



**EU-RUSSIA ENERGY
DIALOGUE
GAS ADVISORY COUNCIL
THIRD MEETING
25 APRIL 2012**

**WORKSTREAM ON INTERNAL
MARKET**

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**Progress report on activities & material results
achieved between 2nd & 3rd GAC meetings**



Outline

GAC Internal Market Work Stream (WS-2) Structure

Issues Addressed so Far, incl.:

- Gas Target Model**
- Network Code CAM**
- Open Seasons**
- Point-to-Point vs Entry-Exit**
- Definitions**

Upcoming Discussions and Deliverables

Scheduled Activities

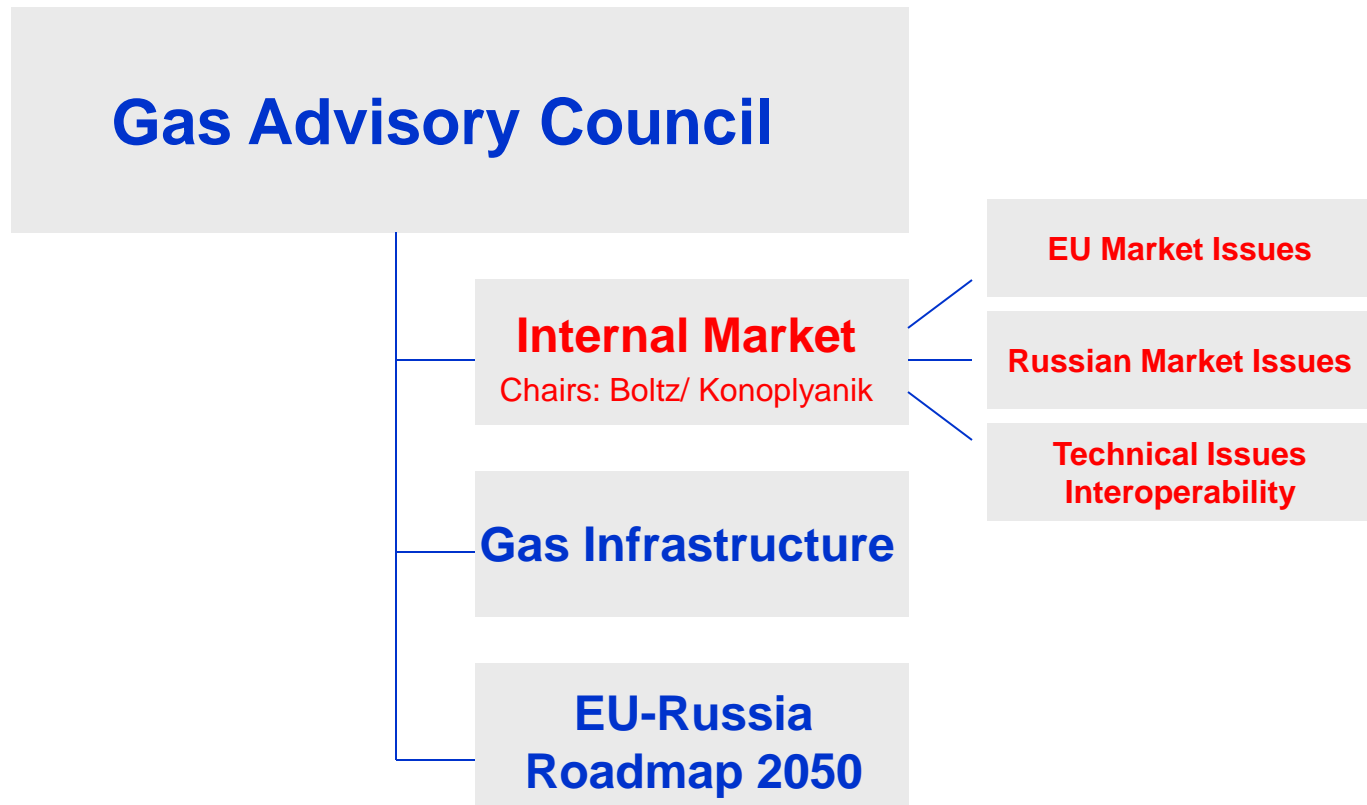


Outline

GAC Internal Market Work Stream (WS-2) Structure



Structure of the Gas Advisory Council





The 3 Subgroups of the Internal Market Work Stream

EU Market Issues

Third Package implications on EU gas market, regulatory & systemic issues with respect to producer supply activities & Russia-EU gas value chain

Russian Market Issues

Regulatory Framework and Business Conditions in the Gas Supply Chain in Russia

Technical Issues

Interoperability between the EU and RU network systems



Outline

Issues Addressed so Far, incl.:

- Gas Target Model
- Network Code CAM
- Open Seasons
- Point-to-Point vs Entry-Exit
- Definitions

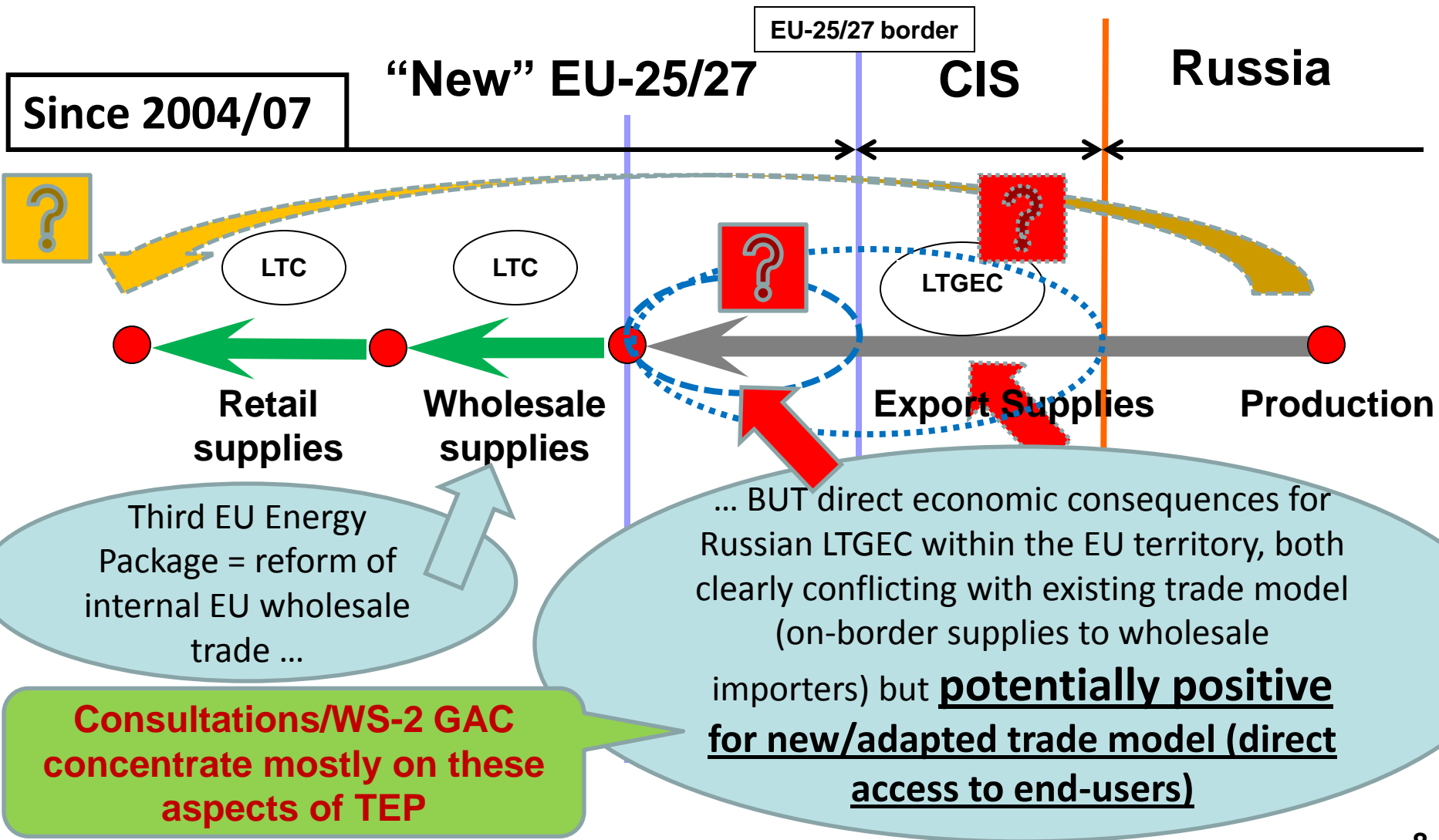


Overview

- Informal Consultations on Regulatory Topics have been held between experts of Russia/Gazprom Group and the European Energy Regulators for the past two years
- Internal Market Work Stream (with broader composition on the EU side, incl. TSOs, etc.) has met twice so far
- Until now EU market issues have dominated the agenda:
 - Framework Guidelines (particularly CAM, CM, & 10YNDP), Gas Target Model, and Network Codes (particularly CAM)
 - Transfer from (co-existence of) Point-to-Point to (with) Entry-Exit Bookings
 - Open Seasons (incl. their proposed role as EU-wide integrator of capacity use & development) = EU-wide procedure of providing market demand for gas transportation capacities w/o systemic deficits
- Discussions on Russian Market Issues and Technical Issues are about to start soon



