



4th Workshop of EASTERN PARTNERSHIP
ENERGY REGULATORY BODIES - *Chisinau 2015*

**HOW TO MANAGE TRANSITIONS
IN TARIFF REGULATION:**

Case Study of Croatia as a new EU Member State

Tomislav Jureković

President of the Board of Commissioners
Croatian Energy Regulatory Agency

Chisinau, 26-March-2015



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- Some lessons learned



Croatian Energy Regulatory Agency

- **Est'd in 2001/2 by Croatian Parliament**
 - element of the National Energy Sector Reform (EU horizon)
- **Reg. Council ⇨ Reg. Agency : major development stages**
 - evolving organisational form
 - sequence of regulatory priorities (licensing → tariffs → markets)
 - relevance roughly in parallel with EU energy packages
 - growing scope and responsibilities
- **Q4 2012 – New Act on Energy Activities (“HERA law”)**
 - part of the EU accession process
 - **frame for independent energy regulation**
 - context of liberalisation/market opening
- **1 July 2013 – EU regulatory body**
 - expanding horizon (EC, CEER, ACER)
 - managing transition



Managing (regulatory) transition

3 TARGETS:

„parallel and moving”

- „Sins of the fathers”
 - „communal” heritage, ownership, social concerns
- EU environment: market opening transition
 - adopting and adapting, constraints and concerns
- Rapidly changing energy and regulatory scene
 - evolving regulation(s) for a changing supply/demand paradigm



2 PILLARS:

- Independence
- Capacity / Competence



Energy regulatory developments

Three stages in life of a regulatory agency:

- **Licensing stage (2001-03)**
(starting on the road to an open energy market)
- **Tariffing stage (2004-07)**
- **EU adjustments and Market opening stage**
 1. formal → real market opening
 2. removing obstacles: conditions for effective market functioning
 3. reviewing systems in place
 4. **UPGRADING TARIFF METHODOLOGIES**
 5. reviewing market model



Electricity and gas regulation – two stories

Croatian electricity and gas scenes: different histories – different structures

■ **Electricity** – national champion (HEP-Group)

- TSO (*HOPS*) – ITO certification on-going
- DSO (also under PSO of universal and last-resort supply services)
- network regulation: essentially **cost plus (RoR) methodology**

■ **Gas** – diversified structure:

- TSO (*PLINACRO*) – OU certification on-going
- **revenue cap tariff model (capacity-based)**
- 36 DSOs – (former LDCs) – communal utility history
- **revenue cap tariff model (commodity-based)**



Example: Croatian gas sector

■ Empirical sequence of stages in the **market opening** of Croatian natural gas sector:

1. formal (legal) market opening 2007 / 2008 (full)
2. creating conditions for effective market functioning
(e.g. removing price caps in segments of gas supply) 2011/12
2012
3. enter new players 2011/12
4. incumbent provides (some) resistance 2012/13
5. **monitoring and fine-tuning operational rules** 2013
6. market research/review 2014 →
⇒ measures to improve efficiency and/or remove barriers



