Explanatory Note

for the

Capacity Allocation Mechanisms (CAM) Network Code
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A. Introduction

This document is issued in parallel with the final Network Code (NC) on Capacity Allocation Mechanisms (CAM), reference CAP0210-12, which is available on the ENTSOG website. The document is for information purposes only. It is not part of the NC and should not be interpreted as legal advice or any legally binding commitment from ENTSOG as to the accuracy or content, and no warranty whatsoever shall be implied as to the fitness for any particular purpose or otherwise.

The present document only seeks to clarify technical issues and to improve understanding, in furtherance of the implementation of the NC, where deemed relevant by ENTSOG, without any other value. The use of this document remains therefore the sole responsibility of the reader.

In any case, the wording of the NC is the only text to be considered as legally binding and shall always prevail in the case of any conflict over any part of the present explanatory document.

This explanatory document is complementary to the ‘Analysis of ENTSOG Decisions for the CAM NC’ document, reference CAP0216-12, but is not intended to cover the same material or to serve the same purpose.
B. Application of the CAM NC – NC section 2

B.1 Application of the Network Code

Article 2 (3): Incremental capacity

Section 1.2 of the FG specifies that:

“Section 3 of these Framework Guidelines [capacity allocation] does not apply to new capacity allocated via open season procedures, apart from capacity which remains unsold after it has been initially offered via an open season procedure. It is recommended that processes for determining incremental capacity, i.e. capacity to be made available above the prevailing level of existing technical capacity, are consistent with the provisions of these Framework Guidelines”.

A number of different mechanisms are available for allocating new capacity. The term ‘open season’ is typically used to describe a process in which parties can offer to purchase a certain amount of not-yet-built capacity for a certain price over a certain period, with the transmission system operator (TSO) and the national regulatory authority (NRA) then evaluating the offers to determine what level of network upgrade would be economically viable and in the interests of customers. ENTSOG considers, however, that the term could equally be used to describe other market-led mechanisms for allocating new capacity, including auction processes. For clarity, the words ‘or other procedures for allocating new capacity’ have been included in the NC.

In line with the ACER framework guideline on Capacity Allocation Mechanisms (FG), the CAM NC does not specify a mechanism for allocating incremental capacity. This means that national regimes will continue to be able to determine their preferred approach to incremental capacity. ENTSOG notes however that CEER intends to start work on a potential future incremental capacity regime during 2012. This is in line with the preference expressed by stakeholders participating in the CAM NC development process for any capacity allocation system to include incremental capacity, in order to ensure a fully market based system.

In preparation for any such regime, and in line with the strong preference of stakeholders for an auction methodology to be as consistent as possible, the auction algorithm set out in article 4 of the NC has been designed to provide a foundation on which an approach for incremental capacity release could be developed. At the request of stakeholders, ENTSOG has adopted a volume based auction algorithm in the NC in order to facilitate the future introduction of a compatible system for allocating incremental capacity.

ENTSOG notes that the amount of incremental capacity offered under existing systems in the EU is, at least in theory, unlimited. The concept of unsold incremental capacity, mentioned in the FG, is therefore unlikely to apply. However, ENTSOG has included the FG’s wording in the NC, to cover the eventuality that a system is developed under which a fixed quantity of incremental capacity is offered.

The FG recommends that processes for determining incremental capacity are consistent with the provisions of the FG. While the system for allocating incremental capacity is an NRA decision, TSOs

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1 CEER 2012 Work Programme, Ref C11-WPDC-22-06, 24 January 2012.
will cooperate where possible to identify opportunities for the technical capacities on offer at two
sides of an IP to be further aligned.

The NC provisions will, however, apply to ‘Additional Capacity’, defined in the NC as capacity that
TSOs may make available at their discretion in accordance with applicable congestion management
procedures and any other incentives to offer additional capacity. This is because capacity created
through commercial arrangements that are envisaged in the draft CMPs does not add to existing
technical capacity and is therefore not subject to the ‘new capacity’ exemption in the FG. TSOs will
offer this capacity according to standard auction procedures, in the first auction after the capacity
becomes available.

