Network Code
Capacity Allocation Mechanisms

Presentation of Draft for Market Consultation

Brussels – 21st June 2011
Opening by ENTSOG

1. Some pre-history

2. Experience to date

Our aspiration is to remain to be a fair partner to all
Delivering Network Codes

Commission & Agency set priorities

Network Code delivery

Commission & Agency approval processes

Define Code Project Plan

Code Proposal Development

Code Finalisation

Define Code Project Plan

Code Proposal Development

Code Finalisation
Define Code Project Plan

- Invitation from Commission or code requirement established in AWP
- First draft Project Plan
- Project Plan Consultation
- Finalisation of Project Plan and launch documentation
- Project Plan inc launch documentation

To Code Proposal Development Process
Stakeholders’ Joint Working Sessions

- to meet and discuss with stakeholders
- be responsive, having due regard to opinions
- justifying acceptance or rejection
- ENTSOG chaired
Stakeholder input comprises opportunity for
• all stakeholders to deliver final opinion
• associations to support or reject (with justification)

ENTSOG’s explanations for rejection/acceptance
Stakeholder and TSO preparatory work and parallel working essential to deliver codes in 12 months
Experience to date

Lead and participation

Lead
- Commission
- ACER
- ENTSOG
- Council / Parliament

Process
- Priority setting
- Framework Guidelines
- Network Codes
- Committology

Participation & contribution throughout
- Stakeholders
- Members States
- Commission
- Regulators
- TSOs
Experience to date

Framework guideline and code process

• Regulators’ processes
  o Pre-history
  o ERGEG framework guideline process
  o ACER framework guideline process

• ENTSOG process started 27 January 2011
  o Draft Project Plan / Finalised Project Plan
  o Launch Documentation / SJWS
  o Draft code and consultation document
  o ENTSOG internal governance

... now await next stage of process, participation and conclusions
Experience to date

Interactions with current focus areas

- CMP – re-nominations
- Balancing – virtual points and locational needs?
- Interoperability – supporting processes via Handbook?
- Tariff – reserve prices a critical auction parameter

... CMP, CAM and Balancing proposals aimed at addressing current weaknesses ... some tariff elements must be considered part of the package
Designing the EU Internal Market under 3rd package framework

The objective of the EC is to meet the 2014 target from the EU Council
→ Rules on priority topics are developed by 2014

Framework Guidelines → Network Code → Evaluation → Comitology → Entry into force

Project Plan → Launch Doc → SJWS → Draft Code → Formal Consult. → Revision → Final Code

12 months maximum → CAM to be finished by 27/01/12

27/01/2011 → 27/01/2012
The Commission’s view of the CAM NC work

ENTSOG CAM NC Presentation
Brussels, 21 June 2011

Kristóf Kovács
CAM NC key pilot work in 3rd Package implementation work in gas sector

- Implementation of 3rd Package Directives still lagging behind – no official notification by a MS to Commission to date
- However work in developing gas sector market rules underway to meet European Council objectives – framework provided by Gas Target Model 2014

  » CAM NC
  » CMP Guideline
  » Balancing NC
  » Tariff
  » Interoperability NC
|-------------|-------------|---|-------------|----------------|--------|------|------|------|------|------|
Commission welcomes ENTSOG’s work and stakeholders’ work on CAM NC

- The Commission is satisfied that CAM NC development process has gone well so far:
  - complex issues tackled,
  - timely publication of draft in very demanding schedule
  - sufficient involvement of stakeholders
- However, involvement of larger number of non-NWE (in particular CEE) stakeholders necessary to assure “ownership” and smooth implementation
- Some issues (e.g. “sunset clause”) still being analyzed but that doesn't stop overall work
- Further work/consultation necessary on certain issues
  - Time horizon for auctions
  - Contracts/nomination for bundled products
- Modalities of NC adaptations to be developed
The draft code

