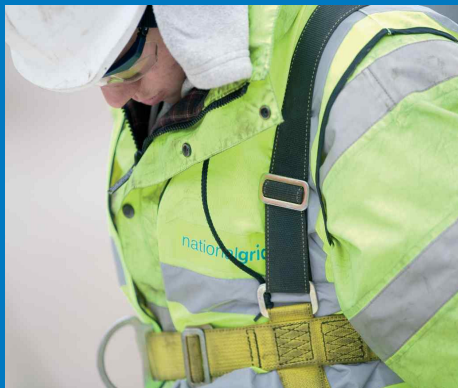


EU Code Implementation Programme



Transmission Workgroup
9th January 2014

EU Code Implementation Programme

- Agenda (1)

nationalgrid

1. Introduction
 - Engagement approach
 - Challenges – parallel working, etc.
2. Challenges ahead and approach to implementation - Ofgem
3. Challenges ahead and approach to implementation from a shipper perspective – Gas Forum
4. Phase 1
 - CMP - LTUIOLI
5. Phase 2
 - CAM
 - Balancing
 - Interoperability
 - Gas Day

EU Code Implementation Programme

- Agenda (2)

6. Phase 3 and 4
 - Tariffs and Incremental Capacity
7. Systems Development
8. UNC Modification Plans
 - Approach
 - Draft Plans
9. Next Steps
 - NG Website
 - Future EU process

Introduction

Chris Logue

Aims for today

- To provide an overview of the breadth of the EU code implementation work for this year.
- To seek views about the best ways to engage and take this work forwards.
- Provide an opportunity to discuss some of the likely changes that are necessary because of the EU codes.

Engagement to date

- Dedicated NG workshops held to lay out the implications of the 3rd package and outline code concepts & developments. Led to:
 - Ofgem/DECC EU Stakeholder Group
- Concept of a dedicated JESG type group was suggested.
- Consensus view was that Trans WG updates were sufficient.
- Standing agenda item for the past 3 years

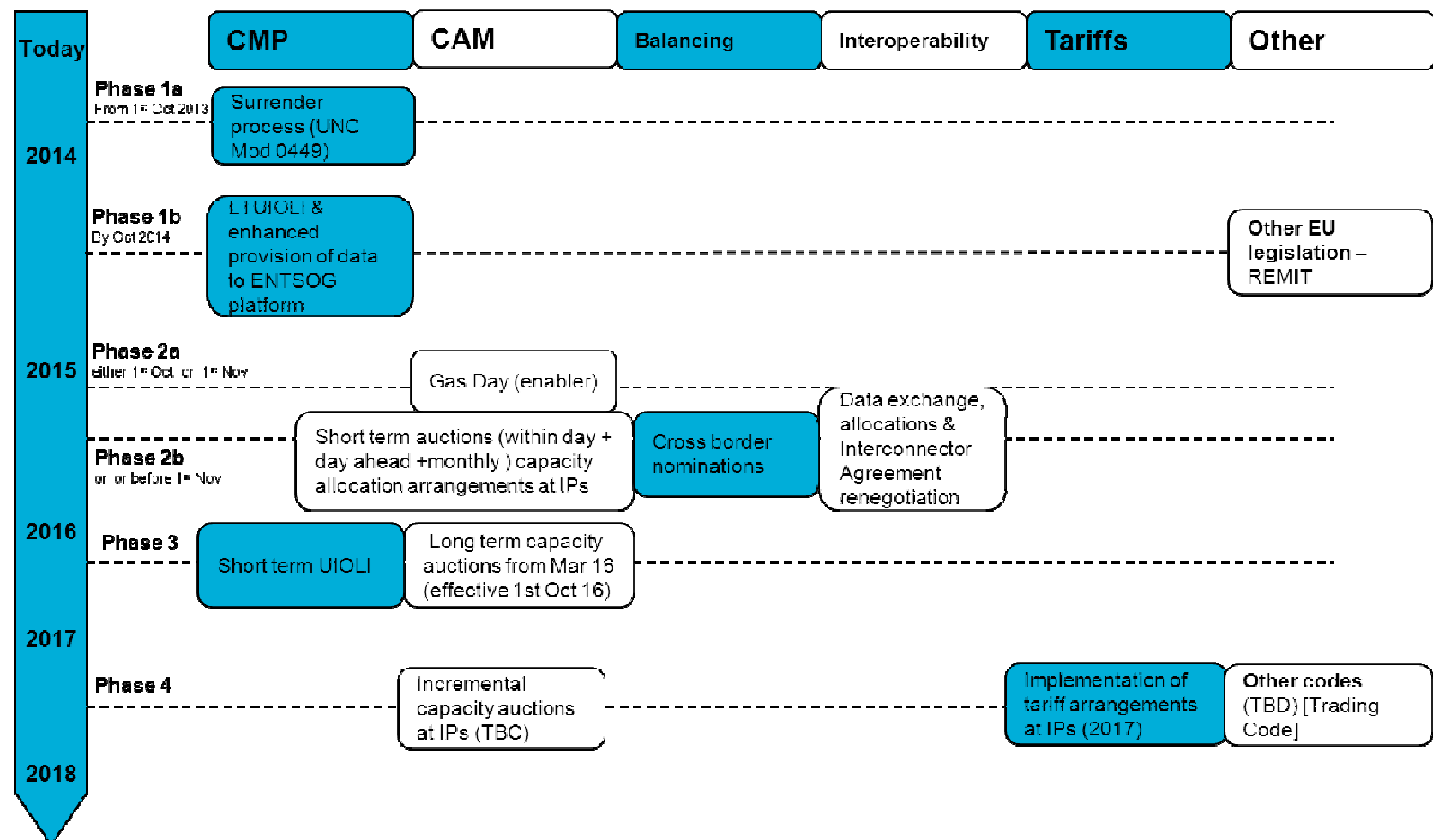
EU Updates to GB Stakeholders

- Regular updates are provided by NG NTS to GB stakeholders via DECC/OFGEM meetings, Transmission Workgroup Updates (monthly), Gas Forum, NG open meetings (adhoc), Bilateral meetings, etc.
- The updates have covered the following:
 - **Development of the European Framework Guidelines or Code** – highlighting emerging concepts, rules, encouraging involvement in and detailing EU engagement opportunities, phase completion dates and implementation dates
 - **National Grid Impact Assessments (IAs)** – highlighting areas of change for GB regime
 - **Comitology Updates** – highlighting changes made by the EC following discussion with member states
 - **Pre Modification Updates** – providing further detail on the changes identified and/or how they maybe implemented
- Details on initial **high level implementation roadmap** are now being communicated

Code Status Update

Code	Current Status	Implementation date
Congestion Management (CMP)	Implemented	1st October 2013 (Fixed)
Capacity Allocation Mechanism (CAM)	CAM approved for EU Wide Implementation at relevant EU IPs 1st November 2015.	1 November 2015 (Fixed)
Gas Balancing	ACER approved the code on 20th March 2013 and comitology started in July 2013. Code approved by EC at the comitology meeting on the 2nd October.	Oct 2015/Oct 2016 (subject to NRA approval for additional 12 months to implement) (Fixed)
Interoperability	ACER's Reasoned Opinion was published on 22nd November 2013. ENTSOG submitted a revised version of the Code to ACER on 18 th December 2013. A 'pre-comitology' meeting for Member State representatives has been scheduled for 21 st January 2014.	Q4 2015 (Estimated)
Tariffs	Final FGs extended until Q4 2013 to allow more consideration of Cost Allocation methodology. ACER consultation on Cost Allocation methodology section of Tariff FG and Tariffs for Incremental Capacity closed 17th September . Publication of FG expected by 30th November.	Estimated earliest mid January 2017
Incremental Capacity	ACER consultation closed 17th September. Incremental Capacity expected to be introduced via combination of new articles in CAM Network Code and via Tariffs Network Code.	TBC

Road Map



Notes: 1) Short term UIOLI may not be required for NTS

2) Long term capacity auctions may need to be delivered in conjunction with short term auctions

Key Areas of Change and Contacts (1)

Code	Contacts	Key Area of Change
CAM with CMP integration	Matthew Hatch matthew.hatch@nationalgrid.com 01926 655893	1. Primary Capacity Auction Process at
		2. Shipper Transfers (Trades) and Assignment Processes at IPs
		3. Interruptible Capacity at IPs
	Dennis Rachwal dennis.rachwal@nationalgrid.com 01926 654235	4. Cross border bundling arrangements
		5. CMP (integration with CAM)
Balancing	Chris Shanley chris.shanley@nationalgrid.com 01926 656251	1. Nominations Process at IPs
	& Phil Lucas phil.lucas@nationalgrid.com 01926 65 3546	
	Beverley Viney beverley.viney@nationalgrid.com 01926 653547	2. Information Provision
	Hayley Burden Hayley.burden@nationalgrid.com 01926 656972	3. SMP Buy and Sell

Key Areas of Change and Contacts (2)

Code	Contacts	Key Area of Change
Interoperability	Phil Hobbins philip.hobbins@nationalgrid.com 01926 653432 Martin Connor martin.connor@nationalgrid.com 01926 653847 Carol Spinks (item 3 IA changes) carol.spinks@nationalgrid.com 01926 656377	1. Nomination matching with adjacent TSOs
		2. New gas allocation regime at IPs
		3. Interconnection agreement re-negotiations (also encompassing Gas Day change)
		4. Data Exchange
		5. Gas Quality Information Provision
Gas Day	Hayley Burden hayley.Burden@nationalgrid.com 01926 656972 TBC	UNC Mod 0461
		TBC - Contracts, Systems and Gas Measurement

Challenges

- In order to facilitate the implementation of the EU regulations on CAM at GB IPs, the Regulators have requested that the adjacent TSOs develop a 'Concept Document'
- Concept document will outline the key principles all the TSOs need to adopt in order for the EU Codes to be successfully implemented, so that stakeholders can acquire 'bundled' capacity products
- Concept document expected to be produced by April 2014 – sign off by Regulators expected in Sept 2014
- Therefore an element of parallel working is required.....

