Incremental capacity – will market driven investments survive?

Jan Vitovský
Subject manager, Capacity area
Contents

- First market demand assessment in 2017
- Overview of initiated Incremental capacity projects in 2017
- Way forward
Incremental capacity

What is incremental capacity?

“a possible increase in technical capacity that may be offered based on investment or long term capacity optimization and subsequently allocated subject to the positive outcome of an economic test”

- Incremental capacity process = market-based procedure to satisfy all economically reasonable and technically feasible demand for capacity
- At existing interconnection points, by establishing a new interconnection point or a physical reverse flow capacity at an interconnection point, which has not being offered before
- Core is a harmonized and simultaneous assessment of demand for incremental capacity across the EU
Network User has interests in incremental capacity

Network user provides TSOs with non-binding capacity demand, including conditionality (volume, duration, location)

Network User receives the indications on project conditions and can interact

TSOs decide to initiate or not the needed studies

Network User gets the capacity allocated

NRAs approve all necessary for binding phase

INC process - 1st initiation in April 2017

Yearly Auctions

Mar ‘17

Day-ahead (DA) phase

Apr’17

Design Phase

Jul ‘17

Public Consultation

Nov’17

Project Finalisation

Jan’18

NRA decision

Mar’18 – Oct 18

Publish Notice

Max 6 months

Dec’18 – Apr’19

Min 2 months

Yearly Auctions

May’19

Jul ‘19

Non-Binding Phase

Binding Phase

Network User

Mar ‘17

Jul ‘17

Nov ‘17

Jan ‘18

Mar‘18

Apr ‘19

Jul ‘19
Demand Assessment Timeline 2017

- **Start of the Incremental process**: 1 June 2017
- **Regular deadline for submitting non-binding demand indications for DAR**: Before 27 July 2017
- **Late submission of non-binding demand indications for DAR**: Before 27 July 2017

- **No non-binding demand indications from previous years for DA**

- **Annual yearly capacity auction**: 6 March 2017
- **EIF of CAM**: 6 April 2017
- **Start of work on DAR**: 1 June 2017
- **Publication of DAR**: 27 July 2017

8 WEEKS

8 WEEKS
Incremental capacity demand assessment 2017

- ENTSOG published the Demand Assessment Reports on 27th July
- Network users submitted non-binding demand indications at 19 market area borders / interconnection points

- In 11 cases, demand indications will lead to technical studies of the incremental capacity projects being initiated by the affected TSOs
  - AT-HU, AT-SI, AT-DE, HR-SI, DE-NL, DE-RU, DE-PL, GR-IT, IT-Malta, HU-SK-AT

- At the 8 remaining market area borders
  - the indicated demand was below the available capacity for the requested period;
  - the indicated demand was considered (by the TSO) to be too low to pass the economic test;
  - network development projects were already initiated covering the expressed demand.
Overview on initiated INC projects in 2017
### Overview on initiated INC projects ‘17

<table>
<thead>
<tr>
<th>Country</th>
<th>E-X border</th>
<th>Direction</th>
<th>Period of demand (Start-end year)</th>
<th>Demanded capacity bcm/y</th>
<th>Year of capacity allocation</th>
<th>Link to a webpage with public consultation</th>
<th>Proposed f-factor</th>
<th>f-factor approved by the NRA</th>
<th>Alternative capacity allocation proposed by TSOs?</th>
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<tbody>
<tr>
<td>AT-DE (NCG)</td>
<td>bidirectional</td>
<td>AT-DE: 2023-28; DE-AT: 2018-27</td>
<td>AT-DE: 0.76 bcm/y; DE-AT: 1.99 bcm/y</td>
<td>2018</td>
<td><a href="https://www.gasconnect.at/netzinformationen/netzentwicklungsnetzentwicklungsplanung">https://www.gasconnect.at/netzinformationen/netzentwicklungsnetzentwicklungsplanung</a></td>
<td>f=1</td>
<td>f=0.5</td>
<td>no alternative capacity allocation</td>
<td></td>
</tr>
<tr>
<td>AT-SK</td>
<td>exit SK/entry AT</td>
<td>SK-AT: 2022/23 - 2036/37</td>
<td>SK-AT: 0.15 bcm/y</td>
<td>2018</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>alternative capacity allocation</td>
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<td>2018</td>
<td><a href="https://www.fnb-gas-capacity.de/konsultation/">https://www.fnb-gas-capacity.de/konsultation/</a></td>
<td>-</td>
<td>AT side: f=0.5</td>
<td>-</td>
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<tr>
<td>IT</td>
<td>IT-Malta</td>
<td>exit IT/entry Malta</td>
<td>IT-Malta: 2025/2026</td>
<td>IT-Malta: 1.86 bcm/y</td>
<td>2019</td>
<td>[<a href="http://www.snam.it/en/transportation/Online_Processes/AI">http://www.snam.it/en/transportation/Online_Processes/AI</a> acclaimati/procedure-module/incremental-capacity/request_incremental_capacity.html](<a href="http://www.snam.it/en/transportation/Online_Processes/AI">http://www.snam.it/en/transportation/Online_Processes/AI</a> acclaimati/procedure-module/incremental-capacity/request_incremental_capacity.html)</td>
<td>-</td>
<td>-</td>
<td>With letter dated 19th October 2017, the subject who submitted on 29th May 2017 the non-binding demand indication for incremental capacity between Italy and Malta has required to cancel the request. Therefore the current incremental capacity process is considered closed.</td>
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### Overview on initiated INC projects ‘17

