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Bulgarian experience

Municipal Network EcoEnergy

Lessons learned in financing of municipal energy efficiency projects



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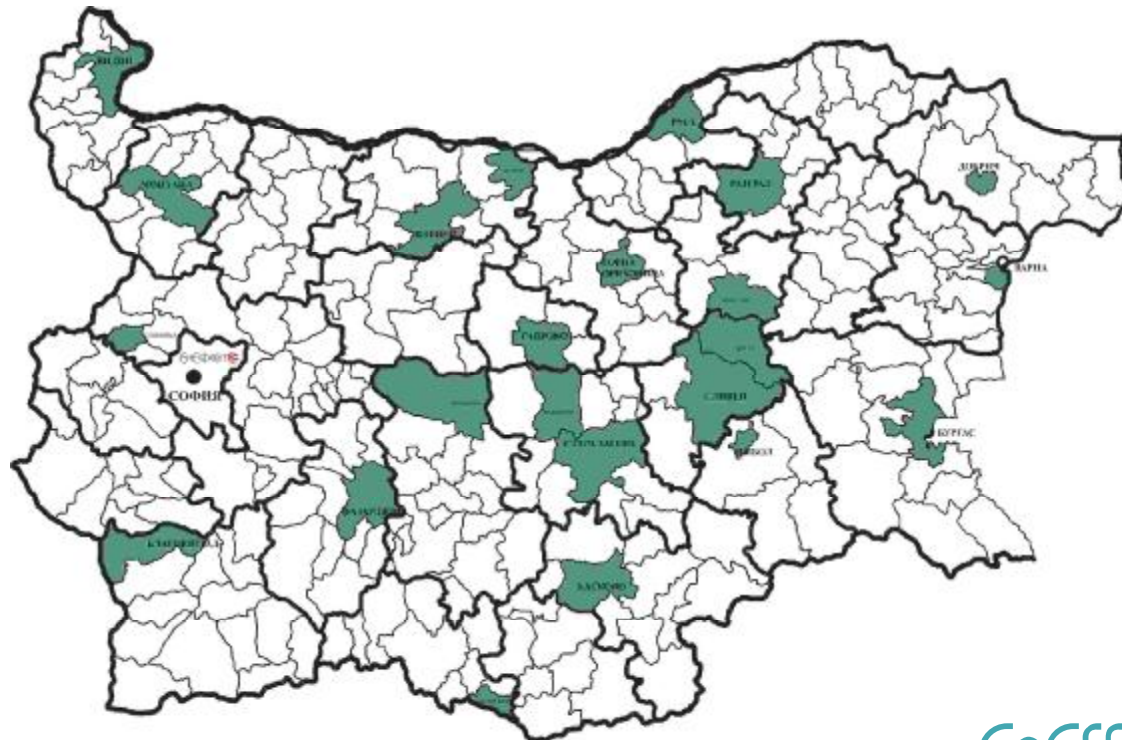
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The Bulgarian municipal network
EcoEnergy was a bottom-up
initiative of 23 municipalities
(1997)



