European Developments





Transmission Workgroup 2nd May 2013



EU Balancing Code – NTS Impact Assessment







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NTS Impact Assessment



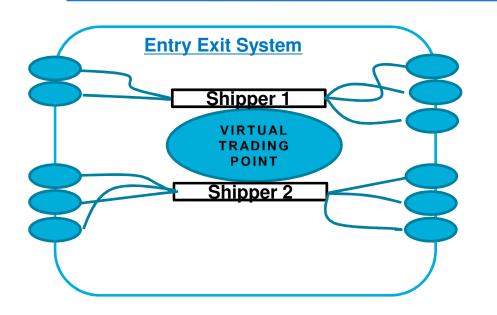
Red	Changes required to the UNC and related documents/contracts/NTS
Reu	processes and systems
	a)UNC change to be confirmed
A socile out	b) a future opportunity for NG to consider
Amber	c) a future obligation (following implementation of the code) on NG, which
	may or may not require a UNC change
Green	No impacts identified

Chapter 1. General Provisions

- Sets out that EU Balancing Code will prevail over any other network codes or national legislation
- Includes the code definitions
 - Gas day means the period from 05:00 to 05:00 UTC or when daylight saving time is applied, from 04:00 to 04:00 UTC
 - This change to the gas day is also included in the CAM code

Impacts	Action
Major	 Gas Day issue being progressed by via a dedicated Transmission internal workgroup Updates being provided to UNC Workgroup/GB Stakeholders

Chapter 2. Balancing System



□The code describes the underlying features of a virtual trading point and the trade notification process

Impacts	NG NTS View
None	 Title trade notification rules, etc. are consistent with GB arrangements NBP, on the day commodity market (OCM) / Over the Counter (OTC), etc.

Chapter 3. Cross-border cooperation



Gas Market Integration

- **□TSOs consult on options**
- **□Cost Benefit Assessment**
- **□TSO considers ENTSOG and ACER**
- **Comments**
- **□TSO** submits proposals to NRA

Rules Harmonisation Review

- ENTSOG regular review of balancing rules
- Stakeholder involvement
- ☐ Published report with conclusions and recommendations

Impacts	Action
Major	New NG NTS "process" needs to be established prior to the code coming into force

Chapter 4. Operational Balancing national grid - Short Term Standardised Products

		Temporal aspects		
		During the balancing period (up to EoD)	During a specific window of time during the balancing period	
	At the VTP	Title market transaction	Temporal market transaction	
Locational aspects	Renominations required at specific point(s) of the system	Locational market transaction	Temporal locational transaction	

Impacts	NG NTS view
• None	 STSPs are consistent with the balancing products used in GB, although GB physical trades would be a type of locational trade
 Opportunity 	 NG currently does not use temporal products or trade in adjacent markets - benefits to NG/GB to be evaluated
• Minor	Cost reporting - potential changes to be assessed by NTS

