

***New York State Public Service Commission (NYS PSC) &  
Croatian Energy Regulatory Agency (CERA)***

*Zagreb, Croatia, June 26-29, 2007*



# Tariff Methodologies in Natural Gas

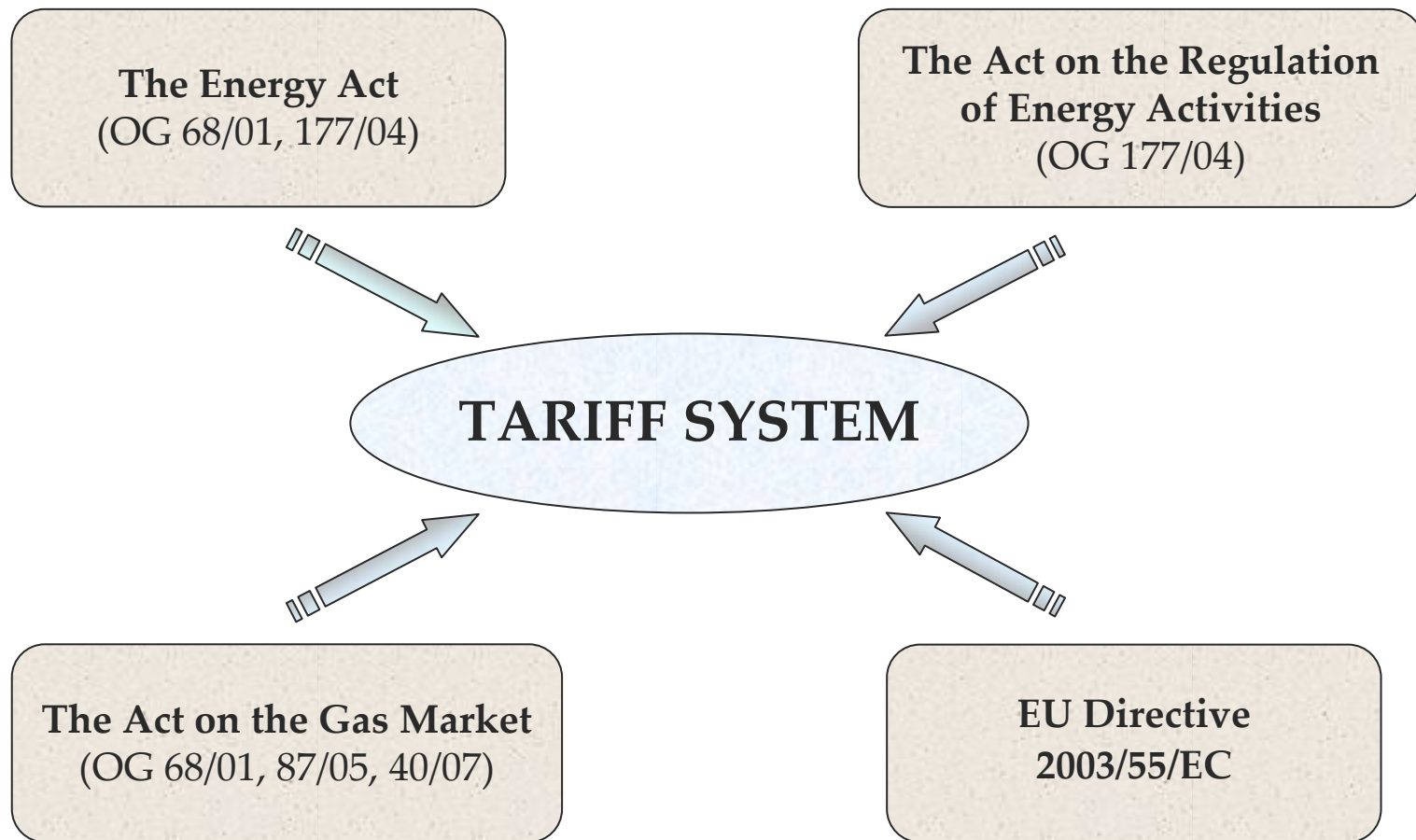
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# Legal framework



# Tariff systems in natural gas

- Tariff System for Provision of Natural Gas for Tariff Customers (Official Gazette 99/02)
- Tariff system for Natural Gas Transport (Official Gazette 32/06, 03/07)
- Tariff system for Natural Gas Distribution (Official Gazette 34/07, 47/07)
- Tariff system for Natural Gas Supply for Tariff Customers (Official Gazette, 34/07, 47/07)