Third EU Energy Package affects Russia-EU Gas supply chain: how to materialize potential benefits



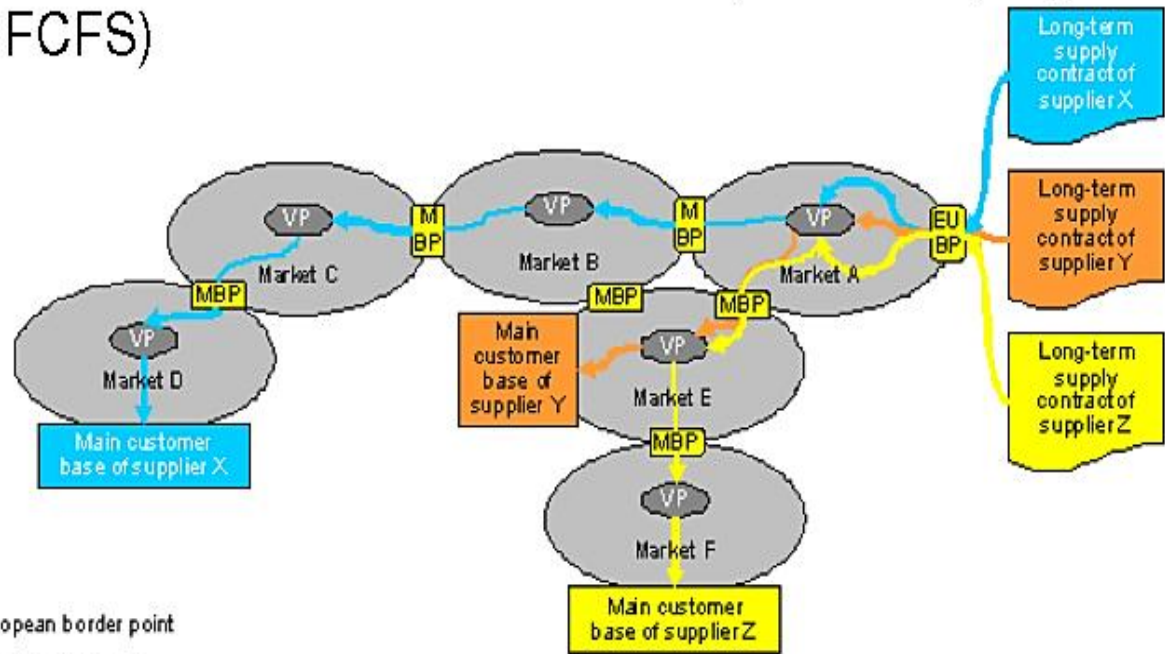


Long Distance Capacity bookings in the EU Regulatory Framework (appeared in GTM in result of Consultations)

- Introduction of Entry-Exit System in all countries
- Auctions as standard allocation (instead of, e.g. FCFS)

Whether Auctions are the best effective systemic solution?

Yes, this is a given legal reality to be dealt with by any actor at the EU market, but ...



EUBP European border point
MBP Market border point
VP Virtual point



Long Term Capacity bookings in the EU Regulatory Framework (appeared in GTM in result of Consultations)

- FG CAM reserves (at least) 10% for short-term, i.e. 90% can be booked on long-term Basis

Fine, though worsen pipeline ROR

Fine, validates LTGEC

- Capacity can be booked and structured for 15 years in advance (cf. ENTSOG NC)

Fine, prevents contractual mismatch

- Inclusion of “incremental capacity”?
[FG CAM: Coherence]

10% <1yr

90% up to 15yrs

Alternative: Draft proposal on coordinated within the EU Open Season procedure as integral instrument of systemic (existing + incremental) capacity dev't



Long-term & Long-Distance Capacity booking: Pro's & Con's of current (auction-based) concepts & mechanisms in draft GTM, FGs & NCs to TEP

Pro's (draft solutions available?)

- Possibility to deliver gas directly to end-users through a number of entry-exit zones by-passing wholesale purchasers-intermediaries => rent maximization for exporters at no additional cost to end-users
- Supply & transportation risks are to be shared (in proper risk mitigation) between responsible market participants at unbundled market (supply risk – on shipper, transportation risk – on TSO) => TSO to have responsibility & capacity for infrastructure development (but whether it have it?)

Con's (solutions still to be found)

- Still risk of multiple contractual mismatches: lack of binding coordination between different TSOs on transportation route can result in that bundled products are unbalanced in entry & exit points of neighbouring zones,
- Auctions are instruments of allocation capacity in systemic deficit, but not preventing systemic deficit to appear
- Still no long-term systemic & coordinated solution within EU for infrastructure effective use & development without systemic deficit



EU Market Issues Overview

(open list, primary importance for RF)
(see reserve slides for updated status)

Item 1. GAS TARGET MODEL

Item 2. FUTURE EU GAS MARKET CONTRACTUAL STRUCTURE

Item 3. CONTRACTUAL MISMATCH & OPEN SEASON

Item 4. DELIVERY POINTS & VIRTUAL HUBS

Item 5. RENOMINATION

Item 6. BUNDLED PRODUCTS

Item 7. ZONING & ROUTING

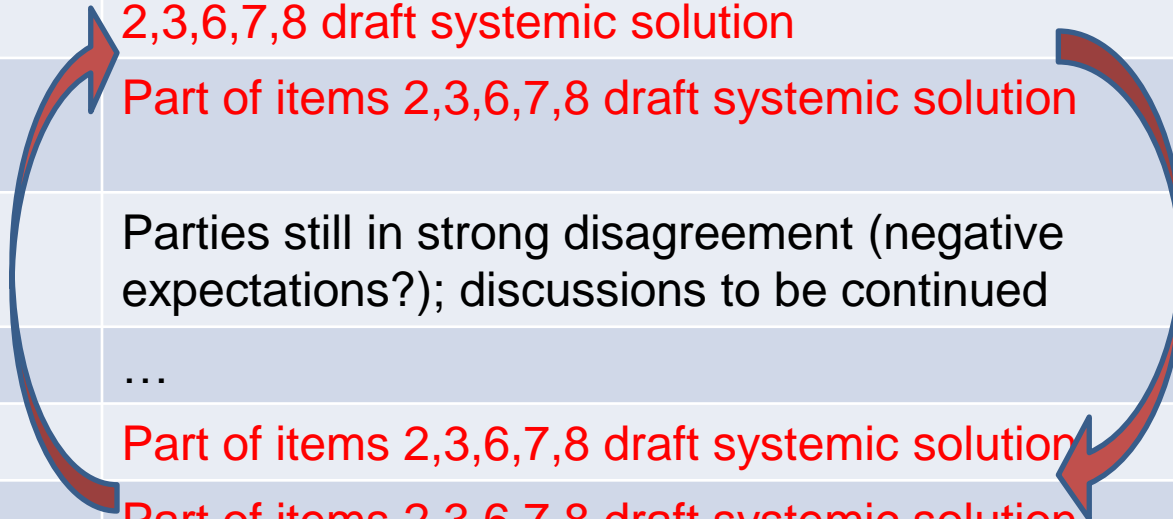
Item 8. GTM STRUCTURE / COVERAGE

Item 9. DEFINITIONS



What solutions for list of specific items from RF-EU informal Regulatory Consultations presented to 2nd GAC meeting 24.01.2012

Items listed	Stage of result-oriented discussion
<u>Item 1.</u> GAS TARGET MODEL	Agreed by the parties; GTM as benchmark for other draft solutions (see also item 8)
<u>Item 2.</u> FUTURE EU GAS MARKET CONTRACTUAL STRUCTURE	2-segment gas market model as part of items 2,3,6,7,8 draft systemic solution
<u>Item 3.</u> CONTRACTUAL MISMATCH & OPEN SEASON	Part of items 2,3,6,7,8 draft systemic solution
<u>Item 4.</u> DELIVERY POINTS & VIRTUAL HUBS	Parties still in strong disagreement (negative expectations?); discussions to be continued
<u>Item 5.</u> RENOMINATION	...
<u>Item 6.</u> BUNDLED PRODUCTS	Part of items 2,3,6,7,8 draft systemic solution
<u>Item 7.</u> ZONING & ROUTING	Part of items 2,3,6,7,8 draft systemic solution
<u>Item 8.</u> GTM STRUCTURE / COVERAGE	Module-type structure of GTM proposed & to be discussed (part of systemic solution?)
<u>Item 9.</u> DEFINITIONS	To be discussed 26.04.2012 (part of item 8 draft solution?)





