Ploiești: Efficient District Heating for a Sustainable Future

Name of the system:
Ploiesti District Heating System

Location:
City of Ploiesti, county of Prahova, Romania

Concession granters:
Prahova County and Ploiesti Municipality

Concession holder:
Dalkia Termo Prahova S.R.L. - a subsidiary of Dalkia Romania

Shareholders of concession holder:
Dalkia Romania S.A. 87,2%
Prahova County 6,4%
Ploiesti Municipality 6,4%

Contact:
Pavel Mička, General Manager
pavel.micka@dalkia.ro
+40 758 048 000, 040 244 594 580
1-3 Valeni Street, building 33 IK, 100046, Ploiesti, Romania
Motivational letter

District heating has proved to be a sustainable and efficient system in densely populated areas. Romania has the enormous chance of possessing the 2nd largest park in Central Europe (after Poland) of CHP production units which supply district heating systems. Unfortunately, if in 1990 there were more than 150 such systems in Romania, their number dropped under 100. At the moment, 90% of district heating systems in the country are on the verge of bankruptcy; already, the population of several cities is not supplied with hot water and heat anymore, which are essential, vital needs.

In this extremely tensed context, Dalkia proves that a centralized heating system managed on the basis of a long-term performance (result) contract is the best solution for the present and the future of local communities.

In 2004, Dalkia signed a 15-year concession contract with Prahova County (the owner of the production power plant and the heat transport network) and Ploiesti Municipality (the owner of the substations and the heat distribution network) for the operation of the integrated District Heating System: production - transport - distribution. The company - DALKIA TERMO PRAHOVA - is the biggest private DH operator in the country.

The District Heating in Ploiesti is a municipal scheme which provides hot water and heating for 57,900 individual apartments (150,000 inhabitants), 71 public institutions and 753 private companies. Although the system was created approximately 40 years ago, it is the most efficient among similar systems in Romania, and it is recognized as such by local and central authorities and by the private sector of the economy.

Since 2004, Dalkia has implemented numerous constructive measures in order to respect the principles that guide the daily activities of any Dalkia entity: impeccable customer care, high respect for the environment, permanent sense of responsibility for the efficient use of resources, innovation, productivity and solidarity, i.e.:

- performance-based management style
- installation of low NOx burners on the boilers
- installation of a 25 MWe gas turbine for the extra-heating season CHP production
- shutting down of the hydrogen production unit and ceasing the use of hydrazine (no more SEVESO directive)
- partial replacement the transport and distribution networks, by using pre-isolated pipes (21.3 km)
- modernization of substations: new heat exchangers, frequency convertors, differential pressure regulators, etc
- complete automation of all substations and the monitoring of all operation parameters at the central dispatching unit
- focus on the end-users: 24/24 hrs Call Center, Customer Service Office, non-stop emergency intervention teams, “after-meter” services (fixed-fee service contract), promotion of the advantages of District Heating, etc.

Main results obtained through these measures and with the help of over 20.5 million € investments:

- 30% less primary energy consumed in order for 1 Gcal to reach our end-users
- >90% boiler performance during the heating system
- 46% less CO² emissions
- 94% less SO² emissions
- 44.3% less NOx emissions
- less than 14% losses on the networks
- more customers connected to the DH system
- lowest price for hot water and heating in Romania
- end-users that are more and more satisfied with the services we provide.

We hope that these Awards will give us the opportunity to show to Romanian authorities that it is time they acted in order to save the country’s District Heating Systems, as they represent an enormous chance for our future.

2nd Global District Energy Climate Awards
Ploiești: Efficient District Heating for a Sustainable Future
Executive Summary

In April 2004, Dalkia Romania - winner of a public tender - signed a 15-year concession contract with the two concession granters: Prahova County and Ploiesti Municipality. The contract is based on technical performance indicators (turbine performance, boiler performance, losses on the networks) and on heat price clearly defined for the whole duration of the contract (formula including primary energy price and inflation). Dalkia Termo Prahova was born, with the 3 contractual partners as shareholders:

In an extremely difficult context of the Romanian heat market (almost all DH operators have important financial losses), Dalkia has managed to prove beyond doubt that a well-managed district heating system is the best solution for end-users and local communities as well.

Seven years after the signing of the contract and with the help of the managerial, technical, operational, environmental, commercial measures we have implemented and of the 20.5 M€ invested, we can say that Dalkia Termo Prahova is the best district heating operator in the country.

