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EXPERIENCE WITH PRICE CAP REGULATION IN HUNGARY

Péter Kaderják & Csaba Kovács

**NARUC/ERRA Training on Utility Regulation and Tariff
Development**

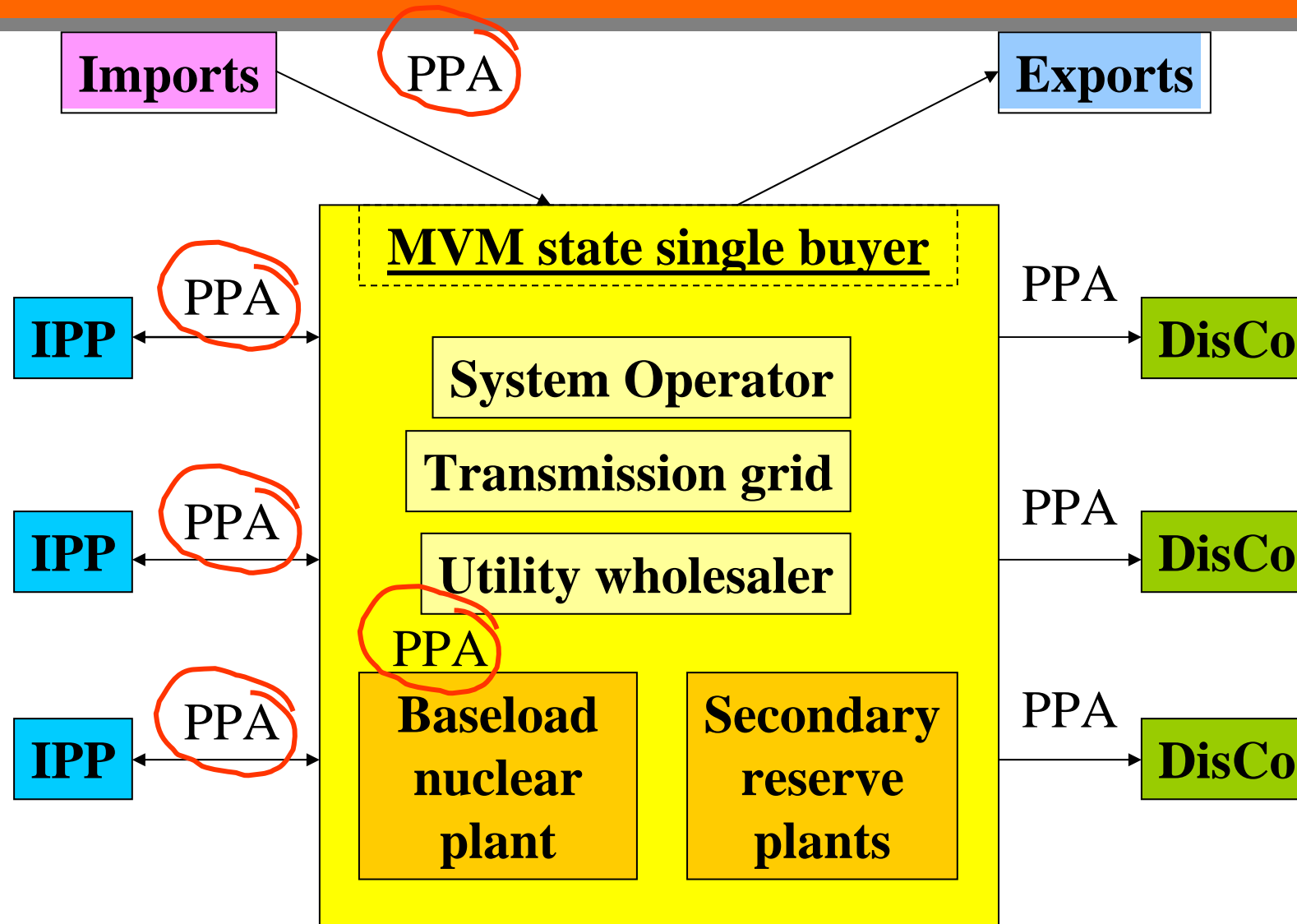
November 5-8, 2007

Pristina, UNMIK/Kosovo

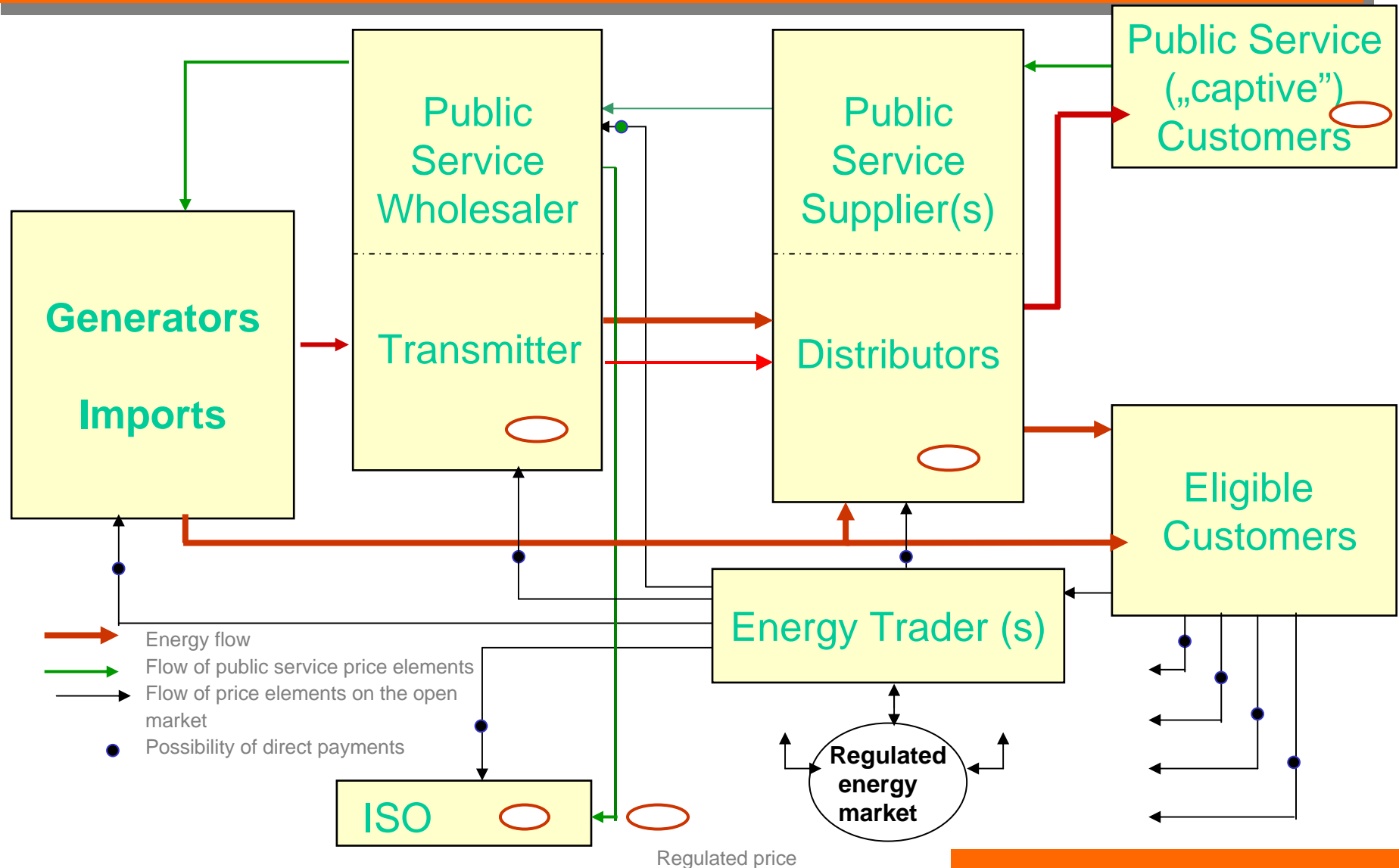
DEVELOPMENT OF THE HUNGARIAN ELECTRICITY MARKET

- Before 1992: Vertically integrated national company
- 1992: Legal unbundling of G, T and D
- In 1995-1996: Privatization of generation and distribution companies
 - Budget deficit
 - Need for additional investments
- 1996 - 2003: Single-buyer model
 - Long term PPAs with generators
 - Generation, wholesale and retail prices are regulated
- January 2003: Gradual market opening, hybrid (dual) market model
 - Introduction of unbundled network access pricing (T and D); regulated public utility wholesale and retail prices
- January 2008: Full retail choice; regulated universal service rates available only for residential + 3*50A