Framework Guidelines and Network Codes

- The EU side presented the legislative process and steps involved in the development of FGs and NCs
- It was outlined that the process is characterized by a number of stakeholder consultations
- The Russian side expressed that it would like to be more involved in consultations
- The Russian side raised the question whether current stakeholder consultation mechanisms are sufficient **or** extra dialogue is necessary with producing countries (particularly at the stage when ACER drafts the FGs & ENTSOG drafts the NCs) within current cross-border gas value chains destined for the import-dependent EU => Role for GAC?¹⁴



EU

- The EU side presented the contents of the Network Code CAM

Network Code CAM

Russia

- Russian side expressed concerns that FG and NC CAM do not cover network development issues in coordination with allocation mechanisms to available transportation capacities and their utilization; low stakeholders support of mechanism for cross-border capacity (See Minutes 16 March & reserve slides)
- The documents imply unlimited application of „auctions“ in the new EU gas market structure and Gas Target Model, a more coordinated approach could be considered, aimed at preventing systemic deficits to appear & to limit area of application for auctions

- **Discussion to be continued**
- **Issues to be resolved**
- **Regulators work on Incremental Capacity ongoing**



EU infrastructure development: key TEP doc's & the areas they cover (solution for & result of item 1)

Existing Capacities:

- Capacity Allocation Mechanism (CAM) => access to/allocation of available capacities
- Congestion Management (CM) => effective use of booked / contracted / used capacities

New (incremental) Capacities:

- 10-Year Network Development Plan (10YNDP) => planning & development of new capacities

Two options (Regulatory doc's/procedures):

- (1) Prior to GTM: Non-coordinated CAM, CM & 10YNDP procedures => Separate preparation of doc's => risk of systemic EU capacity deficits
- (2) With GTM: Coordinated GTM, CAM, CM & 10YNDP procedures => four doc's as part of a single process => no risk of systemic EU capacity deficit after appr. 5-7 years of "Transition Period" => CAM, CM & 10YNDP to be based on GTM => to update them if agreed => Binding and effective ?



How to ensure in most efficient way & full compliance with the Third Package permanent sufficient capacity of European gas infrastructure?

- Key answer: Art.13(2) Third Gas Directive: “**TSOs *must* build infrastructure to satisfy *all economically reasonable and technically feasible capacity demand.*”**
- How to identify capacity demand and corresponding level of required infrastructure investments?
- Answer: market test + network planning (national, regional, EU-wide) (Art.22 Third Gas Directive) + integrated CAM, CM & 10YNDP.
- Principle of how to measure capacity demand and satisfy it is clear, *BUT* practical implementation is not yet well defined => CAM, CM & 10YNDP are not integrated & drafted separately => lack of regulation of incremental capacity, in particular, in draft CAM NC. → ongoing work
- Possible solution: amendment of the draft CAM NC in order to explicitly provide for a mechanism aimed at practical fulfillment of the principle established by the Third Package *OR* to make CAM NC a part of integral mechanism providing for market demand for capacities.
- EU-wide coordinated Open Seasons could be such mechanism, at least one of (from RUS side view – the best one of) those to address this issue...



EU

- Introduction to this issue given by European Energy Regulators' view on Incremental Capacity Development and related Investments
- Some concrete experience of Open Seasons in Europe were outlined

Open Seasons

Russia

- An integrated and coordinated development of EU gas transportation infrastructure is key
- Pledge for EU-wide coordinated open seasons
- Pledge for EU central dispatch center
- Contractual Mismatch Problem

Debate on Fundamental Questions:

- **Should mechanisms that determine infrastructure investments be elevated to a fully European level?**
- **Will European-wide coordinated Open Seasons make the market more attractive?**
- **Comparative advantages of proposed EU-wide OS vs current model of capacity dev't**

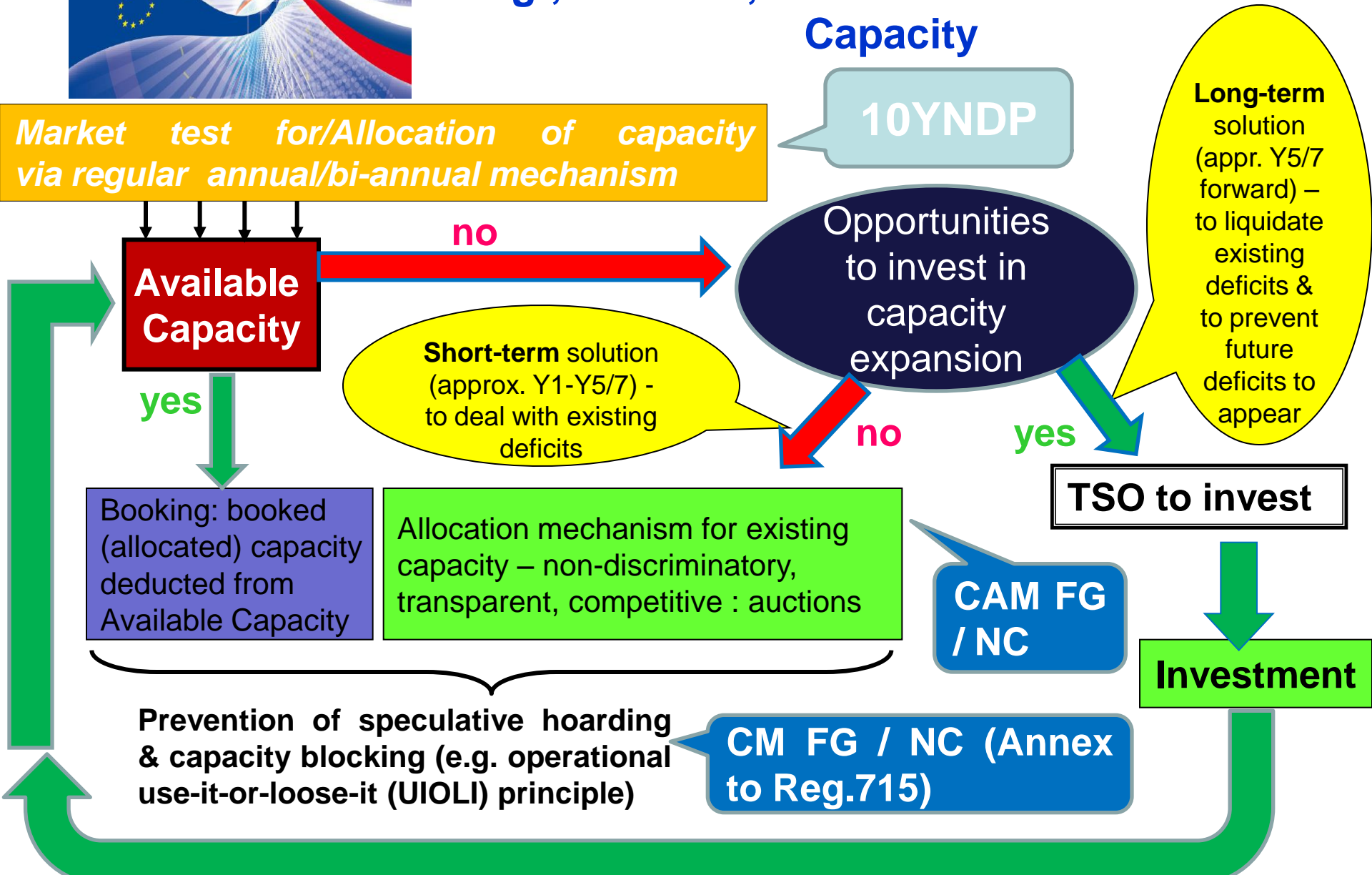


EU-wide coordinated Open Season proposal: constructive reaction of EU side

- Very constructive & supportive to OS presentations CEER & RTZgas, 16.03.2012; “no objection” from ENTSOG (though it was not acquainted with earlier proposals on EU-wide OS)
- Mostly positive first comments of EU-side on possibility of EU-wide coordinated OS
- Questions regarding EU-wide OS mostly on technical & solvable issues (see reserve slides)
- What needed from EU viewpoint (two repeated issues):
 - coordination between TSOs (**draft proposal**: Central EU dispatch center => to be discussed 26.04 (Glossary of terms/Annex to GTM) & 26-27.06 (Moscow visit, incl. to Gazprom dispatch center),
 - binding testing to justify demand for capacity (**draft proposal**: booking capacity within OS = binding demand for capacity)



Open Season as Universal Mechanism of Long-, Medium-, and Short-Term Allocation of Capacity





What provisions of the Third Package are supportive for such mechanism

Directive 2009/73/EC

- Art. 13.1(a), 13.2, 13.4
- Art. 14
- Art. 17 (e,f,g)
- Art. 22
- Art. 35.2
- Art. 36.6,
- Art. 41.1(g)
- Art. 42.2(a)
- Art. 52.1(d)

Regulation (EC) 715/2009

- Art. 4
- Art. 8.3(b)
- Art. 12.1, 12.2
- Art. 16.2(a), 16.5
- Art. 18.1, 18.3

PLUS: GGPOS-2007

- Esp. Sect. 4.1 - 4.2 (esp. if “sponsor” = TSO)

(See also: “Memorandum on TSOs Obligations to Invest in Capacity” prepared by the Russian side of WS-2 for GAC 25.04.2012 meeting)



