frac{(\text{Sumproduct Exit Point FCC} \times \text{Distance to Entry Point})}{\text{Sum Exit Point FCC}}$	$\frac{(\text{Sumproduct Entry Point FCC}^{\#} \times \text{Distance to Exit Point})}{\text{Sum Entry Point FCC}^{\#}}$
Weighted Cost (WC)	$\frac{\text{Entry Point FCC}^* \times \text{WAD}}{(\text{Sumproduct Entry Point FCC}^* \times \text{WAD})}$	$\frac{\text{Exit Point FCC} \times \text{WAD}}{(\text{Sumproduct Exit Point FCC} \times \text{WAD})}$
Target Revenue by point (TRP)	Entry Target Revenue x WC	Exit Target Revenue x WC
Reference Price (RefP)	Entry TRP / Entry Point FCC*	Exit TRP / Exit Point FCC

Entry Point FCC: How the current CWD Model is designed:

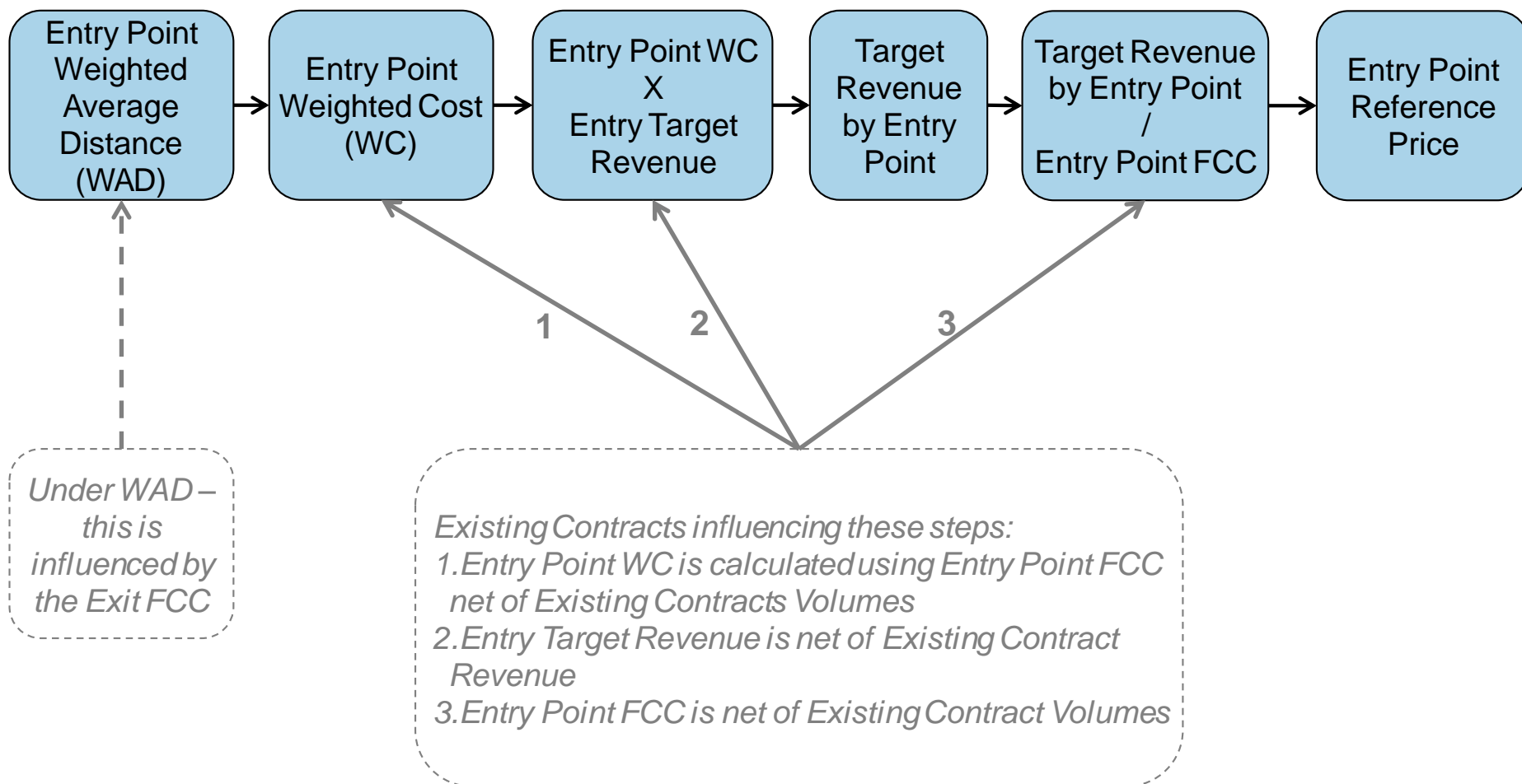
#Entry Point FCC – this is Gross Entry Point FCC (not reduced by Existing Contracts)

*Entry Point FCC – this is the Entry Point FCC net of Existing Contract Capacity

N.B. Exit Capacity has no Existing Contracts (as per article 35 TAR NC definition)

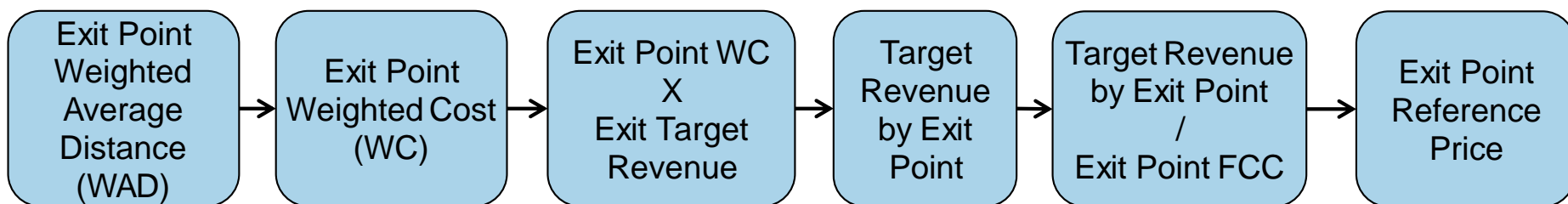


Gas Charging Review: Entry Calculations under CWD





Gas Charging Review: Exit Calculations under CWD



Under WAD – this is influenced by the Entry FCC. The Entry FCC used is the FCC without any Existing Contracts netted off (i.e. the Gross FCC).

If Existing contracts were netted off at this point then Exit would be impacted by ECs.



