



ROMANIAN ENERGY REGULATORY AUTHORITY



REPORT

**ON THE STATUS OF THE PUBLIC SERVICE OF THERMAL ENERGY
SUPPLY IN CENTRALIZED SYSTEM FOR THE YEAR 2021**

JUNE 2022

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1. INTRODUCTION

This Report was prepared according to art. 15, paragraph (2) of ANRE's Order no. 11/2021 for the approval of the *Methodology for monitoring the public service of thermal energy supply in centralized system and of the urban heating and/or cooling systems*, hereinafter referred to as Methodology.

In accordance with the provisions of the *Law on community services of public utilities no. 51/2006, republished, with subsequent amendments and completions*, the activities of production, transport, distribution and supply of thermal energy are subject to licensing, regulation and control of ANRE from the date of entry into force of *Law no. 225/2016 for the amendment and completion of the Law on community services of public utilities no. 51/2006*.

The *methodology* establishes the parameters used for monitoring the public central heating system (SPAET) and the district heating and/or cooling systems, the obligations of economic operators from the thermal energy sector regarding the reporting of the monitoring data and the analyzes and reports elaborated by ANRE based on the monitoring data received from the economic operators.

Through the monitoring activity of SPAET, ANRE aims to achieve the following objectives:

- to analyze the evolution of SACET at local, regional and national level;
- to evaluate the results obtained by SACET operators and the way of fulfilling the specific obligations/attribution;
- to develop the specific SPAET database;
- to elaborate reports on the state of SPAET;
- to identify the general problems existing at SPAET level, according to the data collected from the monitored SACET operators.

The current report is sent to the Government and the specialized commissions within the Romanian Parliament and is published on the website www.anre.ro.

2. LEGISLATION APPLICABLE IN THE THERMAL ENERGY SECTOR

2.1 – Primary legislation

- **Law no. 51/2006** on community services of public utilities, republished, with subsequent amendments and completions
- **Law no. 325/2006** on the public heat supply service, with subsequent amendments and completions
- **Law no. 196/2021** for amending and completing the Law on the public heat supply service no. 325/2006, for amending Law no. 121/2014 on energy efficiency, art. 10, para. (5) and to complete Law no. 227/2015 regarding the Fiscal Code, art. 291, para. (3)
- **Law no. 196/2018** on the establishment, organization and operation of owners' associations and the administration of condominiums, with subsequent amendments and completions
- **Energy efficiency law no. 121/2014** with subsequent amendments and completions, transposing the provisions of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing of Directives 2004/8/EC and 2006/32/EC
- **Law on electricity and natural gas no. 123/2012**, with subsequent amendments and completions
- **Law no. 215/2001** of the local public administration, with subsequent amendments and completions
- **G.D. no. 1.076/2021** regarding the approval of the Integrated National Plan in the field of Energy and Climate Change 2021-2030 (INECP)
- **G.E.O. no. 53/2019** on the approval of the Multiannual Program for financing investments for the modernization, rehabilitation, refurbishment and extension or establishment of centralized systems of thermal energy supply for localities and for amending and supplementing the Law on community services of public utilities no. 51/2006 approved with amendments and completions by Law no. 150 / 2022
- **G.E.O. no. 36/2006** on certain measures for the operation of the centralized systems of thermal energy supply for the population, with subsequent amendments and completions
- **G.E.O. no. 33/2007** regarding the organization and functioning of the National Authority for Regulation in Energy, approved with modifications and completions by Law no. 160/2012, with subsequent amendments and completions
- **G.E.O. no. 118/ 2021** regarding the establishment of a compensation scheme for the consumption of electricity and natural gas for the cold season 2021-2022, as well as for the

completion of Government Ordinance no. 27/1996 regarding the granting of facilities to people who live or work in some localities in the Apuseni Mountains and in the "Danube Delta" Biosphere Reservation

- **G.E.O. no. 27/2022** regarding the measures applicable to final customers in the electricity and natural gas market in the period April 1, 2022 - March 31, 2023, as well as for the modification and completion of some normative acts in the field of energy, with subsequent amendments and completions.

2.2- Secondary legislation

- **ANRE Order no. 61/2022** regarding the approval of the Regulation for the granting of licenses in the field of centralized thermal energy supply service, with subsequent amendments and completions
- **ANRE Order no. 23/2021** for the amendment and completion of ANRE Order no. 53/2017 regarding the approval of the Regulation for the authorization of legal entities carrying out activities of installation and operation of cost allocation systems for heating and hot water consumption in condominium buildings
- **ANRE Order no. 11/2021** for the approval of the Methodology for monitoring the public service of thermal energy supply in centralized system and of the urban heating and/or cooling systems
- **ANRE Order no. 146 /2021** for the approval of the Instructions regarding the principles, content and instructions of local strategies for the thermal energy supply service of the population
- **ANRE Order no. 13/2020** for the approval of the Regulation for issuing technical approvals on energy efficiency under the District Heating Program
- **ANRSC Order no. 66/2007** on the approval of the Methodology for establishing, adjusting or modifying the local prices and tariffs for public services of thermal energy produced in centralized system, exclusively the thermal energy produced in cogeneration
- **ANRSC Order no. 91/2007** for the approval of the Framework Regulation of the public service for thermal energy supply, with subsequent amendments and completions
- **ANRSC Order no. 343/2010** for the approval of the Technical Norm regarding the distribution of thermal energy consumption among consumers in condominium buildings, in case of using the distribution systems of costs for heating and hot water for consumption
- **ANRSC Order no. 483/2008** regarding the approval of the Framework Contract for thermal energy supply
- **ANRSC Order no. 92/2007** for the approval of the Framework Specifications of the public service for thermal energy supply service

3. THERMAL ENERGY SUPPLY IN CENTRALIZED SYSTEM

3.1 The public service of thermal energy supply in centralized system (SPAET)

According to the provisions of **art. 1 para. 4 of the Law on community services of public utilities no. 51/2006, republished, with subsequent amendments and completions**, the heat supply service is defined as a public service in order to ensure a high level of safety and accessibility, equal treatment, promotion of universal access and user rights, having the following features:

- has an economic and social character;
- responds to requirements and needs of public interest and utility;
- has a technical-urban character;
- has a permanent character and a continuous operation regime;
- the operating regime may have monopoly-type characteristics;
- implies the existence of an adequate technical-municipal infrastructure;
- the coverage area has local dimensions: communal, urban, municipal or county;
- it is the responsibility of the local public administration authorities;
- it is organized on economic and efficiency principles in conditions that allow them to fulfill their specific public service missions and obligations;
- the management method is established by decisions of the deliberative authorities of the local public administration;
- it is provided based on the "beneficiary pays" principle;
- the recovery of operating and investment costs it is made through prices and tariffs or taxes and, as the case may be, from budgetary allocations. The measure may involve elements of *state aid* type, in which case the local public administration authorities request the approval of the Competition Council.

3.2 The centralized system of thermal energy supply (SACET)

The public service of thermal energy in centralized system (SPAET) includes all the activities regarding the production, transport, distribution and supply of thermal energy, carried out at the level of administrative-territorial units under the leadership, coordination and responsibility of local public administration authorities or associations for community development, as appropriate, in order to ensure the thermal energy necessary for heating and preparation of hot water for consumption for the population, public institutions, social - cultural objectives and economic operators.

According to the regulations in force, the public service of thermal energy supply in centralized system is performed through specific technical-municipal infrastructure, belonging to the public or to the private domain of the local public administration authority or the community development

association, which forms the **centralized system of thermal energy supply** of the locality or of the community development association.

The centralized system of thermal energy supply (SACET) represents a unitary technological and functional kit consisting of constructions, installations, equipment, specific endowments and measuring means for the production, transport, distribution and supply of thermal energy in the locality and is made of:

- Thermal power plant;
- District heating power plants;
- Transport networks;
- Distribution networks;
- Thermal points;
- Thermal stations/modules;
- Connecting pipes, up to the delimitation/separation points of the installations;
- Auxiliary constructions and installations;
- Measurement, control and automation systems.

3.3 Economic operators monitored in 2021

The SACET operators and the related independent thermal energy producers, which transmitted to ANRE the data regarding the activity carried out at the level of the year 2021, according to the provisions of the *Methodology* are presented by regions in *Table no. 1*.

Table no. 1 - SACET operators with related independent heat producers

Region	County	Localuty	SACET Operators	Independent thermal energy producers
North-East Region	Suceava	Suceava	Thermonet SRL	Bioenergy Suceava SA
		Rădăuți	Servicii Comunale SA	
		Vatra Dornei	Municipiul Vatra Dornei	
	Bacău	Bacău	Thermoenergy Group SA	
	Botoșani	Botoșani	Modern Calor SA	
	Iași	Iași	Veolia Energie Iași SA/ UAT – Iași Municipality	
	Vaslui	Vaslui	Goscom Vaslui SA	
		Bârlad	Compania de Utilitati Publice SA	
North-West Region	Bihor	Oradea și Com. Sănmartin	Termoficare Oradea SA	Transgex SA
		Beiuș	Transgex SA	
	Cluj	Cluj-Napoca	Termoficare Napoca SA	Colonia Cluj-Napoca Energie S.R.L.

South – West Region	Dolj	Craiova	Termo Craiova SRL	Societatea Complexul Energetic Oltenia S.A. Târgu Jiu
	Mehedinți	Drobeta Turnu Severin	SPAET Drobeta Turnu Severin	
	Gorj	Motru	UATAA Motru SA	
	Vâlcea	Râmnicu Vâlcea	CET Govora SA	
		Băile Olănești		
		Călimănești	Societatea CET Govora SA SACET Călimănești +DADPPAET Călimănești	
		Horezu	Reimar Construct SRL	
South – East Region	Buzău	Buzău	RAM TERMO VERDE SRL	
		Nehoiu	Termo Prest Pon Nehoiu SRL	
	Constanța	Constanța	RADET Constanța /Termoficare Constanța SRL	Societatea Electrocentrale Constanța SA
		Mangalia	Goldterm Mangalia SA	
		Cernavodă	Utilități Publice Cernavodă SRL	Societatea Națională Nuclearelectrica S.A. București
		Năvodari	Termica Distribuție Năvodari SRL	Uzina Termoelectrică MIDIA SA.+ Rompetrol Energy S.A.
	Galați Tulcea	Galați	Calorgal SA	
		Tulcea	Energoterm SA	
	Vrancea	Focșani	ENET SA	
		Panciu	D.U.S.P.I. SERV Panciu S.R.L.	
South Region	Prahova	Ploiești	Veolia Energie Prahova SRL	
	Giurgiu	Giurgiu	Uzina Termoelectrica Production Giurgiu SA	S.C. Electro Energy Sud SRL
	Călărași	Călărași	SPCTAFL	
		Lehliu Gară	D.G.C.L.	
	Argeș	Pitești	Termo Calor Confort SA	
		Mărăcineni		
West Region	Hunedoara	Brad	Termica Brad SA	
		Deva	Societatea Complexul Energetic Hunedoara SA – Sucursala Electrocentrale Deva	
	Arad	Arad	CET Hidrocarburi SA	S.C. CET ARAD SA
		Nădlac	Apoterm Nădlac SA	
	Timiș	Timișoara	Compania Locală de Termoficare Colterm SA	
Center Region	Brașov	Brașov	SPLT Brașov	Bepco SRL
		Făgăraș	SPAET	
	Sibiu	Sibiu	Urbana SA	
	Covasna	Întorsura Buzăului	Serviciul public de alimentare cu energie termică	
		Sfântu-Gheorghe	Urban-Locato	
	Harghita	Odorheiu	Urbana SA	

		Secuiesc		
		Miercurea Ciuc	Goscom SA	Poligen Power Energy SRL
		Gheorgheni	SPLT Gheorgheni	
Bucharest-Ilfov Region		București	Compania Municipală Termoelectrică București SA	CET Grivița SRL
				Vest - Energo SA
				Electrocentrale București SA
	Ilfov	Otopeni	Veolia Energie România SA	

Source: ANRE

During 2021, 47 operators of centralized heat supply systems were active, operating a number of 49 SACETs in 50 localities, located in 28 counties and the Municipality of Bucharest.

The evolution of the number of SACET operators in the period 2019-2021 is presented in Table no. 2.

Table no. 2 – The evolution of the number of SACET operators in the period 2019-2021

Region	2019	2020	2021
North-East	8	8	8
South-East	10	10	10
South	5	5	5
South-West	5	5	6
West	5	5	5
North-West	4	4	3
Center	7	8	8
Bucharest - Ilfov	2	2	2
Total	46	47	47

Source: ANRE – collected data from monitored operators

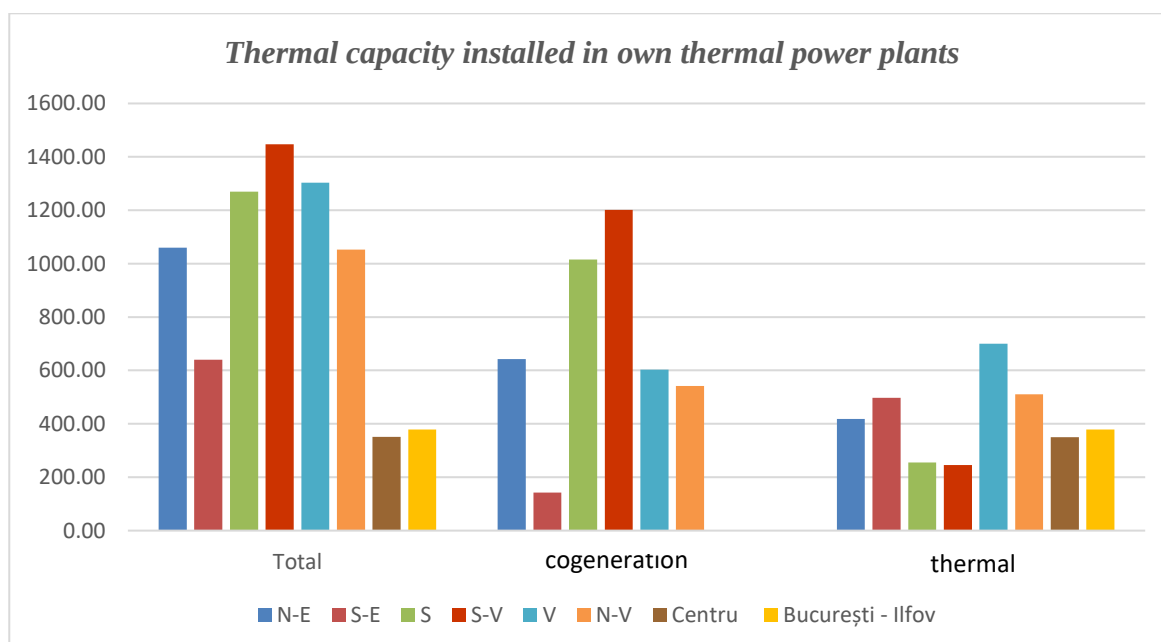
4. THE MAIN CHARACTERISTICS OF SACET

4.1. Thermal capacity installed in thermal power plants belonging to SACET

At the level of the year 2021, based on the data reported by the SACET operators resulted a total thermal capacity installed in thermal power plants belonging to SACET of **7,501.03 MW**, from which **4,174.43 MW** represent the cogeneration production capacity and **3,353.59 MW** represents the thermal capacity of separate production of thermal energy. These data do not include the thermal energy production capacities of the independent producers from which the SACET operators have bought thermal energy in 2021, these being reported to ANRE, by the independent thermal energy producers, according to annexes no. 9-12 of the methodology. In accordance with Art. 24 para. (6) of Directive 2012/27 / EU on energy efficiency, ANRE centralizes and processes the data reported by economic operators, according to the models submitted by EUROSTAT, for transmission to the National Institute of Statistics.

In figure no. 1 it can be observed the fact that the highest installed thermal capacity in thermal power plants belonging to SACET is in the South -Western region - 1,446.98 MW, followed by the West region - 1,302.63 MW. At the opposite pole are the Central region with 351 MW and Bucharest - Ilfov with 378.3 MW.