THE SINGLE BUYER, 1995-2003

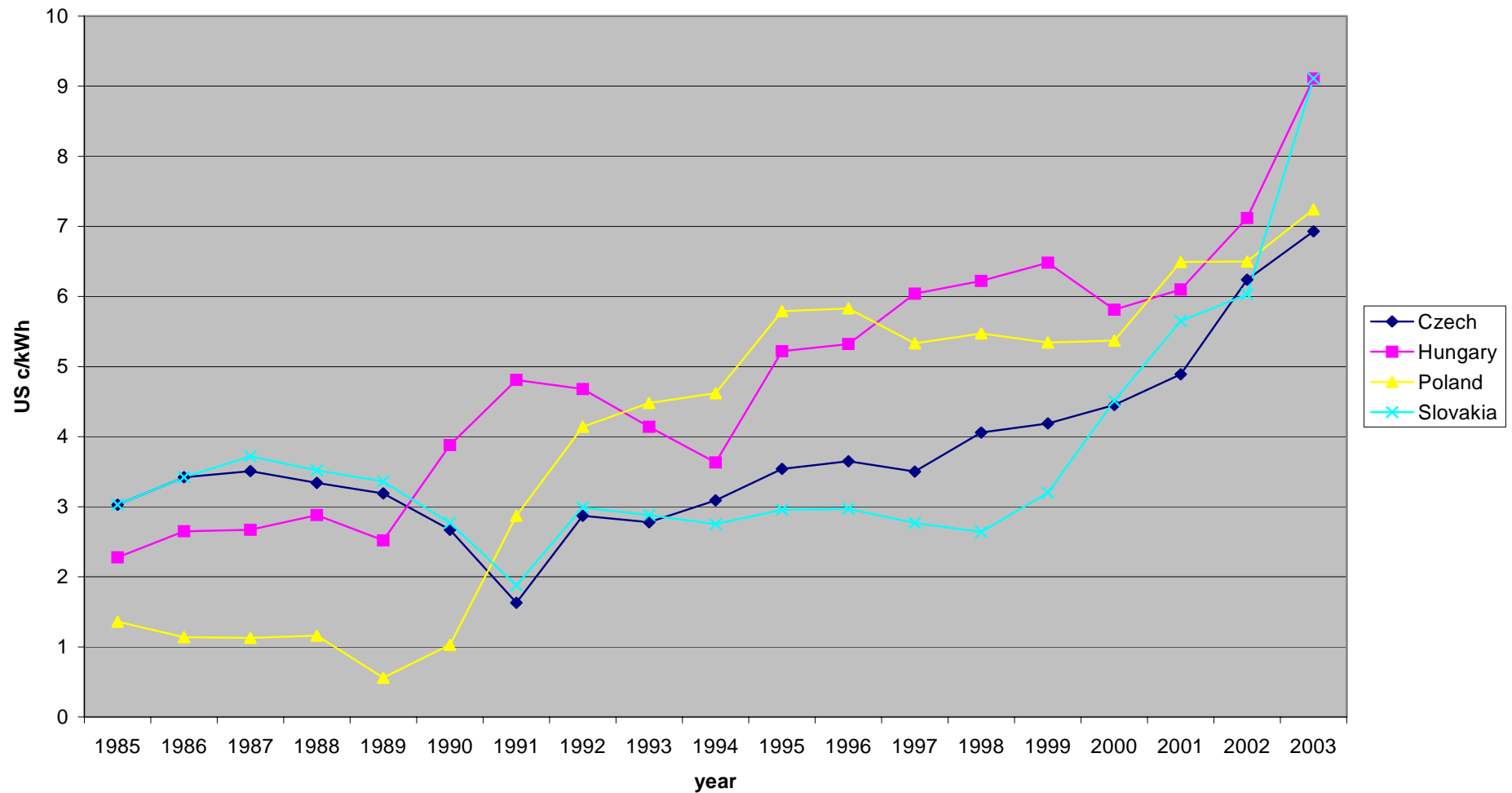


THE 'HYBRID' MARKET MODEL, 2003-08