1. Today’s objectives

2. The content of the code and explanations

3. General issues

Our aspiration is to remain to be a fair partner to all
Today’s objectives

What we’re going to do today

• Describe all code articles
• Outline rationale for decisions
• Point out critical areas
• Explain where we need further information from the market
• Clarify how the consultation works and how to respond
• Ask what participants want from the next stage of the process
• Explain later stages of the code development
Today’s objectives

What we’d like participants to do today

- Ask for clarification where needed
- Point out issues on which further discussion would be valuable
- Explore preferred approach to interactions during consultation
- Understand ENTSOG’s expectations for the consultation
- Provide us with ideas for improving the code process

Today is to focus on the process
– we welcome further debate on the content of the code during and after the written consultation
General issues

Approach of the draft CAM network code

• Discuss and further develop a code text that covers all features of a legal document
  o Aspiration: final NC document could proceed straight to Comitology

• Code written as a fully workable document without describing alternatives

However, certain issues require the view of the network users to find most suitable solutions.
Consultation issues outlined in the Supporting Document
General issues

Underlying assumptions

- Assumed no changes to current proposals (needed assumption)
  - Tariffs (reserve prices)
  - CMPs
  - ACER FG
  - Other NCs
  - Other areas (Target Model, EIP)

- Incentives
  - Not included in NC but will need further consideration

- Level of detail in the NC
  - Appropriate for an EC regulation / sufficient to avoid material national interpretation / implications regarding flexibility
General issues

Code modification process → Rationale

- Binding rules need to specify a sufficient level of detail
- Rules may need to be modified
  - e.g. simple improvement, gain of experience, other areas, etc.
- Appropriate modification process is needed:
  - Third Package process is very lengthy and complex
- Different options are being explored

Key outstanding issues

- Form of change process
- Whether elements of this (or other) code(s) might be considered for a “lighter” change process
## Content of the CAM network code

1. Rationale (legal clauses, definitions, confidentiality etc.)
2. Application of the network code
3. Principles of co-operation (maintenance, communication)
4. Allocation of firm capacity (products, auction design, algorithms)
5. Cross-border capacity
6. Interruptible capacity
7. Tariffs (assumptions needed for auctions)
8. Booking platforms
9. – 11. Exceeding required decisions, interim period, entry into force
1. Rationale of the CAM NC

- FG – EC invite – Stakeholder discussion – NC development incl. Consultation – Comitology

- NC defines CAM on the basis of auctions and describes co-operation requirements for TSOs with respect to CAM

- Definitions made in addition to Regulation 715 (and others)

- TSOs shall preserve required confidentiality and not use data communicated for the purpose of the implementation of this NC for other purposes

- NC shall be without prejudice
  - to the rights of States for more detailed measures
  - to the regulatory regime for cross border issues pursuant to article 42 of Directive 2009/73/EC
2. Application of the CAM NC

- Applies to IPs between entry exit systems (not consumers, distribution, supply-only networks, LNG and production)
- Applies to capacity available, freed-up (CMP), made available after contract termination
- Does not apply to Open Season capacity but shall be consistent with incremental capacity
- Does not cover balancing, tariffs, interoperability, congestion management procedures, transparency – only to the extend needed to apply this NC
- Code to be amended when required via new (other) NCs
- The NC is without prejudice to the application of implicit auctions
2. Application of the CAM NC

In Incremental capacity

- Users indicated that the current auction design should be compatible with any future incremental auction process.

Interaction with other areas

- This NC should be the main set of rules on key CAM issues.
- Where it needs to rule in other areas, these rules may change.

Key outstanding issues

- Incremental process would require a harmonised and attractive cross-border investment climate (issue addressed outside CAM NC process).
3. Principles of co-operation

3.1. Coordination of maintenance

- When maintenance has impact on capacity, then adjacent TSOs have to fully coordinate their planning in order to minimise this impact.
- Related planning information shall be published to optimise and ensure network access.
- Info shall be publically made available on a website:
  - Impact on the capacity
  - Nature of planned maintenance
  - Planned start date and planned duration
- Changes to planned maintenance to be published when known.
3. Principles of co-operation