Figure nr. 1 - Thermal capacity installed in thermal power plants belonging to SACET, by regions (MW)



Source: data collected from the SACET operators monitored according to the Methodology

4.2 The number of thermal power plants belonging to SACET

In 2021, the SACET system included 17 cogeneration plants (CET) and 615 thermal power plants (CT), of which 69 area thermal power plants, 281 neighbourhood thermal power plants and 265 block thermal power plants.

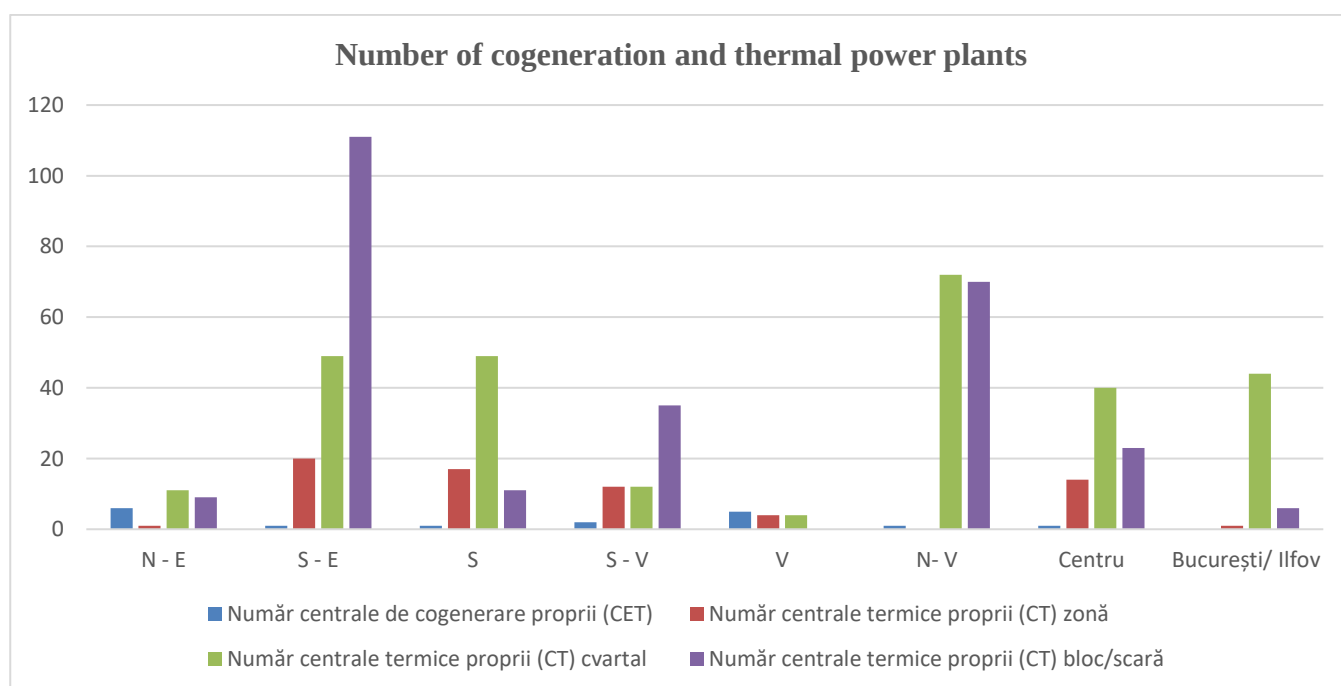
The distribution of these plants, by regions, is presented in Figure no. 2.

Table no. 3 - The evidence of the number of cogeneration plants (CET) and of the number of thermal power plants (CT) belonging to SACET, by regions

Region	Number of cogeneration power plants (CET)	Number of thermal power plants (CT)		
		area	neighbourhood	block
North – East	6	1	11	9
Soth – East	1	20	49	111
South	1	17	49	11
South – West	2	12	12	35
West	5	4	4	0
North - West	1	0	72	70
Centre	1	14	40	23
Bucharest -Ilfov	0	1	44	6
Total	17	69	281	265

Source: data collected from the SACET operators monitored according to the Methodology

Figure nr. 2 – The number of cogeneration and thermal power plants / Region



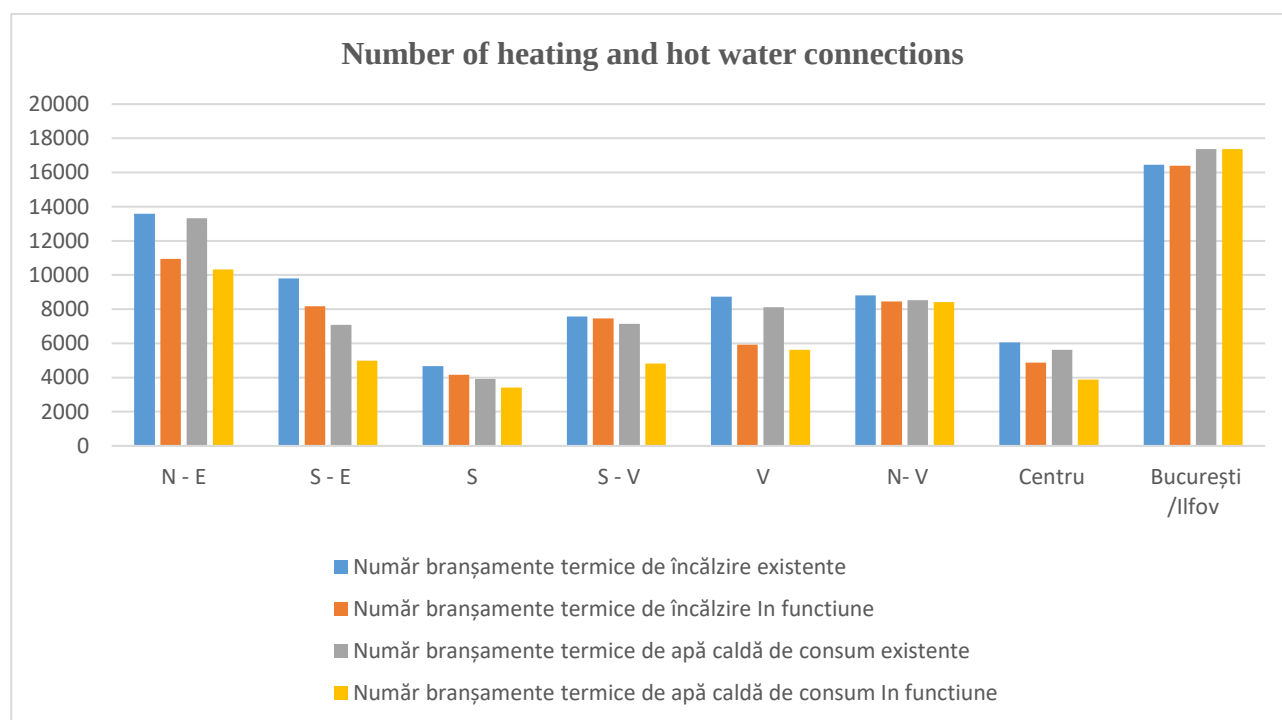
Source: data collected from the SACET operators monitored according to the Methodology

4.3 Thermal connections

At national level, from the data reported by the SACET operators resulted that at the end of 2021, the public service of thermal energy supply in centralized system amounted to a total of **150, 095** existing thermal connections (thermal connections of hot water from the transport system, thermal heating connections, hot water and steam) of which **128,493** in operation, according to Annex no. 2.

In figure no. 3 it is presented the situation of the number of thermal heating and hot water connections, both existing and in operation, for each of the 8 geographical regions.

Figure no. 3 - The situation of the number of thermal heating and hot water connections (existing/in operation)

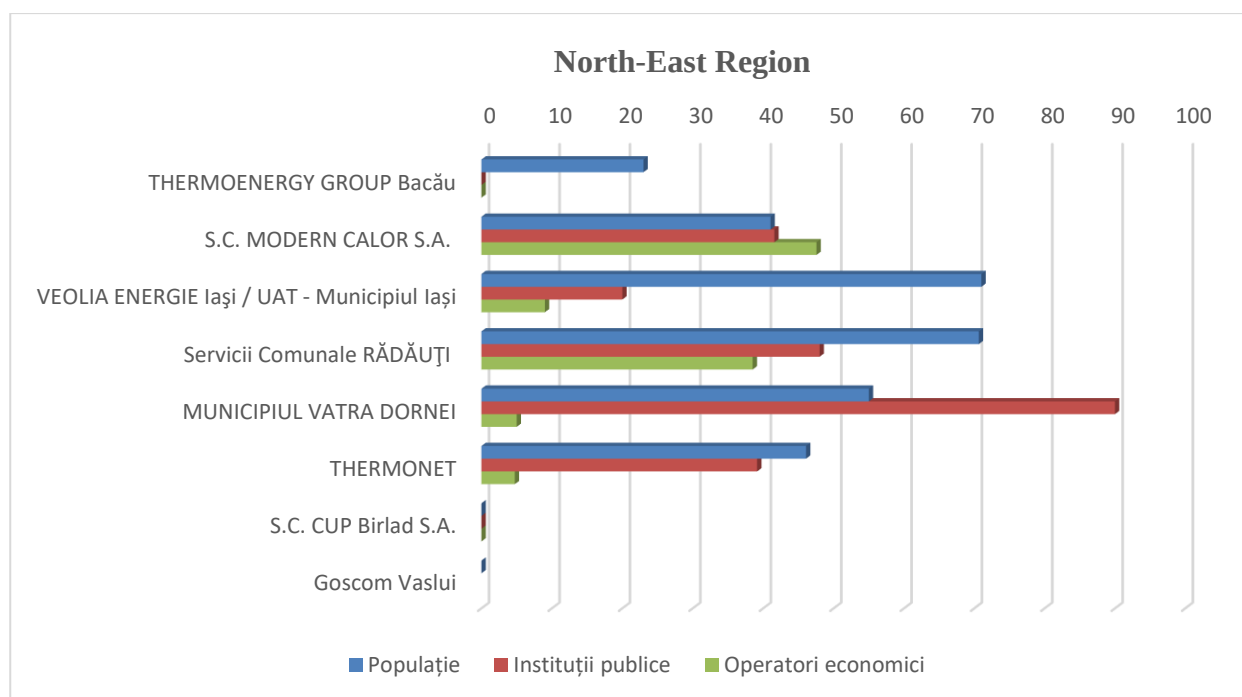


Source: data collected from the SACET operators monitored according to the Methodology

4.4 The SACET connection rate of thermal energy consumers

Figures no. 4 - 11 present the situation by regions and by categories of thermal energy consumers of the connection rate to SACET (percentage value of the total thermal energy consumers in the locality) of thermal energy consumers, according to the data reported by the SACET operators monitored for the year 2021.

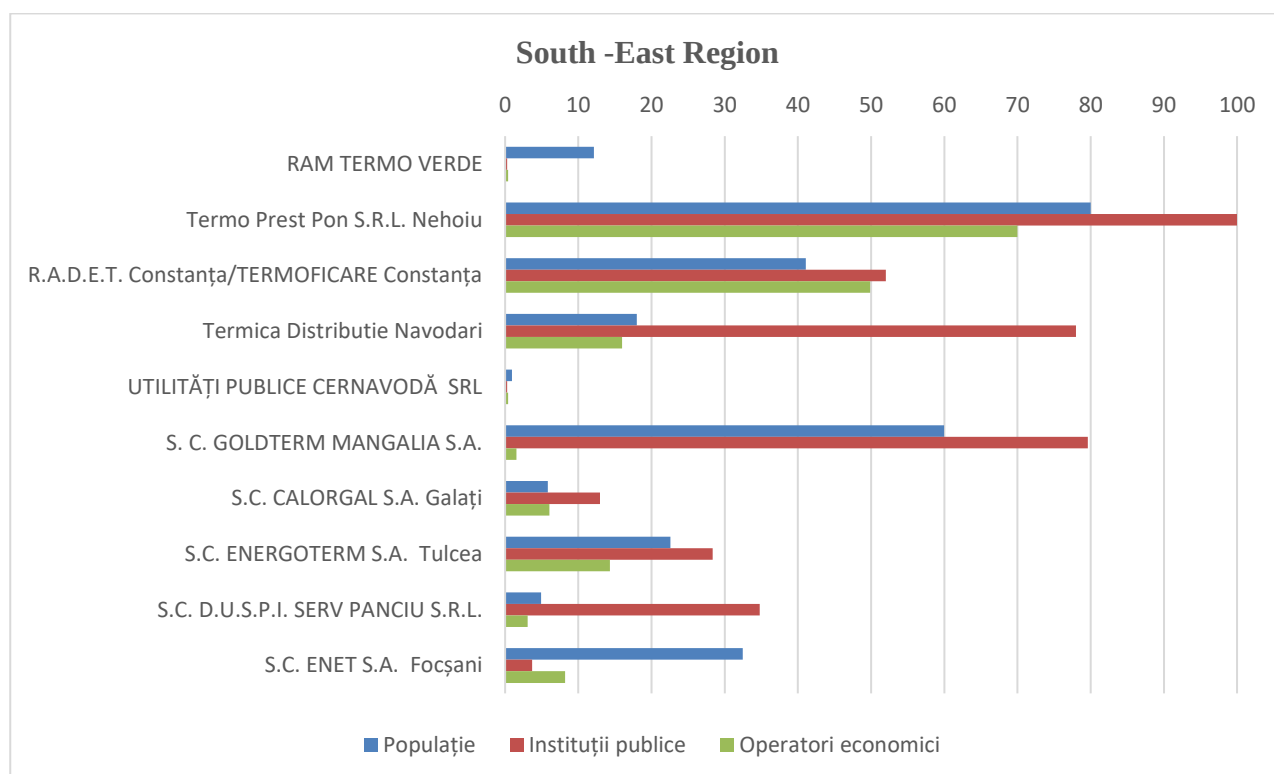
Figure nr. 4 - The SACET connection rate of thermal energy consumers from the North-East Region (%)



Source: data collected from the SACET operators monitored according to the Methodology

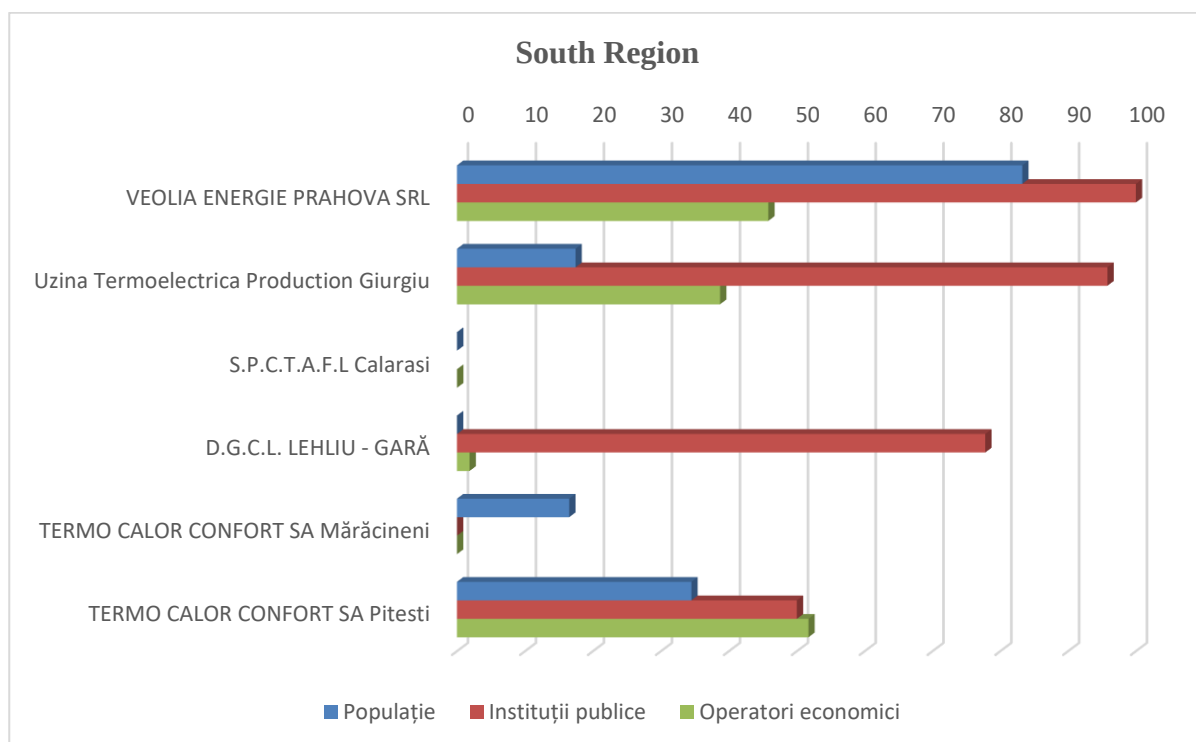
NOTE: The operator Thermoenergy Group Bacău did not report as a percentage the connection rate for public institutions and economic operators.