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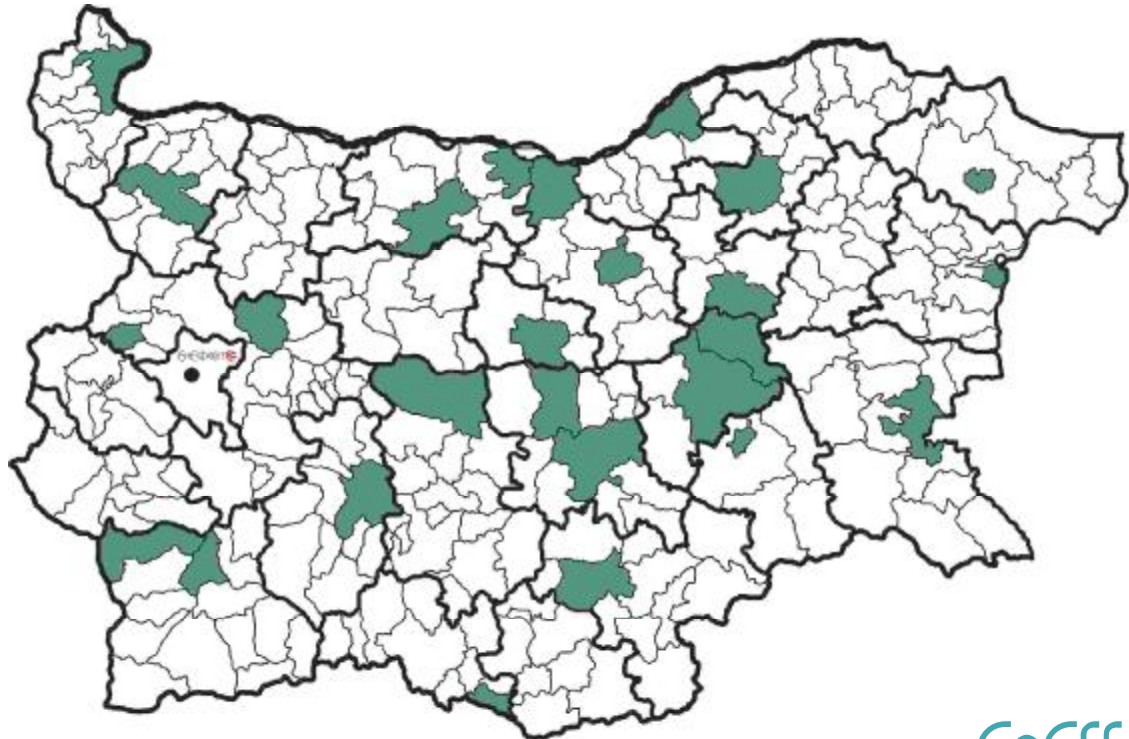
1997





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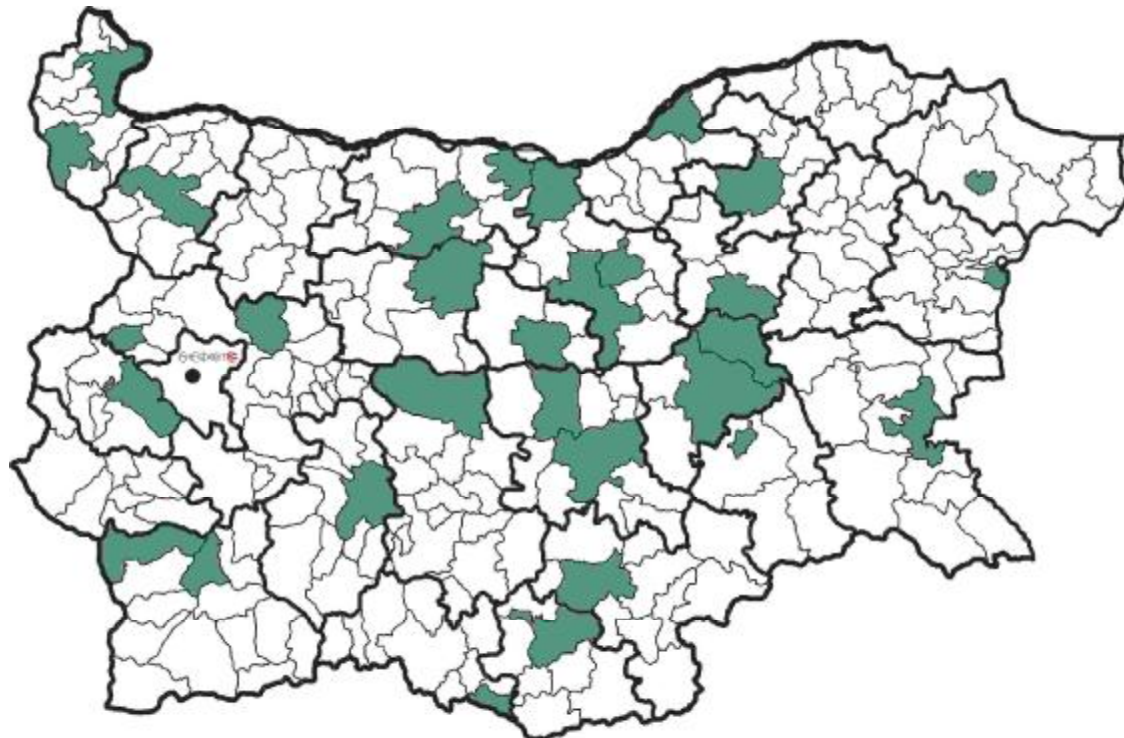
1998