These results are a concrete proof of that:
- 30% less primary energy consumed in order for 1 Gcal to reach our end-users
- > 90% boiler performance during the heating system
- 46% less CO₂ emissions
- 94% less SO₂ emissions
- 44.3% less NOx emissions
- < 14% losses on the networks
- more clients connected to the DH system
- lowest price for hot water and heating in Romania
- end-users that are more and more satisfied with the services we provide.

Dalkia is proud to present this project to the 2nd Global District Energy Climate Awards.
1. Introduction

1.1. City of Ploiesti, County of Prahova, Romania

Ploiești is the county seat of Prahova County and lies in the historical region of Wallachia, Romania. The city is located 56 km (35 mi) north of Bucharest. With a total area of 58.2 km² (22.5 sq mi), Ploiesti has approximately 230,000 inhabitants.

Ploiești is twinned with: Berat in Albania, Dnepropetrovsk in Ukraine, Harbin in China, Hîncești in Moldova, Lefkada in Greece, Maracaibo in Venezuela, Oral in Kazakhstan, Osijek in Croatia and Radom in Poland.

After the Romanian Revolution of 1889, Ploiești experienced rapid economic growth due to major investments from foreign companies. Ploiești is a strong industrial center, focused especially on the oil production and refining industry (the world’s first large refinery opened in Ploiești, in 1856-1857, with US investment). Although oil production in the region is declining steadily, there is still a thriving processing industry through four operating oil refineries, linked by pipelines to Bucharest, the Black Sea port of Constanța and the Danube port of Giurgiu. Ploiesti concentrates many foreign investments: OMV-Petrom, Lukoil, Timken, Yazaki, Coca-Cola, Efes Pilsener, British American Tobacco, Interbrew.

1.2. Context

Dalkia has been present in Ploiesti since 1996. Until 2004, the company managed the heat distribution system, on the basis of an operation contract signed with the Ploiești Municipality. In 2003, in a very unstable context (the Brazi power plant, managed by a state-owned company, was in a very difficult financial situation), the Prahova County took over the CHP power plant and decided to associate with the Municipality of Ploiești (the owner of the substations and of the heat distribution network) in order to ensure the supply of hot water and heat for the city’s inhabitants. The two local authorities chose then to launch a public tender for the concession of the integrated district heating system.

1.3. The concession contract*

In April 2004, Dalkia Romania was declared winner of the public tender, and therefore it signed a 15-year concession contract with the two concession granters: Prahova County and Ploiești Municipality. The contract is based on technical performance indicators: turbine performance, boiler performance, losses on the networks. In addition to this, the heat price - which is adjusted twice a year - is very clearly defined for the whole duration of the contract by a mathematical formula which has as variables the price of primary energy and inflation. Moreover, Dalkia undertakes to invest 20 M€ until the end of the contract.

*The concession model for District Heating systems: Unlike other countries in Europe, Romania chose not to privatize its DH systems, but to delegate their operation to specialized operators through “concession contracts”. Thus, the concession granters remain the owners of the equipments which the concession holder operates on the basis of a result contract. This business model has numerous advantages:

- for the concession granters: a) the DH is operated by a professional company using verified and performance-based methods and tools; b) local authorities have several control means in order to make sure that the operator complies with its commitments (regular reports, audits, etc); c) investments are the operator’s obligation;
d) at the end of the contract, the equipments go back to the concession granter in at least the same technical condition as at the beginning of the contract;

- **for the end-users:** a) they have at their disposal 24/7 a specialized operator which provides hot water and heat at the lowest price possible and with a high degree of quality and continuity; b) the price is determined by a mathematical formula for the whole duration of the contract, thus guaranteeing transparency and long-term visibility;

- **for the operator:** the long-term contract allows the concession holder to carefully plan its investments and improvement works in order to achieve the best technical-economic results all along the duration of the contract, therefore satisfying its customers and its shareholders.