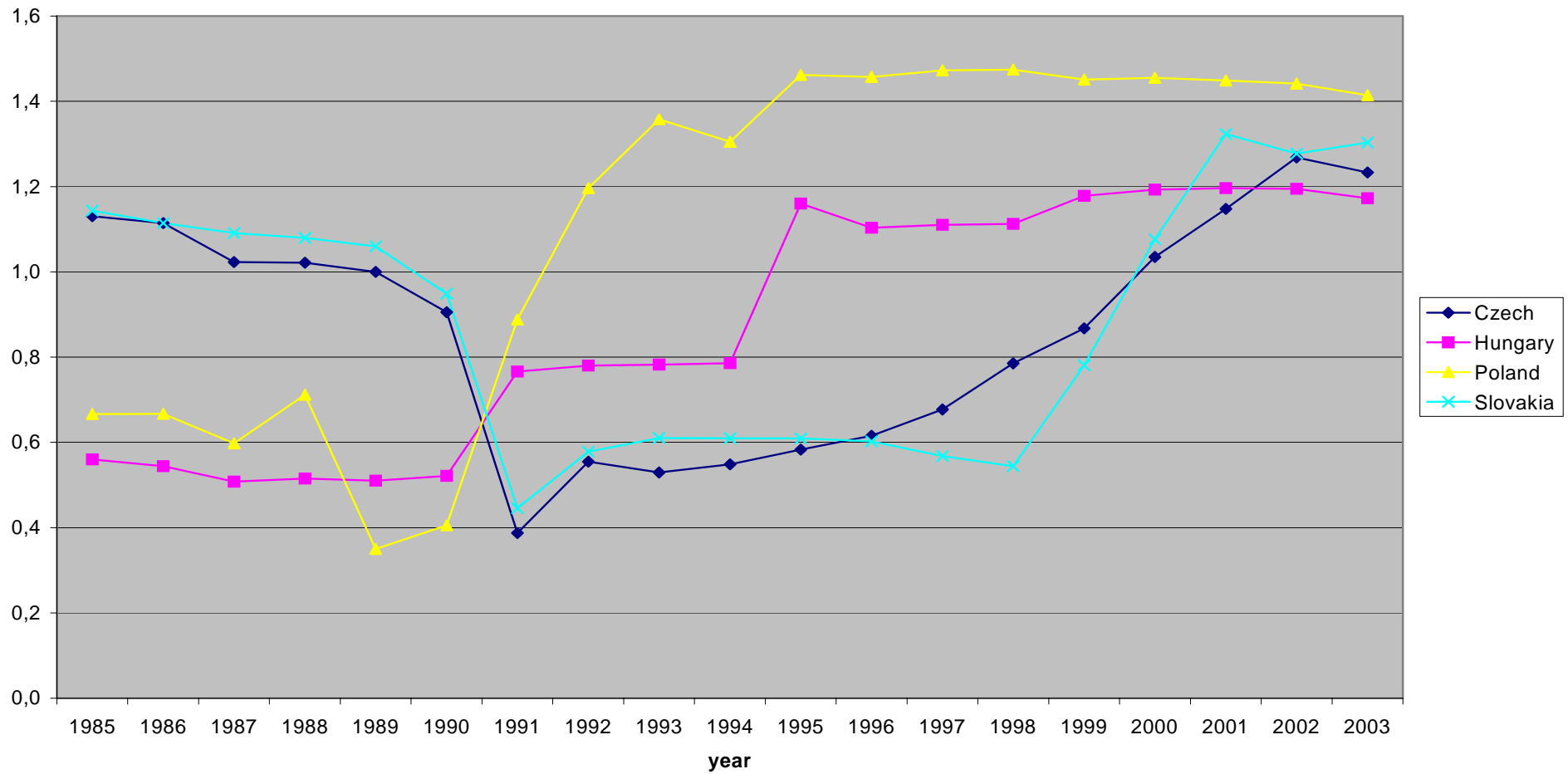
HOUSEHOLD PRICE DEVELOPMENT

Average electricity prices for households (excl. taxes)