Figure no. 5 - The SACET connection rate of thermal energy consumers from the South-East Region (%)



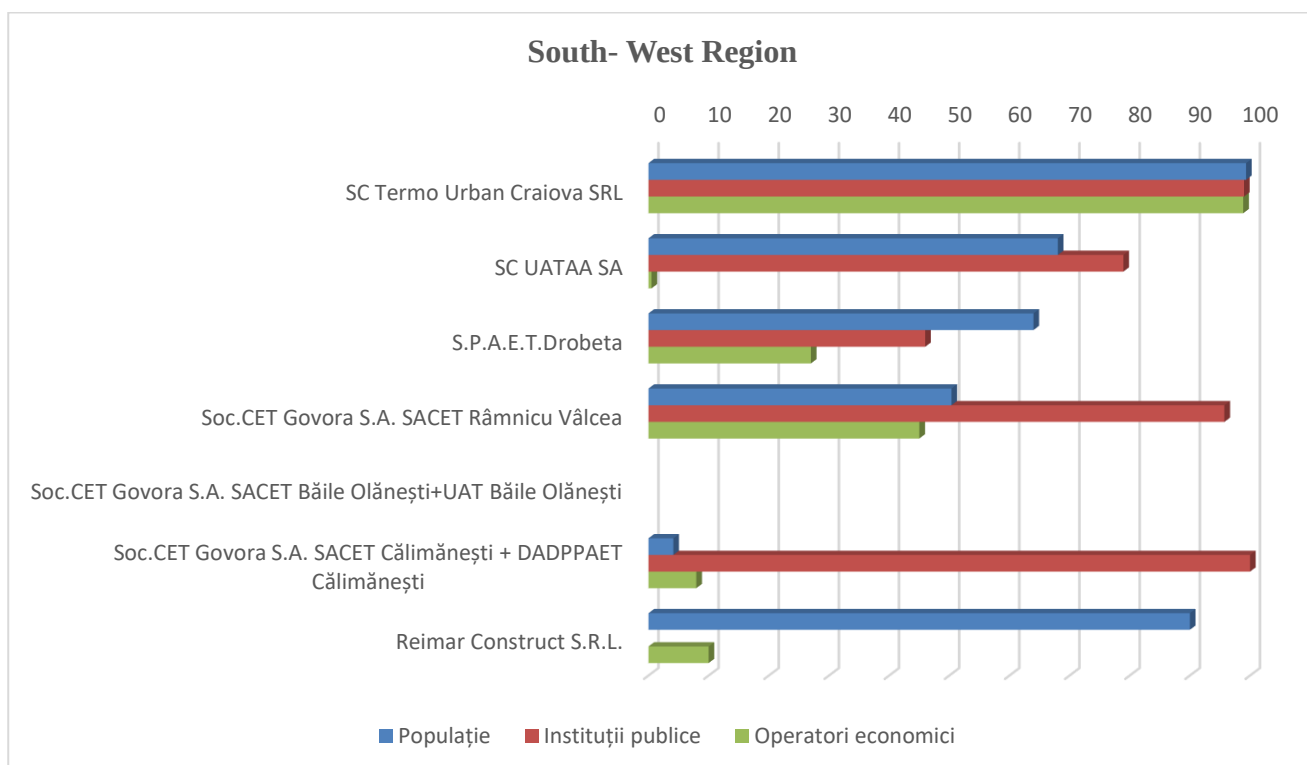
Source: data collected from the SACET operators monitored according to the Methodology

Figure no. 6 - The SACET connection rate of thermal energy consumers from the South Region (%)



Source: data collected from the SACET operators monitored according to the Methodology

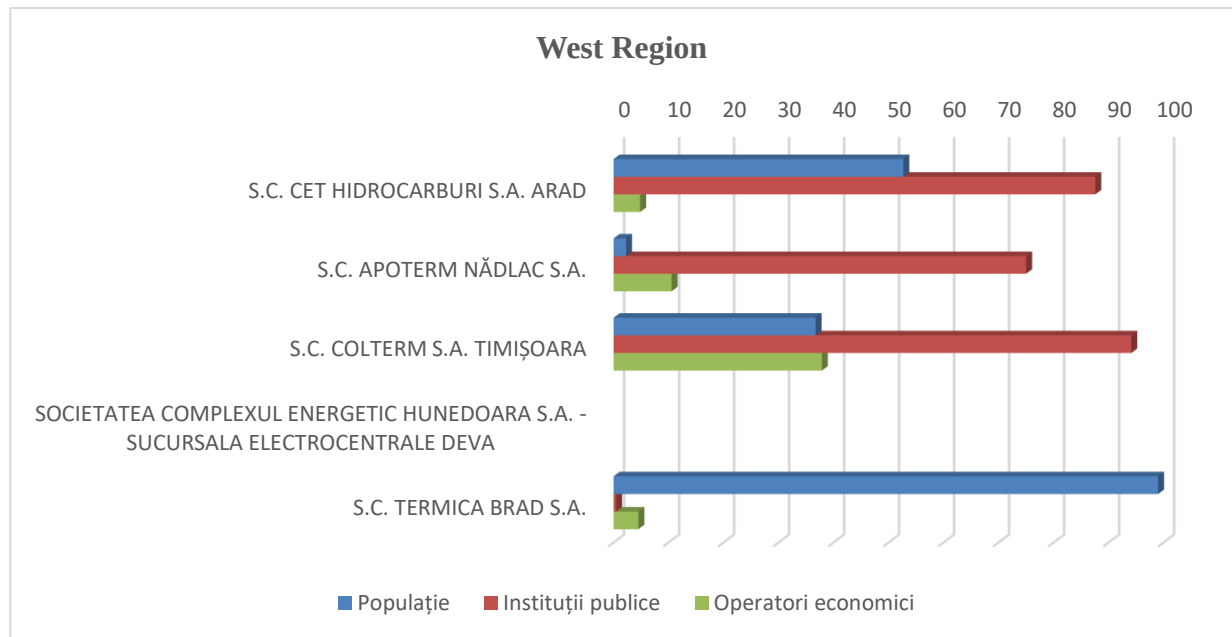
Figure no. 7 - The SACET connection rate of thermal energy consumers from the South –West Region (%)



Source: data collected from the SACET operators monitored according to the Methodology

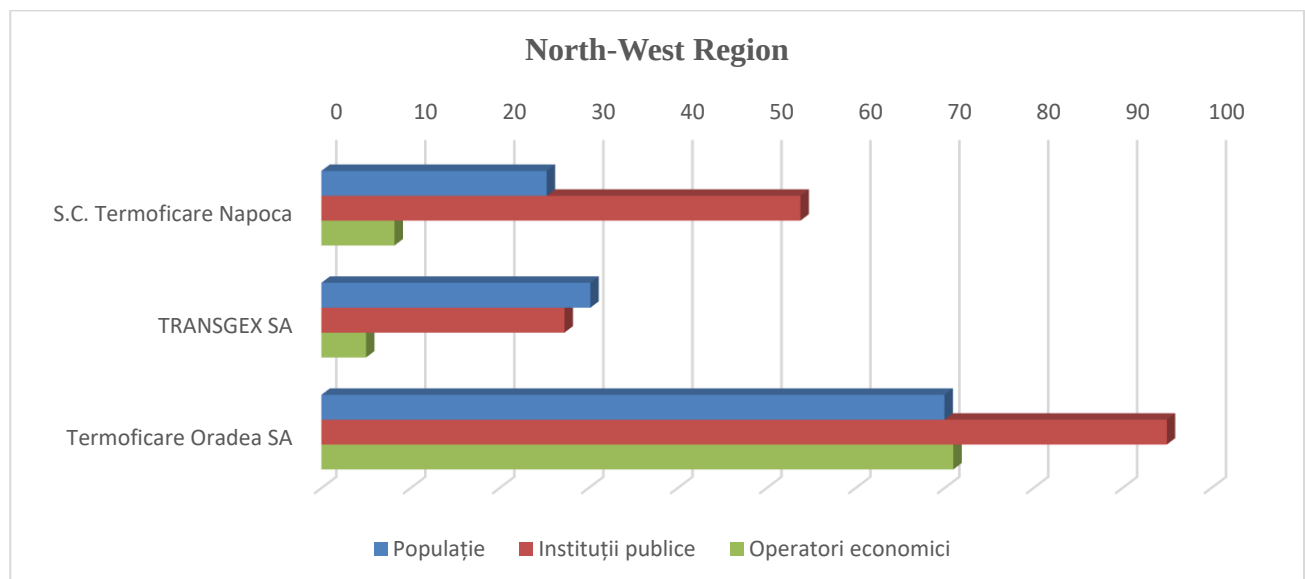
NOTE: Operator U.A.T.A.A. Motru did not report the percentage of the connection rate related to economic operators.

Figure no. 8 - The SACET connection rate of thermal energy consumers from the West Region (%)



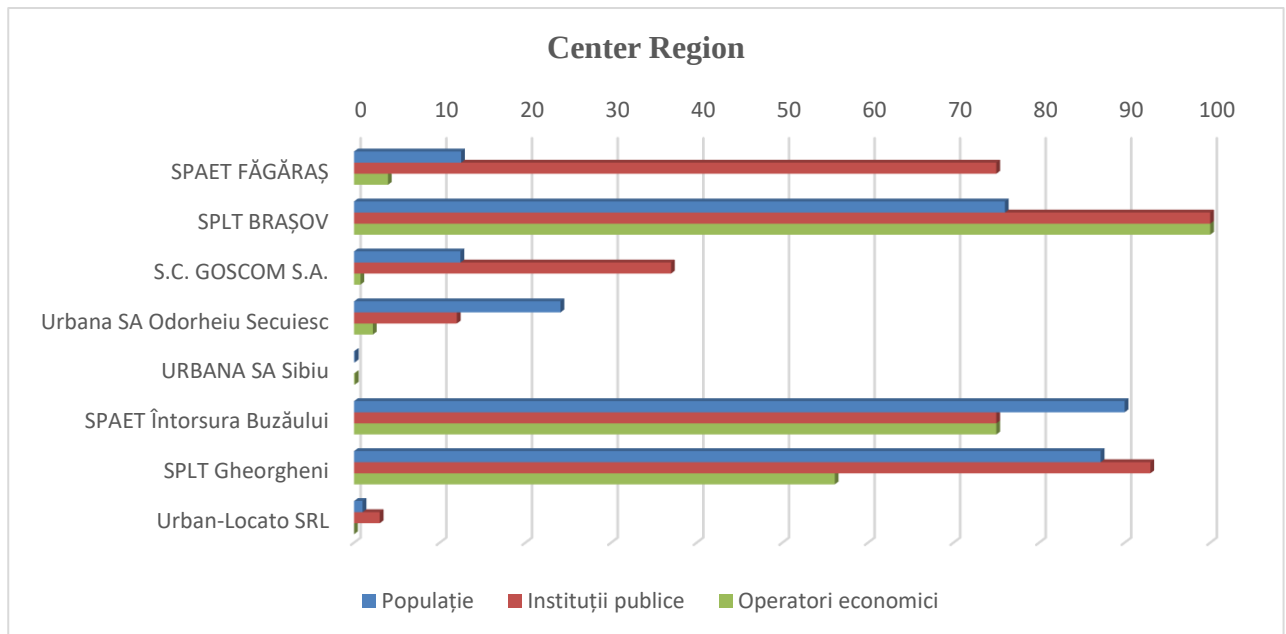
Source: data collected from the SACET operators monitored according to the Methodology

Figure no. 9 - The SACET connection rate of thermal energy consumers from the North –West Region (%)



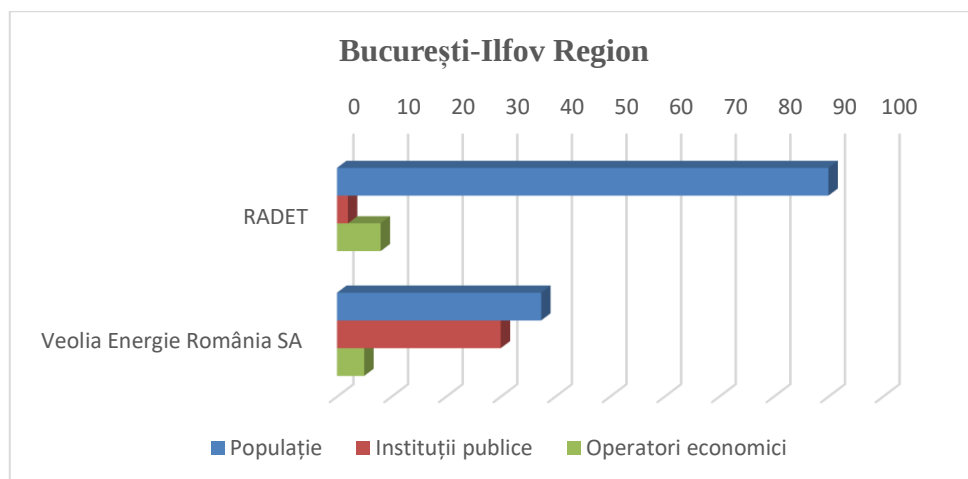
Source: data collected from the SACET operators monitored according to the Methodology

Figure no. 10 - The SACET connection rate of thermal energy consumers from the Center Region (%)



Source: data collected from the SACET operators monitored according to the Methodology

Figure no. 11 - The SACET connection rate of thermal energy consumers from the București/Ilfov Region (%)



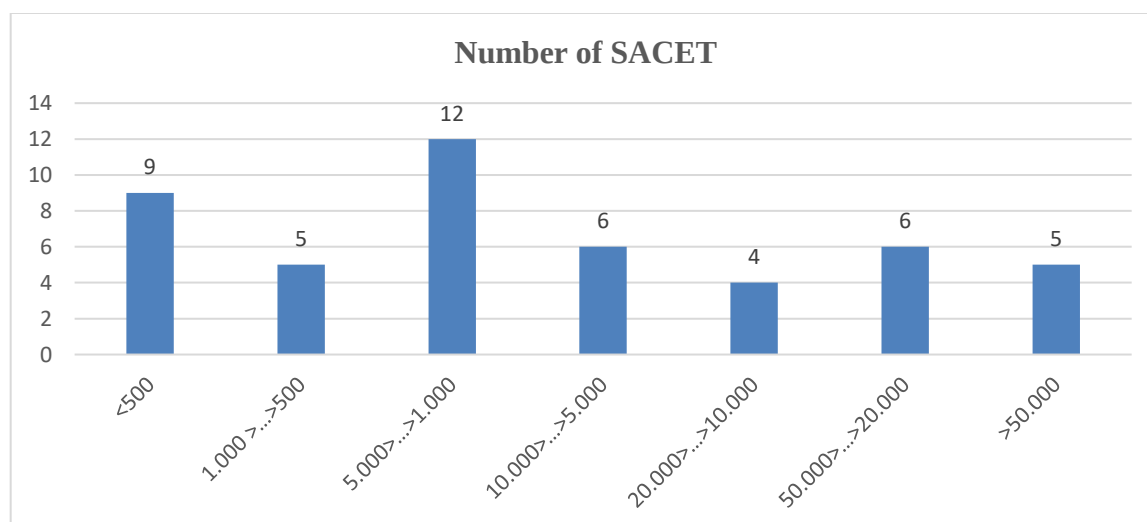
Source: data collected from the SACET operators monitored according to the Methodology

5.1 The number of thermal energy consumers supplied from SACET

Following the process of data centralization collected from the reports submitted by operators, at national level there is a total number of **1,095,551** of consumers supplied from SACET, of which **10,902** are economic operators, **2,437** public institutions and **1,082,212** consumers representing the housing sector (apartments and/or houses).

