

Structural, Financial, Operational and Regulatory Issues Facing the Serbian Gas Sector

Energy Agency of Republic of Serbia Technical Department

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NARUC' Energy Regulatory Partnership Program

AERS – PA PUC 4rd Partnership Activity

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- Gas Sector Overview
- **Objectives of the 4th Partnership Activity**
- Current regulatory issues
 - Current state
 - Proposals for legal and operational improvement
 - Ideas and dilemmas for discussion
- Conclusions

Gas Sector Overview

- AERS responsibilities regarding regulation of current issues by the Energy Law
- Basic information
 - Natural gas sources
 - Consumption development
 - Gas network at the end of 2008
 - Market opening
 - Pan-European projects Development Options

National Legislation and Regulation

Document	Proposal	Adoption
Energy Law, adopted 2004	Ministry of	
General Conditions for Natural Gas Delivery	and Mining	Government
Transmission GC	TSO	AERS
Distribution GC	DSO	AERS
Pricing regulation		
Methodologies	AERS	AERS
Tariff Systems	AERS	Government

Legal improvement

- Amendments of Energy Law could be updated by Feb 2010
- Secondary legislation and regulation would be updated during 2010:
 - General Conditions for Natural Gas Delivery
 - Methodologies and Tariff Systems

Objectives of the 4th Partnership activity

- Analyses of elements needed for secondary legislation and regulatory function improvement
 - **Drafting of the relevant solutions**

Primary energy demand – 2008



The Serbian yearly needs of primary energy is app 15 M t oe.

In 2008, was imported:

Primary energy 44.3%

Gas 92%, from Russia

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Gas demand trends



Monthly Natural Gas Consumption in 2008



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Structure of natural gas consumption - 2008



Natural gas demand forecast (1)

Last demand forecast was published in 2000 and updated in 2004

Forecasted consumption hasn't been achieved since 2004 :

- significant changes of natural gas price,
- unfavorable parity of different energy source prices (electricity, fuel oil)
- general crisis, etc

Natural gas demand forecast (2)



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Natural Gas Systemat the end of 2008(1)1. Two Transmission Companies

- 1.1 Srbijagas state owned
 - One input point to Serbia, operating pressure 43 bar
 - Transmission lines length 2,140 km,
 - Transit to Bosnia and Herzegovina through the same lines, there is no separate line for transit
 - One compressor station 4,400 kW, near Belgrade
- **1.2 Yugorosgas** Joint Venture, owners from Russia, Austria and Serbia
 - Transmission lines length 68 km

Natural Gas System at the end of 2008 (2) 2. Underground gas storage Banatski Dvor

2.1 Ownership

- Srbijagas –state owned
- Joint Venture, 51% owner from Russia and 49% Srbijagas in 2009

2.2 Capacity

- I phase 400 million m3
- II phase 800 million
- I phase max. injection capacity 3.5 million m3 / day
- II phase max. production capacity 5 million m3 / day
- Injection 1 million m3 / day at the end of 2008
- Production 0.5 million m3 / day at the end of 2008

Natural Gas Systemat the end of 2008(2)

3. 37 Distribution Companies

- Pressure ≤ 16 bar
- Distribution pipeline total lenght 10,847km
- Total number of customers is 241,812
- Srbijagas' distribution system is the bigest one: 3,650 km of distribution pipelines, 66,622 customers, market share in retail market is 84% (72% of retailing on distribution level),
- Other 36 retailers have 16% of market share
- Different structures and poor efficiency necessity to decrease number of DisCos (annually consumptions per distribution in 2008 were from 123,524 m3 to 1,233,198,436 m3; number of employees from 7 to 438; number of consumers per employee – from 3 to 1226)



Natural Gas System map

Natural gas system schema



Market Opening

- 88% of market is open potentially
- Grid Codes are under preparation
- According to the Energy Law, initial eligibility threshold in 2004 was set by 50 million m³/ year (50% market opening)
- In 2008 the Council of the AERS passed a decision by which all non household customers could obtain eligibility, regardless of annual consumption, and went further than the requirements imposed by the Treaty establishing the Energy Community
- According to this eligibility threshold, the market is 88% potentially open
- Only one natural gas customer has the status of an eligible customer, but a few are interested

Pan-European Projects relevant to Serbia

- Nabucco Project
- South Stream Project



South Stream



Regulatory issues

- Current state
- Legislation framework
- Improvement proposals
 - Energy Law
 - Secondary Legislation
 - AERS' documents
 - Ideas and dilemmas for discussion