REMOVAL OF CROSS SUBSIDIES

Ratio of ex tax household and industrial electricity prices



ELECTRICITY PRICE REGULATION (1)

GENERATION

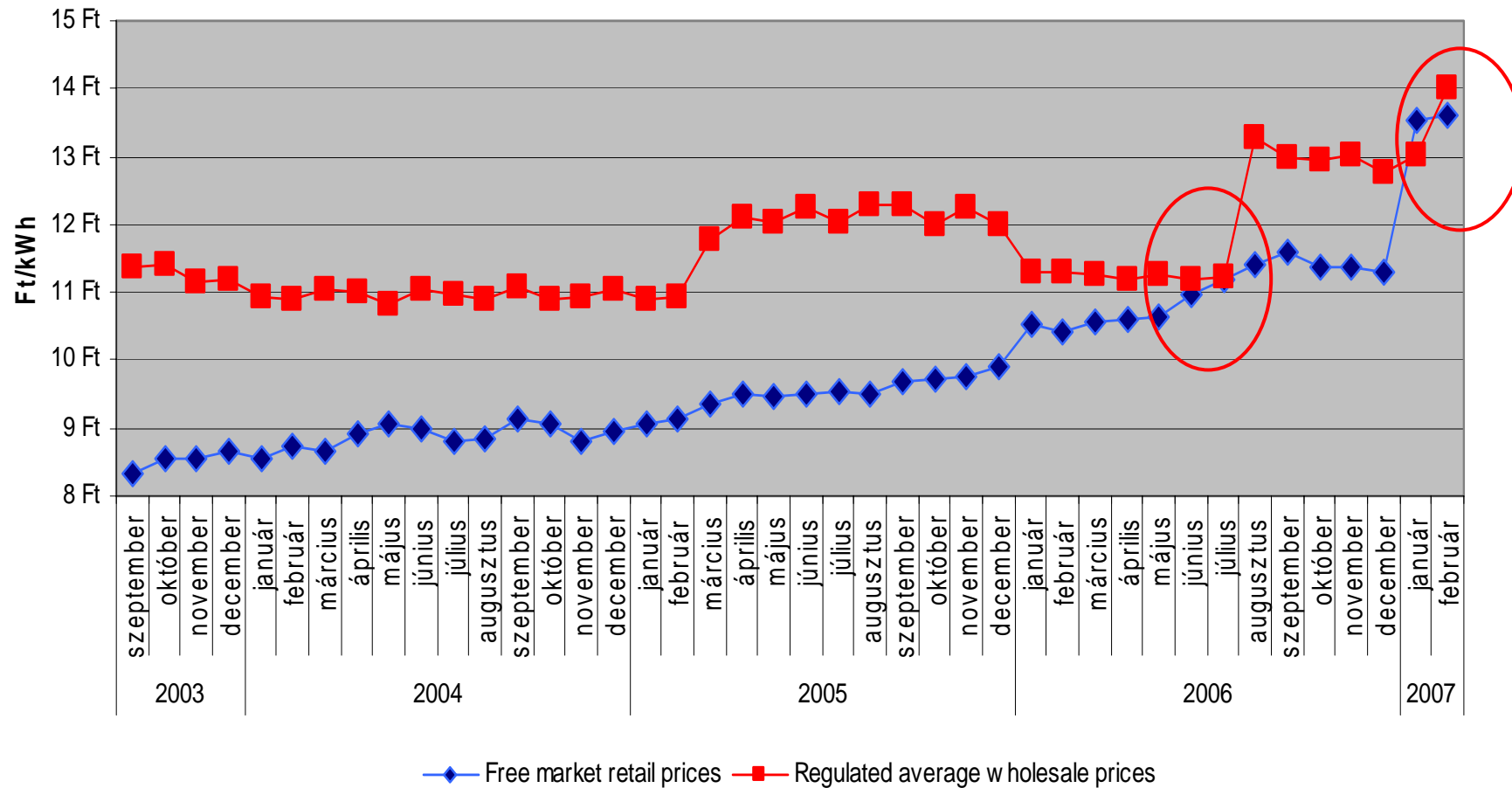
- Until January 2004 regulated generation prices
 - Ministerial decree overwrote PPAs' price formulas
 - Capacity fee (MHUF/MW/year) and energy fee (HUF/MWh) as well
 - Starting capacity fees lower, but annual adjustments better than in PPAs
- Between 2004 and 2007 no regulated generation prices
- From 2007 regulated generation prices again for companies having a PPA (result of a political debate...)

