

Long term “capacity contracts” of gas infrastructure

Energy Community Secretariat
www.energy-community.org

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VERTICAL INTEGRATIONS IN ENERGY MARKETS
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TREATY ESTABLISHING THE ENERGY COMMUNITY

○ INVESTORS SITUATION:

- WITHOUT TREATY
- IMPROVEMENT BY IMPLEMENTATION OF TREATY

LONG TERM CONTRACTS IN GAS MARKET

○ FURTHER GASIFICATION OF SEE – LONG TERM CONTRACTS

○ LONG TERM TAKE OR PAY CONTRACTS

○ LONG TERM SHIP OR PAY CONTRACTS

○ OPTIMISATION OPPORTUNITIES

○ POSSIBLE IMPACTS

CONCLUSIONS

➤ The European Community



- The Republic of [Albania](#)
- The Republic of [Bulgaria](#)
- [Bosnia and Herzegovina](#)
- The Republic of [Croatia](#)
- The former Yugoslav Republic of [Macedonia](#)
- The Republic of [Montenegro](#)
- [Romania](#)
- The Republic of [Serbia](#)
- The United Nations Interim Administration Mission in [Kosovo](#)

THE ENERGY POLICY IN EUROPE

Generally, approach towards common principles (security of supply, competition, environment);

Currently in SEE: mostly bilateral relations;

Necessity for a common framework: **THE TREATY ESTABLISHING THE ENERGY COMMUNITY**

FRAMEWORK

Not principles but a concrete framework - part of Acquis;

THE MAIN OBJECTIVES

Create a single and stable regulatory space and stable market framework

Enhance the security of supply of the single regulatory space

Develop network energy market competition on a broader geographic scale

Via application of the EU Acquis Communautaire :

- o Acquis on Energy
- o Acquis on Competition
- o Acquis on Environment
- o Acquis on Renewables

REGIONAL APPROACH - INVESTORS PERSPECTIVE

- o Small markets in SEE
- o Shaving peaks - compared to needs by each CP
- o Higher average load factor
- o Harmonised legislation

INSTRUMENTS FOR REGIONAL APPROACH

- o Harmonised (not unified) legislative basis – focus: regional
 - For new infrastructure Art. 22 of Dir. 2003/55/EC
 - Regulation 1775/2005/EC
- o Mutual Recognition of licenses
- o Generally Applicable Standards
- o Application of common Safeguard Measures
- o Mutual Assistance in Event of Disruptions
- o Common, contractually agreed timeframe;

INSTRUMENTS FOR REGIONAL APPROACH

- o Monitoring implementation of the legislation,
- o Energy Community Regulatory Board (ECRB)
- o Establishment of:
 - Fora (electricity and gas)
 - Investment Conferences
- o Investors/associations present projects - provide input

INSTRUMENTS FOR REGIONAL APPROACH

- o Regional projects - TEN criteria,
- o Projects - co-operation with donors/IFIs;
- o Coordination/support of donors and IFIs by EC/Secretariat;
- o Studies from regional perspective (GIS, Gasification Study, CAO);
- o Establishment of a dispute settlement institution

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“RIGID” CONTRACTS

- o Link sellers – buyers for 20 – 25 years
- o Buyer to pay whether taken or not
- o Seller make available defined volumes
- o Firm basis to finance expensive infrastructure

ToP – CONDITIONS

- o Fixed for lifetime (UK/US) or
- o Adaptation to circumstances: Continental Europe(3 years = regular)
- o Continental: provisions reflect competitive situation buyers' market
- o Incentive to exploit price differentials – but seller try to restrict

ToP – FLEXIBILITY (REFLECTED IN PRICE)

o Volume flexibility determinants:

- Dependent on economics of production/transportation
- Short haul gas (pure gas fields) : large flexibility
- Long haul gas and offshore gas: more limited flexibility
- Associated gas most rigid off-take obligation - flaring

o Flexibility = difference capacity and off-take/minimum pay obligation

• Annual flexibility:

- Minimum payout protects cash flow of seller
- Carry forward provision – credited against future minimum
- make up provision – prepayment
- Take or pay quantity = typically 80 - 85% of Annual Contract Quantity

- Daily flexibility: differ. between daily capacity/daily off-take obligation
 - Not needed to protect cash flow of seller
 - Technical minimum flow restrictions
 - Guarantee outlet of associated gas
 - Maximum daily quantity (MDQ)
 - Maximum Demand Penalty: price for gas in excess of MDQ
- “Swing”: relation between daily availability and annual obligation:
 - Daily availability >> average annual availability - large swing – follow market
 - Dutch contracts often offered large swing
 - Short haul gas larger swing
 - Long haul gas usually not > average annual availability

