Security of Supply Coordination Group
- 11th meeting GAS Sub Group

The March 2018 gas crisis in Ukraine – lessons learnt. View of TSO

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Date: 19/09/18

Timeline

End February 2018
- Ukraine was expecting restoring of gas import from Russian Federation from 1.03.2018. Naftogaz prepaid the monthly amount of money for import of 18.1 mcm per day

28 February 2018
- Final award of Stockholm Arbitration in transit case

1 March 2018
- Gazprom informed Naftogaz that there will be no supply of gas 15 minutes before expected start of the flow and that prepayment for gas to be supplied in March will be returned
- Severe weather conditions, low import, storage on maximum withdrawal capacities
- Pressure on entry from Russia 15% below contractual level
- National action plan provisions launched
- #coolitdown initiative started

2 March 2018
- First decision of the Crisis Committee, which declared the crisis situation of emergency level, included list of actions to be followed by market participants, prescribed educational establishments shutdown, decrease consumption of large industrial and medium-sized consumers by 10%

3 March 2018
- Second decision of Crisis Committee
- Increase of import, decrease of temperature, decrease of consumption

6 March 2018
- Meeting of Crisis Committee, where it was decided that the crisis situation shall not be prolonged

7 March 2018
- Joint web-conference with the EC monitoring group

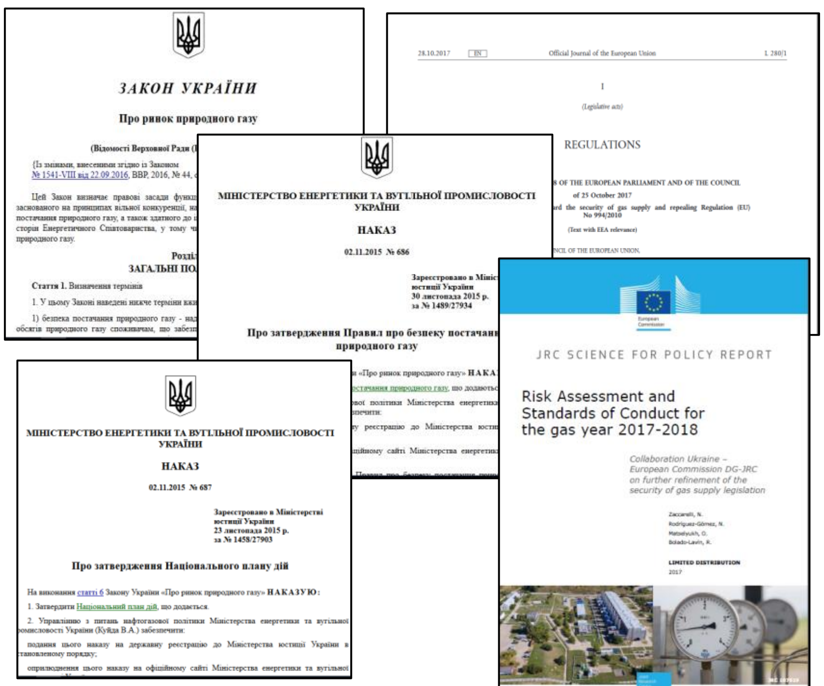
Figures and factors

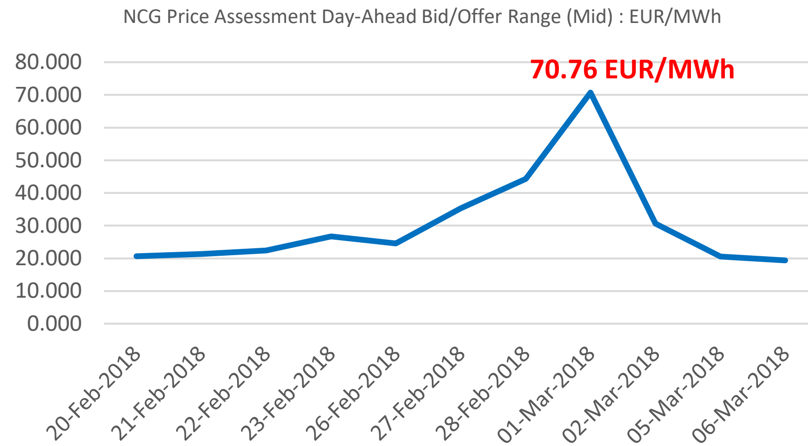
System balance – beginning of March 2018

