

Vertical unbundling¹

by

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Contrary to widespread opinion, end-user tariff is not computed based on the amount required to cover operational expenses and proposed investments. Of course, said amount is taken into consideration, but macroeconomic criteria are the most significant.

It is important to note that the tariff review process is never a one-time measure. In other words, a new tariff is not introduced for an indefinite period unless there is no necessity for a new tariff review.

From 2002, a schedule of end-users movement forecast for two years has been approved. By extrapolation method with some refinements, intra-sectoral tariff for electricity (from generation to distribution) is determined. With the aid of a computer program the financial outputs of all basic power companies are computed, including those of hydropower plants belonging to the Ministry of Agriculture and Water Resources, which sells electricity generated by the state company Uzbekenergo.

From 2002-2004, significant increase in electricity tariff has taken place. At the beginning of 2002 the average electricity tariff was equivalent to 1 cent/ kwh. At present the average tariff is equivalent to 2.85cent/ kwh. The increase has paved the way for the implementation of different investment projects in the energy sector.

Tariff subsidies for electricity were also removed. At the beginning of 2002 the average coefficient of tariff movements (at 10 tariff levels) against the weighted average was approximately 22%, which showed significant cross subsidies at that time.

Various tariffs for different consumer categories were set. At present the average coefficient of tariff variation is a mere 2.6% while tariffs for several consumer groups are comparable with each other. By end of 2005 there remain essentially 5 different tariff levels.

From 2003, electricity tariff incentives were removed. Individuals who enjoyed incentives before were instead given compensation added to their pension, allowances, etc.

Tariff reform was the first step towards reforming the energy sector of Uzbekistan. However, the focus today is on increasing the efficiency of power companies with the following priorities:

- 1) Increase in bill collection;

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- 2) Reduction of losses not connected with physical processes; that is, reduction of losses as a result of unsatisfactory use of facilities, mistakes in the accounting system, and electricity pilferage.
- 3) Improvement of financial management of the state company Uzbekenergo, including decentralization of cash flows;
- 4) Transformation of the electricity supply system from generation to distribution companies with the gradual privatization of the former.

The existing tariff structure hinders the establishment of a reasonable match between tariff for users of the same group (according to electricity consumption) and expenditures for the transmission of electricity to these consumers. Consumers belonging to a certain tariff group can be included in a network with different voltage groups. Conversely, consumers connected with a network of a certain group can pay a noticeably different electricity tariff. This way the most important prerequisite for a gradual electricity market reform and tariff competition is missing.

Similarly, an accurate evaluation of electricity losses in the transmission networks (at least, the technical component) is necessary for the transition to an objective tariff structure.

A simple verification of the losses is not enough because all the costs related to inefficiency of the power system will be passed on to the end-users. This would not be a developed market but a "wild" bazaar.

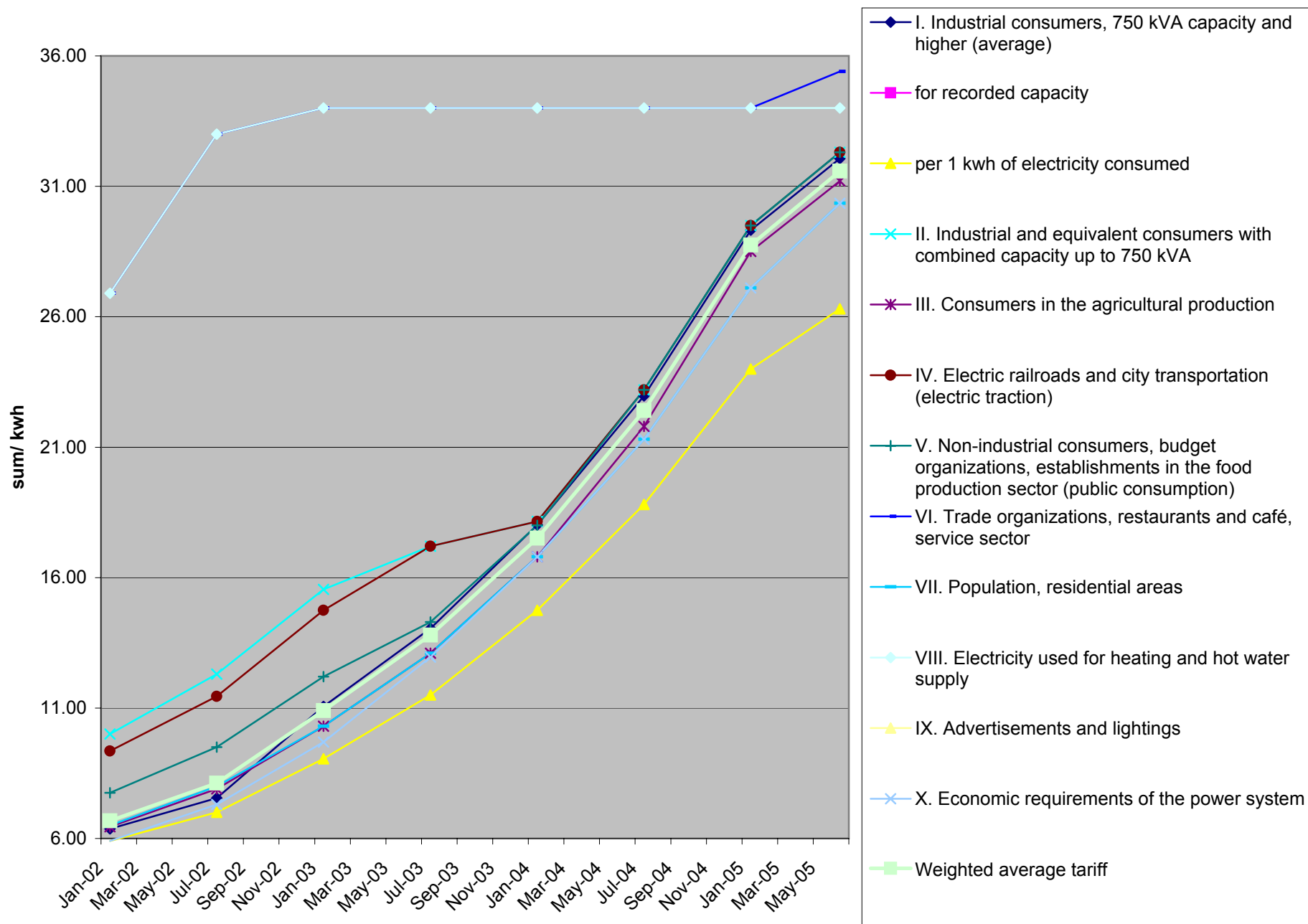
An instruction for the Uzbekenergo system - Computation and Analysis of Electricity Expenditure in the Transmission Networks of the Power System of the Republic of Uzbekistan - was approved in 2001. However, acquaintance with this method of computation shows that its applicability is debatable because it has no verification mechanism, which allows for an objective confirmation of its correctness and accuracy. Aside from that, the said document was prepared as ordered by Uzbekenergo. Its accuracy was not verified by independent experts outside of Uzbekistan. Subsequent consultations with foreign experts have confirmed our conclusions about the incorrectness of the evaluation method employed in determining technical losses.

