

Price determinations for electricity

Dijana Unković

Senior Expert for Economics and Finance

Harrisburg, April 2008.

Tariff and Eligible customers

- From 2008. all customers, except residential, are eligible customers.
- From 2015. all customers will be eligible customers.



Process of calculating prices

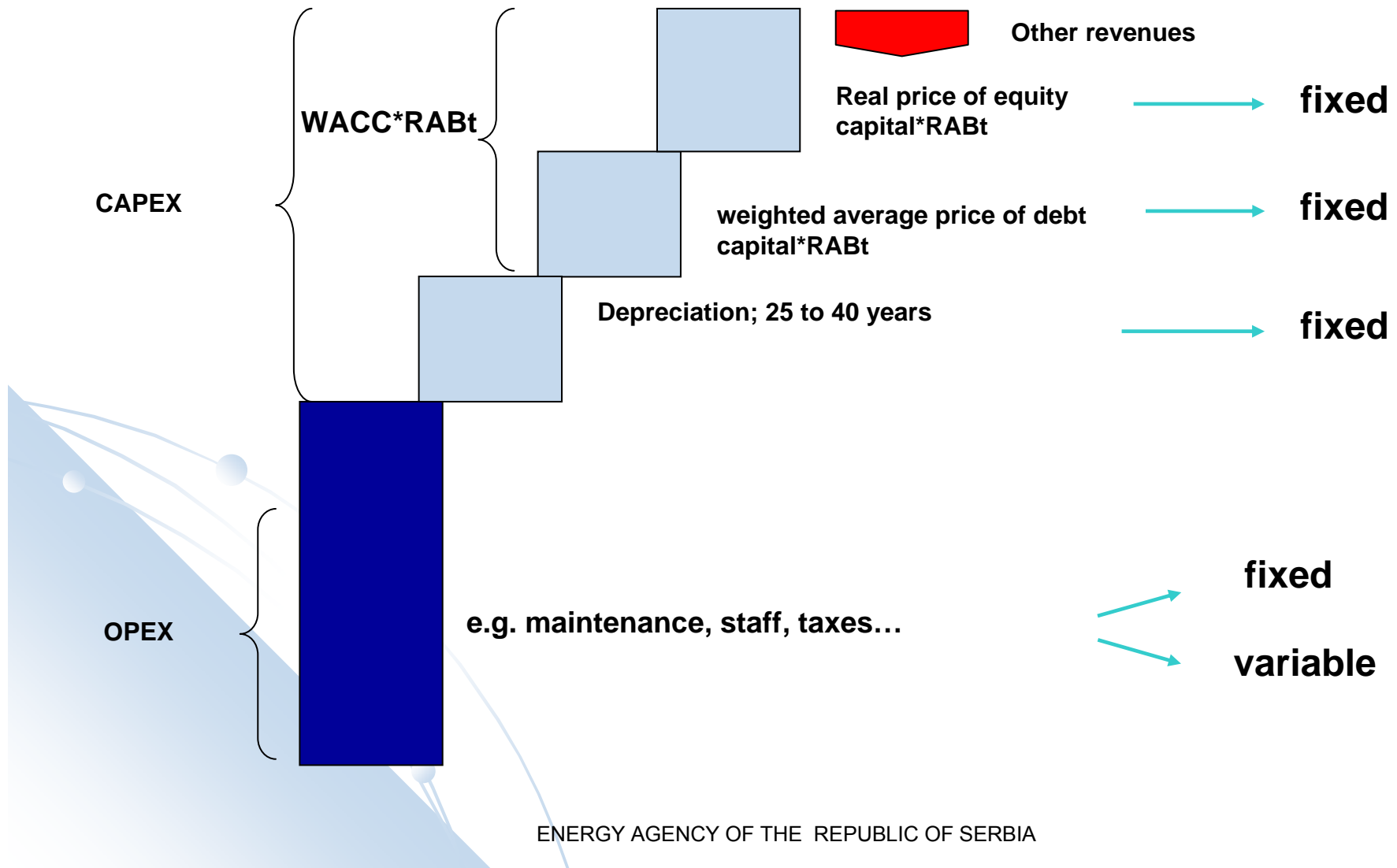
- Setting of Maximum allowed revenue of an energy entity (based on Methodologies...)
- Allocation of Maximum allowed revenue to tariff elements, tariff rates and category and groups of consumers (based on Tariff systems)

Adopted methodologies

Methodologies for:

- use of system for electricity transmission
- use of system for electricity distribution
- calculating electricity prices for tariff customers

MAR – Building blocks approach



Maximum allowed revenue-MAR

$$\text{MAR}_t = \text{OPEX}_t + D_t + \text{WACC} * \text{RAB}_t - \text{OR}_t + \text{KE}_t$$

where:

- t – regulatory period,
- MAR_t – maximum allowed revenue for the performance of the regulated activity in the period t (dinars),
- OPEX_t – operational costs in the period t (dinars),
- D_t – depreciation costs in the period t (dinars),
- WACC – the rate of return on regulated assets (%),
- RAB_t – regulated asset base in the period t (dinars),
- OR_t – other revenues in the period t (dinars),
- KE_t – adjustment factor in the period t (dinars).

Criteria for cost allocation

Allocation depends on:

- Cost structure
- Structure of generation, transmission and distribution capacities
- Electricity generation and consumption



Adopted tariff systems

- for electricity transmission system access and utilisation – in use from January 2008.
- for electricity distribution system access and utilisation – it will be in use from August 2008
- for electricity settlement for tariff buyers – in use from March 2008.

Main principles for tariff systems

- Each consumer pays for electricity proportionally to costs incurred in system:
 1. According to volume and manner of electricity consumption
 2. According to power used and point of connection to the system
- Non-discrimination which implies lack of social component in tariff system

Tariff rates - electricity

Tariff rates for delivered power to the same category of tariff customers are equal on the whole territory of the Republic of Serbia.



Electricity prices in Serbia

\$c/kWh	
Category of consumption	Average price levels
1	2
High voltage (110 kV)	5,48
Medium voltage (35,20,10 kV)	7,13
Total HV + MV	6,56
Low voltage (0,4 kV I level)	10,31
Total HV + MV + LV	7,60
Wide consumption - total	7,54
- 0,4 kV II level	9,66
- domestics	7,26
Public lighting	7,38
Total - Serbia	7,56

1\$=55 dinars

Monthly electricity bills in US\$

Ordinal num.	Monthly consumption kWh	Remark	Monthly charge for different contracted power				
			5,75 kW	6,90 kW	11,04 kW	17,25 kW	22,08 kW
1	150 monotariff	small consumers and weekend cottages	15,00	15,59			
2 HT+LT	300 240+60		24,59	25,18			
3 HT+LT	350 275+75		27,59	28,18			
4 HT+LT	450 340+110		36,47	37,06			
5 HT+LT	600 410+190				50,37	53,53	
6 HT+LT	1000 750+250	support of heating by using electric heater			90,96	94,12	
7 HT+LT	1600 550+1050	one room apartment cumulative heating				98,26	100,72
8 HT+LT	1600 1200+400	one room apartment heating with boiler 12kW				150,79	153,25
9 HT+LT	2400 800+1600	two room apartment cumulative heating				189,90	192,37
10 HT+LT	2400 1900+500	two room apartment heating with boiler 18kW					315,56

THANK YOU!



Belgrade, Terazije 5/VI
www.aers.org.yu
e-mail: aers@aers.org.yu