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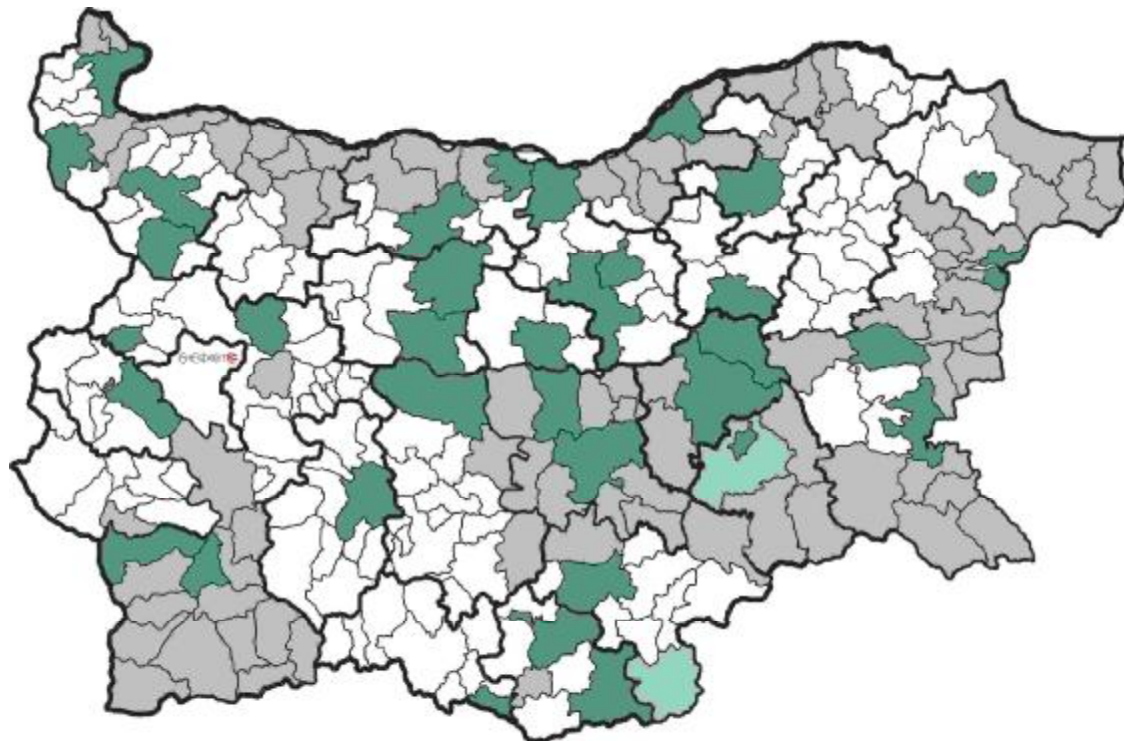
2000





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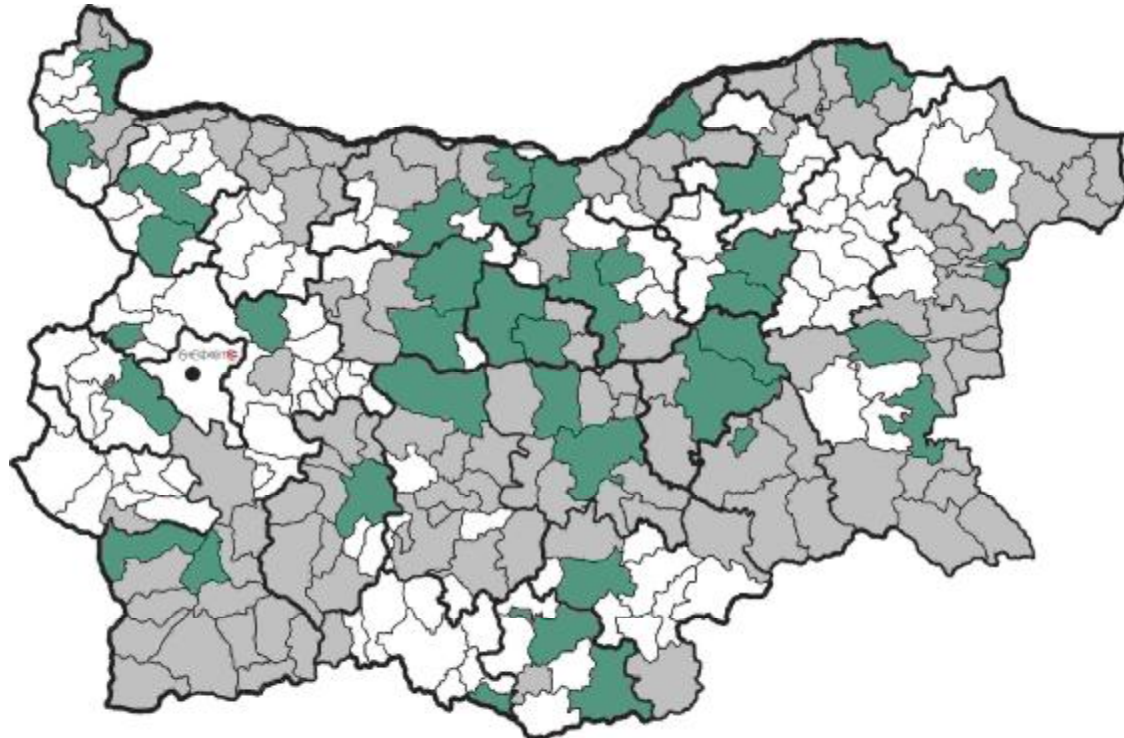
2001





