Congestion Management in Austria

Regulatory School Energy Community
Ljubljana

Alessandro Ischia
TSOs Network
TSO Network

Historical flows
TSO Network

Actual flows
TSO Network

Congested IPs
Austrian IPs

Virtual Trading Point

Oberkappel En/Ex

IP Oberkappel

Überackern En/Ex

IP Überackern

Mosonmagyaróvar Ex

IP Mosonmagyaróvar

Murfeld Ex

IP Murfeld/ Cersak

Area

IP Baumgarten

IP Baumgarten

Bavaria Virtual Port

Exit

Exit

Petrzalka Ex/Entry virtual

Exit
Effects of short-term capacity allocation

Italian gas price convergence

Price development between CEGH, EEX/NCG, TTF, PSV

PSV converges with rest of Europe

01.03.2012 TAG start of day-ahead capacity allocation

CEGH
CMP Implementation in Austria

Oversubscription and buy-back

- **Not introduced**, E-Control, after monitoring the market and the associated risk agreed upon the proposal of TSOs to maintain just the DA UIOLI.

Firm Day Ahead UIOLI pursuant to 2.2.3:

- **Yes**: Austria (AT), already foreseen in the Regulation **GMMO-VO 2012, art. 11**

Surrender of capacity

- **Yes**: Austria (AT), foreseen in the GTC of TSO art. IX
  - Principle by which surrender is “taken up” by TSO: **Time stamp**
  - Shippers still pay auction premium from previous congestion auction in case reallocation clears at reserve price

Long Term UIOLI pursuant to 2.2.5

- **Yes**: Austria (AT), already foreseen in the Regulation **GMMO-VO 2012, art. 12**
- But never applied

Interruptible products pursuant to Art 32 CAM NC

- **Yes**: Austria (AT),
- **Ex-post product**
1. As from 1 January 2018, transmission system operators may only offer standard capacity products for interruptible capacity of a duration longer than one day if the corresponding monthly, quarterly or yearly standard capacity product for firm capacity was sold at an auction premium, was sold out, or was not offered.

2. Transmission system operators shall offer a daily capacity product for interruptible capacity in both directions at interconnection points where the respective standard capacity product for firm capacity was sold out day-ahead or was not offered. At unidirectional interconnection points where firm capacity is offered only in one direction, transmission system operators shall offer at least a daily product for interruptible capacity in the other direction.
# Legal Framework

<table>
<thead>
<tr>
<th>Description</th>
<th>Valid from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 11 of Gas Market Model ordinance 2012 (GMMO-VO 2012) as amended by</td>
<td>01 October 2013</td>
</tr>
<tr>
<td>the Gas-Marktmodell-Verordnung – Novelle 2013</td>
<td></td>
</tr>
<tr>
<td>Point 2.2.3 of Annex 1 to Regulation (EC) No. 715/2009 (Congestion</td>
<td>01 July 2016</td>
</tr>
</tbody>
</table>

### General Information

- **ST UIOLI** = Restriction of renomination rights for firm day-ahead capacity
- Effected by regulation: solely firm capacity
- According to GMMO-VO 2012 **ST UIOLI** rules are applicable at all times and to all points

Austrian TSOs: early implementation of the CMP measures!
## Renomination Rules applicable to contracted capacities

**Upward Renomination Limitation**

<table>
<thead>
<tr>
<th>Nomination Range</th>
<th>Renomination Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%-80%</td>
<td>≤ 90%</td>
</tr>
<tr>
<td>&gt; 80%</td>
<td>half of not nominated range is allowed upwards</td>
</tr>
</tbody>
</table>

**Examples:**

- Initial nomination = 65% of contracted capacity → renomination limited upwards to 90%

## Downward Renomination Limitation

<table>
<thead>
<tr>
<th>Nomination Range</th>
<th>Renomination Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%-100%</td>
<td>≥ 10%</td>
</tr>
<tr>
<td>&lt; 20%</td>
<td>half of nominated range is allowed downwards</td>
</tr>
</tbody>
</table>

**Examples:**

- Initial nomination = 65% of contracted capacity → renomination limited downwards to 10%
- Initial nomination = 16% of contracted capacity → renomination limited downwards to 8%

The rules shall not apply to network users **holding less than 10%** of the average technical capacity in the preceding year at the interconnection Point!
Firm Day-ahead UIOLI

graphic representation of the scheme

Withdrawn capacity for FDA UIOLI
Offer of OS in coordination with DA-UIOLI

Need for TSO Coordination?
## CMP Capacities Made Available

<table>
<thead>
<tr>
<th>Point</th>
<th>Operator</th>
<th>TSO Point Identifier</th>
<th>Direction</th>
<th>Period From</th>
<th>Period To</th>
<th>Indicator</th>
<th>Value</th>
<th>Last update date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>13/02/2018 06:00</td>
<td>14/02/2018 06:00</td>
<td>Available through Oversubscription</td>
<td>0</td>
<td>15/02/2016 18:52</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>13/02/2018 06:00</td>
<td>14/02/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>15/02/2016 18:52</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>13/02/2018 06:00</td>
<td>14/02/2018 06:00</td>
<td>Available through UIOLI long-term</td>
<td>0</td>
<td>15/02/2016 18:52</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>13/02/2018 06:00</td>
<td>14/02/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>83,762,208</td>
<td>15/02/2016 18:52</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>26/02/2018 06:00</td>
<td>27/02/2018 06:00</td>
<td>Available through Oversubscription</td>
<td>0</td>
<td>05/03/2018 17:08</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>26/02/2018 06:00</td>
<td>27/02/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>05/03/2018 17:08</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>26/02/2018 06:00</td>
<td>27/02/2018 06:00</td>
<td>Available through UIOLI long-term</td>
<td>0</td>
<td>05/03/2018 17:08</td>
</tr>
<tr>
<td>Tervisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>26/02/2018 06:00</td>
<td>27/02/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>37,780,350</td>
<td>05/03/2018 17:08</td>
</tr>
</tbody>
</table>
### CMP Capacities Made Available