Two ways of creation of TEP's doc's on EU-wide infrastructure dev't & effective use: **Option 1**

Option 1 (factual): non-coordinated development of TEP's documents (all three separated) related to:

- **Access to/allocation of existing (available) capacities in individual zones (CAM):** TSOs responsible for individual zones, no TSO obligation/responsibility for coordinating/balancing with neighboring TSO aimed at preventing capacity deficit; instead draft instruments are aimed at dealing with systemic capacity deficit
- **Effective use/utilization of booked/contracted capacities in individual zones (CM):** based on *perception* that 70% UR is too low, is result of capacity blocking/hoarding & abuse of monopoly position of incumbents, defect of LTC, etc.; resulted in approach first to maximize UR of existing capacities, afterwards (if/when needed) to deal with new/incremental capacities
- **Development of new/incremental capacities in individual zones & EU-wide(10YNDP):** non-legally binding mechanism & consequences



Two ways of creation of TEP's doc's on EU-wide infrastructure dev't & effective use: **Option 2**

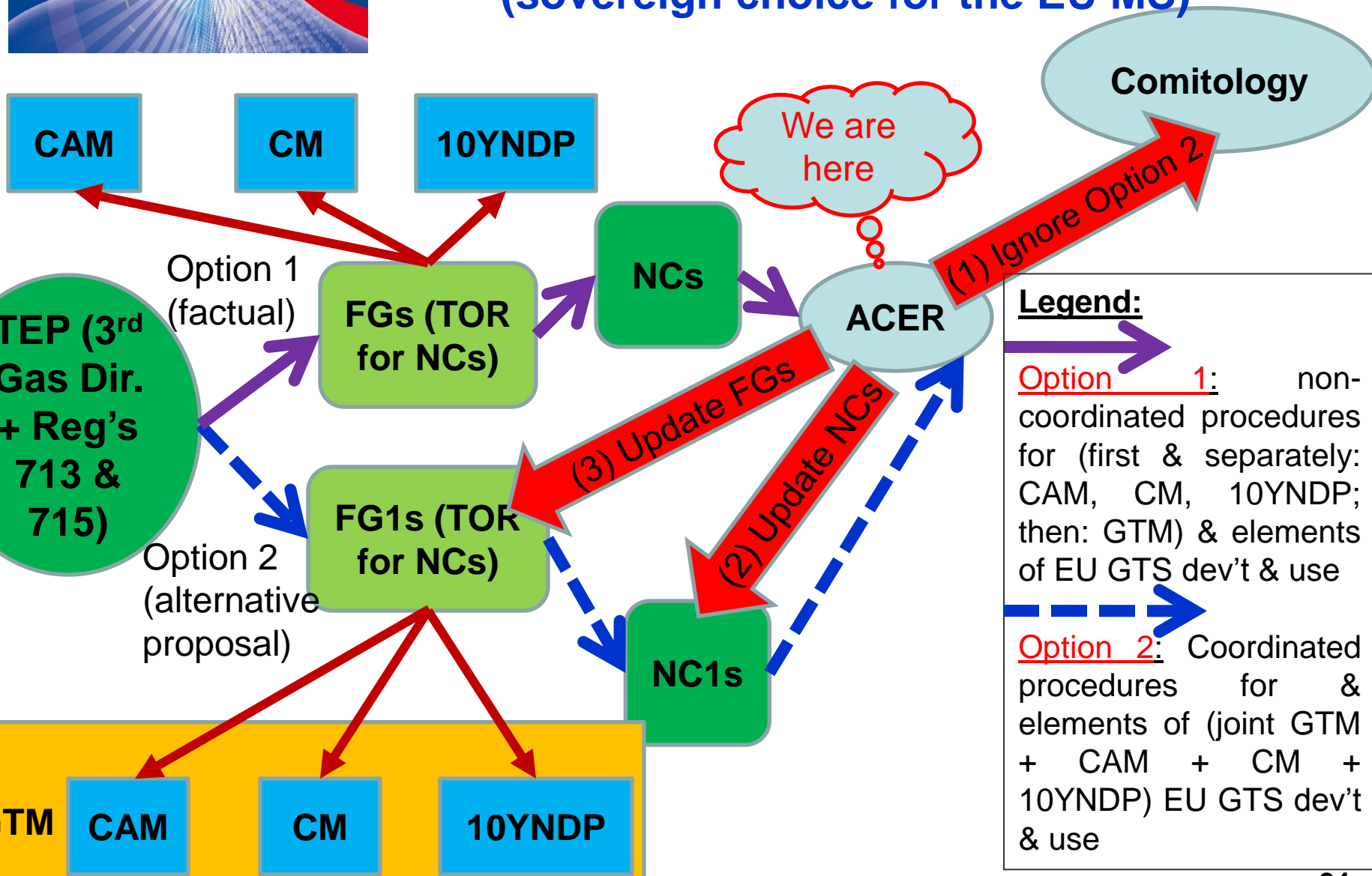
Option 2 (alternative proposed during and being discussed at Consultations): EU-wide coordinated model procedures

(with Open Seasons as key element) enabling to balance:

- Three types of doc's regarding infrastructure dev't & effective use (CAM+CM+10YNDP) based on GTM,
- TSOs are to be obliged to coordinate & to base their coordinated development plans on regularly-tested market appetite for capacities,
- Instead of dealing with systemic deficit of capacities by means of auctions this coordinated OS procedure prevents systemic deficit to appear and enables to skip regular use of auctions as “standard allocation mechanism”...
- ...and to increase the role of EU-level institutions, to strengthen and improve common EU energy policy & decision-making



Doc's Beyond TEP – Procedures for providing market demand for capacities: Which way to go? (sovereign choice for the EU MS)





What happens next? (Window of opportunities)

6 March 2012
Submission of
NC to ACER

Summer 2012
CAM NC to
Commission

Q3 2013
NC enters
into force

With a fair wind.....



June 2012
Deadline for
ACER opinion

Q4 2012/Q1 2013
Launch of
Comitology

2015/2016?
First harmonized
auctions

**Prior to June 2012:
Window of opportunities to
update CAM procedure?
How to do it best?**

* Based on: Nigel Sissman (ENTSOG). Development and content of the final CAM Network Code. Presentation to the WS-2 (Internal Markets) of GAC & RF-EU Informal Consultations on 3rd EU Energy Package, Vienna, March 16, 2012



Sovereign choices for the EU MS (red arrows at the previous graph) (part of possible systemic solution for items 2,3,6,7)

- Choice 1: to ignore Option 2 – not possible any more? (due to economic justification of EU-wide OS discussed at Consultations/WS-2 since April 2011)
- Choice 2: to update NCs – not possible procedurally without updating corresponding FGs?
- Choice 3: to update (GTM &) FGs first, then update NCs (not to rewrite, but to use module approach for doc's structure?):
 - GAC to take position (=> recommendation to CEC?) =>
 - CEC to take position (=> recommendation to ACER?) =>
 - ACER position (=> recommendation to drafters?) => ... ?



Transfer from Point-to-Point to Entry Exit Bookings (or: co-existence of ... with ...?)

EU

- The EU side presented the model of entry exit bookings and the functioning of virtual trading points
- Some preliminary brainstorming on solving the issue of having to obtain various transportation rights (through individual zones) for external suppliers

Russia

- Russia expressed strong concern on the implication the new model will have on existing contracts if ONLY hub-to-hub will exist (necessity to rewrite all existing contracts)
- Definitions of terms such as 'trading' (hubs/commodity) and 'delivery' (entry-exit points/capacity) are needed (16.03 => 26.04)
- Strong arguments for simultaneous coexistence of virtual hubs and EU internal delivery points of LTGEC => two-segment-based EU internal gas market model: 'delivery' (entry-exit points) PLUS 'delivery' & 'trading' (hubs) => 26.04

- **Productive discussions and agreement to look at this issue more closely**
- **EU side will present at 26.04 WS-2 meeting its argued proposal for producing a non-binding guidance on the Organization of a more Coordinated Transition to the new Hub-to-Hub System (to be discussed in principle first)**

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Item 4 - Key point of disagreement: delivery points vs virtual hubs (to be further discussed 26.04)

- If contracts to be respected => how delivery points could be ignored? To change them = to rewrite all the contracts; this need be a bilateral decision
- If delivery to the hub – who is a second party to the contract?
- “hub-to-hub” = commodity, “entry-exit” = capacity
- “Trading” (at hubs) vs “delivery” (to the delivery points) => definitions needed (26.04)
- Debate on glossary to help find draft solution on this disagreement?
- To exclude economically non-justified decision which can follow the line similar to US FERC Regulation # 436 (approved 1985, cancelled 1987)



Item 8 – GTM Structure & Coverage (still to be discussed)

- Module-type structure of GTM?
- Additional modules proposed (as of today - within scope of Third Package):
 - by RUS side: EU-wide coordinated Open Season (integration of 10YNDP + CAM + CM + central EU-wide dispatch service +...?) (Annex to GTM ?)
 - by RUS side: Glossary of Terms (Annex to GTM ?)
 - by EU side: Non-binding Guidance on “point-to-point” vs “entry-exit” booking (?) (to be first proposed 26.04)
- RUS side: GTM to be updated in line with gas market evolution (to reflect its current stage of development)? New additional modules from time to time?