Temperature – minus 8-12 (average for Ukraine)
Consumption – around 190-200 mcm

Production – 57 mcm
Import – 3-5 mcm
Storages – 115-116 mcm

Deficit – around 15-20 mcm – covered from linepack





Important factors to be taken into account

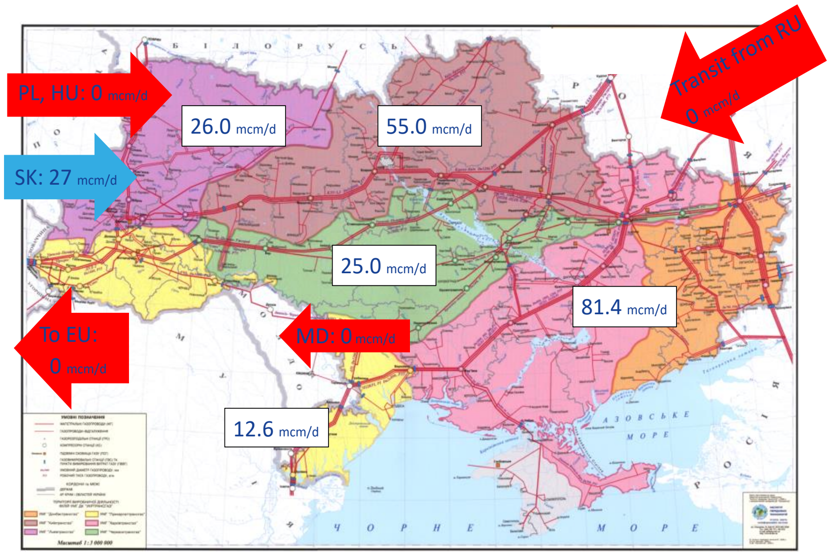
March crisis – first **real test** for new legal basis compliant with EU practices: law "On natural gas market", "National Action Plan", "Rules on Security of Gas Supplies", annual Risk assessment, based on best EU practices and expertise of JRC, etc.

End February – severe winter, record high consumption for 5 days, both in Ukraine and entire EU

Keeping **the transit** on stable level during the whole crisis

Storages functioning with maximum technical capacities

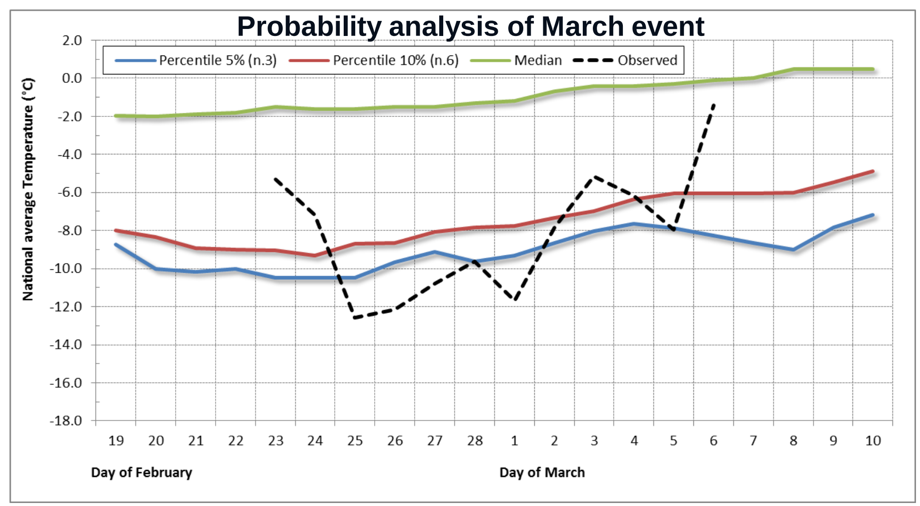
New legal framework – opportunity if correctly used



