

## European Developments



Transmission Workgroup  
7<sup>th</sup> November 2013

# 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	ENTSOG submitted this Code and its 'analysis of decisions' document to ACER on 10th September 2013. ACER is scheduled to produce its 'reasoned opinion' on the Code by 10th December 2013	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



# EU Interoperability & Data Exchange Network Code Pre-Comitology Impact Assessment



Transmission Workgroup  
7<sup>th</sup> November 2013

## Introduction

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- Interoperability & Data Exchange is the third 'priority' EU code after CAM and BAL
- Aims to make EU transmission networks 'interoperable' i.e. as if they were operated by a single TSO
- Provides a harmonised set of arrangements for:
  - Interconnection Agreements
  - Gas Quality
  - Odourisation
  - Units
  - Data Exchange
- GB compliance is assumed to be required by Q4 2015
- This Impact Assessment describes the main provisions of this Code and aims to capture its key implications for the GB regime
- It will be updated in Summer 2014 after the Code has passed through its comitology procedure

# 1. Interconnection Agreements

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- All IPs must have Interconnection Agreements (IAs) in place which must include the following provisions:
  - Modification process
  - Flow control
  - Measurement
  - 'Matching' nominations
  - Allocation rules
  - Exceptional events
  - Dispute Resolution

# 1. Interconnection Agreements – GB Impact

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- Flow control

- Measurement

- ‘Matching’ nominations

- Allocation rules

- Exceptional events

- Dispute Resolution

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- Flow control
- Measurement

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- 'Matching' nominations
- Allocation rules

Fundamental GB regime change envisaged for IPs

- Exceptional events
- Dispute Resolution

Review existing provisions with IUK, BBL and Gaslink and amend by agreement

## 1. Interconnection Agreements – GB Impact

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- TSO to TSO nomination matching process required
- ‘Default’ allocation rule of ‘allocate as nominate + OBA’
- National Grid NTS intends to work up proposals for such arrangements with adjacent TSOs and GB industry
- These proposals will need to consider whether the Bacton and Moffat agencies could have a role post 2015
- Implementation activities will span IA re-negotiations, CSEP Ancillary Agreements, agency agreements, UNC, NG process and systems changes

## 2. Gas Quality

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- Three components:
  - Managing Differences in specification at IPs
  - Short Term Monitoring
    - Publication of hourly CV and Wobbe for gas entering at IPs
    - Provision of gas quality forecasting services for particular transmission connected customers
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**The development of a harmonised gas quality specification for the EU is still progressing but is out of scope for the Interoperability Code**

## 2. Gas Quality: GB Impact

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- Managing gas quality differences may be adequately addressed by nitrogen ballasting arrangements at Zeebrugge
- Hourly CV and Wobbe data from IUK and BBL is likely to be of limited value and may not be applicable for GB because this gas mixes with UKCS gas at Bacton
- NG NTS will need to engage with GB industry to assess demand for the forecasting services and then determine what (if anything) it can deliver
- NG NTS may be asked to contribute to the production of ENTSOG's 10 year outlook report for gas quality

### 3. Odourisation

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- No impact for GB provided the Moffat interconnector remains physically uni-directional

## 4. Units

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- Pressure: bar OK
- Temperature: °C OK
- Volume: m<sup>3</sup> (at 0°C and 1.01325 bar) GB uses 15°C
- Gross CV: kWh/m<sup>3</sup> at 25°C GB uses 15°C & MJ/m<sup>3</sup>
- Energy: kWh at 25°C GB uses 15°C
- Wobbe-index: kWh/m<sup>3</sup> at 25°C GB uses 15°C & MJ/m<sup>3</sup>

## 4. Units

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- |   |                                  |
|---|----------------------------------|
| ■ Pressure: bar                                   | OK                               |
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| ■ Gross CV: kWh/m <sup>3</sup> at 25°C            | GB uses 15°C & MJ/m <sup>3</sup> |
| ■ Energy: kWh at 25°C                             | GB uses 15°C                     |
| ■ Wobbe-index: kWh/m <sup>3</sup> at 25°C         | GB uses 15°C & MJ/m <sup>3</sup> |

The main issue that our impact assessment has focused on has been these different ‘reference temperatures’

(Reference pressure is as per current GB arrangements and kWh to MJ/m<sup>3</sup> is a straightforward linear conversion)

