

**TERMŌELECTRICA · S · A ·**

Power generation and district heating

**Energy Efficiency Coordination Group meeting and  
Workshop on Efficient District Heating and Cooling  
10-11 June 2020**

**Vitalie Mîța, Technical Adviser Termoelectrica**

# About us

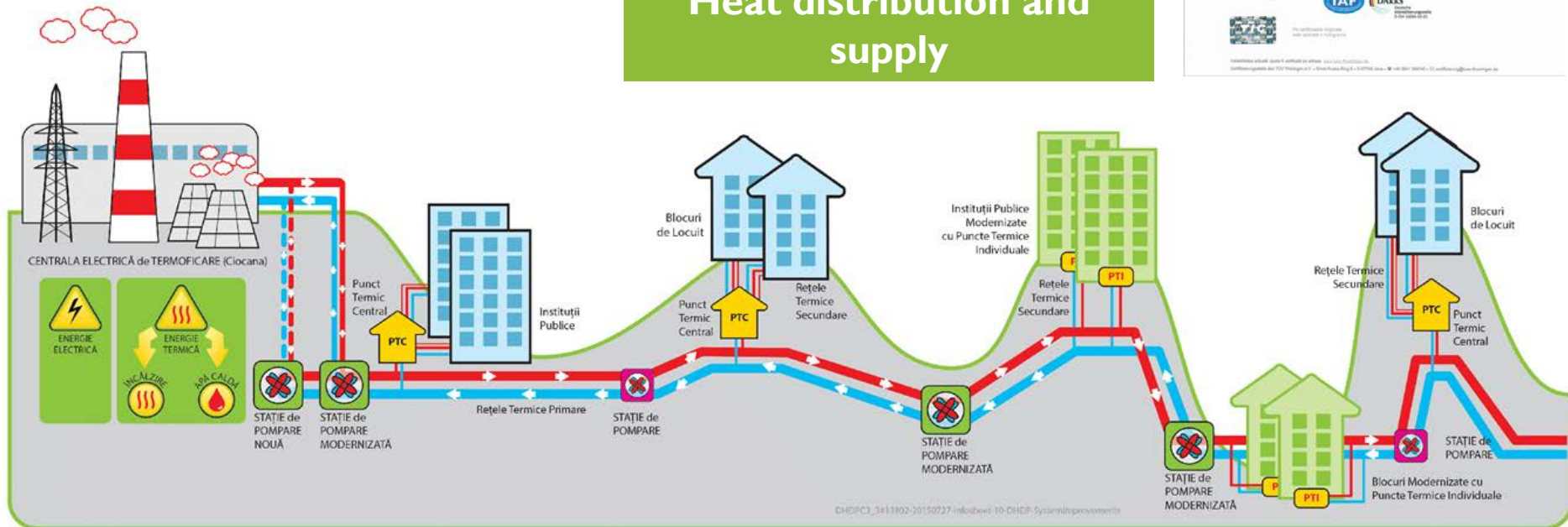


Since **2015** we are the largest operator of district heating and cogeneration electricity production in the Republic of Moldova

**1900 employees**

**Termoelectrica JSC was created through an extensive restructuring process of 3 large enterprises located in Chisinau**

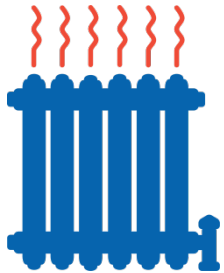
## Power and heat generation



## Heat distribution and supply



- We deliver annually to consumers about **1 300 th Gcal** of thermal energy for heating and for domestic hot water preparation in about **5000 buildings**, which represents:

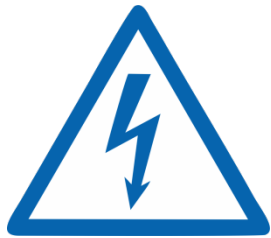


- 600** public institutions;
- 800** businesses;
- 600** individual residential buildings;
- 3000** residential apartment buildings with old heat distribution or about **210 th** apartments;
- 51** residential apartment buildings with new horizontal heat distribution or **3 th** apartments.

- We deliver annually to National Power System about **650 millions kWh** of power or **15%\*** from the total consumption of the Republic of Moldova.

\* without the Transnistrian region





Power

**CHP „Source 2”:**

*Installed*  
239 Gcal/h, 66 MW;  
*Disponibil*  
185 Gcal/h, 54 MW.

**CHP „Source 1”:**

*Installed* 1200 Gcal/h,  
240 MW;  
*Available* 680 Gcal/h;  
240 MW.