Chapter 4. Operational Balancing

nationalgrid

- Merit Order

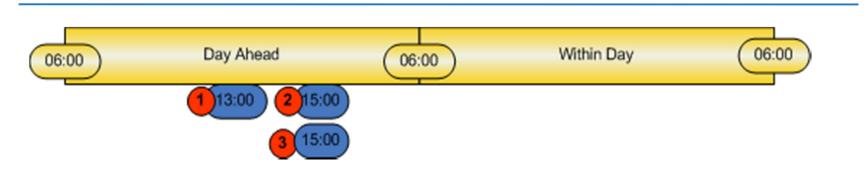
Priority

• Title Products

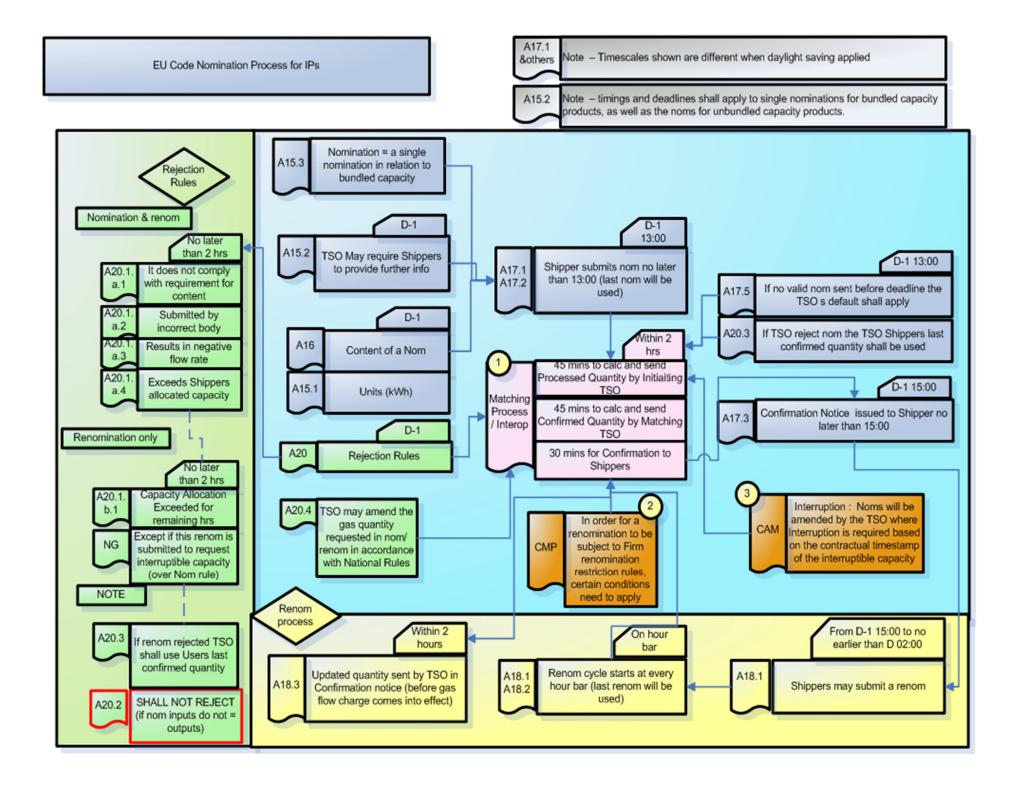
• Locational Products
• Temporal products
• Temporal locational products
• Temporal locational products
• Balancing Services

Impacts	Recommendation
• None	 Merit Order consistent with the principles contained in the System Management Principle Statement (SMPS)
• TBC	 NG NTS does not have balancing services in the context of the EU code, as Operating Margins (OM) is used predominately as a safety tool – to be confirmed with Ofgem

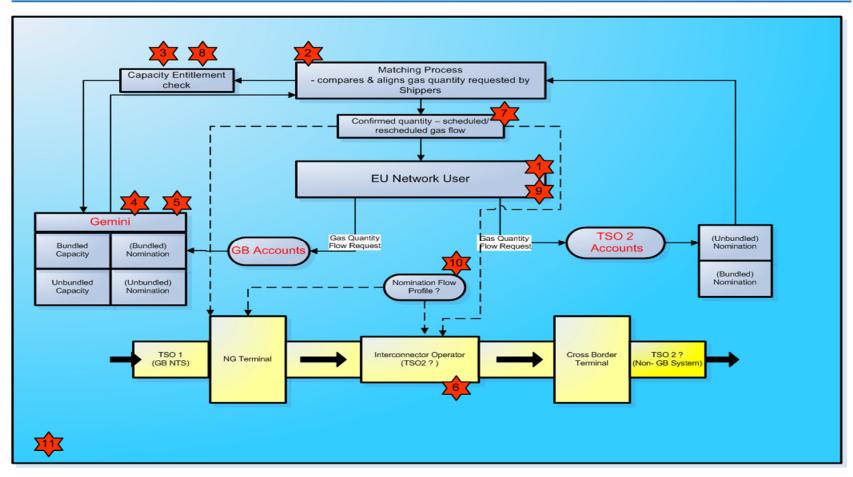
Chapter 5. Nominations



Impacts	Action
Major	 New Nomination procedure at Interconnection Points (IPs) is a significant impact Procedures contained in Gas Balancing, CAM, CMP and Interoperability Codes NTS have been investigating the interactions between the codes The end to end process/system needs to be mapped A number of policy/implementation issues are being analysed A ROM is required to understand costs and delivery timescales