Challenges ahead and approach to implementation

Ofgem

Challenges ahead and approach to implementation from shipper perspective

Gas Forum

Phase 1

Colin Hamilton

CMP – LTUIOLI: Interim Solution

9 January 2014

CMP – Long-term Use-it-or-lose-it

- Congestion Management Procedures amends EC 715/2009
 - Implemented 1st October 2013
 - Includes long-term use-it-or-lose-it (LTUIOLI) mechanism
 - Withdrawal of underutilised long-term capacity
 - LTUIOLI consists of
 - Monitoring & Reporting of utilisation
 - Withdrawal mechanism (*required from 1st October 2014*)
- Interim solution required but will need to be reviewed:
 - CAM implementation (Nov. 2015)
 - Firm Day Ahead UIOLI – if applied in GB (July 2016)
 - Bacton split

Long-term Use-it-or-lose-it Mechanism

- Considerations for LTUIOLI to be implemented in GB
 - Clear rules so that shippers understand process
 - Development of objective test for underutilisation
 - Performed by TSO & reported to NRA and affected shippers
 - Shipper justification for underutilisation
 - Determination if withdrawal should occur
 - Role for NRA
 - Withdrawal mechanism
 - Allow TSO to use surrender process to manage withdrawal
 - Process reviewed as part of CAM implementation in 2015

Long-term Use-it-or-lose-it Mechanism

- **Monitoring of Utilisation**
- **Withdrawal Mechanism**
- **Mod for interim solution**

Long-term Use-it-or-lose-it Mechanism

- **Monitoring of Utilisation**
- Withdrawal Mechanism
- Mod for interim solution

Monitoring of Utilisation

- Underutilisation of capacity “*with an effective contract duration of more than one year*”
 - CMP defines relevant capacity as “*only contracts with duration of more than one year or recurring quarters covering at least two years, for bundled and unbundled capacity, are effected by this CMP.*”
- With this interpretation then in current GB system underutilisation shall have to occur for
 - Entry, where shippers underutilise 4 consecutive quarters and hold 8 consecutive quarters (e.g. Bacton QSEC Oct13-Sep15)
 - Exit, underutilisation for exit shall have to occur for a year where shipper holds ESEC or 2 consecutive years of ASEC at BBL, IUK or Moffat.

Monitoring of Utilisation

- What is underutilisation according to CMP?
 - *“the network user uses less than on average 80 % of its contracted capacity both from 1 April until 30 September and from 1 October until 31 March with an effective contract duration of more than one year for which no proper justification could be provided”*
- Key issue is what to monitor.
- For GB regime should monitor utilisation of **entitlement** rather than **holding**.
- Why choose net entitlement over specific holdings?
 - In GB system shippers flow against entitlements not specific capacity contracts
 - Entitlement takes account of capacity trades
- This approach is “best fit” to GB regime

Shipper Justification

- To trigger LTUIOLI mechanism also requires:
 - *“where that user has not sold or offered under reasonable conditions its unused capacity and where other network users request firm capacity.”*
- Justifications could include:
 - Capacity offered for surrender for monitoring period
 - Capacity offered in forward buyback?
 - Capacity offered in option contracts?
 - Trades?
 -

Reporting and Assessment

- Utilisation Monitoring Report produced for NRA every 6 months
- The report shall include
 - the average utilisation values for each shipper at each IP
 - “Traffic light” status
 - Any shipper “justification” submissions
 - Data file showing how all derived values were calculated
- Ofgem determines if conditions for withdrawal have been met and direct NGG to initiate any withdrawal

Long-term Use-it-or-lose-it Mechanism

- Monitoring of Utilisation
- **Withdrawal Mechanism**
- Mod for interim solution

Determination of Withdrawal Quantity

- *“Withdrawal shall result in the network user losing its contracted capacity partially or completely for a given period or for the remaining effective contractual term”.*
- NRA to decide withdrawal quantity (between 0 to 100%) e.g....
 - Withdraw all forward entitlement from affected shipper
 - Withdrawal of a set percentage
 - Calculated % reduction that would have created 80% utilisation over monitoring period
- Withdrawal period = minimum 1 year?
 - i.e. maximum balance of 8 consecutive quarters if found to underutilise for a year.
 - Could be longer.

Withdrawal Process

- Based on existing surrender process
- ENTRY
 - First available AMSEC and/or QSEC auction following Ofgem instruction
- EXIT
 - First ASEC auction (and/or ESEC process) following Ofgem instruction
- NGG shall submit such surrender offers on behalf of any affected shipper per calendar quarter (or annual quantity) per affected IP
- Hierarchy of allocation needs to be considered
 - Unsold -> voluntary surrender -> withdrawal -> non-obligated
- Will need to review as part of CAM (2015) & DA UIOLI (2016)

Withdrawal Process for Exit Capacity

- **Could use existing surrender process for Annual (Flat) Exit**
- Withdrawal based on capacity allocated to shipper – therefore not relevant if withdrawn capacity is Registered as Annual or Enduring
- Individually notify relevant shippers of withdrawal concurrently with invitation to submit surrender offers in Annual (Flat) Exit
- Shipper remains liable to pay for any capacity withdrawn
- Withdrawal notice will state
 - IP
 - Amount to be withdrawn and treated as a surrender offer
 - All capacity could be offered for surrender
 - Period for which surrender offer applies
 - e.g. 1st October to 30th September Y+1

Long-term Use-it-or-lose-it Mechanism

- Monitoring of Utilisation
- Withdrawal Mechanism
- **Mod for interim solution**

What could Mod contain

- Proposed approach for discussion:
 - **CMP:** *“Transmission system operators shall regularly provide national regulatory authorities with all the data necessary to monitor the extent to which contracted capacities with effective contract duration of more than one year or recurring quarters covering at least two years are used.”*
 - **In Licence?:** Describe basic monitoring requirement and obligation for TSO to supply NRA with necessary data (CMP reg.)
 - Detailed monitoring methodology published on NG website not in UNC
 - **In UNC?:** record that relevant shippers will be individually notified of underutilisation and given opportunity to justify utilisation

What could Mod contain

- Proposed approach for discussion:
 - Withdrawal process based on existing surrender process
 - Amend text in UNC Section B as required
 - UNC will not specify quantity and duration of withdrawal but simply record that the NRA shall require transmission system operators to **partially or fully** withdraw systematically underutilised contracted capacity on an interconnection point by a network user where not properly justified by user for a **given period or for the remaining effective contractual term** (i.e. aligned to CMP reg.)

Long-term Use-it-or-lose-it

- Aim to minimise changes to systems and look to utilise existing functionality
- Uses transparent utilisation test
- Allow shipper to “justify” utilisation
- Withdrawal based on existing surrender processes (arising from Mod 449)
- Utilisation monitoring from 1st October 2013
- First report ~April 2014
- LTUIOLI withdrawal instruction from Ofgem could occur post-October 2014
- First withdrawal could be Feb 2015 AMSEC or March 2015 QSEC auction for entry and July 2015 for annual enduring exit

Phase 2



CAM Code

Matthew Hatch

Overview CAM with CMP integration

Overview of code	The EU CAM Regulation establishes standardised capacity allocation mechanisms for cross border gas transmission capacity
	Measures from the CMP Regulation also feed into the regular allocation mechanism for CAM
Impacts to GB regime	At interconnection points with Belgium, Holland and Ireland, CAM <ul style="list-style-type: none">• replaces current capacity allocation mechanisms• incorporates congestion management procedures compliant with CMP including surrenders and long term use it or lose it (UIOLI) mechanisms
	Details of CAM have been provided as they have evolved / changed over a number of years
	NG NTS high level impact assessment of CAM was summarised at the Transmission Workgroup in July 2013
Compliance Date	1 November 2015

Key Areas of Change

1. Firm Capacity Auction Process at IPs
2. Shipper Capacity Transfers and Assignment at IPs
3. Interruptible Capacity at IPs
4. Cross border bundling arrangements
5. CMP (integration with CAM)

1. Firm Capacity Auction Process at IPs

Overview of change	Standard Capacity Products	For both Entry and Exit
		With durations of one year (Y1 to Y15), one quarter (within Y1), one month, one day and the remainder of the day
	Standard auctions	via a standard auction mechanism with algorithms by
		<ul style="list-style-type: none"> • Ascending Clock for Yearly, Quarterly & Monthly • Uniform Price for Daily & Within Day
		on a joint booking platform (PRISMA) common to adjacent Interconnected TSOs
		through a standard calendar / Gas Day
		% set aside in Long term auction for short term auctions
	Cross border bundling	As a priority Entry and Exit capacity at IPs between markets is to be bundled into a single allocation process
		Where more available firm capacity exists on one side of an IP, this can be offered as an unbundled product up to 1 year ahead

1. Firm Capacity Auction Process at IPs

Status	Pre mod
UNC Modification Required	Yes
Key issues / assumptions	PRISMA is the Joint Booking Platform for NG and it will be used in conjunction with Gemini / UK Link
	EU regulations on Tariffs and Incremental Capacity will not be in place in 2015/2016
	Cross Border capacity bundling arrangements need to be agreed in an appropriate timeframe. Non prescriptive elements / between adjacent TSO/NRAs and Stakeholders need to be agreed.