Gas Charging Review: CWD Calculation Summary

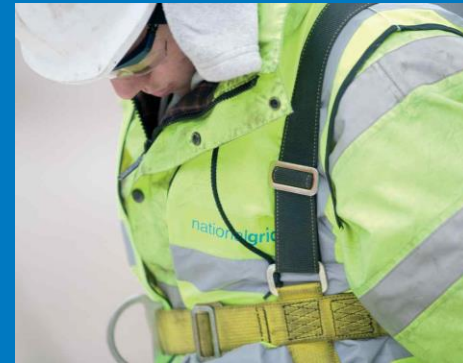
- Under CWD, Entry does influence Exit and vice versa at the Weighted Average Distance (WAD) stage, linked to the FCC levels
- Existing contracts, if netted off FCC will impact Entry Capacity calculations and may impact Exit
 - Level of impact not driving by overall level of FCC but the profile of capacity across the points, so the relative differences between points.
- Overall the FCC number for each has the most influence on its own charges when spreading the target revenue by point over the FCC per point



Gas Charging Review: Accommodating Existing Contracts

- For Entry, the method of incorporating Existing Contracts is not prescribed under TAR NC
- Existing Contracts (ECs) must be taken into account in the overall charging methodology.
 - Net capacity at each point with total entry target revenue net of ECs (as per available Transmission Services CWD Model available)
- A question was asked about the impact of pricing at a gross capacity level
 - Gross capacity at each point and entry target revenue excluding ECs
 - Discussion for potential impacts of such an approach

Gas Charging Review



Analysis of Exit capacity booking and revenue recovered long term and day ahead as an aggregate (Action 0801)

Action 0801

- Action 0801 - Analysis of Exit capacity booking and revenue recovered long term and day ahead as an aggregate
- We have expanded this action to:
 - Cover Entry capacity booking and revenue recovered as well as Exit
 - Split capacity and revenue by LT, ST (exc Interruptible) and Interruptible
 - Split by different categorisation of the entry/exit points
- Data provided for 2015/16 financial year

Revenues from commodity & capacity charges – different types of point for national grid

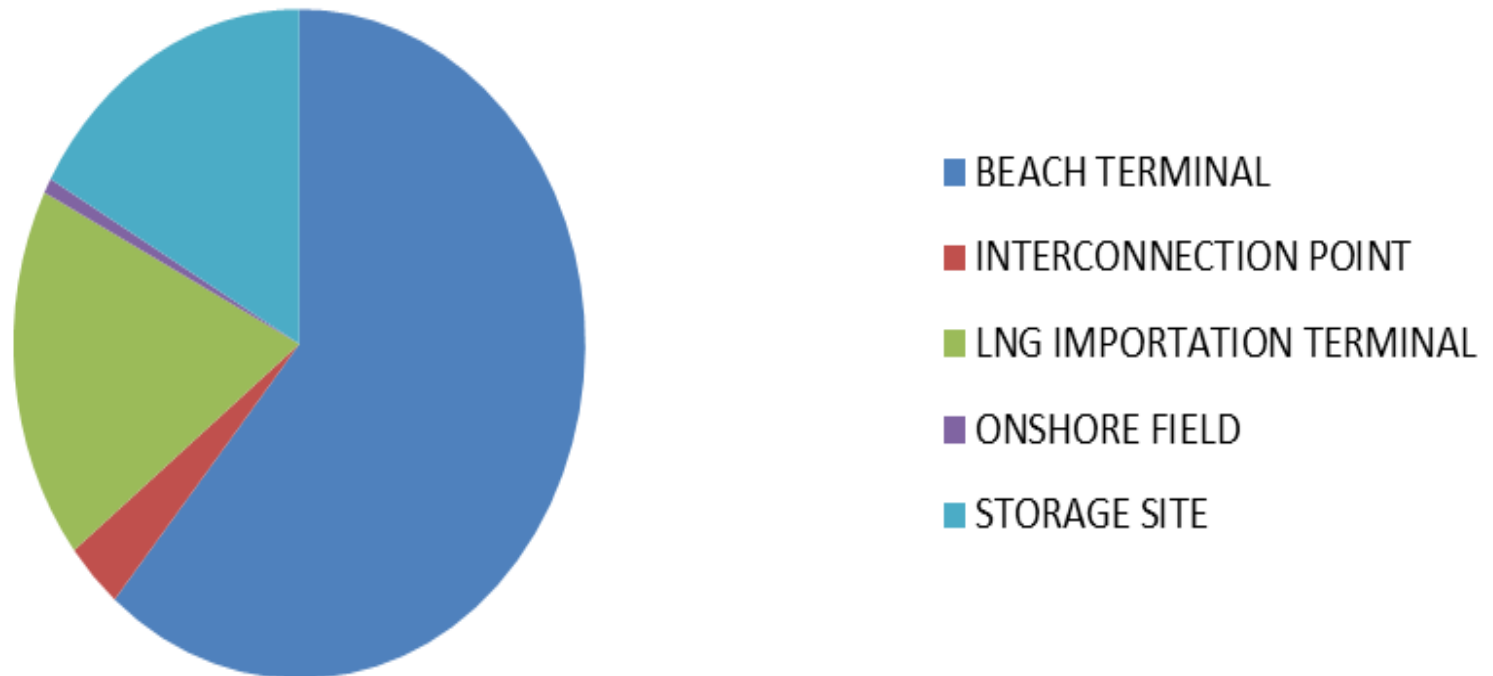
2015/16 – Entry – data from 02/08 meeting

- Entry Capacity and Commodity Revenue collected in 2015/16

Row Labels		Sum of Capacity		Sum of TO Commodity		Sum of SO Commodity
BEACH TERMINAL	£	58,478,503	£	229,107,921	£	89,772,296
INTERCONNECTION POINT	£	5,987,458	£	11,569,941	£	3,533,516
LNG IMPORTATION TERMINAL	£	36,997,418	£	45,324,440	£	15,267,010
ONSHORE FIELD	£	10,850	£	1,859,743	£	638,832
STORAGE SITE	£	12,618,694	£	-	£	-
Grand Total	£	114,092,924	£	287,862,045	£	109,211,655

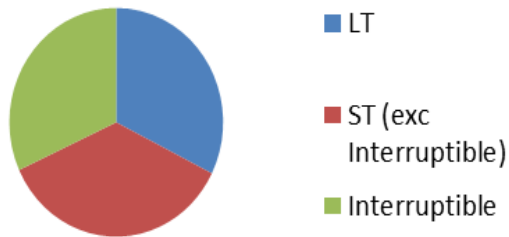
Total percentage of Entry capacity booked at each different category of point (15/16)

Total percentage of Entry capacity booked at each different category of point

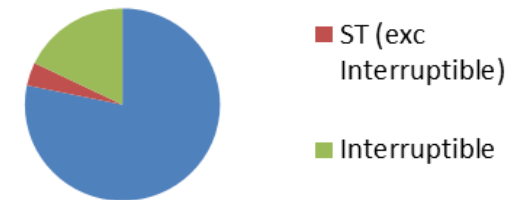


Entry Capacity Booked associated with capacity products (15/16)