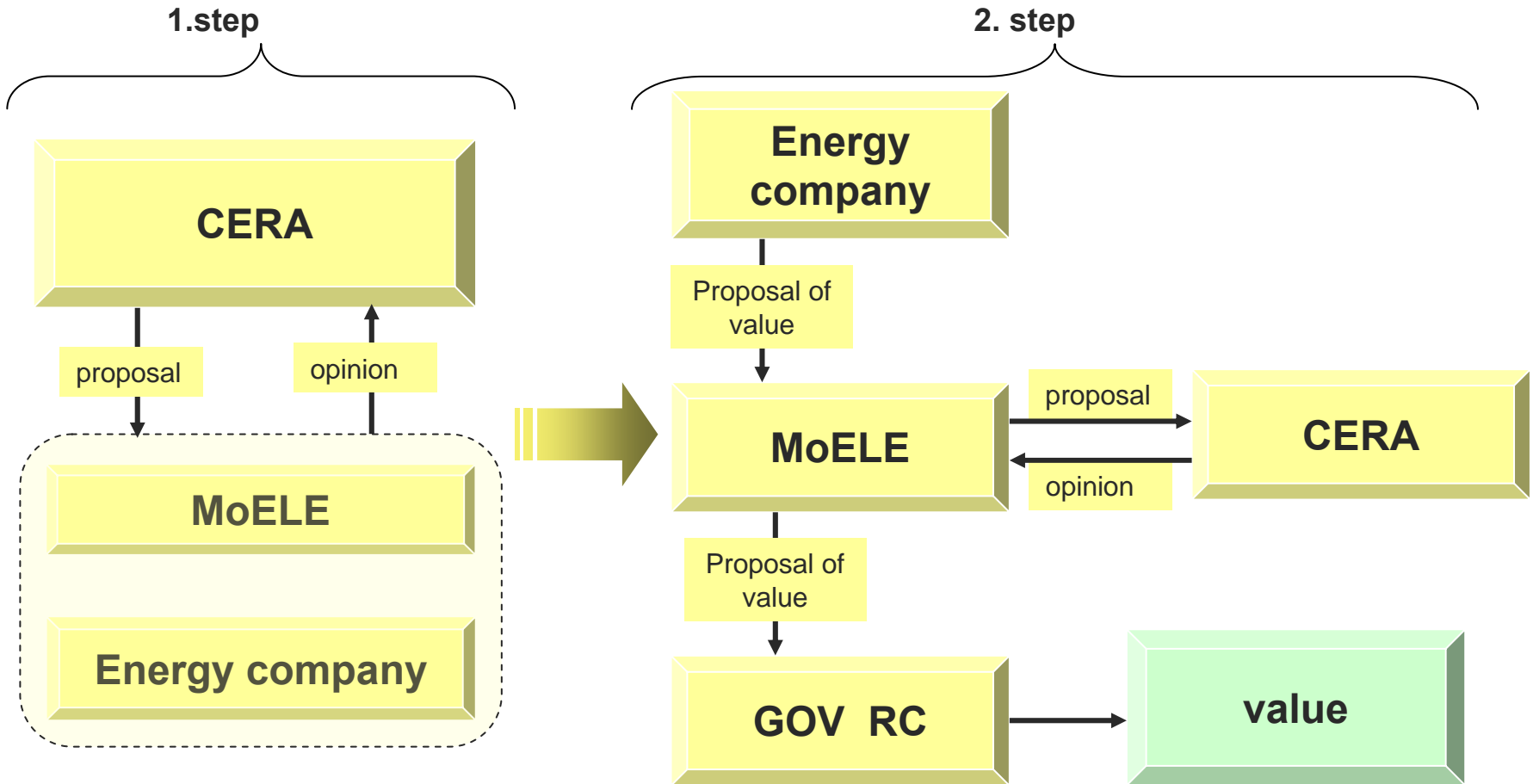


# Tariff System for Provision of Natural Gas for Tariff Customers

- Tariff system defines the wholesale supply price of natural gas  $\longrightarrow$  1,07 kn/m<sup>3</sup> (4,37 EUR/GJ)
  - With coming into force of the new Act on the Gas Market this Tariff system ceases to have effect
- $\downarrow$
- Wholesale supply price is determined by "Decision for setting the price of natural gas for wholesale suppliers of suppliers of tariff customers" that is, on the proposal of the Ministry of Economy, adopted by Croatian Government (deadline for adoption – 26.10.2007.)