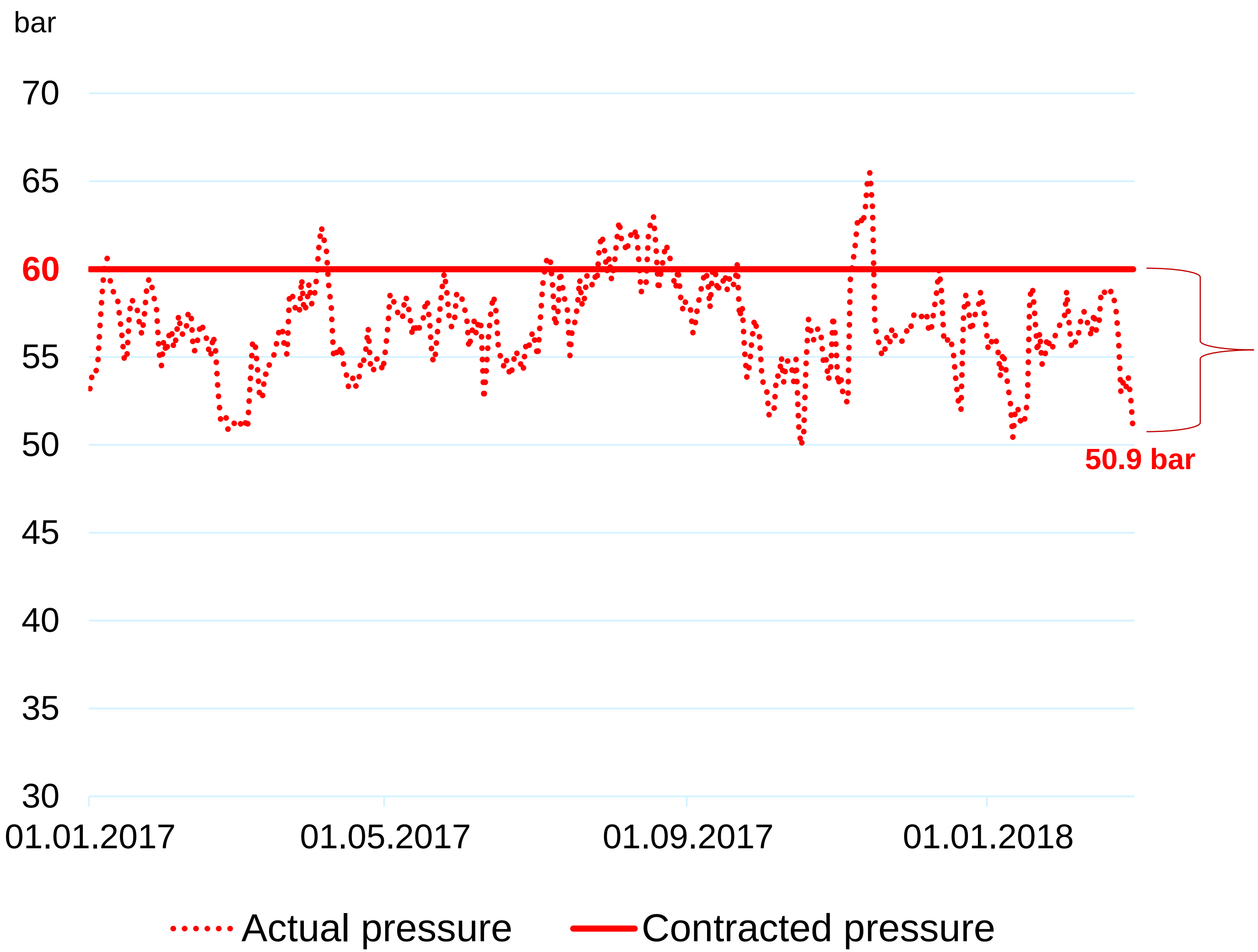
Status quo as of 1 March 2018

- Main requirements of Regulation 994/2010 – transposed to UA legislation
- Two risk assessments based on best EU practices with hydraulic modelling of 12 scenarios – done
- Table-Top exercise with wide involvement of all stakeholders – TSO, NRA, Competent Authority, traders, suppliers, DSOs, regional authorities, etc. – to test the interaction between them in crisis situation

- 27 mcm/d of firm import capacities
- 39 mcm/d of interruptible import capacities from the EU
- 32% storage load
- Transit increased daily (from 217 mcm on 24 February to 268 mcm on 2 March)



Pressure issue continued



Pressure drop in the main entry IP Sudja during the cold spell created additional difficulties for the system operation at the time of emergency situation. In March 2018 the entry pressure in Sudja was around 50-51 bar, instead of contractual level of 60 bar, which is **15% drop**. However, Ukrtransgaz provided stable transit services, keeping the pressure level at the exit IPs above contracted levels.