Current regulatory issues

- General
 - Regulatory period (currently one year)
 - Transparency
- Grid Code
 - Capacity Allocation Mechanism (CAM)
 - Congestion management Procedures (CMP)
 - Balancing
 - Pricing regulation
 - Customer groups
 - Capacity charge
 - Interruptible services
 - Correction factor (based on differences between forecasted and actual cost/ quantities data)

Capacity Allocation Mechanism (CAM) & Congestion management Procedures (CMP)

CAM & CMP - Legal framework

- Serbian Energy Law
 - Determines TSO obligation to allow the TPA to system on the principles of openness and non-discrimination
 - Sets the procedure which assures the legal protection to third parties if TPA access is denied
 - Procedure for CAM & CMP is not defined
- Serbia obligated to implement Regulation (EC) No 1775/2005
 - Conditions for access to the natural gas transmission networks
 - Article 5 Principles CAM & CMP and Annex 2
- Commission of European Communities
 - Working document on CAM & CMP Regulation 1775
 - Explanatory comments with a view to ensuring consistent application

CAM & CMP - Scheme



CMP - contractual congestion

Contractual capacity unused

- Network user can sell their unused contracted capacity on the secondary market use it or SELL it (UIOSI)
- TSO can identify unused capacity with sufficient reliability using historical flows
- TSO can offer unused contracted capacity on the primary market, as long as this capacity is not offered by the relevant network user on the secondary market at a reasonable price **use it or LOSE it (UIOLI)**
- TSO can offer unused capacity on an interruptible basis of different duration, minimum day ahead
- Revenue from released interruptible capacity shall be split according to rules approved by the Regulatory Authority
- TSO shall make reasonable endeavors to offer at least parts of unused capacity to the market as firm capacity (where capacity has not been used for a long time)

CMP - Scheme



CAM & CMP Current state and obstacles



Current state

- Physical congestion on transmission entry point in peak periods
- One company supply on wholesale level
 - Only one eligible customer, but the same supplier
 - PE Srbijagas trader on free market instead PE Srbijagas retailer
- No mechanisms for capacity allocation and congestion management defined in legal act
- Tariff system for transmission should be changed to allow:
 - Capacity offer with different contract duration (e.g. short-term service)
 - Interruptible capacity
 - Secondary trade with capacity

Physical congestion in peak period

- Domestic natural gas production capacity 0.5 mcm/day
- Underground gas storage (UGS) Banatski Dvor production capacity 0.5 mcm/day
- Only one entry point for natural gas import
- Physical limit on border Ukraine Hungary
 - 42 mcm/day max capacity(30.5 for Hungary, 10 for Serbia and 1.5 B&H)
- Physical limit on border Hungary Serbia
 - 12.5 mcm/day max capacity (11 for Serbia and 1.5 B&H)
- Off Peak periods
 - a lot of free capacity

Import entry capacity

Defined with long - term contract between Hungarian TSO and **PE Srbijagas (1998-2017)**

- Contracted capacity = 1,1 x Qyear / 365 •
 - Ship or pay obligations
 - Qyear should be nominated 5 years in advance
 - Q2009 = 2,45 bcm, Q maxd = 7.38 mcm/day
 - Q2010 = 2,5 bcm, Q maxd = 7.53 mcm/day
- Guarantee capacity up to 10 mcm/day
 - higher price than contracted capacity
 - should be nomated in april for next year in monthly breakdown
- Additional capacity up to 11 mcm/day
 - sources: Austrian-Hungarian border, UGS in HU, production in HU
 - natural gas bougth from production in Hungary during the winter seasons 2006/2007 and 2007/2008

Expansion of entry capacity

- Increase withdrawal capacity in UGS B. Dvor to 5 mcm/day
 - Security of supply become Goverment priority after gas crises in 2009
 - Necessary investments: new production line, additional wells should be equiped, cushion gas injection, new compressors for injection, pipeline from UGS to TS
 - Increases in withdrawal are feasible in winter 2010/2011
- Capacity on import entry-point with Hungary is limited
 - Increase of capacity on border Ukraine Hungary in 2009
- Connection to new Pan-European project
 - not before 2015

CAM & CMP Implementation proposal and open issues

CAM – proposals (1)

