ENTSOG Current Work on Auctions

Joint meeting with Users, European Commission and ERGEG

ENTSOG Auction Test Case TF

Brussels – 28th October 2010
Sofitel Europe Hotel at Place Jourdan 1, 1040 BRUSSELS
Purpose of meeting

- Discuss the current process from the FG to the NC
- Exchange opinions on new considerations
- Present and debate the current stage of work on Auctions
- Receive early feedback from the market for further consideration
- Further develop the relationship with all parties
- Early exchange between the parties as pre-meeting towards the Stakeholder Joint Working Sessions during the NC Development period
  - Subsequent meetings will be accompanied by more organisations
1. Agenda

2. CAM Framework Guideline
   - Role of Auctions in the FG; FG revision process (role of Auctions, Existing vs. Incremental capacity); Appropriate level of detail in the NC

3. Current Work on Auctions within ENTSOG
   - Focus on process in terms of timing; Underlying Standard Capacity Products; Status of progress of work on Auctions

4. Auction process and interaction with other areas
   - Process: Sequence from long to short term Auctions; Interaction with CMPs, Balancing, Tariffication

5. Auctioning process for different Standard Products

6. Future collaboration between the parties
2. CAM Framework Guideline

Framework Guideline revision process

• Role of Auctions in the Framework Guideline/Network Code?
  o One Auction or open for un-harmonised IP specific solutions?
  o Appropriate level of detail of Auction process in the CAM Network Code?

• Existing vs. Incremental capacity to design an Auction?
• Pricing rules?
• Are new elements expected for interruptible capacity?

What changes will be included in the final FG?
3. Current Work on Auctions within ENTSOG

Approach of work on Auctions

- Identification of theoretical Auction methods
- Definition of Auction principles to be reflected
- Development of Auction Options for most Standard Capacity Products for further discussion
- Started with short-term to develop functioning process
- First outline of rough procedure → then exact timing etc.
  - Exact days when e.g. Windows open are defined subsequently

Target: Basis for discussion during Code development phase
3. Current Work on Auctions within ENTSOG

Underlying Standard Capacity Products

- Users (Eurogas, EFET and OGP) proposed set of Standard Capacity Products in conjoint letter
- Letter expressed preference for exclusive Standard Products:
  - Proposal taken as basis for ENTSOG’s auction considerations
  - All required transmission durations (short to long term) could be offered via the combination of each Standard Product
    - Quarterly products (1st Jan-Apr-Jul-Oct) allows different start of year
3. Current Work on Auctions within ENTSOG

Analysis Phase

- Definition of Products and Auction Generic Principles
  - Options for Within-Day
  - Options for Short Term
  - Options for Mid Term
  - Options for Long Term
  - Work Meeting With Market Parties

Detailing Phase

- Revision and Selection of preferred option
  - Process Within-Day
  - Process Short Term
  - Process Mid Term
  - Process Long Term
  - Work Meeting With Market Parties

**Preparation Phase**

- Preparing NC development with test case
- Building common understanding on content
- Gaining experience on the process of developing EU-wide solution
3. Current Work on Auctions within ENTSOG

Auction sequence

- Selected Products are to be auctioned sequentially – no overlap
- Unsold capacity is carried forward to next Auction (LT → MT → ST)
3. Current Work on Auctions within ENTSOG

Capacity Portfolio build-up

<table>
<thead>
<tr>
<th>Short Term Daily Capacity</th>
<th>Within-Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Monthly Capacity</td>
<td>Day-Ahead</td>
</tr>
<tr>
<td>Medium Term Capacity</td>
<td>Rolling Monthly</td>
</tr>
<tr>
<td>Long Term Capacity</td>
<td>Annual Monthly Capacity</td>
</tr>
<tr>
<td></td>
<td>Quarterly Capacity - Annual Release</td>
</tr>
</tbody>
</table>

Example User Portfolio

- Long Term Capacity: 60
- Medium Term Capacity: 20
- Quarterly Capacity - Annual Release: 10
- Rolling Monthly: 7
- Day-Ahead: 3

Work in progress – subject to ENTSOG
4. Interaction with other areas

CMPs – e.g. Restriction of re-nom rights

- Restriction undermines product offered / sold
- Users would over-book capacity to get around the reduction rules → TSO has capacity bookings that do not reflect the actual needs
- May increase risks of grid operation if TSO used these inflated bookings
- Buy back risks are increased – but are they ‘real’ bookings – either way TSO may need to buy back
- Users may be faced with significant increase of balancing costs