**HOB „West”:**

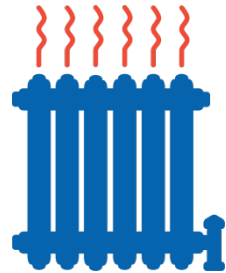
*Installed* 400 Gcal/h;  
*Available* 300 Gcal/h.

**HOB „South”:**

*Installed* 280 Gcal/h;  
*Available* 180 Gcal/h;

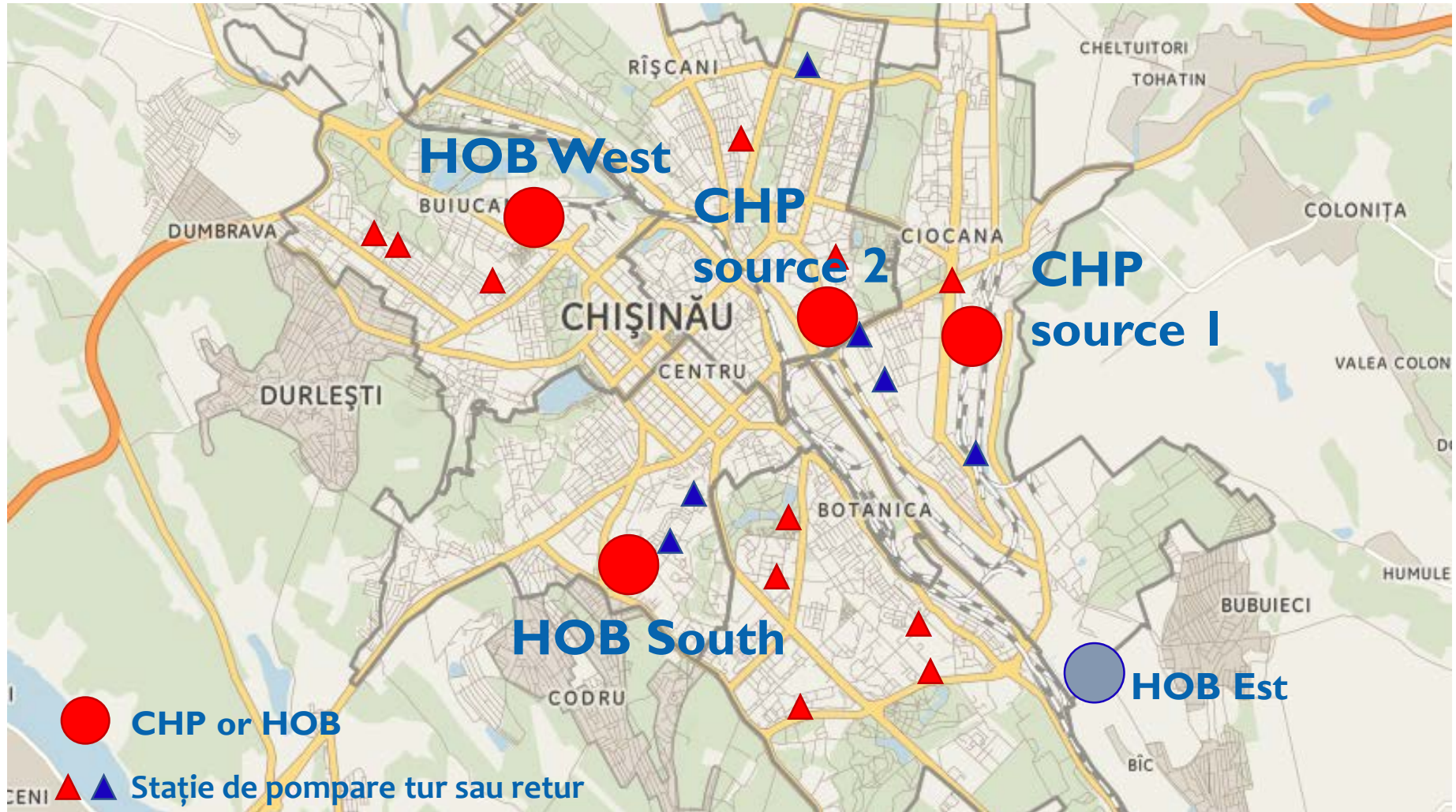
**19 suburban HOBs:**

*Installed* 67 Gcal/h;  
*Available* 60 Gcal/h.