- Legal framework modification
 - Network user define capacity for next year
 - Charge for overrun capacity
 - Secondary capacity trade
 - Interruptible capacity
- TSO publish capacity on exit points before September, 1
 - Capacity is defined using hydraulic test
 - Max. daily consumption in last 3 years
- Network users applied for capacity before September, 20
 - Firm and interruptible capacity for relevant points all entry and exit points
 - Argument which ensure quantity and capacity on entry points
 - Finance instruments which guarantee payment for network usage
 - Prove that customer want to become eligible (all except wholesaler)

CAM – proposals (2)

- TSO open request for capacity October,1
 - All network users which applied are present during the process
 - TSO check request correctness
 - TSO reject all incorrect request
- More than one network users applied for the same customer
 - Procedure which defined who has priority
 - Capacity for all customers all calculate only one, decreasing capacity to network user who has less priority
- TSO define real requests for capacity
- Requests for firm capacity are less than available capacity,
 - Capacity is allocated according to requests
- Requests for firm capacity are more than available capacity,
 - Capacity is allocated according to the procedure
CAM – proposals (3)

- System operator has first priority
 - for own consumption
 - for system balancing
- Wholesale trader has second priority
 - in case when has sign, before this procedure, long-term contract with "take or pay" or/and "ship or pay" obligations which can cause serious financial problems
- Rest capacity is allocate "pro-rata"
 - Neighboring countries had bed experience with "first come first serve"
 - Auctions results with different capacity charges
- Natural gas traders can give up from their request
 - In case when allocated capacity is not enough for their customers
 - Wholesale supplier is responsible for these customers

CAM – proposals (4)

- Network users can request for interruptible capacity
 - For difference between requested and allocated firm capacity
 - Deadline for new request is October, 15
- TSO inform network users about allocated capacity
 - Written information
 - Deadline October,20
- Network users have right to appeal to AERS
 - In case when their request for capacity was all or partly rejected
 - Deadline November, 1
- AERS make final decision about appeal
 - Decision is obligatory for TSO and network users
 - Deadline November, 15

CAM - Open issues for discussion

- Calculation of available transport capacity when some exit point have no meters with daily log?
- Whether the TSO has an obligation to offer interruptible capacity in case when demands are below technical capacity ?
- Capacity allocation in case of physical congestion -AERS proposal or some other model?
- Examine the possibility that TSO be the owner of upstream capacity instead of wholesale supplier, to avoid ship or pay obligations ?
- Which level of finance instruments guarantee payment for capacity?

CMP - Open issues for discussion

Contractual congestion and capacity trade on primary market

- Shall TSO offer unused capacity at least on a day ahead and interruptible basis ?
- Would you recommend price for interruptible capacity?
- Do you have suggestions how to define a transparent and nondiscriminatory mechanism for interruption ?
- Would you suggest allocation procedure for interruptible capacity, in case of unused contracted capacity e.g. first come first used, pro rata, auction ?
- Divide the revenue from interruptible capacity between TSO and network users?

Contractual congestion and capacity trade on secondary market

- TSO role on secondary market, new contract with new network user or TSO have contract with old user who only inform TSO about new user ?
- Regulatory Authority role on secondary market, specially about control and recommendation capacity price ?

Balancing



Legal framework

- Serbian Energy Law
 - TSO obligation to balance input and off-take from transmission system
 - TSO obligation to adopt Grid Code and, after approval of the AERS, publish in Official Gazette
- Serbia was obligated to implement Regulation (EC) 1775/2005
 - Conditions for access to the natural gas transmission networks
 - Article 7 Balancing rules and imbalance charges
- European Regulators Group for Electricity and Gas (ERGEG) issued GGPGB in 2006
 - Guidelines for Good Practices for Gas Balancing (GGPGB)
 - Guidelines for TSO and Regulatory authority regarding balancing mechanisms design are under preparation
 - GGPGB are not legally binding

Regulations 1775/2005 & GGPGB (1)

- To ensure effective market access for all market players
 - Non-discriminatory
 - Cost reflective balancing mechanism
- Regulator role in absence of liquid market is to ensure:
 - Appropriate incentives to balance input and off-take
 - Not to endanger system

Balancing rules:

- "Fair, non-discriminatory and transparent"
- Tariff system or methodologies fixed or approved by Regulator
- Cost reflectivity and publication
- TSO to procure energy according to market based procedures
- Objective criteria
- Reflect system needs
- Resources available

Regulations 1775/2005 & GGPGB (2)

- In case of non-market based balancing:
 - Tolerance levels to reflect seasonality
 - Reflect actual technical capabilities
 - Resources available
- Balancing period
 - Input and off take of gas to be balanced in this period
 - EGREG GGPGB day is preferred