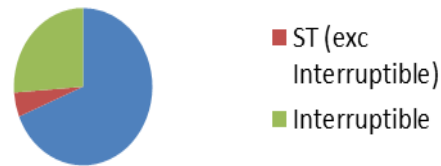
BEACH TERMINAL



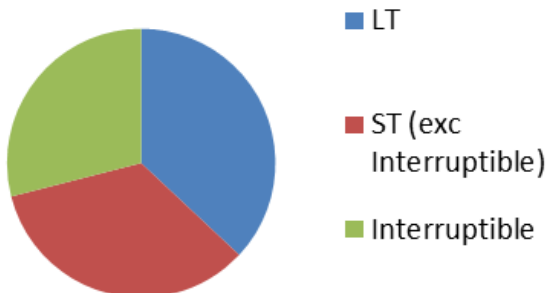
LNG IMPORTATION TERMINAL



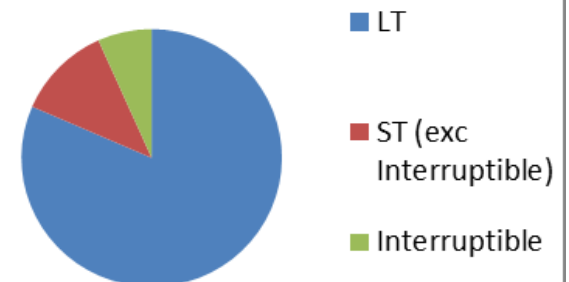
INTERCONNECTION POINT



ONSHORE FIELD

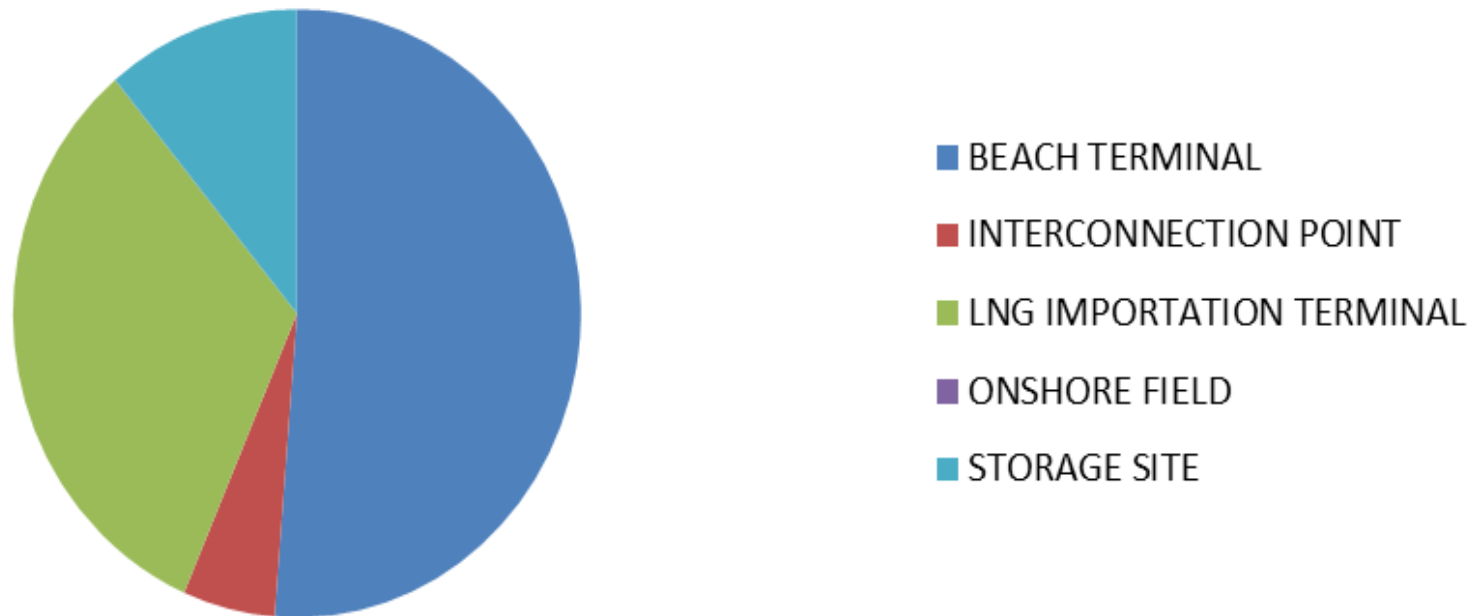


STORAGE SITE

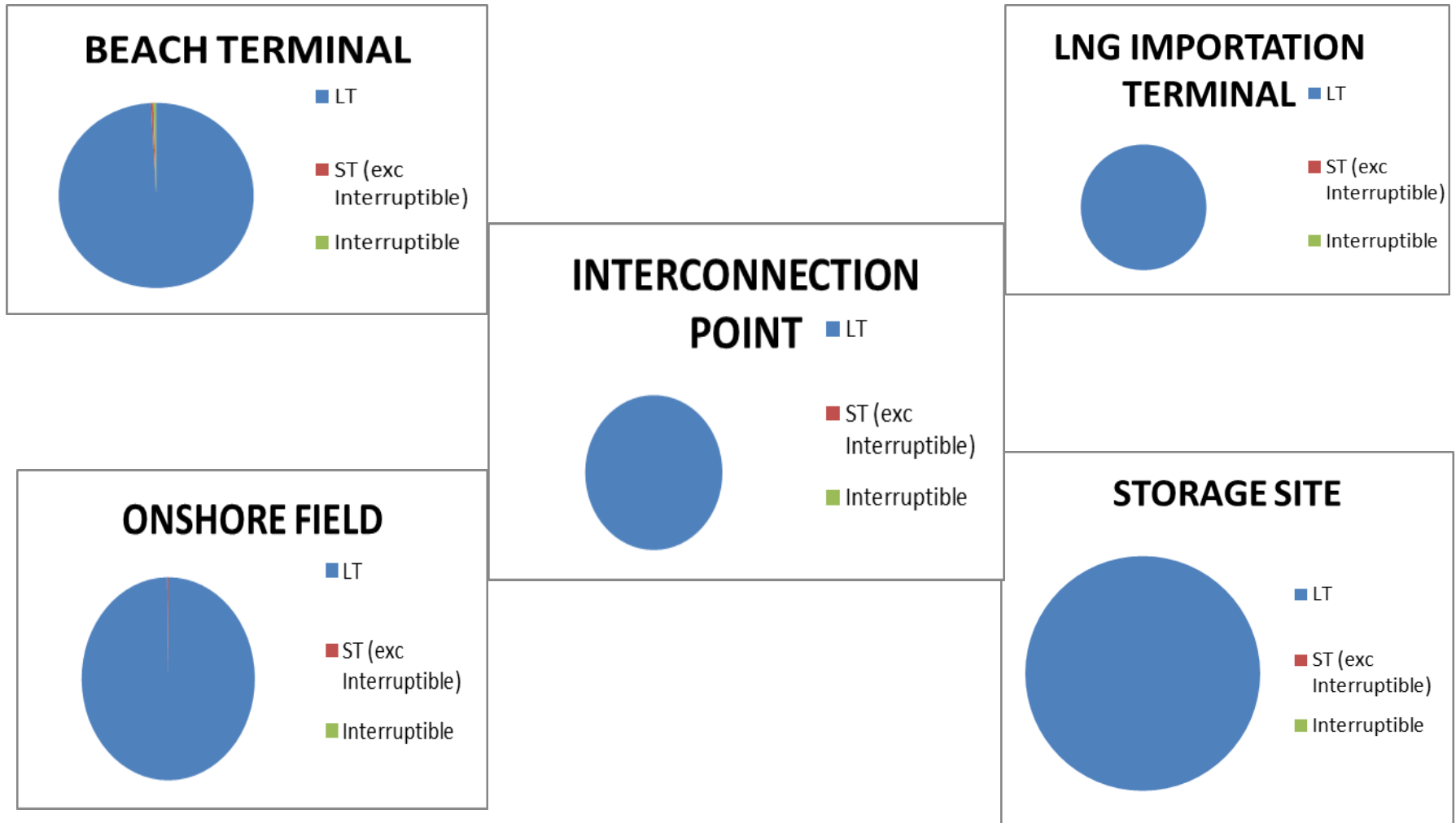


Total percentage of Entry revenue collected at each different category of point (15/16)

Total percentage of Entry revenue collected at each different category of point




Revenue associated with the Entry national grid capacity bookings (15/16)




For Information – Entry Capacity Booked by capacity product (15/16)

nationalgrid

Row Labels	 Sum of Long Term	Sum of Short Term (exc Interruptible)	Sum of Interruptible	Total
BEACH TERMINAL	2,183,520,490	2,415,920,444	2,148,901,853	6,748,342,786
INTERCONNECTION POINT	247,093,060	18,003,166	94,023,997	359,120,223
LNG IMPORTATION TERMINAL	1,556,302,466	77,344,832	356,045,511	1,989,692,810
ONSHORE FIELD	29,595,436	27,238,163	23,224,122	80,057,720
STORAGE SITE	1,510,219,218	218,475,580	124,208,134	1,852,902,932
Grand Total	5,526,730,669	2,756,982,185	2,746,403,617	11,030,116,471

