

Lessons from past EU pipeline projects:

Why projects need to be commercially viable and legally / regulatory sound

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OMV Gas & Power

Introduction - Topics to be considered

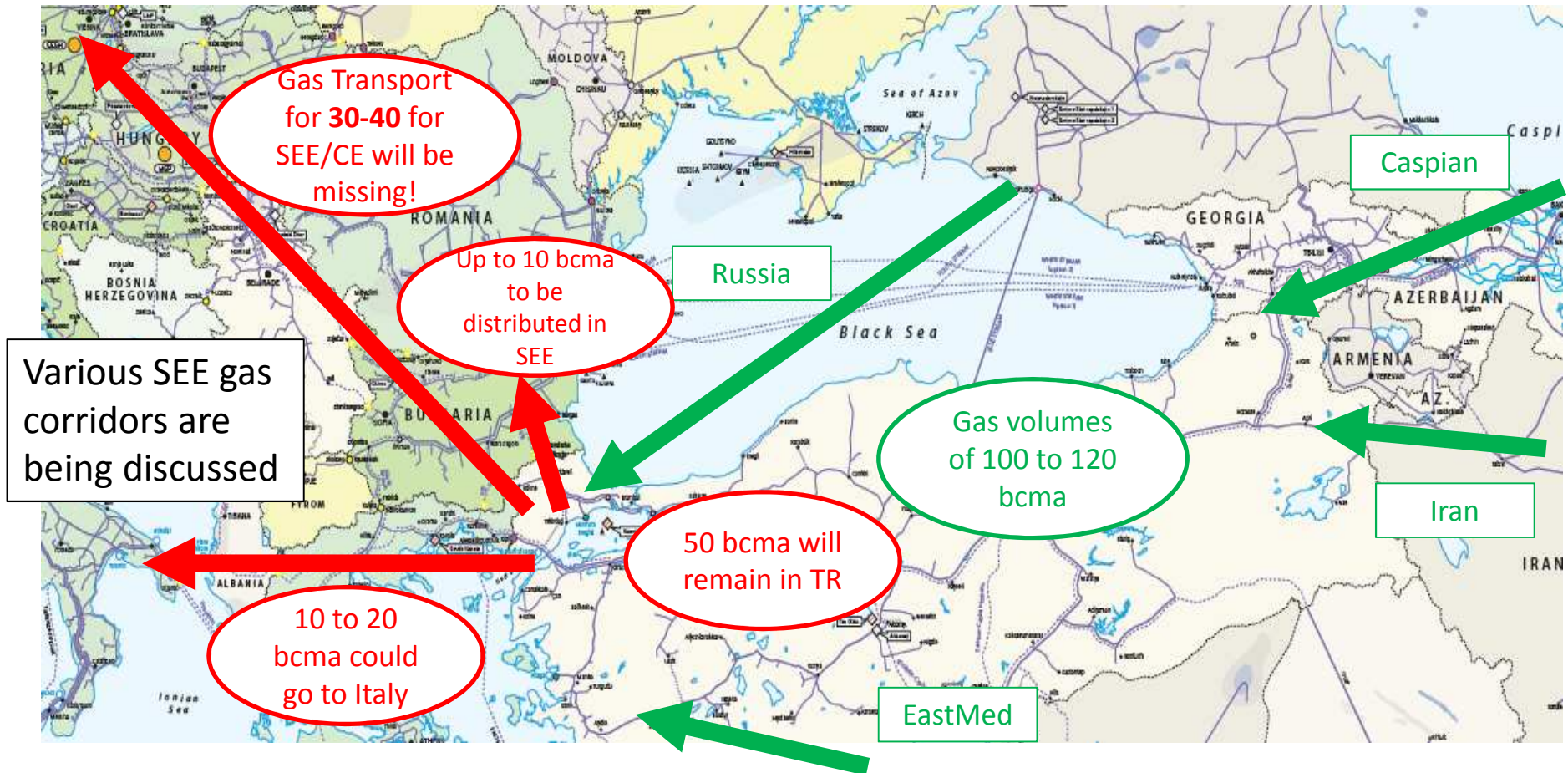
- Situation Ukraine – Russian Federation
 - Gazprom announced to stop transit via Ukraine by the end of 2019
 - South Stream is canceled or frozen
 - Turkish Stream has been announced
 - Various SEE gas corridors are being discussed
 - National gas grids in SEE are isolated
 - Baumgarten is the only gas hub in CE / SEE
 - The SEE gas market is not the biggest in Europe but very important with respect to logistics
- Turn deficiencies and related risks into opportunities
- Lessons learned from past EU pipeline projects