Imbalance charges:

- Cost reflective to extent possible
- Provide appropriate incentives to balance
- Avoid cross-subsidization
- Not hamper entry of new market entrants
- Methodology/final tariffs for imbalance charges public

Regulations 1775/2005 & GGPGB (3)

- TSO may impose balancing penalty charges
 - Penalties exceeding actual balancing costs to be considered
 - Tariffs must not reduce interest in balancing
- User to take timely corrective action:
 - TSO to provide sufficient well time on line based information
 - Same information level for TSO and user
 - If charges for information approval of competent authority
 - *Not* hamper entry of new market entrants
- TSO to streamline structure and levels of balancing charges
- Market based balancing:
 - It is not subject of interest because it is not possible in Serbia

Balancing Current state and obstacles

Current state

Current balancing practice

- 1 wholesale supplier (the same company as TSO, separate accounts)
- Large customers have sent nominations to TSO
- TSO balancing system with re-nomination for import gas
- Interrupt customers supply in case when demand exceed sources
- No imbalance charges
- Balancing costs pay all customers through wholesale price

• Limited tolerance level

- All entry points are in the north part of transmission system, one import entry point covers more than 90% of all demand
- Axial transmission system
- No compressor stations for domestic transmissions (only one on transit line)
- Limited line-pack (contracting pressure for import is less than max. working pressure)
- Limited capacity from UGS

Implementation obstacles

- Problems with inadequate metering equipment
 - Some exit points without metering equipment with data logger
 - Some exit points are not connected to SCADA system
 - Allocation procedure on entry and exit points (especially for different suppliers on distribution level)
- Other open questions
 - TSO quantity and capacity for balancing purpose
 - TSO buy balancing gas procedure
 - Tolerance level and tolerance service
 - Imbalance charges
 - Balancing groups
 - Settlement

Balancing Implementation proposal and open issues

Quantity and capacity of TSO for balancing

• Quantity for balancing purpose

- It is connected with allowed tolerance level
- Max. 2% yearly quantity in last 3 years when allowed imbalance free of charges is 2%
- 80% TSO quantity can be stored in UGS

Capacity for balancing purpose

- It is connected with allowed tolerance level
- Max. 2% of max. daily quantity in last 3 years on import entry point
- And max. 3% of max. daily quantity in last 3 years on UGS entry point

TSO Procedure for buying balancing gas

- In advance public tender
- Best offer without tender
- Price formula wholesale price TSO propose price and Regulator approve every month

Balancing gas price (BGP)

• sum of gas cost and Underground Gas Storage (UGS) usage cost 50

Tolerance level proposal

• Balancing period – one day

- One hour, even with higher tolerance level, can hamper the entry of new market entrance
- One day GGPGB recommendation
- TSO can use line-pack to balance difference between intake and off-take during the day

• Balancing tolerance level

- 2% in winter season due to limited TSO resources
- It can be higher in the summer, for example 4%
- TSO additional service higher tolerance level, price should be defined
- Open issue about exit points without daily meters
- Balancing group treatment
- Liability-tolerance level depends on max. daily quantity
 - More quantity, lower tolerance level -privileged positions for small traders
 - Quantity less than 5% whole TSO capacity tolerance level 6%
 - Quantity between 5%-10% whole TSO capacity tolerance level 4%
 - Quantity more than 10% whole TSO capacity tolerance level 2% 51

Imbalance charges proposal

- No imbalance charges for daily imbalance less than 2%
 - Q entry > Q exit TSO purchase gas from trader
 - Q exit > Q entry trader purchase gas from TSO
 - Price = BGP
 - Gas purchasing between TSO and traders would be after final cumulative monthly settlement
- Daily difference between entry and exit quantity more than 2%
 - TSO Price = 0,8 x BGP when TSO purchase gas from trader
 - Trader Price = 1,2 x BGP when trader purchase gas from TSO
- Possible solutions price depends on entry-exit difference(%)
 - TSO Price = 0.9xBGP (2%-4%); 0.8x BGP (4%-6%); 0.7xBGP (6%-8%)
 - Trader Price =1.1xBGP (2%-4%); 1.2x BGP (4%-6%); 1.3xBGP (6%-8%)
- Scheduling charges difference between nomination and flow
 - To avoid traders incorrect information to TSO
 - Define tolerance level, for example more than 5%
 - Fee for scheduling charges should be defined