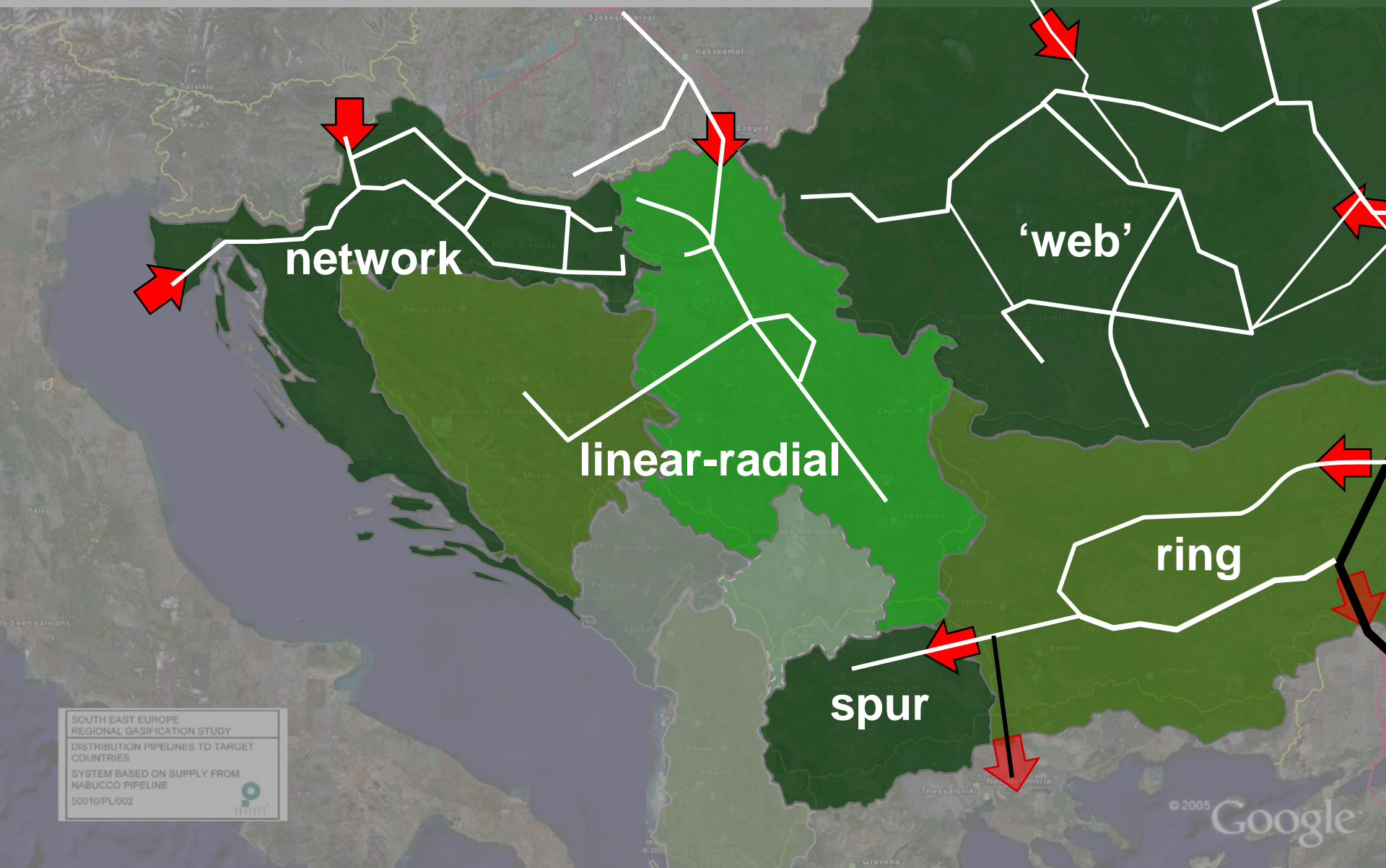
SHIP OR PAY CONTRACTS (often complementary to ToP)

- o Commercial commitments for reservation of transport capacity:
 - Pay even if capacity is not used
 - Long distance – transportation costs significant
- o SoP complementary to ToP
 - Contracts for gas supply often cover commodity + transport („cif“)
 - ToP does not incl. transport-transportation contracts – SoP („fob“)
 - Ship or pay and take or pay obligations similar (certain respects)
- o SoP not always complementary to ToP– example spot market options

TOP and SOP CONTRACTS:

- o Optimisation possibilities:
 - Minimisation of long haul capacity needs
 - Minimisation of storage capacity needs
 - Minimisation of grid usage costs
 - Considering domestic production – if any