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Conclusions on INC process so far

- First INC process has been used at 19 E/X boarders however projects can be considered as successful only after a positive economic test. Most of the INC project will have binding allocation and test in 2019

- Low number of network users are willing to book in a long term

- Some of the non-binding demand received was not repeated in an binding way in 2018
Future of market based procedures

Possible negative factors for a future of market based investments

**Greater market areas**
- In case of national market mergers, the cancelled IPs cannot be booked anymore.
- Higher need for intra-zone network development planning among TSOs
- No capacity and price signals from shippers to TSOs inside of a merged zone

**High short term capacity quotas and limitation of long term bookings**
- Both inputs (booked capacity level and allowed number of years to be booked) are quite important to successfully pass economic test
- Usual booking period needed to payback market based investments is 15-20 years (in case of no or moderate Mandatory minimum premium on top of a regular tariff)

Will we see market based investments in the EU in the next decades?
⇒ Depends on willingness of shippers to book in a long term and future development of EU gas rules and policies
Thank You for Your Attention

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Back up
**Process for Incremental Capacity Projects**

**Annual auction of yearly capacity**

**Due date for non-binding indication**
- 8 weeks after beginning of annual auction

**Non-Binding Phase**

**(to determine whether there is sufficient demand (based on the criteria) to launch a project)**

**Demand assessment**

**Design Phase:**
- TSOs’ activities include:
  - Prepare and design project (planned offer levels, economic test parameters, etc.)
  - optional: conduct technical studies
  - identify what conditions if any to allow
  - determine whether an alternative capacity allocation mechanism is needed to the default allocation process, and design it
- **TSOs run public consultation** (min. 1, max. up to two months)
  - finalise project design after consultation
  - submit proposal for NRA approval

**Binding Phase**

**Default allocation process:**
- Users submit binding capacity requests through the CAM auction for each offer level.

**Run economic test** (and a potential bid revision process)

**Run economic test**

**Alternative allocation process:**
- For each offer level, users submit binding capacity requests through the alternative capacity allocation process and specify any conditions.
- TSOs process requests quickly to avoid overlap with any new cycle

**TSOs publish notice at least 2 months before due date for binding capacity requests**

**TSOs publish results**

**Ongoing co-ordination among TSOs and NRAs involved throughout the process**
# Project Characteristics

## Austria – Germany

<table>
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<tr>
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<th>Additional Information</th>
</tr>
</thead>
</table>
| NetConnect Germany, Germany | Market Area East, Austria | 2018 - 2027 | | Entry: demand at Entry Überackern SÜDAL has been indicated - already submitted in 2016  
Exit: demand lower than available capacity  
Market Area East: Freely allocable firm; plan to offer incremental freely allocable capacity in yearly auction in July 2018; potentially a bundled auction with restricted allocable firm capacity; relevant project in Austrian development plan will be updated;  
NCG: Restricted allocable firm (Überackern 2 - storage Haidach) |


## Project Characteristics

### Austria – Hungary

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</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>Market Area East, Austria</td>
<td>2019/20 – 2036/37</td>
<td>Entry: Project 1: 6,378,300 kWh/h Project 2: 11,115,307 kWh/h Exit: 6,378,300 kWh/h</td>
<td><strong>Market Area East (IP Mosonmagyaróvár):</strong> Project 1 results from Austrian national network development Plan 2017-2026 - NSI East Gas priority corridor (“ROHUAT/BRUHA) and alternative allocation mechanism (“ROHUAT Open Season”); Project 2 results from Project 1 plus additional incremental capacity demand received on top <strong>Hungary (IP Mosonmagyaróvár):</strong> incremental capacity project is part of the Hungarian National Development Proposal 2016-2025 and also included ENTSOG’s TYNDP 2017 document (not approved yet)</td>
</tr>
</tbody>
</table>
# Project Characteristics

## Austria – Slovenia

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<tr>
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</table>
| Market Area East, Austria | Slovenia | From 2020/21 | Entry/Exit: 9,070,838 kWh/h | binding demand in yearly auction 2017 too low for positive economic test of projects:  
• GCA – Entry/Exit Murfeld  
• Plinovodi – Upgrade of Murfeld/Ceršak interconnection, Upgrade of Rogatec interconnection, CS Kidričevo, 2nd phase of upgrade  
However, Priority Corridor North-South Gas Interconnections in Central Eastern and South Eastern Europe includes the Cluster Croatia — Slovenia — Austria with above mentioned projects as PCIs  
→ corresponding projects are included in the Austrian and Slovenian national development plans  
→ technical studies will be performed by GCA and Plinovodi |
| Slovenia | Market Area East, Austria | From 2020/21 | Entry/Exit: 6,937,800 kWh/h |  