**Article 2 (5), (6), and (8): Interaction with other areas**

These articles set out the relationship between the CAM NC and other pieces of legislation that are
currently envisaged.

The scope of this NC is limited to capacity allocation mechanisms as focused on by the FG. The key
aspects of the mechanisms to be implemented are set out in articles 4 (allocation of firm capacity), 5
(cross-border capacity), 6 (interruptible capacity) and 8 (booking platforms) of the NC. ENTSOG will
make best efforts to ensure that any conflict between this and future NCs on these core CAM issues
is minimised if not prevented. However, if any conflict arises with respect to these key issues then
article 2 (6) explains that the CAM NC will take precedence. This approach ensures that it is clear
which NC takes precedence in relation to each area of harmonisation covered by the scope of the
CAM NC.

The CAM NC also contains some provisions that do not relate to core CAM issues. Notably, article 3
refers to issues that are likely to be further specified in a future NC while article 7 relates to issues
that may be further specified by future legislation in the Tariff area. As set out in article 2 (5), these
provisions have been included only where this is essential to be in line with the FG and/or necessary
for the implementation of the CAM mechanisms.

The CAM NC leaves open the possibility that implicit auctions will be applied, for example in
accordance with the CEER Gas Target Model. In such a case, the provisions of the network code,
including the allocation methodology, bundling concepts and tariff issues set out in the NC will not
apply.
C. Principles of co-operation – NC section 3

C.1 Coordination of maintenance

Article 3.1:
The NC sets out requirements for the coordination of maintenance, in line with the FG. The maintenance arrangements set out in capacity contracts are not prescribed in the NC and will be determined at national level. In general the offer of technical capacity will not be affected by planned or unplanned maintenance.

C.2 Standardisation of communication

Article 3.2:
The NC sets out that TSOs will implement standard communication procedures for the exchange of information that is required by the CAM NC.

Detailed specification of the messages to be sent in order to meet these communication requirements will be developed by TSOs within the implementation timescales set out in the NC. The technical standards to be used for these communications, such as the relevant data exchange network, are expected to be specified in a future network code on Interoperability.
D. Allocation of firm capacity – NC section 4

D.1 Auction calendar

**Article 4.1 (5)**

ENTSOG will publish an auction calendar each year showing the dates of auctions. The calendar will be published in January, and will cover the period from March of the same year (when annual auctions of long term capacity take place) to February of the following year.

Articles 4.4-4.6 of the NC provide an indication of the timing of yearly, annual quarterly and rolling monthly auctions, but allow that the auction calendar may specify different timings. This flexibility is necessary as:

- it is desirable for the auction period to avoid public holidays across the EU as far as possible, and the dates of these holidays may vary each year;
- It may be appropriate to vary the timings of auctions as participants’ experience increases.

The calendar will be published on ENTSOG’s website, [www.entsog.eu](http://www.entsog.eu), to ensure all parties can access the information.

D.2 Reserved capacity

**Article 4.1 (6)**

The NC specifies that at least 10% of technical capacity, as defined by Regulation (EC) No 715/2009, is set aside for services with a duration of less than or equal to one quarter.

The NC caps the set aside capacity at the level of available capacity, as defined by Regulation (EC) No 715/2009, so that TSOs are not forced as a result of this clause to seize and re-sell capacity already contracted before the NC comes into force. For example, if 95% of the capacity has already been sold, only the remaining 5% must be set aside.

Figure 1 illustrates the approach set out in the NC. In this simplified example, technical capacity is assumed to remain constant.
In reality, technical capacity may vary between the time when capacity is first offered (up to 15 years ahead, depending on availability) and the time of gas flow. Typically, TSOs will look at the level of technical capacity at the time of the final annual yearly auction, approximately six months before gas flow. The capacity offered in the annual quarterly auction three months later would then have to be at least 10% of this figure, subject to the availability cap.

In line with section 1.6 of the FG, section 9 of the NC specifies that the exact amount to be reserved (which may be higher than 10%) will be determined on an IP-by-IP level, following stakeholder consultation.

**D.3 Standard Capacity Products and auction schedule**

**Articles 4.4-4.8**

Table 1 shows the firm capacity products to be auctioned, and the frequency with which the auctions will take place.