For Information – Entry Revenue by capacity product (15/16)

Row Labels	 Sum of Long Term	Sum of Short Term (exc Interruptible)	Sum of Interruptible	Total
BEACH TERMINAL	£ 57,979,496	£ 221,573	£ 277,435	£ 58,478,503
INTERCONNECTION POINT	£ 5,986,465	£ 994	£ -	£ 5,987,458
LNG IMPORTATION TERMINAL	£ 36,997,403	£ 15	£ -	£ 36,997,418
ONSHORE FIELD	£ 10,828	£ 22	£ -	£ 10,850
STORAGE SITE	£ 12,618,249	£ 445	£ -	£ 12,618,694
Grand Total	£ 113,592,441	£ 223,048	£ 277,435	£ 114,092,924

Revenues from commodity & capacity charges – different types of point for 2015/16 – Exit – data from 02/08 meeting

nationalgrid

- Exit Capacity and Commodity Revenue collected in 2015/16

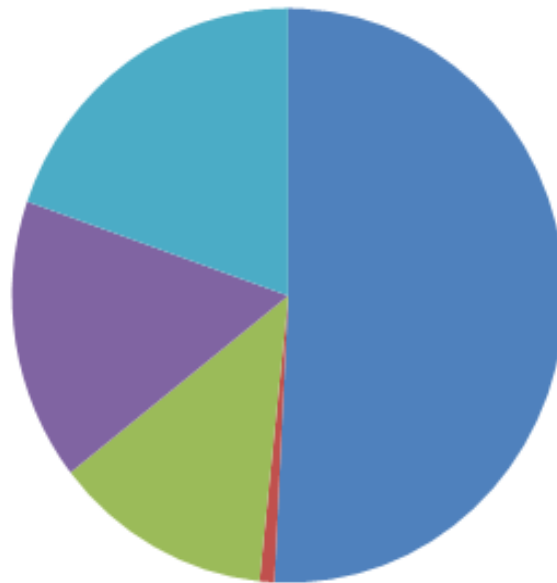
Row Labels	Sum of Capacity	Sum of TO Commodity	Sum of SO Commodity
DNO	186,440,410	-	-
Industrial	1,408,112	1,656,328	2,781,477
Interconnector	1,773,041	1,778,969	15,162,680
Power Station	19,489,166	15,785,790	29,479,969
Storage	848,413	-	-
LDZ	-	100,977,332	77,623,898
Grand Total	209,959,142	120,198,419	125,048,024

Total percentage of Exit capacity booked at each different category of point (15/16)