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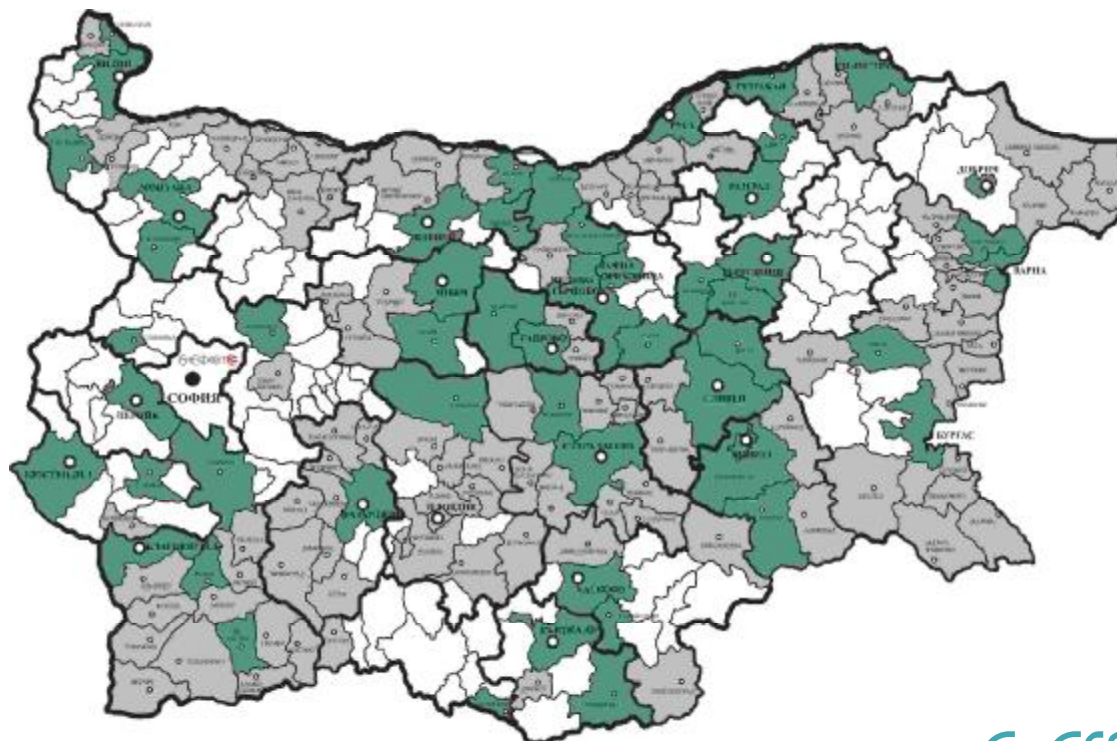
2002





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2003



EcoEnergy targets

A. Introduce energy efficiency policy as an integral part of overall development policy of municipalities

B. Reduce the burden of energy expenses on municipal budgets

Improve the quality of energy services and increase the security of energy supply

Reduce the burden of energy expenses on households budgets



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EcoEnergy main priorities

1. Introduce local (municipal) energy planning
2. Activate local (municipal) investment activities
3. Building of local (municipal) capacity
4. Facilitate penetration of innovative financing instruments
5. Network building



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Important note:

Network priorities were determined immediately after EcoEnergy was founded (1997) and 7 years before the Energy Efficiency Act introduced municipal energy efficiency programs and energy efficiency certification of buildings as a mandatory practice of municipalities (2004)



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1.