This is the reason why works are ongoing on the design and introduction of a mechanism for loss determination and on the procurement of accurate computerized metering devices.

If this goal would materialize, there would be an opportunity for the formation of a market-oriented interrelationship among generation, transmission, and distribution companies.

	sum per kwh							
	1-Jan-02	1-Jul-02	1-Jan-03	1-Jul-03	1-Jan-04	1-Jul-04	1-Jan-05	1-Jun-05
I. Industrial consumers, 750 kVA capacity and higher (average)	6.37	7.55	11.06	14.05	18.02	22.97	29.32	32.07
for recorded capacity	12,800.00	15,000.00	19,300.00	24,560.00	31,500.00	40,100.00	51,200.00	56,050.00
per 1 kwh of electricity consumed	5.90	7.00	9.05	11.50	14.75	18.80	24.00	26.30
II. Industrial and equivalent consumers with combined capacity up to 750 kVA	10.00	12.30	15.55	17.20	18.15	23.20	29.50	32.30
III. Consumers in the agricultural production	6.45	7.90	10.30	13.10	16.80	21.80	28.50	31.20
IV. Electric railroads and city transportation (electric traction)	9.35	11.45	14.75	17.20	18.15	23.20	29.50	32.30
V. Non-industrial consumers, budget organizations, establishments in the food production sector (public consumption)	7.75	9.50	12.20	14.30	18.00	23.20	29.50	32.30
VI. Trade organizations, restaurants and café, service sector	26.90	33.00	34.00	34.00	34.00	34.00	34.00	35.40
VII. Population, residential areas	6.50	8.00	10.30	13.10	16.80	21.30	27.10	30.35
VIII. Electricity used for heating and hot water supply	26.90	33.00	34.00	34.00	34.00	34.00	34.00	34.00
IX. Advertisements and lightings	92.00	105.00	110.00	110.00	110.00	110.00	110.00	110.00
X. Economic requirements of the power system	5.90	7.30	9.70	12.95	16.80	21.30	27.10	30.35
Weighted average tariff	6.68	8.12	10.90	13.80	17.51	22.40	28.75	31.58

Movements of Electricity Tariffs for the year 2002-2005



	cent/ kwh							
	1-Jan-02	1-Jul-02	1-Jan-03	1-Jul-03	1-Jan-04	1-Jul-04	1-Jan-05	1-Jun-05
Rate in US \$	686.90	750.05	948.94	974.00	980.00	1,020.00	1,058.00	1,102.59
I. Industrial consumers, 750 kVA capacity and higher (average)	0.93	1.01	1.17	1.44	1.84	2.25	2.77	2.91
for recorded capacity	1,863.44	1,999.87	2,033.85	2,521.56	3,214.29	3,931.37	4,839.32	5,083.49
per 1 kwh of electricity consumed	0.86	0.93	0.95	1.18	1.51	1.84	2.27	2.39
II. Industrial and equivalent consumers with combined capacity up to 750 kVA	1.46	1.64	1.64	1.77	1.85	2.27	2.79	2.93
III. Consumers in the agricultural production	0.94	1.05	1.09	1.34	1.71	2.14	2.69	2.83
IV. Electric railroads and city transportation (electric traction)	1.36	1.53	1.55	1.77	1.85	2.27	2.79	2.93
V. Non-industrial consumers, budget organizations, establishments in the food production sector (public consumption)	1.13	1.27	1.29	1.47	1.84	2.27	2.79	2.93
VI. Trade organizations, restaurants and café, service sector	3.92	4.40	3.58	3.49	3.47	3.33	3.21	3.21
VII. Population, residential areas	0.95	1.07	1.09	1.34	1.71	2.09	2.56	2.75
VIII. Electricity used for heating and hot water supply	3.92	4.40	3.58	3.49	3.47	3.33	3.21	3.08
IX. Advertisements and lightings	13.39	14.00	11.59	11.29	11.22	10.78	10.40	9.98
X. Economic requirements of the power system	0.86	0.97	1.02	1.33	1.71	2.09	2.56	2.75
Weighted average tariff	0.97	1.08	1.15	1.42	1.79	2.20	2.72	2.86