nationalgrid

Sum of Grand Total

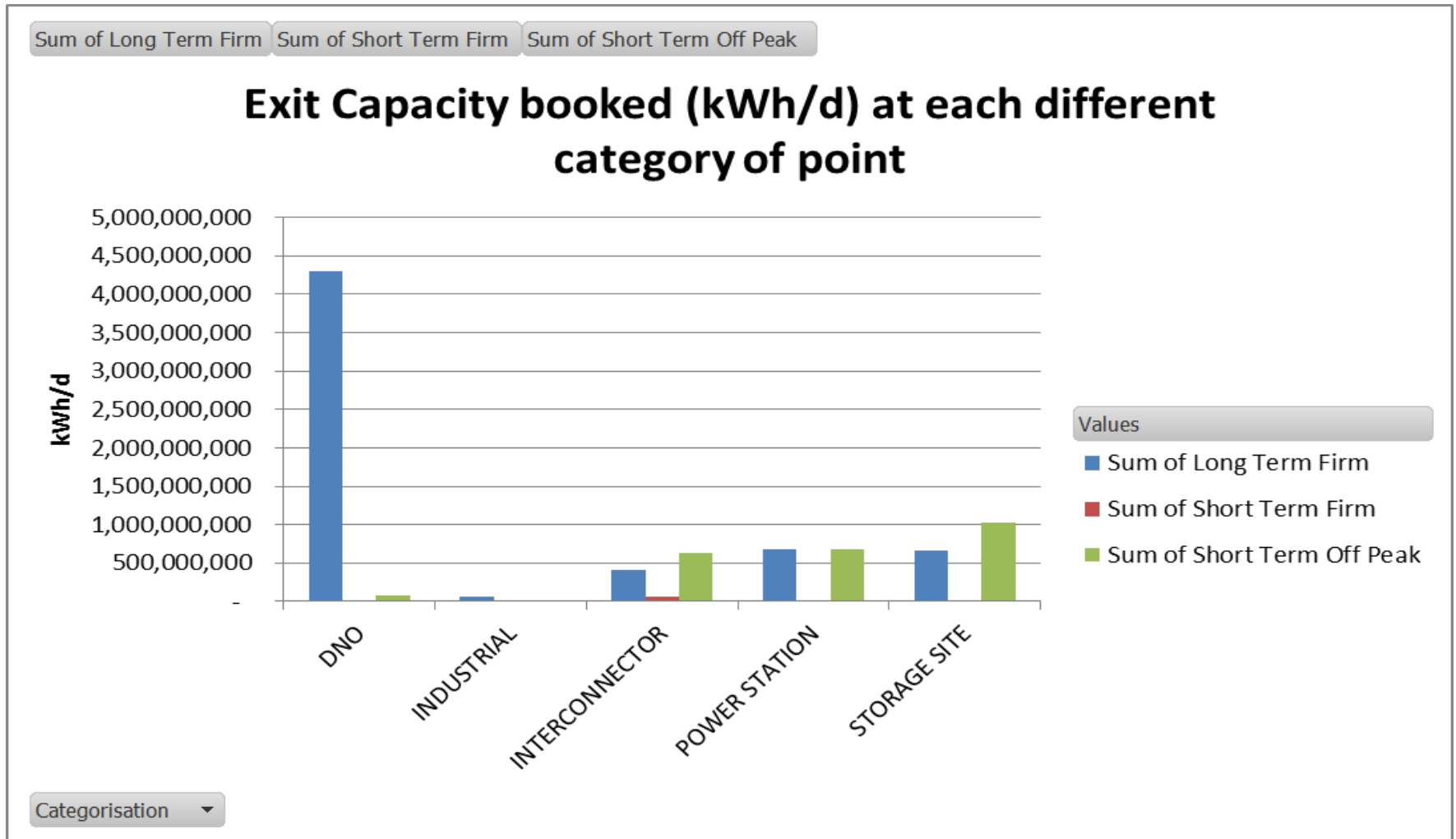
Total percentage of Exit capacity booked at each different category of point



Categorisation

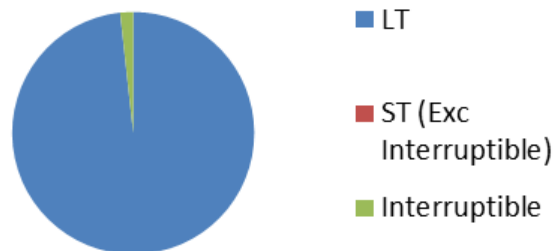
- DNO
- INDUSTRIAL
- INTERCONNECTOR
- POWER STATION
- STORAGE SITE

Exit Capacity booked (kWh/d) at each nationalgrid different category of point (15/16)

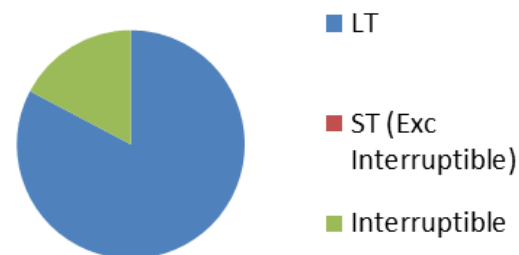


Exit Capacity Bookings associated with the capacity products (15/16)

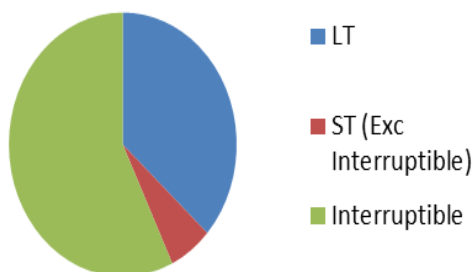
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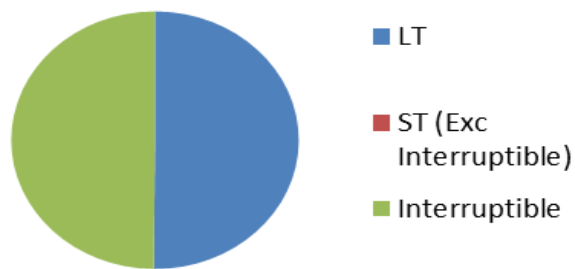
INDUSTRIAL



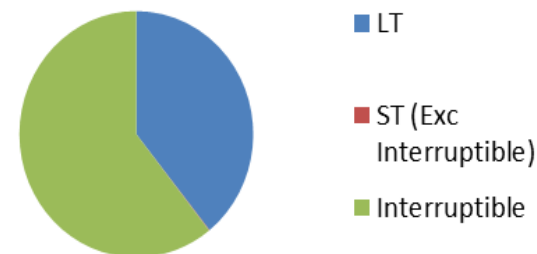
INTERCONNECTOR



POWER STATION



STORAGE SITE

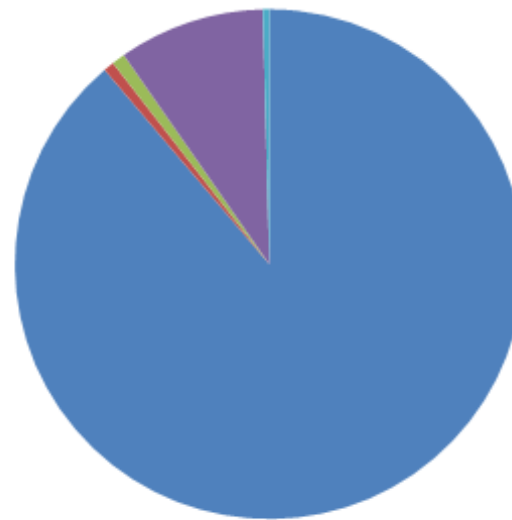


Total percentage of Exit revenue collected at each different categorisation of point (15/16)

