European Update





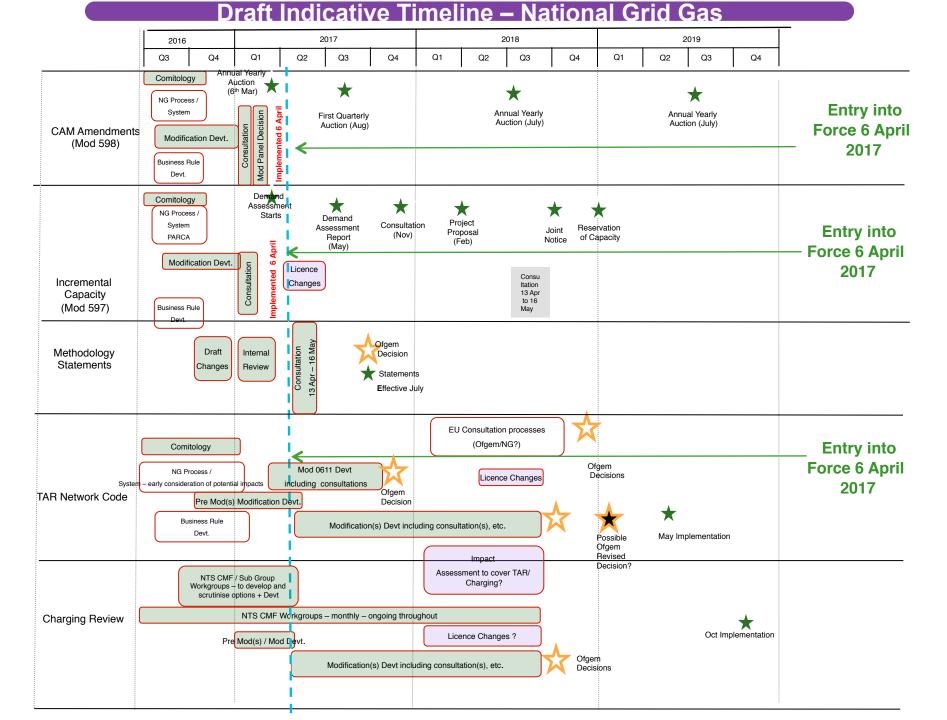


4 May 2017

1. General Update

Code Status Update

Code	Current Status	Implementation date
CAM amendments	EP/Council Scrutiny complete UNC MOD 598 (approved)	EIF 6 April 2017
Incremental Capacity	EP/Council Scrutiny complete UNC MOD 597 (Ofgem Decision)	EIF 6 April 2017
Tariffs (TAR)	EP/Council Scrutiny complete, now with EC	Applicable from EIF 6 April 2017, October 2017, 31 May 2019.
Transparency (TRA)	EP/Council Scrutiny complete, now with EC	Applicable from 01 October 2017, First publication May 2018



Draft Indicative Timeline – National Grid Gas 2017 2018 2016 Q1 Q3 Q3 Q1 Q4 Q2 Q4 Q2 Q4 Q2 Q4 Consultation 20Jul to 10Aug 17 Mod Panel Decision 11 Aug 17 Comitology Conversion Devt. Model **Entry into Force** finalised **CAM Amendment** (1 January 2018) Mod Devt. **Capacity Conversion** NG Process / (Mod 616) System Pre Mod(s) Modification Devt. Transparency May Implementation Aug Implementation Mod for Transparency for 2018

2. EU Code Updates



EU Tariffs Code Update

ENTSOG Activity: 1st Implementation Workshop - outcome

- Updated materials now published on ENTSOG website including:
 - Minutes of workshop (including Q&A)
 - http://www.entsog.eu/public/uploads/files/publications/ Tariffs/2017/ TAR0811_040317_Minutes_TAR%20NC_Implementation_ WS_Final.pdf
 - Updated slide pack with notes
 - http://www.entsog.eu/public/uploads/files/publications/ Tariffs/2017/ TAR0806_170322_Presentation_TAR%20NC%20Impleme ntation%20Workshop_Final_Updated_Notes.pdf
 - Short videos of speakers (to be published)

ENTSOG Activity: IDoc

Reminder:

- Consultation on Implementation Guideline (IDoc)
- 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 date of 1 October 2017
- 2nd Workshop planned for October 2017

ENTSOG Activity: Workshop & IDoc

- Possible topics for 2nd WS
 - More details on problematic parts
 - Regulatory Account much more detailed
 - CWD and CAA process steps
 - Pros and cons of different reference price methodologies
 - Economic test
 - Implementation study cases (2)
 - More views/insights on the application of the TAR NC to shippers and other stakeholders

ENTSOG Activity: Workshop & IDoc

- ACER suggestions to ENTSOG for 2nd WS
 - NRA's role in the implementation
 - Process for consistent implementation by NRAs
 - NRA approaches to RPM regional differences assessment
 - EC/ACER/NRAs perspectives on the importance of other approaches towards security of supply and how much it affects certain tariffs
 - ACER comments on the IDoc (2)
 - NRAs/TSOs sharing what they are doing to promote stakeholder engagement in TAR setting process

Where to publish TAR NC information?