**Table 1: Capacity products and auctions**

<table>
<thead>
<tr>
<th>Standard capacity product</th>
<th>Frequency of auctions</th>
<th>Number of products per auction per IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly</td>
<td>Annual</td>
<td>15</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Annual</td>
<td>4</td>
</tr>
<tr>
<td>Monthly</td>
<td>Monthly (rolling monthly auction)</td>
<td>1</td>
</tr>
<tr>
<td>Daily</td>
<td>Every day</td>
<td>1</td>
</tr>
<tr>
<td>Within-day(^2)</td>
<td>Every hour</td>
<td>1 (balance of day)</td>
</tr>
</tbody>
</table>

\(^2\) See section D.8
Relevant auctions will be held concurrently, but each auction process will be independent of all others being held at the same time. For example, in the annual yearly auction, 15 independent auctions for yearly products will be held for each IP. Network users may participate in as many auctions as they wish, in order for example to gain capacity over a number of years, or over a route covering several IPs. To gain the capacity for all of the periods and IPs that he requires, a network user must be prepared to pay the clearing price in each relevant auction.

Three general types of capacity will be offered according to the NC:

- **Bundled firm capacity** will be offered wherever possible, according to the auction sequence set out in section 4 of the NC.

- **Unbundled firm capacity**: as set out in section 5.1 of the NC, this will be offered when there is an excess of available capacity on one side of an IP compared with the other side. The auction will take place concurrently with the auctions for the bundled products.

- **Interruptible capacity (which may be unbundled)**: as set out in section 6.1 of the NC, this will be offered via a separate auction after firm capacity of equal duration has been allocated, but before the auction of firm capacity with a shorter duration will start. The auction design will be the same as for firm capacity.

Figure 2 shows the sequence and approximate timings of auctions, and the timing of products.
Figure 2: sequence of firm and interruptible capacity auctions (excluding within-day)
D.4 Booking unit

Article 4.3: Applied booking unit

Capacity will be offered in energy units per unit of time, which may be kWh/h or kWh/d. If kWh/d is used, the TSO will assume that gas is flowed at a flat rate over the day; so, for example, 24 000 kWh/d grants a right to flow 1 000 kWh/h.

D.5 Capacity on offer

Articles 4.4 – 4.8

ENTSOG has revised references in the NC to the amount of capacity on offer, in order to be compatible with the EC’s proposed CMP guideline.

The network code refers to two types of capacity:

- ‘Technical capacity’, as defined in Regulation (EC) No 715/2009, is ‘the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network’. Technical capacity may be viewed as a physical measurement of the maximum amount of gas that can be flowed into or out of a particular IP over a particular period.

  Technical capacity that was previously sold but which becomes available as a result of congestion management procedures such as voluntary surrender or UIOLI measures, remains technical capacity when it is re-offered to the market.

- ‘Additional capacity’ means any capacity that transmission system operators may make available at their discretion in accordance with any relevant incentives to offer further capacity, including applicable overbooking procedures, beyond technical capacity. Additional capacity may be viewed as a commercial arrangement that TSOs may have with their NRA under which TSOs are incentivised to release capacity in addition to the physical maximum, based for example on their expectation about usage of the technical capacity.

The purpose of an overbooking scheme as described in the CMP proposal is to encourage TSOs to free up extra capacity. By choosing to do so, they incur additional operating costs and take a risk of incurring buyback fees, in return for a financial incentive. Under such a scheme, TSOs may be prepared to free up more capacity, and therefore take additional risk, if the potential rewards are higher.

This implies that in an auction, TSOs may be prepared to offer higher amounts of capacity at different price steps. This approach has clear benefits for network users, as increases in the capacity offer may enable network users to gain more capacity and/or for a lower price than would otherwise have been the case.