SITUATION: PARTIAL GASIFICATION - RUSSIAN GAS



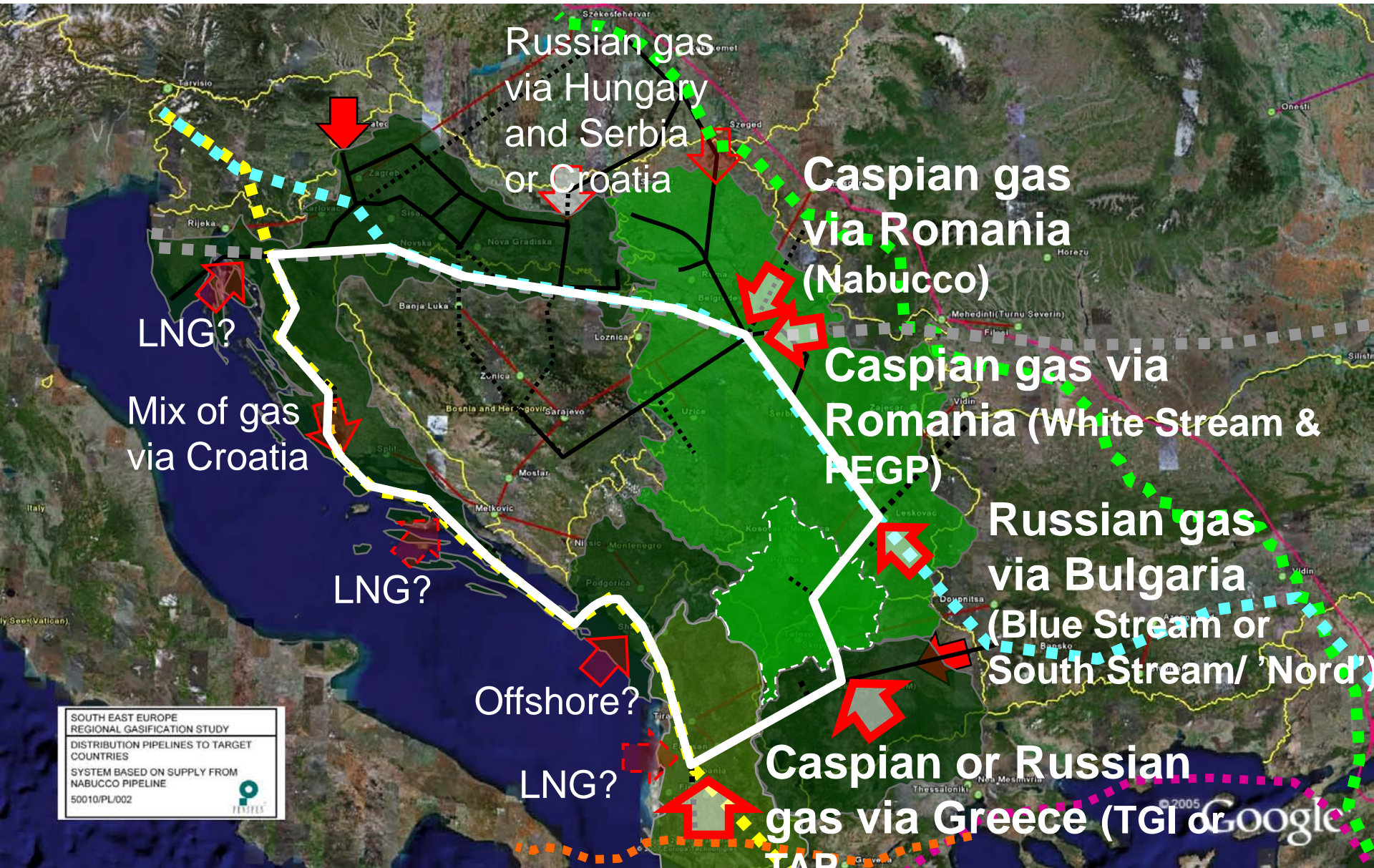
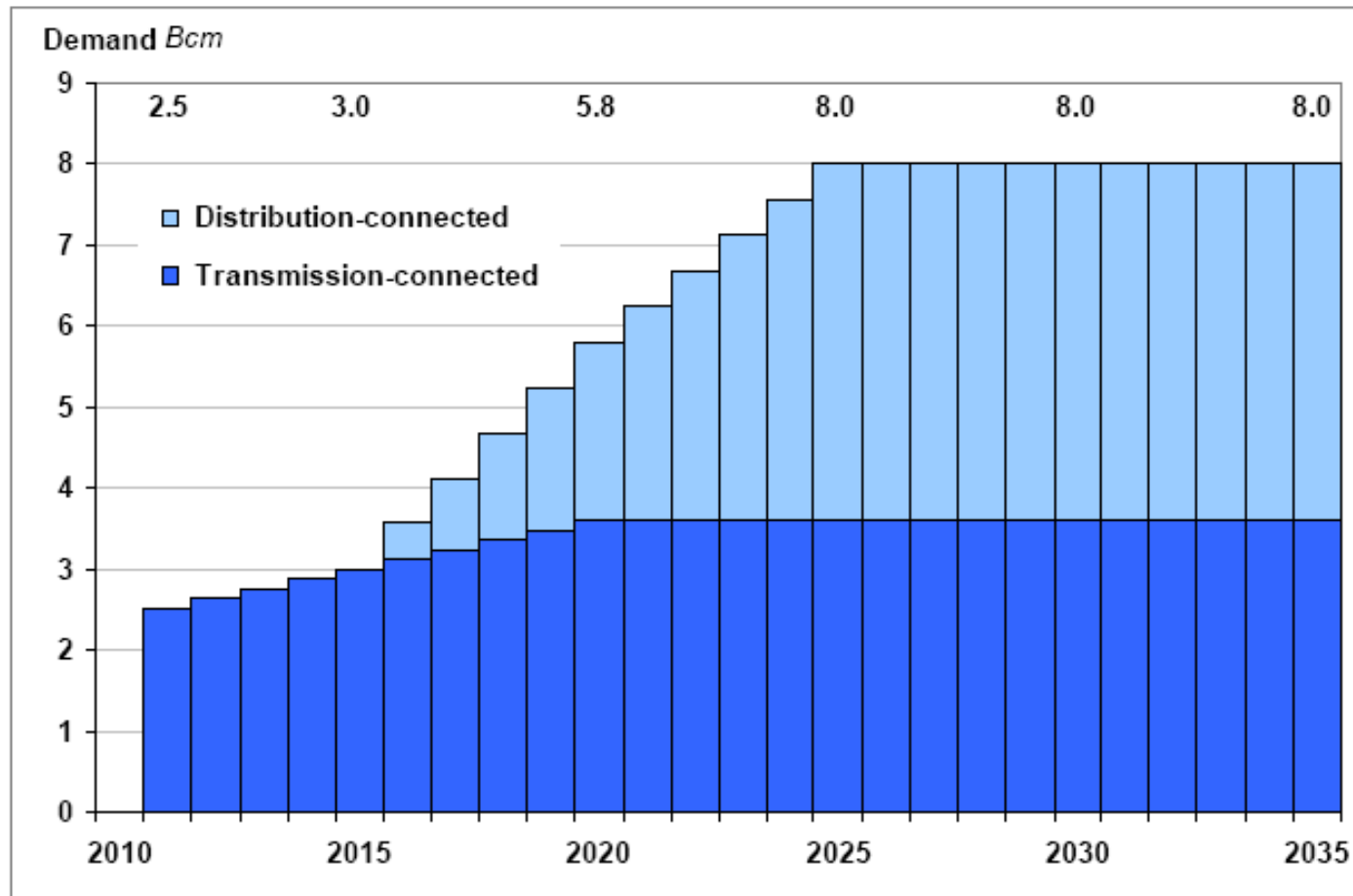
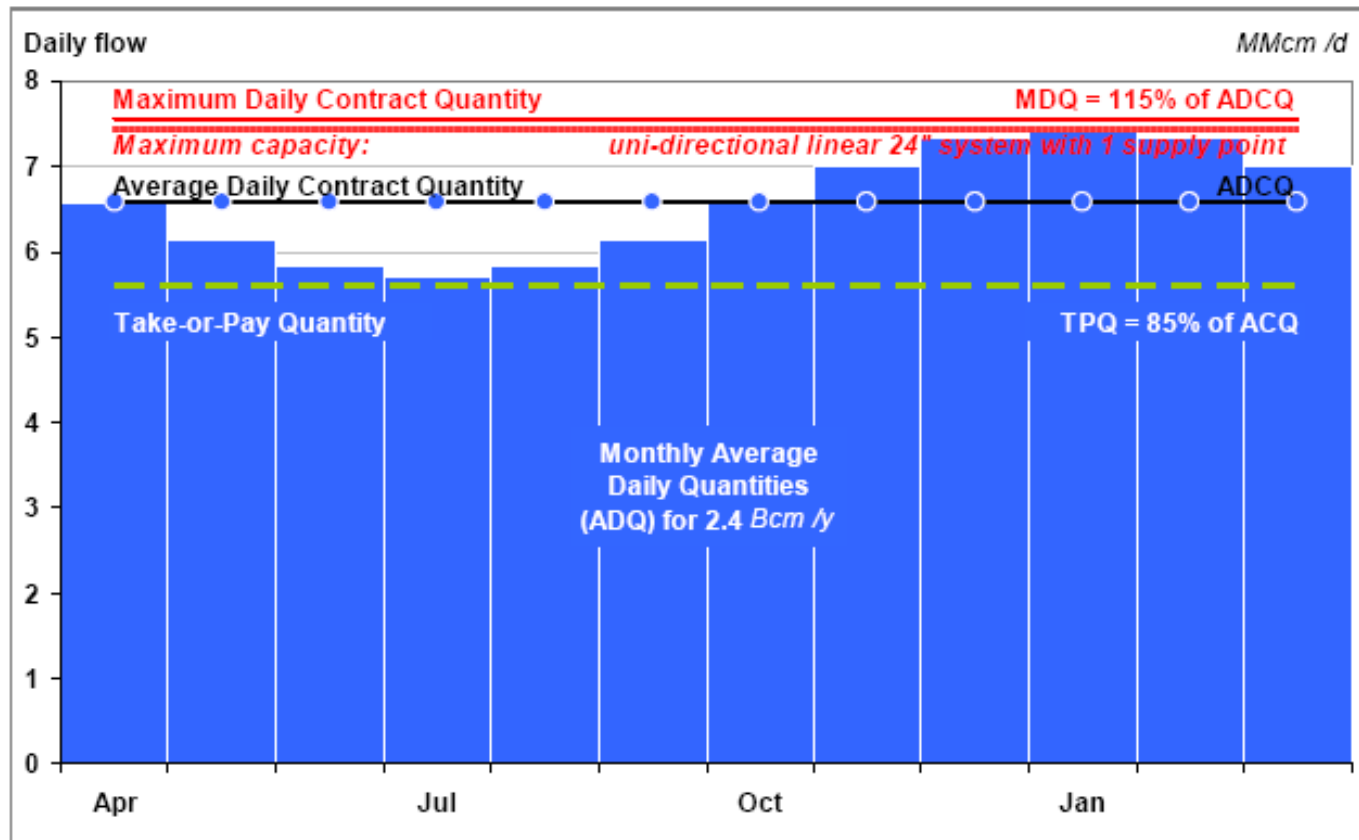