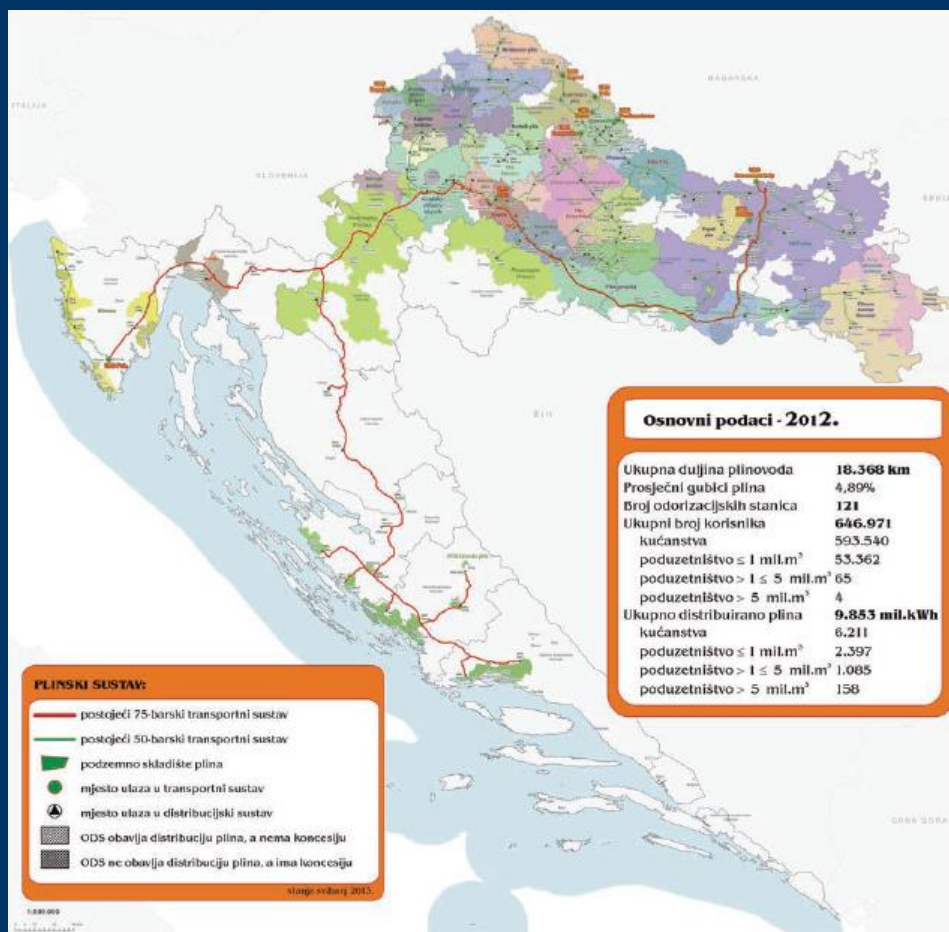
Croatian gas DSO tariff overhaul

■ “Fine-tuning” the Croatian gas distribution sector

Tariff adjustment round based on new methodology for gas distribution:

(effective 1-Jan-2014)

- recession environment
- declining gas sales
- payment issues





Challenges for gas distribution tariffing

Distribution remains the vital element of every gas system !

CHALLENGES:

- Tariffing as traditional (and permanent) regulatory role
- Improve/upgrade methodological basis
- Provide incentives (certainty) for grid investments
- Declining gas sales – loss of revenue
- Changing gas consumption patterns
- New roles/expectations – interface with customers



DSO Tariff Methodology Overhaul 2013

REASONING

- **Consistent methodological basis of gas infrastructure regulation**
 - Upgrade to incentive-based tariffing
 - Follow-up on TSO methodology upgrade (initiated by introducing entry-exit model)
- **Review existing DSO tariff level/distribution**
- **Review the position of INVESTORS IN DISTRIBUTION GRIDS**
 - Difficulties related to existing cost-plus methodology – in particular to the **one-year regulatory period**
 - Particular position of GREENFIELD investors



DSO Tariff Methodology (II)

- Incentive regulation principle → Maximum allowed revenue method (*Revenue cap*)
- Incentivizing through *Efficiency factor (X)* and a *Profit sharing mechanism*
- **Benchmarking the efficiency**
 - initially simplified benchmarking for base OPEX
 - full benchmarking for subsequent regulatory periods
- **Pre-determined parameters**
 - unjustifiable costs, max. depreciation rates, nominal pre-tax WAAC
- **Investment plan approval**
 - a process „within” the tariff approval procedure