nationalgrid

Sum of Grand Total

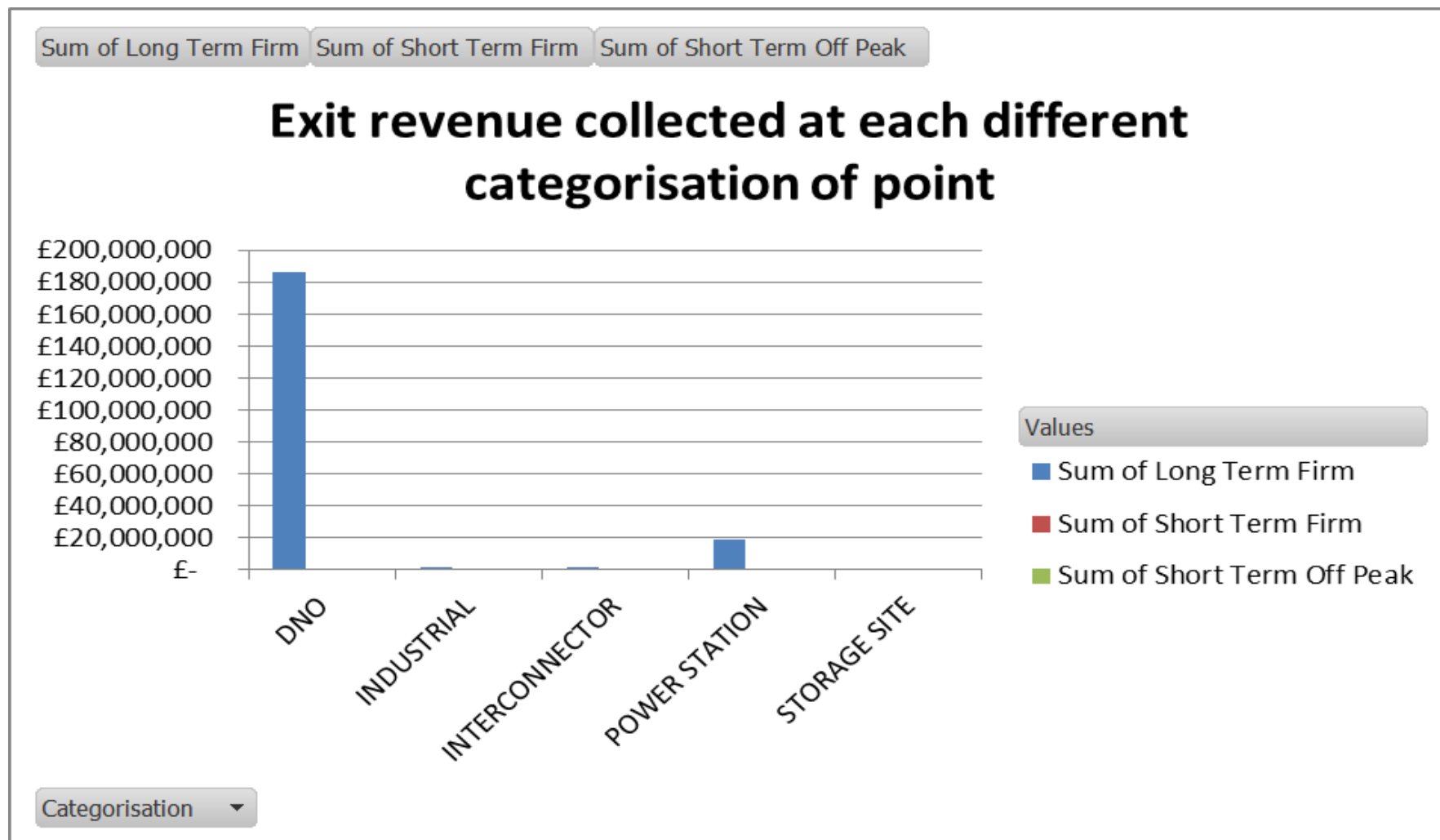
Total percentage of Exit revenue collected at each different categorisation of point



Categorisation ▼

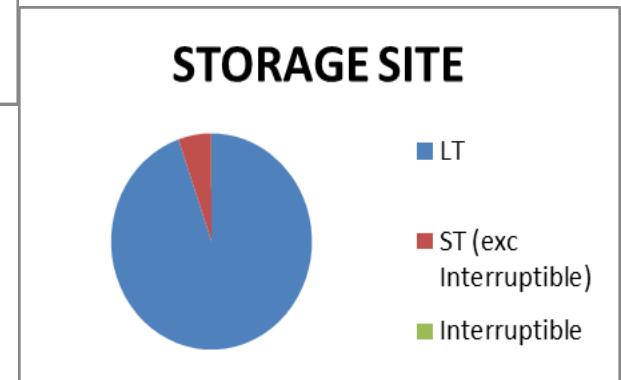
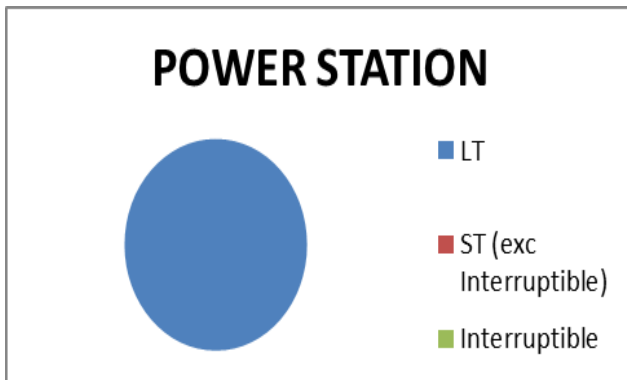
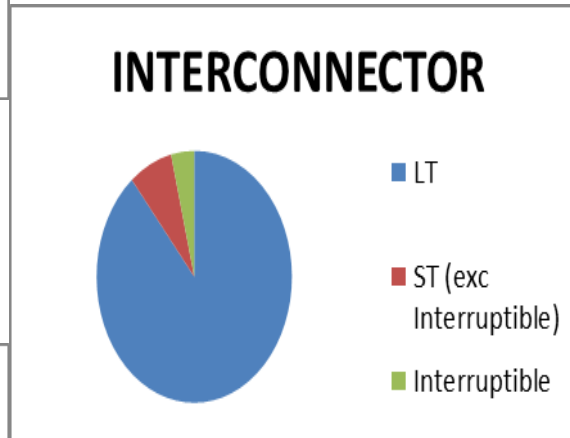
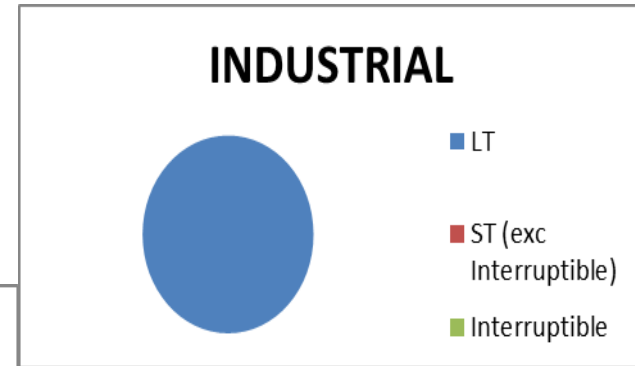
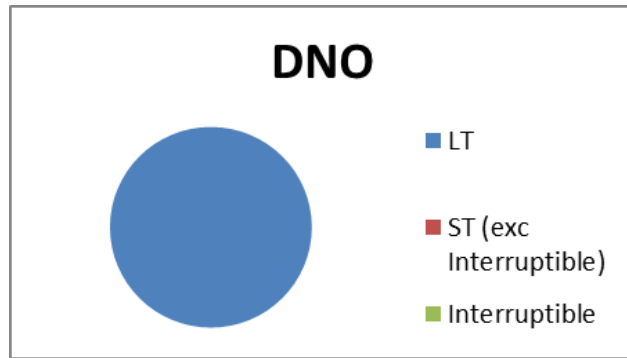
- DNO
- INDUSTRIAL
- INTERCONNECTOR
- POWER STATION
- STORAGE SITE

