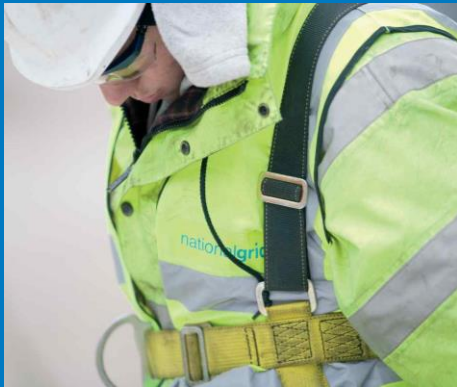


European Update



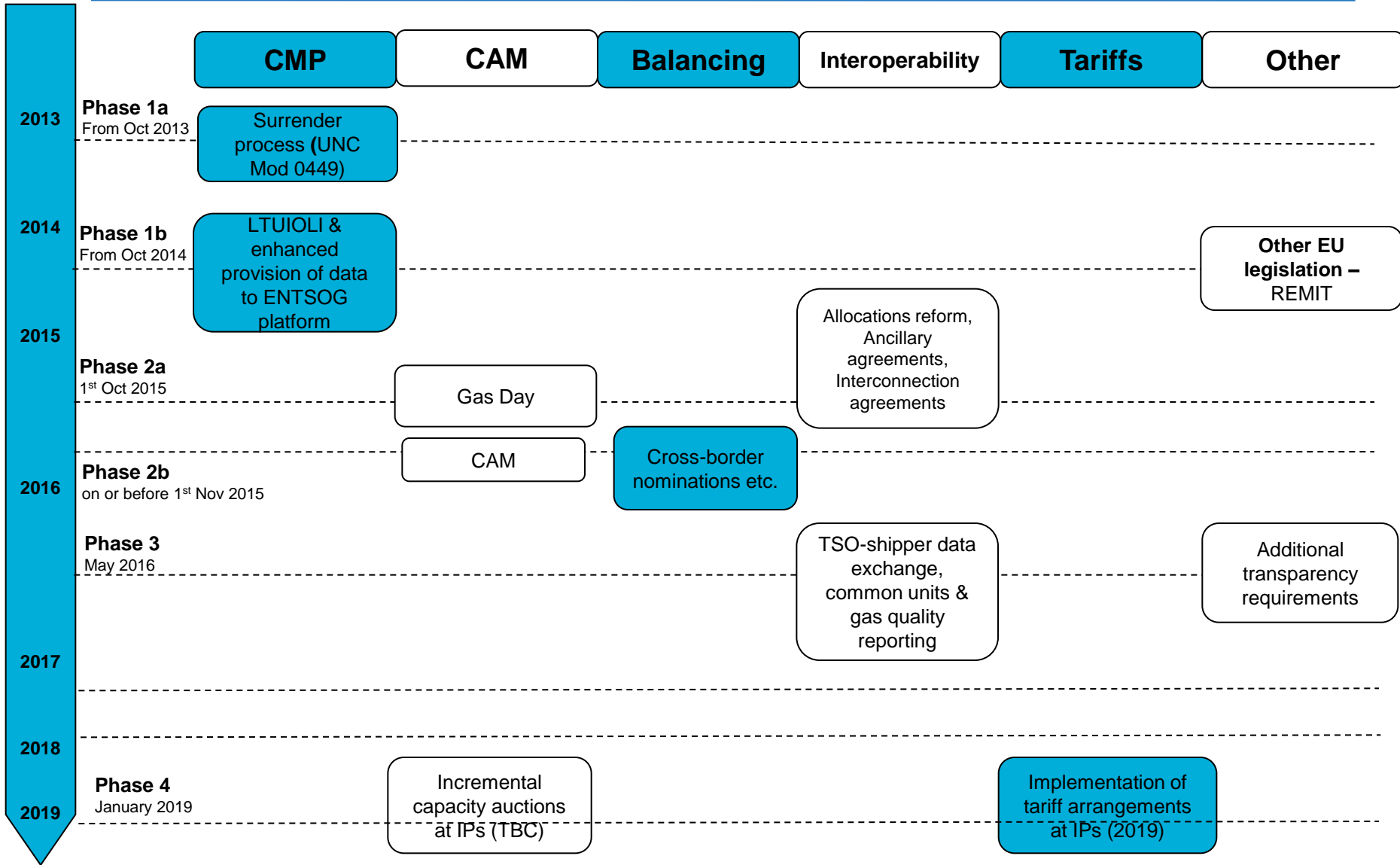
3rd December 2015

1. General Update

Code Status Update

Code	Current Status	Implementation date
Congestion Management (CMP)	Implemented	1 st October 2013
Capacity Allocation Mechanism (CAM)	Approved for implementation at EU IPs	1 st November 2015
Gas Balancing (BAL)	Approved for implementation 26 th March 2014	1 st October 2015
Interoperability & Data Exchange (INT)	Code entered EU Law on 30 th April now Commission Regulation (EU) N0 703/2015	Some deliverable planned for 1 st October 2015, others by 1 st May 2016
Tariffs (TAR)	Under development	Applicable from January 2019
Incremental Capacity	Under development	Applicable from January 2019

Road Map



2. EU Code Updates

EU Tariffs Code Update

December 2015

EU Tariffs Code

- **6,10 & 23 November:** Trilateral meetings between EC, ACER & ENTSOG on potential changes to TAR NC
 - EC outlined their proposed changes
 - ENTSOG and ACER inputted into the proposals
- **15 December 2015:** EC to hold an open informal information session on the key changes to the Tariff Code.
- **EC Impact Assessment:** now due mid-January

EU Tariffs Code

- **End February 2016:** EC to publish the revised text of the code in the comitology register.
- **10-11 March 2016:** pre-comitology meeting of Member States (where the English language texts will be discussed).