Figure 22 Assumed load build-up in seven non-EU SEE markets



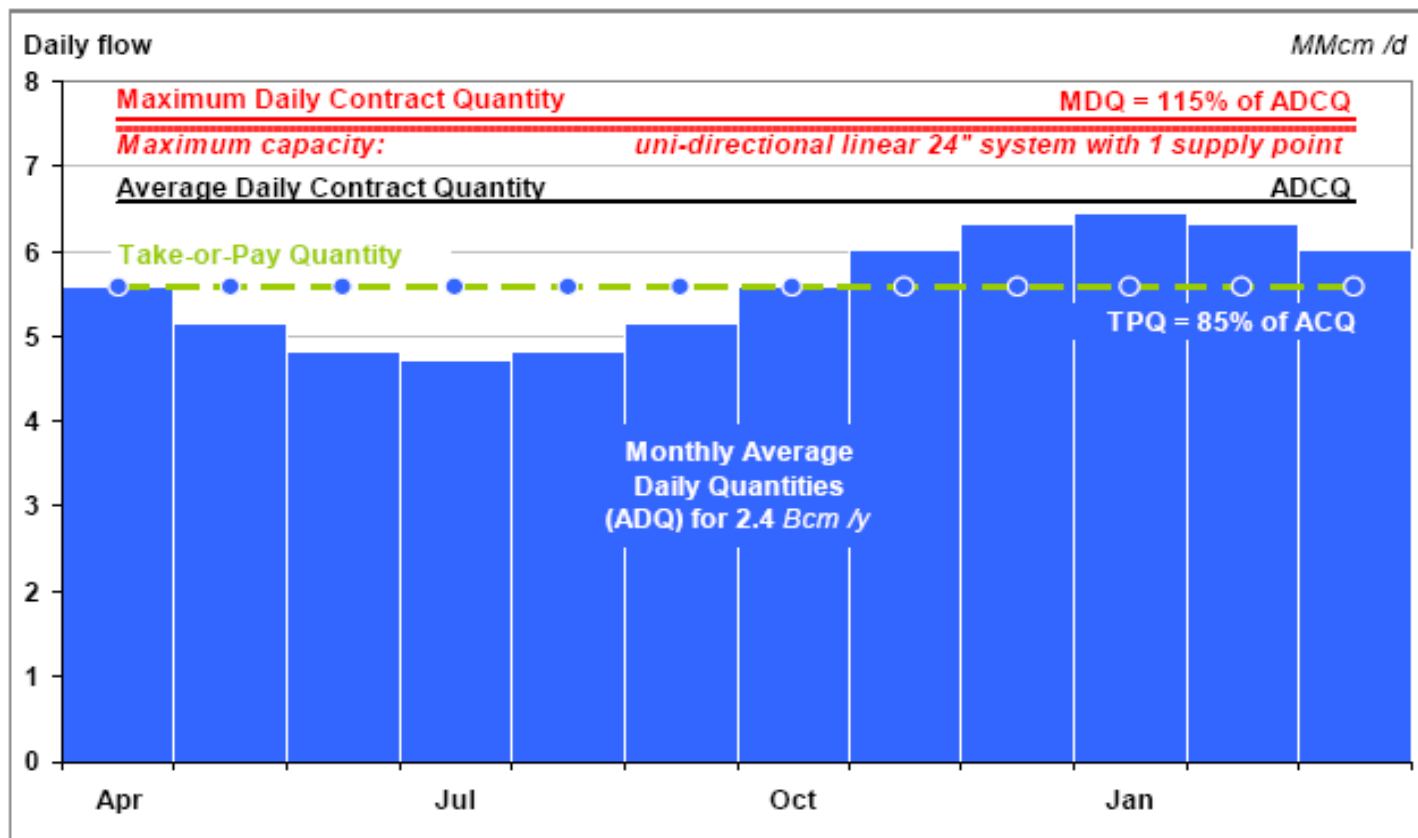
Source: ECA projections, consistent with Figure 13. Note: all markets in SE Europe *except* Bulgaria and Romania.