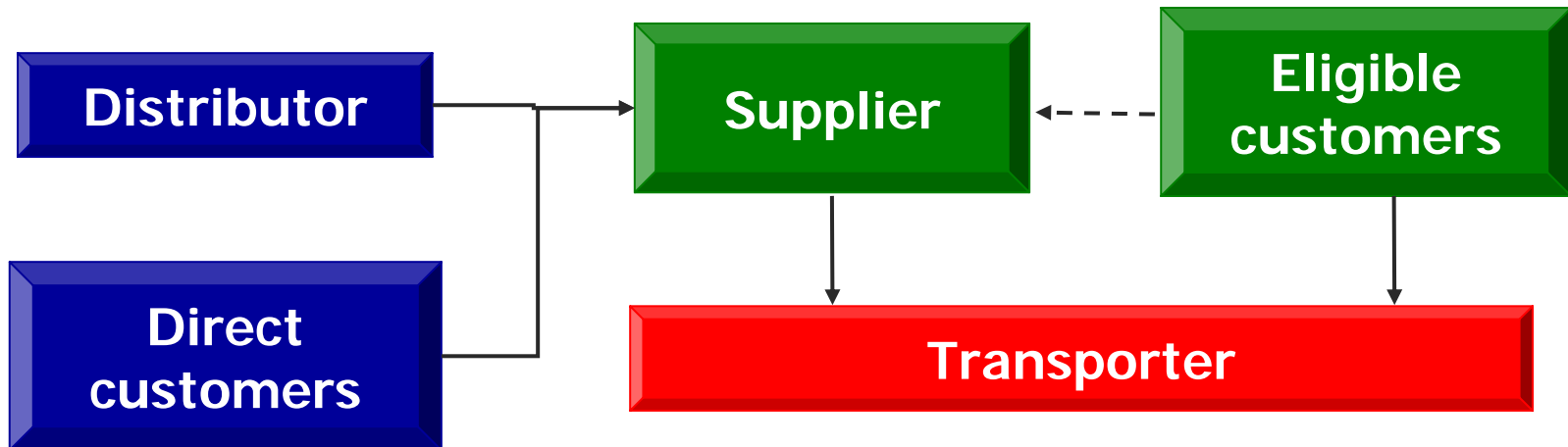


# Tariff system (with the exception of TS for provision of NG)



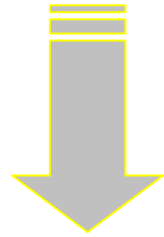
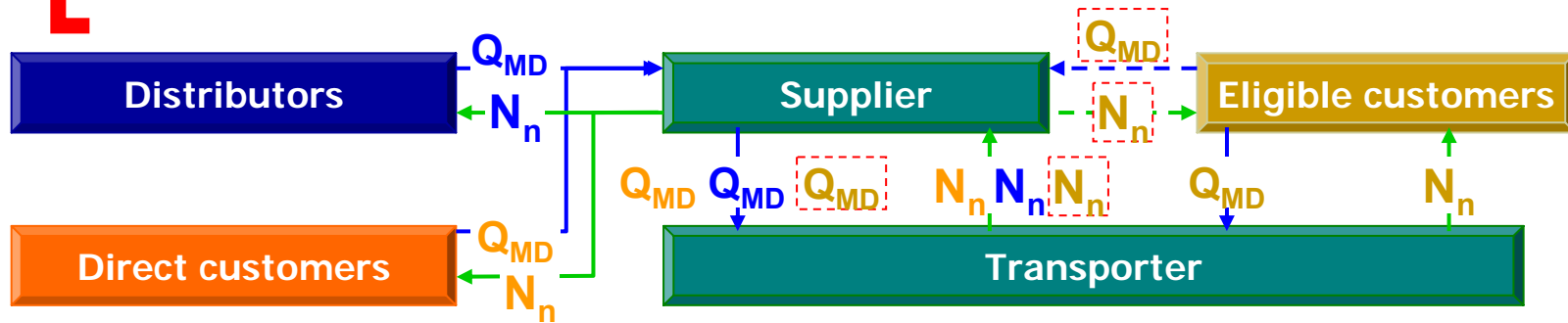
# Tariff system for Natural Gas Transport

- **REGULATION METHOD** → based on revenue cap regulation of an energy co. carrying out the energy activity of nat. gas transport
- **TARIFF ITEMS** equal for all gas pipeline transport system users  
→ determined according to the “post stamp” principle → everybody, depending on the reserved transport capacities, bears that part of costs that reserving of such capacity causes on the gas pipeline transport system.