Of the 47 centralized systems of thermal energy supply, 15 of them have a large dimension, with over 10,000 consumers, 18 of them are medium-sized, from 1,000 to 10,000 consumers, and 14 of them are small-sized, with up to 1,000 consumers. A more detailed situation is presented in the following graph:

Figure no. 12. The number of SACET depending on the thermal energy consumers supplied from SACET

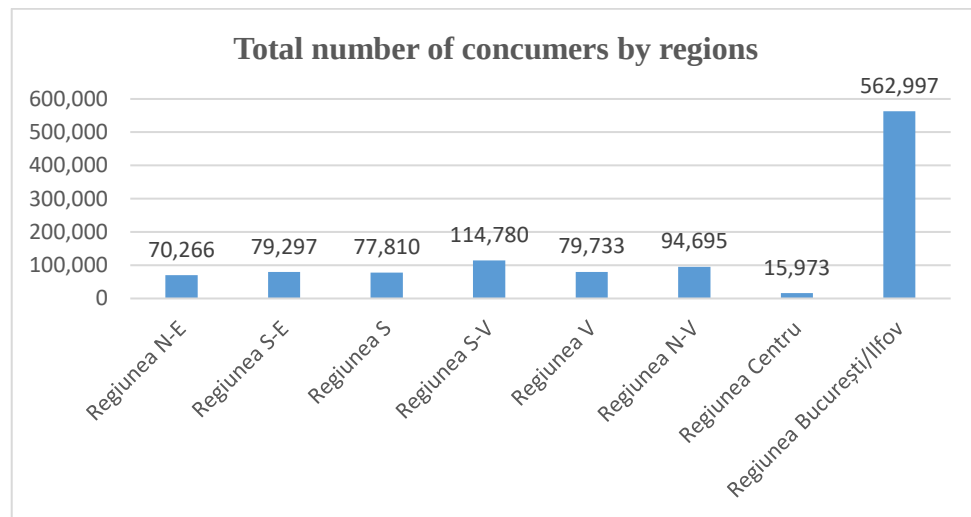


Source: data collected from the SACET operators monitored according to the Methodology

Most consumers supplied from SACET are in Bucharest (562,267), Oradea (71,173), Craiova (58,774), Ploiesti (54,536), and Timișoara (52,491).

Reported to regions, the highest number of consumers connected to SACET is in the Bucharest - Ilfov region (**562,997**), followed by the South-West region (**114,780**), the lowest number of consumers connected to SACET being registered in the Center region (**15,973**) as can be seen in the graph in figure no. 13.

Figure no. 13 - The total number of thermal energy consumers in SACET by regions



Source: data collected from the SACET operators monitored according to the Methodology

The situations of consumers by regions and by categories are presented in table no. 4.

Table no. 4 – The number of consumers supplied from SACET /regions

Region	The number of economic operators supplied from SACET, at the end of 2020	The number public institutions supplied from SACET, at the end of 2020	Number of housing (apartments and/or houses) supplied from SACET, at the end of 2020
North - East	939	266	69,061
South - East	1,795	289	77,213
South	818	155	76,837
South -West	1,223	282	113,275
West	1,014	488	78,231
North-West	1,073	356	93,266
Center	293	89	15,591
Bucharest - Ilfov	3,747	512	558,738
Total	10,902	2,437	1,082,212

Source: data collected from the SACET operators monitored according to the Methodology

The highest number of dwellings supplied from SACET is registered in the Bucharest-Ilfov region – **558,738**, and the lowest is registered in the Center region, with **15,591** dwellings supplied.

The same situation it is maintained regarding the number of economic operators supplied from SACET, for which the Bucharest-Ilfov region has reported a total of 3,747 and the Center region a total of 293.

The highest number of public institutions supplied from SACET was reported in the Bucharest-Ilfov and West regions, and the lowest number was registered in the Center region as well.

Table no. 5 presents the data on the evolution of the number of dwellings connected to SACET on each region, in the period 2020-2021. In most regions, from year to year, it can be observed a decrease in the number of households supplied from SACET.

Table no. 5 – The number of housing connected to SACET, in the period 2020-2021

Region	Indicator	2020	2021
North-East Region	Total number of houses and apartments connected to SACET	72,246	69,061
	Number of disconnected houses and apartments	4,280	3,245
	Number of reconnected houses and apartments	85	60
South-East Region	Total number of houses and apartments connected to SACET	90,105	77,213
	Number of disconnected houses and apartments	9,172	13,375
	Number of reconnected houses and apartments	198	483
South Region	Total number of houses and apartments connected to SACET	78,185	76,837
	Number of disconnected houses and apartments	966	1,371
	Number of reconnected houses and apartments	54	22

South-West Region	Total number of houses and apartments connected to SACET	116,990	113,271
	Number of disconnected houses and apartments	2,075	3,728
	Number of reconnected houses and apartments	47	9
West Region	Total number of houses and apartments connected to SACET	89,085	78,231
	Number of disconnected houses and apartments	3,677	10,942
	Number of reconnected houses and apartments	114	88
North-West Region	Total number of houses and apartments connected to SACET	94,172	93,266
	Number of disconnected houses and apartments	891	2,164*
	Number of reconnected houses and apartments	1,791	1,438
Center Region	Total number of houses and apartments connected to SACET	15,932	15,591
	Number of disconnected houses and apartments	279	374
	Number of reconnected	26	33

	houses and apartments		
Bucharest/Ilfov Region	Total number of houses and apartments connected to SACET	559,861	558,738**
	Number of disconnected houses and apartments	1,245	2,572
	Number of reconnected houses and apartments	48	61

Source: data collected from the SACET operators monitored according to the Methodology

NOTE:

* In the North-West region, will be subtracted an additional 180 dwellings disconnected due to the cessation of PAULOWNIA GREENE activity.

** In the Bucharest-Ilfov region, CMTEB recalculated the number of buildings connected to the heating system and corrected this omission.

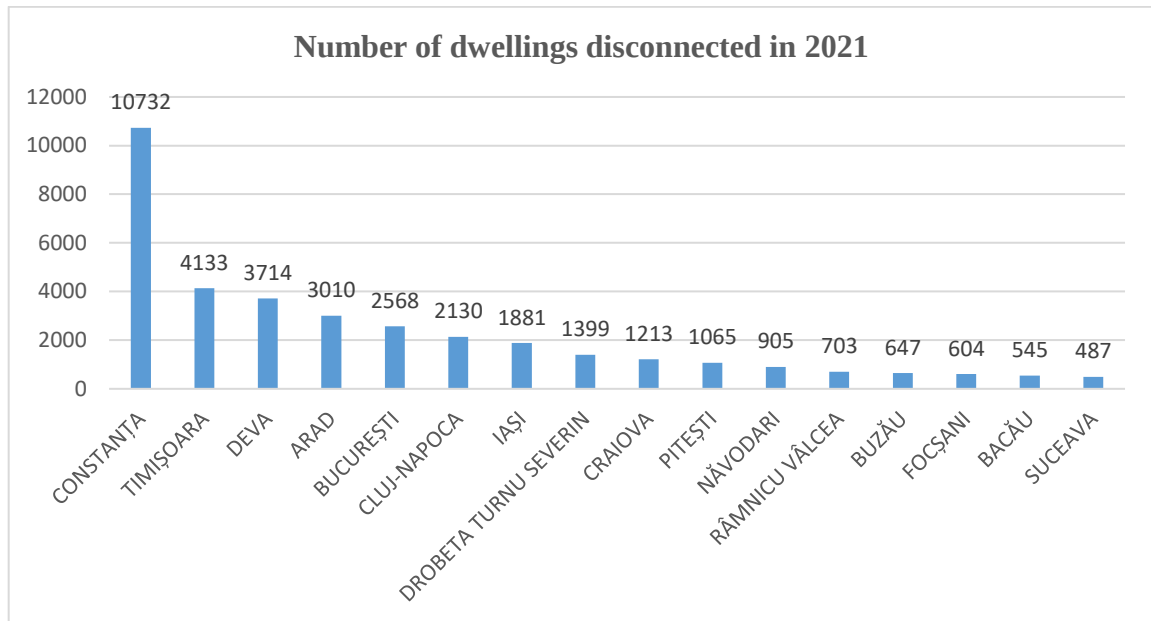
In 2021, according to the data presented in table no. 5, the Bucharest-Ilfov Region registered the highest number of dwellings connected to SACET (558,738), followed by the South-West Region with 113,271 dwellings and the North -West Region 93,266 dwellings.

According to the data provided to ANRE, by SACET operators, at the level of the year 2021, the largest number of dwellings (apartments and houses) supplied by SACET was provided by Compania Municipală Termoenenergetica București SA (with a number of 558,025 dwellings), followed by Termoficare Oradea (with a number of 69,868 homes), Termo Craiova (with a number of 58,335 dwellings), Veolia Energie Prahova (with a number of 53, 970 dwellings), Colterm SA Timișoara (with a number of 51,662 dwellings), Termoficare Constanța (with a number of 35,299 dwellings).

5.2. The number of disconnected and reconnected dwellings

In 2021, in 16 out of 50 localities there were significant disconnections of housing from SACET. The highest rate of disconnections was registered in Deva (100%), followed by Constanța (30%).

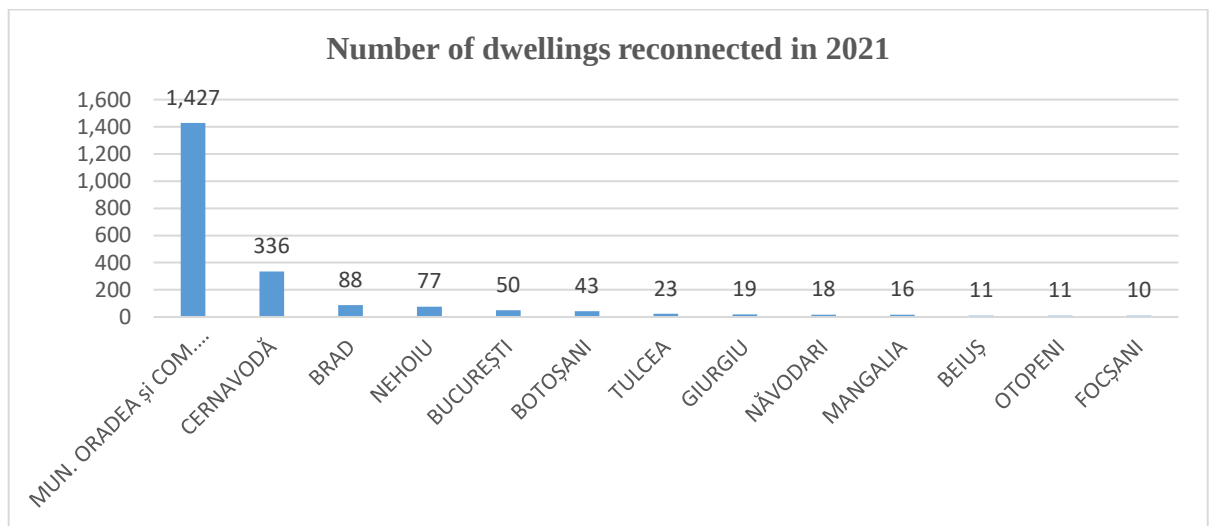
Figure no. 14 – The number dwellings disconnected from SACET in 2021



Source: data collected from the SACET operators monitored according to the Methodology

At the same time, reconnections of hosing to the centralized system have been registered, generally of low values, the most significant ones being presented in the following graph. However, a significant increase was registered in Oradea, the area maintaining the upward trend from the previous year.

Figure no. 15 – The number of dwellings reconnected to SACET in 2021

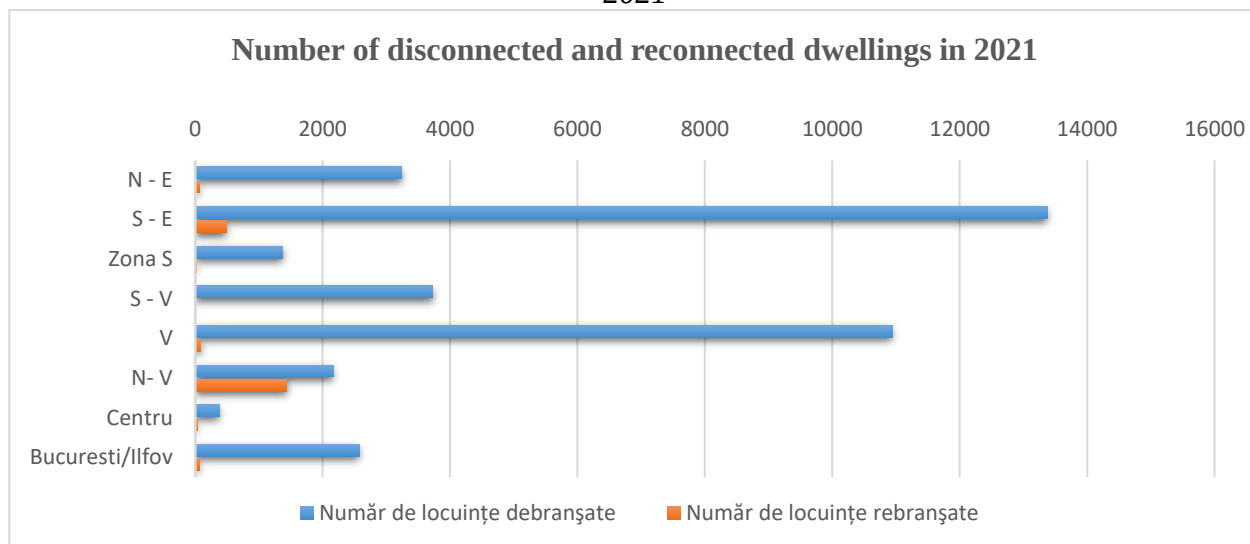


Source: data collected from the SACET operators monitored according to the Methodology

In terms of regions, it is observed that in 2021 the region with the highest rate of disconnections is represented by the South-East, the main reason being the large number of disconnections reported in Constanța – 10,732, , Năvodari - 905, Buzău - 647 as well as Focșani – 604.

However, as previously mentioned, there are also regions where there have been reconnections to the centralized system, a significant number being reported in the North-West Region, more precisely in Oradea and Sânmartin commune – 1,427 reconnected homes.

Figure no. 16 – The number of disconnected dwellings/number of reconnected dwellings/regions in 2021



Source: data collected from the SACET operators monitored according to the Methodology

5.3 The value of revisions and repairs planned and carried out in 2021

In 2021, according to the data reported by the SACET operators, revisions and reparations works were carried out in a total amount of **130,286.85** thousand lei, representing about 75 % of the planned value, the aggregated data being presented by regions in table no. 6.