Proposal for quantity allocation

• Proposal for allocation on entry point

- One network user books more than 80% of capacity "n-1" principle, in other cases "pro-rata" according to nomination
- "n-1" principle because of simplicity and marginal difference between nominations and real flow

• Proposal for allocation on exit points with more than one user

- Eligible consumers according to daily metering values traders on free market; captive consumers as difference between allocated and daily metered quantity – wholesale supplier
- When eligible customer have no meters with log, allocation is "prorata" according to nomination
- TSO has obligations to install meters with log to all customers in next two years
- DSO has obligations to install meters with log to all customers with consumption more than 500 m³/hour in next three years

Proposal for time table and reconcilition

- Time table for allocation
 - TSO should send quantity measured on exit point to DSO and network users 2 hours after gas day
 - DSO should allocate daily quantity and send to TSO and network users 4 hours after gas day
 - If DSO fail to send allocation, TSO should allocate quantity on a "prorata" according to nomination
 - Transitional provision for exit points no meters with log

Reconciliation

- TSO should send to DSO final daily quantity from exit points based on the measurement data read from data log, 5 days after month end
- DSO should send to TSO and network users final daily allocation based on the measurement data read from data log, 10 days after month end
- TSO should send final settlement to network users, 15 days after month end

Open issue for discussion (1)

- Define TSO quantity and capacity for balancing purpose
 - Yearly quantity and quantity in UGS
 - Yearly capacity on transmission system and capacity in UGS
- Define procedure for buying balancing gas
- Tolerance level for imbalance free of charge
 - Can tolerance level be different as a function of parts of year ?
 - Can tolerance level be different as a function of max. daily quantity ?
- Price setting for higher tolerance level
- Imbalance charges different types and price levels
- Scheduling charges tolerance level and price level

Open issue for discussion (2)

- Balancing group (BG) organization and work
 - Who should organize balancing group, who to collect data, who to prepare the invoicing , who should be control entity ?
 - Should all exit points without daily meters be treated as 1 exit points (Q exit = Q entry Q with daily meters Δ line-pack)
 - Can balancing group quantity be treated as a one entry and exit
 - Load profiling which data is necessary, who propose different customers groups, profiling update ...

• Possible imbalance case

- All traders requiring less gas than delivering to the system, except for one who is requiring more gas than delivering to the system whereby accidentally helping the TSO in balancing
- Should the relevant trader pay for the imbalance caused even though contributing to the system balancing, or
- should he pay only when adding to the overall imbalance
- Final monthly settlement can we see example
 - Data sheet with balancing quantity which TSO sell and purchase from traders, imbalance charges

Pricing regulation

Methodologies Tariff systems & Tariff elements

Pricing Regulation Current state and obstacles

Methodologies and Tariff systems (1) AERS' Documents

In August 2006

3 pricing methodologies for :

- access to and use of system for natural gas transport
- access to and use of system for natural gas distribution
- natural gas for captive customers

In December 2006

3 Tariff systems relating to natural gas for:

- access to and use of transport system
- access to and use of distribution system
- pricing natural gas to captive buyers

In February 2007 and May 2008

Natural gas transport and distribution connection charging methodology

Pricing setting procedure

- Methodologies and tariffs systems determine the way for natural gas pricing calculation, and are legally binding acts for T/D Companies which are obliged to calculate their prices in accordance with those acts
- T/D Companies propose prices and seek an opinion from the AERS
- The AERS gives opinion on that calculation only whether they are calculated in accordance with the methodologies, not on the level of the calculated prices,
- Act on prices together with the AERS opinion must be submitted to the Government for approval, and after that they should enter in force

Pricing Methodologies and Tariff Systems

- Methodologies define the maximum allowed revenue of T/D companies and how it must be calculated as well as tariff elements
- Methodologies are based on the "cost plus" ("rate of return") method of regulation
- Maximum allowed revenue provides the coverage of justified operating costs, as well as the return on the assets employed (in case of network)
- Duration of the regulatory period is one year (beginning from 1 January 2007)
- Precondition for methodologies implementation: account unbundling in accordance with energy and other activities, under the Energy Law

Methodologies and Tariff systems (2) Consumption groups

Categories of buyers	Groups of customers	Consumption 2008. (m ³)
		1.456.455.583
"Category 1" (p < 6 bar)	"Households"	309.393.425
	"Other buyers"	116.907.960
"Category 2" (6 ≤ p < 16 bar)	"District heating systems"	466.253.316
	"Uniform consumption" (Q < 70% of consumption 01.1001.04.)	281.950.441
	"Uneven consumption" (Q ≥ 70% of consumption 01.1001.04.)	281.950.441