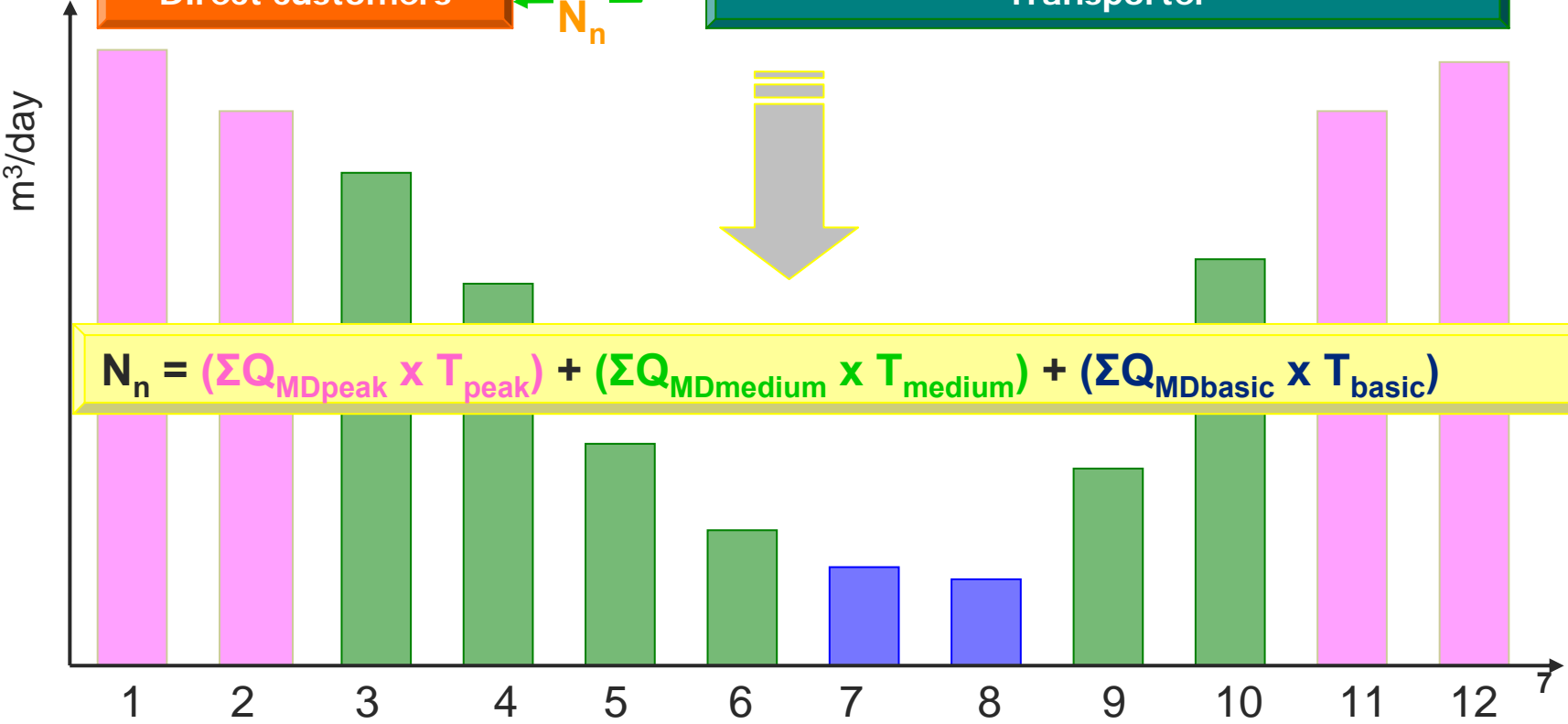


# Tariff system for Natural Gas Transport

- charge for transport system usage



$$N_n = (\sum Q_{MDpeak} \times T_{peak}) + (\sum Q_{MDmedium} \times T_{medium}) + (\sum Q_{MDbasic} \times T_{basic})$$



# Tariff system for Nat. Gas Transport– approved tariff items' amounts for 2006

- **peak** load months

(January, February, November, December)

$$T_{\text{peak}} = 3,463 \text{ kuna / m}^3 \text{ / day}$$

- **medium** load months

(March, April, May, June, September, October)