## Project Characteristics

### Bulgaria – Romania

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<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>Bulgaria</td>
<td>To follow</td>
<td>To follow</td>
<td>Demand indications have been received, but so far no demand assessment report has been published</td>
</tr>
</tbody>
</table>

### Croatia – Slovenia

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<tr>
<th>From “EXIT CAPACITY”</th>
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<tbody>
<tr>
<td>Croatia</td>
<td>Slovenia</td>
<td>Not stated in the report</td>
<td>Entry/Exit: Not stated in the report (indicated by NUs up to 1,100,023 kWh/h)</td>
<td>Direction SI-HR: demand for capacity has been received, which does not include incremental capacity. Direction HR-SI: Received indicative demands for the at IP Rogatec are dependent on the new sources of natural gas i.e. LNG Terminal Krk, IAP or potential new gas flow in direction HU-HR-SI etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2018/19 – 2034/35 (period of non-binding indications)</td>
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# Project Characteristics

## Germany – Poland

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<tr>
<td>GCP GAZ-SYSTEM, Poland</td>
<td>GASPOOL, Germany</td>
<td>not stated in the report</td>
<td>Exit: not stated in the report (indicated by NUs 910,676 kWh/h)</td>
<td>GASPOOL: Due to the merging of the market areas in Germany, not ensured that given technical capacity used in the Market Demand Assessment Report will be available from 01.04.2022 onwards + other, currently non-involved TSOs may have to be included</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019/20 – 2034/35 (period of non-binding indications)</td>
<td>Entry: not stated in the report (indicated by NUs 2,025,676 kWh/h)</td>
<td>TYNDP project partially covers non-binding demand [up to 1,112,083 kWh/h/1,116,667 kWh/h (2nd step)]</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>General: Offer levels will be assessed later, being output of the technical study</td>
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### Project Characteristics

#### Germany – Russia

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</table>
| Russia               | GASPOOL, Germany     | 2025/26 – 2039/40 (period of non-binding indications) | Entry: not stated in the report (indicated by NUs 13,191,273 kWh/h) | GASPOOL: Demand indications exceed technical capacity + new capacity according to TYNDP 2017 projects for the expansion of the capacities from Russia to GASPOOL in the Advanced Infrastructure Scenario (based on demand indicated in the “more capacity” market survey)  
Due to the merging of the market areas in Germany, not ensured that given technical capacity used in the Market Demand Assessment Report will be available from 01.04.2022 onwards + other, currently non-involved TSOs may have to be included  
General: Offer levels will be assessed later, being output of the technical study |


## Project Characteristics

### Germany – Netherlands

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<tbody>
<tr>
<td>GASPOOL, Germany</td>
<td>Netherlands</td>
<td>not stated in the report</td>
<td>Exit: not explicitly stated in the report (indicated by NUs up to ~12,000,000 kWh/h)</td>
<td>GASPOOL: Restricted allocable firm capacity from the border Russian Federation/GASPOOL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2025/26 – 2039/40 (period of non-binding indications)</td>
<td>Entry: not explicitly stated in the report (indicated by NUs up to ~10,000,000 kWh/h)</td>
<td>TTF: Firm capacity</td>
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</tbody>
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## Hungary – Serbia

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<tr>
<td>Serbia</td>
<td>Hungary</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>Direction Serbia &gt; Hungary: IP Kiskundorozsma is not functional yet and needs further investments to operate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direction Hungary &gt; Serbia: No technical studies considered for</td>
</tr>
</tbody>
</table>

### Additional Information
- Exit/Entry: 12,129,000 kWh/h
- 2019/20 – 2034/35 (period of non-binding indications)
- not stated in the report

## Italy – Malta

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<tr>
<td>Italy</td>
<td>Malta</td>
<td>From 2025/26</td>
<td>Exit/Entry: 56,000,000 kWh/d</td>
<td>Project connecting Malta to Italy at Gela is already included in 2nd union list of PCI</td>
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## Italy – Greece

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| Greece               | Italy               | 2019/20 – 2039/39 | Entry/Exit: 357,672,000 kWh/d | TYNDP 2017 + Southern Corridor Gas Regional Investment Plan include two projects for interconnection between Greece and Italy via Turkey:  
  • Poseidon: direct connection Greece and Italy, enabled by Komotini - Thesprotia  
  • Trans Adriatic Pipeline: indirect connection Greece and Italy through Albania

Greece:  
TYDP 2016-2025 includes Komotini - Thesprotia project, with interconnection point to Poseidon project

Italy:  
NDP 2016 – 2025 mentions Poseidon project + Trans Adriatic Pipeline, maybe relevant to the capacity request |