Introduction of local (municipal)
energy planning



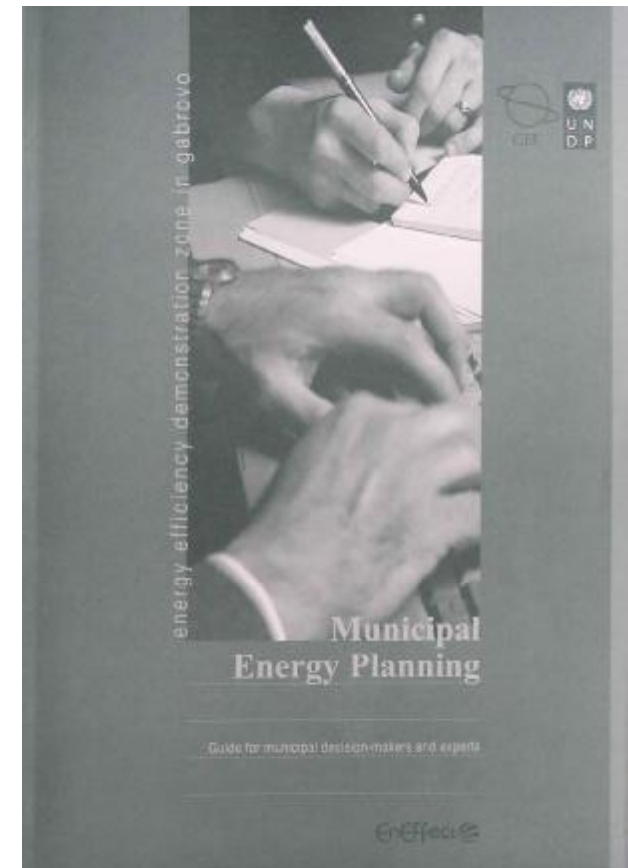
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Municipal energy planning was recognized as a national priority

40 pilot municipal energy programs developed before 2004

Manual on local energy planning developed

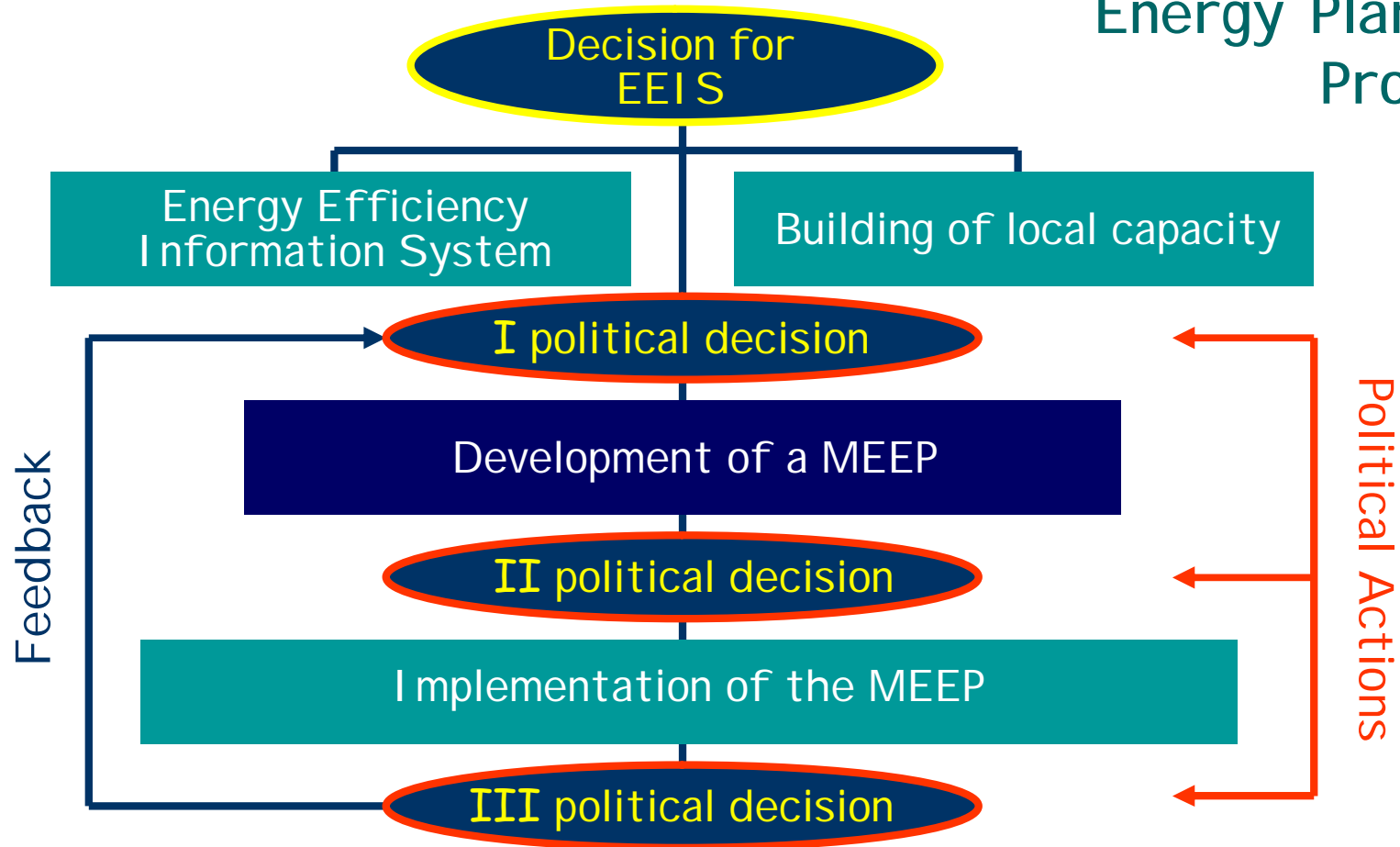
Training and technical assistance for energy planning offered