$$T_{\text{medium}} = 2,886 \text{ kuna / m}^3 \text{ / day}$$

- **basic** load months

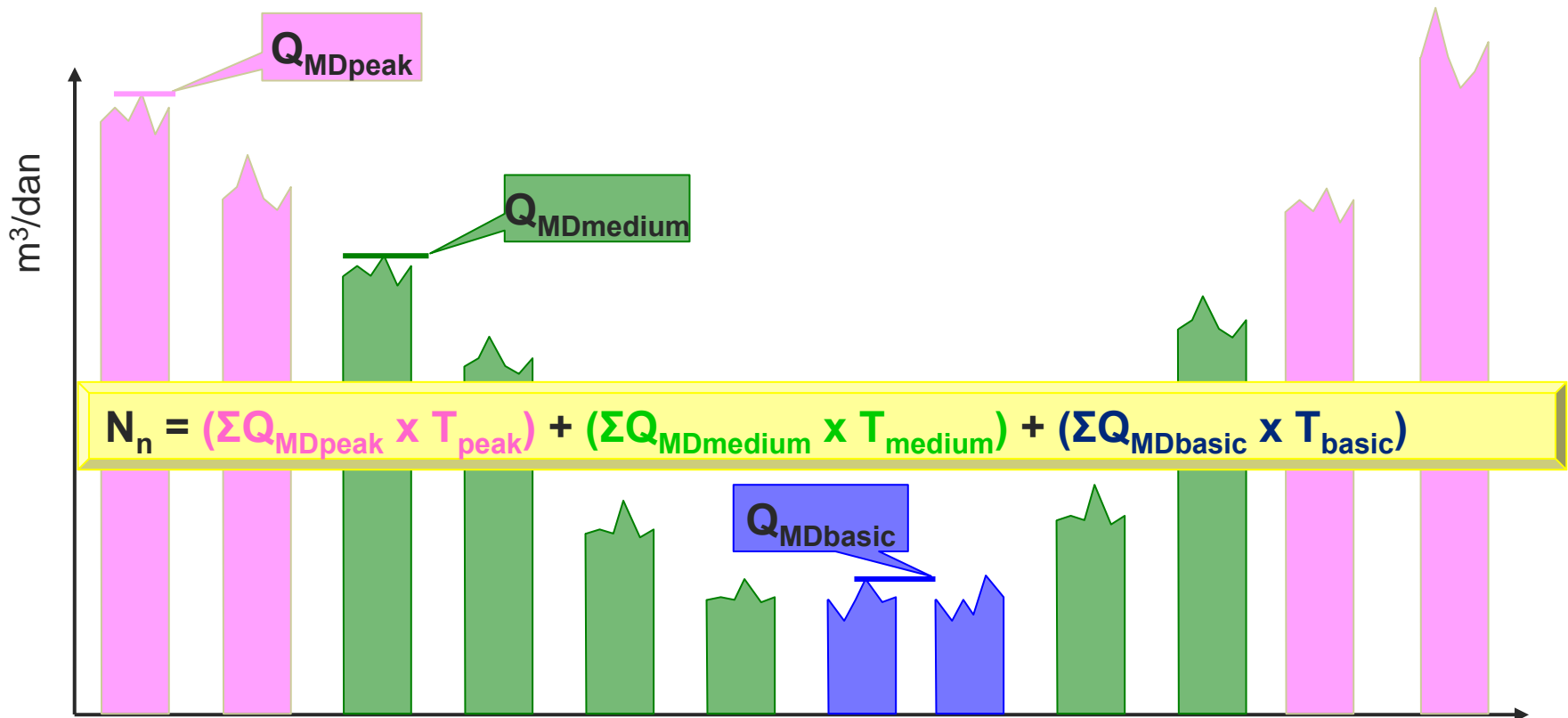
(July, August )