- **28-29 April 2016:** First formal comitology meeting (using the translated texts) where Member States will formally propose any amendments.

EU Tariffs Code

- **29-30 June 2016:** 2nd formal comitology meeting where EC will present revised text and a vote on the Tariff Code and CAM amendment is expected.
- **EC has no plan for a 3rd Comitology Meeting**
- **Process aims for completion by end 2016**

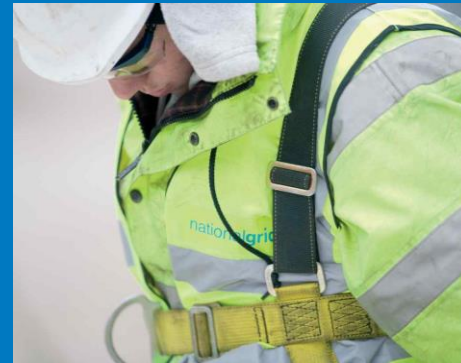
EU Tariffs Code: Interactions with GTCR

- **15 November:** Ofgem published “Confirmation of policy view and next steps”
- **Floating prices:** policy position maintained for floating prices at all entry points (but not yet)
 - Will drive “dual regime” if not introduced at same time as floating prices at IPs (TAR NC requirement)
 - IPs = floating price for existing capacity
 - Domestic entry points = fixed capacity price + floating commodity charge
- Raises issues such as complexity, IT changes and compliance concerns

EU Tariffs Code: Interactions with GTCR

- Discounts to short-term capacity products
 - Policy position maintained that discounts should be reduced (i.e. move away from zero price)
 - TAR NC only allows multipliers at IPs
 - Ofgem propose Joint Office UNC Workgroup to develop new discount structure
 - UNC mod proposals to be raised after TAR NC finalised