Figure 23 Model of system profile – 2.4 Bcm/y low swing initial anchor loads



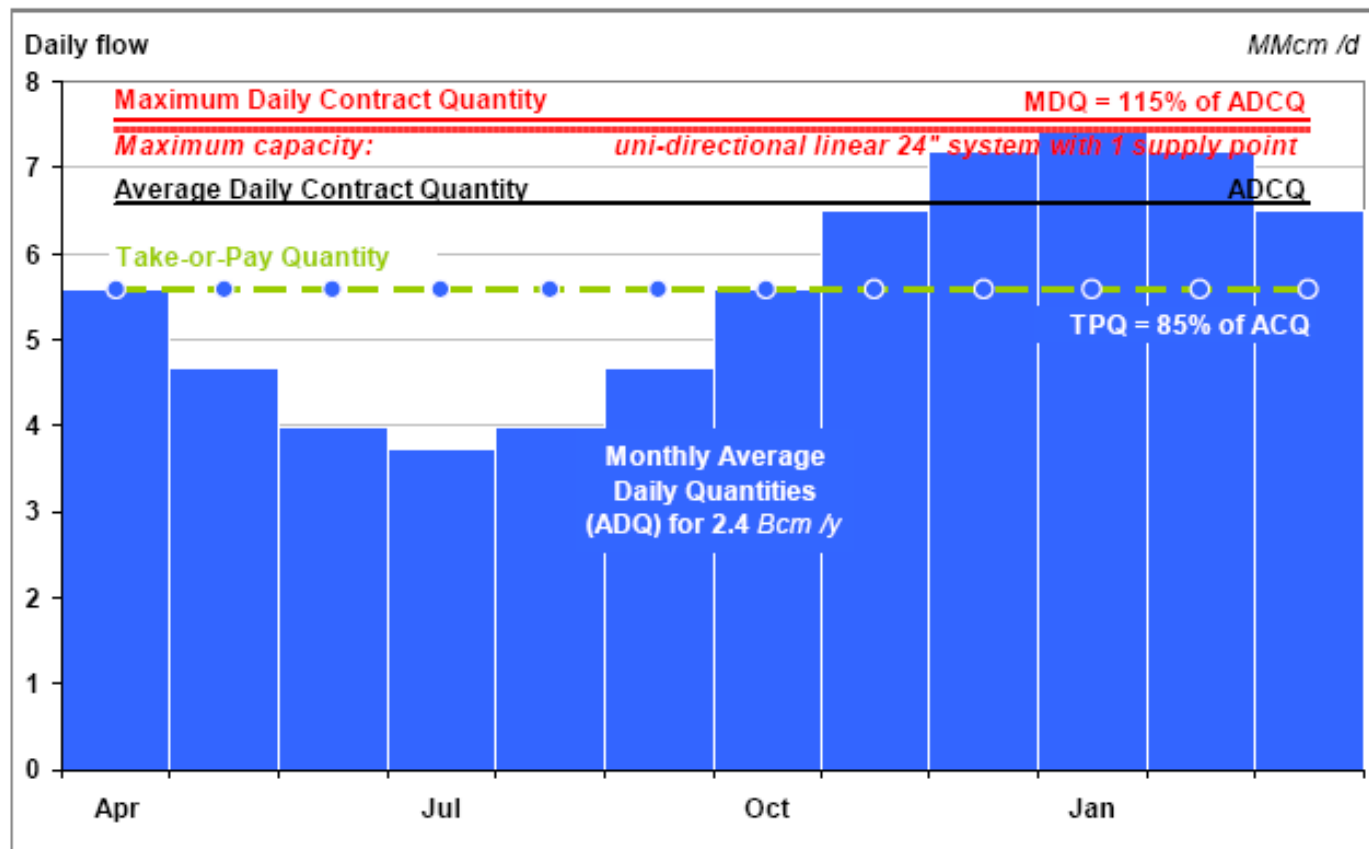
Source: ECA gas storage model, typical contract parameters. (SE Europe markets *except* Bulgaria and Romania).