Table no. 6 - The value of revisions and repairs planned and carried out in 2021

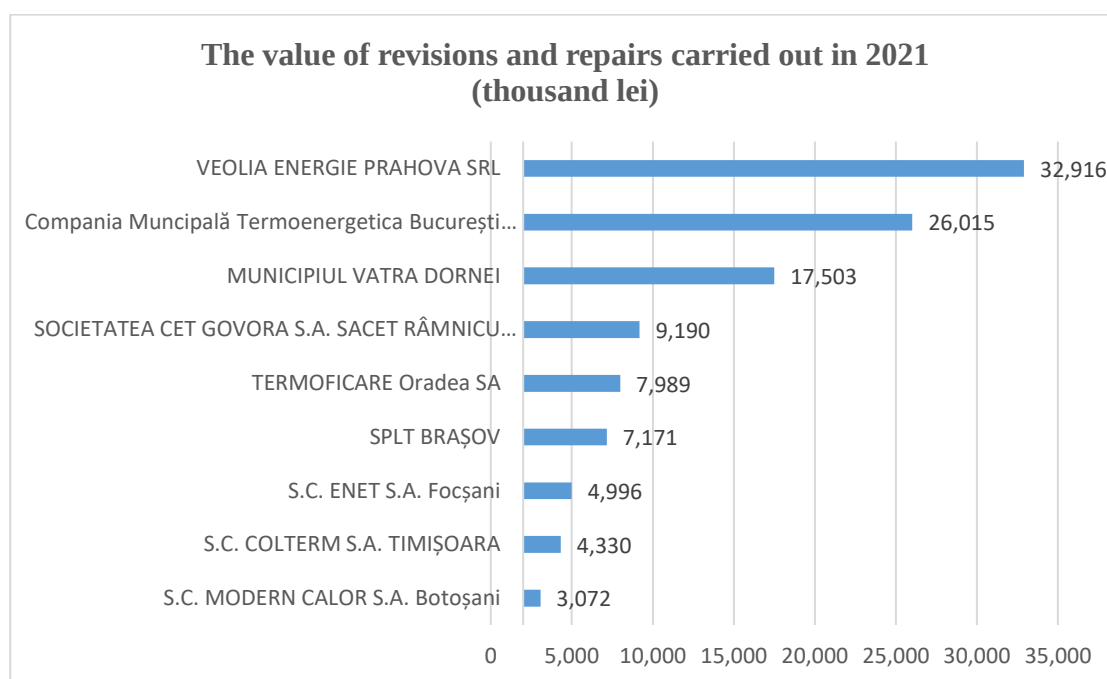
Region	The value of revisions and repairs planned in 2021 (thousand lei)	The value of revisions and repairs carried out at the end of 2021 (thousand lei)
North-East	29,565.84	24,563.63
South-East	8,476.96	8,706.10
South	31,897.41	35,114.03
South-West	11,320.00	10,741.74
West	6,05.12	5,538.24
North-West	15,542.00	9,736.79
Center	9,577.17	8,872.94
Bucharest-Ilfov	61,250.34	27,013.39

Source: data collected from the SACET operators monitored according to the Methodology

According to the data reported by SACET operators, the most important revision and repair works were carried out by Veolia Energie Prahova S.R.L and Compania Municipală Termoeenergetica București SA. Four SACET operators (S.C. DUSPI SERV Panciu SRL, S.C. Complexul Energetic Hunedoara S.A. - Sucursala Electrocentrale Deva, Societatea CET Govora S.A. SACET Băile Olănești+U.A.T. Băile Olănești, SPLT Gheorgheni) did not carry out revision and repair works in 2021.

The SACET operators with the highest values of revisions and repairs reported in 2021 can be found in the figure below.

Figure no. 17 – SACET operators with the highest values of revisions and repairs performed in 2021 (thousand lei)



Source: data collected from the SACET operators monitored according to the Methodology

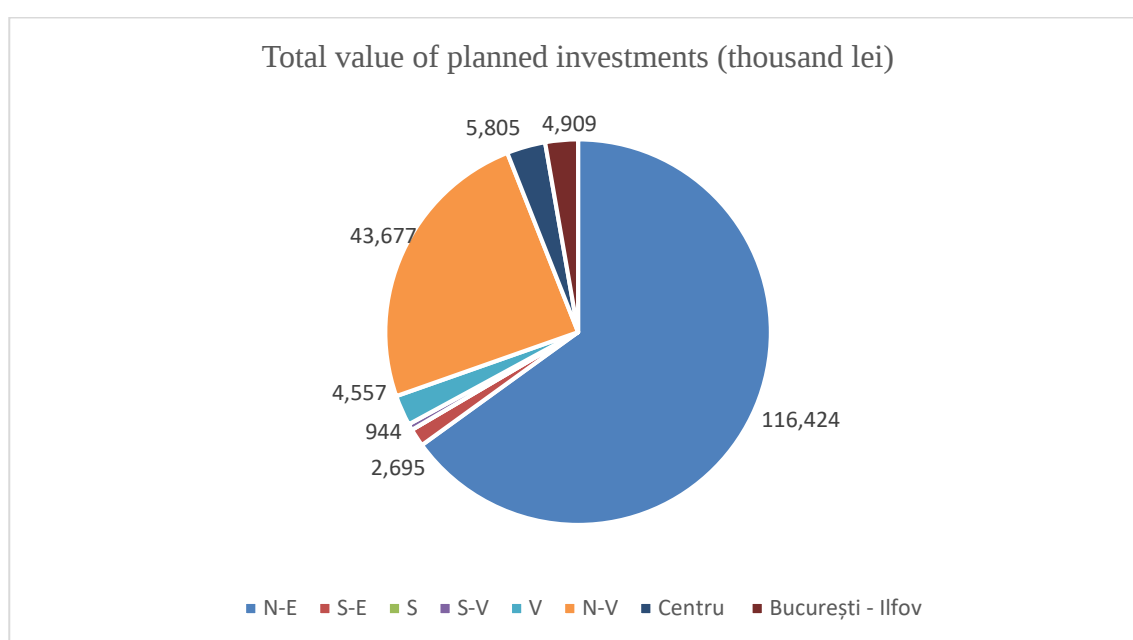
6. THE STATUS OF INVESTMENTS MADE IN SACET INFRASTRUCTURE IN 2021

At the level of 2021, part of the SACET operators reported both the value of the planned investments and the one related to the realized investments, the aggregated data by regions being presented in table no. 7.

6.1 The total value of the planned investments

The figure below shows the total value of investments planned by SACET operators, value which is distributed by regions as follows:

Figure no. 18 – The total value of planned investments (thousands lei)



Source: data collected from the SACET operators monitored according to the Methodology

It is observed that the North-East region registered the highest total value of planned investments, of which a percentage of 68.9% was achieved by the end of 2021. Among the SACET operators in this region, UAT- Iași Municipality restored the insulation of the 2xDn1100 connection trunk line and expanded the primary network. Also, the SACET operator from the Municipality of Vatra Dornei carried out rehabilitation works of the centralized heat supply system in the amount of 29,798.17 thousand lei. In the South- East region S.C. Goldterm Mangalia S.A. carried out branching and metering for loyalty and attracting new customers, feature with technological and IT equipment, and S.C. Enet S.A. Focșani continued the investment, started in 2017, related to the online data transmission assembly between the thermal points and the Enet dispatcher.

Until the end of 2021, no investments were made in the South region.

In the South-West region, until the end of 2021, investments were made in the amount of 706.15 thousand lei, which represents a percentage of 74.82% of the total value of the planned investments.

Thus, S.C. Termo Urban Craiova installed pumps in PT and CT, S.P.A.E.T. Drobeta Turnu Severin installed thermal energy meters, Societatea CET Govora S.A. carried out works to expand the hot water supply network for a new consumer, and DADPPAET Călimănești purchased a pump for aggressive agents in PT3 and a heat exchanger and a liquid circulation pump in CT4.

In the West region, until the end of 2021, the realized value of investments was 701.39 thousand lei, which represents a percentage of 15.39% of the total value of planned investments. Among the SACET operators in this region, S.C. Colterm S.A. Timișoara carried out renovation works of the primary and secondary thermal networks.

In the North-West region, until the end of 2021, investments were made in the amount of 29,809.32 thousand lei, which represents a percentage of 68.25% of the total value of the planned investments.

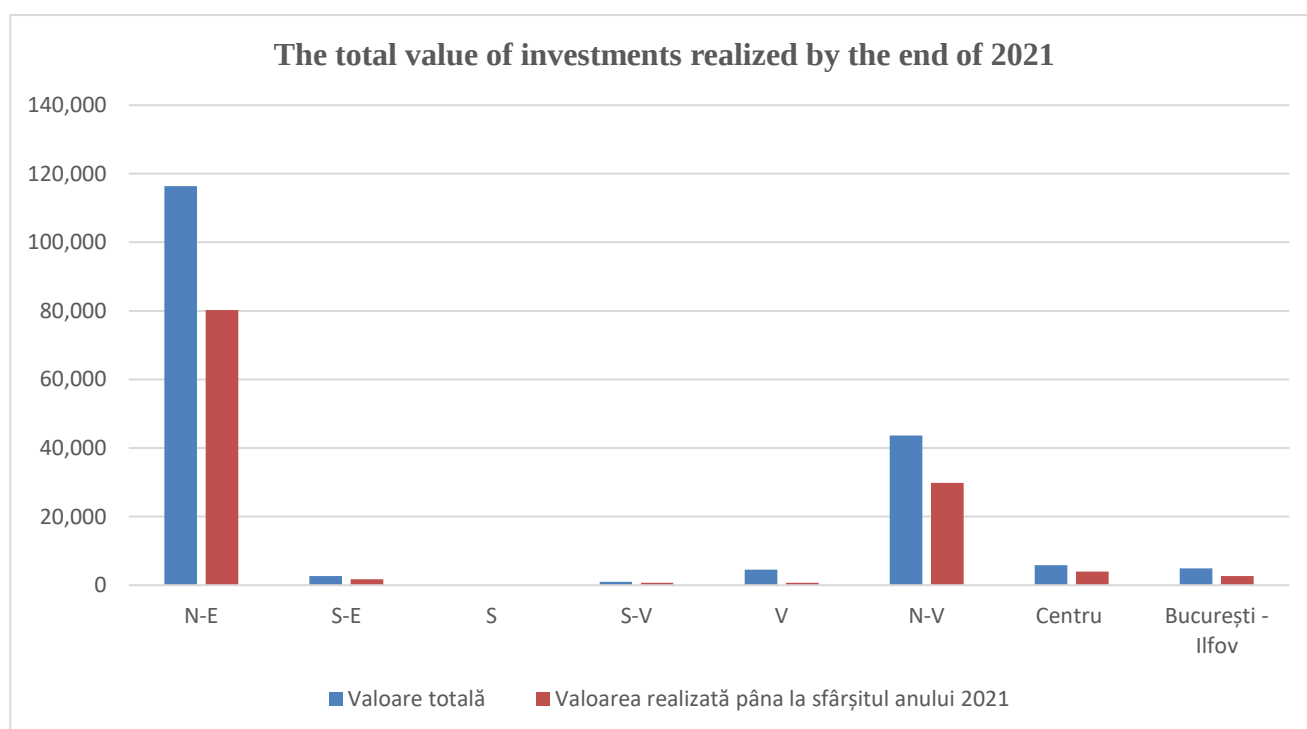
Thus, S.C. Termoficare Napoca S.A. rehabilitated the heating agent networks, purchased and installed expansion vessels and storage vessels at thermal power plants, rehabilitated POST TRANSFORMER 6/0.4 Kv, replaced boilers in CT M. Viteazu and CT Baba Novac and modernized/automated thermal power plants, Transgex S.A. Beiuș purchased a TOP Z 80/10 pump, a VLT 2 2kW converter and a Jessberger JP 280 pump.

In the Center region, until the end of 2021, investments worth 3,935.13 thousand lei were made, which represents a percentage of 67.79% of the total value of the planned investments. Among the SACET operators in this region, SPLT Brașov made investments worth 3,443.93 thousand lei.

In the Bucharest-Ilfov region, until the end of 2021, investments worth 2,708.49 thousand lei were made, which represents a percentage of 55.17% of the total value of planned investments. Thus, Compania Municipală Termoelectrică București S.A. installed two wall thermal power plants at the CMTEB-SIRT headquarters, modernized the CT Caporal Bălan thermal power plant, and Veolia Energie România S.A. Otopeni performed hubgrade-improvement of energy efficiency in the amount of 373.16 thousand lei.

Comparatively, figure no. 19 shows, for each region, the total value of investments planned and investments made by the end of 2021.

Figure no. 19 – The total value of investments realized, by region, by the end of 2021 (thousand lei)



Source: data collected from the SACET operators monitored according to the Methodology

Table no. 7 – Investments planned and realized by the economic operators at the level of 2021

Region	The value of the investment (thousand lei)		The value of the investment in 2021 (thousand lei, without VAT)									
	TOTAL	of which achieved by the end of 2021	TOTAL		of which by funding sources:							
			Planned	Realized	State budget		Local budget		Credits		Own sources	
					Planned	Realized	Planned	Realized	Planned	Realized	Planned	Realized
	(thousand lei)	(thousand lei)	(thousand lei)	(thousand lei)	thousand lei	(thousand lei)	(thousand lei)	(thousand lei)	(thousand lei)	(thousand lei)	(thousand lei)	(thousand lei)
1	2	3	4	5	6	7	8	9	10	11	12	13
North-East	116,423.79	80,225.10	58,167.93	57,785.05	32,955.80	32,955.80	22,933.76	22,735.64	1,856.02	1,856.02	450.89	247.98
South-East	2,694.87	1,774.12	2,479.00	1,474.98	0.00	0.00	799.00	648.16	0.00	0.00	1,680.00	826.82
South	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South - West	943.75	706.15	943.75	706.15	0.00	0.00	577.00	577.00	0.00	0.00	366.75	129.15
West	4,557.35	701.39	4,557.35	701.39	0.00	0.00	55.00	0.00	0.00	0.00	4,502.35	701.39
North- West	43,676.71	29,809.32	23,105.31	19,284.73	0.00	0.00	21,713.75	17,907.05	0.00	0.00	1,400.18	1,377.68
Cneter	5,805.20	3,935.13	5,809.20	3,935.13	0.00	0.00	5,314.00	3,443.93	390.00	386.00	105.20	105.20
Bucharest- Ilfov	4,908.91	2,708.49	4,688.91	2,708.49	0.00	0.00	0.00	0.00	0.00	0.00	4,688.91	2,708.49
TOTAL	179,010.58	119,859.70	99,751.45	86,595.92	32,955.80	32,955.80	51,392.51	45,311.78	2,246.02	2,242.02	13,194.28	6,096.71

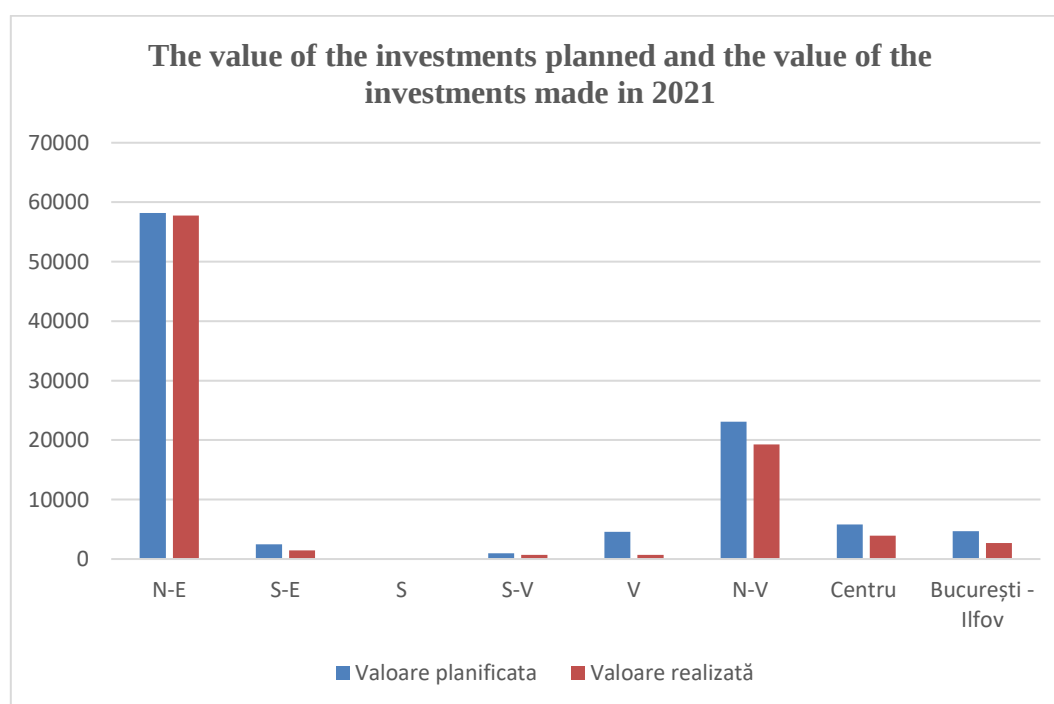
Source: data collected from the SACET operators monitored according to the Methodology

6.2 The value of the investments in 2021

In order to ensure a public heat energy supply service for localities, as efficient and viable as possible, the local public administration authorities must pursue the financing of investments for the development/modernization or the establishment of SACET, considering the fact that, apart from the social benefit regarding energy accessibility thermal systems for the population with low incomes, the health and safety of the population, international experience has revealed the economic and environmental benefits of centralized thermal energy supply systems (from the point of view of energy efficiency and pollution control) as well as the contribution of these systems to strengthening energy security and facilitating flexibility in the use of various categories of primary resources/technologies.