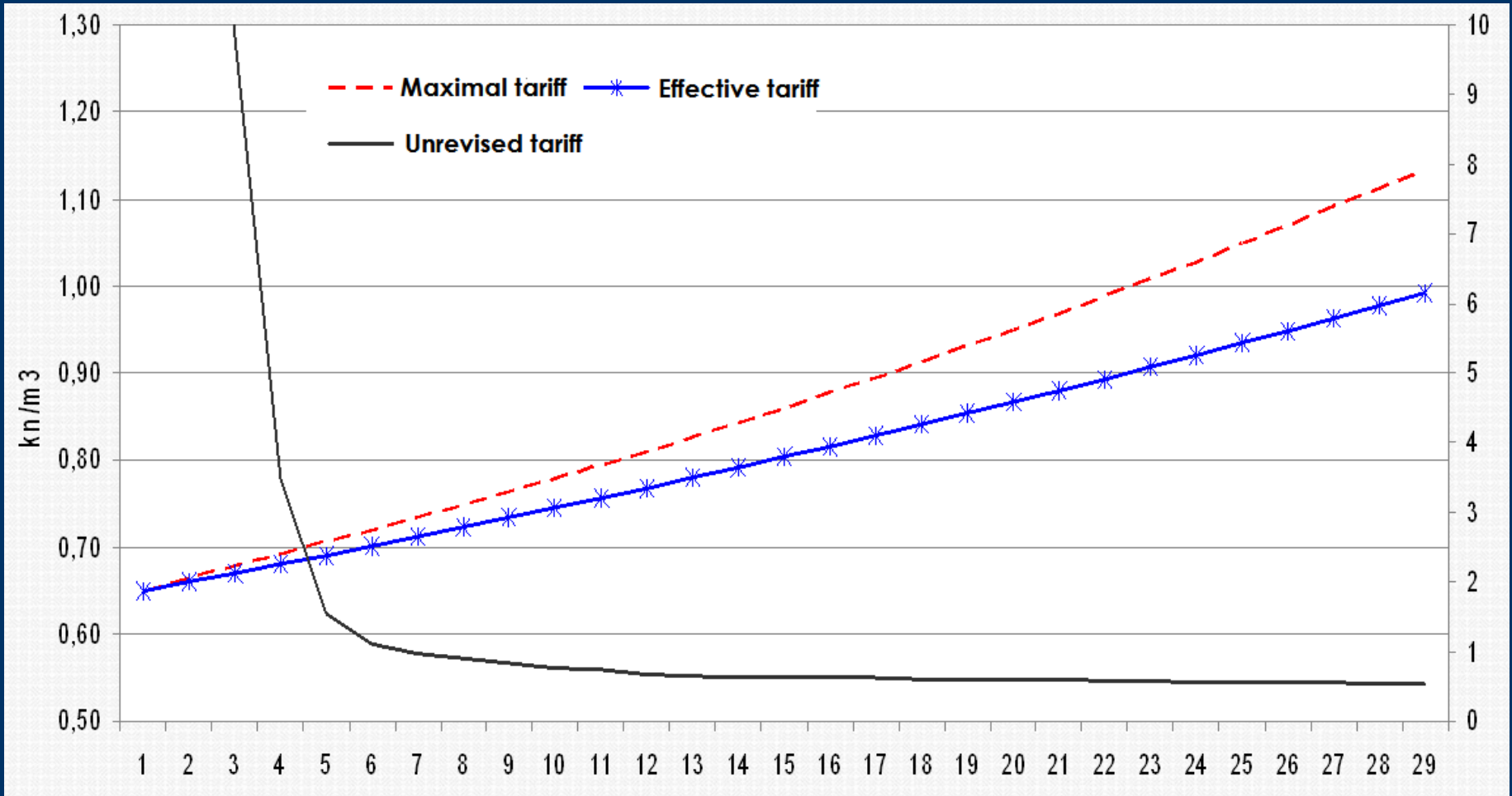


Regulatory account

- **Significant greenfield investments in gas distribution grids or major reconstructions:**
 - steep growth of the regulated asset base
 - initially low gas volumes (small number of customers)
 - **result in uncompetitively high grid tariffs**
- **Unsustainable greenfield distribution projects**
 - unless (?) requesting exemption from regulation
- **Imperative to prolong the regulatory period**
 - Redesigning the basic tariff methodology
 - Providing a special option for qualified grid investments