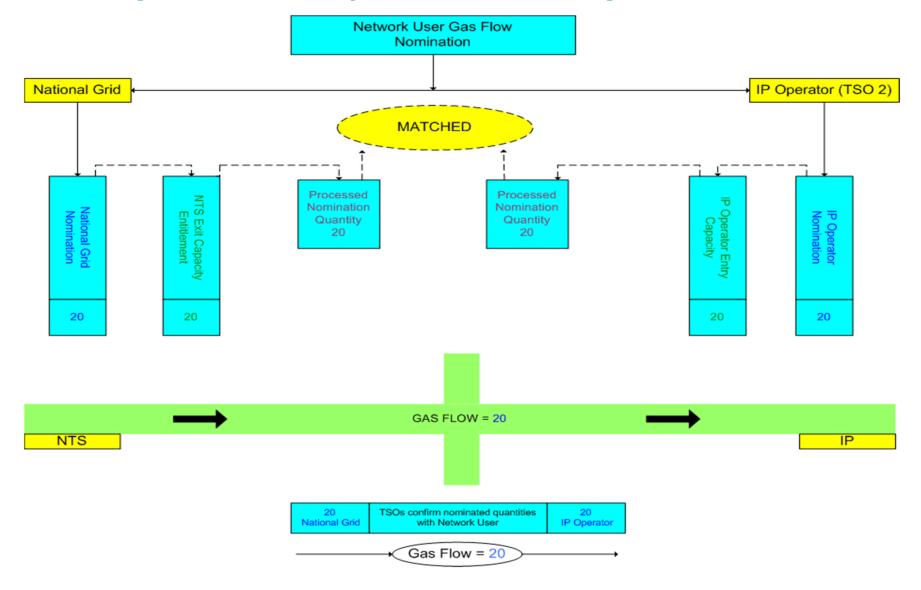


Nomination Policy Issues

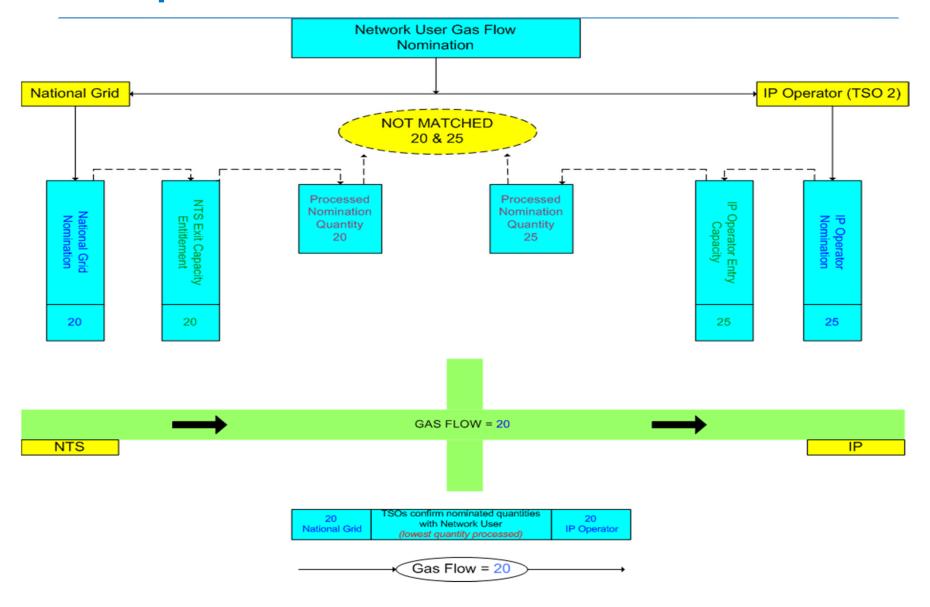


A number of policy/implementation issues are being analysed

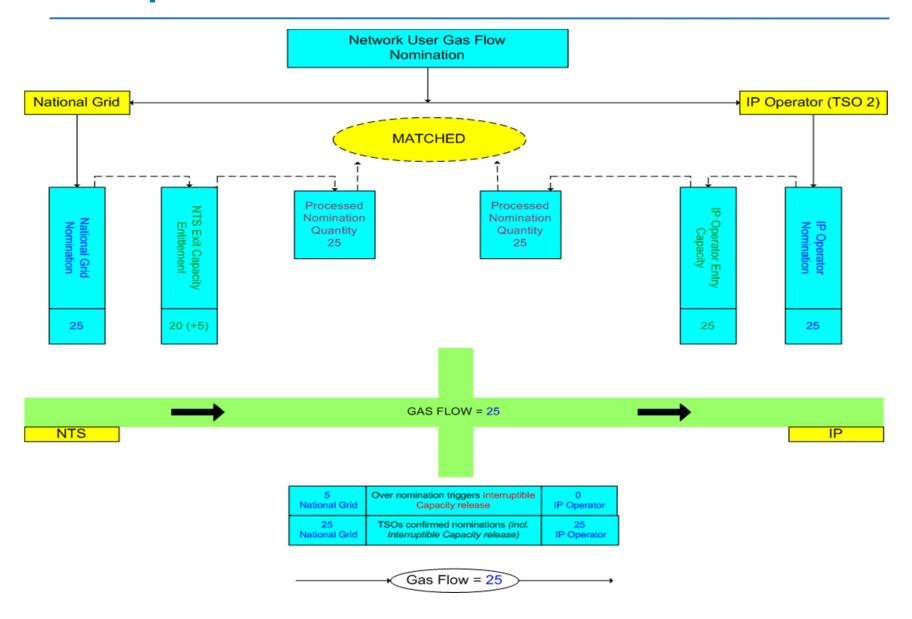
Example 1 – "Easy" match TSO process



Example 2 – Lesser of rule



Example 3 – Over Nomination

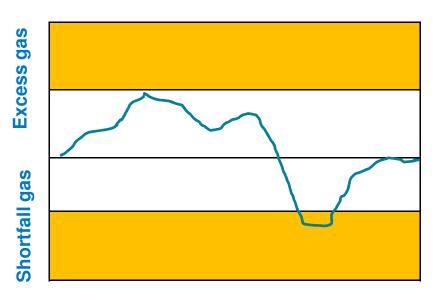


Chapter 6. Daily Imbalance Charges

- The TSO shall calculate a daily imbalance quantity for each shipper for each Gas Day
 - Daily Imbalance Quantity = Inputs Off-takes
- Marginal buy price Highest price of any TSO trades or WAP + small adjustment
- Marginal sell price lowest price of any TSO trades or WAP + small adjustment
- The TSOs daily imbalance charge calculation methodology [contains how the above are calculated] will be approved by the NRA and published on a relevant website

Impacts	Recommendation
 None 	 Daily Imbalance Charge rules are consistent with the existing GB rules