2 sources: ENTSOG TRA Platform and TSO/NRA website

Where	Similarities		Differences			
	When	How	What	For which points	Language	Additional
On the website of TSO/NRA	- Before auctions - Before tariff period	- In a user-friendly manner tariff - Clear, easily accessible way - On a non-discriminatory basis - Downloadable format	All tariff information	All points on the system	In official language(s) of MS + in English, to the extent possible	Link on ENTSOG TRA Platform to TSO/NRA website
Directly on ENTSOG TRA Platform			Some tariff information: - Reserve prices - Flow-based charge - Simulation of all costs for flowing 1 GWh/d/year	IPs only	In English only	In a standardised table

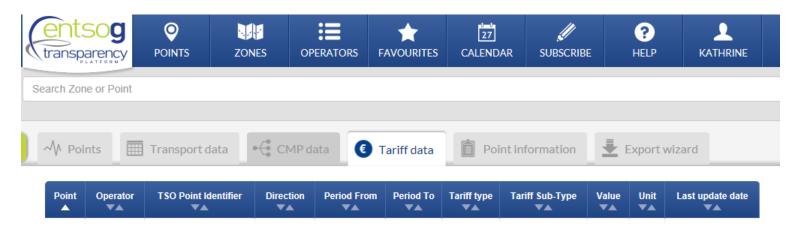
ENTSOG TRA PF (in English) → for IPs only

- June Y: reserve prices for firm and interruptible capacity at IPs
- 30 days before TP starts: flow-based charge (if any) and simulation for all charges
- Standardised table (ST) required: updated in June Y (and 30 days before TP starts for the 1 GWh/d/y flow, see infra). ST covers: 1) reserve prices, 2) flow-based charge (if any), and 3) simulation of all charges

TSO/NRA website (in MS language + English if possible) → for all points

- June Y: reserve prices for firm and interruptible IPs + additional info (e.g. probability of interruption...)
- 30 days before TP starts: non-IPs capacity tariffs
 + flow-based charge (if any) + additional info
 (e.g. on non-transmission tariffs)
- Link on TRA PF to the website of TSO/NRA

Section for complying with TAR NC opational grid ENTSOG TP [1]

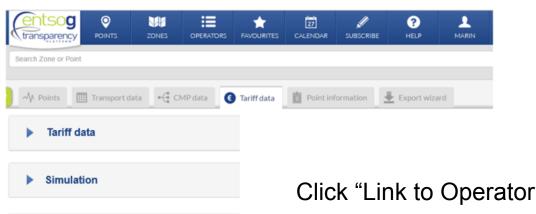


Standardised table Art. 31 (2+3)

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Section for complying with TAR ational grid NC on ENTSOG TP [2]



Click "Link to Operator ... " and this table opens:

Link to Operator tariff information (ref. Art. 31 (1))

Operator name	Link	Comment
TSO 1	www.tso1.com	-
TSO 2	www.tso2.com	-
TSO 3	www.nra1.com	NRA1 has publication obligation.
TSO 4	www.tso4.com	TSO4 is publishing on behalf of NRA
TSO	www	
TSO	www	

Chapter VIII Compliance (data publication)

- ENTSOG understanding of compliance
 - Although the application date is 1 October 2017, ENTSOG considered that compliance happens later
 - For obligation to publish information before the auctions June 2018
 - For obligation to publish information before the tariff period – a month before the tariff period following 1 October 2017
 - For GB this would be **September 2018**
 - Implementation Planning within TSOs and ENTSOG has been based on this understanding

Chapter VIII Compliance (data publication)

- ACER (and EC) have recently communicated a different understanding of compliance
 - Publication requirements are a "static obligation"
 - Obligation is at 1 October 2017 therefore publication requirements from Art 29 & 30 apply from this date based on existing tariffs.
- Issue now under discussion
 - ENTSOG pushing back but may result in information being published earlier than originally planned



Capacity Methodology Update

Capacity Methodologies Update

Statement Review:

The consultations for the ECR, ExCR & ECTT are all due this year (due by July 2017)

Additionally a review of the ECR, ExCR, ECS & ExCS is required for EU CAM Amendments (UNC Mods 0597 & 0598)