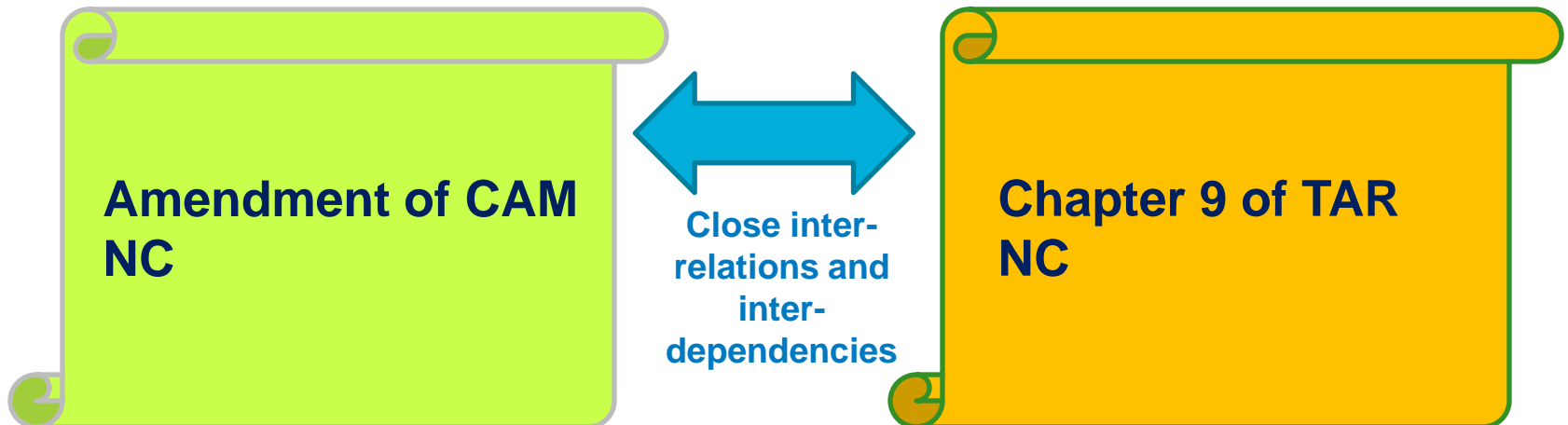
CAM Amendment - Incremental Capacity



Transmission Workgroup
3rd December 2015

Background

- Aim: To provide harmonised rules for triggering Incremental within the CAM framework.
- CAM amendment text adopted by ACER board of Regulators on 13th October. Formal comitology due to start in April 2016 (aligned with TAR NC).



Process for Offering Incremental Capacity



Ongoing co-ordination among TSOs and NRAs involved along the process

Market Demand Assessment Report

- TSOs develop a Market Demand Assessment Report every two years to analyse demand for incremental capacity per entry exit system border
- Criteria to be taken into account includes:
 - Supply gaps identified in TYNDP or transport requirements identified in national NDP
 - Availability of standard capacity products in the annual yearly auction
 - Network users' requests for incremental capacity via non-binding demand indications

Design Phase

- Prepare and design project (planned offer levels, economic test parameters, etc.) and conduct technical studies where required
- Determine whether an alternative is needed to the default allocation process, and design it
- Public consultation 1-2 months
- Resulting project parameters handed over to NRAs for approval

Allocation Processes – Annual Yearly Auction

- The default allocation mechanism for Incremental Capacity is the **Annual Yearly Auction**.

Allocation procedure

- Standard yearly CAM NC auction to be used for the allocation of incremental capacity
- All offer levels are offered separately and in parallel
- Economic tests applied to the outcomes of all auctions for each offer level

Economic Test

- Defines economic viability by setting the minimum required level of upfront user commitment
- Single economic test to be defined before auction per offer level ($PVUC \geq f \times PVAR$)
- Reflecting the financial requirements of all TSOs

Parallel Bidding for Incremental Capacity

Shipper bidding for bundled capacity at one IP with incremental capacity on offer



Bidding Ladder Base Case (only existing):

Price	Offer	Year 1	Year 2	...
X	100	100	100	...

Bidding Ladder Level 1 (existing plus 25):

Price	Offer	Year 1	Year 2	...
Y	125	125	125	...

Bidding Ladder Level 2 (existing plus 50):