Exit revenue collected at each different categorisation of point (15/16)




Revenue associated with the Exit capacity bookings (15/16)

nationalgrid




For Information – Exit Capacity Booked by capacity product (15/16)

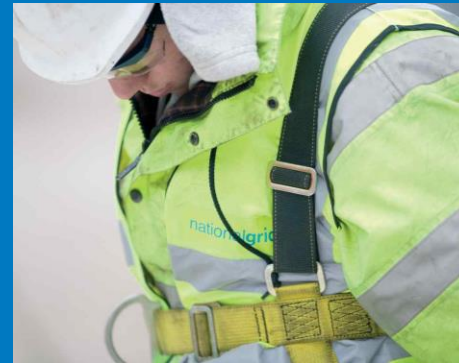
nationalgrid

Row Labels	Sum of Long Term	Sum of Short	Sum of Short	Total
	 Firm	Term Firm	Term Off Peak	
DNO	4,298,478,330	5,405	75,785,572	4,374,269,307
INDUSTRIAL	61,693,864	2,055	12,891,676	74,587,595
INTERCONNECTOR	403,725,995	67,632,907	628,884,191	1,100,243,093
POWER STATION	684,764,195	125,433	681,330,437	1,366,220,066
STORAGE SITE	664,975,560	1,166,658	1,029,032,726	1,695,174,944
Grand Total	6,113,637,945	68,932,457	2,427,924,602	8,610,495,005

For Information – Exit Revenue by capacity product (15/16) nationalgrid

Row Labels	 Sum of Long Term Firm	Sum of Short Term Firm	Sum of Short Term Off Peak	Total
DNO	£ 186,440,404	£ 6	£ -	£ 186,440,410
INDUSTRIAL	£ 1,408,017	£ 95	£ -	£ 1,408,112
INTERCONNECTOR	£ 1,577,273	£ 127,863	£ 67,904	£ 1,773,041
POWER STATION	£ 19,483,779	£ 5,386	£ -	£ 19,489,166
STORAGE SITE	£ 802,936	£ 45,033	£ 444	£ 848,413
Grand Total	£ 209,712,410	£ 178,384	£ 68,349	£ 209,959,142

Gas Charging Review



Plan and change process

Gas Charging Review: Topic Development

- The discussion topic timeline was put together to ensure all topics had time against them
 - Discussing at least twice
 - Additional meetings will be added in as needed
- The discussions are facilitated to encourage as many views and positions as possible. This is from part of the evidence and relevant information, that in addition to other inputs, will help inform National Grid and industry on the individual topics and how they work together as part of an overall methodology.
- This will ultimately be useful in helping National Grid to update UNC0621.

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 (complete)	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 (complete)	Sub Group	<ul style="list-style-type: none"> Specific Capacity Discounts
17 July (complete)	NTSCMF	<ul style="list-style-type: none"> Specific Capacity Discounts* Non-Transmission Services Model*
25 July 13:00 – 15:00 (complete)	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 (complete)	NTSCMF	<ul style="list-style-type: none"> • Multipliers* • Avoiding inefficient bypass of the NTS
8 August 13:00 – 15:00 (complete)	Sub Group	<ul style="list-style-type: none"> • Interruptible
23 August	NTSCMF	<ul style="list-style-type: none"> • Interruptible* • Specific Capacity Discounts • Non-Tx Services
24 August 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> • Existing Contracts
31 August 10:00 – 12:00	Sub Group	<ul style="list-style-type: none"> • Revenue Reconciliation/Recovery Mechanisms
5 September	NTSCMF	<ul style="list-style-type: none"> • Existing Contracts* • Revenue Reconciliation/Recovery Mechanisms*
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