$$T_{\text{basic}} = 1,731 \text{ kuna / m}^3 \text{ / day}$$



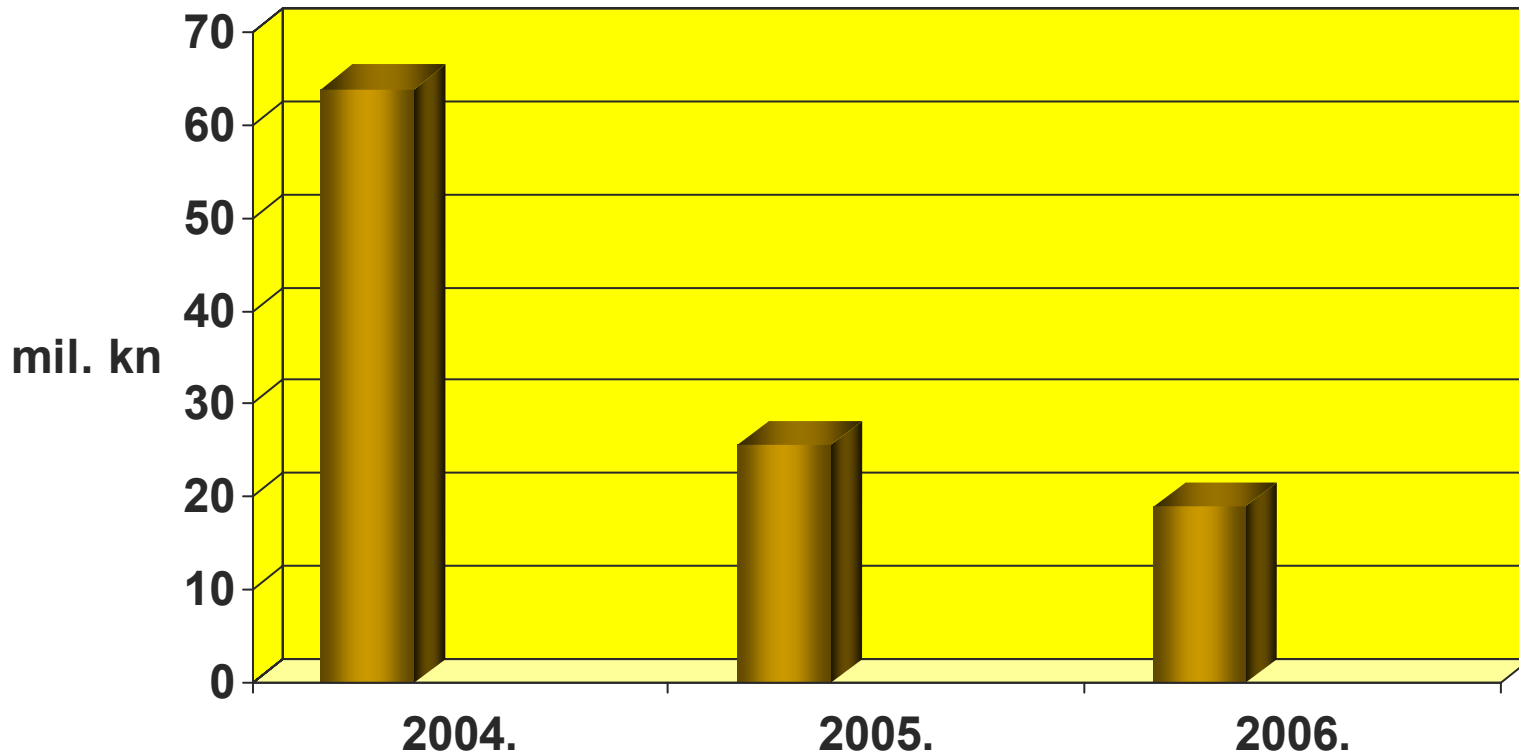
# Tariff system for Natural Gas Transport