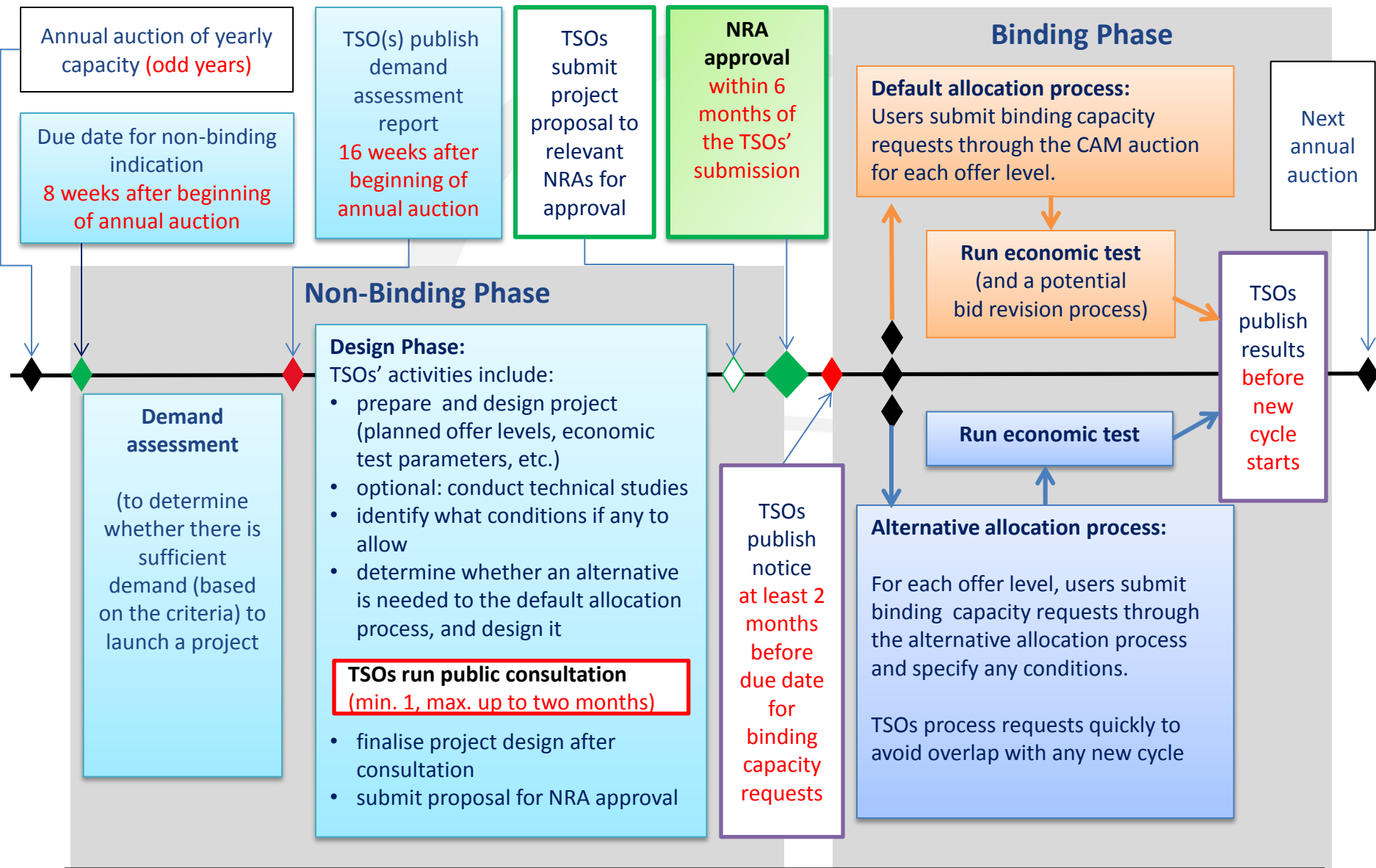
Price	Offer	Year 1	Year 2	...
Z	150	150	150	...

- One auction for each incremental capacity offer level, combining the existing capacity and the respective amount of incremental capacity
- Auctions run in parallel and network users can place bids separately, allowing them to differentiate their willingness to pay according to the amount of capacity available
- In case the auction clears with a premium, bid revision is applied to allow network users to replace the premium by a demand increase

Allocation Processes – Alternative allocation mechanisms

- An alternative capacity allocation mechanism can be designed and used at project level when specific criteria are met:
 1. Clear market request for conditional bids (during the demand assessment or the public consultation) and reasonable suggestion that the auction will fail;
 2. Conditionality may apply where bids:
 - Involve more than two entry-exit zonesOR
 - span a number of different yearly capacity products at an IP and are proven by TSOs not to distort competition or the internal gas market
- The alternative allocation rule must be approved by the relevant NRAs

Process for Incremental Capacity Projects proposed by ACER



Ongoing co-ordination among TSOs and NRAs involved throughout the process

Incremental Amendment - issues

- Although latest text is improved, ENTSOG still has some concerns over workability of proposal
 - Need to protect option to offer fixed price in order to have a meaningful incremental test.
 - Offer period for incremental capacity must be fully aligned to that of existing capacity
 - Incremental processes (design phase) should be triggered at any time where non-binding demand indications are deemed sufficient to justify a dedicated project (this was foreseen in earlier drafts)
 - There should be more flexibility in when the alternative allocation mechanism can be used