1. Firm Capacity Auction Process at IPs

System Impacts	Yes
Industry consultation specified in code	Yes (% withheld for shorter term release)
Licence or Methodology change required	Yes
Next steps	Seek compatibility with adjoining TSOs incorporating Stakeholder views (as appropriate)

Standard Auctions/Products

Auction	Frequency	Product Entry/Exit	Capacity Commences	Start of Auction	Invitation Publication	Allocation	Auction Algorithm
Annual Yearly	annually	Firm Y1 to Y15 Annual strips	1 st October	1 st Monday of March	1 month before auction starts	Next business day	Ascending clock
Annual Quarterly		Firm Q1 to Q4	1 st October 1 st January 1 st April 1 st July	1 st Monday of June	2 weeks before auction starts		
Rolling Monthly	monthly	Firm Monthly Tranche	1 st day of each month	3 rd Monday of the month	1 week before auction starts		
Rolling Day Ahead	daily	Firm D+1	Start of the Gas Day	D-1	At the start of the auction	Within 30 minutes of closure of bidding round	Uniform price
Within Day	hourly	Firm D	Rest of the Gas Day	D	After closure of the day ahead auction		

- No EU incremental release rules until 2017

CAM Auction/UNC Capacity Comparison

- High degree of change

nationalgrid

	CAM (Entry & Exit)	UNC Entry Capacity	UNC Exit Capacity
LONG TERM FIRM			
Product	Yearly 1-15yrs	Quarterly Y+2 to Y+16	Enduring evergreen Y+4, or ad hoc M+6
Frequency	Annual 1 st Mon March	Annual March	Annual July, Ad hoc Oct to June
Allocation algorithm	Ascending clock, Clearing price	Incremental price step, Clearing price	Application – fixed price
Capacity Type	Technical – set aside – sold + additional	Baseline + obligated incremental – set aside – sold + Non ob	Baseline + obligated incremental – sold
MEDIUM TERM FIRM			
Product	Quarterly 1 yr	Monthly 18 months	Yearly 3 years
Frequency	Annual 1 st Mon June	Annual February	Annual July
Allocation algorithm	Ascending clock, clearing price	Pay as bid	Application – fixed price
Capacity Type	Technical – sold + additional	Baseline – sold + Non ob	Baseline – sold + Non ob

CAM Auction/UNC Capacity Comparison

- High degree of change

nationalgrid

	CAM (Entry & Exit)	UNC Entry Capacity	UNC Exit Capacity
MONTHLY FIRM			
Product/Freq	Monthly (3 rd Monday)	Monthly (M-20 business days)	None
Allocation algorithm	Ascending clock, clearing price	Pay as bid + Entry Transfer & Trade	
Capacity Type	Technical – sold + additional	Baseline – sold + Non ob	
DAY AHEAD FIRM			
Product/Freq	Daily	Daily	Daily
Allocation algorithm	Uniform Price	Pay as bid	Pay as bid
Capacity Type	Technical – sold + additional	Baseline – sold + Non ob	Baseline – sold + Non ob
WITHIN DAY FIRM			
Product/Freq	Start time to EOD / Hourly	Daily / Hourly	Daily / Up to hourly

2. Shipper Capacity Transfers & Assignment Processes at IPs

Overview of change	Capacity allocated as bundled can only be resold as bundled.
	The Joint Booking Platform will provide facilities for shippers to offer and obtain secondary capacity
Status	Pre Mod
UNC Modification Required	Yes
Key issues / assumptions	A Capacity Trading EU Code / Regulation has not yet been defined but it may be implemented in 2017 so interim arrangements are needed
	Shipper capacity transfer proposals will need <ul style="list-style-type: none">• to indicate whether capacity is bundled or not• both / all TSOs in the bundle must support and approve the transfer Assignment for legacy NTS Exit only

2. Shipper Capacity Transfers & Assignment Processes at IPs

System Impacts	Yes
Industry consultation specified in code	No
Licence or Methodology change required	Yes – some changes to methodologies may be needed
Next steps	Seek compatibility with adjoining TSOs incorporating Stakeholder views (as appropriate)

3. Interruptible Capacity at IPs

Overview of change	•Interruptible capacity auctions must be conducted in accordance with the design principles as for Firm capacity defined under CAM
	•Interruptible Capacity can only be released where all Firm Capacity has been sold out
	•Mandatory to have a rolling daily interruptible capacity product (day ahead), but optional to have a longer or within day product
	•If a Within day interruptible product is offered it can only be allocated by an “over-nomination” process rather than an auction
Status	•The interruption sequence is to be based on contractual timestamp
UNC Modification Required	Pre Mod
	UNC Mod

3. Interruptible Capacity at IPs

Key issues / assumptions	The Interruptible capacity release quantity is not prescribed by CAM
	Interruptible capacity remains unbundled
	Maintain current (UNC) day ahead interruptible product & release quantity rules
	Interruption process continues via the scaling off mechanism as in current UNC
System Impacts	Yes
Industry consultation specified in code	No
Licence or Methodology change required	Yes – some changes to capacity methodologies may be needed
Next steps	Seek decision to continue with D-1 interruptible product Seek compatibility with adjoining TSOs, incorporating Stakeholder views (as appropriate)

CAM / UNC Daily Interruptible Capacity Auction Comparison

nationalgrid

Day Ahead Interruptible

	CAM Entry/Exit are identical	UNC Entry Capacity	UNC Exit Capacity
Product/Freq	Daily	Daily	Daily
Allocation algorithm	Uniform price	Pay as bid,	Pay as bid,
Capacity Type	Only when firm is sold out	UIOLI + Discretionary	UIOLI + Discretionary + MNEPOR- sold

4. Cross Border Bundling Arrangements

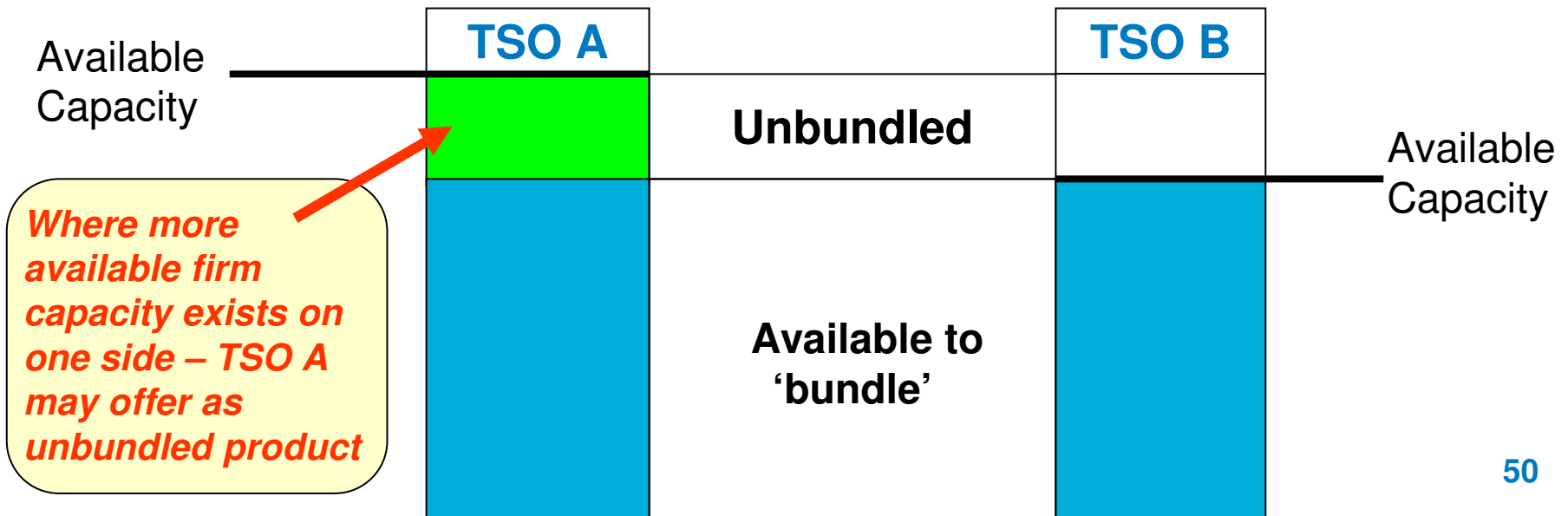
Overview of Change	Priority has to be given to offering bundles of NTS Entry capacity with the adjacent TSO Exit capacity and vice versa
Status	Bacton: Ofgem consultation held – awaiting resolution Moffat: Ofgem in discussion with relevant TSOs / NRAs
UNC Modification Required	Dependent on resolutions but likely yes
Key issues / assumptions	CAM Regulations refer to cross border bundling but are not fully prescriptive for the prevailing situations at Bacton and Moffat