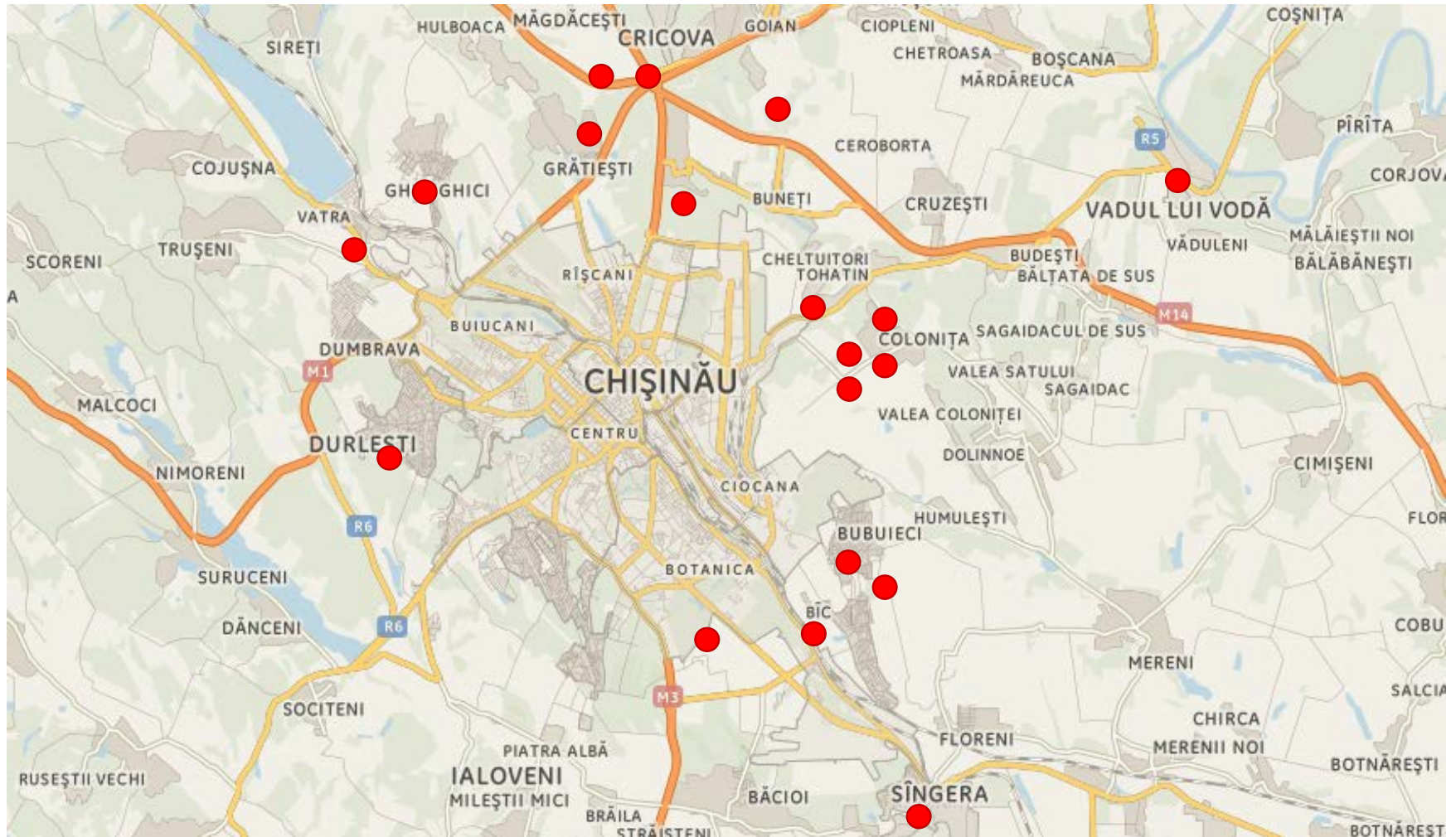
Heat

**4 Plants and 18 Pumping stations**





## 19 Suburban HOBs



# Heat distribution infrastructure



**18**  
Pumping stations

**326**  
Central heat substations

**285,6 km**  
Primary heat network

**905**  
Individual heat substations (IHS)

**246,8 km**  
Secondary heat network

**4605**  
Branchings

**172,3 km**  
DHW network

**7213\***  
Heatmeters  
\* Including apartment meters

# District Heating Efficiency Improvement Project (DHEIP)



## Project objectives

- Improving the Operational Efficiency and Financial Viability of Termoelectrica JSC
- Improving the Quality and Reliability of District Heating Services provided to the population in Chisinau

