



Determination of regulated tariffs:

- I. For generation of electricity and heat
- II. For heat sold to final consumers

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METHODOLOGY OF DETERMINATION, APPROVAL AND APPLICATION OF TARIFFS FOR GENERATION OF ELECTRICITY, HEAT AND BOILED FEED WATER

The methodology sets:

- composition of expenses and costs included in tariffs
- method of calculation of profitability of investments made at enterprises
- procedure for determination, approval and application of basic tariffs
- procedure for revision of basic tariffs during the period of validity of the methodology

Tariffs for generation of electricity, heat include:

- Costs and expenses of the enterprise for generation of a certain type of energy (electricity, heat) or for boiled feed in water
- Profitability of new assets (investments)
- Profit, (5% of own expenses and costs of the enterprise without expenses on fuel and water)
- Financial deviations, which have to be included in the tariff of the current year as a result of deviations from parameters taken into account when setting tariffs and actual ones

Expenses and costs for production

Expenses and costs for production of electricity, heat and boiled feed in water are determined by generators based on:

- volumes of energy and boiled feed in water
- Technical and economic characteristics
- Technical state and degree of efficiency and of power plants (equipment)
- Requirements of current legislative and normative acts
- Valid provisions and norms
- Concluded agreements with outside organizations
- Expense budgets
- Current prices and tariffs in the domestic and foreign markets
- Initial book value and period of useful life of fixed assets, etc.

Operating costs

- ✓ Direct material costs
- ✓ Direct labor costs
- ✓ Indirect production costs
- ✓ Commercial expenses
- ✓ General and administrative expenses
- ✓ Other operating expenses

Determination of consumption of fuel

Specific norm of consumption of conventional fuel for generation of 1 Gcal of heat

$$b = \frac{142,8 \times 100}{r}$$

where: r is the degree of efficiency of the boiler corresponding to the average load for the planned period, %.

When a heat station has several boilers, the specific norm of consumption of fuel is determined for each boiler and the weighted average norm for the heat station

Material costs

- Fuel
- Potable and technical water
- Materials that are directly used in the process of production of energy and boiled feed in water
- Electricity consumed in generation and sale of heat and boiled feed in water

Direct labor costs

- ❖ Wages of production personnel:
 - *main wages by tariff rates and official salaries*
 - *additional wages (bonuses, mark-ups, compensations, rewards, etc.)*
- ❖ Contributions to the social insurance fund
(for 2010 – 23 %)
- ❖ Contributions to the medical insurance fund
(for 2010 – 3.5 %)

Method of allocation of costs and expenses

- *Allocation of costs* for labor remuneration, indirect, commercial, general and administrative expenses between two types of energy (electricity and heat) is done pro rate to the unit weight of cost of fuel used for generation of this type of energy in total costs of fuel for generation of both types of energy

Indirect production costs

- Depreciation of fixed assets of production purpose
- Costs of maintenance of fixed assets of production purpose in working condition
- Cost of materials and spare parts used in the production process
- Costs of labor remuneration for supporting staff and other

Commercial expenses

Marketing services
Commission fees
Advertising expenses
Expenses on remuneration of labor of employees of commercial departments
Depreciation of fixed assets of commercial purpose and other

General and administrative expenses

Expenses on labor remuneration for managerial and office personnel	Expenses on insurance of employees and property
Depreciation of fixed assets of administrative and office purpose	Banking, legal and other services
Maintenance and repairs of fixed assets	Taxes and charges
Expenses on maintenance and repairs of technical control devices	Payment for current lease of fixed assets
Payment for services of general and administrative nature	Other expenses (low value inventory, security, etc.)

Other operating expenses

- **Creation of the turnover fund in the amount of 30 calendar days =**

30 days / 365 days

X

annual volume of sales of electricity and heat

X

interest rate for short-term bank credits set by the National Bank of Moldova

Extraordinary losses

- **Losses from natural calamities**
- **Losses resulting from changes in the legislation of the republic**

Extraordinary losses are determined by the enterprise in case of extraordinary events resulting in real losses confirmed by authorized bodies, and which are included in expenses in accordance with accounting standards.