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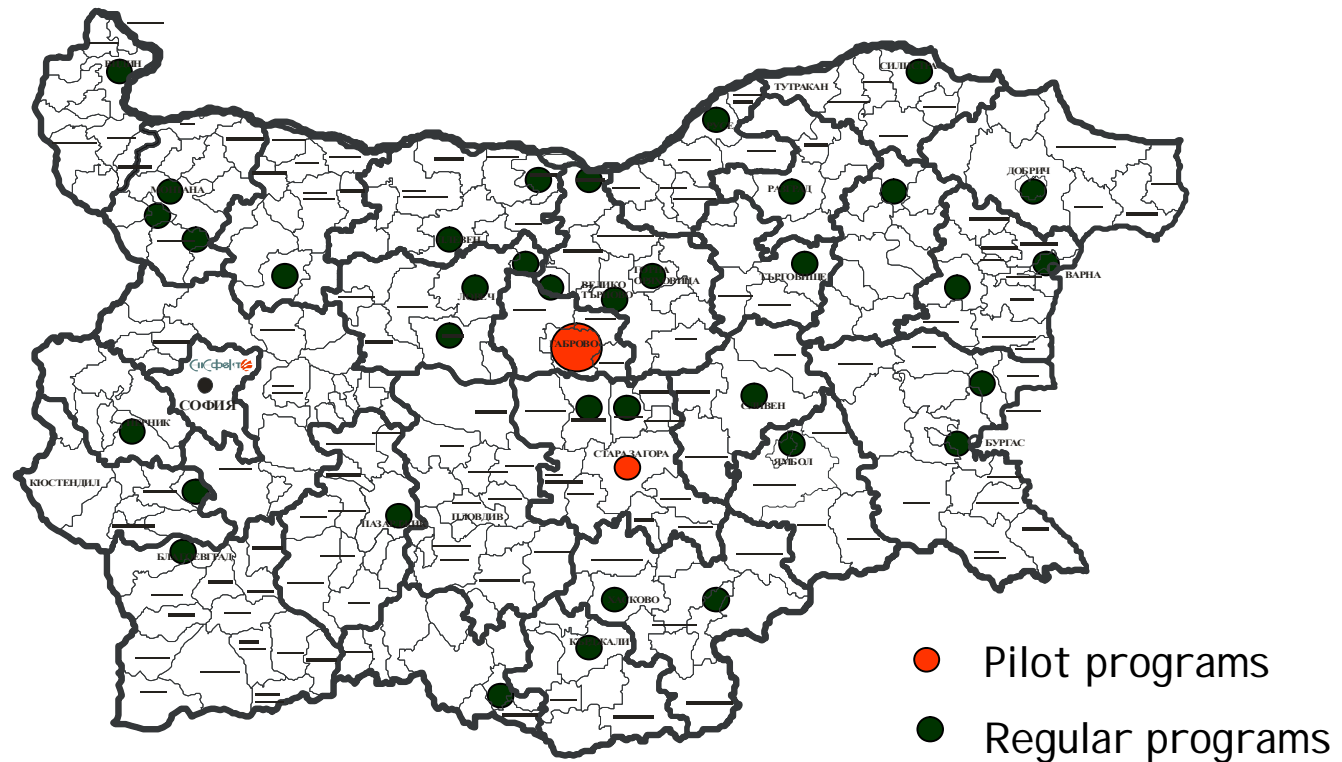
Municipal Energy Planning Process