The North-East region made investments in a percentage of 99% of the value of the planned investments, and the North-West region in a percentage of 83%, according to the aggregated data by region presented in figure no. 20.

Figure no. 20 – The value of the investments planned and the value of the investments made in 2021

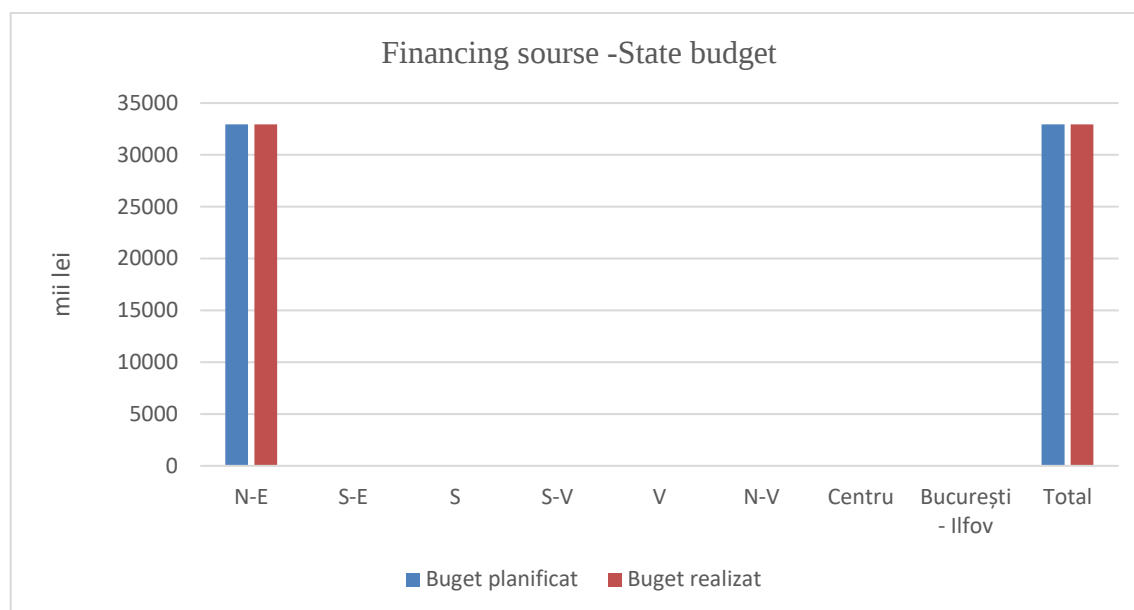


Source: data collected from the SACET operators monitored according to the Methodology

The sums attracted for investments in SACET in 2021 come from both the state budget and the local budget as well as from the operators' own sources and credits.

The planned and realized values of the investments, in each region, are presented in the graphs in figures 21-24, for each category of financing source separately.

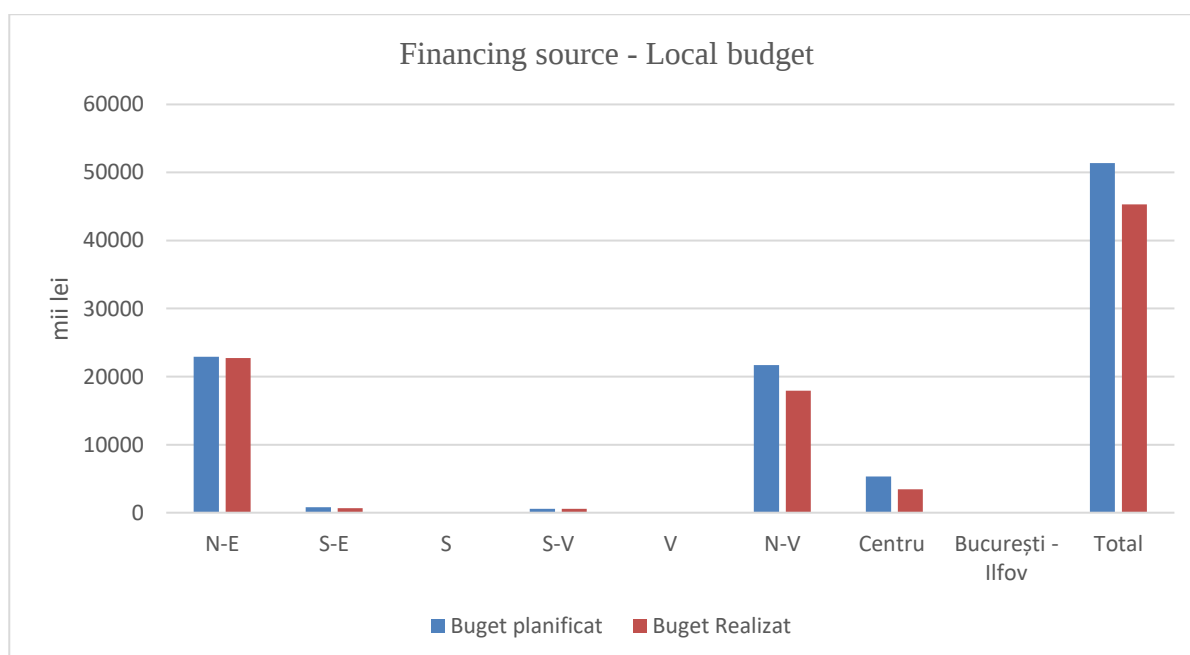
Figure no. 21 – The value of the planned and realized investments having the State budget as financing source, by regions (thousand lei)



Source: data collected from the SACET operators monitored according to the Methodology

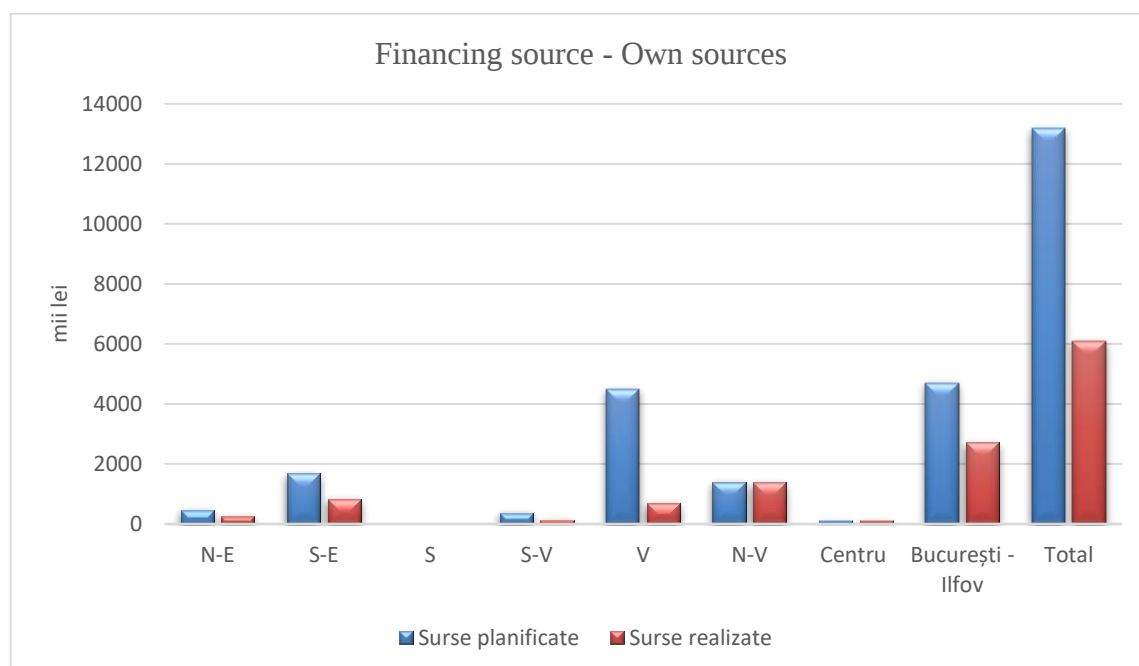
An example in attracting financing sources from the state budget is UAT- Iasi Municipality, an operator from the North-East region that managed to attract in 2021 for the expansion of the primary thermal network and the restoration of the insulation of the connecting bus 2xDn1100, the amount of 45144 thousand lei.

Figure no. 22 – The value of the planned and realized investments having the Local budget as financing source, by regions (thousand lei without VAT)



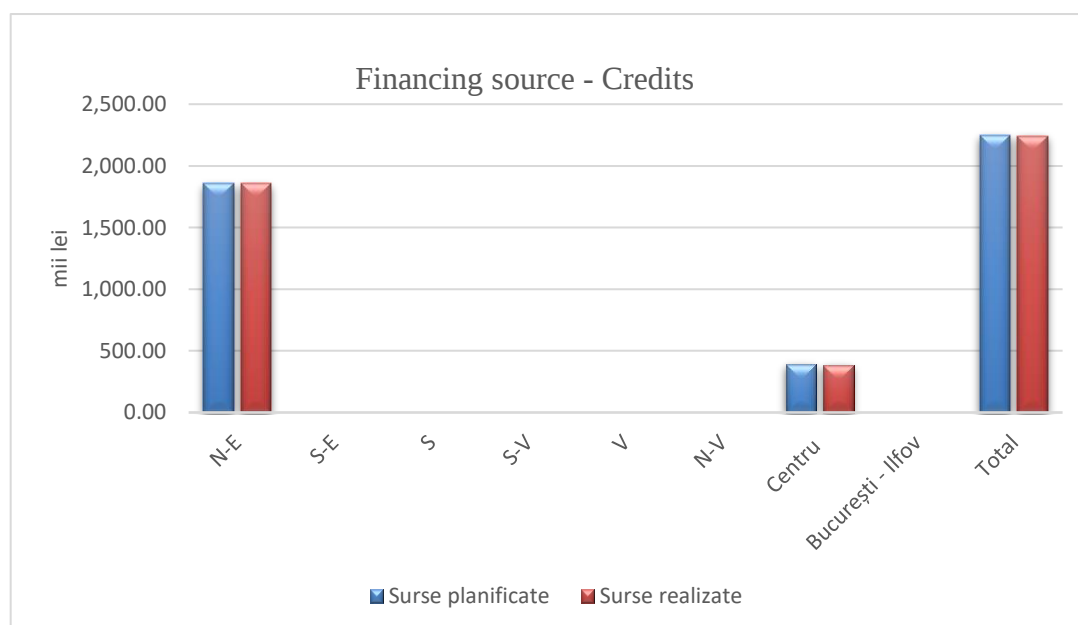
Source: data collected from the SACET operators monitored according to the Methodology

Figura no.. 23 – The value of investments planned and carried out from own sources, by regions (thousand lei without VAT)



Source: data collected from the SACET operators monitored according to the Methodology

Figure no. 24 - The value of planned and realized investments having Credits as financing source, by region (thousands of lei without VAT)



Source: data collected from the SACET operators monitored according to the Methodology

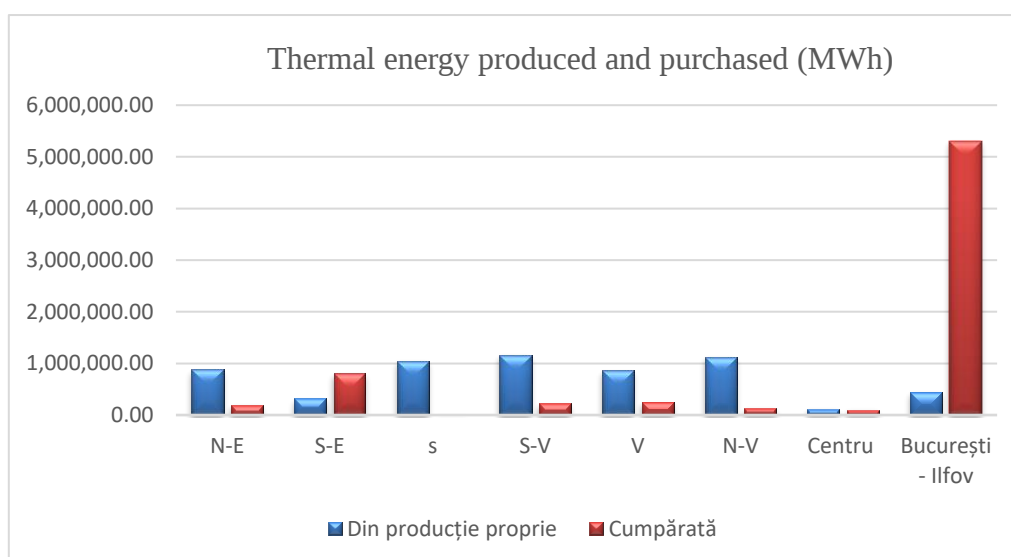
7. TECHNICAL-ECONOMIC RESULTS ACHIEVED BY SACET OPERATORS IN 2021

For 2021, SACET operators reported the amount of thermal energy delivered from their own production as well as that purchased from the independent heat producers and the amount of thermal energy sold to consumers, the aggregate data being presented, by regions, in table no. 8.

7.1 Amounts of thermal energy produced and purchased by regions

Figure no. 25 shows the distribution of the amount of thermal energy produced and purchased by regions, noting that the largest amount of thermal energy purchased was recorded in the Bucharest-Ilfov region.

Figure no. 25 – The distribution of the thermal energy amount produced and purchased, by regions



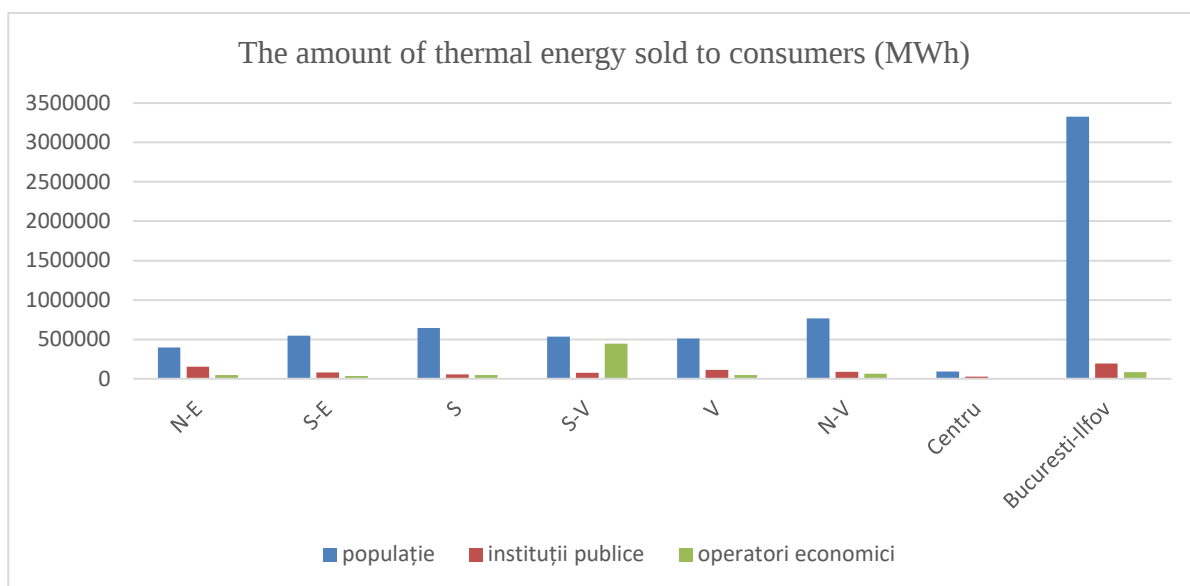
Source: data collected from the SACET operators monitored according to the Methodology

7.2 The total amount of sold thermal energy

From the data presented by regions in figure no. 26 it can be observed that the Bucharest-Ilfov region has also the highest registered amount of thermal energy sold to consumers.