Ratification of the Financing Agreement between the Republic of Moldova and IBRD in the amount of 40,500,000 US dollars

1

2 Signing the Loan Recrediting Agreement with the Ministry of Finance for the implementation of the DHEIP (P I32443);

Approval of the Termoelectrica 2016-2049 Business Plan, in order to make the necessary investments and measures regarding the implementation of the Financing Agreement

3





## Investments made during 2016-2020:

- Reconstruction of **3 Pumping Stations** and construction of a new one,
- Thermal networks replacement and construction a new network using **40 km of preinsulated pipe**,
- Installing more **450 of IHS**,
- Equipping with **Variable Speed Control Systems** and replacing mains pumps at **CHP Source I** and **HOB West**.



## Corporate assistance provided

**C.3.4. Technical Assistance for Social Impact Mitigation / Training under the Staff Reduction Program.**

**C.3.5. Technical assistance for the environmental audit of the HOB Source 2 territory planned for closing.**

**C.3.6 Technical assistance for the development of the Corporate Communication Strategy of Termoelectrica.**



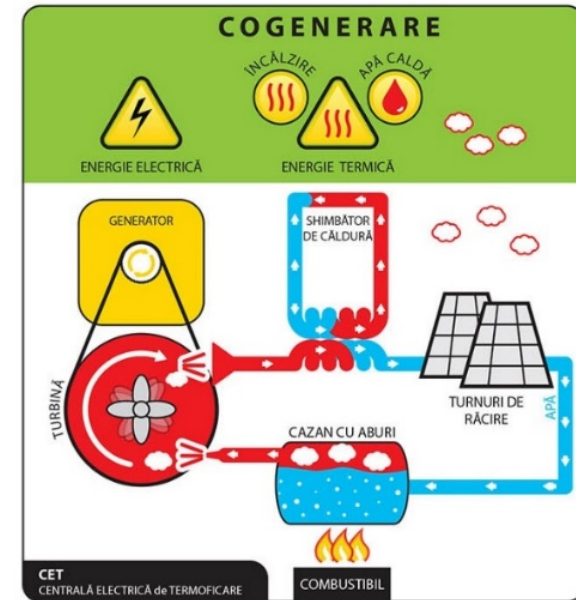
## Investments made during 2016-2020

- Reconstruction of **3 other important Pumping Stations**,
- Thermal networks replacement using **70 km of preinsulated pipe**,
- Installing more **450 of IHS**,
- Major overhaul of the main basic equipment of the generation sources and modernization unit I at **CHP Source I**.

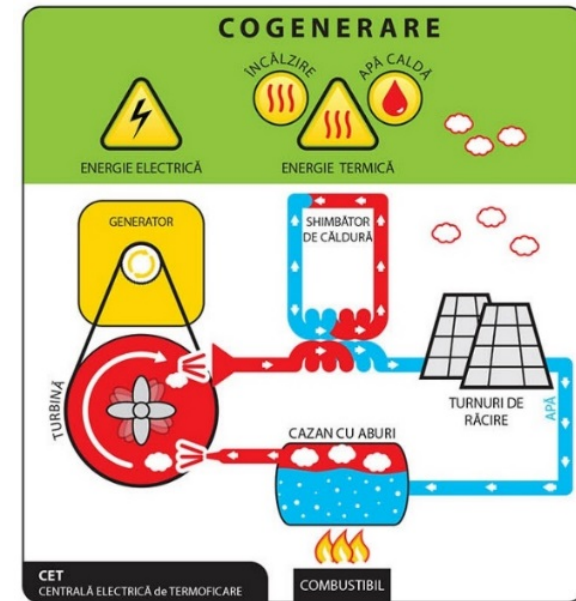




- Stopping the accumulation and reducing the debts for the consumed natural gas;
- Domestic hot water delivery non-stop, without interruption during the summer;
- Stopping disconnections and attracting new customers;
- Modernization of a large part of the infrastructure;
- Innovative approach in basic activities;
- Optimization of production costs.



- The generating installations of the largest **CHP** have been in operation for over **40 years**.
- The heating internal systems of residential buildings are degraded and require gradual replacement;
- **High efficiency cogeneration is supported by law**;
- The available technologies allow a doubled increase in the volume of electricity produced in cogeneration.





- Implementation of second DHEIP;
- Modernization of the basic equipment of the CET Source I, **+70 th MWh annually**;
- Construction of new high-efficiency cogeneration capacities to cover summer thermal load, **+200 th MWh annually**.





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**Thank you**