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Municipal energy efficiency programs before 2004



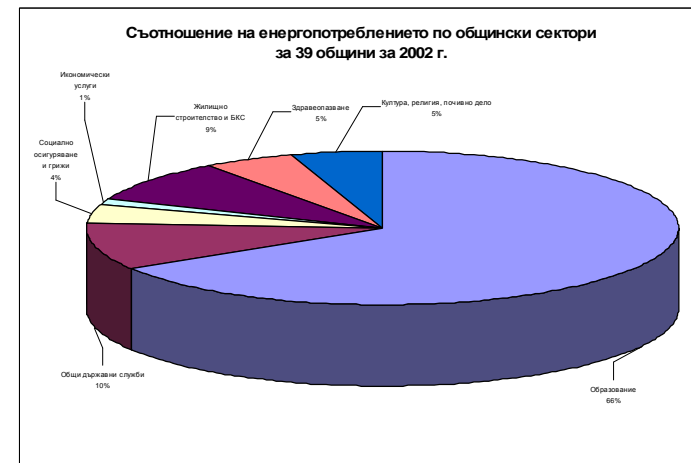
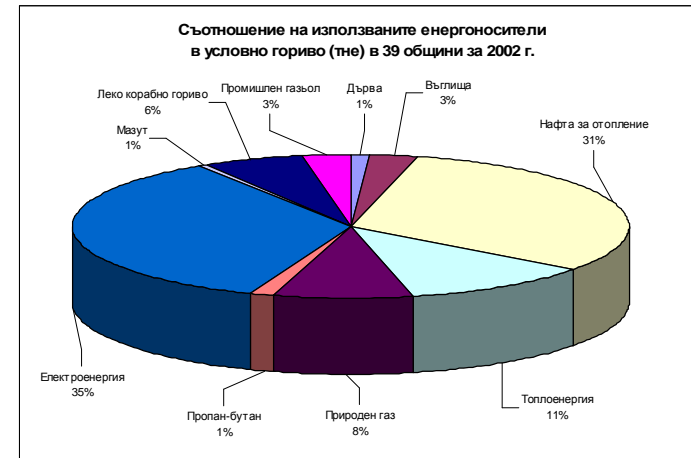


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Municipal energy database

Comprehensive energy database developed and maintained for more than 40 municipalities of EcoEnergy

The database under re-development in cooperation with ENSI , Norway – for Western Balkans and Central Asia