Regulatory account – tariff dynamics



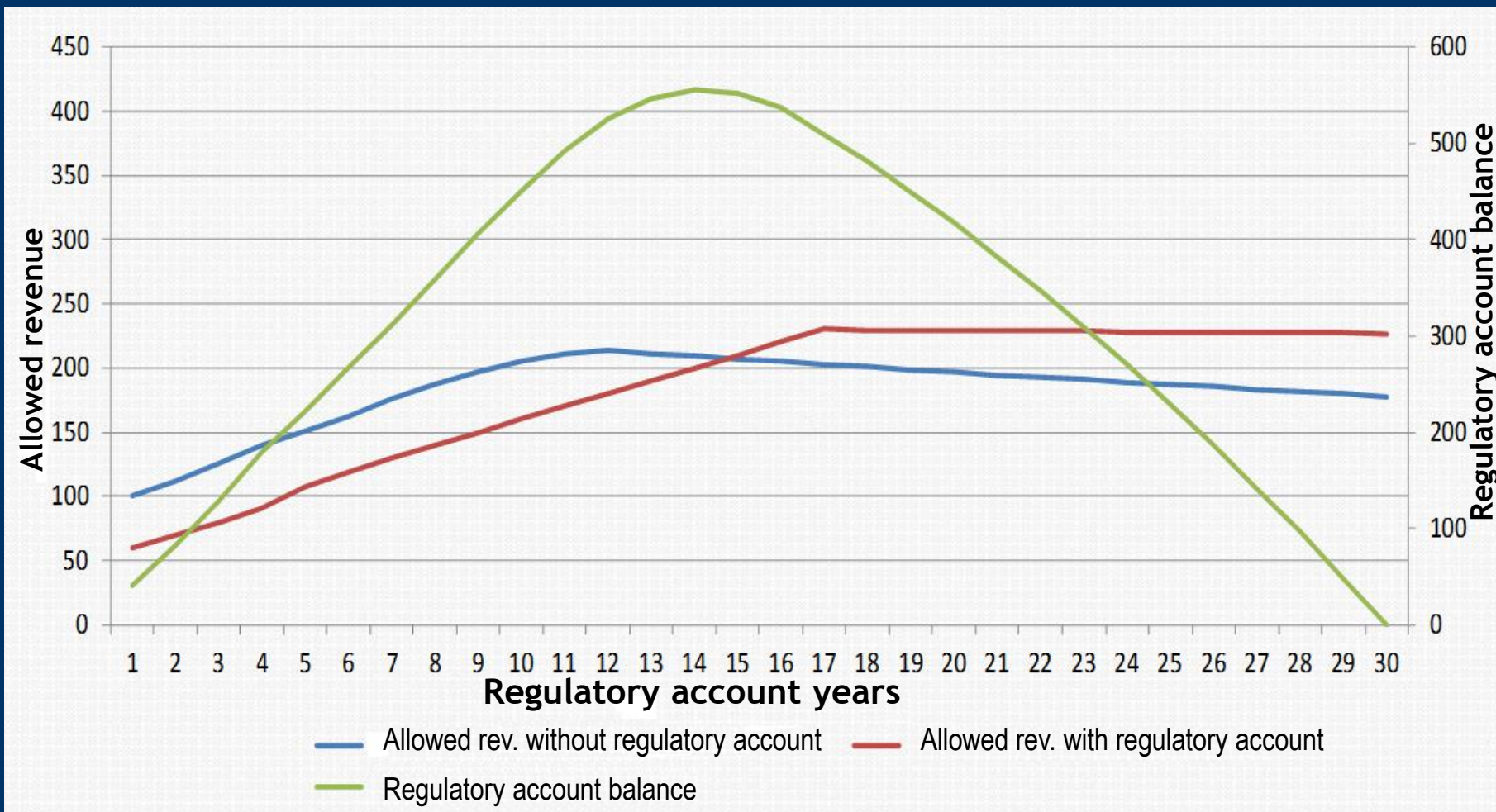


Regulatory account (II)

- **REGULATORY ACCOUNT** as an optional model
 - steep growth of the regulated asset base
 - initially low gas volumes (small number of customers)
 - result in uncompetitively high grid tariffs
- **RA** enables the investor DSO to recoup the allowed revenues of first years in the later project years
- Longer regulatory periods with interim revisions
- NPVs of allowed revenues remain the same for options with or without **RA** – but are realized with different dynamics



Regulatory account – allowed revenue





OBJECTIVES of gas distribution tariff corrections as of 1-Jan-2014

- **Aligning tariff levels with the new gas distribution tariff methodology from Q4-2013**
- **Gas distribution level a neglected area when it comes to investment**
 - Almost 40% of Croatian DSOs in red numbers in 2012
 - Consolidation of gas distribution to maintain security of supply
- **Enable sustainable investments in gas distribution systems (grids) and system reconstruction**
 - Challenge to differentiate among the gas grid investment environments



