



**Bucharest
Municipality**



**Primaria Municipiului
Bucuresti**

Contract 4144 / 31.12.07

Contract 4144 / 31.12.07

**Energy Strategy for Bucharest
Municipality**

**Strategia Energetica a
Municipiului Bucuresti**

Phase III: Strategy Report

Etapa a III-a: Strategia

Technical Note 24.09.2009

Nota Tehnica 24.09.2009

**Observation from the
Municipal Energetic
Committee**

**Observatii din partea Comitetului
Energetic Municipal**

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Table of content

1	Introduction	
2	Observations And Answers	
2.1	Ioan Gaf-Deac City councillor	

Tabla de materii

3	1	Introducere	3
4	2	Observatii si Raspunsuri	4
4	2.1	Consilier general Ioan Gaf-Deac	4

1 INTRODUCTION

The Consultant has submitted the Draft Final Report for the Energy Strategy. The Strategy was presented for the Technical Committee on 20.08.2009.

The Technical Committee has submitted a number of observations during the meeting and in notes after the meeting. This Technical Note repeats the observations and provides the answers from the Consultant.

1 INTRODUCERE

Consultantul a transmis varianta initiala a Raportului Final pentru Strategia Energetica. Strategia a fost prezentata Comitetului Energetic Municipal in data de 20.08.2009.

Comitetul Energetic Municipal in timpul intalnirii a formulat o serie de observatii sau a transmis note scrise ulterior intalnirii. Consultantul a raspuns la notele scrise care s-au regasit si in observatiile formulate.

2 OBSERVATIONS AND ANSWERS

2.1 Ioan Gaf-Deac City councillor

Observation 2.1.1:

I wish to receive from the consultants:
EXTENDED CALCULATION related to the losses generated by delay in implementation of the strategy

Answer 2.1.1:

The Excel (sheet – Transmission pool price) file where the cost of delay is calculated is attached on CD

Observation 2.1.2:

I wish to receive from the consultants:
The strategy regarding energy consumption for the public transport.

Answer 2.1.2:

The energy consumption for public transport is included in the demand forecast Part C Appendix 4b Demand Forecast 2' edition, which will be included in the Strategy Report. The Demand Forecast is attached on the CD.

Observation 2.1.3:

I wish to receive from the consultants:
ALL technical and economical details which prove the viability of the solution for solar energy!

Answer 2.1.3:

The technical and economical evaluation of solar energy is found in Part C Appendix 7a.

The evaluation is performed for:

- One-family house – about 150 m²
- Large houses – about 500 m²
- Small apartment blocks – about 2,000 m²
- Large apartment blocks – about 6,000 m²

The evaluation is based on standard solar heating systems as sold on the WEB from many suppliers. These systems are sized for a one family house:

- About 6 m² solar panel.
- About 300 l heat storage

The cost of such a system is 6.031 EUR including all

2 OBSERVATII SI RASPUNSURI

2.1 Consilier general Ioan Gaf-Deac

Observatia 2.1.1

Vreau sa-mi parvina de la consultant:
CALCULUL EXTINS al pierderilor generate de intarzierea aplicarii strategiei

Raspuns 2.1.1

Fisierul excel (sheet – Transmission pool price), in care sunt calculate costurile generate de intarzierile in implementare este atasat pe CD

Observatia 2.1.2:

Vreau sa-mi parvina de la consultant:
Strategia privind consumul de energie al transportului in comun.

Raspuns 2.1.2:

Consumul de energie pentru transportul in comun este inclus in prognoza cererii Partea C Anexa 4b – Prognoza Cererii editia a 2-a, care va fi inclusa in Raportul final al Strategiei. Prognoza cerii este atasata pe CD

Observatia 2.1.3:

Vreau sa-mi parvina de la consultant:
TOATE detaliile tehnice si economice care sa dovedeasca solutia energiei solare ca fiind fiabila!

Raspuns 2.1.3:

Evaluarea tehnico-economica a energiei solare se gaseste in Partea C Anexa 7a.

Evaluarea s-a facut pentru:

- O casa pentru o familie – aproximativ 150 m²
- O casa mare – aproximativ 500 m²
- Un bloc mic de apartamente – aproximativ 2000 m²
- Un bloc mare de apartamente – aproximativ 6000 m²

Evaluarea se bazeaza pe sisteme de incalzire solara standard, care pot fi comandate pe internet de la diferiti furnizori.

Aceste sisteme sunt dimensionate pentru o casa

components and installation by contractor certified by the supplier.

(Please find the values for other buildings/system sizes in the report).

The feasibility is evaluated in different scenarios: A scenario based on socio-economic costs and a scenario based on subsidised prices and tariffs.

In addition the feasibility is evaluated for buildings currently connected to the district heating system and for building which must have new installations.

CONCLUSION

Solar heating is not feasible under the current subsidise scheme. Production costs for solar heating will be between 17 and 30 EUR/GJ while the subsidised district heating tariff is about 8.60 EUR/GJ.

Solar heating is feasible if current general subsidises are removed and a true cost related tariff is introduced. Production cost for solar heating will still be between 17 and 30 EUR/GJ while the cost of district heating supply will be about 31 EUR/GJ.

pentru o familie:

- Aproximativ 6m² suprafata de panou solar
- Aproximativ 300 l capacitatea acumulatorului de caldura

Costul unui astfel de sistem este de 6.031 euro incluzand toate componentele precum si lucrarile de instalare realizate de catre un contractant acreditat de catre furnizor.(Celelalte valori, pentru alte tipuri de cladiri/marimi ale sistemelor, se gasesc in raport)

Fezabilitatea este evaluata in diferite scenarii: scenariul A stabilit pe baza costurilor socio-economice si un scenariu B bazat pe preturi si tarife subventionate.

In plus, fezabilitatea este evaluata: pentru cladiri care sunt deja conectate la sistemul de incalzire centralizata si pentru cladiri la care trebuie realizate instalatii noi.

Incalzirea din energie solara nu este fezabila in conditiile schemei actuale de subventii. Costurile de productie pentru incalzirea cu energie solara vor fi intre 17-30 Euro/GJ, in timp ce tariful subventionat al energiei termice din sistemul de termoficare este aproximativ 8.6 Euro/GJ.

Energia solara este fezabila in conditiile in care se va elimina subventia generala si se va introduce un tarif stabilit pe baza costurilor reale.

Costul de productie pentru incalzirea din energie solara se va situa intre 17-30 Euro/GJ, in timp ce costul incalzirii prin sistemul centralizat va fi de aproximativ 31 Euro/GJ.