Regarding the amount of thermal energy sold to consumers, distributed by region, in 2021, it is noted that approximately 43% of the amount of thermal energy sold nationally was sold in the Bucharest - Ilfov region, the next region being the South- West, where a percentage of approximately 12% of the amount of thermal energy sold at national level is registered, in the Center region the lowest percentage stands out, of only 1.5% of the amount of thermal energy sold at national level.

Figure no. 26 - The amount of thermal energy sold to consumers (MWh) broken down by categories of thermal energy consumers



Source: data collected from the SACET operators monitored according to the Methodology

From the data presented above it results that, in 2021, from the amount of thermal energy traded at national level, the quantity sold to the population represented approximately 81% of the total amount of thermal energy sold to consumers, and to public institutions and economic operators approximately 18%, the values registered for the two categories being very close.

Table no. 8 - Technical-economic results of SACET operators in 2021, by regions

Region	Thermal energy produced and/or purchased (MWh)			Thermal energy sold to consumers (MWh)				Number of employees by the end of the reporting period	SACET development/modernization expenses (thousand lei)
	Total	from own production	purchased	Total	Population	Public institutions	Economic operators		
North - East	1,078,329.85	883,814.61	194,515.24	595,809.72	395,413.23	153,371.33	47,025.17	751	4,469.73
South - East	1,137,043.48	322,876.67	814,166.81	660,309.95	546,972.52	79,944.90	33,392.53	1,201	2,435.30
South	1,052,811.39	1,046,287.39	6,524.00	744,124.20	642,664.23	54,139.99	47,319.98	708	0.00
South -West	1,393,648.24	1,162,916.94	230,731.29	1,056,648.88	533,427.26	75,674.51	447,547.11	946	105.83
West	1,119,395.47	861,572.12	257,823.35	668,263.44	510,919.20	111,376.11	45,968.14	1,039	131.00
North - West	1,257,482.18	1,124,291.20	133,190.98	919,619.75	767,989.03	89,231.42	62,399.30	718	24,868.56
Center	222,427.79	121,169.59	101,258.20	126,355.90	93,731.19	25,870.54	6,754.17	196	4,007.92
Bucharest - Ilfov	5,751,968.34	445,909.33	5,306,059.01	3,606,014.78	3,328,657.22	193,807.55	83,550.00	3,152	12,085.10
Total	13,013,106.73	5,968,837.85	7,044,268.88	8,377,146.63	6,819,773.88	783,416.35	773,956.39	8,711	48,103.43

Source: data collected from the SACET operators monitored according to the Methodology

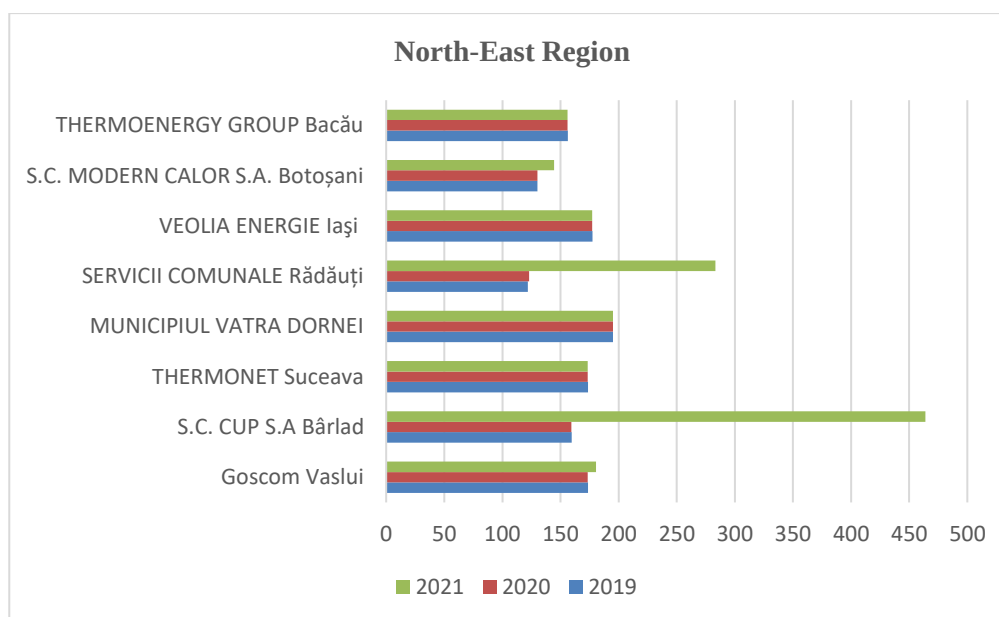
7.3 Local prices for thermal energy supply

In accordance with the Law on community services of public utilities no. 51/2006, republished, with subsequent amendments and completions, the prices and local tariffs related to the public heating service in centralized system are approved by the local public administration authorities, under the special law and in compliance with the methodologies issued by the competent regulatory authority.

Based on the data and information provided by SACET operators, the graphs of figures no. 27-34 show, by region, the evolution of the local price for the population in the period 2019-2021, according to the existing price at the end of the reporting period.

The analysis is presented for each SACET operator separately, the price variations that occurred during the reporting period, as well as the particular situations of the SACET operators are mentioned in the NOTE related to each figure.

Fig. 27 - Evolution of the local price for the population during 2019-2021 North-East Region (lei / MWh)



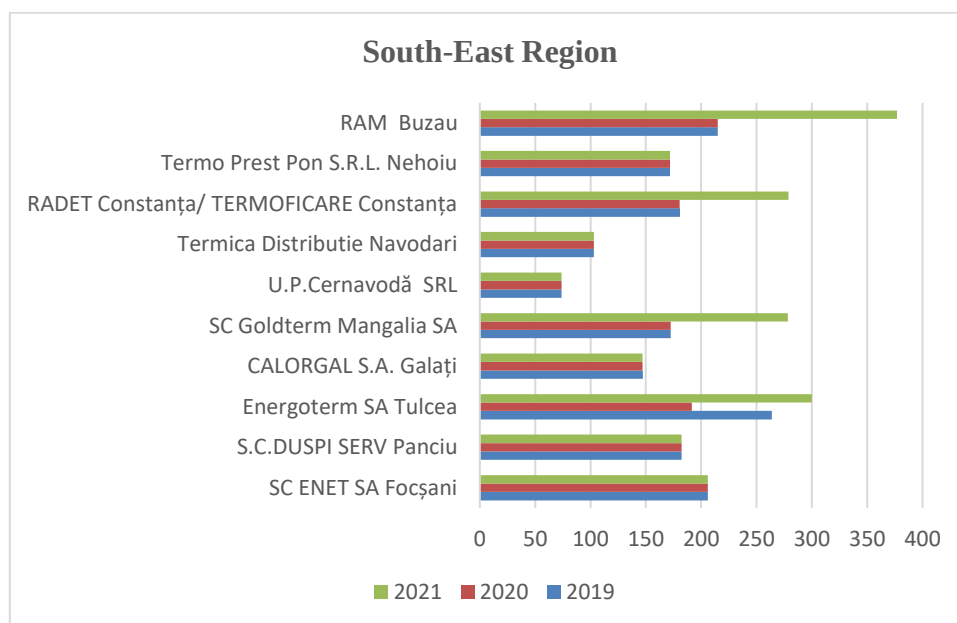
Note: S.C. MODERN CALOR S.A. Botoșani - during 2021 HCL numbers 335/26.11.2020, 268/28.07.2021 and 463/26.11.2021 were in force, resulting in two local prices for the population (without VAT) - 130.06 lei/MWh, respectively 144, 51 lei/MWh. (according to Annex 3 to the Report)

SERVICII COMUNALE RĂDĂUȚI - during 2021 HCL numbers 23/28.01.2021, 140/15.07.2021 and 245/17.11.2021 were in force, resulting in three local prices for the population (without VAT) - 176.14 lei/MWh, 214.76 lei/MWh and 283.19 lei/MWh. (according to Annex 3 to the Report)

S.C. PUBLIC UTILITIES COMPANY S.A. - during 2021, HCL numbers 9/30.01.2020, 528/28.10.2021 and 623/31.12.2021 were in force, resulting in three local prices for the population (without VAT) - 159.45 lei/MWh 268.63 lei/MWh and 463.93 lei/MWh. (according to Annex 3 to the Report)

GOSCOM VASLUI - during 2021 HCL numbers HCL 170/28.11.2019 and HCL 172/25.11.2021 were in force, resulting in two local prices for the population (without VAT) - 173.45 lei/MWh, respectively 180.67 lei/MWh. (according to Annex 3 to the Report)

Fig. 28 - Evolution of the local price for the population during 2019-2021 South-East Region (lei / MWh)

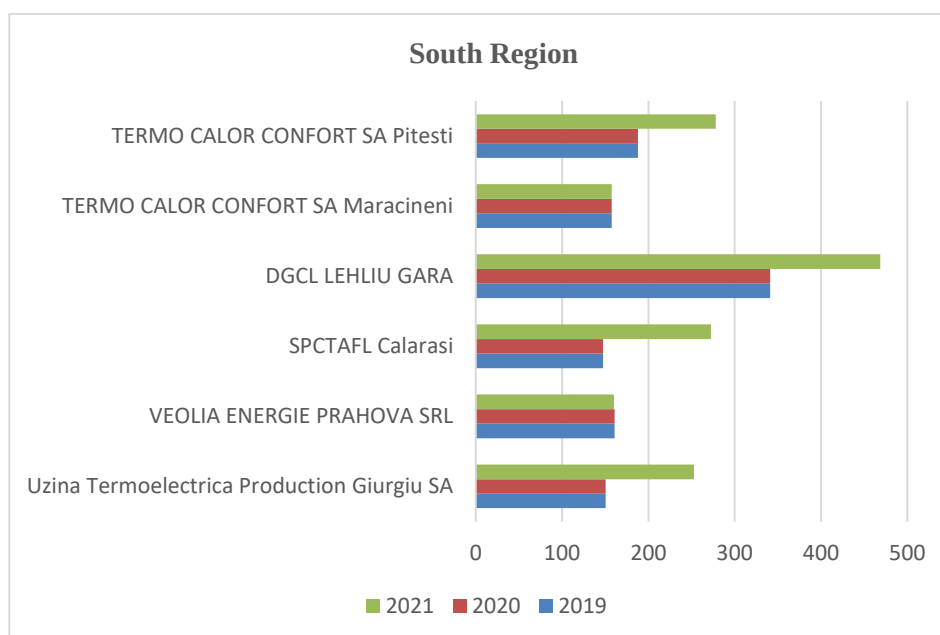


Note: Termoficare CONSTANȚA - during 2021, HCL no. 429 / 15.12.2020 resulting in two local prices for the population in DN - 278.86 lei/MWh and in TN - 405.66 lei/MWh. The graph shows the local price for the DN population (according to Annex 3 to the Report)

S. C. GOLDTERM MANGALIA S.A. - during 2021, HCL numbers 44/20.02.2019 and 449/22.12.2021 were in force, resulting in two local prices for the population (without VAT) - 172.34 lei/MWh, respectively 278.19 lei/MWh. (according to Annex 3 to the Report)

SC ENERGOTERM S.A. Tulcea - In the period 2019-2021, two HCLs/year were in force, the price varying from 158.96 lei/MWh to 263.73 lei/MWh, and during 2021 HCL numbers 7/30.01.2020 were in force and 350/03.12.2021, resulting in two local prices for the population (without VAT) - 191.48 lei/MWh, respectively 299.86 lei/MWh. (according to Annex 3 to the Report)

Fig. 29 - Evolution of the local price for the population during 2019-2021 South Region (lei / MWh)

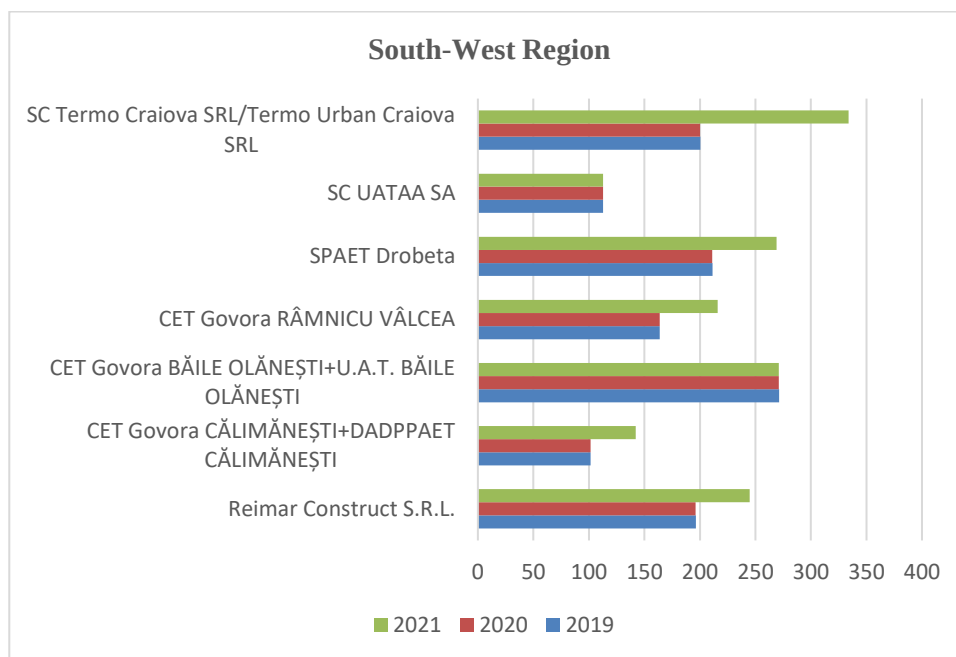


Note: D.G.C.L. LEHLIU - GARĂ - during 2021 HCL numbers 61/31.08.2017 and 74/27.10.2021 were in force, resulting in two local prices for the population (without VAT) 340.97 lei/MWh, respectively 468.66 lei/MWh. (according to Annex 3 to the Report)

UZINA TERMOELECTRICĂ PRODUCTION GIURGIU SA - during 2021 HCL numbers 388/25.11.2020, 94/31.03.2021 and 348/15.10.2021 were in force, resulting in three local prices for the population (without VAT) from the DN - 150.45 lei /MWh, 126.05 lei/MWh and 252.94 lei/MWh and three local prices for the population (without VAT) from TN - 108.12 lei/MWh, 91.26 lei/MWh and 194.76 lei/MWh. (according to Annex 3 to the Report)

VEOLIA ENERGIE PRAHOVA S.R.L. - during 2021, HCL numbers 394/31.10.2019 and 238/26.07.2021 were in force, resulting in two local prices for the population (without VAT) 160.77 lei/MWh, respectively 160.27/MWh. (according to Annex 3 to the Report)

Fig. 30 - Evolution of the local price for the population during 2019-2021 South- West Region (lei / MWh)



Note: S.C. TERMO URBAN CRAIOVA - during 2021 HCL numbers 114/2021, 336/2021 and 494/2021 were in force, resulting in three local prices for the population (without VAT) - 249.48 lei/MWh, 281.80 lei/MWh and 333.91 lei/MWh. (according to Annex 3 to the Report)