4. Cross Border Bundling Arrangements

System Impacts	Dependent on resolution but likely yes
Industry consultation specified in code	No
Licence or Methodology change required	Dependent on resolution but likely yes
Next steps	Ofgem Bacton consultation closed 12 th Dec 2013 Ofgem workshop late Jan 2014

4. Cross Border Bundling - Unsold capacity

Bundled Capacity	<p>Consists of corresponding entry and exit capacity on both sides of the IP</p> <p>Cross border bundling of unsold capacity has to be given priority</p>
Unbundled Capacity	Where more available firm capacity exists on one side of an IP, this can be offered as an unbundled product up to 1 year ahead



5. CMP (integration with CAM)

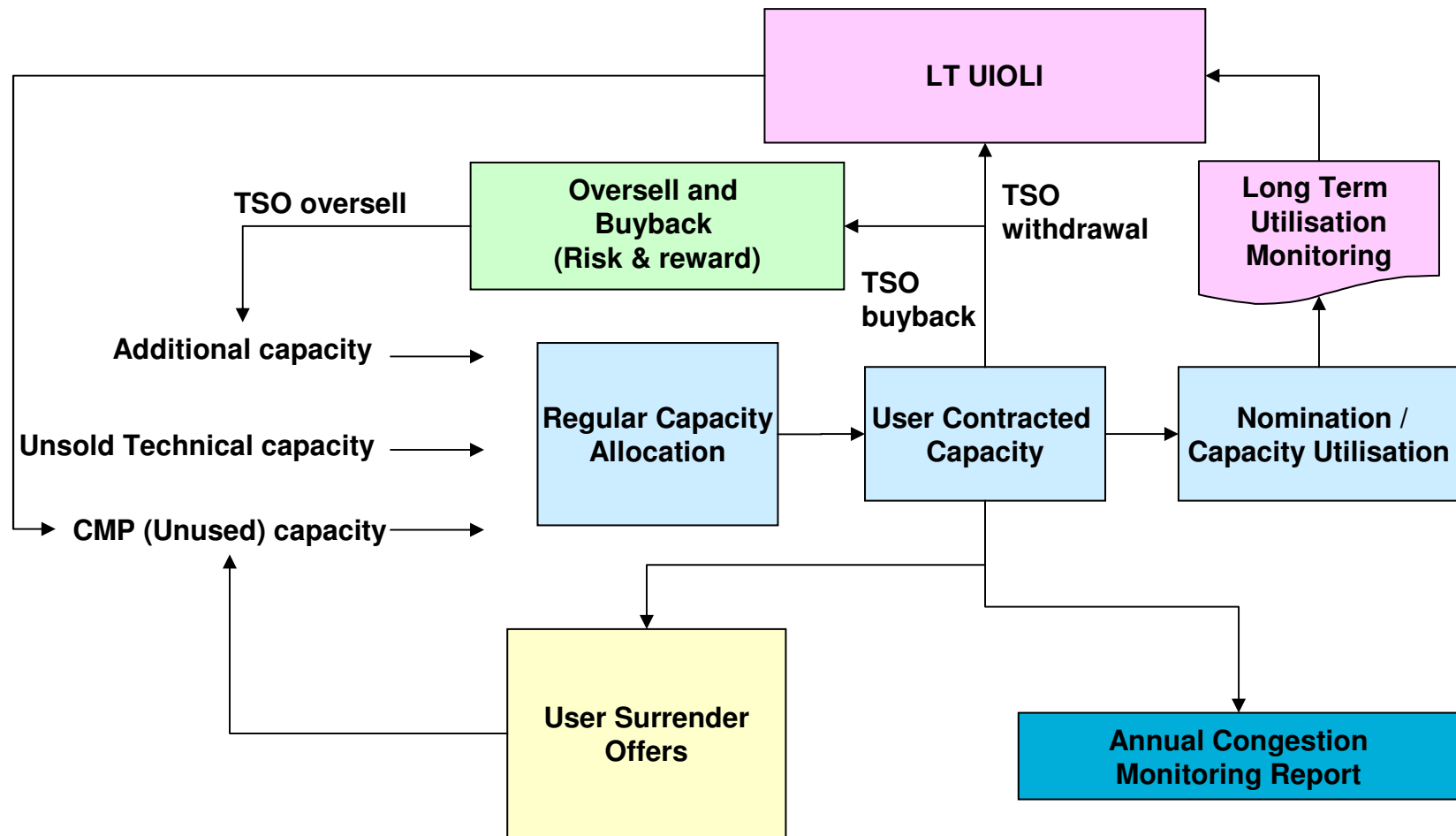
Overview of Change	CMP measures of Surrenders and Long Term UIOLI at IPs will need to be applied to the CAM allocation processes
	For July 2016 a Firm Day Ahead UIOLI Mechanism (Restriction of Renomination Rights) could be required by a NRA in consultation with its adjacent NRAs. An evaluation of the success of any Oversubscription and Buy Back scheme should be taken into account before any UIOLI mechanism is introduced
Status	Pre mod
UNC Mod Required	Yes
Key issues / assumptions	· Firm Day Ahead UIOLI is not required for NTS interconnectors in July 2016
	<ul style="list-style-type: none"> · Surrenders and Long term UIOLI need to adhere to the principle that capacity allocated as bundled can only be resold as bundled, but the Regulations are not prescriptive · From Nov 2015 shipper surrender offers could be submitted to the Joint Booking Platform

5. CMP (integration with CAM)

System Impacts	Yes
Industry consultation specified in code	No
Licence or Methodology change required	Yes – some changes to methodologies may be required
Next steps	Seek compatibility with adjoining TSOs, incorporating Stakeholder views (as appropriate)

5. CMP High Level Process Summary

- Interaction with CAM



PRISMA

PRISMA is the Joint Booking Platform for NG and it will be used in conjunction with Gemini / UK Link.

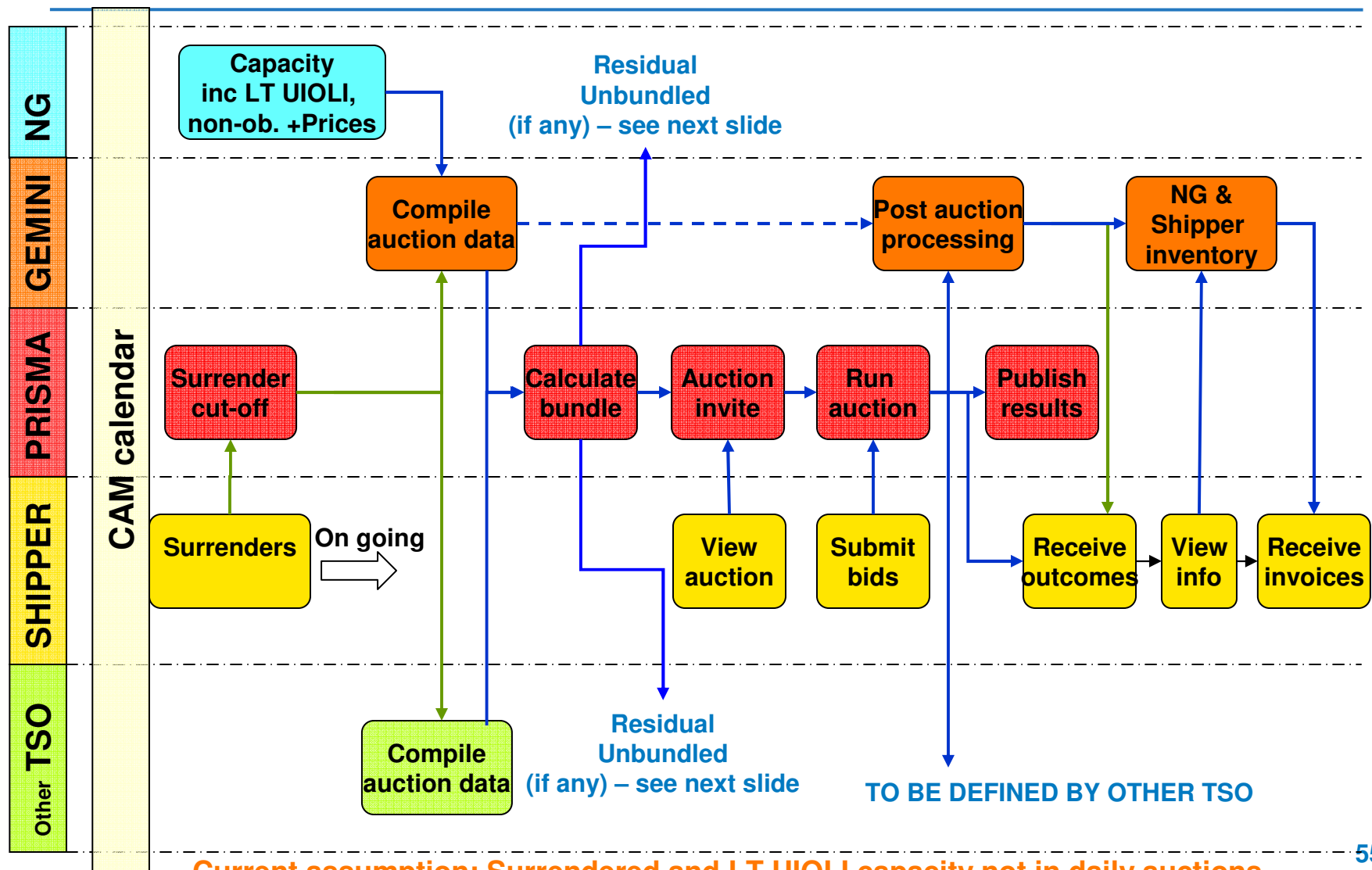
The booking platform only covers

- Auctions, bids and allocation
- Secondary market buying and selling

UK Link systems used for everything else :