<table>
<thead>
<tr>
<th>Point</th>
<th>Operator</th>
<th>TSO Point Identifier</th>
<th>Direction</th>
<th>Period From</th>
<th>Period To</th>
<th>Indicator</th>
<th>Value</th>
<th>Last update date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>08/11/2018 06:00</td>
<td>09/11/2018 06:00</td>
<td>Available through Oversubscription</td>
<td>0</td>
<td>19/11/2018 14:43</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>08/11/2018 06:00</td>
<td>09/11/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>19/11/2018 14:43</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>08/11/2018 06:00</td>
<td>09/11/2018 06:00</td>
<td>Available through UIOLI long-term</td>
<td>0</td>
<td>19/11/2018 14:43</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>21Z00000000000004A</td>
<td>exit</td>
<td>08/11/2018 06:00</td>
<td>09/11/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>89,393,832</td>
<td>19/11/2018 14:43</td>
</tr>
<tr>
<td>Start of Auction</td>
<td>Marketed Ce</td>
<td>Unit Mark</td>
<td>Regulated</td>
<td>Unit Regu</td>
<td>Regulated</td>
<td>Unit Regu</td>
<td>Surcharge</td>
<td>Unit Surch</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>15.01.2018 09:00</td>
<td>450.00</td>
<td>kWh/h</td>
<td>0.85</td>
<td>cent/kWh/h</td>
<td>23.141.972</td>
<td>cent/kWh/h</td>
<td>22.40</td>
<td>cent/kWh/h</td>
</tr>
<tr>
<td>22.01.2018 09:00</td>
<td>30.00</td>
<td>kWh/h</td>
<td>0.85</td>
<td>cent/kWh/h</td>
<td>15.670.672</td>
<td>cent/kWh/h</td>
<td>0.00</td>
<td>cent/kWh/h</td>
</tr>
</tbody>
</table>

**2018 February**
Effects of firm day-ahead UIOLI

- FDA UIOLI freed up 10% of technical capacity
- Capacity successfully allocated in DA auction
Day-ahead UIOLI vs surrendered
ALESSANDRO ISCHIA

📞 +43 1 24724 810
✉ alessandro.ischia@e-control.at
🌐 www.e-control.at
Unsere Energie gehört der Zukunft.

E-Control
Rudolfsplatz 13a, 1010 Wien
Tel.: +43 1 24 7 24-0
Fax: +43 1 247 24-900
E-Mail: office@e-control.at
www.e-control.at
Twitter: www.twitter.com/energiecontrol
Facebook: www.facebook.com/energie.control
C-CONTROL

Unsere Energie gehört der Zukunft.
Problem: at most European IPs capacities are fully booked (long-term), but the physical flows are much lower.

Objective: measures to free up unused capacities

Scope

Data provision (additions to Transparency Guidelines)

Oversubscription & buy-back scheme
Implementation as of 1 October 2013

Surrender of contracted capacity
Implementation as of 1 October 2013

Long-term use-it-or-lose-it (UIOLI)
Implementation as of 1 October 2013

Firm day-ahead use-it-or-lose-it (UIOLI)
Implementation as of 1 July 2016

Problem: at most European IPs capacities are fully booked (long-term), but the physical flows are much lower.

Objective: measures to free up unused capacities

Scope

Data provision (additions to Transparency Guidelines)
Day-ahead UIOLI vs surrendered
## CMP Capacities Made Available

<table>
<thead>
<tr>
<th>Point</th>
<th>Operator</th>
<th>TSO Point Identifier</th>
<th>Direction</th>
<th>Period From</th>
<th>Period To</th>
<th>Indicator</th>
<th>Value</th>
<th>Last update date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>13/10/2018 06:00</td>
<td>14/10/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>49,189,253</td>
<td>05/11/2018 20:29</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>14/10/2018 06:00</td>
<td>15/10/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>49,189,253</td>
<td>05/11/2018 20:29</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>15/10/2018 06:00</td>
<td>16/10/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>91,147,600</td>
<td>05/11/2018 20:29</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>16/10/2018 06:00</td>
<td>17/10/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>49,597,607</td>
<td>05/11/2018 20:29</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>17/10/2018 06:00</td>
<td>18/10/2018 06:00</td>
<td>Available through UIOLI short-term</td>
<td>85,086,312</td>
<td>05/11/2018 20:29</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>12/08/2018 06:00</td>
<td>13/08/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>17/08/2018 09:36</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>13/08/2018 06:00</td>
<td>14/08/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>17/08/2018 09:36</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>14/08/2018 06:00</td>
<td>15/08/2018 06:00</td>
<td>Available through Surrender</td>
<td>6,510,168</td>
<td>17/08/2018 09:36</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>12/09/2018 06:00</td>
<td>13/09/2018 06:00</td>
<td>Available through Oversubscription</td>
<td>0</td>
<td>14/09/2018 18:32</td>
</tr>
<tr>
<td>Tarvisio (IT) / Arnoldstein (AT)</td>
<td>TAG</td>
<td>2120000000000004A</td>
<td>exit</td>
<td>13/09/2018 06:00</td>
<td>14/09/2018 06:00</td>
<td>Available through Oversubscription</td>
<td>0</td>
<td>15/09/2018 18:33</td>
</tr>
</tbody>
</table>
Conlusion

• Entry-exit systems do not distinguish between transit and domestic shippers
• Auctions as market-based and non-discriminatory allocation mechanism
• Congestion management to ensure efficient use of the existing infrastructure