



# Issues in regulated tariff setting

by

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# Issues

- ▶ asset value
- ▶ cost of capital
- ▶ depreciation
- ▶ fuel
- ▶ cost allocation

# Regulator has to revise the regulatory asset base

- ▶ to make an independent valuation of the assets
- ▶ calculate current value on the basis of historical costs corrected by using indexation factors
- ▶ if price paid by the investors during privatization exceeds the fair value of assets, only the fair value of assets should be considered

# Used and useful assets

- ▶ regulator revises the structure of the assets
- ▶ assets not related with the regulated activity should be excluded from the rate base
- ▶ facilities that are determined by the regulator to be unnecessary for providing the regulated service are excluded from the rate base
- ▶ the same with construction works in progress

# Asset valuation problem: 1<sup>st</sup> example

- ▶ there are 2 electricity distribution companies in Lithuania: Western and Eastern
- ▶ Western was privatized
- ▶ both companies revalued their assets using the replacement value approach – value of assets was increased 3.5 times
- ▶ both companies wanted to increase the depreciation expenses and also get higher return on their assets

# Asset valuation: 1<sup>st</sup> example (cont.)

- ▶ NCC (the regulator) according to the national legislation approves depreciation rates
- ▶ NCC revised the depreciation rates and allowed to increase the depreciation expenses about 2 times
- ▶ distribution companies badly need investments – legacy from the previously integrated company
- ▶ RAB for the return calculation was revised by the NCC using the historic costs indexed

# Asset valuation: 2<sup>nd</sup> example

- ▶ Lithuanian Gas company was privatized
- ▶ it revalued the assets – value increased about 3 times
- ▶ NCC used the indexed historic costs for the return calculation
- ▶ NCC revised the depreciation revenue needs relating it with investment program of the company (approved by the regulator)
- ▶ Lithuanian Gas is suing the regulator in the administrative courts

# Rate of return

- ▶ economic theory says that profit is the main driving force of all businesses
- ▶ in a competitive market profit depends on efficiency of the company
- ▶ regulation is a substitute (bad) to competition
- ▶ so in the regulated market regulator should give a reasonable rate of return for the regulated company

# Fair rate of return

- ▶ rate of return is the company's profit (in percent) allowed to earn by the regulator
- ▶ “fair” rate of return is defined as such that attracts investments but does not provide for inadequate earnings
- ▶ usually it is defined by comparing returns in the competitive market, various risks, etc.

# Valuation of depreciation

- ▶ when valuing the depreciation company may use different
  - ◆ methods (straight line and accelerated)
  - ◆ procedures (broad group, vintage group, equal life group, unit depreciation)
  - ◆ techniques (whole life, remaining life)
- ▶ regulator may set different depreciation rates for the pricing purposes
- ▶ benchmarking used by the regulator

# Fuel

- ▶ In many cases fuel costs are passed through
- ▶ As it is not controlled by the company (gas, oil prices)
- ▶ This works well with the incentive price regulation – fuel price changes are put into the formula
- ▶ If there is a market price, regulator should analyse if it was a competitive purchase
- ▶ If there was cheaper fuel in the market regulator may not accept more expensive in the tariff