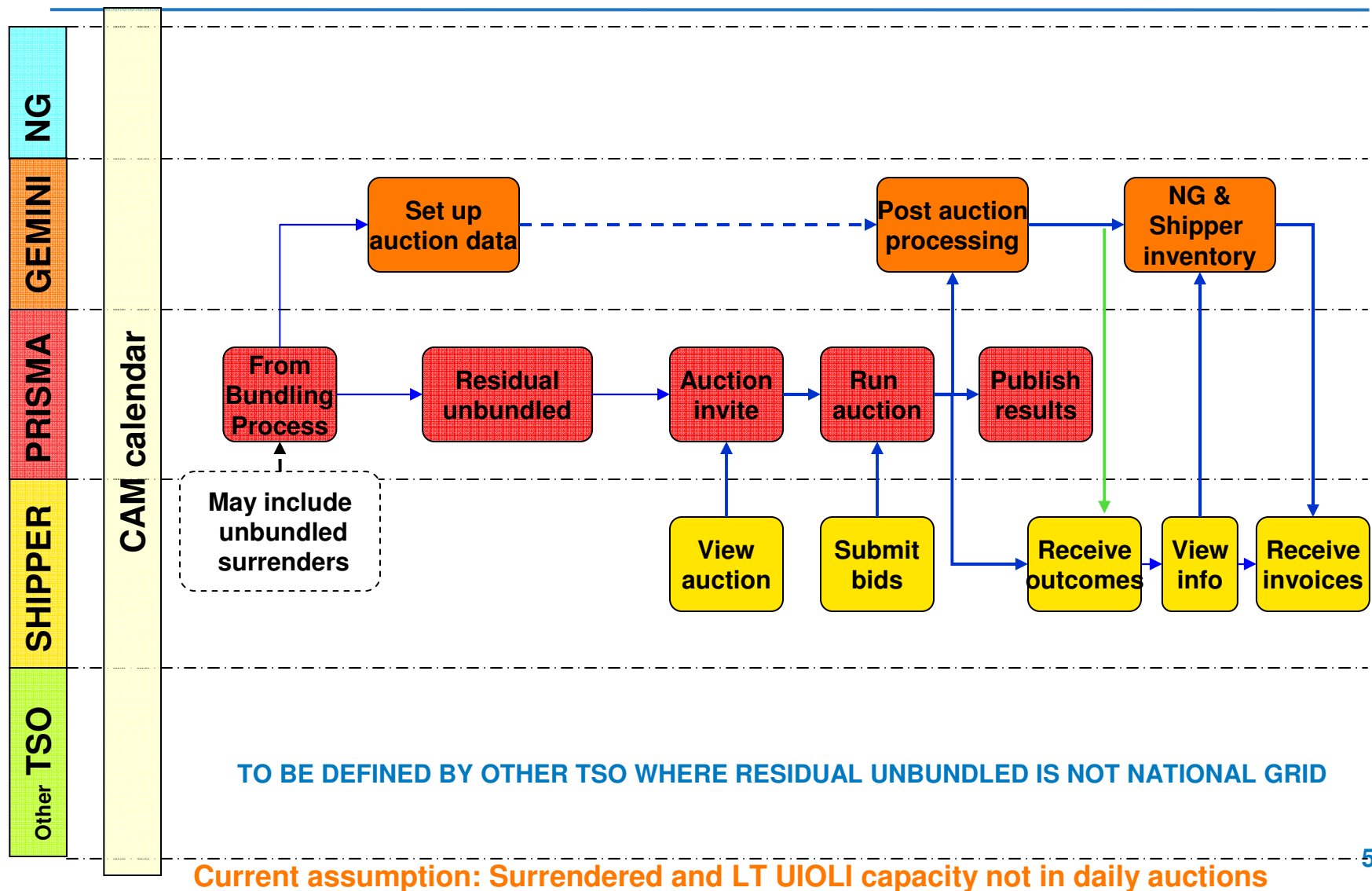
- Compile auction invitation information
- Post auction processing
- Inventory update
- Interruptible scalebacks
- Buybacks
- Invoicing.

CAM-CMP high level process summary – Bundled



nationalgrid

CAM-CMP high level process summary– Unbundled



Balancing Code

Chris Shanley

Balancing Code Overview

- Includes rules on nomination procedures, imbalance charges and operational balancing between Transmission System Operators (TSOs) systems
- Compliance date - October 2015 (October 2016 subject to NRA approval for a 12 month extension)
- The code is closely aligned with the gas balancing arrangements in GB but there are still a number of areas that impact on the current GB arrangements
- NG NTS Impact assessments - shared with the Industry via the Transmission Workgroup (May 12, May 13 and Nov 13)

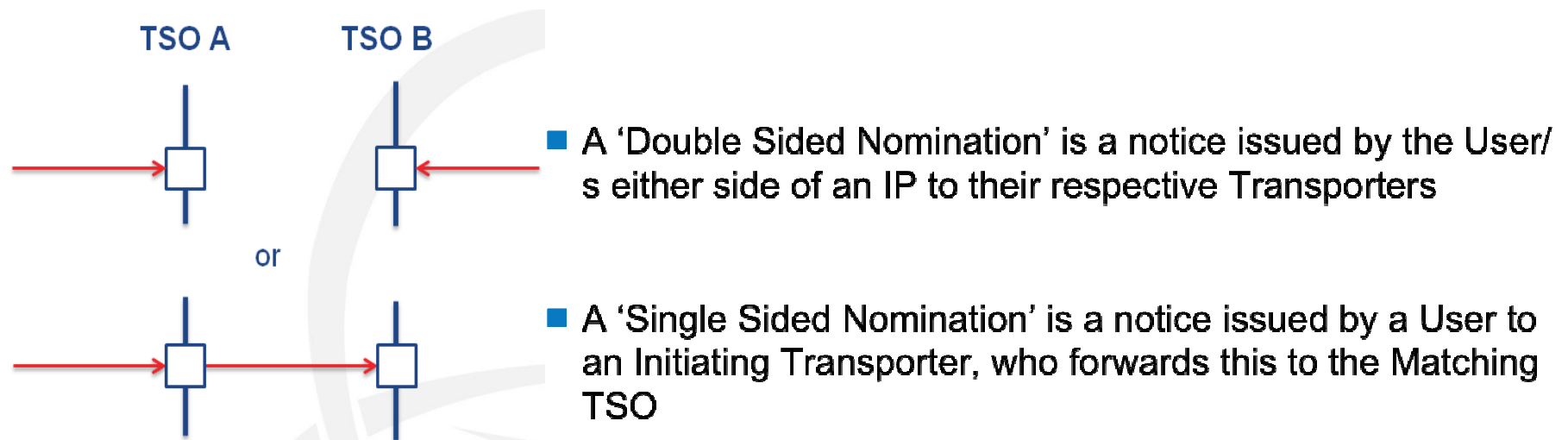
Nominations Process

Balancing 1. Nomination Process at IPs

Impact Rating	Major - the nomination rules proposed for Interconnection Points (IPs) are significantly different from those applied in the GB regime
Overview of change	<ul style="list-style-type: none"> • The balancing code sets out the detailed harmonised rules for nomination and renomination procedures at IPs • Nomination rules at IPs to be implemented are also included in the interoperability (matching) and CAM codes • The nomination rules developed consider the interactions between the different codes
Status	Pre Modification Stage – last update Transmission Workgroup
UNC Modification	Yes
Key Aspects	<ol style="list-style-type: none"> 1. 2/3 way bundling – potential implications for Noms process design 2. TSO may reject nom if allocated capacity is exceeded and/or may treat over-nom as a request for interruptible capacity. Over-nomination requests for within-day interruptible capacity will not be offered and noms will not be rejected if capacity is exceeded other than in Exceptional Events

Key Aspect

- A User holding both Bundled Capacity and Unbundled Capacity at an IP may submit separate Single Sided Nominations and Double Sided Nominations
- Application TBC with adjacent TSOs



Nominations Process

Balancing 1. Nomination Process at IPs

System Impacts	Yes – NG and Shippers
Industry Consultation specified	No
Licence or Methodology change required	No
Next Steps	The Nomination rules are being developed further in conjunction with adjacent TSOs