Situation Ukraine – Russian Federation

Gazprom announced to stop transit via Ukraine by the end of 2019

- Predictability of gas business models in Ukraine (UA) ?
Neither pricing of gas imports to UA nor transit tariffs are contractually fixed mid to long term
- Technical reliability of the UA gas grid ?
Ukrtransgaz itself indicates a reinvestment need of EUR 3 to 5 bn
A technical integrity check will be required
- UA gas demand and flexibility requirements in future ?
- Appetite of European gas suppliers to deliver gas via reverse flow to UA?
 - Gas sellers and TSOs will need take or pay obligations from UA buyers to justify investments in infrastructure for an increase of the technical capacities for reverse flow

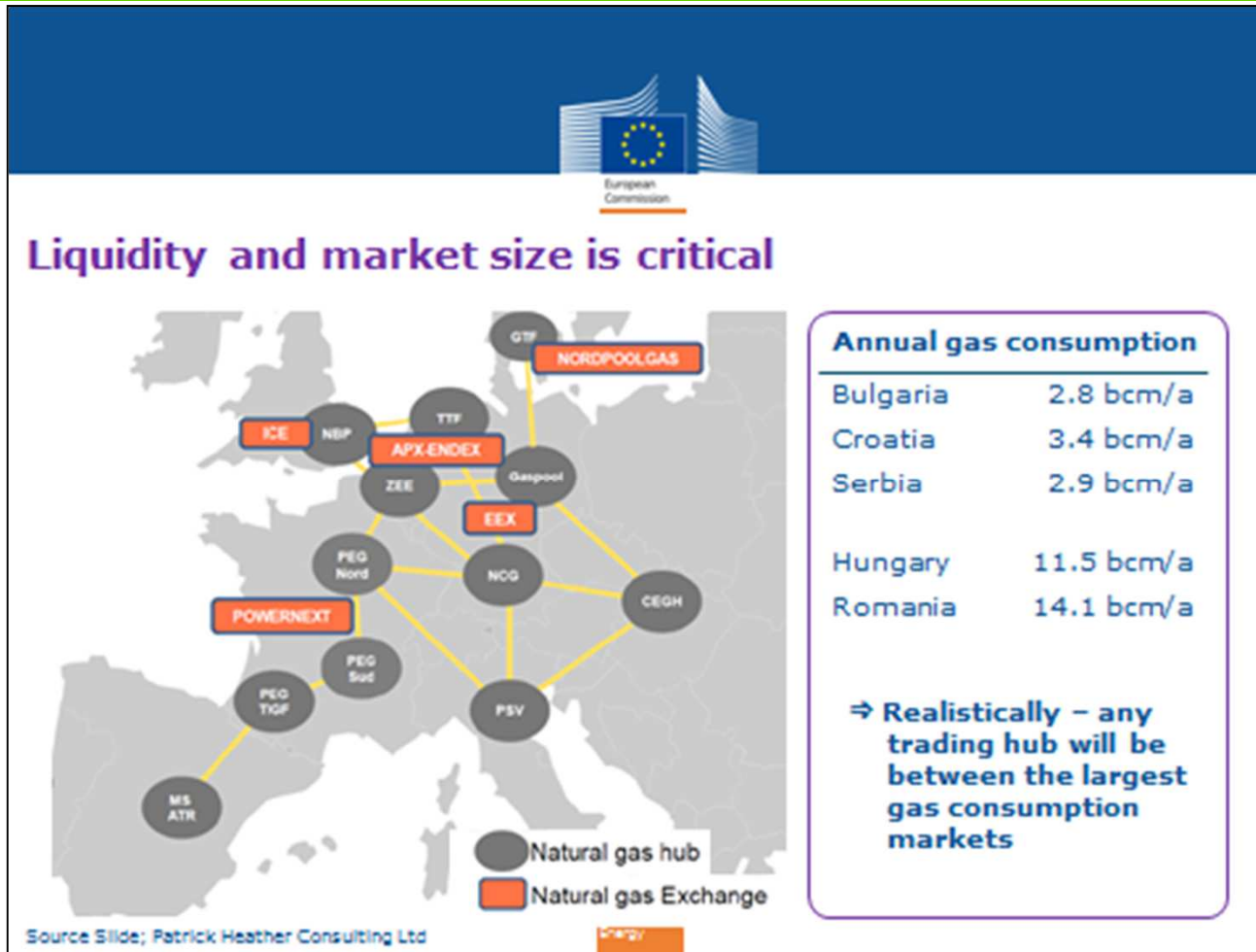
South Stream is canceled or frozen Turkish Stream has been announced