## 4. Units

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- The common set of units must be used “for any data exchange and data publication related to Regulation 715/2009”
- We consider that this statement of scope captures:
  - Shipper capacity bookings & TSO capacity obligations at IPs
  - Shipper nominations at IPs
  - Shipper allocations at IPs
  - TSO information publication under Transparency rules
  - Gas quality data publication at IPs (if applicable to GB)
  - TSO-TSO repeat signal telemetry at IPs

## 4. Units – GB Impact

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- Our headline view is that there will be no commercial impact arising from the common set of units
  - Capacity bookings, capacity obligations, nominations and allocations are expected to be purely energy figures, not energy figures at a specific reference condition, therefore we do not currently believe that we will need to apply conversions to them
  - Our analysis indicates physical energy measurements would be ~0.03% lower under 0°C / 25°C conditions compared to 15°C / 15°C
    - This difference will not translate into a shipper impact if measurements for shrinkage purposes remain based on 15°C / 15°C and OBAs are in place
    - In any event, no detectable commercial impact is envisaged because 0.03% is well below the +/-1.1% uncertainty requirement for NTS energy measurement
  - Application of common units to Gas Quality data publication and TSO-TSO repeat signal telemetry is unlikely to deliver any added value

## 5. Data Exchange

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- The Code requires use of harmonised IT solutions for “all electronic exchanges of data arising from Regulation 715/2009...among TSOs and to their counterparties at interconnection points”.
    - “Counterparties” are defined as “network users active at interconnection points”
  - NG NTS considers that TSO-TSO and TSO-shipper communications under the following processes will be captured:
    - IP capacity booking processes established by CAM
      - PRISMA will have to comply
    - IP nominations processes established by BAL and INT
    - IP allocations processes established by INT
    - TSO to common platform communications
- } Interfaces with Gemini will need to be considered
- Implementation could be a longer term deliverable if:
    - Existing communication solutions can accommodate the requirements
    - The NRA approves such delayed implementation

## 5. Data Exchange

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- The Code proposes a ‘toolbox’ of harmonised solutions

		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)

- This represents the ‘how’ to communicate which will be legally binding
- The ‘what’ needs to be communicated (i.e. message content) will be developed separately, partly via ENTSOG Business Requirements Specifications and Message Implementation Guidelines which are not legally binding

## 5. Data Exchange – GB Impact

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- National Grid NTS is currently starting to assess:
  - Which ‘toolbox’ solution might be most appropriate for which process
  - Pros and cons of adapting UK Link systems versus implementing the common solutions in 2015
- Shipper system changes are expected be required
- The UK Link Committee will need to be engaged
- Changes to UNC TPD Section U will be required to accommodate message transmission over the internet (Gemini is a private data network)

## Summary

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- The Interoperability and Data Exchange Code is expected to contribute significantly to the NG 'Phase 2' implementation programme for EU driven change
- It will span UNC, contractual, NG process and systems changes, some of which link to other EU codes
- Implementation timescales are challenging
- For the changes which affect shippers, National Grid NTS is committed to developing the new arrangements both with our adjacent TSOs and GB industry

# EU Balancing Code Update – NG NTS Impact Assessment



Chris Shanley  
7<sup>th</sup> November 2013

## NG Impact Assessment

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

- NG Impact Assessment (IA);
  - Initial draft code – May 2012
  - Final draft code submitted by ACER to EC – May 2013
  - Post Comitology code – November 2013  
(<http://www.entsog.eu/publications/balancing#FINAL-BALANCING-NETWORK-CODE>)

## No Impacts Identified

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Impacts	NG View
Chapter 2 Balancing System	<ul style="list-style-type: none"><li>• Title trade notification rules, etc. are consistent with GB arrangements<ul style="list-style-type: none"><li>• NBP, on the day commodity market (OCM) / Over the Counter (OTC), etc.</li></ul></li></ul>
Chapter 3 Operational Balancing	<ul style="list-style-type: none"><li>• Merit Order consistent with the principles contained in the System Management Principle Statement (SMPS)</li><li>• STSPs are consistent with the balancing products used in GB, although GB physical trades would be a type of locational trade</li></ul>
Chapter 7 Neutrality	<ul style="list-style-type: none"><li>• Consistent with our existing UNC neutrality processes and rules [covering several sections of the UNC] – one minor impact to be confirmed</li></ul>