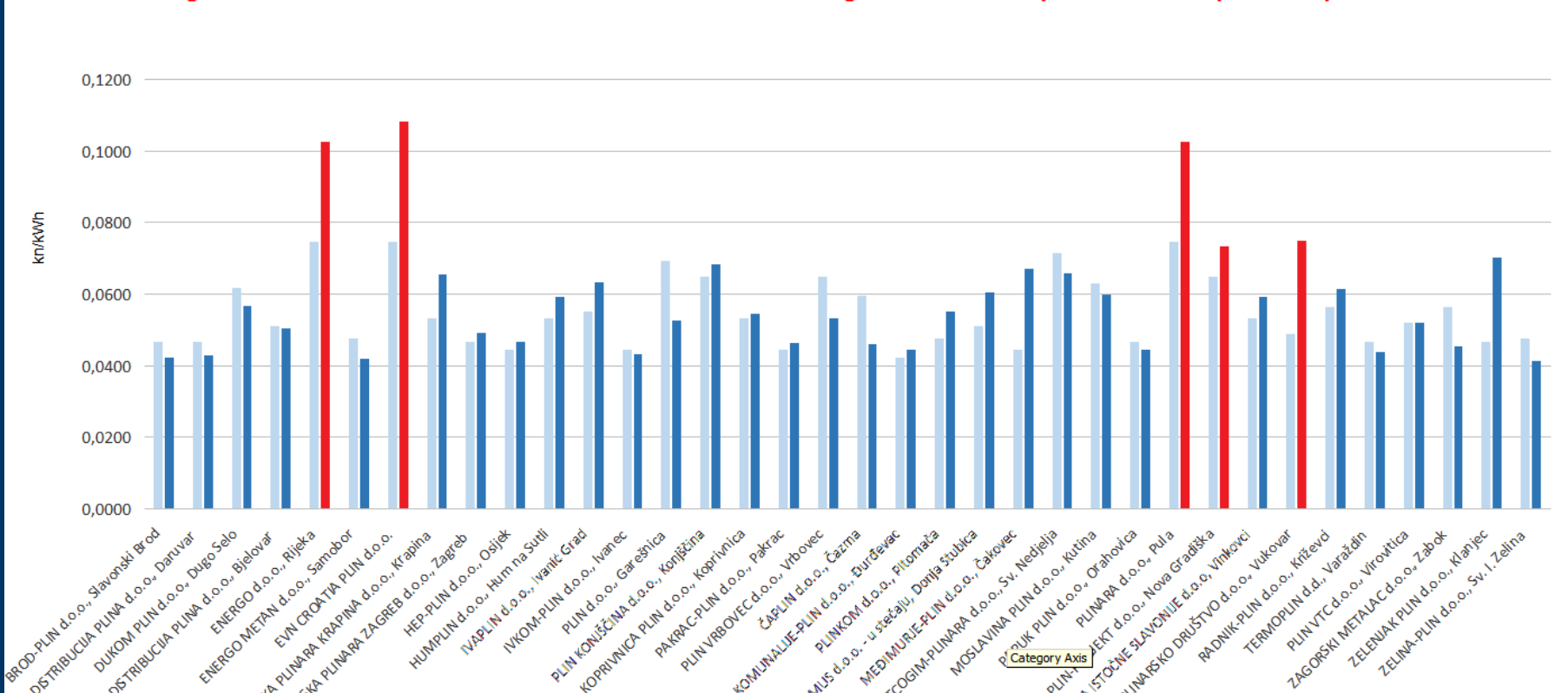
RESULT

- **Individual tariffs respond to actual situations in distribution areas** (23 increases of average tariffs, 14 decreases and 1 unchanged tariff)
- **Decrease of the fixed tariff component (→ monthly charge) for all household categories**
- **Increase of the overall average distribution tariff for 6,3%**
 - mainly due to tariff increases on new gas distribution areas (→ **regulatory account**)



1st year effect on DSO tariffs after the change of methodology

Changes in GAS DISTRIBUTION TARIFFS for tariff model TM2 - avg. annual consumpt.14.050 kWh (1.480 m3) - as of 1-Jan-2014