• Minor	 NRA approval is required to continue to allow Locational trades for national balancing purposes (currently rare) to be included in the GB calculation of SMP buy & sell and System Average Price

Chapter 7. Within Day Obligations



Within day obligation

□ A set of rules imposed by a TSO, regarding shippers inputs and off-takes within the gas day

Within day Charge

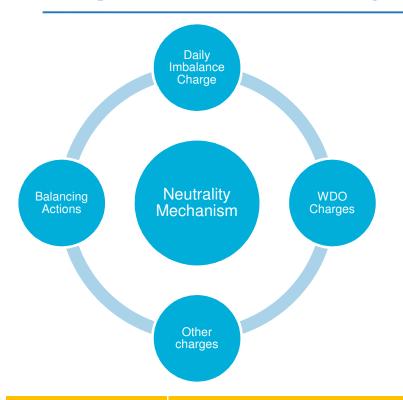
□ A charge levied or a payment made by a TSO to a shipper as a result of a within day obligation

3 types are prescribed and they can be applied to:

- System position
- ☐ Shipper portfolio position
- Specific Entry-Exit Points

Impacts	NG NTS View
Opportunity	 NG NTS does not have any WDOs but may consider their introduction in the future
TBC	 local operating terms within National Grid's network connection contracts provide limited control to the flows at entry and exit points - confirmation from Ofgem is required that they are not WDOs