- Transporter carries out the final settlement of accounts for each user until Jan 31 of the next year at the latest



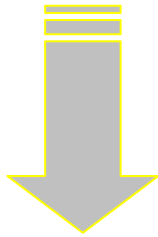
# Tariff system for Natural Gas Transport

- The difference between the already charged amount and the final charge for usage of the gas pipeline transport system

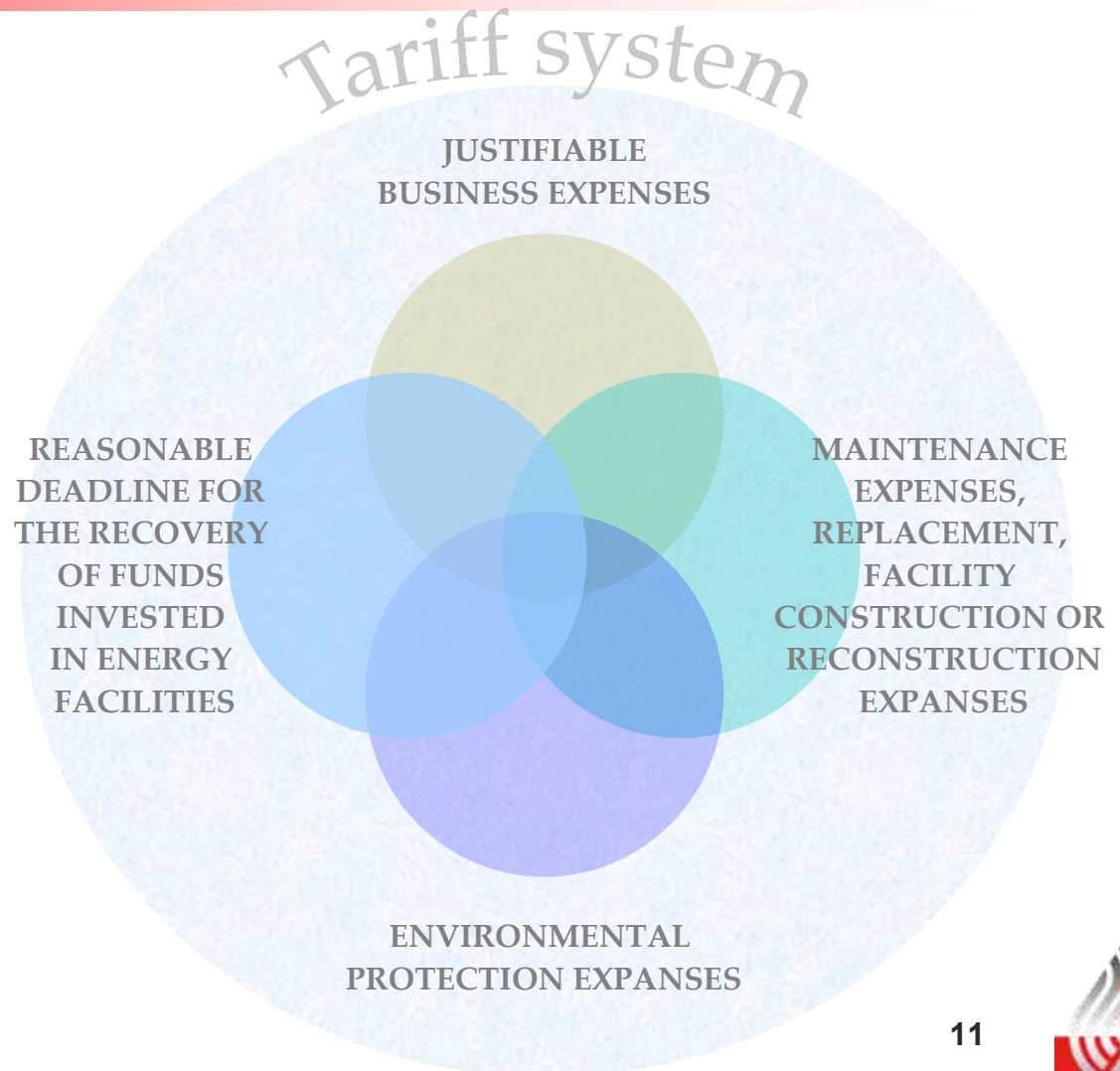


# Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

REGULATION  
METHOD



COST PLUS  
METHOD



# Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

**TARIFF ITEMS** are:

- unit price of delivered quantity of natural gas (**Ts1**)
- fixed monthly fee (**Ts2**) allocated to covering a part of fixed expenses of distribution/supply of natural gas to tariff customers

## DISTRIBUTION

- ✓ meter reading
- ✓ calibration
- ✓ other related costs



## SUPPLY

- ✓ accounting
- ✓ other related costs



# Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

## ➤ Calculation of expected total profit

$$UP = \sum_{i=1}^m Q_i Ts1_i + N_i Ts2_i$$

Where is:

UP - expected total profit,

m - number of tariff models,

$Q_i$  - estimated annual quantity of natural gas distributed to users/delivered to tariff customers of certain tariff model,

$Ts1_i$  - unit price of distributed/delivered quantity of natural gas in individual tariff model,

$Ts2_i$  - fixed monthly fee of individual tariff model.

$$N_i = \sum_{j=1}^{12} n_j$$

Where is:

$n_j$  - estimated number of users/tariff customers of individual tariff model in individual month of the regulatory year



## Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

*DP - gas distributor's/supplier's licit profit*

$$\mathbf{DP = T + TNP^* + A + RS}$$

\*applying in TS for n.g. supply only

T - amount used for covering business operating costs

TNP - amount used for covering costs of natural gas procurement, including costs of provision, storage, transport and distribution of natural gas

A - amortization of regulated assets

RS - return on regulated assets



## Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

- Distributor/supplier is obliged to propose the rate of tariff items based on the clear and founded calculation, if the expected total profit **UP** for the regulatory year  $t$ , calculated on the basis of proposed tariff items, does **not exceed** the amount of licit profit **DP** for the regulatory year  $t$