D.6 Auction algorithm – longer duration products

Article 4.10

The NC specifies that a multiple round ascending clock auction model will be used in annual yearly, annual quarterly and rolling monthly capacity auctions. The model set out in the NC has the following key features:
In general increasing, pre-defined price steps are called out successively;

The first round lasts three hours, while subsequent rounds last one hour. There is a break of one hour between rounds to allow users to review the outcome of previous rounds in all auctions that they are participating in, and to determine their bids in the following round. Rounds take place between 9.00 and 18.00 on relevant days;

Information on the amount of capacity demanded will be published at the end of each round;

Large and small price steps will be used to minimise unsold capacity while limiting the length of auctions;

The number of price steps and bidding rounds is theoretically unlimited. In practice, an auction will close in the unlikely event that demand still exceeds supply at the time the next auction for the same capacity is due to open. In this case no capacity will be allocated and it will roll over to the next auction;

Figure 3a shows an example of an auction taking place under this model.
**Figure 3a: Example of multiple round ascending clock auction**

<table>
<thead>
<tr>
<th>Price step</th>
<th>Q4</th>
<th>Announced price step</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avail. qty</td>
<td>S1</td>
</tr>
<tr>
<td>5</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

**Table:**

<table>
<thead>
<tr>
<th>Price step</th>
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<td>120</td>
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<td>3</td>
<td>120</td>
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<tr>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>1</td>
<td>120</td>
</tr>
</tbody>
</table>

1. Large price steps (1,2,3,4,...) announced sequentially
### Price step Q4

<table>
<thead>
<tr>
<th>Price step</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Avail. qty</td>
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<tr>
<td>2</td>
<td>120</td>
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<tr>
<td>1</td>
<td>120</td>
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</tbody>
</table>

**Announced price step**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Avail. qty</td>
<td>S1</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>1</td>
<td>120</td>
</tr>
</tbody>
</table>

2. When demand falls below supply, auction ‘steps back’ to next lowest large price step and small price steps (3.1, 3.2, 3.3…..) are announced sequentially.

3. Auction closes and capacity is allocated when small price steps lead to demand falling below supply.
Figure 3b illustrates the process that will take place if small price steps do not lead to demand falling below supply.

*Figure 3b*

<table>
<thead>
<tr>
<th>Price step</th>
<th>Q4</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avail. qty</td>
<td>S1</td>
<td>S2</td>
<td>Σ</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
<td>70</td>
<td>40</td>
<td>110</td>
</tr>
<tr>
<td>3.75</td>
<td>120</td>
<td>74</td>
<td>55</td>
<td>129</td>
</tr>
<tr>
<td>3.5</td>
<td>120</td>
<td>76</td>
<td>55</td>
<td>131</td>
</tr>
<tr>
<td>3.25</td>
<td>120</td>
<td>78</td>
<td>60</td>
<td>138</td>
</tr>
<tr>
<td>3</td>
<td>120</td>
<td>80</td>
<td>60</td>
<td>140</td>
</tr>
</tbody>
</table>

Demand is above supply in bidding round with price 3.75.

<table>
<thead>
<tr>
<th>Price step</th>
<th>Q4</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avail. qty</td>
<td>S1</td>
<td>S2</td>
<td>Σ</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
<td>70</td>
<td>40</td>
<td>110</td>
</tr>
<tr>
<td>3.75</td>
<td>120</td>
<td>74</td>
<td>55</td>
<td>129</td>
</tr>
<tr>
<td>3.5</td>
<td>120</td>
<td>76</td>
<td>55</td>
<td>131</td>
</tr>
<tr>
<td>3.25</td>
<td>120</td>
<td>78</td>
<td>60</td>
<td>138</td>
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<tr>
<td>3</td>
<td>120</td>
<td>80</td>
<td>60</td>
<td>140</td>
</tr>
</tbody>
</table>

In this case there are no more bidding rounds. The auction closes and the original bids at price 4 are the successful bids.

The auction design will need to be carefully reviewed after the NC comes into force. It is likely that network users, TSOs and other market participants will suggest improvements to the model in the future, particularly on detailed issues such as the length of bidding rounds, in light of experience. If so, it may be appropriate for the relevant bodies to propose NC modifications in accordance with the procedure set out in Regulation (EC) No 715/2009. The NC does not include any specific provision for a review of the auction design, however, as it may also be appropriate to review other aspects of the NC and to propose modifications as part of the same process.