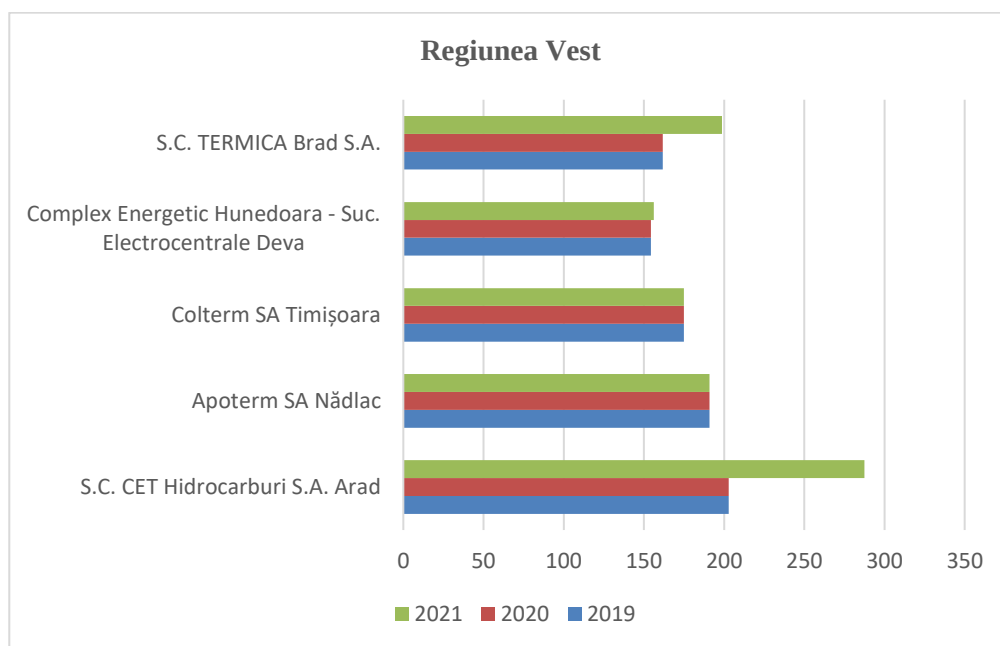
S.P.A.E.T. DROBETA TURNU SEVERIN - during 2021 HCL numbers 214/27.10.2020 and 255/28.10.2021 were in force, resulting in two local prices for the population (without VAT) – 211.11 lei/MWh, respectively 269.14 lei/ MWh. (according to Annex 3 to the Report)

SOCIETATEA CET GOVORA S.A. SACET RÂMNICU VÂLCEA - during 2020, HCL 17/31.01.2017 and HCL 129/28.05.2020 were in force, resulting in two local prices for the population 163.72 lei/MWh, respectively 189.91 lei/MWh. During 2021, HCL numbers 129/28.05.2020 and 189/30.09.2021 were in force, resulting in two local prices for the population (without VAT) – 189.91 lei/MWh, respectively 215.85 lei/MWh. (according to Annex 3 to the Report)

SOCIETATEA CET GOVORA S.A. SACET CĂLIMĂNEȘTI during 2020 HCL 11/22.02.2018 and HCL 109/29.12.2020 were in force resulting in two local prices for the population 101.38 lei/MWh and 142.03 lei/MWh respectively (according to Annex 3 to the Report)

REIMAR CONSTRUCT S.R.L. HOREZU - during 2021 HCL numbers 71/26.09.2019 and 91/25.08.2021 were in force, resulting in two local prices for the population (without VAT) – 196.21 lei/MWh, respectively 244.78 lei/MWh. (according to Annex 3 to the Report)

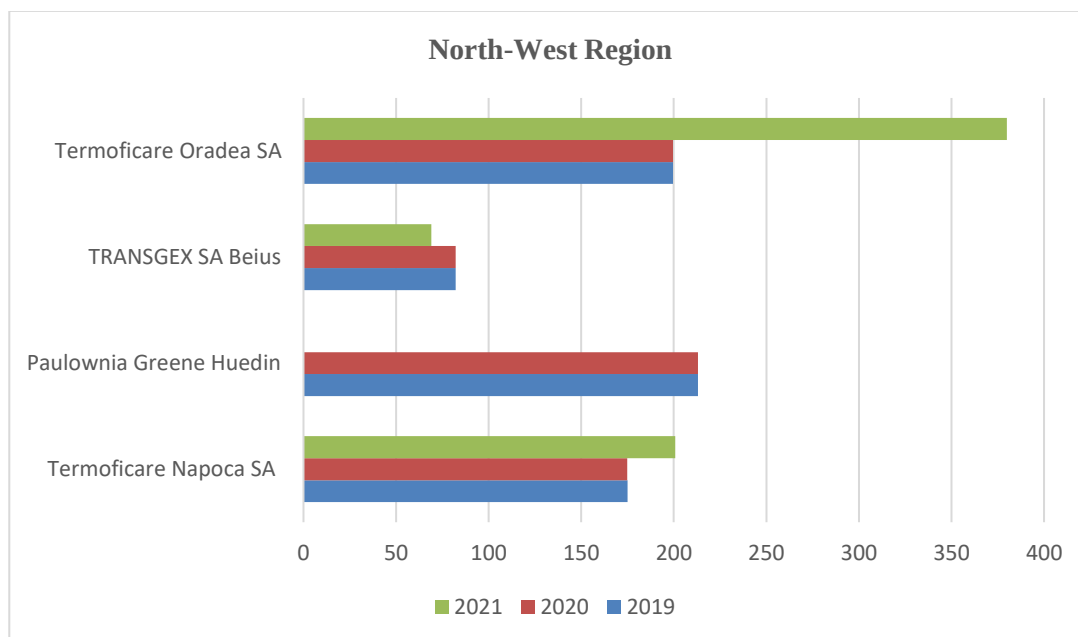
Fig. 31 - Evolution of the local price for the population during 2019-2021 West Region (lei / MWh)



Note: S.C. CET Hidrocarburi S.A. Arad - during 2019 HCL 504/2017 were in force; 109/2019 and HCL 547/2019 resulting in three local prices for the population 197.87 lei/MWh, 283.06 lei/MWh and 202.87 lei/MWh. During 2021, HCL numbers HCL 49/2020 and HCL 591/2021 were in force, resulting in two local prices for the population 202.87 lei/MWh and 287.58 lei/MWh (according to Annex 3 to the Report)

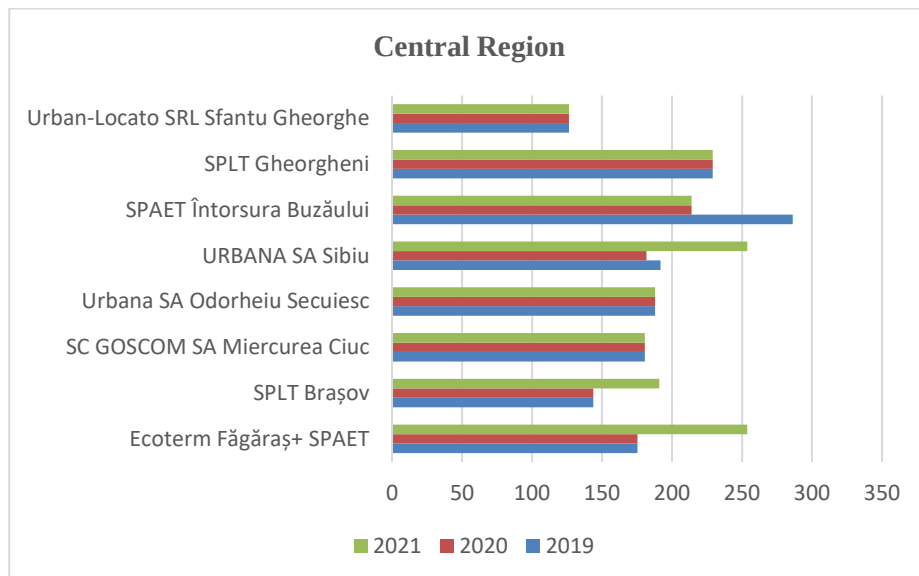
Complex Energetic Hunedoara - Suc. Electrocentrale Deva - during 2019, HCL 511/2018, HCL 255/2019 and HCL 403/2019 were in force, resulting in two local prices for the population of the DN 126.24 lei/MWh / 154.3 lei/MWh spectively 129.01 lei/MWh from TN During 2020, HCL 403/09.12.2019 and 425/26.11.2020 were in force, resulting in two local prices for the population of DN: 154.30/156.22 lei/MWh respectively 129.01/130.93 lei/MWh from TN During 2021, HCL no. 425/26.11.2020 resulting in two local prices for the population: from DN 156.22 lei/MWh and 130.93 lei/MWh from TN. (according to Annex 3 to the Report)

Fig. 32 - Evolution of the local price for the population during 2019-2021 North-West Region (lei / MWh)



Note: Termoficare Oradea SA - during 2019, HCLO 578/2019 was in force, resulting in two local prices for the population in DN 199.57 lei/MWh and 179.24 lei/MWh in TN. during 2020, HCL 1017/2020 was in force, resulting in two local prices for the population of DN 199.57 lei/MWh and 177.25 lei/MWh from TN (according to Annex 3 to the Report) During 2021 HCL no. 920/2021 resulting in two local prices for the population of TN - 257.70 lei/MWh and 379.96 lei/MWh from DN. (according to Annex 3 to the Report)

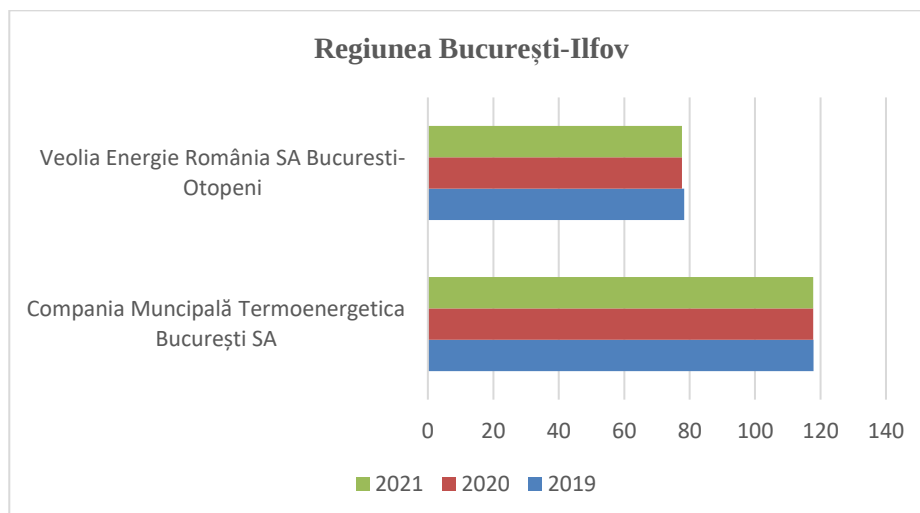
Fig. 33 - Evolution of the local price for the population during 2019-2021 Central Region (lei / MWh)



Note SPAET FĂGĂRAŞ - during 2021 HCL 292/22.12.2020 and HCL 325/21.12.2021 were in force resulting in two local prices for the population 175.29 lei/MWh 253.70 lei/MWh (according to Annex 3 to the Report)

URBANA S.A. - during 2021, HCL 29/2021, HCL 257/2021 and HCL423/2021 were in force, resulting in three local prices for the population 181.83 lei/MWh -, 195.25 lei/MWh and 253.82 lei/MWh (according to Annex 3 to the Report)

Fig. 34 - Evolution of the local price for the population during 2019-2021 Bucharest-Ilfov Region (lei / MWh)



8. FINAL CONSIDERATIONS

Law on community services of public utilities no. 51/2006, republished, with the subsequent amendments and completions, establishes the unitary legal and institutional framework, the objectives, competencies, attributions and specific instruments necessary for the establishment, organization, management, financing, exploitation, monitoring and control of the provision/regulated provision of community services of public utilities .

The supply of thermal energy in a centralized system is one of the community public utility services, to which the provisions of the Law on the public service of thermal energy supply are no. 325/2006, with subsequent amendments and completions are applicable on a special level.

On July 13, 2021, Law no. 196/2021 for the amendment and completion of the Law on the public service of thermal energy supply no. 325/2006, for the amendment of para. (5) of art. 10 of Law no. 121/2014 on energy efficiency and to complete para. (3) of art. 291 of Law no. 227/2015 regarding the Fiscal Code was published and as a result the Romanian Energy Regulatory Authority - ANRE, as the competent regulatory authority, elaborates the technical and commercial regulations in the field of thermal energy.

In the context of efforts to support investments in the production of energy from renewable sources and due to the structural transformations in the economy towards production and service sectors with lower energy intensity, Romania is on the right track to meet the energy-climate targets for 2020. Nevertheless, the European Commission warns that, in the context of current policies, renewable energy, emission reduction and energy efficiency targets for 2030 are challenging, even in the context of ambitious policies and programmes, which require energy sector investments of €22 billion between 2021- 2030.

The energy sector is also the main sector that causes air pollution; the restructuring of energy systems (by switching from coal to natural gas and by integrating renewable energy sources) and heating systems (by rehabilitating SACETs, their transition from coal to gas and even to renewable energy sources, in conjunction with supporting the transition of consumers for central heating) could lead to a significant reduction in air pollution.

Within the Integrated National Plan in the field of Energy and Climate Change 2021-2030 (INECP), the replacement of existing capacities for the production of electricity and thermal energy will also have the effect of reducing own technological consumption, especially through investments for the modernization and development of production units in high-efficiency cogeneration (including methane gas). The efficiency of existing production capacities and the development of new capacities in high-efficiency cogeneration mode are a priority at the level of large urban agglomerations, as well as for other local communities in Romania.

The National Reform Program 2021, for the continuation of the modernization and establishment of centralized thermal energy supply systems, approved the District Heating program through GEO no. 53/2019 - a program that is implemented in the period 2019-2027 and to which 400 million lei were allocated from the Environmental Fund, for the entire implementation period. The beneficiaries of the program are the administrative-territorial units (UAT).

According to Government Ordinance no. 36/2006 regarding some measures for the operation of centralized systems for supplying thermal energy to the population, approved with amendments and completions by Law no. 483/2006, with subsequent amendments and completions for the supply of thermal energy in the centralized system, the following measures can be approved:

- the allocation from the local budgets of the administrative-territorial units of some sums to fully cover the difference between the price of production, transport, distribution and supply of the thermal energy delivered to the population and the local prices of the thermal energy invoiced to the population (art. 3 paragraph (4) from O. G. no. 36/2006);

- the allocation from the local budgets of the administrative-territorial units of some amounts to cover the losses induced by the operation of public services of production, transport, distribution and supply of thermal energy for the population in a centralized system and not accepted in the price/tariff (art. 52 of G. O. no. 36/2006).

By Order of the Deputy Prime Minister, the Minister of Regional Development and Public Administration and the Delegate Minister for the Budget no. 1.121/1.075/2014, with subsequent amendments and completions, has been approved the State Aid Scheme granted between 2014 and June 30, 2023 to economic operators that provide the general economic interest service of production, transport, distribution and supply of thermal energy in the system centralized to the population.

Considering that in the next 2 years the accounting period 2014-2020 is coming to an end, continuity and complementarity must be ensured in the financing of the interventions: POIM 2014-2020 – PODE 2021-2027 – PNRR. Continuity in financing will be done through the Sustainable Development Operational Program - PODE 2021-2027 with the same approach from the POIM regarding the modernization/expansion of the primary and secondary thermal networks from the thermal energy supply systems by replacing the heating systems with combustion based on solid fossil fuels . The total allocation is EUR 851 million.

With the European Commission's launch of the REPowerEU Plan in May 2022, the EU regulatory framework will need to be adapted to allow for a substantially higher share of energy from renewable sources in the energy mix, in line with the EU's ambitious targets for decarbonization. The objective of the REPowerEU Plan is to rapidly reduce Europe's dependence

on Russian fossil fuels by accelerating the clean energy transition and joining efforts to build a more resilient energy system and a true Energy Union.

The European Commission published on 13th of June 2022 four studies that analyze different aspects of the decarbonisation of heating and cooling in the EU. About half of the energy currently consumed in Europe is used for heating and cooling, and most of it is based on fossil fuels. Consequently, shifting this sector towards the use of energy from renewable sources has the potential to make a significant contribution to the decarbonisation of the energy system and the achievement of the EU's energy and climate goals for 2030 – and ultimately its goal of becoming neutral from a climate point of view by 2050.

ANNEXES

Annex 1 – SACET Characteristics (Part I)

Annex 2 – SACET Characteristics (Part II)

Annex 3 – General situation of SPAET – Year 2021

Annex 4 – Situation of investments in SACET infrastructure

Annex 5 – SPAET specific technical-economic data – Year 2021