Gas Quality Information: Stakeholder Engagement



Transmission Workgroup
Phil Lucas
Thursday 3rd December 2015

Background

- EC Paper to Madrid Forum (Mar 2012)
- EU Interoperability and Data Exchange Code entered into force in May 2015 with an application date of 1st May 2016
- Article 17 is “Information provision on short-term gas quality variation”
- National Grid NTS as GB TSO has new obligations under this article

Article 17 (1) and (2)

Article

1. In addition to interconnection points, this Article shall apply to other points on transmission networks where the gas quality is measured.
2. A transmission system operator may select one or several of the following parties to receive information on gas quality variation:
 - (a) final customers directly connected to the transmission system operator's network, whose operational processes are adversely affected by gas quality changes or a network user acting on behalf of a final customer whose operational processes are adversely affected by gas quality changes, where a direct contractual arrangement between a transmission system operator and its directly connected final customers is not foreseen by the national rules;
 - (b) distribution system operators directly connected to the transmission system operator's network, with connected final customers whose operational processes are adversely affected by gas quality changes;
 - (c) storage system operators directly connected to the transmission system operator's network, whose operational processes are adversely affected by gas quality changes.

Article 17 (3) and (4)

Article

3. Each transmission system operator shall:

(a) define and maintain a list of parties entitled to receive indicative gas quality information;

(b) identified in the above list in order to assess:

(i) the relevant information on gas quality parameters to be provided;

(ii) the frequency for the information to be provided;

(iii) the lead time;

(iv) the method of communication.

4. Paragraph 3 shall not impose an obligation on transmission system operators to install additional measurement or forecasting equipment, unless otherwise required by the national regulatory authority. The information under paragraph 3(b)(i) of this Article shall be provided as the transmission system operator's best estimate at a point in time and for the internal use of the recipient of the information.

TSO (National Grid NTS) Obligations

- Establish a list of parties within scope by 1st May 2016
 - Invitation to register interest to enable National Grid to identify 'Article 17 stakeholders'
- 'cooperate with the parties' – engage with operators (NTS direct connects, DNs, Storage Site Operators)
 - Seek views on consultation method
 - Commence consultation by 1st May 2016
 - Communicate conclusions
- No obligation to invest in additional measurement or forecasting equipment
- Any additional data provision may commence post 1st May 2016

What Gas Quality Data is Available Currently?

MIPI Report Explorer: Daily Calorific Values (Ex post values calculated from measurements)

- Report: 'Calorific Value Report'
 - Per LDZ Charging Zone
- Report: 'Actual Offtake Flows'
 - Per NTS Exit Point
 - i.e. 'Industrial Offtake', 'Interconnector', 'LDZ Offtake', 'NTS Powerstation' and 'Storage Injection'
- Report: 'NTS Commercial Entry End of Day'
 - Per System Entry Point
- Report: 'NTS Physical Entry End of Day'
 - Per System Entry Point
 - i.e. 'Sub Terminal', 'LNG Importation', 'Interconnector', and 'Storage Withdrawal'

Current Gas Quality Data Publication

Calorific Value

Calorific Values for 17/11/2015

Charging Zone	Calorific Value (MJ/scm)
Eastern	39.3
East Midlands	39.4
Northern	38.3
North East	40.0
North Thames	39.5
North West	39.4
Scotland	39.6
South East	39.4
Southern	39.5
South West	39.3
West Midlands	39.3
Wales North	39.3
Wales South	39.3

Gas Day: 01/11/2015

The Provision of Ex-Post Demand Information for all NTS Offtakes

Site Type	Site Name	Calorific Value (MJ/scm)	Total physical flows (mscm)	Energy (kWh)
Industrial Offtake	AMPaperInd			
Industrial Offtake	BASFind	40.8 ^L	0.20230 ^L	2,291,111 ^L
Industrial Offtake	BOCTeesInd	40.8 ^L	0.39332 ^L	4,456,668 ^L
Industrial Offtake	BPGrngmouthInd	40.3 ^L	1.64280 ^L	18,426,683 ^L
Industrial Offtake	BPSaltendHPIInd	38.8 ^A	0.38960 ^A	4,202,011 ^L