Information Provision

Balancing 2. Information Provision

Impact Rating	<ul style="list-style-type: none"> • Minor - NG generally provides information in line with the code proposals (base case) • Small number of areas that impact on the current GB information provision arrangements
Overview of change	<ul style="list-style-type: none"> • The EU Gas Balancing Code sets out the information to be provided by TSOs to Network Users and the corresponding requirements of the TSO, DSO and Forecasting Party • NDMA - There is a requirement to publish a forecast D-1 at 12:00, and report on the accuracy of the NDM Forecasts at least every 2 years • The EU Code requires that no later than the end of the next Gas Day, the TSO shall provide each Network User with an initial Allocation for its Inputs and Off-takes
Status	Pre Modification Stage – last update Transmission Workgroup
UNC Modification	Yes
Key Aspects	<ul style="list-style-type: none"> • NDM forecast accuracy obligation is not detailed and NG have been working with Xoserve to develop some initial thoughts

Information Provision

Balancing 2. Information Provision

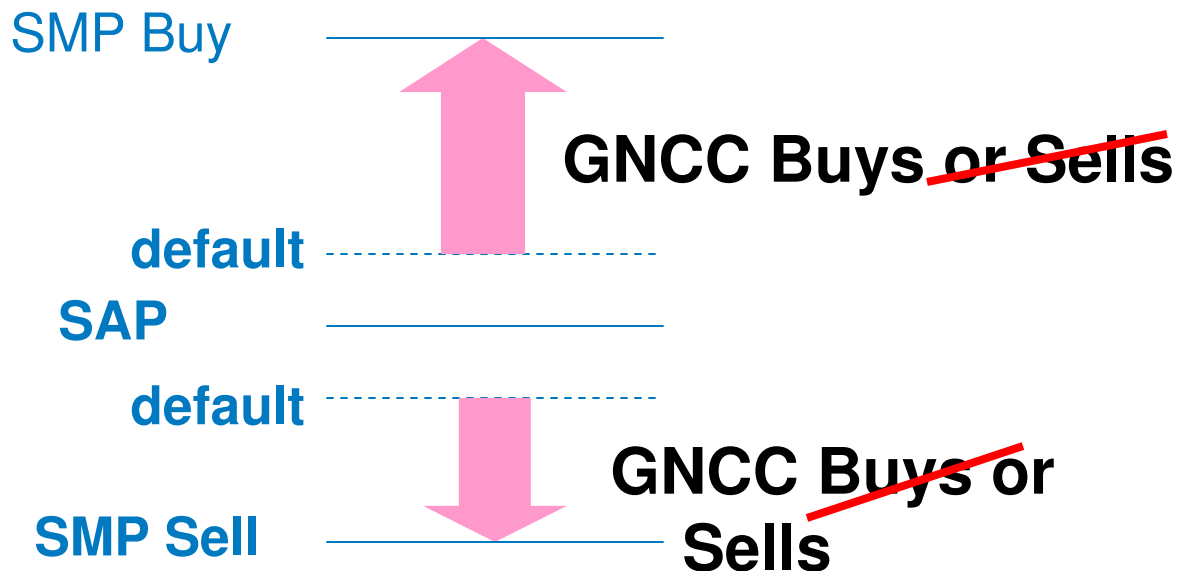
System Impacts	Yes – NG and Shippers
Industry Consultation specified	No
Licence or Methodology change required	No
Next Steps	Modification being drafted

Imbalance Charges

Balancing 3. SMP Buy and Sell

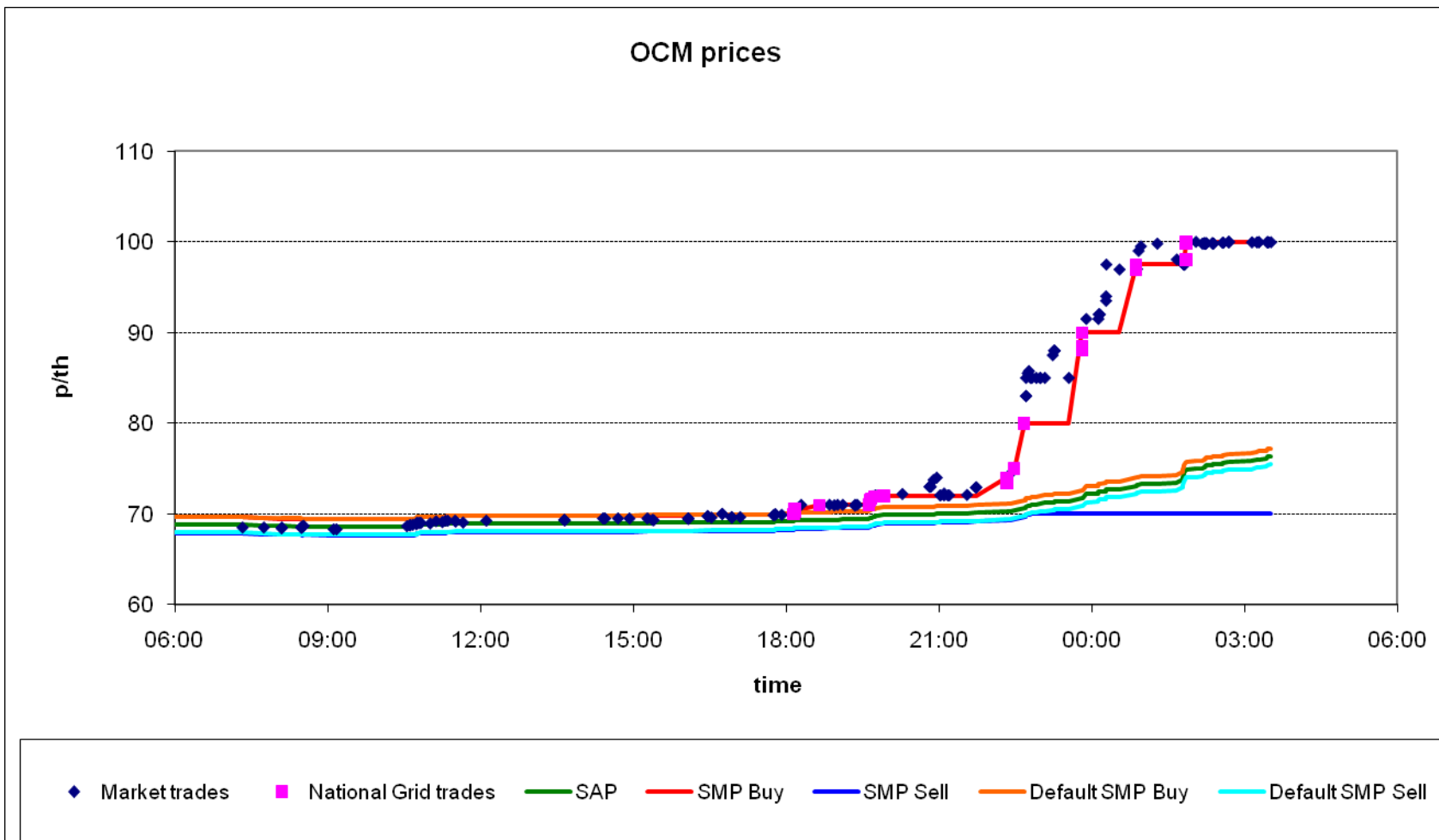
Impact Rating	<ul style="list-style-type: none"> • Medium – GB Imbalance Charges generally in line with the code • Impact to marginal sell and buy prices introduced via final comitology meeting on 2nd October 2013.
Overview of change	<p>EU Gas Balancing Code</p> <ul style="list-style-type: none"> • SMP Buy = max {SAP+ adjustment or highest price balancing BUY} • SMP Sell = min {SAP- adjustment or lowest price balancing SELL} <p>UNC</p> <ul style="list-style-type: none"> • SMP Buy = max {SAP+ default differential or highest price balancing trade} • SMP Sell = min {SAP - default differential or lowest price balancing trade}
Status	Pre Modification Stage
UNC Modification	Yes

Impact on GB SMP Buy and Sell price?



- In recent years, cashout price set with trade in “opposite direction” around 10 times a year
- Buys have set SMP Sell, and Sells have set SMP Buy
 - Analysis performed suggests this could be up to 5p/th away from default price

16 January 2013 – Buys set SMP Sell



Example - 16 January 2013

- Market short. Balancing buys range from 70p/th to £1/th.
 - SAP = 76.4p/th, SMP Buy = £1/th, SMP Sell = 70p/th.
 - EU Code SMP Sell = 75.5p/th
- EU Code - long shippers would receive 5.5p/th more than under the current methodology, potentially reducing their incentive to balance
- Depending on their trade price [e.g. 71p/th] they could actually be obtaining more revenue from not balancing their portfolio
- However, as the system is short, the shipper could be seen as “helping” the transporter balance the system and should not be penalised as much as short shippers?