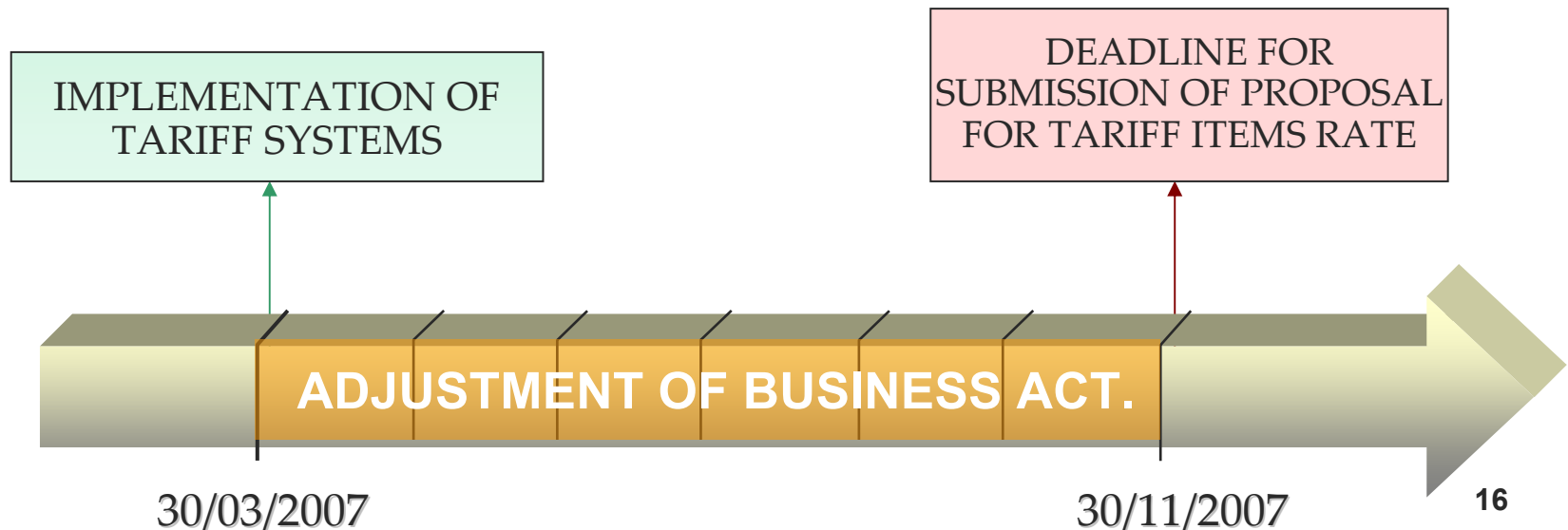
$$UP \leq DP$$



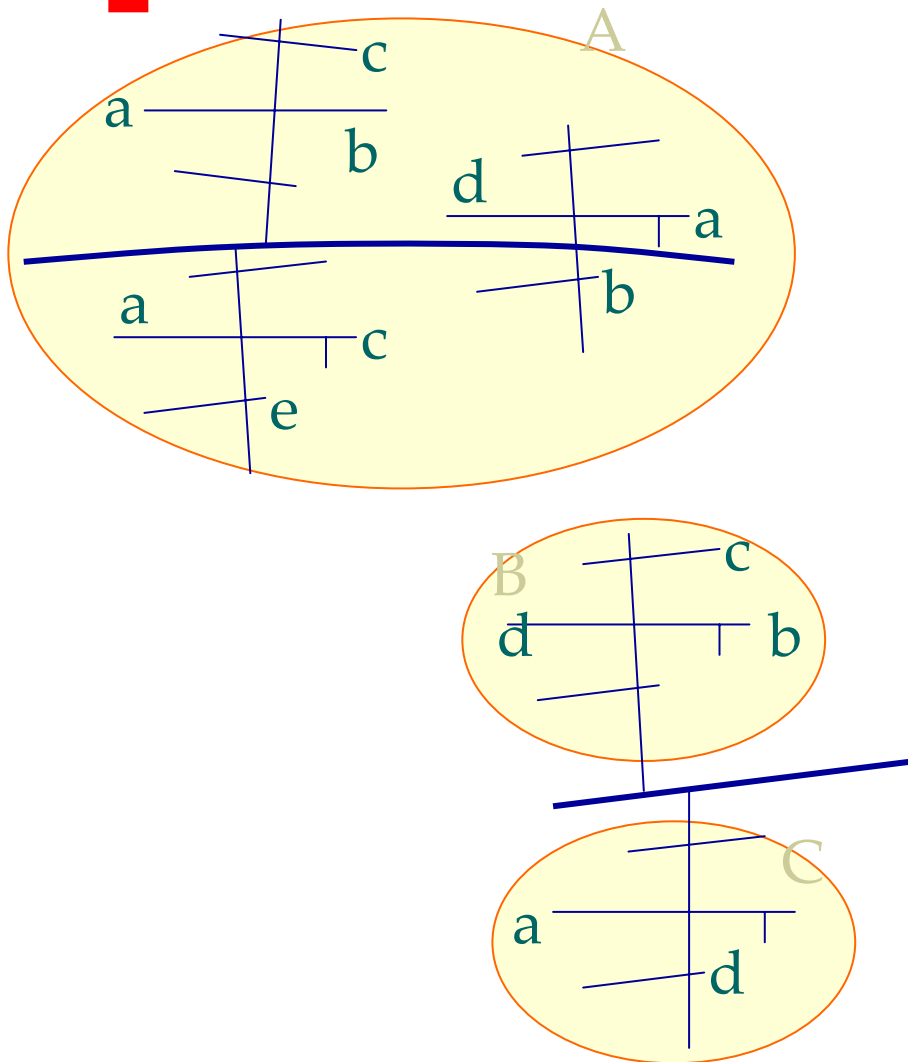
# Tariff system for Natural Gas **Distribution** and Tariff system for Natural Gas **Supply** for Tariff Customers

*Submission of proposal for changes of tariff items rate:*

- On exceptional basis, proposal for tariff item rate for natural gas supply shall be submitted at the same time as the first proposal for tariff item rate for natural gas distribution
- All gas distributors/suppliers have to submit a proposal on tariff item rate for natural gas distribution/supply within **8 months** from the date of tariff systems entering into force at the latest



# Specificity of Tariff system for Natural Gas Distribution



a, b, c, d, e  
users of the same tariff  
group and tariff model



different distribution  
route distances



$Ts_a = Ts_b = Ts_c = Ts_d = Ts_e$   
(POST STAMP METHOD)

$Ts_A = Ts_B = Ts_C$



A, B, C  
distribution areas



# Expected changes of the legislation

## New Act on Gas Market

- The Rulebook on the Natural Gas Market Organisation – first adoption
- General Conditions for Gas Supply – first adoption
- Grid Code for Natural Gas Transportation – amendments
- Grid Code for Natural Gas Distribution – first adoption
- The Decree on Security of Natural Gas Supply – first adoption
- **Tariff System for Storage of Natural Gas – first adoption**
- **Tariff systems (transport, distribution, supply – amendments)**





THANK YOU  
FOR YOUR ATTENTION!



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