Lessons learnt & things to be done

- ✓ March crisis – not a coincidence, but an intentional effort to create artificial shortage of gas
- ✓ New legal framework works, but needs testing and promoting to all stakeholders
- ✓ Preventive action plan and necessary preventive actions (security stock, higher firm capacities, disconnection order, diversification of supply routes, increase of production, etc.) – to be further developed
- ✓ Market-based measures to be yet developed (e.g., creation of interruptible products supported by incentivizing prices)
- ✓ National action plan – to be further improved and tested (better in Table-Top exercises than in real life) on constant basis
- ✓ #Hashtag sometimes works (but established framework is better)
- ✓ Prepaid gas from unpredictable source ≠ guaranteed import
- ✓ Capacities ≠ guaranteed import (it takes time to sign the contract)
- ✓ 1-in-20 statistically happens once in twenty years, but you need to be always ready for it
- ✓ Transparency – basis for international support

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Progress on unblocking the Trans-Balkan corridor – reverse flows

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Goals and ideas

17.3.2017 EN Official Journal of the European Union L 72/1

II

(Non-legislative acts)

REGULATIONS

COMMISSION REGULATION (EU) 2017/459

of 16 March 2017

establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 ([1]), and in particular Article 6(11) and 7(3) thereof,

Whereas:

(1) Regulation (EC) No 715/2009 sets non-discriminatory rules for access conditions to natural gas transmission systems with a view to ensuring the proper functioning of the internal market in gas.

(2) Duplication of gas transmission systems is in most cases neither economic nor efficient. Competition in natural gas markets therefore requires a transparent and non-discriminatory access to gas infrastructure for all network users. However, in large parts of the Union the lack of equal and transparent access to transmission capacity remains a major obstacle for achieving effective competition on the wholesale market. Furthermore, the fact that national rules differ from one Member State to another hampers the creation of a well-functioning internal market for gas.

“Duplication of gas transmission systems is in most cases neither economic nor efficient.”

Trans-Balkan system - a key element of energy security of the Balkans and Southern Europe and indispensable element of North-South Gas Corridor.

The Trans-Balkan route consists of three high diameter pipelines, which can physically transport bi-directionally up to 20 bcm of natural gas after some reconstructions. The Ukrainian GTS can transport up to 20 bcm from/to UA-PL, UA-SK and UA-HU borders to/from the IPs with Romania.

Why building new infrastructure, spending billions of funds, if the existing one can be used?

In case of successful unblocking of Trans-Balkan route:

- **There will be bi-directional route from Greek LNG and Turkey via Bulgaria and Romania to Ukraine and Moldova and further to the EU countries**
- **Already existing infrastructure will be utilized**
- **Additional security of supply for CESEC region will be ensured**
- **Offshore Romanian production companies will have another route for gas transportation.**

Infrastructural and legal framework

Memorandum of understanding on a

Joint approach and action plan to address bi-directional natural gas transportation via the Trans-Balkan pipelines to cope diversification and security of supply challenges

as part of the Central and South-Eastern European Gas Connectivity (CESEC) initiative

Sides:

DESFA S.A.

Bulgartransgaz EAD,

NGTC "TRANSGAZ" S.A.,

PJSC "Ukrtransgaz"

HAVING REGARD TO:

The five key interlinked and mutually reinforcing dimensions of the European Commission's Energy Union Communication on 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy' of 25 February 2015;

2016 – signed MoU between the TSOs of Greece, Bulgaria, Romania and Ukraine on Joint approach and action plan to address bi-directional natural gas transportation via the Trans-Balkan pipelines to cope diversification and security of supply challenges CESEC initiative**;**
2017 – separate Working Group for Trans-Balkan Initiative created by the DG ENER**;**
2018 – hydraulic simulation of physical reverse of 1.35 bcm per year conducted by the TSOs involved and ENTSOG**;**
21 Sept 2018 – next meeting of the Working Group, where Concept Paper for further steps of cooperation will be agreed and approved

Expected commissioning of two lines of Turkish Stream and TANAP can create surplus of gas in the region and underutilization of existing infrastructure of Trans-Balkan Pipeline.

Conclusions

- ✓ Firm commitment of all stakeholders regarding implementation of the project - key element to success

- ✓ Legacy transport contracts exist on the entire Bulgarian section of the Trans-Balkan pipeline until 31.12.2030 – so there is no way waiting till expiration of all contracts to unblock the route, solutions shall be found already now

- ✓ As a result of anti-trust investigation of DG Comp, Gazprom has commitments not to block the usage of the Trans-Balkan pipeline

- ✓ Phase approach to be followed – starting with T1, T2-3 on further stages

Thank you for your attention!

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