

1. Introduction

There are 55 municipalities in Serbia that are currently operating district heating systems.

Chronic lack of investment over the past 20 years coupled with almost total reliance on natural gas and other types of fossil fuels, together with slow or stagnant economic recovery have produced an urgent need for a comprehensive rethink of the district heat production and distribution systems in Serbia.

The current levels of debt by district heating systems in Serbia to fuel suppliers exceed 350 million euro.

District heating customers owe more than 200 million euro to public utility companies which are supplying district heating services.

Table 1 Prices of district heating (excl. VAT) in RSD/KWh (excl. fixed costs) 21.01.2013. Source: District Heating Utility Companies' Assoc

City	Residential premises	Benefit-qualifying premises	Business premises
Beograd	5.77	-	7.26
Novi sad	5.40	-	5.40
Kragujevac	4.153	6.230	6.230
Bor	5.50	8.25	8.25
Subotica	4.28	5.99	7.28
Pančevo	5.90	-	5.90

The total annual costs of fuel used by all of the district heating systems in Serbia are estimated at approx. 300 million EUR per annum.

At the same time, more than half of the districts heating distribution network in Serbia, as well as more than half of substations, are older than 20 years.

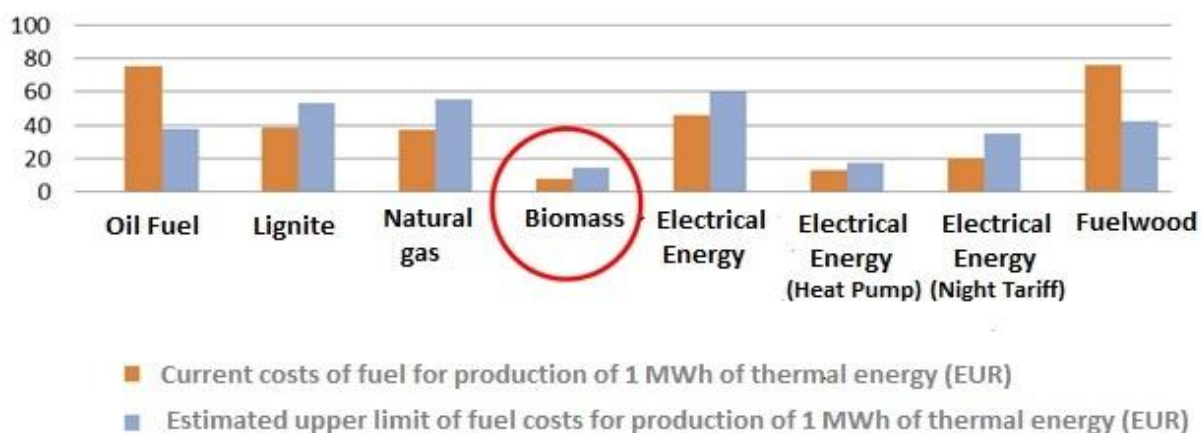
By way of illustration of the customers' (in) ability to afford current prices of district heating in Serbia, an apartment in Belgrade of 60 sq. meters requires more than 10% of average monthly household income to pay for district heating service.

Over 90% of thermal energy is produced by direct use of fossil fuel, contrasted by approx. 15% being produced in this manner in EU 27 countries.

2. A crisis that brings (investment) opportunity

District heating can be produced and delivered at more affordable prices to customers across Serbia, whilst providing robust returns to potential investors, in what can now be termed a fully enabling environment for transferring the available biomass into cheaper and commercially viable district heating services.

Graph 1. Fuel costs for production of 1 MWh thermal energy, Source: Prefeasibility assessment of biomass district heating system applications in Serbia. IRG 2012



The primary resource required for making the shift to a renewable, affordable and sustainable fuel – biomass – is abundantly and locally available. Reliable estimates of biomass availability for thermal energy production in Serbia place an approximation of this fuel type at _____ tons per annum.

However, for this resource to be turned into a sustainable return both to investors and to consumers, a fundamental change is required in the way district heating services are supplied to the market, above all in efficiency improvements.

Only an enhanced system of heat production and distribution can enable an economically justified application of renewable energy sources and of residual heat in these systems.

Technology adaptations to the production and distribution of thermal energy are required for the unit price reduction of delivered kWh of heat. The reduction in unit prices cannot be made possible by regulatory improvements or other potentially beneficial enhancements of the system, such as introduction of measurement devices at point of delivery.

The use of biomass in district heating systems in Serbia is a prerequisite, without which the objective of providing cheaper and sustainable heating services to citizens and businesses in Serbia will not be possible.