Chapter 8. Neutrality Arrangement



- There are four main financial streams created in the network Code
- The TSO does not gain or lose from these balancing activities
- Balancing neutrality charges will be paid by or to the shippers concerned

Impacts	Action
None	 Consistent with our existing UNC neutrality processes and rules [covering several sections of the UNC]
TBC	 Confirmation required from Ofgem that a separate methodology and approval by the NRA is not necessary

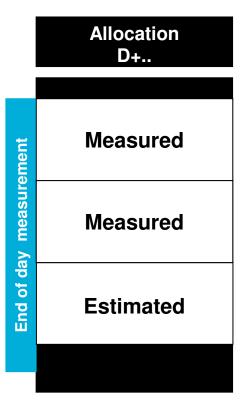
Chapter 9 - Information Provision

- TSOs are required to provide Information to shippers before and within the gas day to allow them to balance their inputs and offtakes – 3 models are described in the code (GB are Base Case)
- Allocation information timing only is prescribed and Reconciliation is out of scope

Base Case Intra Day Metered Daily Metered Non Daily Metered

Measurement & Estimates (D-1) Reads not provided Reads not provided Forecast Provided End of day value Forecast based on load profiles and gas demand variables (temp, etc.)

Measurements & Estimates (D) Readings Provided • Twice a day per network user • The measured quantity No readings available Forecast Provided • End of day value • Forecast based on load profiles...



Chapter 9. Information Provision

Impacts	Action
Major	 Non Daily Metered Derived Forecast for Gas Day D no later than 12:00 UTC Gas Day D-1 GB 1st forecast (NDMA) is currently issued at 13:15 (UNC states by 14:00) NG NTS to investigate options, prior to raising a UNC Issue to enable the options to be reviewed and developed by Transmission Workgroup members
Minor	 Report accuracy of the Non Daily Metered Derived Forecast at least every 2 years Information provision model to be approved by the NRA - need to gain confirmation from Ofgem that no further action is necessary as GB model (base case) has already been approved No later than the end of the next Gas Day the TSO shall provide each Network User with their initial Allocation and an initial Daily Imbalance Quantity - UNC modification required to E1.6.2 (initial allocation information is provided before the end of the 2nd day after gas day). We do not believe that any system changes are required as the information is already actually provided in line with the EU code (D+1). CBA - NG need to carry out an assessment of the costs/benefits of additional information provision within 2 years of the EU code coming into force

Chapter 10. Linepack Flexibility Service

□ A service provided by a TSO to shippers to balance their inputs and offtakes over a period longer than a gas day

Provision Criteria

offered on a transparent and non-discriminatory basis



Revenues generated by TSO should at least cover costs



TSO shall not need to enter into any contracts in order to provide



TSO cannot charge any costs relating to service for shipper not contracting for it