- No material changes identified post comitology

## TBC

Impacts	NG NTS View
Chapter 3 Operational Balancing	<ul style="list-style-type: none"> <li>• NG currently does not use temporal products or trade in adjacent markets - benefits to NG/GB to be evaluated</li> </ul>
Chapter 5 Daily Imbalance Charges	<ul style="list-style-type: none"> <li>• 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 &amp; sell and System Average Price</li> </ul>
Chapter 6 Within Day Obligations	<ul style="list-style-type: none"> <li>• NG does not have any WDOs but may consider their introduction in the future</li> <li>• 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</li> </ul>
Chapter 7 Neutrality	<ul style="list-style-type: none"> <li>• Confirmation required from Ofgem that a separate methodology and approval by them is not necessary</li> </ul>
Chapter 9 LFS	<ul style="list-style-type: none"> <li>• Potential opportunity. However, NG has no plans to introduce an LFS in the near future – previously progressed park and loan service</li> </ul>

- Awaiting views from Ofgem

## Chapter 1. General Provisions

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- Includes the code definitions
  - Gas day means the period from 00:00 to 05:00 UTC or when daylight saving is applied, from 04:00 to 04:00 UTC
  - This change to the gas day is also included in the CAM code

Removed from Final Code

### Impacts

### Updated Code

- Gas Day code definitions has been removed from Balancing Code
- Balancing Code makes general reference to applicability of definitions in other EU codes, e.g. CAM for Gas Day

# Cross-border cooperation



### Gas Market Interconnection

- TSOs consult
- Cost Benefit
- TSO
- Co

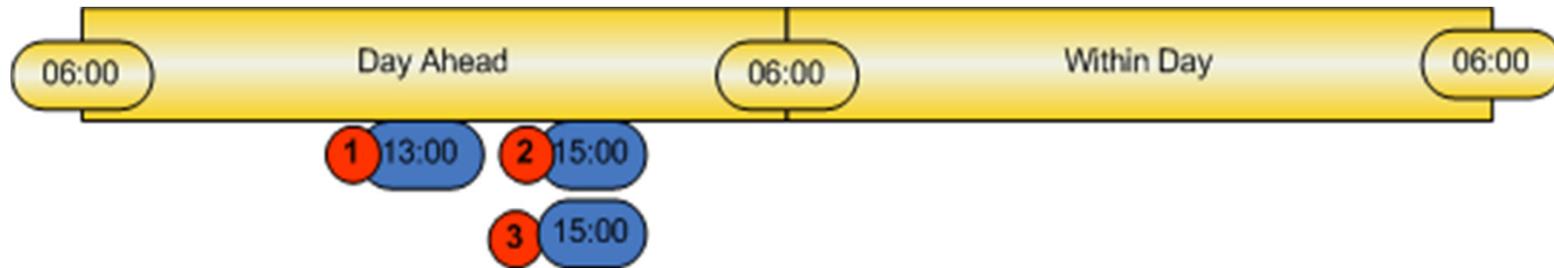
### Regulation Review

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

**Removed from Final Code**

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

# Chapter 4. Nominations



Impacts	Action
Major	<ul style="list-style-type: none"> <li>See October /November Transmission Workgroup presentations for the latest information regards to the development of the new nomination process at Interconnection Points (IP)</li> </ul>

## Chapter 5 – Daily Imbalance Charges

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Impacts	NG NTS View
(TBC)	<ul style="list-style-type: none"><li data-bbox="443 488 1816 586">• Potential impact to our GB regime with regards to the revised wording associated to the calculation of the SMP buy and sell price.</li></ul>

- Evaluation of SMP impact being undertaken by NG NTS
- Further details to be provided if an impact is confirmed