NTS Commercial Entry End Of Day

Report Created: 17/11/2015 13:24

Gas Day: 01/11/2015

System Entry Name	Meter ID	System Entry Energy, EOD (kWh)	System Entry Volume, EOD (mscm)	System Entry CV (MJ/scm)
Avonmouth	ALNCSE	953,831	0.08968	38.3
Bacton - BBL	BBLTST	29,658,462	2.66926	40.0
Bacton - Perenco	SHAMST	66,391,500	6.23441	38.3
Bacton - Shell	SPOTST	123,612,416	11.57000	38.5
Bacton Interconnector	BISTST	23,007,335	2.07066	40.0
Bacton - Seal	SEACST	153,855,556	13.62000	40.7
Barrow	BRSNST	14,447,420	1.35399	39.1
Burton Point	BRPCST	15,095,556	1.39700	38.9

NTS Physical Entry End Of Day

Report Created: 17/11/2015 13:26

Gas Day: 01/11/2015

Updated At D+1

System Entry Name	Site Function Type	System Entry Energy, EOD(kWh)	System Entry Volume, EOD(mscm)	System Entry CV (MJ/scm)
Bacton - Perenco	Sub Terminal	66,391,500^L	6.23441^L	38.3^L
Bacton - Seal	Sub Terminal	153,855,556^L	13.62000^L	40.7^L

Way Forward

- National Grid NTS proposes to consult with GB operators/industry during Q1/Q2 2016 in order to:
 - comply with Article 17
 - understand the needs of stakeholders
 - specifically those “adversely affected by gas quality variation” (Art 17 (2))
 - understand the value of a greater degree of gas quality information provision to affected stakeholders
- National Grid NTS will then consider what gas quality information it may be able to provide and within what timescales

How do Interested Parties Wish to be Consulted?

- Formal written consultation?
- Industry Workshop?
- Web survey?
- Bilateral meetings?
- Other?

Next Steps

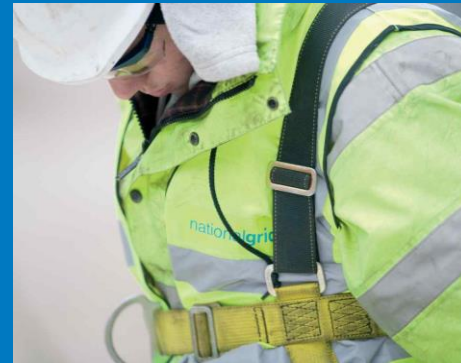
- We wish to hear industry views by Christmas:
 - Are you interested in receiving more information about gas quality?
 - How should we consult?

Please respond to

box.gas.market.devel@nationalgrid.com

- Review feedback
 - Identify most appropriate means of consultation
- Report back to Jan/Feb 2016 Transmission Workgroup
 - Define timelines to facilitate compliance with Article 17 obligations

EU Phase 3 Update



Phase 3 Re-cap

- EU Phase 3 project primarily aims to meet the obligations set out in the Interoperability and Data Exchange Network Code
- The scope includes:
 - Common Reference Conditions system solution
 - A new Data Exchange method for the sending of IP nomination data to Gemini
 - A system solution to the disapplication of scheduling charges
 - Extra transparency data published to the ENTSOG TP
 - Changes to remove work-arounds related to CAM obligations

Project Dates / Timeline

- Key EU Phase 3 Project Dates:
 - System Testing: **23rd November to 29th January**
 - NG Acceptance Testing: **1st February to 11th March**
 - User Trials: **14th March to 8th April**
 - Code Deployment: **10th April**
 - Go Live: **1st May**

EU Phase 3 Project	Analysis		Design		CUT		System Testing		UAT		Code Deployment	Go Live
								SIT		User Trials	IDR	PIS
	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16


**Current
Status**

B2B Overview Slide

- National Grid NTS propose to meet the data exchange obligation (Art 21, INT Code), by implementing a solution that covers both:
 - “Integrated” solution (web services)
 - “Document based” solution (AS4 – via a B2B gateway)
- The B2B gateway has already been implemented as part of EU Phase 2
- National Grid NTS will test the B2B gateway solution on behalf of the industry

Feedback Window

- At the November Tx Workgroup National Grid NTS opened a feedback window (until 4th December) for Users to suggest any additional B2B scenarios for National Grid NTS to test
 - No responses received to date
- National Grid NTS will try to accommodate User testing scenario suggestions should they be received throughout December
- Any queries or questions on the B2B solution or EU Phase 3, please contact Bill Goode (bill.goode@nationalgrid.com)

Future Topics



Future Topics

Topic Area	Provisional Date
Tariffs Code	Monthly updates whilst progressing through comitology
Incremental Code	Monthly updates whilst progressing through comitology

3. AOB