EU

- The EU side has reacted to the list of requested definitions provided by the Russian side
- Common and differing views on the definitions contained in the 3rd package have been discussed

Definitions

Russia

- The Russian side provided a document outlining the understanding of a number of gas market relevant definitions (different definitions = different understanding => interpretations => consequences of/for implementation of 3rd package)
- Glossary of Terms as Annex to GTM?



Item 9 – Glossary: key points for clarification (first discussion 26.04)

- Wholesale vs retail
- Trading vs delivery
- Tariffs inside zones
- ...



Outline

Upcoming Discussions and Deliverables



EU Market Issues

- Orientation Debate on the Organization of a more Coordinated Transition from current dominant contractual structures (long-term capacity contracts and commodity contracts) to the new model based on *[combination of existing & new contractual structures & pricing mechanisms within]* new entry-exit systems and hub-to-hub trading => one- or two-segment EU gas market model (see reserve slides - item 2 of the list of 9 items)
- **Deliverables:**
 - **EU-proposal:** Non-binding Guidance Paper outlining the issues that need to be addressed and if possible an outline of a coordinated transition to the hub-to-hub system (to be first presented by the EU at 26.04 meeting) (a one-segment model).
 - **RUS proposal:** new modules in GTM: (i) EU-wide procedure providing for market demand for capacity (coordinated Opens Seasons); (ii) Glossary of Terms, (iii) two-segment EU gas market model description (see reserve slides), ...



Technical Issues

- Presentation of Framework Guideline on Interoperability
- Identification of Issues related to Interoperability at EU-Russia Border Points
 - Nomination procedures
 - Gas day
 - Balancing arrangements
 - Gas quality



Russian Market Issues

- Development of a List of Items related to the Russian Gas Market
 - Perspectives of achieving gas market liberalization in Russia
 - Future of Gas Exchange trading mechanism for Russian market
 - Non discriminatory access rules for independent gas producers in Russia to Gazprom's trunk pipeline system
 - Foreseeable break of Gazprom's export monopoly, rumors or trend?
 - etc.



Outline

Scheduled Activities



Next Meetings

- 3rd GAC Internal Market Work Stream Meeting / 10th Informal Consultations to be held tomorrow, **26 April 2012** in **Vienna** at **E-Control**
- 4th GAC Internal Market Work Stream Meeting / 11th Informal Consultations to be held on **26 & 27 June 2012** in **Moscow** at **Gazprom/GPE** (at invitation of A.Medvedev, Dep.CEO Gazprom/DG GPE, as of 15.03.2012) including a visit to Gazprom's Central Dispatch Center



25.04 GAC draft conclusions on WS-2 & Informal Consultations results (proposal on OS)

- The Council agrees in principle that an EU-wide coordinated Open Season approach (presented by W.Boltz & A.Konoplyanik) could be a possible means to provide secured market demand for capacity development and to deal with long-term capacity utilization & development avoiding systemic capacity deficit to appear and invites relevant stakeholders involved to take this approach into account in an appropriate way.

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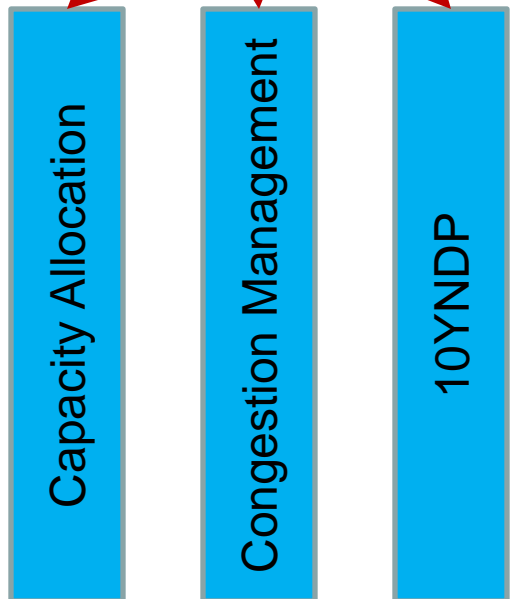
Reserve slides



Third EU Energy Package doc's - without & with GTM

TEP without GTM

Third Energy Package (gas):
Directive + 2 Regulations

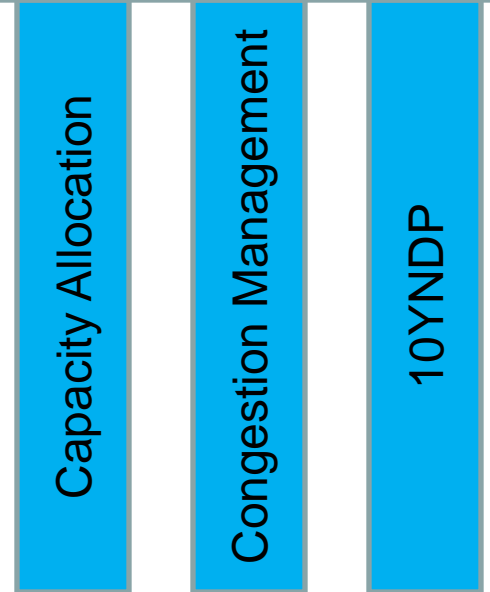


Prior to GTM:
Lack of coordination
=> risk of unbalanced procedures

TEP with GTM

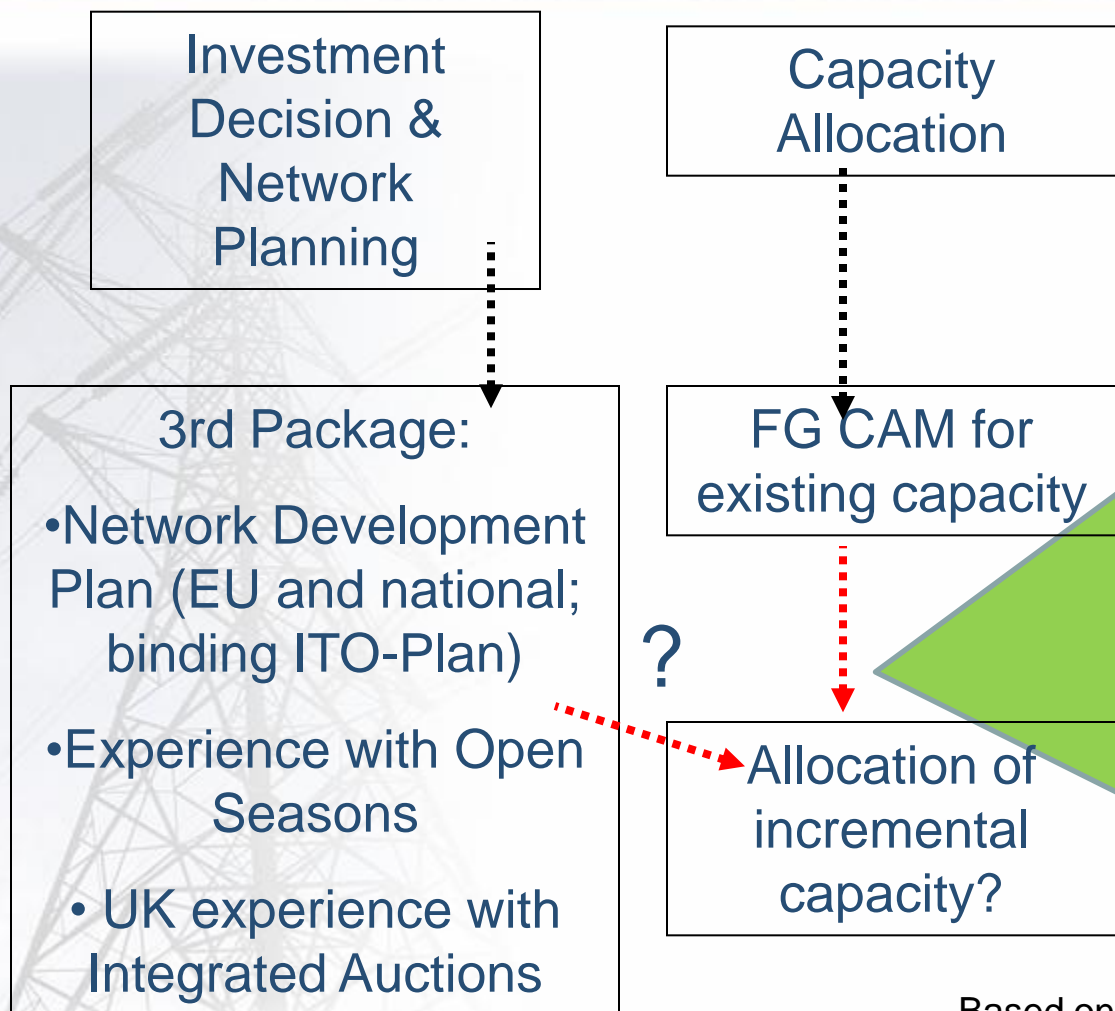
Third Energy Package (gas):
Directive + 2 Regulations

GTM



After/with GTM:
GTM as instrument
for coordinated & balanced
procedure for capacity dev't & effective use

What interface between CAM and NPD/Investments?



