

# Energy Regulatory Office – (ERO)

---

## **Determination of Allowed Revenues** **DH TERMOKOS JSC & DH GJAKOVA JSC** **Heating Season 2007/2008**

Astrit Saraqini  
District Heating & Gas Expert

Prishtina, October 2007



# Determination of Allowed Revenues

Determination of Allowed Revenues – “semi-final”, but most important, outcome of the district heating price review.

Final outcome - approved district heating tariff.

## ❖ District Heating Price Review – two main phases:

- Regulatory Reporting

Comparison of actual data versus forecasted – reconciliation of current tariffs with new projected ones

- Tariff Application

Forecasted information - “ex-ante” determining allowed revenues and setting the tariffs;

# Determination of Allowed Revenues

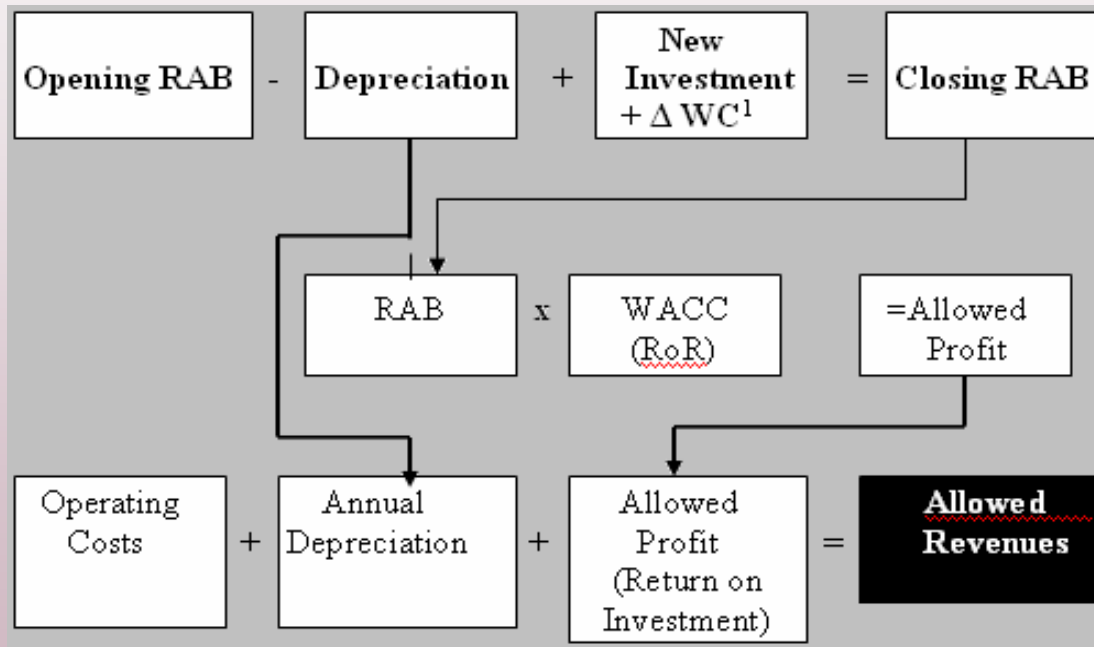
## ❖ Legal Base

- **Law on Energy Regulator – Articles 46, 47, and 48**  
Responsibility of ERO for establishing tariff methodology and approving the tariffs in regulated energy sector;  
Since DH sector in transportation and distribution of heat is classified as natural monopoly, while for time being no competition exist in heat generation, the district heating tariffs are subject to approval by ERO.
- **Instruction I\_05\_2007 “on the Principles of Calculation of Tariffs and Prices in District Heating Sector in Kosovo for the Heating Season 2007/2008”**  
The instruction sets the procedures for submission and approval of tariffs and the methodology for determination of allowed revenues and tariff calculation.

# Determination of Allowed Revenues

## ❖ Methodology

- **Applied Rate of Return (RoR) Methodology (“cost plus”)**
  - Basic principle: The company should recover all reasonable and justified costs plus a reasonable return on its assets.
- **Formulation**
  - Schematic presentation (“building block”)



- **Formula:  $R = OC + \text{Annual Depreciation} + (\text{RoR} \times \text{RAB})$**

# Determination of Allowed Revenues

## ❖ Methodology (contin...)

- **Operational costs (OC)**
  - Fixed Costs ( $OC_F$ ) and Variable Costs ( $OC_V$ )
- **Annual Depreciation**
  - Depreciation for the respective year
- **Allowed Return (RoR x RAB)**
  - Represents the reasonable return on assets (company profit) that company is allowed to return
    - o Rate of Return (RoR) / Weighted Average Cost of Capital (WACC)

$$WACC_{pre-tax} = [(D/V) * k_d] + [(E/V) * k_e]$$

$$WACC_{pre-tax} = [8\% * 0.6] + [14.4\% * 0.4] = 10.6\%$$

For all district heating sector in Kosovo

- o Regulatory Asset Base (RAB)  
Company assets considered to be used and useful for public service  
**RAB = Fix Assets (after cumul. depr.) + New Inv. + Work. Cap.**