Figure 24 Model of system profile – 2 Bcm/y low swing initial anchor loads



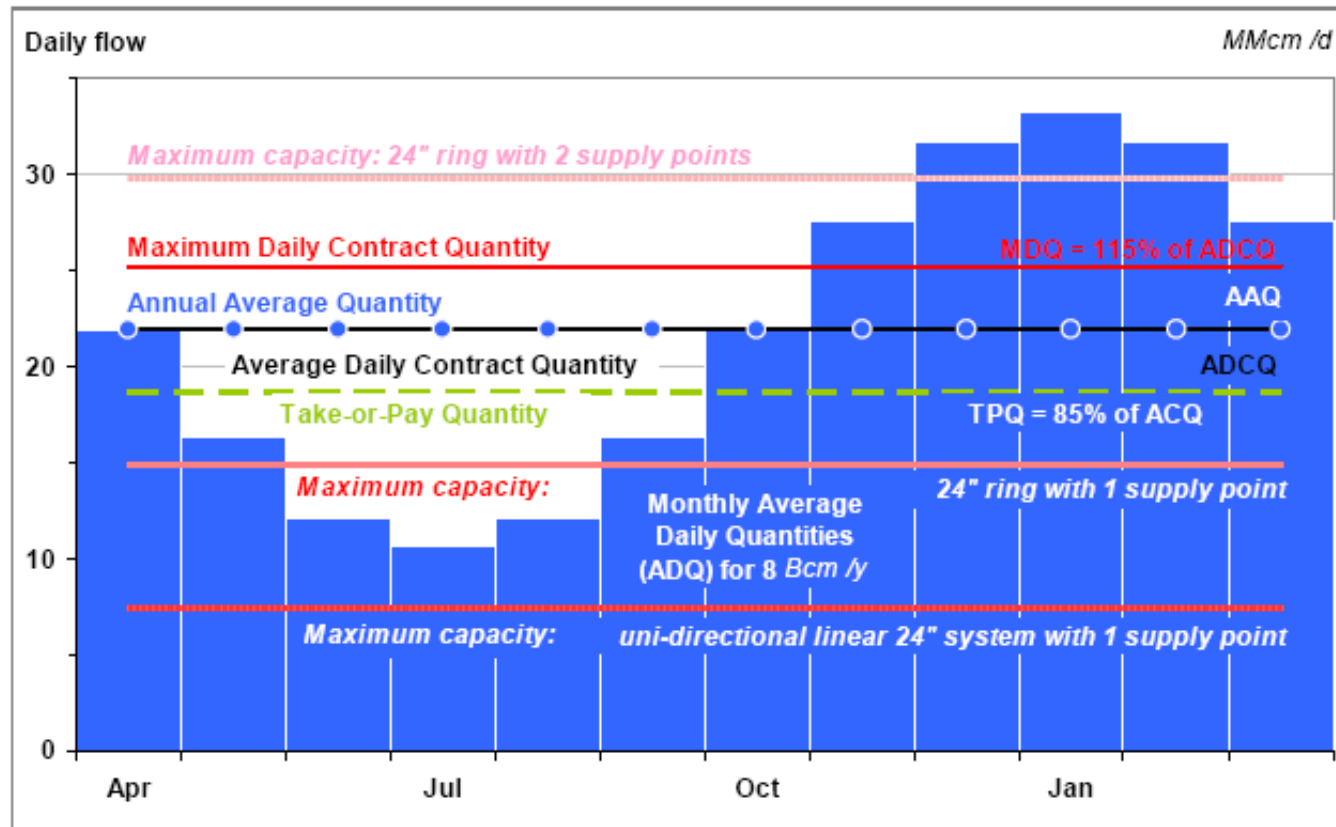
Source: ECA gas storage model, typical contract parameters. (SE Europe markets *except* Bulgaria and Romania).

Figure 25 Model of system profile – 2 Bcm/y high swing initial anchor loads



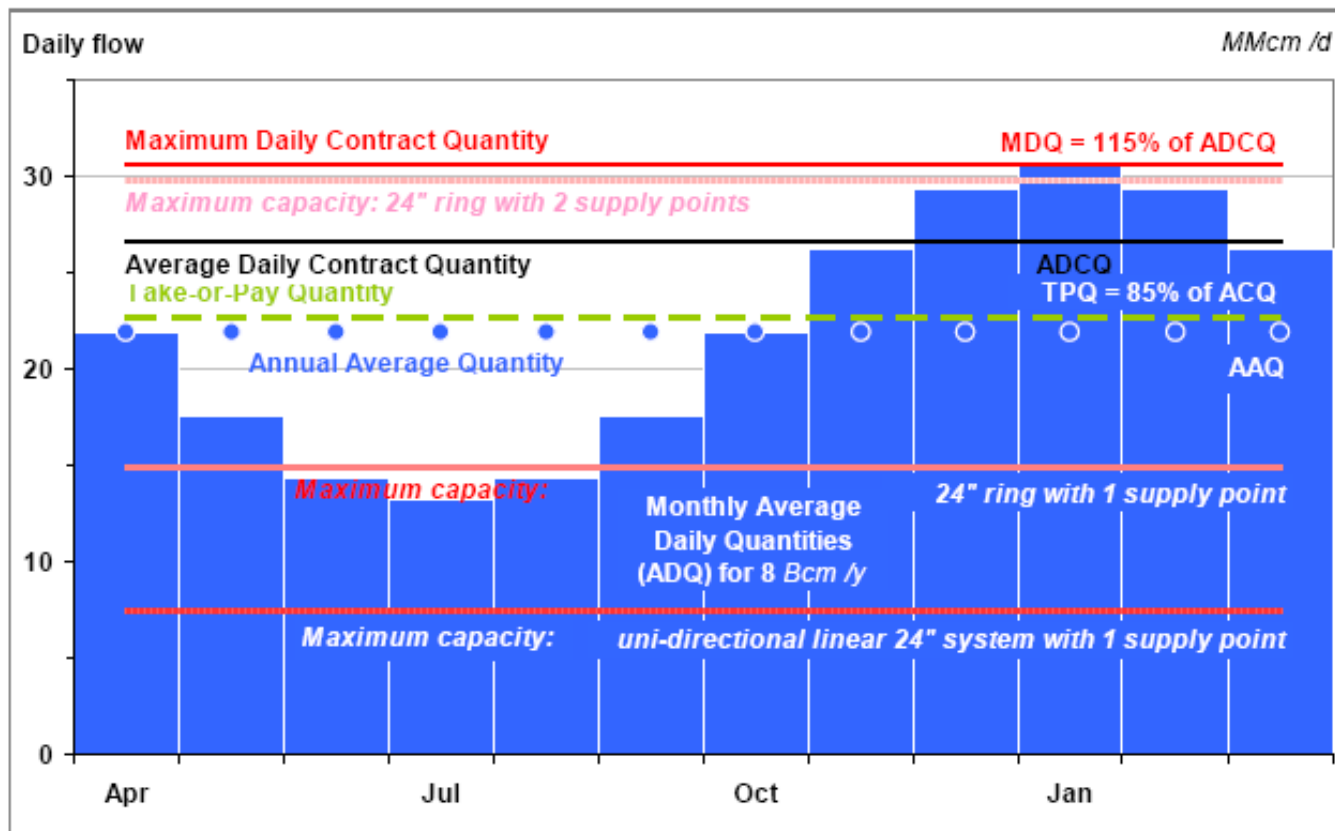
Source: ECA gas storage model, typical contract parameters. (SE Europe markets *except* Bulgaria and Romania).

Figure 26 Model of long-run seasonal system profile using monthly average days



Source: ECA gas storage model. (SE Europe markets *except* Bulgaria and Romania).

Figure 27 Model of long-run seasonal system profile using monthly average days



Source: ECA gas storage model. (SE Europe markets *except* Bulgaria and Romania).