1. CM & GTM are missed;
2. GTM, CAM, CM, 10YNDP are not coordinated
3. Separate procedures for existing & incremental capacities => auctions as starting point for testing demand for limited capacities
4. Auctions signal existing congestions (*which cannot be prevented*) while OS signals also future congestions (*which can be prevented*)
5. Auction deals with outcome of past decisions while OS deals also with origin for future effective decisions

W.Boltz-A.Konoplyanik, Presentation to 3rd GAC meeting, Vienna, 25.04.2012

Based on: CEER. Incremental Capacity Development. Status of regulators' work and perspectives:



Doc's Beyond TEP - Procedures (1): Where we are today

Three unbalanced,
non-coordinated

We are
here

CAM CM 10YNDP

Comitology

ACER

TEP (3rd
Gas Dir.
+ Reg's
713 &
715)

Option 1
(factual)
FGs (TOR
for NCs)

NCs

Gap 1
FG1s (TOR
for NCs)

Gap 2
NC1s

Option 2
(alternative
proposal)

GTM CAM CM 10YNDP

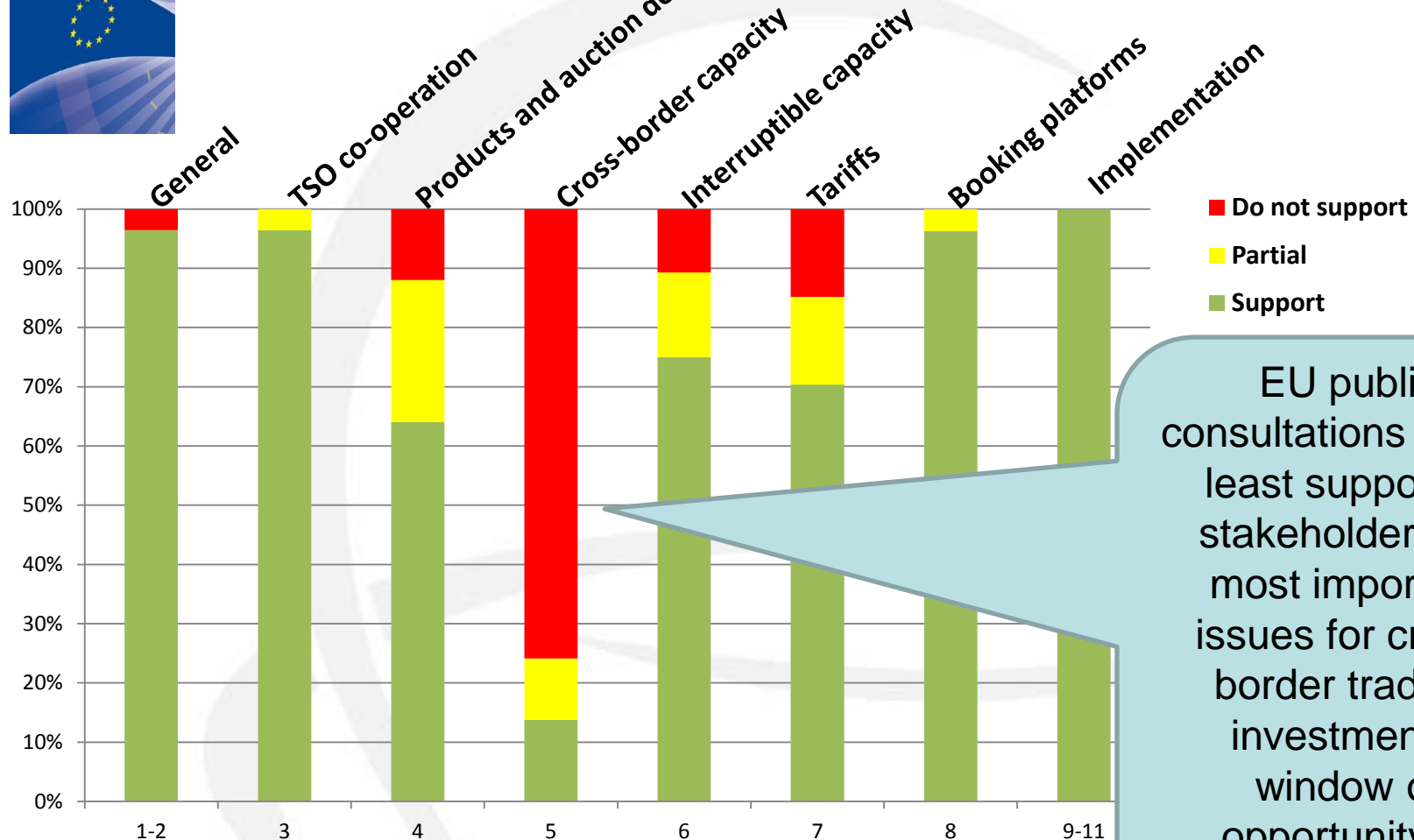
Legend:

Option 1: non-coordinated procedures for (first & separately: CAM, CM, 10YNDP; then: GTM) & elements of EU GTS dev't & use

Option 2: Coordinated procedures for & elements of (joint GTM + CAM + CM + 10YNDP) EU GTS dev't & use



CAM NC - the stakeholders' view



EU public consultations shows least support of stakeholders for most important issues for cross-border trade & investments: window of opportunity to improve them? EU-wide coordinated OS as working alternative...?

Source: Nigel Sissman (ENTSOG). Development and content of the final CAM Network Code. Presentation to the WS-2 (Internal Markets) of GAC & RF-EU Informal Consultations on 3rd EU Energy Package, Vienna, March 16, 2012





Russian View on the European Gas Market (Conclusions)

Choices:

- To adapt Option 2: to make mechanisms of EU GTS utilization and dev't effective & balanced in short-, medium- & long-term (after 5-7 years-long transition period), most efficiently utilized, without systemic capacity deficits, escaping excessive investments & unjustified risks => Option 2, or
- To ignore Option 2 (stay with Option 1): Stay with imbalanced and non-coordinated (segmented / atomic-style) dev't of EU GTS with incremental risks for trade & investment



Further benefits of Option 2 (Russian View)

- Another step towards single EU internal energy policy (stimuli to “speak with one voice” not against virtual external threats, but in regard to real economically justified internal challenges to be most effectively addressed at the EU and not at national (regional zones) level)
- This will increase practical role of the EU-level institutions (CEC, ACER, CEER, ENTSOG, ...) in defining new competitive economically-justified (not politically-motivated) sharing of competences & responsibilities between the EU & national bodies of MSs
- Final winners – EU citizens and all market agents within cross-border EU-destined gas value chains



**Specific items & results achieved
within informal Russia-EU Consultations
(updated version from presentation
to GAC meeting 24.01.2012)**



Item 1: GAS TARGET MODEL

- 1) Necessity to develop Gas Target Model argued (Jan.2010)
- 2) EU initial Decision on preparation of 12 Framework Guidelines (FG) and 12 Network Codes (NC) for implementation of the Third Energy Package (TEP) without advanced / simultaneous consolidated view on the new architecture of the internal EU gas market based on TEP principles
- 3) Lack of consolidated vision & coordination during preparation of FGs & NCs between their drafters and, as result, related discrepancies in their rules & procedures
- 4) To prepare a document with common vision of the new architecture of the internal EU gas market
- 5) 18th Madrid Forum (Sept 2010) took decision on developing Gas Target Model (GTM)
- 6) Latest GTM version took into consideration a number of justified concerns raised by Russian/Gazprom Group's experts in the course of Consultations (see further items)



Item 2: FUTURE EU GAS MARKET CONTRACTUAL STRUCTURE

- 1) Contractual structure of new internal EU gas market in GTM (long-term and/or short-term)
- 2) Initial contractual structure predetermined only spot transactions at virtual liquid hubs – no long-term contracts even mentioned in earlier GTM versions
- 3) Impossibility of EU gas market operations based on spot transactions only & thus diminished stability & security of its supply pattern; necessity to renegotiate, re-write or to pass through court procedures all existing long-term gas export contracts (LTGEC); EU hubs are not liquid yet; additional costs in mead-stream part of gas value chain (e.g. related to balancing, structuring, etc.); thus decrement of EU gas market competitive advantages (if only spot-contract-based)
- 4) Proposed two-segment contractual structure of the EU internal gas market:
(a) long-term contracts for base-load demand and (b) spot / futures transactions for semi-peak & peak-load demand
- 5) Latest version of GTM (July 2011) describes both long-term supplies as well as spot transactions;
- 6) Two-segment contractual model of the EU internal gas market (if really agreed by the EU) still need to be further clarified in more details



Proposal on the “hybrid” EU gas market model under GTM (for joint discussion & consideration)

➤ **Long-term supplies (firm contracts, main/basic demand load):**

More flexible LTGEC (off-taking of contractual volumes & pricing formulas & price review rules)