2. The District Heating System

2.1. Production equipments

The power plant - CET Brazi - situated at almost 18 km of the city of Ploiesti, produces **heat and electricity by cogeneration using as primary energy natural gas** and, whenever necessary, low sulphur fuel oil. CET Brazi delivers steam to industrial clients, heat to residential, tertiary and industrial consumers and electricity to the National Energy System. The **installed power** is 1 110 MWth and **285 MWe**. The maximum fuel oil storage capacity is 27 000 tones. The installed natural gas flow is approx. 58 000 Nm3/h. The main production equipments are:

**Boilers:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Installed thermal power (MWth)</th>
<th>Charge</th>
<th>Year of installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 5 boiler type TGM 84B</td>
<td>280</td>
<td>420 t/h</td>
<td>1973</td>
</tr>
<tr>
<td>No. 6 boiler type TGM 84B</td>
<td>280</td>
<td>420 t/h</td>
<td>1974</td>
</tr>
<tr>
<td>No. 7 boiler type CPG 84B</td>
<td>280</td>
<td>420 t/h</td>
<td>1978</td>
</tr>
<tr>
<td>No. 1 hot water boiler (CAF)</td>
<td>116</td>
<td>100 Gcal/h</td>
<td>1971</td>
</tr>
<tr>
<td>No. 2 hot water boiler (CAF)</td>
<td>116</td>
<td>100 Gcal/h</td>
<td>1971</td>
</tr>
<tr>
<td>No. 1 industrial steam boiler (CAI)</td>
<td>4</td>
<td>6 t/h</td>
<td>2006</td>
</tr>
<tr>
<td>No. 2 industrial steam boiler (CAI)</td>
<td>4</td>
<td>6 t/h</td>
<td>2007</td>
</tr>
<tr>
<td>Recovery boiler (installed on the gas turbine)</td>
<td>30</td>
<td>38 t/h</td>
<td>2010</td>
</tr>
</tbody>
</table>

**Turbines:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Charge (MWe)</th>
<th>Year of installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 5 turbine (turbogenerator with condensation)</td>
<td>105</td>
<td>1973</td>
</tr>
<tr>
<td>No. 6 turbine (turbogenerator with condensation)</td>
<td>105</td>
<td>1974</td>
</tr>
<tr>
<td>No. 7 turbine (turbogenerator with counterpressure)</td>
<td>50</td>
<td>1976</td>
</tr>
<tr>
<td>TAG (gas turbine)</td>
<td>25</td>
<td>2010</td>
</tr>
</tbody>
</table>

Operation scheme during summer-time (with gas turbine)

2nd Global District Energy Climate Awards
Ploiești : Efficient District Heating for a Sustainable Future
2.2. Transport (primary) and Distribution (secondary) Networks

The transport of heat - hot water - between the Brazi power plant and the substations is done by 7 main networks out of which 38% are above the ground and 62% are below the ground.

The secondary networks - which distribute heat from the substations to the buildings that are connected to the system - have 4 tubes: 2 for heat, 1 for hot water and 1 for the recirculation of hot water (between the substation and the entry in the building).

<table>
<thead>
<tr>
<th>Length (km)</th>
<th>Transport network</th>
<th>Distance: 62,69; Tubes: 141,63</th>
<th>Distribution network</th>
<th>Distance: 91,2; Tubes: 331</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of main transport networks from the power plant to the city</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average age (years)</td>
<td>30</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network temperature (°C)</td>
<td>Forth: 110/70 Back: 65/40</td>
<td>Forth: 70/45 Back: 55/30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3. Substations

There are 104 substations in Ploiești: 86 classical substations (which supply hot water and heat to several buildings, through secondary networks) and 18 terminal substations (thermal modules that supply individual buildings).

In addition, there are also 2 small production units - CT Bucov and CT 23 August - which are far from the networks. They have an installed power of 3.40 Gcal/h and 0.5 km of networks.
3. Clients

The Ploiești district heating system operated by Dalkia Termo Prahova supplies hot water and heat to 57,900 of the 64,880 apartments in the city (89.2% market share).

The other beneficiaries of our services are: 71 public institutions and 753 private companies.

4. Measures taken and results obtained

4.1. Technical means

In order to comply with the contractual obligations undertaken in the concession contract and to live up to the values enforced by Veolia Environnement, Dalkia’s teams have implemented several technical measures absolutely necessary for the system’s optimal operation.

Performance-based management and increased sense of responsibility

First of all, positive changes were brought to the operation methods and procedures. A new management style, based on concrete and transparent performance indicators for each employee, came into force. Furthermore, this work style has lead to a remarkable increase in the sense of responsibility that our personnel has, and immediately after to a great improvement in individual performance.

