

Co-funded by the Intelligent Energy Europe Programme of the European Union CONCERTED ACTION ENERGY EFFICIENCY DIRECTIVE

Heating and hot water consumption metering and billing in Lithuania

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Chief Specialist State Enterprise Energy Agency

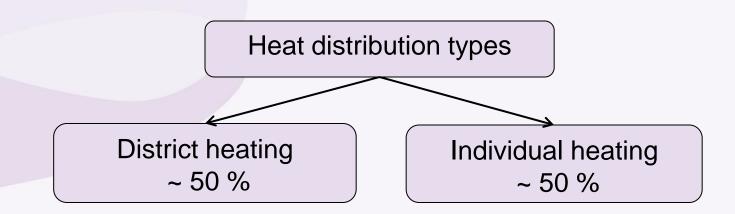
FOR A SUSTAINABLE FUTURE

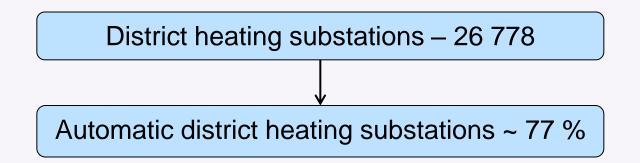
District heating legal and regulatory framework

- Law on Heating Sector
- Rules of Heat Supply and Consumption
- Rules of Heat Energy Accounting
- Rules of Preparation and Application of the Methods of Distribution (Allocation) of the Heat Energy Quantity for Consumers.
- Procedure of District Heating Price Application and Setting Bills for Heating and Hot Water Consumption.
- Methodology of the Norms of Heat or Other Types of Energy Determination Without Metering.

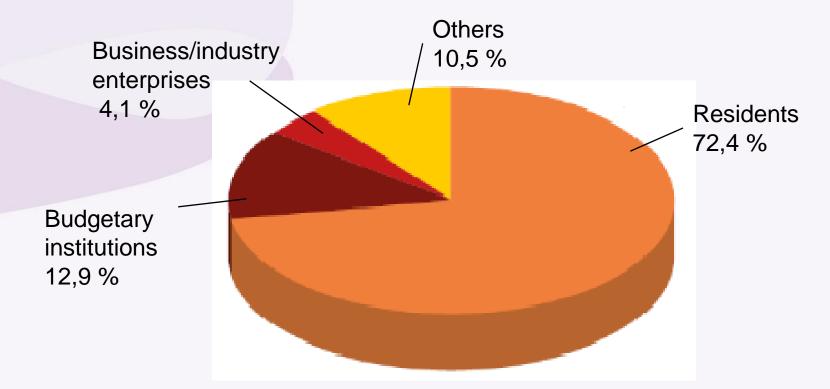
- To solve different problems raised in energy sector, consumers can refer to:
- National Commission for Energy Control and Prices www.regula.lt
- State Energy Inspectorate under the Ministry of Energy the Republic of Lithuania www.vei.lt
- State Consumer Rights Protection Authority www.vartotojoteises.lt

51 heat suppliers was operating in Lithuania in 2012.