Options

Description	Pros	Cons
1) No change	<ul style="list-style-type: none">• No cost	<ul style="list-style-type: none">• Not EU compliant - open to infraction proceedings/fines
2) Change to EU definition	<ul style="list-style-type: none">• Compliant• Straightforward• Shippers with an imbalance in the direction that is “helping” are cashed out close to SAP	<ul style="list-style-type: none">• Needs Mod and system change• Changes in behaviour would need to be monitored
3) Change to EU definition + increase default differential	<ul style="list-style-type: none">• Compliant.• Shippers incentivised to balance regardless of market / system length	<ul style="list-style-type: none">• Needs mod and system change – beyond EU requirement• Need to consult on default methodology changes

Imbalance Charges

Balancing 3. SMP Buy and Sell

System Impacts	Yes – NG and OCM?
Licence or Methodology change required	Default System Marginal Price Methodology – depending on option progressed
Next Steps	Views being sought on options

Interoperability & Data Exchange Code

Martin Connor

Interoperability Code Overview

- This Code aims to make EU networks ‘interoperable’ by removing barriers to cross border gas flow associated with:
 - Interconnection Agreements
 - Gas Quality
 - Odourisation (of transmission systems)
 - Common Units
 - Data Exchange

Interoperability Code – Current Status

- ACER's Reasoned Opinion was published in November
- ENTSOG re-submitted its proposed Code to ACER following the Reasoned Opinion on 18th December
- Pre-comitology meeting for Member State representatives scheduled for 21st January 2014
- First comitology meeting: 28th April 2014
- Second comitology meeting: 11th July 2014

Nominations Matching

Interoperability 1. Nomination Matching at IPs

Impact Rating	Medium
Overview of change	<ul style="list-style-type: none">• The Code sets out TSO-TSO process requirements for nominations either side of an IP to be matched• New NG processes and changes to Interconnection Agreements and UNC are envisaged
Status	Pre Modification Stage
UNC Modification Required?	Yes – envisaged to be included in Balancing code change for nominations
Key Aspect	Future role of Bacton and Moffat agencies in matching process?

Nominations Matching

Interoperability 1. Nomination Matching at IPs

System Impacts	Yes
Industry Consultation specified in code	Yes – if TSOs agree to use a rule other than the “lesser” rule (2 months)
Licence change, etc. required	No
Next Steps	Business rules in development. NG view on future of agencies to be provided to the February/March Transmission Workgroup.

Allocations

Interoperability 2. New Allocation Regime for IPs

Impact Rating	Major
Overview of change	<ul style="list-style-type: none">• An 'allocate as nominate' with OBA regime is expected at IPs only.• This will entail new activities and process changes for NG and also changes to Interconnection Agreements and UNC
Status	Pre Modification Stage
UNC Modification Required?	Yes
Key Issues or Assumptions	<ul style="list-style-type: none">• OBAs will be required at all three IPs• OBA design and interaction within the GB regime• Future role of Bacton and Moffat agencies and associated shipper allocation agreements

Allocations

Interoperability 2. New Allocation Regime for IPs

System Impacts	Yes
Industry Consultation specified in Code	Yes
Licence or Methodology change required	No
Next Steps	<ul style="list-style-type: none">• Business rules in development.• NG view on future of agencies to be provided to the February/March Transmission Workgroup.• Potential OBA design(s) to be discussed at March/April Transmission Workgroup.

Interconnection Agreement Changes

Interoperability 3. Re-negotiation of Interconnection Agreements

Impact Rating	Major
Overview of change	The Code requires Interconnection Agreements to contain a minimum content, some of which is currently absent from NG's IAs with Gaslink, IUK and BBL.
Status	Pre Modification Stage
UNC Modification Required?	If changes to Network Entry / Exit Provisions are required, an 'enabling' Mod will be required before the TSOs can sign the amended agreement
Key Issues or Assumptions	<ul style="list-style-type: none">• Gas Day change also needs to be factored into the re-drafting• Links to UNC for process which affect shippers (e.g. matching and allocations) may need to be established

Interconnection Agreement Changes

Interoperability 3. Re-negotiation of Interconnection Agreements

System Impacts	No
Industry Consultation specified in Code	No
Licence or Methodology change required	No
Next Steps	NG has completed a 'gap analysis' of each IA which is being discussed with our adjacent TSOs.

Data Exchange

Interoperability 4. Data Exchange

Impact Rating	Medium																																		
Overview of change	<p>The Code provides a ‘toolbox’ shown below, from which TSOs must select the most appropriate Data Exchange solutions:</p> <table> <tr> <th colspan="2"></th><th colspan="2">Data content format</th><th colspan="2">Data exchange protocol</th></tr> <tr> <th>‘Toolbox’ item</th><th>Network</th><th>Structure Format</th><th>Content Format</th><th>B2B standard</th><th>Comm Protocol</th></tr> <tr> <td>Document based</td><td>Internet</td><td>XML</td><td>Edig@s</td><td>AS4</td><td>HTTP(S)</td></tr> <tr> <td>Integrated</td><td>Internet</td><td>XML</td><td>Edig@s</td><td>SOAP</td><td>HTTP(S)</td></tr> <tr> <td>Interactive</td><td>Internet</td><td>None</td><td></td><td></td><td>HTTP(S)</td></tr> </table>							Data content format		Data exchange protocol		‘Toolbox’ item	Network	Structure Format	Content Format	B2B standard	Comm Protocol	Document based	Internet	XML	Edig@s	AS4	HTTP(S)	Integrated	Internet	XML	Edig@s	SOAP	HTTP(S)	Interactive	Internet	None			HTTP(S)
		Data content format		Data exchange protocol																															
‘Toolbox’ item	Network	Structure Format	Content Format	B2B standard	Comm Protocol																														
Document based	Internet	XML	Edig@s	AS4	HTTP(S)																														
Integrated	Internet	XML	Edig@s	SOAP	HTTP(S)																														
Interactive	Internet	None			HTTP(S)																														
Status	Pre Modification Stage																																		
UNC Modification Required?	Yes, (TPD Section U)																																		
System Impacts	Yes																																		

Data Exchange

Interoperability 4. Data Exchange

Key Issues or Assumptions	<ul style="list-style-type: none">• Common data exchange solutions will be required for the following processes:• Capacity booking (CAM Code)• Nominations (BAL and INT Codes)• Allocations (INT Code)• Publication of information on common platform for transparency requirements• A longer implementation lead-time is a possibility.
Industry Consultation specified in Code	No
Licence change, etc. required	No
Next Steps	<ul style="list-style-type: none">• Interfaces between the common solutions and Gemini will need to be considered.• Evaluation of which 'toolbox' item is most appropriate for what process

Gas Quality

Interoperability 5. Gas Quality Information Provision

Impact Rating	Minor
Overview of change	The Interoperability Code obliges TSOs to consult at a national level to assess industry demand for gas quality information provision.
Status	No mod required
UNC Modification Required?	Not currently envisaged
Key aspects	<ul style="list-style-type: none">• What additional gas quality information would industry participants find useful• What information National Grid is able to provide using existing equipment

Gas Quality

Interoperability 5. Gas Quality Information Provision

System Impacts	Unlikely
Industry Consultation specified in Code	Yes
Licence or Methodology change required	No
Next Steps	National Grid NTS envisages running a consultation with GB industry in the second half of 2014.

Gas Day

Chris Shanley

Gas Day

Change to the GB gas day from 06:00-06:00 to 05:00-05:00

Impact Rating	<ul style="list-style-type: none">• MAJOR – Significant change to the time physical and commercial processes are conducted within the GB market impacting on the entire regime.
Overview of change	<ul style="list-style-type: none">• The gas day is required to change to 05:00-05:00 to achieve compliance with the CAM code.• This change needs to be implemented no later than 1st Nov 2015.
Status	<ul style="list-style-type: none">• UNC Modification 0461 raised in June 2013• Sent to consultation – closing date 27th January 2014
Key Aspects	<ul style="list-style-type: none">• Minimum impact approach to change proposed:<ul style="list-style-type: none">• Definition of a 'Day' and associated definitions changed to 05:00 – 05:00• Specific times that define the start/end of the current Day moved• Gemini outage time will move from 04:00-06:00 to 03:00-05:00• Specific UNC associated process times will also require moving• UNC implementation date proposed as 1st October 2015• Wider impacts also being discussed with other parties, e.g. Oil & Gas UK and Gas Forum.

Gas Day

Change to the GB gas day from 06:00-06:00 to 05:00-05:00

System Impacts	<ul style="list-style-type: none">• Yes – Gemini and UK Link.• Impact assessments considered low to medium overall• Integration testing is deemed high due to number of connected systems.• Other impacts to NTS, DNO and shipper systems that fall outside of UNC modification.
Licence or Methodology change required	Yes – impacts to Transporter and Shipper licences (to be progressed by Ofgem)
Next Steps	<ul style="list-style-type: none">• Consultation closes 27 Jan 2014• Panel recommendation vote – 20 Feb 2014• Estimated Ofgem approval – April 2014

Phase 3 & 4



Tariff Code & Incremental Capacity Amendment

Colin Hamilton

Tariff Code & Incremental Capacity nationalgrid Amendment

- ACER published Tariff Framework Guideline plus Guidance on Amendment Proposals for CAM – 2nd December 2013
- ENTSOG received two invitations from European Commission of 19th December 2013:
 - *to draft a Network Code on Tariff Structures in Gas Transmission Networks (the TAR NC);*
 - *to draft an amendment on incremental and new capacity to the Network Code on Capacity Allocation Mechanisms (the incremental proposal)*

Tariff Network Code - Objective

- *“to elaborate on the TAR FG and develop a TAR NC that contributes to the European objective of further development of the internal market for energy. In order to achieve this objective, the TAR NC will promote harmonisation of transmission tariff structures in relation to those items outlined in the scope below”.*

Tariff Network Code Project - Scope

- **General Provisions** – impact assessment to consider the validity of harmonising the tariff setting year.
- **Publication Requirements** –by TSOs and national regulatory authorities to enable third parties to make reasonable tariff estimations.
- **Cost Allocation and Determination of the Reference Price** – limited number of cost allocation methodologies with a methodology counterfactual and a complementary test to avoid discrimination.
- **Incremental Capacity** –economic test for the offer of incremental and new capacity.
- **Revenue Reconciliation** –rules to ensure the recovery of efficiently-incurred costs by TSOs, financial stability for efficient TSOs, and tariff stability for network users

Tariff Network Code Project - Scope

- **Reserve Price** – shall develop methodologies for the pricing of short-term products, using multipliers and seasonal factors, and for bi/unidirectional interruptible capacity, using discounts.
- **Virtual Interconnection Points (VIPs)** – elaborate on a combination method for pricing capacity at VIPs.
- **Bundled Capacity Products** – specify the pricing of bundled capacity.
- **Payable Price** – specify the components of the payable price for auctions.