Innovative technical management tools

The technical personnel started using tools and methods developed by Dalkia Corporate and adapted to the context and installations we operate in Brazi and Ploiesti. These tools are dedicated to the expertise of energy efficiency services:

On the one hand, we employ the G.I.N.A. module (the management of installations and new businesses) and M.O.N.A. (handwork necessary to each technical activity) on the basis of the Microsoft NaVision pro software for the monitoring of technical interventions of operation activities.

On the other hand, we use the web-tool for energy management - E.M.B.E.R. (energy monitoring budgeting energy reporting) -, which allows us to monitor and analyze utilities sales and measure the energy performance of the installations we operate.

Dalkia has implemented these tools in order to improve the overall efficiency of our activities and the quality of the services we provide, as the tools help us optimize the following important aspects:

- the planning of preventive maintenance and operation (analysis of service quality and equipment performance)
- the work adequacy on the basis of the availability and skills of our operational personnel
- the quantification of technical interventions
- the monitoring of technical incidents and the deep analysis of their causes
- the monitoring of costs for project studies, investments, technical works, etc
- the interface with the other modules (financial, purchasing, human resources, invoicing).
2nd Global District Energy Climate Awards
Ploiești: Efficient District Heating for a Sustainable Future

E.M.B.E.R. (Energy Monitoring Budgeting Energy Reporting)

M.O.N.A. (main-d’œuvre nécessaire à l’activité)
Main technical measures implemented

Since the signing of the concession contract, Dalkia has been relentlessly trying to identify and implement measures in order to optimize the production of energy by cogeneration, to reduce primary energy consumption (natural gas) as well as electrical and heat self-consumptions. Here are some concrete examples:

- the use of the no. 7 turbine TA7 in counter-pressure to produce steam for an industrial client
- the installation of a better adapted circulation pump for the summer time
- the installation of 2 exchangers to pre-heat water in order to avoid steam consumption and, therefore, save primary energy
- the shutting down of the hydrogen production unit and ceasing the use of hydrazine (the SEVESO directive in no longer applicable to our installations)
- the replacement of an important part of the transport and distribution networks that were in a poor technical condition, by using pre-isolated pipes: 21,3 km
- the modernization of 43 substations: new heat exchangers, electro-pumps, frequency convertors, differential pressure regulators, etc
- the complete automation of all substations and the monitoring of all operation parameters at the central dispatching unit, etc.

Installation of a Gas Turbine (TAG) at the Brazi power plant

In 2004, the European CE 8/2004 directive promoted the support and the creation of high efficiency cogeneration in order to: improve the quality and security of the heating service delivered to the population; diversify the sources of primary energy; improve global efficiency (+10% for cogeneration in comparison with the equivalent power in the separate heat and electricity production); reduce greenhouse gases.

By anticipating the adaptation of this directive to Romanian law (by H.G. 219/2007, yet to be applied), Dalkia chose to invest for a sustainable future in a Gas Turbine (installed power: 25 Mwe and 30 MWth) that was commissioned in August 2010. This equipment produces heat and electricity in cogeneration outside the heating season, when the heat demand is lower. By using CHP, the gas turbine will lead to primary energy savings (global energy balance: at least 75%) and to the reduction of CO₂ emissions (approximately 9 000 CO₂ tones less/year).
Here is a summary of all the investments that Dalkia made in the Ploiesti DH System:

<table>
<thead>
<tr>
<th>Type of investment</th>
<th>% of the total value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas turbine</td>
<td>12.06</td>
</tr>
<tr>
<td>Improvement of technical performance</td>
<td>30.78</td>
</tr>
<tr>
<td>Security of personnel and installations</td>
<td>28.87</td>
</tr>
<tr>
<td>Transport and distribution networks</td>
<td>15.53</td>
</tr>
<tr>
<td>Conformation to new E.U. and national regulations</td>
<td>4.85</td>
</tr>
<tr>
<td>Equipments</td>
<td>4.33</td>
</tr>
<tr>
<td>Other projects</td>
<td>3.58</td>
</tr>
<tr>
<td><strong>Total amount invested (2004 - 2010)</strong></td>
<td><strong>20.5 M €</strong></td>
</tr>
</tbody>
</table>

4.2. Energy efficiency

By implementing all the above mentioned measures, Dalkia Termo Prahova managed to consume 30% less primary energy for the production of 1 Gcal that reaches the end-user’s apartment, and to continuously improve its global energy balance. Here is the comparison between 2004 and 2010:

In 2010 we stopped selling steam to an industrial client that now has an individual production unit.
4.3. Environmental friendliness

As a member of the Veolia Environnement Group, Dalkia is very committed to its environmental responsibility towards the community it serves, but also towards our next generations. That is why our installations fully comply with all environmental requirements applicable at national and European levels. The Brazi CHP power plant functions on the basis of an integrated environmental permit - valid until 2017 - which determines the maximum level of emissions allowed.