In such cases only those expenses are accounted for in the tariff, which are not recovered by enterprises from other sources (insurance, government compensations, donations, etc.).

PROFITABILITY OF NEW ASSETS (INVESTMENTS)

- $RI = VNI \times R_r$,

where: VNI is net value of new investments
(commissioned fixed assets)

R_r – the level of profitability (profit) applied to
new investments

Calculation of profitability of new investments for JSC Termocom

Indicators	2003	2004	2005	2006	2007	2008	2009
Profitability level %	23,00	13,75	5,36	9,90	13,65	18,39	13,94
Initial value of long term assts, thousand Lei	24 428,0	31 848,5	44 152,0	70 933,2	61 427,7	35 032,1	32 891,2
Annual amount of depreciation	3 053,5	2 841,6	5 830,2	5 807,8	9 270,5	15 727,8	15 727,8
Initial value of long-term assets (for all years)		56 276,5	100 428,5	171 361,7	232 789,4	267 821,5	300 712,7
Accumulated annual amount o depreciation		3 053,5	8 948,6	20 674,0	38 207,1	65 010,7	107 542,2
Profitability included in the tariff, thousand lei	5 618,4	7 318,2	4 903,3	14 918,1	26 560,5	37 296,9	26 928,0

Generation of electricity in 2008-2009

Sources	2007	2008	2009
Generation of electricity (million kWh)	903,7	905,0	866,0
JSC CET - 1	130,6	120,7	116,7
JSC CET – 2	682,2	640,7	639,4
JSC CET Nord	55,4	55,2	53,5
SE NHE Costesti	32,9	81,8	54,0
Other sources	2,6	6,6	2,4

COMPONENTS OF THE TARIFF FOR HEAT SOLD TO END USERS

- ☐ Cost of generated heat
- ☐ Cost of purchased heat
- ☐ Losses of heat
- ☐ Cost of services on transportation, distribution and supply of heat to consumers
- ☐ Profitability of new assets (*investments*)
- ☐ Profit (*5% of the cost of services on transportation, distribution and supply of heat to consumers (with cost of acquired and generated heat)*)

Cost of services on transportation, distribution and supply of heat to consumers

- ✓ Amortization costs
- ✓ Costs of maintenance, operation and repair of distribution networks
- ✓ Costs of production personnel labor remuneration
- ✓ Material costs
- ✓ Costs of maintenance, operation and repairs of heating networks and equipment
- ✓ Other expenses of the enterprise on distribution of heat

Tariff for heat sold to consumers of the JSC Termocom

Indicators	Measurement unit	Tariff for 2010	
		total	US\$/Gcal
I. Generated heat	thousand Gcal	439	
II. Purchased heat	thousand Gcal	1 412,0	
Including : CET – 1	thousand Gcal	247,0	
CET - 2	thousand Gcal	1 165,0	
III. Total heat in networks	thousand Gcal	1 850,9	
IV. Losses of heat	thousand Gcal	383,5	
	%	20,7	
V. Heat sold to consumers	thousand Gcal	1 467,4	
VI. Cost of generated heat	thousand US\$	19 868	13,54
VII. Cost of purchased heat	thousand US\$	49 244	33,56
VIII. Cost of heat in networks (VI +VII)	thousand US\$	69 142	47,10
IX. Cost of services on transportation and distribution	thousand US\$	19 231	13,11
X. Total costs and expenses (VIII + IX)	thousand US\$	88 373	60,21
XI. Profit	thousand US\$	577	0,39
XII. Tariff for heat sold to consumers (X + XI)	thousand US\$	88 960	60,60

APPROVAL, REVISION AND APPLICATION OF TARIFFS

- Tariffs are approved on the average level for the period of one calendar year, as a rule, before the beginning of the heating season
- Revision of tariffs is done annually after enterprises present financial statements for the previous year and materials necessary for revision of tariffs
- Tariffs are set as marginal and common for all consumers and cannot be increased by enterprises
- Enterprises have the right to require ad hoc revision of tariffs during the year, provided there are financial deviations of more than 3% and more from the initially set in tariffs cost of supply of heat

Thank you for attention!

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