**D.7 Auction algorithm – shorter duration products**

**Article 4.11**

For rolling day-ahead and within-day auctions, the NC specifies a uniform price algorithm. Under this methodology, network users can submit up to 10 independent bids; this number was retained from draft NC following strong network user support in response to ENTSOG’s consultation. The price may be chosen freely and there are no pre-specified price steps. Bids are additive.

Figure 4 below illustrates this methodology.

*Figure 4: Illustration of uniform price 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

Following network user feedback in response to the first CAM NC consultation, day-ahead and within-day auctions will always be held provided capacity is available, and will not be suspended in cases of low demand.

D.8 Within-day capacity

Article 4.8

Figure 5 shows the timing of within-day auctions for firm capacity. The design is very similar to that set out in the draft NC in June 2011, which was supported by respondents to ENTSOG’s first consultation. Hourly auctions were felt to strike a reasonable balance between allowing network users to regularly adjust their portfolios, and avoiding excessive complexity.

The draft NC contained an error in the timings of the gas day and thus the timings of the auctions themselves. This has been corrected in the final NC so that that gas day runs from 5am-5am UTC in winter time and 4am-4am when daylight saving is applied. This means that the gas day is always the same in terms of local time, and runs from 6am-6am Central European Time/Central European Summer Time.
Interruptible capacity is sold via over-nominations, which may be submitted at any time within day. The nominations will be accepted on each hour bar, once firm within-day capacity is sold out.

D.9 Automatic bidding

Following stakeholders’ feedback, ENTSOG has specified in the NC that there must be a facility to allow network users to place bids automatically in any round of a multiple round auction. This will allow network users to participate in multiple round auctions without being physically present for each round.

The exact nature of this ‘bidding assistant’ may vary, at least until a single EU platform is developed, but will be such that users can bid in all rounds with a single upload of data. As an example, a platform may allow network users to enter bids in an unlimited number of rounds, during the time allowed for the first bidding round. The system will automatically enter each bid in the second and subsequent rounds during the relevant round.

Also included in the NC is an option enabling network users to automatically enter day-ahead bids for capacity offered in a within-day auction, should they wish. Users can submit bids in the day-ahead auction and can specify that these bids, if unsuccessful, should be entered automatically into the relevant within-day auction. This may be particularly valuable in the event that significant additional firm capacity becomes available in the within-day auction, for example as a result of the application of firm day-ahead use-it-or-lose-it CMP measures.
As set out in article 4.8 (2), network users are also able to enter a manual bid for within-day capacity in advance of the relevant day, since the first bidding window will open on the next hour bar following the publication of results of the day-ahead auction (that is, at 12.00h UTC daylight saving time).
E. Cross-border capacity – NC section 5

E.1 Offer of bundled capacity

**Articles 5.1 (1),(2),(3),(4):**

Network users have signalled strong opposition to mandatory bundling of new capacity, believing that a voluntary model is preferable and that flange trading should remain possible under the new regime. ENTSOG agrees that voluntary bundling would be preferable. However, the FG states that mandatory bundling must be implemented and ENTSOG has therefore developed the NC on this basis.

As required by the FG, the NC specifies that bundled capacity may be booked via a single allocation process and may be nominated against using a single nomination. Underlying this arrangement there may be either one contract, or two linked contracts. To implement this arrangement, several contractual schemes could be foreseen. However, the bundling and single nomination imply amendments to the transmission capacity contracts and interconnection agreements. Therefore contractually speaking the introduction of these concepts will need to be analysed carefully as several areas are affected. As to the transmission capacity contract, the legal impact assessment produced by ACER mentions, as an option, one single contract between a network user and one of the two TSOs involved. However, there are many issues to be covered in such a case in terms of e.g. liability, tax, payment, commercial risks and IT.

Results from ENTSOG’s consultation indicated that if mandatory bundling must happen, the approach set out in the NC would be generally supported.

As specified in the FG, the bundling rules also apply to capacity sold on the secondary market. In practice, this means that capacity originally sold as bundled may not be re-sold as unbundled. This means, for example, that a network user purchasing 10 units of bundled capacity at an IP may sell between one and ten units of capacity on the secondary market, by splitting the bundled capacity into smaller, but still bundled, quantities that are traded separately, but may not sell them as unbundled capacity on the secondary market.