Moreover, the gradual diminishing of pollutants in the atmosphere was also the result of the installation of low NOx burners on the boilers and of the use of natural gas as main primary energy (we only use fuel oil when there are problems with the gas supply: we did so in January 2009 and January 2010, when we had to deal with the Russian - Ukrainian “gas crisis”).

In addition to this, all the emissions are accurately recorded by an online monitoring system (in place since 2007), which allows our technical teams to best choose the operation scheme in order for the installations to comply with environmental obligations.

<table>
<thead>
<tr>
<th>Emission types</th>
<th>Emissions are much inferior to the 2004 level</th>
<th>By choosing the correct functioning schemes and by implementing the appropriate measures, here are the results we have environment-wise.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO²</td>
<td>- 46% (- 280 286 tones)</td>
<td></td>
</tr>
<tr>
<td>SO²</td>
<td>- 94% (- 841.55 tones)</td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>- 44,3% (- 693.72 tones)</td>
<td></td>
</tr>
<tr>
<td>Powders</td>
<td>- 98,97% (- 102.16 tones)</td>
<td></td>
</tr>
</tbody>
</table>

All these positive actions allowed us to receive in 2007 from Lloyd’s Register Quality Assurance the SR EN ISO 14 001:2005 certification of our Environmental Management System for the Brazi power plant.
4.4. Client orientation

Clients have always been at the core of Dalkia’s daily actions, as they are the truest measure of our overall performance as a district heating operator. Since the signing of the concession contract in 2004, we have focused profoundly on the relationship we have with our end-users, by implementing several constructive actions in order to honor the commitments we assumed in this respect:

- we created a commercial team (which did not exist before 2004)
- we opened a Customer Service Office at our headquarters
- we launched a 24/24 hrs Call Center with a toll-free number
- we reorganized the heat distribution team, by:
  - dividing the city into 3 operation sectors in order to gain efficiency
  - creating 3 non-stop emergency interventions teams
  - creating a dedicated team that performs technical works on our end-users’ premises (in the apartments, on the hot water and heating installations of the building, on the installations located in the basement of the block of flats, etc)
- we launched personalized “after-meter” services:
  - fixed-fee (service) contract: intervention in case of emergency in less than 30 minutes; revision of the building’s hot water and heating installations + series of technical recommendations; diagnosis during wintertime
  - extension of hot water recirculation between the substation and the building’s last floor
  - works contract: execution of works on the building’s/apartment’s inner installations
- we launched a sustained marketing campaign in order to promote the advantages of DH:
  - communication “at the P.O. box” (flyers, information letters, posters at the building entrance, etc.)
  - regular meetings with representatives of associations at our substations
  - collaboration with local media (6 newspapers, 4 TV stations, 3 radio stations)
Commercial results obtained

Seven years after the coming into force of the concession contract, here are some of the commercial results we have obtained:

- keeping clients connected to district heating:
  - decrease and even inversion of disconnections from the system (reconnections to district heating by eliminating the individual boiler = unique cases in Romania)
- development of portfolio - participation in the city’s urban development
  - connection of public buildings to district heating (partnership with the Mayor’s Office and the Regional Council): 32 new such clients
  - connection of private buildings to district heating - private individual houses, tertiary buildings (banks, offices), apartment buildings: 51 new such clients
- our end-users pay the cheapest invoice for hot water and heating countrywide:

All the cities - except for Ploiești - have important financial losses which are not included in the heat price

(acc. to ANRSC, the Romanian regulatory body for District Heating (www.anrsc.ro))

- our end-users’ degree of satisfaction has improved continuously:

Evolution of end-users’ degree of satisfaction %
Conclusions:

- Dalkia Termo Prahova operates the district heating system in Ploiesti on the basis of a concession contract, a unique business model in Central Europe