National gas grids in SEE are isolated



Baumgarten is the only gas hub in CE/SEE



CE/ SEE gas markets are not the biggest in Europe but very important with respect to logistics

- A big part of the Russian gas imports to Europe flows via Slovakia to the CEGH in Baumgarten
- Delivery points of the gas are in Baumgarten and at various cross border points downstream Baumgarten
- Big gas storage volumes are located in Austria and Germany as a backup of Russian gas imports
- Turkey receives a considerable volume of Russian gas via Romania and Bulgaria and with Turkish Stream its importance will grow
- New corridors for Russian gas and for gas from other suppliers from Azerbaijan, Iran, EastMed are planned to be established in that region

Turn deficiencies and related risks into opportunities

- National TSOs in SEE / CE to increase interconnectivity by installing bi-directional interconnectors
 - Such interconnectors will not substitute a big gas corridor
 - Storage system operators to increase storage volumes and capacities for injection and withdrawal with improved service level
 - National regulators to coordinate actions of TSOs in the various countries and to align TYNDP
 - Reach the Turkish border in the South to benefit from a connection to various gas sources
 - Reach Baumgarten to roll out flexibility tools and hub activities to SEE
- Development of a transnational gas corridor with the most competitive transport regime**

Lessons from past EU projects I

- A cristal clear project charter is required
 - Shareholders
 - stock listed / state owned or mixed ?
 - buyers / sellers of gas or mixed ?
 - ‚national champions‘ or internationally experienced companies ?
 - institutional investors / energy companies or mixed ?
 - access and exit rules to be defined
 - Governance
 - absolutely commercially driven decision process
 - quick decisions based on clear rules of procedure
 - clear majority rules and elimination of blockade possibility

Lessons from past EU projects II

- The scope of the project has to be clear from day 1
 - Description of the project
 - completely new pipeline or combination of existing and new sections
 - Project schedule with sufficient buffer times
 - Acceleration measures increase CAPEX
 - Delays endanger the commercial success of the project due to the risk of high penalties
 - Starting point of the project / end point of the project
 - Volume profile
 - Routing
 - Entries and exits have to be defined
 - Branch line concept / flexibility concept

Lessons from past EU projects III

- The legal and regulatory regime has to be clear from day 1
 - closed shareholders group or ‚shareholder open season‘
 - exemption or open season for transport capacity or mixed
 - shareholders and shippers have to get certainty on long term availability of transport capacity
 - for the fulfilment of long term supply contracts
 - for a proper financing concept for the project
 - a robust and aligned legal structure cross border is required
 - investment incentives must be offered and must not be eliminated over the life time of the project

Lessons from past EU projects IV

- Contractual framework has to be defined in time
 - Intergovernmental Agreements and Host Governmental A.
 - Financing structure and agreements
 - Interconnection Point Agreements
 - cross border and
 - within countries with the national TSOs to connect efficiently to national gas grids and storage facilities
 - Operating philosophy and O&M Agreements
 - Balancing Agreements
 - Transport contracts

Lessons from past EU projects V

- Project execution is a 100% competence and responsibility of the project company
 - clear procurement policies
 - clear compliance rules
 - clear reporting lines
 - freedom of choice for staffing
 - clear EIA / ESIA policies

- the company has the responsibility to develop the project before FID in a way to eliminate all kind of show stoppers during the execution period