Equation 2 Logit model of load-duration curve

$$D = A.Ln\left(\frac{1-x}{x}\right) + C$$

where:

D is demand,

A is a vertical scale factor related to the peak load

x is a horizontal scale factor related to the fraction of the year

C is a constant related to the annual average load

Figure 28 Long-run mean year load-duration curve and seasonal profile

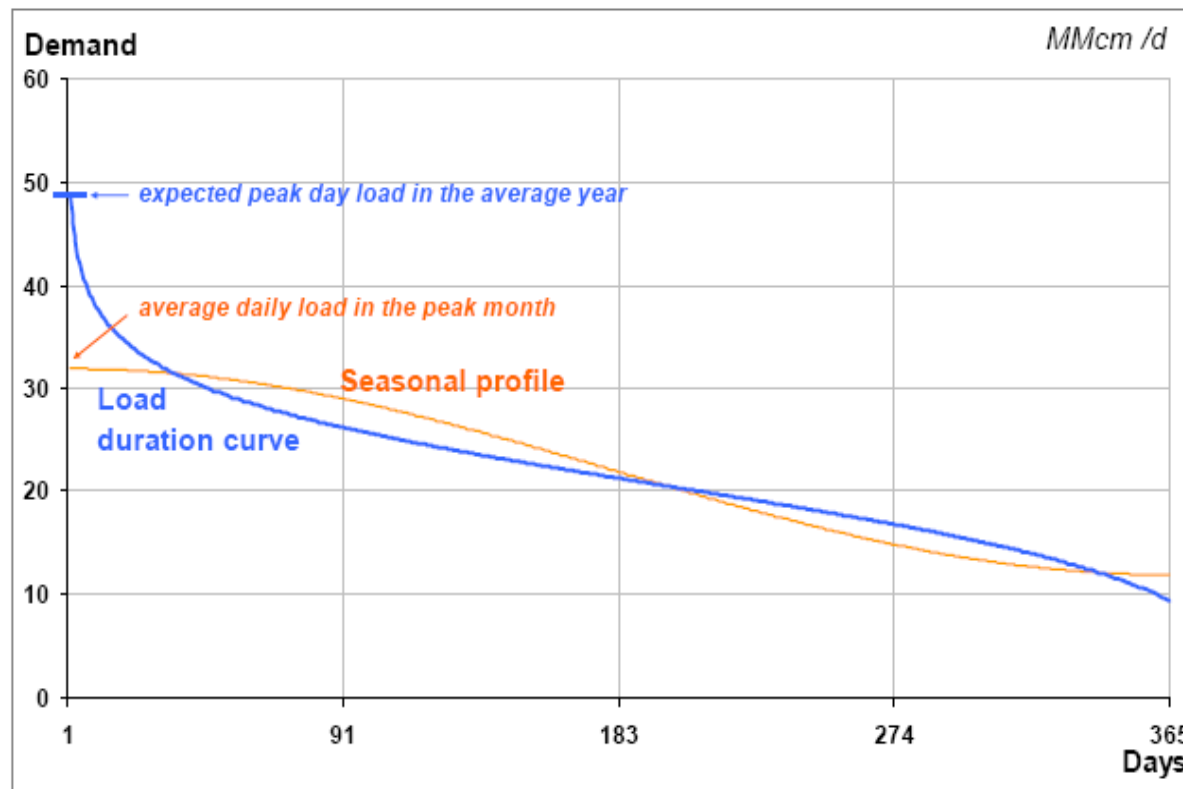
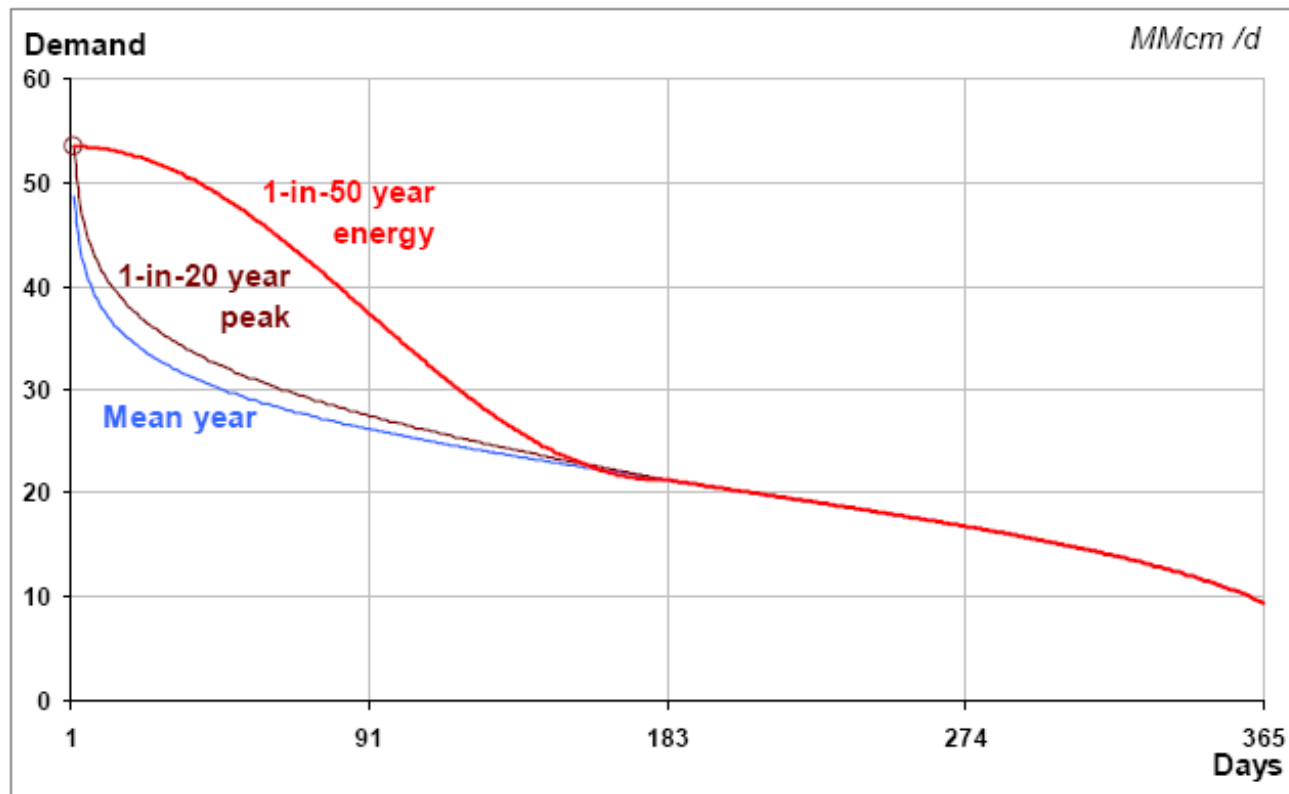
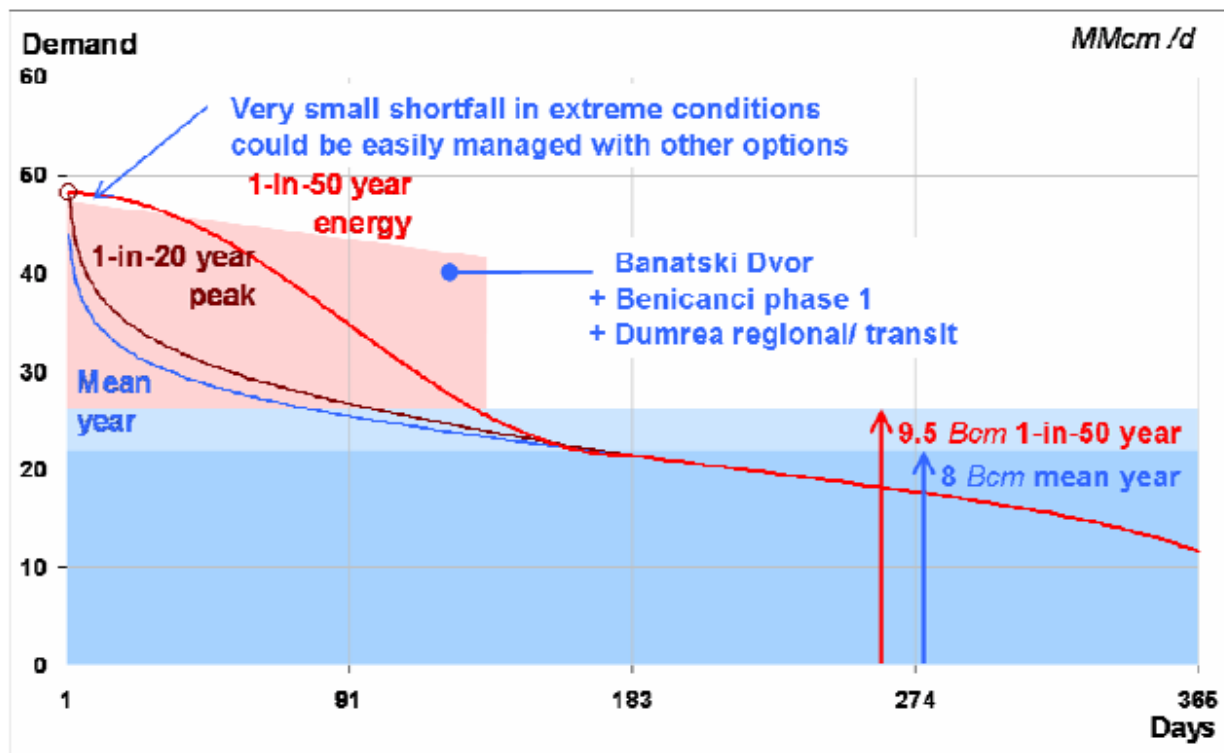