ELECTRICITY PRICE REGULATION (2) WHOLESALE AND RETAIL UNTIL 2008

- Regulated wholesale (from 2003: public utility wholesale) prices on the basis of estimated costs of MVM procurement – annual adjustment
- Regulated retail prices – annual adjustment
 - Cost of sold electricity is pass through
 - Final end-user prices depend on political issues and changes of network tariffs as well
- After market opening
 - Cheaper electricity prices for large industrial customers
 - Lively cross-border trading
 - New traders entered the market

ELECTRICITY PRICE REGULATION (3)

Free market retail prices and regulated average wholesale prices (September 2003 - February 2007)



- End customer price regulation is not compatible with market opening principles
- Long term PPAs are not compatible with liberalized market model
- Regulated segment is getting more expensive because of falling demand but fix PPA quantities and prices
- Free market is getting more expensive because of lack of free generation and import capacity (withholding?)
- Worldwide rise in energy prices affects both segments

ELECTRICITY PRICE REGULATION (5) DRAMATIC CHANGE FROM 2008

- Wholesale price regulation is abolished
- End customer price regulation is abolished for non-household customers
- Households are eligible to purchase from universal service provider
- Universal service provider tariffs are *ex post* controlled by the regulator
- Regulated prices remain:
 - Transmission, system operation, distribution, universal service provider margin

The method: slightly modified price cap regulation.

Main features:

- 6 vertically integrated distribution companies (3 owners: E-ON, RWE, EDF)
- Uniform tariffs all over the country (no regional tariffs)
- 4 years' price regulation period (2005-2008)
- Starting tariffs are based on detailed cost and asset review („normal” calculation of revenue requirement)

The method: slightly modified price cap regulation.

Main features:

- Yearly tariff-adjustment with CPI-X, where

CPI: Consumer Price Index-forecast published by Hungarian National Bank

X: Inflation-adjustment factor.

$$1,8 < X < 2,2$$

The method: slightly modified price cap regulation.

Main features:

- Quality incentive element exists:
 - Quality indices and standards are set by regulator. If value-deterioration of a given (chosen) index is between 5-10 %, applied tariff decreases by 0,5 % for that firm. In case of value-deterioration of 10 % (or more), tariff decreases by 1 % (for a year).
 - In case of - at least 10 % - value-improvement, profit cap is 10 % higher, than normally.
- Network loss is accounted for on a benchmarking basis
 - Other possibilities to apply 'benchmark' cost items in setting the starting tariffs

The method: slightly modified price cap regulation.

Not typical PCR, rather RoRR elements:

- Individual tariffs are also set by the regulator (no freedom at firms to do this)
- Differences by voltage levels (high, medium, low)
- There are fix (minimum charge), capacity-, and quantity-proportional charges and a loss charge element (it is not easy to prepare accurate statistical data supply...)

The method: slightly modified price cap regulation.

Not typical PCR, rather RoRR elements:

- Cost review „on the run” is possible (also on firms’ request). Finally the regulator makes a proposal
- Next to usage X-factor other profit-sharing requirement is valid (profit cap, net income and cost of capital comparison)
- Post-revenue redistribution between firms through transmission charges paid by distributors (instead of regional distribution tariffs)

The method: slightly modified price cap regulation.

Not typical PCR element:

- Purchase source and price of network losses is defined (former single buyer, regulated wholesale electricity prices). Cost of network losses can be reduced „only” through quantity. Opinion of EC: this practice is not compatible with EU Directive-rules.
- This is changed from 2008: distribution companies are purchasing distribution losses on their own