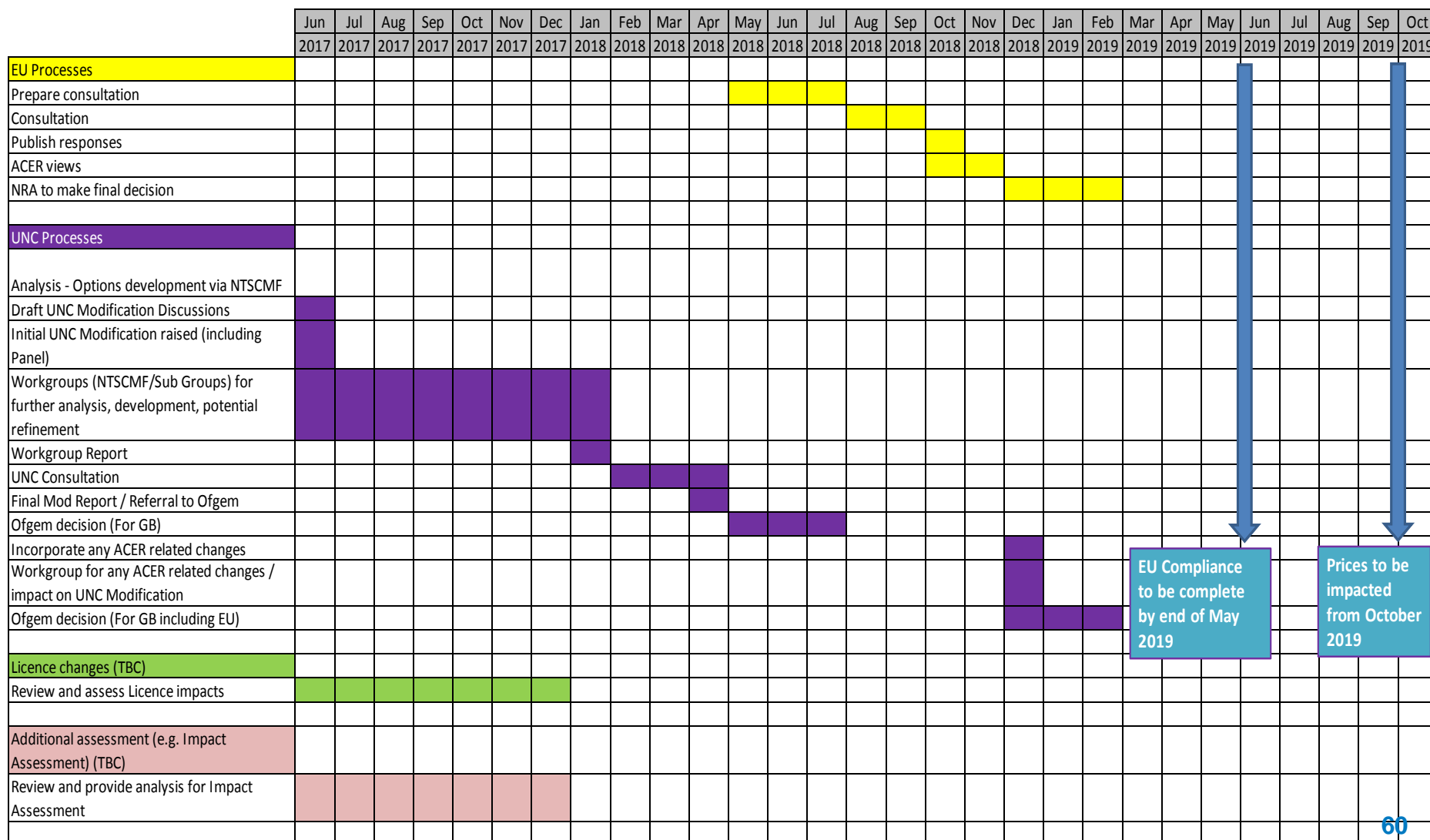
Plan and Change process

Timeline – options for GB / EU consultations

- Previously we have discussed the options of carrying out the GB UNC change process and the required EU consultations (as per TAR NC) either:
 - In series; or
 - In parallel
- The recent timelines have been prepared based on a series approach with an interim decision point (post UNC consultation) so only one option was consulted on EU
- For discussion, the following slides show this approach and revisits the opportunities of conducting in parallel

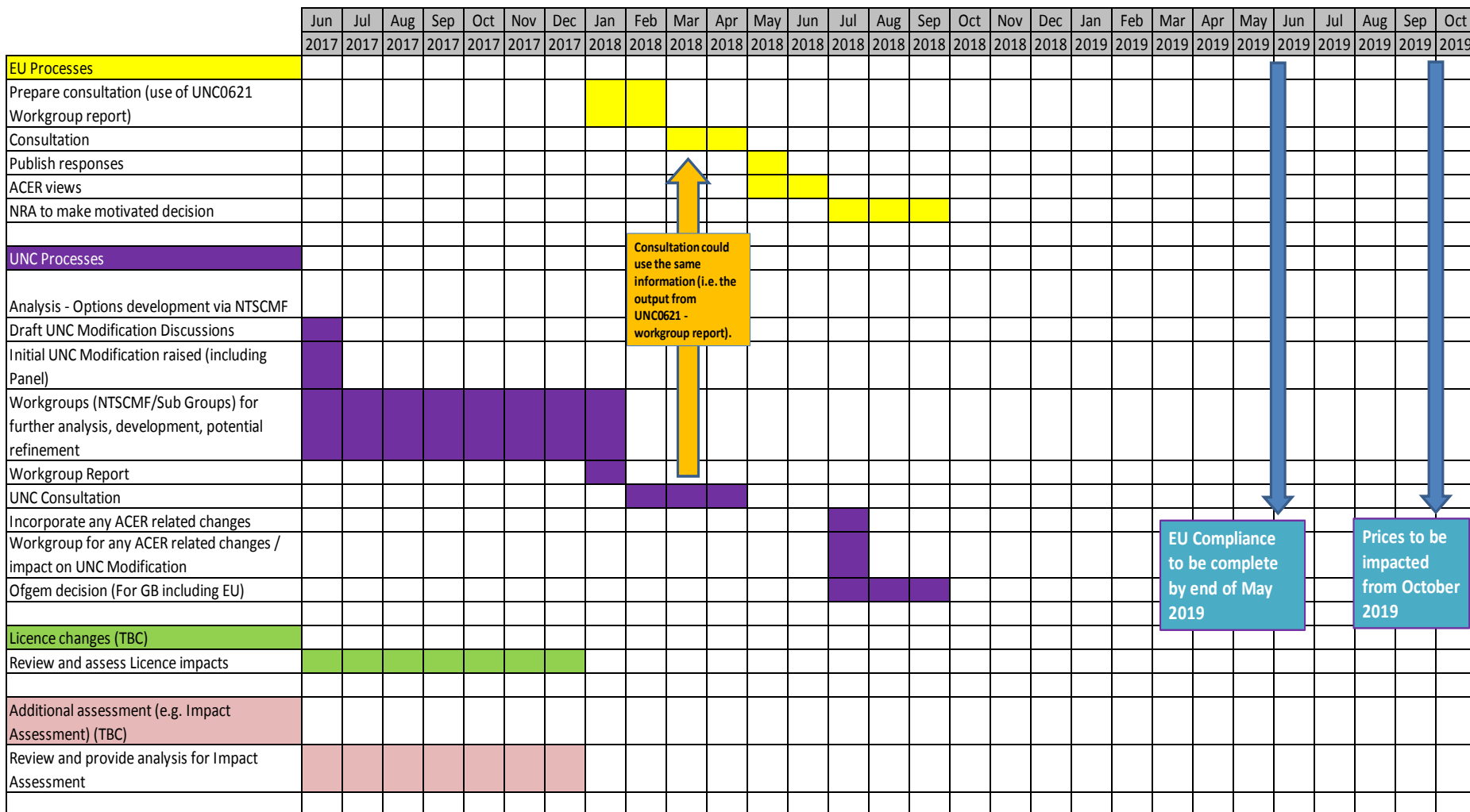
Plan and Change process

Timeline (simplified) – in “series”



Plan and Change process

Timeline (simplified) – in “parallel”



Gas Charging Review



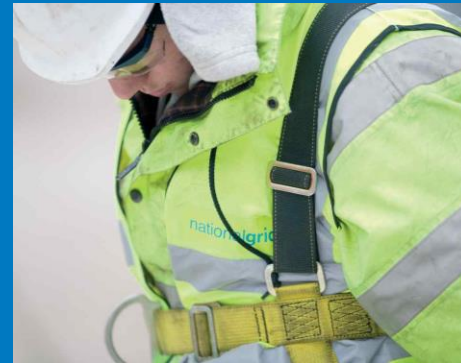
UNC Modification

Gas Charging Review:

UNC 0621 Modification – relevant updates

- 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



Next Steps

Next Steps

- Sub Groups as per timetable
- Next NTSCMF on 05 September

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



Alison Chamberlain
Commercial Analyst
Tel: +44 (0)1926 65 3994
Email: Alison.Chamberlain@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