Benefits of the restriction of re-nomination rights do not outweigh the efforts and implications.
4. Interaction with other areas

Balancing

• Target model: simple daily commoditised
  o Cash-out at the end of the day

• Intra-day balancing may require physical products
  o Locational: delivery at a specific entry or exit points
  o Temporal: delivery during a specific period within the day

• Nomination procedures will become an important issue in balancing

• This calls for compatibility of capacity and balancing rules
  o Capacity release mechanisms to be aligned with flexible gas
deliveries/offtakes
  o Common gasday would be nice to have
4. Interaction with other areas

Pricing (1/3)

- REGULATION (EC) No 715/2009

Article 13(1): “Tariffs, or the methodologies used to calculate them, shall facilitate efficient gas trade and competition, while at the same time avoiding cross-subsidies between network users and providing incentives for investment and maintaining or creating interoperability for transmission networks.

Article 14(2): “Transport contracts signed with non-standard start dates or with a shorter duration than a standard annual transport contract shall not result in arbitrarily higher or lower tariffs that do not reflect the market value of the service, in accordance with the principles laid down in Article 13(1).”
4. Interaction with other areas

Pricing (2/3)

• Auction objectives
  o Establish market value in event of scarcity
  o Otherwise capacity secured at reserve price

• Reserve price determination
  o To reflect underlying costs
  o To avoid cross-subsidisation between system users
  o To secure TSO revenue
4. Interaction with other areas

Pricing (3/3)

- Context of Reserve Price Discussion
  - CAM and CMP will lead to increased short term capacity release
  - There will be uncertainty about capacity booking levels
  - Promotion of short term trading and low short term Reserve Prices seems to be the aspiration

- Issues to consider
  - Volume and price uncertainties create risks for all players
  - Over and under-recovery mechanisms to be defined

Inappropriately low Reserve Prices for short term capacity undermines longer term bookings which creates distortions and cross subsidies

Issue to be discussed prior to defining Reserve Price rules
5. Auctioning process for different Products

Introduction

• Standard Capacity Products as an assumption from the interpretation of Draft CAM FG and the Letter by Eurogas, OGP, EFET

• Auction Options represent the current work stage
  o Mechanisms not approved within ENTSOG

• Subsequently, preferred Options are intended to be detailed (types of Auctions, Pay-As-Bid/Cleared-Price etc)
5.1 Auction of Daily Capacity – Option 1

Capacity = x consecutive days
5.1 Auction of Daily Capacity – Option 2

Capacity = x consecutive days
### 5.1 Auction of Daily Capacity – Option 3

**Capacity = x consecutive days**

<table>
<thead>
<tr>
<th>Bidding Windows</th>
<th>Allocation</th>
<th>Lead Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BW D1</td>
<td>A1</td>
<td>D1</td>
</tr>
<tr>
<td>BW D2</td>
<td>A2, BW D2</td>
<td>A2, D2</td>
</tr>
<tr>
<td>BW D3</td>
<td>A3, BW D3</td>
<td>A3, D3</td>
</tr>
<tr>
<td>BW D4</td>
<td>A4, BW D4</td>
<td>A4, D4</td>
</tr>
<tr>
<td>BW D5</td>
<td>A5, BW D5</td>
<td>A5, D5</td>
</tr>
<tr>
<td>BW D6</td>
<td>A6, BW D6</td>
<td>A6, D6</td>
</tr>
<tr>
<td>BW D7</td>
<td>A7, BW D7</td>
<td>A7, D7</td>
</tr>
<tr>
<td>BW D8</td>
<td>A8, BW D8</td>
<td>A8, D8</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>BW Dx</td>
<td>Ax, BW Dx</td>
<td>Ax, Dx</td>
</tr>
</tbody>
</table>
5.2 Auction of Monthly Capacity – Option 1