+ long-term access to transportation capacity for full duration & volume of LTGEC (open seasons)

+ modified pricing formulas linking gas to its replacement fuels (indexation not only to petroleum products)

➤ **Short-term supplies (interruptible contracts, additional/semi-peak & peak demand load):**

Spot contracts

+ exchange pricing (futures, gas indexes, forward curves)

Initially GTM did not consider risks & uncertainties for this market segment => these questions have been added on a step-by-step basis in result of RF-EU informal expert Consultations

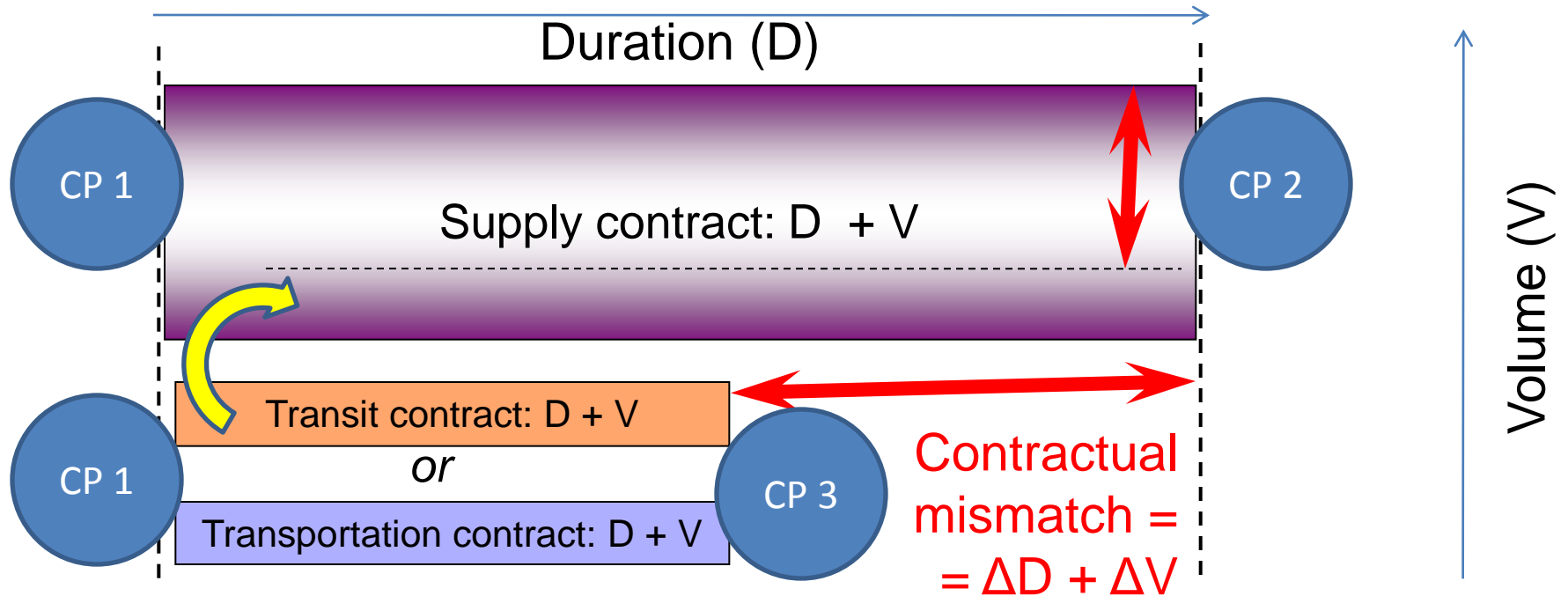
Initial drafts of GTM covered only this segment of gas market, long-term long-distant supplies and related risks & uncertainties stayed beyond consideration of justified concerns of market participants



Item 3: CONTRACTUAL MISMATCH & OPEN SEASON

- 1) “Contractual mismatch” in midstream gas value chain
- 2) Risk of non-renewal of transportation contract (after its expiration, within the unbundled gas system) with the required structure & adequate costs to meet volume, duration, flexibility, delivery (destination) points agreed between parties of supply contract
- 3) (i) Breach of LTGEC supply obligations by exporter (non-delivery in time of contracted volumes) because of “transportation force majeure” and consequent reduction of security of supply; (ii) Additional end-user costs as result of transportation constraints and due to market (spot) marginal purchase of gas
- 4) Revolver-type “open season” procedure with obligation of TSO to invest in case of justified market demand for incremental (booked) capacity (presented June 2011). This will prevent appearance of transportation capacity deficit (in, say, 4-5 years) & thus will exclude necessity to use auctions as a regular instrument of congestion management. Proposal to integrate 10YNDP (evaluating demand for/creation of future capacities) with capacity allocation mechanisms for existing capacity (CAM Code) and efficient utilisation of booked capacity (CM Annex to Regulation 715) to ensure efficient provision and allocation of transportation capacity.
- 5) Discussion on merging proposed revolver-type open-season procedure with long-term auctions is continued

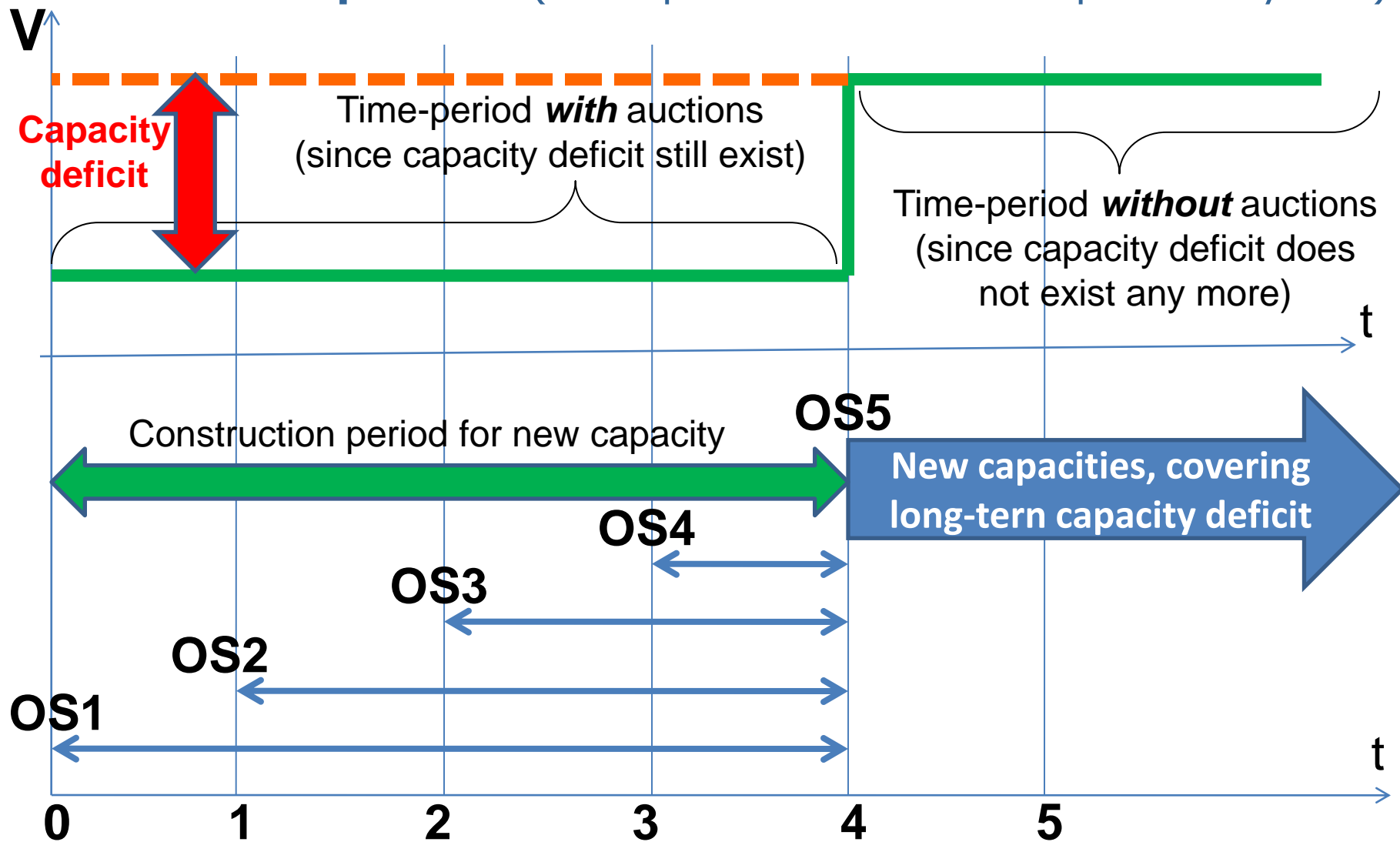
Contractual Mismatch Problem



Contractual mismatch: between duration/volumes (D/V) of long term supply/delivery contract (LTGEC; CP1-CP2) and transit/transportation contract (CP1-CP3); the latter is integral part to fulfill the delivery contract => risk non-renewal transit/transportation contract => risk non-fulfillment supply/delivery contract.