3.2. Standardisation of communication

- TSOs shall coordinate the development and implementation of:
  - standard communication procedures / coordinated information systems / compatible electronic on-line communications (e.g. data exchange formats and protocols)
- ENTSOG to develop approach to harmonisation of IT and communication matters
- Technical solutions adopted by ENTSOG shall be contained in an ENTSOG Data & Solutions Handbook – setting out:
  - List of agreed data types / mapping of data types and principles with related technology standards / any relevant technical solutions
- Latest version applicable
3. Principles of co-operation

3.2. Standardisation of communication → Rationale

*Handbook*

- FG requires NC to define standard communication procedures
- Specification of technical standards in the NC may not be appropriate
- ‘Data and Solutions Handbook’ considered as practical solution
- Outstanding questions regarding how Handbook may
  - Be made binding
  - Be modified

**Key outstanding issues**

- Handbook modification process to be discussed
3. Principles of co-operation

3.3. Capacity calculation and maximisation

• The maximum capacity at all relevant points referred to in article 18 (3) of Regulation (EC) No 715/2009 shall be made available to network users

• TSOs shall determine technical capacity by the application of a calculation methodology

• The calculation methodology shall be published by the TSOs

• TSOs to exchange relevant information with the aim
  o Of coordinating the results of their capacity calculations
  o To maximise technically available capacity
4. Allocation of firm capacity

4.1. Allocation methodology

- Same auction design shall apply – auctions shall be held simultaneously for all concerned IPs

- 10% of available capacity to be reserved for Short Term auctions
### 4. Allocation of firm capacity

#### 4.2. Standard Capacity Products: Rationale

<table>
<thead>
<tr>
<th>Type of Auction</th>
<th>Possible Maximum &quot;Service Duration&quot;</th>
<th>Standard Capacity Product</th>
<th>Share of total calculated capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 1 Annual Quarterly Auctions</td>
<td>From 1 Quarter up to [60] consecutive Quarters</td>
<td>Quarterly</td>
<td>Maximum 90% of calculated available long-term firm capacity</td>
</tr>
<tr>
<td>Alt 2 Annual Yearly Auctions</td>
<td>From 1 Year up to [15] consecutive Years</td>
<td>Yearly</td>
<td>Maximum 90% of calculated available long-term firm capacity</td>
</tr>
<tr>
<td>Alt 3 Annual Quarterly &amp; Yearly Auctions</td>
<td>From 1 Quarter up to [15] consecutive Years</td>
<td>Quarterly + Yearly</td>
<td>Maximum 90% of calculated available long-term firm capacity</td>
</tr>
<tr>
<td>Annual Monthly Auctions</td>
<td>From 1 Month up to 12 consecutive Months</td>
<td>Monthly</td>
<td>Total calculated available short term firm capacity minus allocated quantities from previous firm auctions</td>
</tr>
<tr>
<td>Rolling Monthly (Month-Ahead) Auctions</td>
<td>One month</td>
<td>Monthly</td>
<td>Total calculated available short term capacity minus allocated quantities from previous firm auctions plus any surrendered capacity</td>
</tr>
<tr>
<td>Rolling Daily Day-Ahead Auctions</td>
<td>One day</td>
<td>Daily</td>
<td>Total calculated available short term capacity minus allocated quantities from previous firm auctions</td>
</tr>
<tr>
<td>Within-day^{14}</td>
<td>Remainder of the day</td>
<td>Daily (or balance of day)</td>
<td>Any remaining available capacity</td>
</tr>
</tbody>
</table>
4. Allocation of firm capacity

4.2. Standard Capacity Products → Rationale

- Quarter included following clear user support at SJWS 2
  - Shippers referred to greater flexibility to profile their bookings, offer seasonal products etc.
- Quarterly product relies on appropriate reserve prices
- 10% of capacity reserved for annual monthly and later auctions
- Quarterly products can be combined to build longer term products
4. Allocation of firm capacity

4.2. Standard Capacity Products

- Independent but concurrent auctions envisaged

- To secure capacity over routes/longer time, NC allows adjustment of bids

- Information will be published each day

SCP = Standard Capacity Product
B = Bidding Window for the individual bid
A = Allocation of each Standard Capacity Product