In addition to the above scope, the Commission has requested that ENTSOG provide an impact assessment on the policy choices made during the development process for the network code.

Incremental Capacity Proposal

The Incremental Proposal will consist of two parts:

- An amendment proposal to the CAM NC
- Chapter of the Tariff NC

Incremental Capacity Proposal - Scope

- Definitions
 - Existing capacity; Incremental capacity; New capacity; Open Season Procedures
- When to offer incremental capacity (process trigger)
- Conditions for offering incremental capacity
- Gap identification in the TYNDP; no yearly capacity products based on the existing capacity is offered; network users non-binding indication need and willingness to underwrite incremental or new capacity.
- Co-ordination requirements
 - TSO-NRA cooperation
 - Cross-border cooperation
- Information provision
 - Information regarding volume of offered standard bundled capacity products offered; rules used for securing network users' binding commitments; necessary economic commitment from network users; tariff and methodology used by TSOs; timing and publication of economic test results and final capacity allocations.

Incremental Capacity Proposal - Scope

- Integration of incremental and new capacity into the CAM NC annual yearly capacity auctions
 - Application of principles regarding methodology for offering bundled incremental and new capacity; integrated with the offer of existing capacity; possibility to accommodate different starting prices.
- Open Season Procedures
 - To be applied when extended across more than two market areas, or when due to size and/or complexity auction could appear not to be a robust approach.
- Economic test
 - To validate the project's financial viability considering network user's binding commitments to purchase incremental or new capacity
- Tariff related issues
 - In case reference prices as determined by the cost allocation methodology in the tariffs NC would lead to a situation where the economic test could not be passed, tariff adjustments could be considered.

Draft Timeline for TAR Code and INC Amendment

Activity	Date
Project Plan consultations	19 Dec 2013 – 20 Jan 2014
Kick-off Workshops	14-15 Jan 2014
SJWS 1	10-11 Feb 2014
SJWS 2	26-27 Feb 2014
SJWS 3	13-14 Mar 2014
SJWS 4	24 -25 Mar 2014
SJWS 5	8-9 Apr 2014
Draft Code/Amendment Consultation	29 May – 25 Jul 2014
Consultation WS	24-25 Jun 2014
Refinement WS	23-24 Sep 2014
Stakeholder Support Process	7–21 Nov 2014
TAR Code & INC Amendment submission	31 Dec 2014

Tariff Code & Incremental Capacity nationalgrid Amendment

- Key documents:

- Tariffs:

- <http://www.entsog.eu/publications/tariffs#TAR-FRAMEWORK-GUIDELINE-AND-EC-INVITATION->

- Incremental Capacity:

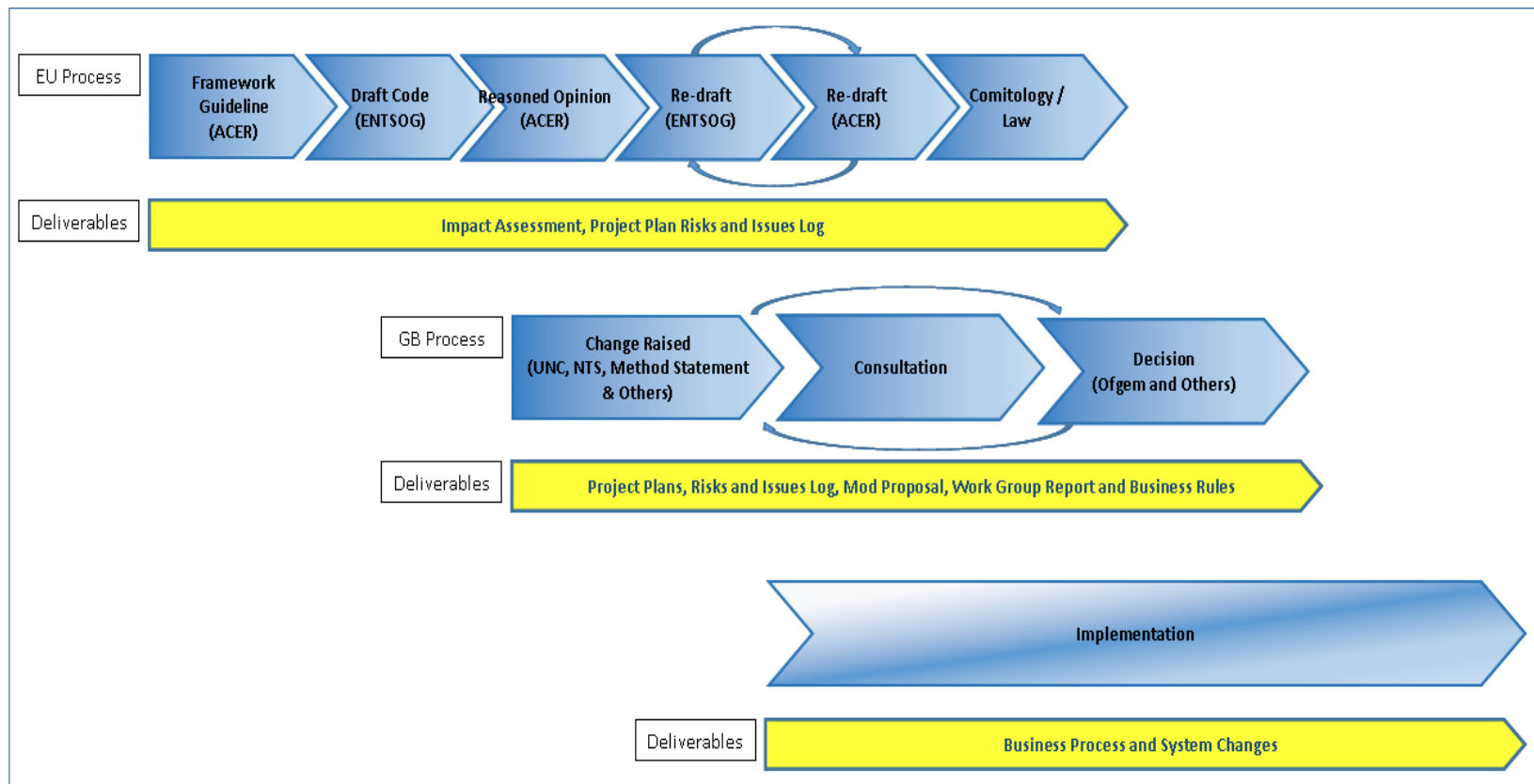
- <http://www.entsog.eu/publications/incremental-capacity#INCREMENTAL-PROPOSAL-PROJECT-PLAN>

Systems Development



Systems Development

- Each EU Code Implementation phase will have a particular IS release plan – further details to be shared at the February TX WG meeting



UNC Modification Plans



Approach

- Aim of this section is to:
 - Provide NG NTS initial views on the number and types of Mods required to deliver the phase 2 changes
 - Obtain stakeholder views on these initial plans
- NG NTS believe that it is not appropriate to raise one “super” Mod, as this is likely to be very complex and delay matters
 - Do stakeholders concur?
- Modifications will propose that they go to Workgroup for development/discussion with UNC parties and not straight to consultation
 - Small proposals should take up to 6 months to develop
 - Larger proposals could take around 6-9 months to develop

Phase 2 UNC Modifications

Potential Timescales

nationalgrid

EU Network Code	Area of change	Panel Submission	Workgroup Development	UNC Consultation
Balancing	Information Provision	Q1 - 2014	6 Months	Q3 - 2014
	SMP Buy & Sell	Q1 - 2014	6 Months	Q3 - 2014
	Nomination Process at IP's	Q2 - 2014	6 - 9 Months	Q4 -2014
CAM	CAM / CMP Compliant Capacity Auctions	Q2 - 2014	6 - 9 Months	Q4 - 2014
	Gas Day (Mod 0461)	Complete	Complete	Closes 27 th Jan 2014
Interoperability	OBAs / allocations	Q2 - 2014	6 Months	Q4 - 2014
	Interconnection Agreements/Contract Changes	Q3 - 2014	6 Months	Q1 - 2015
	Data Exchange	Q3 - 2014	6 Months	Q1 - 2015

Approach (2)

- Each Code Lead has indicated how best to implement their respective code – whether this be 1 Mod or a Mod per area of change
 - Do stakeholders concur?

- NG NTS will obtain appropriate “sign on” from adjacent TSOs prior to the Mod being raised

Next Steps

Chris Logue

Next Steps

- **NG Web page**
 - **Dedicated web page that should provide a comprehensive resource for all EU code implementation issues.**
- **Future updates.....**
- **Code mod proposals....**