Figure 30 Long-run 1-in-20 year peak day and mean year load-duration curves



Source: ECA gas storage modelling. (SE Europe markets *except* Bulgaria and Romania).

Figure 55 Storage demand outlook and supply options in non-EU SE Europe



Source: ECA storage model

“TRANSIT” CONTRACTS Art. 32 of Directive 2003/55/EC - Impacts:

- o “Old contracts” (Art. 3 (1) Dir. 91/296/EEC shall continue to be valid
- o Capacity existing contracts remains unused [Art. 5 (4) Reg.1775]
 - if contractual congestions TSO to offer on primary market
 - users are entitled to sell unused capacity on secondary market

unless this would infringe requirements of existing contracts
- o If infringement of existing contracts TSO shall submit request for use on secondary market
- o Cost reflectivity [Art. 3 (1) Reg. 1775] difficult to be achieved
- o Cross subsidies [Art. 3 (1) reg. 1775] difficult to be avoided

- o But Court of Justice of European Communities (C-17/03-June 2005)
- o Preferential transmission or distribution capacities = discriminatory
- o Commission Staff Working Document – application gas sector:
 - Electricity and gas directive provides for same principle
 - Court ruling applicable to gas
 - Refuse network access - serious economic/financial difficulties with TOP
 - Subject to derogation granted by NRA – confirmed by EC
- o Priority allocation of transmission/distribution capacities incompatible
- o Long term supply contracts per se not invalid – competition rules

ToP CONTRACTS in Art. 27 of Directive 2003/55/EC:

- o Derogation from TPA in relation to **ToP** commitments:
 - Gas undertaking encounters serious economic and financial difficulties
 - Application for temporary derogation of TPA
 - Case by case basis
 - Decision based on:
 - Objective of achieving competitive gas market
 - Fulfil public service obligations
 - Seriousness of economic and financial difficulties
 - Dates of signature and terms of contract
 - Efforts made to find a solution
 - Etc.

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CONCLUSIONS

TOP and SOP played fundamental role for gas market existence

Signed when MS markets organized around national/regional monopolies

Assuring a regular cash flow over many years for producers/infrastructure

If Note of Commission correct – fundamental change to present approach

At present: remaining capacity to market

MS have not changed allocation rules to reflect position of EC

Maybe publication of note will change situation

Request for derogations?

Third Package acknowledges long term contracts – competition rules

**THANK YOU
FOR YOUR ATTENTION**

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