ERO

# Determination of Allowed Revenues

## District Heating Termokos JSC

### ❖ Allowed Operational Costs

In €

Costs / Kostot	DH TERMOKOS JSC		Proposed by	Allowed by ERO
			Propozuar nga	Lejuar nga
			DH Termokos	ZRrE
41	<b>Total Operational costs</b>	<b>Totali i shpenz. operative</b>	<b>5,797,100</b>	<b>5,622,639</b>
42	<b>Fixed costs</b>	<b>Kostot fikse</b>	<b>1,047,000</b>	<b>778,550</b>
43	<b>Variable costs</b>	<b>Kostot variabël</b>	<b>4,750,100</b>	<b>4,844,089</b>
44	<b>Subs. repairs &amp; bad debt</b>	<b>Subv. ripar. e borxhe të këqija</b>	<b>432,000</b>	<b>432,000</b>
45	<b>Subsidy for fuel</b>	<b>Subvencion për mazut</b>	<b>1,100,000</b>	<b>1,100,000</b>
46	<b>Allowed operational costs (OC)</b>	<b>Kostot e lej.oper.</b>	<b>4,265,100</b>	<b>4,090,639</b>
47	<b>Fixed part of OC</b>	<b>(OCf) Pjesa Fikse</b>	<b>770,309</b>	<b>566,419</b>
48	<b>Variable part of OC</b>	<b>(OCv) Pjesa Variab.</b>	<b>3,494,791</b>	<b>3,524,220</b>

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Provision for Bad Debts

<b>DH TERMOKOS</b>	Proposed Propozuar	Allowed by ERO Lejuar nga ZRrE
<b>Bad Debts Provision (BDP)</b>	<b>1,324,000</b>	<b>334,024</b>

### ❖ Depreciation

<b>DH TERMOKOS</b>	Proposed Propozuar	Allowed by ERO Lejuar nga ZRrE
<b>Annual Depreciation</b>	<b>863,000</b>	<b>819,777</b>



ERO

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Establishment of Closing Regulatory Asset Base (RAB)

In €

Closing Regulatory Asset Base DHC TERMOKOS for DH season 2007 - 2008		Proposed by Propozuar nga DH TERMOKOS	Allowed by ERO Lejuar nga ZRRrE
3.3.1.1	Book value existing Fixed Assets (after cumulative depreciation)	8,541,957	8,235,957
3.3.1.2	New investments	755,500	455,500
3.3.1.3	Working Capital	682,648	682,648
	<b>Regulatory Asset Base (RAB)</b>	<b>9,980,105</b>	<b>9,374,105</b>

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Allowed Return on Closing RAB

In €

Allowed Return (Allowed Profit) on Closing RAB for DH TERMOKOS for DH season 2007 - 2008		Proposed by Propozuar nga DH TERMOKOS	Allowed by ERO Lejuar nga ZRrE
RAB	Closing Regulatory Asset Base	9,980,105	9,374,105
RoR	Rate of Return at WACC level	10.6 %	10.6 %
Allowed Return or Allowed Profit		1,057,891	993,655



ERO

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Allowed Revenues Before Reconciliation

In €

Allowed Revenues before Reconciliation DH TERMOKOS for DH season 2007 – 2008		Proposed by Propozuar nga DH TERMOKOS	Allowed by ERO Lejuar nga ZRrE
OC	Allowed operational costs	4,265,100	4,090,639
BDP	Bad Debts Provision	1,324,000	334,024
	Depreciation	863,000	819,777
	Allowed Return on Closing RAB	1,057,891	993,655
$R_{bRec}$	Allowed Revenues before Reconciliation	7,509,991	6,238,095

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Allowed Revenues Including Reconciliation

In €

Allowed Revenues – DHC TERMOKOS for DH season 2007 – 2008		Allowed by ERO Lejuar nga ZRrE
$R_{bRec}$	Allowed Revenues before Reconciliation DH season 2007-2008	6,238,095
	Reconciliation DH season 2006-2007	(721,780)
	Reconciliation DH season 2004-2005	(292,554)
<b>R</b>	<b>Allowed Revenues</b>	<b>5,223,761</b>
$R_F$	Fixed Part of Allowed Revenues	723,319
$R_V$	Variable Part of Allowed Revenues	4,500,442