Consultation

 All capacity methodologies were issued for consultation 13th April 2017

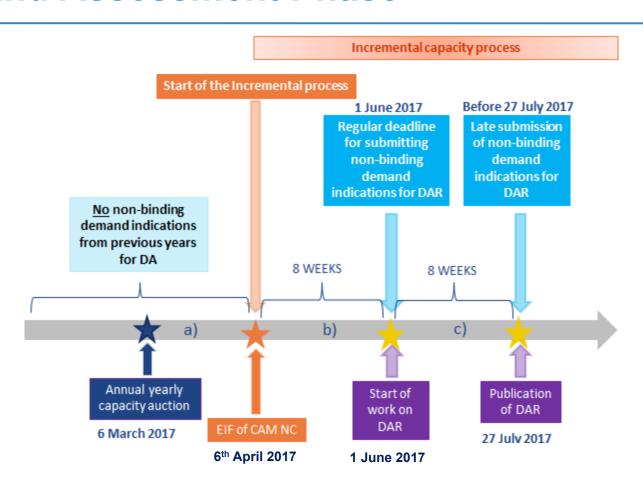
Capacity Methodologies Update

- Consultation will close on Tuesday 16th May 2017
- Conclusions report will be issued by 30th May 2017
- Subject to Authority approval the effective date will be 31st July 2107

Next steps for CAM Commercial Implementation

- NG has also issued the following documents (via ENA on 21/4/17) for informal industry feedback:
 - A template for the alternative allocation mechanism (AAM)
 - An updated PARCA contract to be used for Interconnection Points
- These documents will be formally consulted upon, under the CAM process, if an IP incremental project is launched. Then they will also be included as part of any Project Proposal submitted to the Authority

Demand Assessment Phase





Future Topics



Future Topics

Topic Area	Provisional Date
Tariffs Code	Monthly updates
Transparency requirements	Monthly updates
CAM Amendment	Monthly updates
Incremental	Monthly updates



Modification 0605S

Amendments to TPD Section K: Additional Methods to Procure and Dispose of Operating Margins Gas



Modification 0611

Amendments to the Firm Capacity Payable Price at Interconnection Points



Modification 0616

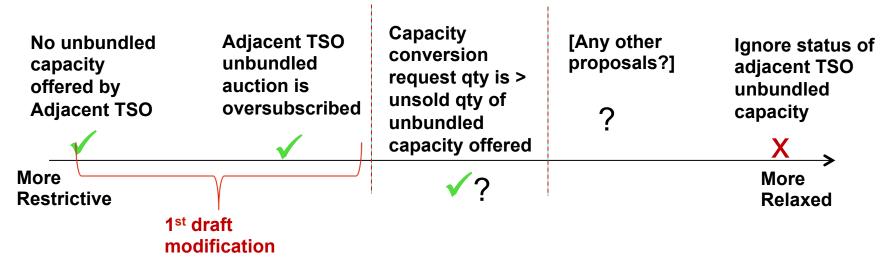
Capacity Conversion Mechanism for Interconnection Points

Overview

- Modification raised at April panel
- 'To provide a process for converting unbundled capacity into bundled capacity in compliance with the amended EU CAM code'
- Mod workgroups held over May [July] & report to July panel
- ENTSOG <u>consultation</u> on capacity conversion model launched on 14th April. Closes out <u>5th May</u>
- NG will review modification proposal in light of feedback to ENTSOG and any changes to the ENTSOG model

Available Capacity with Adjacent TSO

- Rationale for service is that a shipper is unable to obtain unbundled capacity from the adjacent TSO (and only has option to buy bundled)
- The availability of unbundled capacity at the adjacent TSO should therefore have some bearing on when the service is available
- Options are looked at below:

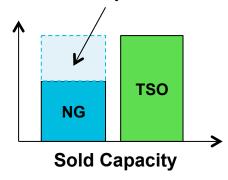


• Early feedback received indicates that when the unbundled auction is close to being sold out then shippers would likely just use the bundled auction rather than both bundled and unbundled auctions

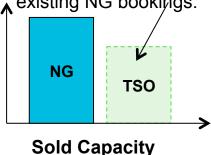
What the data shows – for context

- When might NG NTS expect an actual demand for capacity conversion service? Looked at 15 years for 3 IPs
- For most years then shippers have (in aggregate) less booked capacity with NG NTS than with the adjacent TSO, so don't expect market to want more unbundled capacity with adjacent TSO for these years
- For 2 years then shippers have (in aggregate) more booked capacity with NG NTS than with the adjacent TSO, so expect market to want more unbundled capacity with adjacent TSO for these 2 years. The quantity of unbundled capacity offered is slightly less than the contractual mismatch indicating shippers may not be able to match their existing NG booking entirely through unbundled capacity from the adjacent TSO

Expect market to want NG unbundled capacity in most years



Adjacent TSO may not offer enough unbundled capacity to match existing NG bookings.