TSO shall prioritise the reduction of a WDO over the provision of this service

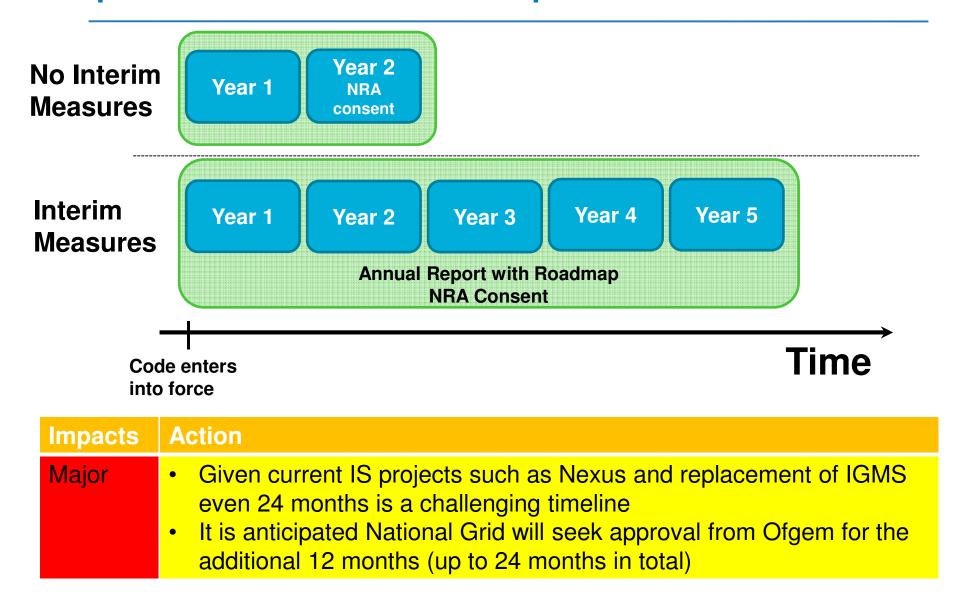


Shall not have a detrimental impact on cross border trade



Impacts	NG NTS View
	However, NG NTS has no plans to introduce an LFS in the near future – previously progressed park and loan service

Chapter 11. Final Provisions - Implementation Timeline



EU CAM Network Code and CMP Update







Transmission Workgroup 2nd May 2013

Capacity Allocation Mechanism - CAM



Capacity Allocation Mechanism- Comitology Overview

- The Second CAM Comitology meeting took place Monday 15th April 2013
 - The CAM NC was approved by Member States in a vote. It will now go for translation and will then pass to the Parliament and Council for a three month silent procedure, before being adopted into law.
 - The period allowed for implementation of most NC provisions (including auctions and bundling) has been increased from 18 months to 27 months, giving an implementation deadline of 1st November 2015.



Capacity Allocation Mechanism- Comitology Changes

Article	Highlighted Changes
Article 2:	A new clause has been added to the 'Scope' section, allowing national authorities to take proportionate measures to limit up-front bidding for capacity by any single network user at interconnection points within a member state, in order to prevent foreclosure.
Article 3:	The definition of 'interconnection point' has been modified to include points connecting an entry-exit system with an interconnector, as well as points connecting adjacent entry-exit systems. A new sentence in the recitals also recognises the need for specific provisions at interconnectors regarding bundling.
Article 6:	As part of the joint capacity calculation method, TSOs at an IP are now required to include other TSOs 'specifically affected' by capacity calculation at that IP (previous reference was to TSOs with a 'material interest').

Capacity Allocation Mechanism- Comitology Changes

Article	Highlighted Changes
Article 19:	Point 9 b) on technical barriers to establishing virtual interconnection points has been deleted. It was considered that such barriers are covered by point c), which requires that the establishment of VIPs should facilitate the economic and efficient use of the system.
Article 27:	ENTSOG is still required to carry out a consultation on booking platforms, but the requirement that this must cover the 'number and design of booking platforms as well as the means of access' has been deleted.
Article 28:	This has been deleted, thereby removing the interim deadline of 9 months for the modification of transport contracts. The period allowed for implementation of most NC provisions (including auctions and bundling) has been increased from 18 months to 27 months giving an implementation deadline of 1 st November 2015.

CAM - Bacton ASEP

Bacton ASEP – Initial Views

 Bacton ASEP is comprised of 5 Sub terminals – IUK, BBL & 3 UKCS sub terminals

Potential high level impact

- The introduction of new Bundled products will impact on the current Bacton ASEP
- This may result in:
 - <u>Potential</u> resetting of Entry Baselines (section 23 Licence change required)
 - Potential redistribution of Entry (sold & unsold) Capacity
- Likely to require significant discussion and industry consultation prior to any splitting of the ASEP and any subsequent Licence changes
- Any changes need to be aligned with CAM start date.

Bacton ASEP – Initial Views

Further considerations:

- Subsequent codes may also have impacts e.g. new nominations processes from Balancing code
- Effect on the current flexibility associated with gas flows at Bacton (indigenous & IP sources)
- Complexity, timescales and legal processes (Licence & UNC / Methodology statements)
- Potential reduction in scope for NG releasing Obligated / Non Obligated Capacity
- Impact on CMP congestion measures at each of the Bacton points
- IT System Impacts

Potential Options For Splitting Bacton ASEP – Based on Licence Baseline - Initial Views

Full industry debate is required but NG has undertaken some initial thinking and has detailed some potential options bellow. Please note there lots of variations but these are largely based on the same data / principles.