Capacity = z consecutive Standard Capacity products
4. Allocation of firm capacity

4.9. Within-day capacity auction

times are UTC day-light saving
4. Allocation of firm capacity

4.9. Within-day capacity auction → Rationale

- Auctions for WD capacity following user feedback at SJWS 3
  - Reflects the value users place on capacity
  - Allocation is as fast as under FCFS
- Also in response to views at SJWS 3:
  - NC includes proposal for hourly auctions to allow portfolio balancing
  - Day-ahead bidding possible (automatic or manual)

Key outstanding issues

- How could the proposed WD auction process be improved?
4. Allocation of firm capacity

4.10. Auction algorithms → Rationale

- Cleared-price, single round methodology proposed in response to feedback at SJWS 2
- Volume-based cleared-price algorithm proposed for long term, annual monthly and rolling monthly:
  - compatible with incremental and has practical advantages
  - Price steps will need to be set carefully to minimise unsold capacity and need for pro rating
- Uniform-price algorithm for day-ahead and Within-day:
  - Included as workable approach for short term

Key outstanding issues

Are the auction algorithms appropriate? If not, what modifications could be suggested?
4. Allocation of firm capacity

4.11. Volume-Based Cleared-Price auction algorithm

- Quarterly,
- annual
- and rolling monthly

500 units available for Q1 of following year

Long term auction: 450 units of capacity offered

<table>
<thead>
<tr>
<th>Price step</th>
<th>Shipper 1</th>
<th>Shipper 2</th>
<th>Shipper 3</th>
<th>Shipper 4</th>
<th>Shipper 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>P0</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>100</td>
<td>150</td>
<td>600</td>
</tr>
<tr>
<td>P1</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>50</td>
<td>150</td>
<td>600</td>
</tr>
<tr>
<td>P2</td>
<td>100</td>
<td>50</td>
<td>200</td>
<td>50</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>P3</td>
<td>100</td>
<td>0</td>
<td>200</td>
<td>25</td>
<td>100</td>
<td>375</td>
</tr>
<tr>
<td>P4</td>
<td>100</td>
<td>0</td>
<td>200</td>
<td>25</td>
<td>50</td>
<td>325</td>
</tr>
<tr>
<td>P5</td>
<td>50</td>
<td>0</td>
<td>200</td>
<td>25</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>P6</td>
<td>0</td>
<td>0</td>
<td>200</td>
<td>0</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Clearing price = lowest price step at which demand is less than or equal to availability = P3

All bidders at this price receive their requested quantity and pay P3.

Shippers submit volume bids against pre-defined price steps

25 units of 'spare' capacity rolled forwards to annual monthly auction

Annual monthly auction: 75 units of capacity offered

90% offered long term

10% reserved for short term
4. Allocation of firm capacity

4.12. Uniform-Price auction algorithm

Day-ahead auction: 500 units available

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
<th>Allocation</th>
<th>Shipper</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.5</td>
<td>200</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>200</td>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>200</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>100</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Bids ranked in order of price

Users can submit up to 10 independent bids. The price may be chosen freely and there are no pre-specified price steps. Bids are additive.

• Day-ahead
• Within-day

Bids at the clearing price (=9) are pro-rated (if allocation > minimum requested quantity)

No capacity remains unsold
4. Allocation of firm capacity

4. Auctions: Alternative models → Rationale

• Current algorithms are both single-round, cleared-price methodologies. Alternatives include:
  o pay-as-bid methodology - as an alternative to uniform price
  o a multiple-round methodology (ascending clock) - as an alternative to single round, and
  o a uniform price methodology with unlimited price steps

• All have certain disadvantages

Key outstanding issues

• Would any of the potential alternatives described be more suitable than the NC proposal?
4. Allocation of firm capacity

4. Auctions: Value discovery → Rationale

• In a single-round auction, how can users be encouraged to bid early and not withdraw their bids?