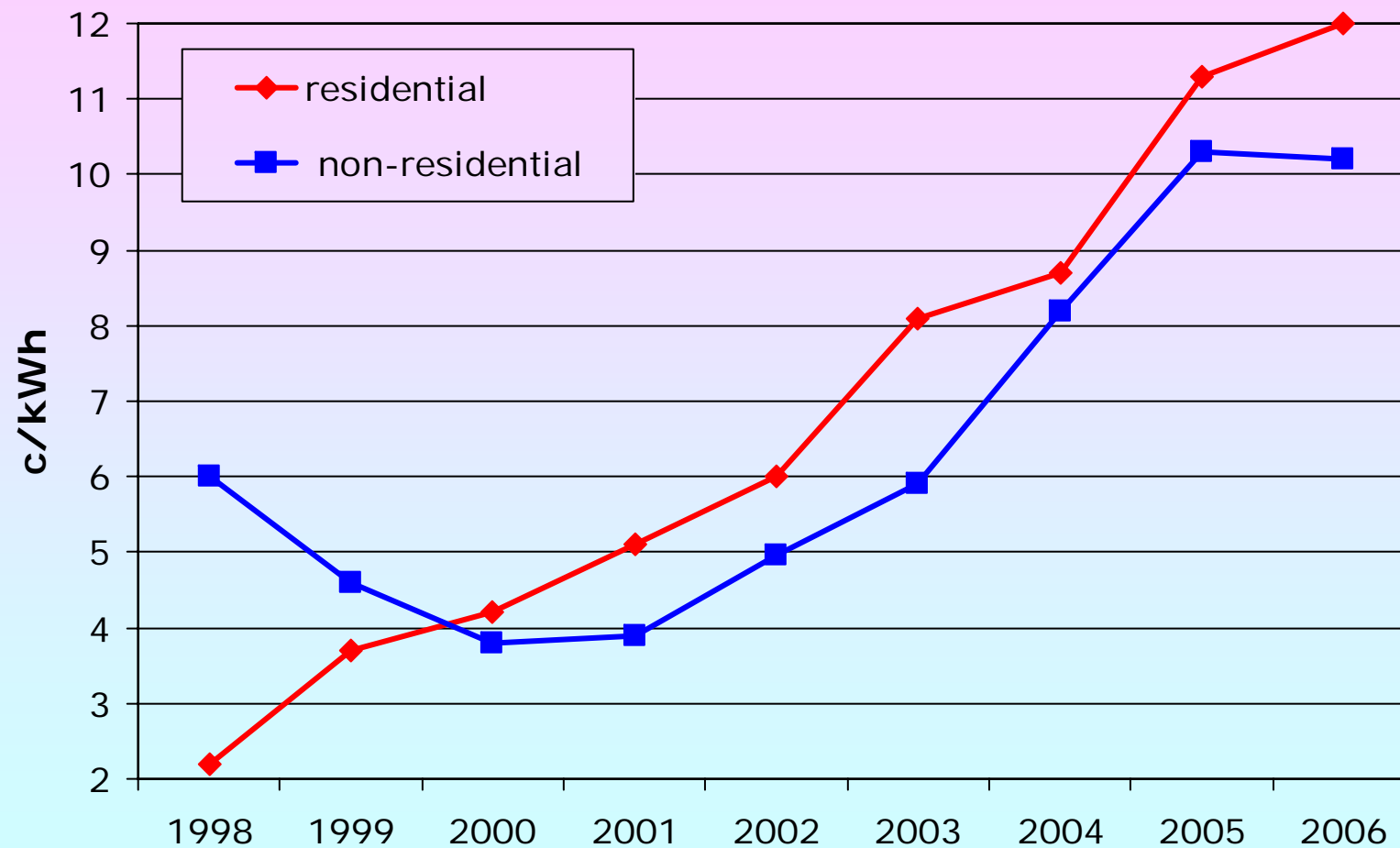
# Allocation of costs

- ▶ Equitably apportioning cost responsibility
- ▶ There are a number of methods to do this
- ▶ Cost allocation is more art than science and is always contested
- ▶ For example, using the coincident peak method customers are split into groups depending on their contribution to the system peak load
- ▶ Rather common customer allocation is based on their consumption level
- ▶ Customer division into residential, commercial and industrial, etc.

# Acceptable and unacceptable price distortions

- ▶ Residential prices are lower than the commercial ones – unacceptable cross subsidies
- ▶ Rural customers cause higher costs to the utility, but prices are the same (social problem - acceptable) or even lower (cross-subsidy - not acceptable)
- ▶ In majority of the countries post stamp tariff is used for the transmission (consumers pay the same price in spite how far they are from the generators)

# Fast increase and re-balance of tariffs in Romania



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**Thank you!**

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