- Based on <u>forecast flows</u> driven either by:
 - UKCS
 - EU IP points
- Proportions based on <u>max flow capability</u> i.e:
 - A / (A+B+C) = proportion for A
- Proportion based on <u>max historical allocation</u>

national**grid**Potential Options For Splitting Bacton ASEP – Based on Holdings Initial views

- Holdings split between new Bacton ASEPs by Shippers historic EOD nominations
- Holdings derived pro-rata based on average Shipper historic allocations
- Holdings derived pro-rata based on maximum Shipper historic allocations

Congestion Management Procedures - CMP

Congestion Management Procedures – Modification Proposal

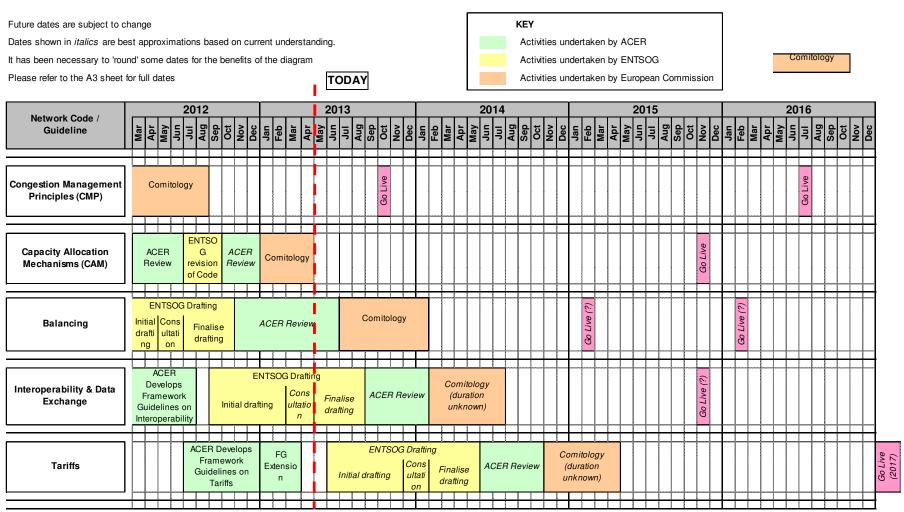
- Modification Proposal 0449 has been raised by NTS 'Introduction of Interconnection Points and new processes and transparency requirements to facilitate compliance with the EU Congestion Management Procedures'
 - Work is ongoing via the UNC 0449 Workgroup, last meeting held on the 22nd April 2013 next meeting to be held on the 10th May 2013.

Code Status Update

Code	Current Status	Implementation date
Congestion Management (CMP)	Ofgem issued a letter re implementation of Congestion Management Principles in GB on 12 March, industry responses required by 29 April. Mod UNC 0449(NG raised CMP) currently being developed via UNC 0449 Workgroup last meeting 22 April next meeting 10 May	1st October 2013 (Fixed)
Capacity Allocation Mechanism (CAM)	Second comitology held 15 April 2013. CAM approved for EU Wide Implementation at relevant EU IPs 1 November 2015	1 November 2015 (Fixed)
Gas Balancing	ACER have approved the code 20th March with comitology due to start July 2013.	Feb 2015/Feb 2016 (subject to NRA approval for additional 12 months to implement) Estimated
Interoperability	ENTSOG's public consultation on the Interoperability Code closed on 26th April 2013. ENTSOG will be reviewing responses during May and a summary of the main issues raised in the consultation will be provided for the June Transmission Workgroup	2015 (Estimated)
Tariffs	Final FGs extended until Q4 2013 to allow more consideration of Coat Allocation methodology.	Estimated earliest mid January 2017
Incremental Capacity	CEER blueprint for Incremental Capacity to be discussed at Madrid Forum. CEER expected to hand over to ACER by June 2013.	TBC

Gas Codes Timeline

Status of Development of European Gas Network Codes



Future EU Updates

Timetable aims to highlight the key items (consultations, workshops, decisions, etc.) National Grid NTS expect to cover via this agenda item in the forthcoming months

Topic	TX Workgroup
 Balancing Code – Comitology position Interoperability Code – key outcomes of public consultation 	June 2013