• Mechanisms could benefit users and TSOs by
  o Showing the true value that users place on capacity early

• Potential mechanisms:
  o Interim publication of relevant aggregated information
  o Obligation to bid from the first day of the bidding window;
  o Restrictions on placing and/or amending bids; and
  o Early closure of the bidding window if bid stability

Key outstanding issues

• Do you consider that mechanisms supporting value discovery should form part of the NC? If so, which mechanisms do you believe would be most effective?
5. Cross-border capacity

- All firm capacity (exclusively) offered as bundled capacity
- Sold via auctions and on platforms as described in the code
- Bundled products to be booked through a single booking and allocation procedure
- Capacity on one side above the capacity on the other side to be allocated only until the expiration of the corresponding contract on the other side
- TSOs to establish a joint/single nomination procedure for Bundled Capacity
- Virtual Interconnection Points to be established if no negative effects on capacity and if technically and economically viable
  - 5 years after code is in force
5. Cross-border capacity

5. Cross-border capacity ➔ Rationale

• Users are strongly against mandatory bundling

• ENTSOG prefers voluntary bundling, or a ‘Combined Service’ as proposed and presented by the Prime Movers at SJWS 1

• FG requests mandatory bundling - ENTSOG has therefore developed the code on this basis.

• However, further views on the impact of mandatory bundling are requested from network user

Key outstanding issues

• What effect would mandatory bundling have on users?

• Is the approach to bundled capacity set out in the NC appropriate within the constraints of the FG?
5. Cross-border capacity

“Sunset clause” → Rationale

- NC implements FG for bundling of available capacity
- It cannot, however, implement the ‘sunset clause’
  - Our advice suggests not legally possible
  - Would welcome a provision based on agreement between contracting parties
  - We will include a methodology for splitting and re-distributing contracts if ACER FG requires

Key outstanding issues

- Users view sought on how split of bundled capacity between existing holders of unbundled capacity could best be arranged
6. Interruptible capacity

6.1. Allocation of interruptible services

- Interruptible capacity may be offered – at least day-ahead
- Interruptible capacity (including WD) to be sold via auctions
- Interruptible offer shall not be detrimental to firm
- Same Standard Capacity Products and auction design (but separate window) as for firm capacity shall apply
  - Details set out in Auction Calendar

6.2. Standardised Interruption Lead Times

- Interruptible capacities shall have standardised Interruption Lead Times
- Adjacent TSOs to agree on Lead Times – if not 2 hours is the default
6. Interruptible capacity

6.4. Defined sequence of interruptions

• The order of interruptions shall be determined based on the Contractual Timestamp of the respective Contracts

• If two contracts have the same Timestamp, then a pro-rata reduction on the basis of their respective nomination shall apply

Interruptible capacity ➔ Rationale

Key outstanding issues

• Is the process set out in the draft NC for determining the sequence of interruptions is appropriate? If not, what system would you prefer?
7. Tariffs

- The Regulated Tariff shall be the Reserve Price in all auctions for all products for firm and interruptible capacity.

- Reserve Prices for firm products shall be set such that bookings of a profiled set of products to meet the actual flow requirements throughout the year yield revenues which are (as far as possible) equivalent to the revenues from non-profiled longer capacity bookings – by applying multipliers.

- Bundled split:
  - Reserve price added
  - Auction surplus split pro-rata according to the reserve prices.

- Over and under-recovery handled and agreed on a national level.
7. Tariffs

7. Tariffs ➔ Rationale

• The aim of this article is to ensure that the CAM network code can function as a self-contained code.