# Determination of Allowed Revenues

## District Heating Termokos JSC (cont.)

### ❖ Comparison of Allowed Revenues

Heating Season 2006/07 vs. Heating season 2007/08

In €

Allowed Revenues DHC TERMOKOS		Heating Season 2006/2007	Heating Season 2007/2008
R	Allowed Revenues	5,540,175	5,223,761

# Determination of Allowed Revenues

## District Heating Gjakova JSC

### ❖ Allowed Operational Costs

In €

					Proposed by	Allowed by ERO
					Propozuar nga	Lejuar nga
<b>Costs / Kostot</b>					<b>DH GJAKOVA JSC</b>	
					DH Gjakova	ZRrE
36	<b>Total Operational Costs Totali i Shpenz. Operative</b>				<b>912,920</b>	<b>846,670</b>
37	<b>Fixed costs</b>	<b>Kostot</b>	<b>fikse</b>		186,650	165,050
38	<b>Variable costs</b>	<b>Kostot</b>	<b>variab.</b>		726,270	681,620
39	<b>Subsidy for mazut</b>	<b>Subvenc. per mazut</b>			200,000	200,000
40	<b>Subsidy for repairs</b>	<b>Subvenc. per riparime</b>			150,000	150,000
41	<b>Allowed operational costs (OC)</b>		<b>Kostot e lej. oper.</b>		<b>562,920</b>	<b>496,670</b>
42	<b>Fixed part of OC</b>	<b>(OCf)</b>	<b>Pjesa</b>	<b>Fikse</b>	<b>115,091</b>	<b>96,821</b>
43	<b>Variable part of OC</b>	<b>(OCv)</b>	<b>Pjesa</b>	<b>Var.</b>	<b>447,829</b>	<b>399,849</b>

# Determination of Allowed Revenues

## District Heating Gjakova JSC (cont.)

### ❖ Establishment of Closing Regulatory Asset Base (RAB)

In €

Closing Regulatory Asset Base DH GJAKOVA for DH season 2007 - 2008		Proposed by Propozuar nga DH GJAKOVA	Allowed by ERO Lejuar nga ZRrE
3.3.1.1	Book value existing Fixed Assets (after cumulative depreciation)	2,963,000	1,794,491
3.3.1.2	New investments	200,000	50,000
3.3.1.3	Working Capital	270,000	270,000
	<b>Regulatory Asset Base (RAB)</b>	<b>3,433,000</b>	<b>2,114,491</b>

# Determination of Allowed Revenues

## District Heating Gjakova JSC (cont.)

### ❖ Allowed Return on Closing RAB

In €

Allowed Return (Allowed Profit) on Closing RAB for DH GJAKOVA for DH season 2007 – 2008		Proposed by Propozuar nga DH Gjakova	Allowed by ERO Lejuar nga ZRrE
RAB	Closing Regulatory Asset Base	3,433,000	2,114,491
RoR	Rate of Return at WACC level	10.6 %	10.6 %
	Allowed Return or Allowed Profit	363,898	224,136

# Determination of Allowed Revenues

## District Heating Gjakova JSC (cont.)

### ❖ Allowed Revenues Before Reconciliation

Allowed Revenues before Reconciliation DH GJAKOVA for DH season 2007 – 2008		Proposed by DH GJAKOVA	Allowed by ERO €
OC	Allowed operational costs	562,920	496,670
	Depreciation	280,000	190,548
	Allowed Return on Closing RAB	363,898	224,136
$R_{bRec}$	Allowed Revenues before Reconciliation	1,206,818	911,354

# Determination of Allowed Revenues

## District Heating Gjakova JSC (cont.)

### ❖ Allowed Revenues Including Reconciliation

In €

Allowed Revenues – DHC GJAKOVA for DH season 2007 – 2008		Allowed by ERO
$R_{bRec}$	Allowed Revenues before Reconciliation DH season 2007-2008	911,354
	Reconciliation DH season 2006-2007	(28,310)
<b>R</b>	<b>Allowed Revenues</b>	<b>883,044</b>
$R_F$	Fixed Part of Allowed Revenues	172,141
$R_v$	Variable Part of Allowed Revenues	710,903

# Determination of Allowed Revenues

## District Heating Gjakova JSC (cont.)

### ❖ Comparison of Allowed Revenues

Heating Season 2005/06 vs. Heating season 2007/08

In €

Allowed Revenues DHC GJAKOVA		Heating Season 2006/2007	Heating Season 2007/2008
R	Allowed Revenues	877,758	883,044

**Thanks for your attention!**



*ERO*

[www.ero-ks.org](http://www.ero-ks.org)