**Articles 5.1 (5) and 5.1 (6): Treatment of divergent capacity**

TSOs will cooperate to maximise the amount of bundled capacity on offer. However available firm capacity on the two sides of an IP may differ for technical reasons, such as different physical capacities or operational reasons, and commercial reasons, i.e. different amounts of capacity already sold.

TSOs will comply with their obligation to maximise the amount of capacity that they offer by selling an unbundled product where it is impossible to sell a bundled one.
**Article 5.1 (8): Single nomination**

An important feature of bundled capacity is that users should be able to flow gas from one system to another across an IP on the basis of a single nomination. TSOs will where possible develop procedures to allow allocation to be made on the basis of a single nomination.

Separate nominations will however be necessary, in situations where a single nomination is not feasible. This applies in the case of interruptible capacity, which the FG does not require to be bundled, already booked capacity and unbundled firm capacity.

**Article 5.1 (10): Virtual Interconnection Points**

Virtual Interconnection Points (VIPs) will be established whenever this is a viable option. The challenges associated with establishing VIPs were however recognised at the first Stakeholder Joint Working Session. Not all potential VIPs (collections of two or more IPs connecting the same two adjacent transmission systems) would be viable VIPs. VIPs are likely to be viable where:

- The total virtualised capacity is no lower than the sum of the individual capacities available at the relevant IPs,
- The characteristics of the transmission systems involved allow virtualisation of capacities, and
- They facilitate the economic and efficient use of the system.

In order to facilitate the establishment of viable VIPs TSOs will examine whether the conditions above are met for each potential VIP. This process ensures that TSOs do not waste time pursuing unfeasible VIPs, but instead focus their resources on developing those potential points that are most likely to be viable. In line with the FG, the NC specifies that TSOs will assess potential VIPs and establish VIPs wherever the conditions are met, within a period of five years from the NC coming into force.

**E.2 Amendment of existing capacity contracts**

**Article 5.2**

Figure 6 shows the interactions and timings during the voluntary and mandatory stages of the sunset clause.

It is important to note that existing capacity contracts will only be modified following mutual agreement by the contracting parties as to the necessary adjustment either by:

(i) application of a bundling arrangement agreed by each of the capacity holders that is legally, commercially and technically feasible, as accepted by the relevant TSOs; or

(ii) the application of the default rule where relevant.
Figure 6: Application of the sunset clause
E.3 Interaction between mandatory bundling of new and existing capacity

Figure 7a represents bookings at two sides of an IP, with network A above the axis and network B below. The period considered is after the default rule applies, that is, more than five years after the NC comes into force.

In this example, the technical capacity remains constant over the time span considered: 3 units in network A and 4 units in network B.

Existing contracted capacity is shown in red. In this example, spanning a period of eight years, there are three points at which the level of capacity contracted at either side of the IP changes. There are therefore four periods (separated by vertical dotted lines in the diagram) that need to be considered separately when determining what happens to the capacity. The first period covers years 1 and 2, the second period covers years 3-5, the third period covers year 6, and the fourth period covers year 7 onwards.

Figure 7b shows what will happen to both contracted and available capacity under the NC.
For the first period (years 1-2), all technical capacity had already been contracted before the NC came into force. Three units of capacity are bundled while one unit of capacity in network B (the results of a mismatch in technical capacities between the two sides of the IP) remains unbundled.

During the second period (years 3-5), two units of capacity have become available in network B. Under articles 5.1 5) and 6) of the NC, this capacity is offered as an unbundled firm product for a duration not exceeding the expiration date of the contracts in network A. In this example, one unbundled unit will now always be available in network B (due to the mismatch in technical capacities) so this unit can always be offered as unbundled according to the standard auction schedule. The other available unit may be offered for a maximum of three years. Two units of previously contracted capacity are bundled while one unit of capacity in network A remains unbundled.

During the third period (year 6), two further units of capacity will have become available in network B. All of this capacity will be offered as unbundled firm capacity, if not already sold during years 3-5. Existing contracted capacity in network A remains unbundled.
During the fourth period (year 7 onwards), there is no capacity that was contracted before the NC came into force. The three units of capacity that can be bundled are offered as bundled firm capacity via auctions. The one unit that is unbundled due to the mismatch in technical capacity is offered as an unbundled firm product according to the same auction schedule.