• Supporting Document has an annex with detailed discussion of tariff issues

Reserve prices

• Reserve price is the regulated tariff

• Revenues from all products should be balanced to avoid cross subsidies, minimise need for ex post revenue correction and avoid incentive to move to short term booking
  o Involves use of multipliers

This principle is considered as essential and indispensible by ENTSOG, and if it is challenged, the entire auction design would need to be reconsidered
7. Tariffs

7. Tariffs → Rationale

• Bundled products
  o Addition of reserve prices
  o Split of revenues

• Over and under recovery: possible revenue correction mechanisms

Key outstanding issues

• ENTSOG would welcome feedback, observations and suggestions related to this section of the supporting document and to Annex 2. Do you consider that ENTSOG has correctly identified the key tariff issues in these sections?
8. Booking platforms

• Booking platforms to be established
  o To sell bundled capacity
  o To also offer secondary capacity

• Bundled capacity to be sold via alternatives:
  o Already existing platforms
  o One TSOs acting on behalf of the other
  o Establishing a joint platform
  o Establishing a different platform approach

• Approach for action plan how to reduce and eventually establish one EU platform outlined in the code
8. Booking platforms

8. Booking platforms → Rationale

- Establishing interim platforms will involve a significant investment of time and resources by the TSOs.
- Draft NC therefore gives TSOs a wide range of options, to enable them to develop interim platforms in an appropriate, cost-effective way.
- By minimising the time and resources devoted to establishing interim solutions, TSOs will be more able to focus on working towards an EU-wide solution.
10. Adaption, implementation and interim period

10.1. Adaption of national terms and conditions

- National terms and conditions to the extent affected by the code to be adapted within [six months] after entering into force

10.2. Implementation period

- For the implementation a transitional period of [18 months] shall apply

10.3. Interim period for auctions

- In case the characteristics of a market are not considered appropriate to apply auctions at the time of the provisions are in place, an interim period may be adopted for this market.
10. Adaption, implementation and interim period

Adaption, implementation, interim → Rationale

- TSOs will modify relevant national T&Cs within 6 months
- Developing new IT systems is a major project for TSOs
  - Suitable, robust, cost effective systems will take longer than [6 months] to put in place
  - [18 month] period is an initial estimate of the minimum time required
  - Ultimately the time needed will depend on what’s in the final NC
- In the case of auctions, an additional interim period may apply
  - Will be set for each market in discussions between NRAs, TSOs and stakeholders
This Network Code shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
Consultation and next steps

1. Expectations during the consultation

2. Next steps

Our aspiration is to remain to be a fair partner to all
# Expectations during the consultation

## Role of the market

- Rules in final NC need to be
  - Robust
  - Workable
  - Supported by the market
- ENTSOG relies on stakeholder input to ensure this happens
- Supporting document highlights key issues for further discussion
- Please tell us what you want to discuss

---

**Stakeholder input is crucial!**
Expectations during the consultation

Responding to the consultation

• Please use the form in the supporting document
• No limit on the length of responses
• Evidence welcome
• Responses by 3rd August please
Next steps

Planned progress for reporting period
Achieved progress or delay

today

ENTSOG

Lots of work still to do!
Next steps

Coming up...

- Publication of draft NC marks end of phase 3
- Phase 4:
  - Consultation
  - Review consultation responses
  - Produce final NC
- Phase 5 – internal governance and sign off of final NC
- Final NC must be finished by 21st December to enable us to submit the code to ACER by 27th January

Lots of pressure and a firm deadline
Next steps

Key question

- What can we do over the next few weeks to ensure you are able to
  - Understand ENTSOG’s proposals fully?
  - Give us the best possible feedback at an early stage?

Some ideas...

- Further joint workshops on key issues
- Information sessions to go through technical issues in more detail
- Publish worked examples
- Bilateral meetings
Our aspiration is to remain to be a fair partner to all
Stakeholder engagement

• ENTSOG appreciates the stakeholders contributions during the Stakeholder Joint Working Sessions and the feedback directly communicated to us

Thank you very much!

FAQs

• Please contact us
  o If there are any questions on the code content
  o If you require further information to better understand
  o If you would like to suggest further Stakeholder Session on certain topics
Wrap-up

Looking back

- Great efforts put into the process by TSOs
  - Challenging timeline
  - Complex content
- Stakeholders’ positions helped preparing the draft code

Draft NC means tremendous progress towards a higher level of a harmonised CAM regime
Wrap-up

Looking forward
Thank you!

ENTSOE