- Thanks to an innovative and demonstrated know-how, Dalkia is the best DH operator in Romania and has attained much better technical results than its contractual commitments

- Dalkia complies with all environmental obligations at European and national levels, and has achieved important emission reductions, in accordance with E.U. policies

- End-users can count 24/7 on Dalkia’s emergency intervention teams

- Dalkia provides hot water and heating at a very high level of quality and continuity, and at the lowest price in Romania
Appendixes:

Diploma awarded by the Ploiesti Municipality to Dalkia Termo Prahova for “high quality and efficient energy services provided to the inhabitants of Ploiesti”
The MUNICIPALITY of PLOIEȘTI - LETTER of RECOMMENDATION

We, the Municipality of Ploiești (situated in Prahova County, Romania), are partners of Dalkia Termo Prahova S.R.L. in a long-term concession contract.

In 2004, together with the Prahova County Council, we signed a 15-year concession contract with Dalkia for the operation of the integrated district heating system for the city of Ploiești (production - transport network - substations - distribution network). This is a "result contract", based on some very clear performance indicators (boiler and turbine efficiency, losses on the networks).

After almost 7 years, we can say without a doubt that Dalkia Termo Prahova is the best public service operator for the inhabitants of Ploiești. Our main objective as a local authority is to have satisfied citizens, who enjoy hot water and heating at a high level of quality and continuity and at the lowest price possible. Dalkia's teams have managed to do just that.

Furthermore, the fact that Dalkia offers the cheapest hot water and heating price in Romania means that we - the Municipality of Ploiești - pay less subsidies to the population, which allows us to invest the money we save in infrastructure and other important projects.

Another extremely beneficial effect that Dalkia’s presence has had on our community is its positive impact of the environment, and thus on the quality of life that our inhabitants enjoy. Through daily operational and managerial efforts, Dalkia has reached a high level of environmental performance, translated into the constant diminishing of pollutants in the atmosphere.

We are confident that Dalkia Termo Prahova will continue to be the trustworthy partner it has proved so far, and that together we will keep improving the lives of the people we serve, in the spirit of sustainable development.

Yours sincerely,
Andrei Liviu Voioveșcici,
Mayor of the City of Ploiești.
PRAHOVA COUNTY - LETTER of RECOMMENDATION

Prahova County signed in 2004 - alongside the City of Ploiesti - a 15-year long concession contract with Dalkia for the operation of the city's district heating system. We chose Dalkia because the company made us an offer we couldn't refuse: the efficient management of a vital service for the citizens, in total respect with all European regulations concerning the environment.

In a difficult financial and economic context, where most District Heating operators in Romania face a very tough situation because of lack of action, Dalkia proves to be a strong and active actor in the life of our community, being always by the side of its contractual partners.

For instance, in anticipation of the application by the Romanian Government of the 2004/8/EC Directive for the promotion of cogeneration, Dalkia Termo Prahova invested for the future and for sustainable development in a 25 MWe gas turbine at the Brazi power plant. The equipment produces heat and power through high efficiency cogeneration when heat demand is lower (during summertime, especially). The gas turbine will lead to primary energy (natural gas) savings, and to the diminishing of CO² emissions, in total accordance with the European Union's environmental commitments.

This investment has another great advantage for the Prahova County Council, as it allows us to offer investors interested in the Brazi Industrial Parc complete energy efficiency services at very competitive prices and with the smallest possible impact on the environment.

In my quality as first Vice-president of the Commission for Environment, Climate change and Energy (ENVE) of the E.U. Committee of the Regions, I am convinced that Dalkia Termo Prahova will continue to be a committed economic actor when it comes to providing an efficient and environmental-friendly public service, in the best interest of our community and its citizens.

Sincerely yours,

Mircea Cosma,
President of Prahova County,

First Vice-president of the Commission for Environment, Climate change and Energy (ENVE) of the E.U. Committee of the Regions
Ploieștiul are cel mai mic preț al gigacaloriei, Giurgiu – pe cel mai mare. Regia din Ploiești a fost privatizată și are de încasat bani, cea din Giurgiu aparține statului și are datoriilor la buget.

Ploiești are cel mai mic preț al gigacaloriei dintre orașele mari – 117 lei; Giurgiu îl are pe cel mai mare – 218 lei. Regia de închirieri din Ploiești a fost privatizată și are de închis bani de la stat, cea din Giurgiu aparține statului și are datoriilor la buget.