Methodologies, Tariff systems & Tariff elements

- Tariff elements are presented in tariff rates
- Tariff elements for distribution are:
 - 1) "commodity" (m³ /h) total natural gas quantity distributed annually
 - 2) "capacity" (dinars/ m³ /day/year) sum of maximum daily consumption that is measured and/or calculated based on maximum measured monthly consumption at the location in the previous year, on the day increased for 20%.
 - We don't have profiles of consumptions for different groups of customers, and have to check this <u>20</u>% increase, especially for households.

(The other customers should reserve requested capacity)*.

*PA PUC's suggestion for this issue would be welcomed.

Tariff elements - allocation

- Methodologies also define tariff elements and way of calculation physical values which should be allocated to tariff elements as well as ratio of allocation
- Tariff elements (physical values):

Distribution: "commodity" (m³) and "capacity" (m³/day/year) (70% "commodity" : 30% "capacity")

Retail: "commodity" (m³), "capacity" (m³/day/year) and "delivery point" (total number of the delivery points)

Pricing Methodologies Maximally allowed revenue (1)

Transportation and distribution:

 $MAR_t = OC_t + D_t + WACC \times RAB_t - OR_t + KF_t$

- TSO and DSO: $MAR_t = OC_t + D_t + WACC \times RAB_t - OR_t + L_t + KF_t$
- Wholesale:

 $MAR_{t} = OC_{t} + D_{t} + NGP_{t} + TC_{t} + SC_{t} + RCR_{t} + KF_{t}$

• Retail:

 $MAR_{t} = OC_{t} + D_{t} + NGP_{t} + DC_{t} + RCR_{t} + KF_{t}$

Pricing Methodologies Maximum allowed revenue (2)

Notions:

t	- Regulatory period
OC _t	- Operating costs: material costs, costs of salaries, production services costs and non-material costs
D _t	- Depreciation costs
WACC	- Weighted average cost of capital (real, pre tax)
RAB _t	- Regulatory asset base: intangible assets, real estates, facilities and equipment, excluding capital contributions (grants, assets acquired from building connections, etc.)
ORt	- Other revenues: other revenues earned by employing RAB (revenues from transit, revenues earned through selling assets, etc.)
KFt	- Correction factor
Lt	- Losses
NGP _t	- Costs of natural gas procurement
TC _t	- Costs of using the natural gas transport system
SC _t	- Costs of using the natural gas storage system
RCR _t	- Receivables collection risk (max. Wholesale 0,3%, Retail 2,0%) 66
DC,	- Costs of using the natural gas distribution system

Pricing regulation Open issues

Customers groups – Criteria (1)

"Category 1" (p < 6 bar):

1. "Households"

- 2. "Other buyers" all customers except households
 - very different characteristics of consumption,
 - hourly consumption between $1.2m^3/h 12,000 m^3/h$).

Open issue for discussion PA PUC's opinion would be welcomed. What criteria to use to determine customer groups?

Customers groups – Criteria (2)

"Category 2" (6 ≤ p < 16 bar)

- "District heating systems" (the same type of customers exsist in "category 1" in group "other buyers") *
- "Uniform consumption" (system users who in the period from October 01 of the previous year to April 01 of the current year consume less than 70% of the total volume of natural gas, whereas the year is from October 01 of the previous year to October 01 of the current year.
- "Uneven consumption" ($Q \ge 70\%$ of consumption 01.10.-01.04.)

There are customers in this group with a peak demand in September and October. These customers affect that the coincidence factor of the whole group is in October instead of December. As result customers of this group pay lower the use of distribution network charge than for customers from "Uniform consumption" group.

In order to improve existing tariff system, it is planned for Category 2 customers to reserve requested capacities. *

*PA PUC's opinion would be welcomed.

Distribution Code

Distribution Code

According to the Energy Law, Art. 134, Distribution network code particularly contains:

- technical requirements for connection to the distribution system
- technical requirements for connection to the transmission system
- technical and other conditions for safety operation of the system and for providing secure and continuous supply of natural gas to customers
- procedures for emergency situations
- TPA to the distribution system rules
- functional requirements and accuracy class of measuring devices
- manner of measuring natural gas
- etc.

Issues:

- to many 37 distribution companies
- Missing commercial rules



Thank you for your attention!

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