This simple example demonstrates that, in practice, the interactions regarding the bundling of new and existing capacity may be extremely complex, and difficult to monitor. For this and other reasons set out in the ‘Analysis of ENTSOG decisions for the CAM NC’ document, ENTSOG strongly recommends deletion of the sunset clause.
F. Interruptible capacity – NC section 6

Feedback from users at the third Stakeholder Joint Working Session suggests that interruptible capacity remains a valuable product, but that its value and role may decrease in future. Measures introduced through the CAM NC and modifications to congestion management procedures, for example, are likely to free up more firm capacity at short durations. The increase in the availability of firm capacity will cause an increase in the probability of interruption, where interruptible capacity is sold. CMP measures are also likely to impact on the value of existing interruptible contracts, by making greater amounts of short term firm capacity available and thus increasing the probability of interruption.

The impact of these changes on existing long term interruptible contracts will need to be dealt with under national laws and regulations, and are not covered in the CAM NC.

F.1 Allocation method

Article 6.1 (6):

TSOs will offer interruptible capacity wherever possible, and at least on a day-ahead basis at IPs where firm capacity is sold out. Except for within-day, where interruptible capacity is offered, it will be sold via an auction process that opens shortly after the closure of the corresponding firm auction. In this way, the allocation of interruptible capacity will not restrict the allocation and use of firm capacity, as required by provision 3.1.4 of the FG.

However, interruptible capacity may be sold even if firm is not sold out, at the discretion of the TSO. This does not apply within-day as this could result in the sale of interruptible capacity interfering with the same of firm capacity, which is prohibited by the FG.

For all interruptible capacity except within-day, the auction process used will be the same as for the corresponding firm product, meaning that independent but concurrent auctions will be held for all interruptible standard products. This is in line with the FG requirement for TSOs to co-ordinate the offer of interruptible capacity, and with users’ preference for a consistent allocation methodology across different capacity products. This consistent approach also has the advantage of resulting in lower costs.

The allocation process for within-day interruptible capacity, via over-nomination, is explained in the NC. ENTSOG notes that like any nomination, over-nominations will be handled in accordance with relevant gate closures. This means that while it will be possible to over-nominate at any time within-day, interruptible capacity will only be allocated at certain points in time.

F.2 Defined sequence of interruptions

Article 6.4:

The NC specifies that the sequence of interruptions will be determined in a two stage process:

- The contract with the most recent time stamp will be interrupted first. In practice this means that holders of shorter duration contracts will be interrupted first; for example, the holder of a within-day interruptible product will be interrupted before the holder of a rolling daily product.
- If two contracts bear the same time stamp, as will be the case for example if they result from the same auction, they will be interrupted pro rata.
ENTSOG does not believe that pro rata interruption is desirable as no user would then get the full amount of capacity demanded. However, as a last resort, it is preferable compared to an arbitrary ‘lottery’ type approach. The two stage process described gives appropriate priority to longer duration interruptible products, thus reducing the application of pro rata, while enabling the use of pro rata if needed.
G. Other issues – NC sections 8, 9, 10 and 11

G.1 Adaption, implementation and interim period

**Articles 10.1: Adaption of national terms and conditions, and 10.2: Implementation period**

TSOs will be required to amend the relevant terms and conditions of the capacity contracts applicable in relation to their network to be in line with the provisions of the NC within nine months of the NC coming into force.

Implementing certain aspects of the NC, particularly those requiring new IT systems, will be a technically complex process requiring a substantial investment of time and resources. In order to ensure that these systems are fit for purpose and cost effective, TSOs will require an additional implementation period.

ENTSOG considers that even the 18 month period included in the final network code represents a challenging deadline, particularly for those regimes with little pre-existing experience of the mechanisms set out in this code, or where IT systems will need to be substantially upgraded in order to implement the mechanisms. ENTSOG believes, however, that, provided the NC does not change substantially during the ACER review and the comitology procedure (thus allowing TSOs to begin work on implementation in advance of the NC coming into force), this deadline is achievable.