Prima arată în interior ca o centrală nucleară. Celălalt are remiză și un bombardament nu clar. Acesta are sentință de peste război din interiorul celor două centrale.

La Ploiești, trează gigacaloriea din anii 80, iar proiecții cu aparat de aer încuietă cu apropiere. Ania în urmă. La început, prințul gri a urmat toate conductele de termoficare au fost înlocuite și prelucrate. Pelerinele s-au redus până la câțiva peșteri, iar avoriile au devăzut frecvent. Acum, reclamații din partea locuitorilor se mențin pe degete și, în general, de ani de zile nu există dificultăți legate de încărcarea facturilor de la populație. În plus, rețea a trebuit să se ocupe și de cerințele de reînnoire. La Giurgiu, schimbarea este o idee comună pentru că satu a fost găsită să producă în coperșitor, iar acum nu mai are direcții. De asemenea, trebuia să folosește combustibilii acupami, pe care și aer, iar bani de închiroare nu au ajuns. Cențială rezumă cu bunii obținători din propria activitate, vinde, înainte de anii '90 era armată de oameni care deservau puncte de termoenergie, acum lucrurile s-au schimbat, calculatoarele de avarii și unde să intervenim."

IOM STOSCENCU, pof exploatare Dolj Ploiești

Am fost și executat sălă, însă cazanul a fost răscumpărat. Am vândut certificate de carbon. De aici ne susținem că putem. Dacă murim, să nu zică nimeni că nu am făcut nimic."

SORIN CEPAGHI, director DET Giurgiu

În cazul Capitalei, dezvoltara a decis aci că împrumuturile la aceea de RADRET pentru realizabile în 1997-1998, tehnice remarcabile de primărie, nu

**Article in a national newspaper (Romania libera, April 15th, 2010): “The two extremes when it comes to the heat invoice: Ploiești (the cheapest) and Giurgiu (the most expensive)”**

POLII FACTURILOR DE CALDURĂ

Ploieștiul are cel mai mic preț al gigacalorilor, Giurgiu – pe cel mai mare. Regula de încălzire din Ploiești a fost privatizată și are de încasat bani de la stat, cea din Giurgiu aparține statului și are datoriile la buget. Prima arată în interior ca o centrală nucleară. Cealaltă pare rezultatul unor bombardament nuclear.

Ploieștiul pare a fi unul dintre cele mai mici facturile de încălzire din țară, de către sau chiar și la 10 lei pe lună de iarnă la un apartament cu două camere. Cu excepția orașelor foarte mici, Ploieștiul are adesea mai puțin preț al gigacalorilor. Lucrările au stat tot timpul așa. Acum 10 ani, gigacalorii din Ploiești au fost unele din cele mai scumpe. Când conturile s-au dovedit prea mari, arătă s-a trezit la reabilitare și privatizare.

Article in a national newspaper (Romania libera, April 15th, 2010): “The two extremes when it comes to the heat invoice: Ploiești (the cheapest) and Giurgiu (the most expensive)”

http://www.romanialibera.ro/bani-afaceri/bani-mei/cum-ajunge-sa-coste-intretinerea-de-la-simplu-la-dublu-183362.html
CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

DALKIA ROMANIA S.A.
Bucharest, 41 Frunzei Str., 2 District
Romania

has been approved by Lloyd’s Register Quality Assurance to the following Quality Management System Standards:


The Quality Management System is applicable to:
Production, distribution and supplying of electricity and heating.
Maintenance and repairing district power plants. The management of production, distribution and supplying of electricity and heating activities, and maintenance and repairing processes.

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Approval Certificate No: 170569

Original Approval: 10 July 2006
Current Certificate: 08 October 2010
Certificate Expiry: 09 July 2012

Issued by: Lloyd’s Register (Romania) S.R.L. for and on behalf of Lloyd’s Register Quality Assurance Limited.

This document is subject to the provision on the reverse.

2nd Global District Energy Climate Awards
Ploiești: Efficient District Heating for a Sustainable Future.
By submitting the application, candidate authorizes the organizing team to copy, publish, post, publicize, promote and use all the information and materials provided without restriction and with full copyright.
Global District Energy Climate Awards
Paris - Monday May 9th, 2011

Ploiești: Efficient District Heating for a Sustainable Future