Core issue: guarantee of access to/creation of adequate transportation capacity for volume/duration of long term contracts

“Open Season” procedure makes auctions as just temporary capacity allocation instruments – only for duration of construction period of new capacities covering tested market demand for capacities (example for construction period 4 years)





Item 4: DELIVERY POINTS & VIRTUAL HUBS

- 1) Delivery points in existing LTGEC vs. virtual hubs in entry-exit zones
- 2) EU proposal to organize all trade (supply / delivery to) only at virtual liquid hubs and thus to change existing delivery points in current LTGEC to future (still not yet identified & not yet liquid) hubs
- 3) Necessity to rewrite all existing LTGEC - legal risks, arbitration procedures; possible collapse of all EU gas supply system due to dramatic alteration of risk sharing scheme between traditional long-term partners
- 4) Coexistence of virtual hubs and on-border/ EU's internal delivery points of LTGEC
- 5) Distinct and clearly articulated disagreement with possibility of simultaneous coexistence of virtual hubs as presented in GTM and on-border/ EU's internal delivery points as in existing LTGEC
- 6) Unsolved; discussions to be continued or to be forwarded to GAC?



Item 5: RENOMINATION

- 1) Renomination procedure
- 2) Restrictions of renominations as part of CMP proposals; discrimination (decrease) of buyers flexibility to request delivery volumes by pipelines within short-term
- 3) Inconsistency with Balancing Network Code which encourages shippers to ensure markets balance; discriminatory by focusing on pipeline gas only disadvantages countries which rely on pipeline gas (as opposed to storage and LNG) to meet flexibility; limits suppliers ability to meet their contractual obligations where it is buyer which nominates the flow of gas.
- 4) Use of other congestion management tools e.g. overselling and buyback and interruptible to minimize use of re-nomination restrictions
- 5) Pending, to be discussed



Item 6: BUNDLED PRODUCTS

- 1) Incompleteness of “bundled products” concept
- 2) CAM FG present concept of “bundled products” related to access to transportation capacity as related to volume of capacity only, non-related to duration of access to capacity
- 3) Possibility of appearance of “contractual mismatch” problem (see above)
- 4) “Bundled products” need to present a two-dimension instrument of access to capacity: with unit volume and unit duration parameters with opportunity to book a *portfolio of bundled products* both packing its volume units as well as duration units suchwise to guaranty a traditional long-term suppliers to deliver appropriate volumes of gas in due time according to buyers daily nominations and flexibility
- 5) Discussions started – to be continued



Item 7: ZONING & ROUTING (1)

- 1) GTM assumes that every shipper has to design its own-made sequence of entry-exit zones his gas should penetrate through to be delivered. For this sake he should participate and win at all the related auctions. If he loses at least one such auction, he should construct another chain of zones at his route to delivery point and repeat the procedure.
- 2) In theory such activity could be successful without central dispatching if the number of zones is small (i.e. gas transportation system is rather simple/primitive) or load factor is low. Otherwise, numerous shippers, suffering from the lack of experience and, moreover, from insufficient information, but taking nevertheless their own uncoordinated decisions, may simply cause chaos which may lead the system to collapse. No central dispatch service is contemplated in TEP documents.



Item 7: ZONING & ROUTING (2)

- 3) Existing interpretations of Entry-Exit and Zones approach in GTM papers totally separate them from gas flows – a result would be a huge under-utilization of pipeline capacity: danger of large-scale excessive demands for investment or significant under-running of the network (up to 20-30% or more); danger of TSO refusal to guarantee long-distant cross-border flows; danger of destabilization of LTGEC and, in result, requests for such their adaptation which would undervalue their role & diminish SOS
- 4) It was argued (agreed?) that effective functioning of diversified, integrated complex gas transportation system (GTS) is possible only under management of united dispatch service supported by strong IT service. Such service should provide each shipper with possibility to reserve & allocate transportation capacities to deliver gas to consumer. This service should also support related auctions & calculation of transportation tariffs. Such optimization can rationale use of available capacities & diminish OPEX (& thus tariffs) by at least by 15-20%. Such service, not existed in the EU now, should be created. Gazprom invited EU drafters of FG & NC to visit Gazprom's Dispatch Center to learn about USSR/RF experience in organizing such service & managing its GTS
- 5) Invitation accepted. Renewed visit is planned for 26-27 June, 2012 (letter of Dep.CEO Gazprom/DG GazpromExport A.Medvedev dated 15 March, 2012)



Item 8: GTM STRUCTURE / COVERAGE

- 1) Whether GTM & related doc's cover all necessary aspects of gas market functioning to exclude further "grey zones" with related risks & costs
- 2) No clear vision yet on:
 - The compatibility of LT oil indexation and Take-or-Pay provisions with the current and future European market situation/structure and legal framework (yet to be discussed);
 - How medium term developments resulting from the changes in the EU gas market should be reflected in LT supply contracts – transition measures (yet to be discussed), etc.
- 3) Lack of clear vision destimulates trade & investment, increase risks & costs through all segments of cross-border gas value chain
- 4) Yet to be discussed with possibility to add new chapters to GTM and/or develop new doc's on these issues (like, pricing, contractual structures, transitional measures, etc.)



Item 9: DEFINITIONS

- 1) Definitions of key terms
- 2) Sometime different meaning of the same terms used in the TEP & related draft documents by different market players both on EU and non-EU side as well as within EU side
- 3) “Grey zones” for different on-side & non-balanced interpretations
- 4) Glossary of terms need to be developed by EU side (& to be jointly discussed by the parties) on the list of terms provided by Russian (& the EU) side
- 5) Agreement to develop a non-legally binding glossary of key terms – say, as an attachment for GTM and specific FG/NC
- 6) First draft of glossary(prepared by the EU side on basis of the list of terms prepared by the Russian side) was presented by EU side, commented by RF side and will be discussed at 10th round of Consultations (26.04.2012)



Major OS-related issues raised by EU side in 16.03.2012 presentations (& comments by RUS side)



EU-wide coordinated Open Seasons: major OS issues raised by EU side (CEER presentation, 16.003.2012)(1)

Very supportive presentation => Issues (& comments by RUS side):

- EU-wide 10YNDP Objectives:
 - (a) delivering a long term vision of capacity needs to help developing the system (**predetermines EU-wide coordination => EU central dispatch center as back-up for CEC, ACER, CEER, ENTSOG, ...**);
 - (b) to help identifying priority projects within the EIP (**based on market/shippers demand for capacities within specific regional zones => OS**)
- Key questions to be investigated
 - How to ensure sufficient cross-border coordination on the identification and design of investment projects? (**EU central dispatch center**)
 - When and how to test market demand and allocate incremental capacity? (**regular & EU-wide coordinated OS**)
 - How to decide on the investment? (**in result of coordinated OS in cooperation between TSOs**)



EU-wide coordinated Open Seasons: major OS issues raised by EU side (CEER presentation, 16.003.2012)(2)

- CEER approach: Objective: ensure a consistent approach for both existing and incremental capacity **(yes)**
 - Auctions will signal congestions **(no, regular EU-wide coordinated market-tests within OS will signal congestions and preclude auctions)**
 - Question: should we allocate existing and incremental capacity at the same time and how? **(yes – at the same time within EU-wide standard OS procedures)**
- The GB system proposes a **joint allocation** of existing and incremental capacity
- Open seasons have **dominated investment decision making** on continental Europe
- CEER gained experience with the “open season” approach
- Monitoring on GGPOS showed that more guidance was needed on the following topics: ... **(pure technical & solvable)**
- One essential requirement: Ensure sufficient cross-border coordination **(EU central dispatch center & EU-wide OS/TSO coordination)**



EU-wide coordinated Open Seasons: major OS issues raised by EU side (RTZgas presentation, 16.03.2012)

Very supportive presentation/OS examples => issues (& RUS comments):

- (a) Coordination with adjacent system operators (France, Belgium and Netherland case), {+ *Germany-Denmark case (European Gas Conf)*} (b) Conclusions: TSOs coordination is required to provide appropriate services; **(need be organised top-down between TSOs within EU => central dispatch EU center needed)**
- (a) Lack of long term demand supporting the last development step (Midcat project – Artère du Rhône project); (b) Shippers are consulted on 2 scenarios [of specific projects] **(first to test market demand and not to design project first)**
- Non-binding demand much higher than the real need **(capacity booking within OS = binding demand)**
- Complexity resulting from coordination of several IPs **(central dispatch EU center needed; coordination by individual TSO not voluntary but obligatory & EU-wide)**
- Conclusions: Open seasons are “long term” oriented. Long term commitments are supporting long term investments. **(yes)** 10 to 20 % of technical capacity can be dedicated to short term booking. **(this is sovereign decision of EU MS authorities)**
- Conclusions: European harmonisation in progress - still different approaches for investments approval by NRAs and lack of regional coordination (national open seasons / market consultations). **(proposed Coordinated OS = unification of procedures within the EU, balanced approach based on regularly tested market demand)**