Capacity = z consecutive months
5.2 Auction of Monthly Capacity – Option 2

Capacity = z consecutive months
5.2 Auction of Monthly Capacity – Option 3

<table>
<thead>
<tr>
<th>Bidding Window</th>
<th>Allocation</th>
<th>Lead Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>A1</td>
<td>M1</td>
</tr>
<tr>
<td>B2</td>
<td>A2</td>
<td>M2</td>
</tr>
<tr>
<td>B3</td>
<td>A3</td>
<td>M3</td>
</tr>
<tr>
<td>B4</td>
<td>A4</td>
<td>M4</td>
</tr>
<tr>
<td>B5</td>
<td>A5</td>
<td>M5</td>
</tr>
<tr>
<td>B6</td>
<td>A6</td>
<td>M6</td>
</tr>
<tr>
<td>B7</td>
<td>A7</td>
<td>M7</td>
</tr>
<tr>
<td>B8</td>
<td>A8</td>
<td>M8</td>
</tr>
<tr>
<td>B9</td>
<td>A9</td>
<td>M9</td>
</tr>
<tr>
<td>B10</td>
<td>A10</td>
<td>M10</td>
</tr>
<tr>
<td>B11</td>
<td>A11</td>
<td>M11</td>
</tr>
<tr>
<td>B12</td>
<td>A12</td>
<td>M12</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Bz</td>
<td>Az</td>
<td>Mz</td>
</tr>
</tbody>
</table>

Capacity = z consecutive months
5.3 Auction of Quarterly Capacity

<table>
<thead>
<tr>
<th>Bidding Window</th>
<th>Allocation × Quarter</th>
<th>Lead Time</th>
<th>Capacity = Y</th>
<th>Capacity = Y+1</th>
<th>Capacity = Y+2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alloc Q1 Y</td>
<td>Q1 Y Lead Time →</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q2 Y</td>
<td>Q2</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q3 Y</td>
<td>Q3</td>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q4 Y</td>
<td>Q4</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q1 Y+1</td>
<td>Q1</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q2 Y+1</td>
<td>Q2</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q3 Y+1</td>
<td>Q3</td>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q4 Y+1</td>
<td>Q4</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q1 Y+2</td>
<td>Q1</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q2 Y+2</td>
<td>Q2</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q3 Y+2</td>
<td>Q3</td>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Q4 Y+2</td>
<td>Q4</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alloc Qn Y+r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.4 Auction of Within-Day Capacity – Option 1

Capacity = balance of day (remaining hours of Gas Day)
5.4 Auction of Within-Day Capacity – Option 2

Capacity = balance of day (remaining hours of Gas Day)
5.4 Auction of Within-Day Capacity – Option 3

Capacity = balance of day (remaining hours of Gas Day)

Unsatisfied capacity bids from daily auction are carried over (as an option) to the within-day auctions

Last bidding window of the day

BW 6  A6

BW 5  A5

BW 4  A4

BW 3  A3

BW 2  A2

BW 1  A1

A0
### 5.5 Overview of Auctions for all durations

<table>
<thead>
<tr>
<th>Type of allocation</th>
<th>Lead time and Bidding Window</th>
<th>Possible Service Duration</th>
<th>Standard Capacity Product</th>
<th>Share of total calculated capacity</th>
<th>Auction type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Quarterly long term allocation</td>
<td>LT: X months before the start of the first quarter on sale</td>
<td>Any (combination of) quarters from x up to x+15 years out</td>
<td>Quarterly</td>
<td>Maximum x% of calculated available capacity on Long term</td>
<td>Upcoming Discussions</td>
</tr>
<tr>
<td>Annual monthly allocation</td>
<td>LT: X months before the start of the first month on sale</td>
<td>Any (combination of) months up to x months out</td>
<td>Monthly</td>
<td>Total calculated capacity minus allocated quantities from previous auctions</td>
<td>Sealed-Bid vs Open Bid</td>
</tr>
<tr>
<td>Rolling monthly allocation</td>
<td>LT: Month-ahead, xth of the month, prior to the month of service</td>
<td>One month</td>
<td>Monthly</td>
<td>Total calculated capacity minus allocated quantities from previous auctions</td>
<td>Single Round vs Multiple-Rounds</td>
</tr>
<tr>
<td>Rolling daily day-ahead allocation</td>
<td>LT: Day-ahead – x hours before 6am.</td>
<td>One day</td>
<td>Daily</td>
<td>Total calculated capacity minus allocated quantities from previous auctions</td>
<td>Cleared-Price vs Pay-as-Bid</td>
</tr>
<tr>
<td>Within day allocation</td>
<td>LT: During the gas day, at least 3 hours taking renom lead-time into account</td>
<td>Remainder of the day</td>
<td>Daily (or balance of day)</td>
<td>Any remaining available capacity</td>
<td>FCFS vs Auctions</td>
</tr>
</tbody>
</table>

**Notes:**
- **LT:** Lead time
- **FCFS:** First Come First Serve
5.6 Example of Bidding Window organisation
6. Future collaboration between the parties

- How to best organise the collaboration?
- Topics for next meetings and homework?
Thank you!