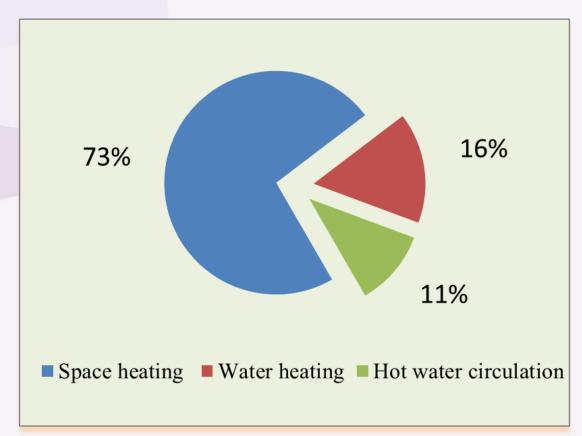


Structure of district heat consumers in 2012



Source: http://www.lsta.lt/lt/pages/apie-silumos-uki/cst-rodikliai

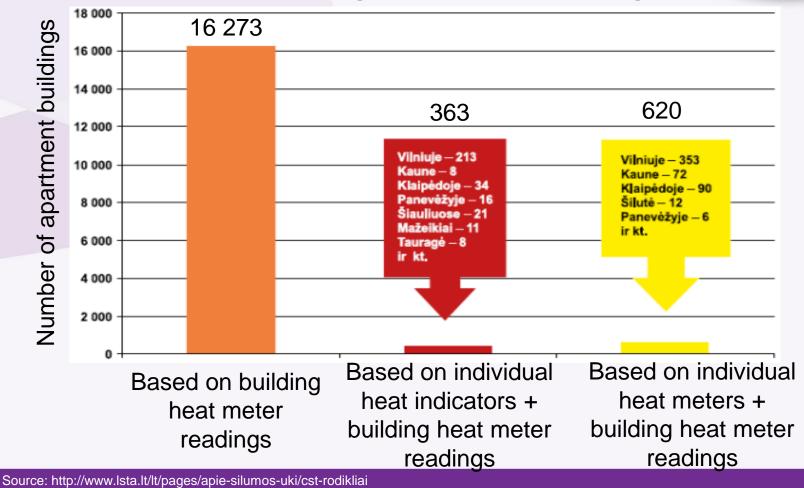
Residential heat consumption



Heat metering in apartment buildings

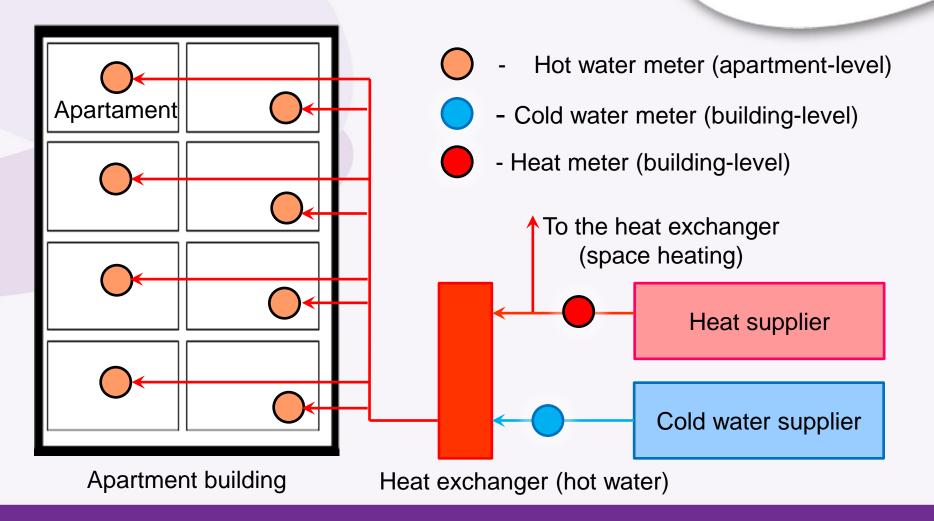
- Heat distribution is based on building heat meter readings (for apartments and common areas);
- Heat distribution is based on: building heat meter readings (for common areas) + individual heat indicators (for apartments);
- Heat distribution is based on: building heat meter readings (for common areas) + individual heat meters (for apartments).

Heat metering in apartment buildings



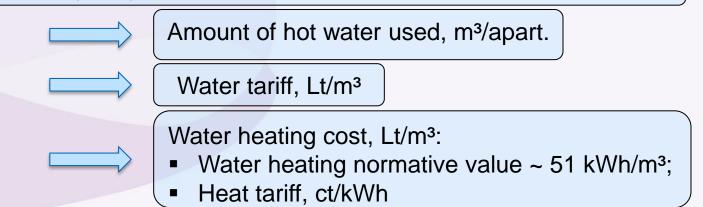
Hot water distribution scheme and metering

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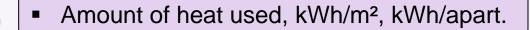
ENERGY EFFICIENCY Heat distribution (heating) and metering DIRECTIVE 1.Common area + Apartment 1 2.Common area + Apartment 2 3.Common area + Apartment 3 - Heat meter (building level) - Heat meter (apartment level) - Heat indicator (apartment level) No apartment level metering to the heat exchanger (hot water) Apartment building Heat supplier Heat exchanger (space heating)

1. Monthly payment for hot water consumption, Lt/apart.



2. Hot water circulation cost, Lt/apart. (~160 kWh/apart.)

3. Monthly payment for space heating, Lt/apart.



Heat tariff, ct/kWh

- Heat energy suppliers present about 17 000 monthly bills for apartment buildings and about 700 000 monthly bills for apartments. Monthly bills include information about heat consumption for space heating, water heating and hot water circulation.
- Monthly bills are compiled according to The Heat Energy for Heating and Hot Water Consumption Forms approved by Minister of Energy of the Republic of Lithuania.