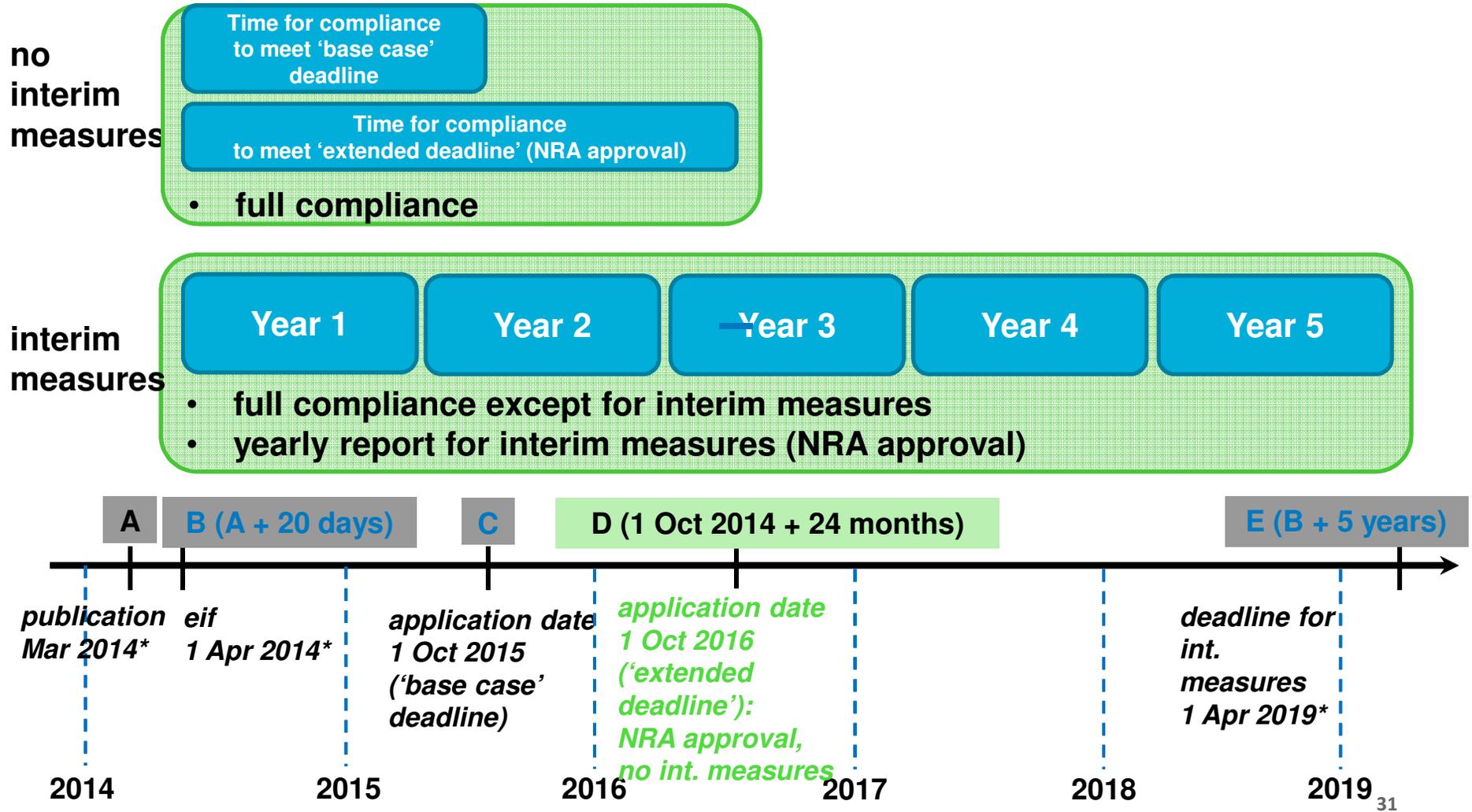
## Chapter 8. Information Provision

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Impacts	Action
Medium	<ul style="list-style-type: none"> <li>• <b>Non Daily Metered Derived Forecast</b> for Gas Day D no later than 12:00 UTC Gas Day D-1</li> <li>• GB 1st forecast (NDMA) is currently issued at 13:15 (UNC states by 14:00)</li> </ul>
Minor	<ul style="list-style-type: none"> <li>• <b>Report accuracy of the Non Daily Metered Derived Forecast</b> at least every 2 years</li> <li>• <b>Information provision model to be approved by the NRA</b> - need to gain confirmation from Ofgem that no further action is necessary as GB model (base case) has already been approved</li> <li>• No later than the end of the next Gas Day the TSO shall provide each Network User with their <b>initial Allocation</b> and an initial Daily Imbalance Quantity</li> <li>• <b>CBA</b> - 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</li> </ul>

- No new impacts identified post comitology
- Details of suggested proposals to address the information provision changes to be provided at next Transmission Workgroup and Distribution Workgroup

# Chapter 11. Final Provisions - Implementation Timeline



\* These dates are estimates

## Future EU Updates

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- 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

<b>Topic</b>	<b>TX Workgroup</b>
• Balancing code - information provision update	December
• Interoperability Code - ACER 'Reasoned Opinion'	December 2013