Gas distribution tariff transition

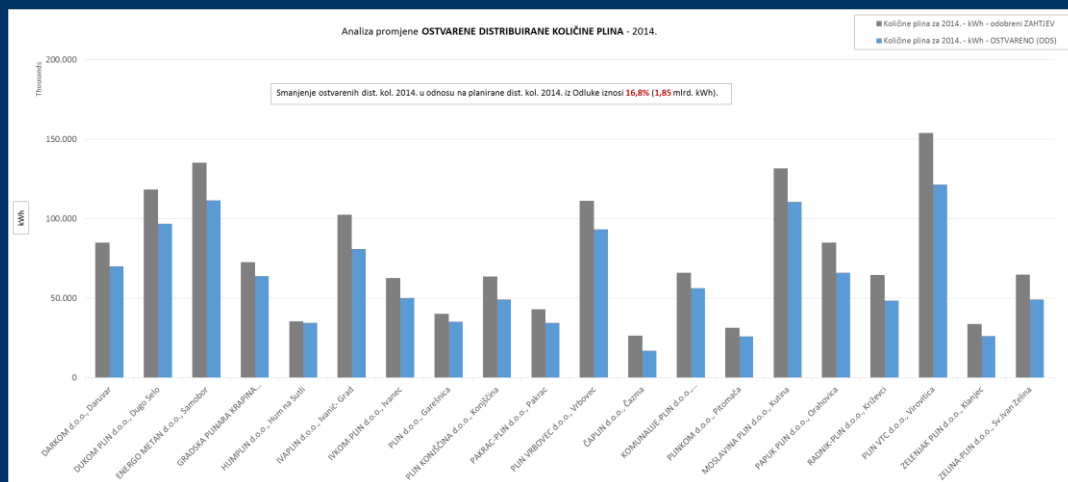
OUTCOME:

- Objective and methodologically consistent calculated tariffs for regulated price components
- Longer regulatory period adding to robustness of DSO business plans
- Introduced option of **REGULATORY ACCOUNT** (used by 5 DSOs) – as a tariff model supporting investments in new distribution grid
- Confirmed 3-yr investment and reconstruction plans (as a part of DSO rate cases) – for all 36 DSOs
- Increased number of tariff categories – in order to better reflect group-specific cost distribution



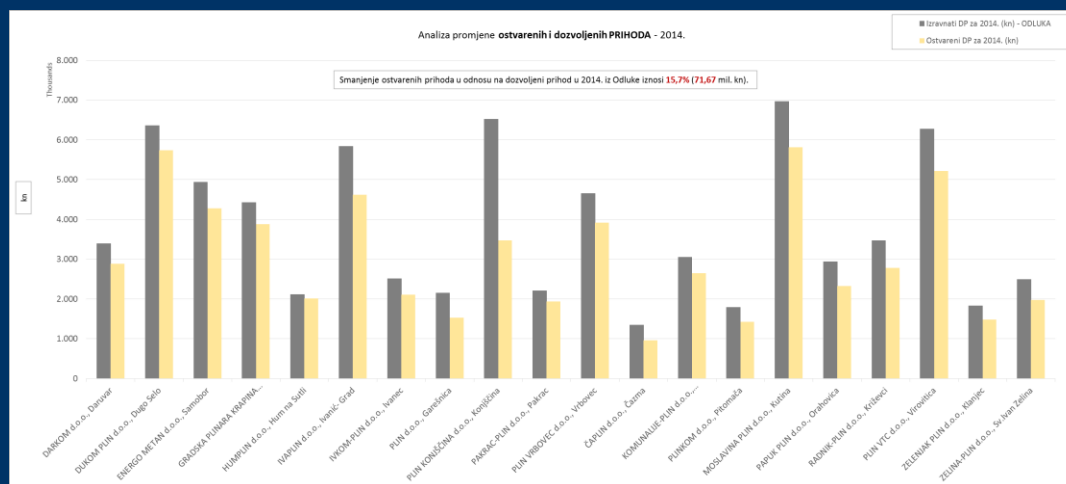
YET ... after the first year

Market circumstances can change



declining demand
in 2014

falling revenues
in 2014





THEREFORE:

- Crucially important to monitor the market for effects and effectiveness
- **Shrinking market and/or decreasing demand may influence the assumptions**
- Should be ready to make changes/revisions – remaining as **TRANSPARENT** as possible
- Engage customers and stakeholders



OVERALL LESSONS LEARNED

- **Tariffing remains a permanent core competence of the energy regulator**
- **Tariff methodology changes go hand-in-hand with market opening steps (→ interlinking objectives)**
- **Plan, design and announce well ahead**
- **Insist on open, transparent and well-in-advance communication**
- **Know your market (and monitor it!) ... as well as your market players**



Next steps for energy regulation in Croatia

- Test the EU-harmonized (regulation) frame for effectiveness
- Broaden the strategic planning horizon – get on board the on-going and the expected future changes
- Improve the market model(s) and related frame - based on experiences gained
- Maintain and keep upgrading the traditional features
- Improve communication and engage energy consumers
- Keep promoting the role of an independent regulator ... yet

Quis custodiet ipsos custodes ?



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**THANK YOU
FOR YOUR ATTENTION !**

tjurekovic@hera.hr