Scope of Solution

- NG NTS seek a minimum requirement to meet the EU CAM code
- The proposal is a service for yearly, quarterly and monthly products only
- As a general principle NG NTS will seek simple commercial and system solutions where possible (e.g. post auction adjustment)

Cash Flow

3 relevant auctions, each with a reserve price (x) and a possible auction premium (y)

auction	Revenue
1 st auction (unbundled)	+ x ₁ + y ₁
2 nd auction (bundled)	+ x ₂ + y ₂
3rd auction (resell)	$+ x_3 + y_3$

- A shipper who completes a successful capacity conversion should not have to pay x₂
- NG NTS should be financially neutral



Cash Flow - Options

Option	Input (NG revenue)	Δ Allowed Revenue	Output (NG cost)	Impact on Capacity Neutrality	Comment financially neutral x
Pay out credit - Neutrality	+ x ₁ + y ₁ + x ₂ + y ₂	-	-	-x ₂ + x ₃ + y ₃	Credit could come from neutrality, balanced by debit from resale of capacity
Increase Allowed Rev.	+ x ₁ + y ₁ + x ₂ + y ₂ + x ₃ + y ₃	+x ₂	-X ₂	-	Could balance this by increasing AR, but would require Licence amendment
Suppress invoice ★	$+ x_1 + y_1$ $+ x_2 + y_2$ $+ x_3 + y_3$	-	-	-	Simple way to avoid having√ to pay back a credit is to not charge x₂ in first place

Commercial Validation

- NG propose to use 'Registered Capacity' to validate requests for capacity conversion
 - i.e. only unbundled capacity bought in an auction can be converted.
 - this means traded capacity can not be converted (but the original owner can utilise the conversion service)
- This is the simplest approach that is easy to check
- It also makes it easy to identify if capacity was purchased before or after CAM. (ENTSOG model is to allow for conversion of pre-CAM capacity only)
- As per ENTSOG model then part conversion of quantity is allowed, but part conversion of duration is not. e.g. can not do quarterly conversion of a yearly product, must be a yearly conversion
 - Propose GB transition rule allowing enduring annual (Exit) capacity to³ be converted as an annual, quarterly or monthly product



Any Other Business



EU Gas Regulatory Change Programme

EU Change 2017 – CAM, Incremental & Transparency



EU Regulatory Change – Why do we have to comply?

- GB has to be compliant with EU Regulations otherwise there is a risk of financial penalties
- We still have 2-3 years of the EU Regulatory Programme to run
- Until otherwise directed we will continue with EU Gas Regulatory Changes – this is in line with National Grid's current Brexit position

national grid EU Phase 4a CAM, Transparency and Incremental Changes - Scope

- EU CAM Code Incremental Capacity Process (IP PARCA)
- EU CAM Code Amendments
- Transparency data publication
- Negative Implied Flow Rates Bacton only (Not EU Code driven)

Note: The EU Gas Regulatory Change Programme is separate to the UK Link programme

national grid EU Phase 4a CAM, Transparency and Incremental Changes - Shipper Information

- Minimal impact to shippers
- Highlights
 - Four auctions for IP Quarterly Capacity replaces 1 auction
 - IP Annual Yearly Auction is moving from March to July
 - 2 new Gemini reports will be available to view
 - Additional Transparency Data
 - Some operational systems improvements
 - CAM Incremental Market Demand Assessment window is now open
- Negative Implied Flow Rates (Bacton only)
- User Trials for this phase are deemed unnecessary



High Level Timeline

Gemini / MIPI System

System Testing (ST): 16th January – 13 March 2017 Complete

System Integration Testing (SIT): 13th March – 13th April 17 Complete

User Acceptance Testing (UAT): 18th April – 10th July 2017 On track

Go Live (Gemini outage scheduled): 13th August 2017 On track

CAM Incremental (IP PARCA Process)

Activity	Date
Expression of interest for Market Demand Indications document published	6th April 2017
Market Demand Indication Window Open	Duration 8 weeks
Market Demand Indication Window Closes	1st June 2017
Market Demand Assessment Report published to Industry	no later than 27th July 2017

Next Steps

- We will continue to communicate with the industry through in the following channels:
 - Gas Ops Forum
 - Transmission Workgroup
 - EU Gas Regulatory Change E-Mail Distribution List
- Gemini Screen Pack has been circulated
- Comprehensive User Guidance will be developed and circulated prior to go live