3. So what are the obstacles?

Lack of existing demand means that there are few or no biomass integration suppliers, but otherwise the only remaining obstacle which has prevented action to date appears to be lack of experience in inter-sectoral partnerships required for private sector funding to be channelled into what has traditionally been a public sector service in Serbia.

The Government of Serbia has clearly recognised the potential of biomass as a viable and bankable solution to the district heating problem.

Multiple studies of investment potential in energy efficiency enhancements and of the potential switch to biomass-based district heating systems have demonstrated robust rates of return based on purely commercial terms.

The availability of the biomass resource for this type of application has already been proven.

The proposed changes are possible in the existing legal framework. There are no legal obstacles to cheaper, commercial district heating services. What is required is a degree of strengthening of key actors' capacity in the public sector for the required changes, which will lead to improved services.

The required knowledge of the suitable models for Serbia already exists.

The change to biomass-based district heating systems is possible by application of mature technologies, which are available and have already been proven across the world.

The financing mechanisms for this change on purely commercial terms are already in place. State subsidies are not required.

What is needed is a degree of strengthening of capacities in the supply chain but viable models for this are already in place. They need to be implemented.

4. Join us in putting the pieces together

CESID – a leading Serbian NGO, with support of the Embassy of Finland in Serbia and Standing Conference of Towns and Municipalities are bringing together:

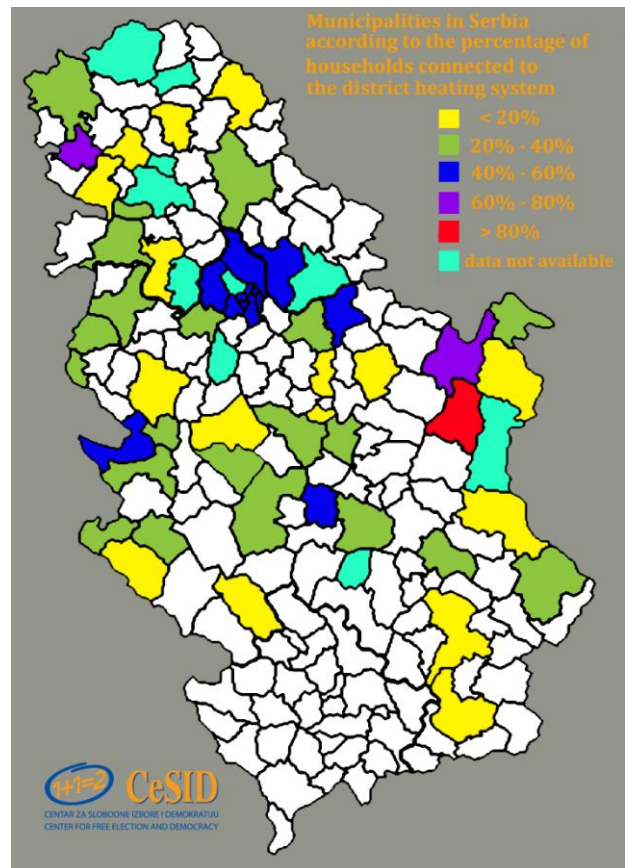
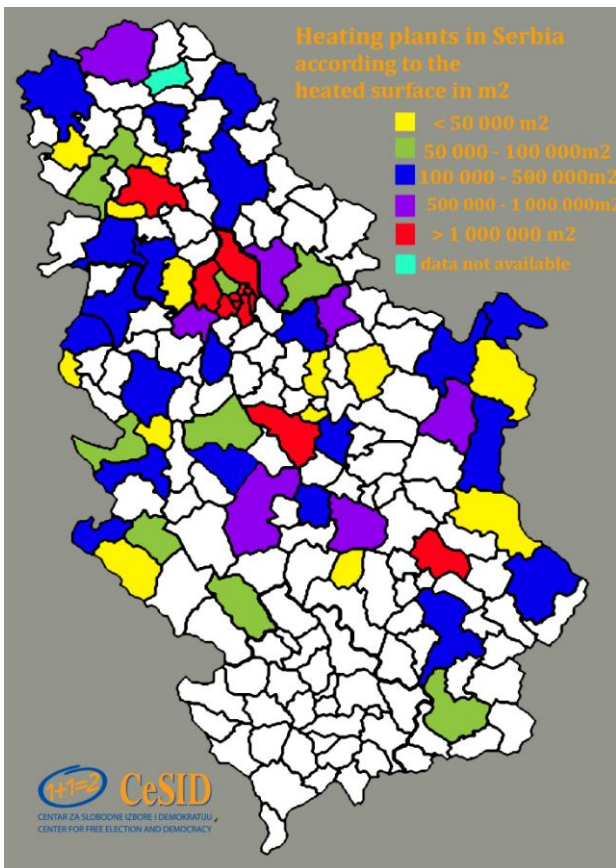
- i) Mayors and presidents of municipalities, and top executives of the public utility companies, which operate district heating systems in Serbia;
- ii) Representatives of the Serbian Ministry of Energy, Development and Environmental Protection and Ministry of Regional Development and Local Self Government;
- iii) Finnish technology vendors, private & institutional investors, IFIs and leading consulting firms and development agencies; and
- iv) Biomass-focused economists, lawyers and scientists; for a full day conference which will highlight:

Biomass as a Realistic, Sustainable and Bankable Solution to the District Heating Problem in Serbia.

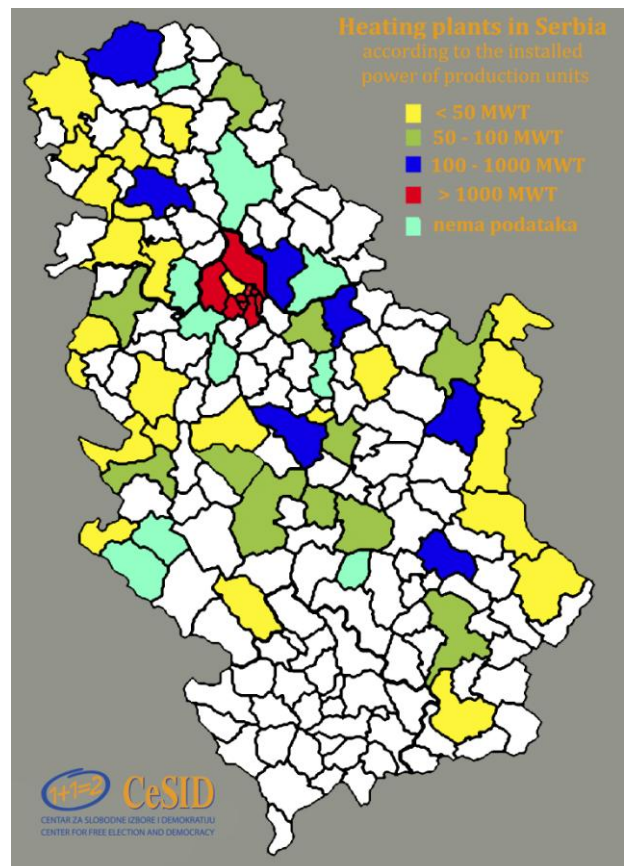
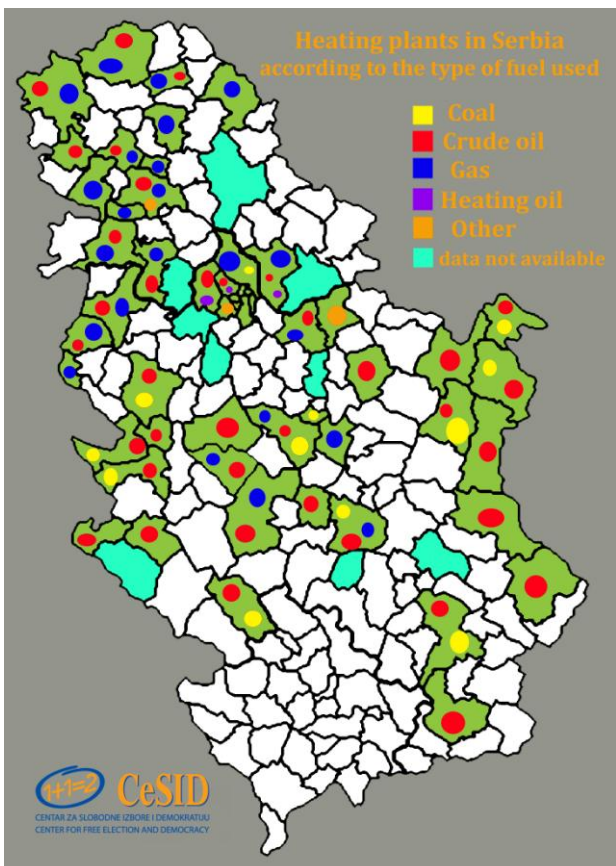
This full day Conference will take place on Wednesday, June 5, 2013, at the Belgrade Metropol Palace Hotel, 69 Bulevar Kralja Aleksandra, Belgrade, Serbia.

We look forward to seeing you at the Conference!

District Heating Systems in Serbia



Production of the Heat Energy in District Heating Systems in Serbia



Distribution of the Heat Energy in District Heating Systems in Serbia