Apartment information provided in monthly bills:

- Contact details of a heat consumer/heat supplier;
- Apartment area (m²) and number of tenants;
- Hot water meter readings (from, to, difference), m³;
- Hot water, Lt/m³, Lt/month;
- Hot water circulation, MWh (based on normative values or meter readings), Lt/MWh, Lt/month;
- Space heating, MWh, Lt/MWh, Lt/month based on area;
- Space heating MWh, Lt/MWh, Lt/month based on indicator reading + area;
- Space heating MWh, Lt/MWh, Lt/month based on individual meter reading + area;
- Used fuel information, Lt;

Example of the bill

Details of the heat supplier

🔅 Vilniaus energija

Mokétojas

т	ie:	lożi	8.8
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UAB "Vilniaus energija" Jočionių g. 13, LT-02300 Vilnius-53 Imonės kodas 111760831 PVM mokėtoje kodas LT117608314 Imonės registre kodas UJ 02-37 Informacija tel.: 1899, (8 5) 266 71 99

Sąskaita Nr. G2 Sąskaita išrašyta 20	012 m	etails	of th	e he	eat consu	mptior	IN	TO KODAS	7846280	
Už 2012 m. gruodž Objekto adresas Šv						ETI NE VÉL		2013 m cm	nio 21 4	
	s pavadinimas	Mato vnt.	Kiekis	Vieneto ksina be PVM Lt	Suma be PVM Lt	PVM suma Lt (dydis %)	Suma su PVM Lt	Perskaičia vimų suma su PVM Lt	III viso Lt	
Šiluma k. v. temperat		. MWb	0,160000		43,90	3,95 (9%)	47,85	0,00	47,85	
Šildymas (pagal dalik		MWh	0,813600		223,25	20,09 (9%)	243,34	0,00	243,34	
Šildymas (pagal plotą	-	MWh	0,262942	274,40	72,15	6,49 (9%)	78,64	0,00	78,64	
Iš viso už šilumos en	ergiją:				339,30		369,83		369,83	
Už dujas					183,87					
Už mazutą					27,33					
Už biokurą					13,97					
Kompensacija už kura					25,84				_	
Iš viso už k					251,01					
UAB "Viln Karštas vandao	iiaus energija" di	alis kainoje ***	2 286000	10.51	88,29					
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Stimmos kasių paskirs	(ymo sistemos pi	neziura m-	50,120000	0,12	6,01	1,26 (21%)	7,27	0,00	7,27	
				1000 C	411,37	37.74	449,11	ti,00	449,11	
Water meter readings ^{11 in eperskaičiavus šilaenos kairų.} Remisetis Vilniaus miesto savivaldybės tarybos ir VKEKK ¹⁰⁰ m. spalio 1 d. iki 2014 m. grgužės 31 d. ^{11 montal} , technologinis vanduo, personatai) Atsiskaitomojo laikotarpio ataskaita										
Gyventojų skaičius			1	2 N	fénesio pradžios likutis I	1			322,60	
Objekto plotas			50,13	2 5	umokėta Lt				-322,60	
				A	pskaičiuota per ménes	į Lt			449,11	
Skaitiklio Nr.	Nuo	Iki	Skirtumas	N	fenesio pabaigos likuti	s Lt			449,11	
7846280-KV-1	296,884	299,671	2,78	7 3	lokéti iš viso Lt	And And	22.2.10	and the second	449,11	
7846280-KV-2	94,243	94,842	0,599	2					,	

Actual heat energy consumption of buildings

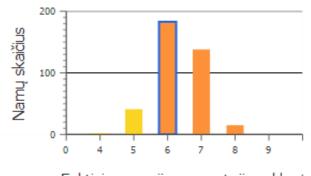


Faktinio energijos vartojimo klasė Dūkštų g. 12

Priartinti

2011-2012 šildymo sezonas: 7 2012-2013 šildymo sezonas: 6 (bloga)

Daugiabučių namų atnaujinimo tvarka



Faktinio energijos suvartojimo klasė

Actual heat energy consumption class

Source:http://www.vilnius.lt/vmap/t1.php?layershow=siluma

Thank you for your attention

CONCERTED ACTION ENERGY EFFICIENCY DIRECTIVE

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