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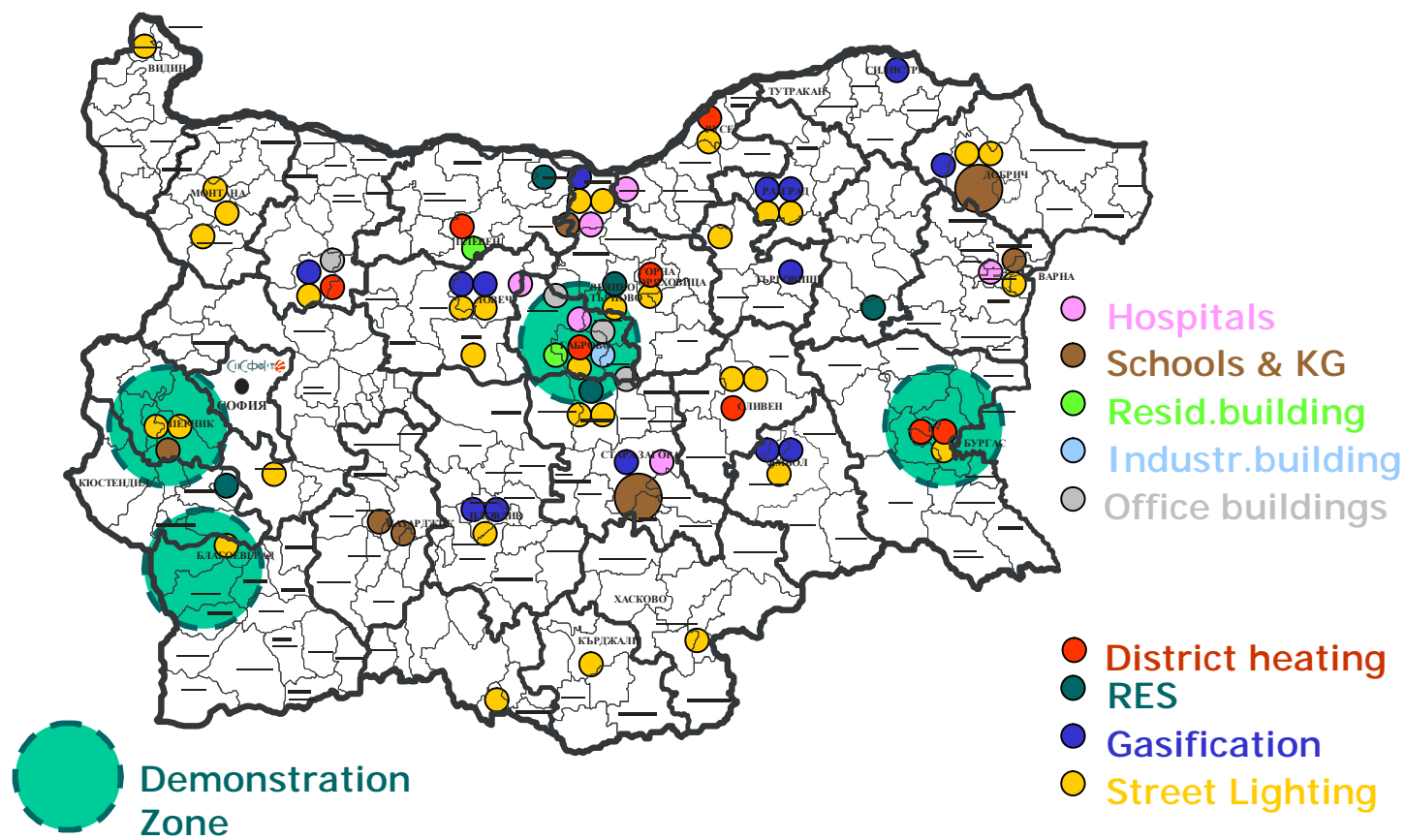
2.

Activating investments for
energy efficiency improvement in
municipalities



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Demonstration projects





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Attractive payback of municipal demo projects

| Type of project | SPB (years) |
|--------------------------|----------------|
| Street lighting projects | 1.4 – 2.9 |
| Schools | 1.1 – 2.1 |
| Hospitals | 2.2 – 3.6 |
| District heating | 3.7 – 4.1 |



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2004

The new Energy Efficiency Act
introduced:

- local energy efficiency planning and
- certification of municipal buildings

Currently these two tasks are
main priorities of the Bulgarian
municipalities



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Gradual change of focus

From pressure to mayors towards pressure from mayors to EcoEnergy secretariat

From request for money towards request for knowledge and skills

From demonstrations towards investments

From grants towards bank loans and innovative commercial financing



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3.

Building of local
(municipal) capacity



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Hundreds of municipal specialists
trained

Raising awareness of policy makers
recognized as the main priority





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Local institution building

40 municipal energy efficiency offices established





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4.

Introduction of innovative financing mechanisms



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Regular bank loans / guarantee instruments

Starting with interest rates of 16-18%

Currently rate of 6-10% and less

The number of banks offering credits for EE projects raises

DCA / USAID guarantee mechanism

BEEF – guarantee component



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Example:

Bonds for street lighting energy efficiency project in Varna

Bonds

documentation prepared with the assistance of the network secretariat (EnEffect)

Enormous success of the project





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Leasing equipment (capital/financial leasing)

The example of Dobrich:



About 30 schools and kindergartens equipped

Budget restrictions avoided

Fixed payments / interest rates

Repayment period of 3 years

Cost raised due to the risk coverage (if buying up rejected)



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Energy Service Companies (ESCOs)

The examples of Rousse and Sofia:



Shared savings contract

Municipal buildings / schools

Third party financing

ESCO company takes the performance risk

The municipality pays fixed amounts

Difficulties faced in Rousse and Sofia



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Carbon funds / Kyoto instruments

World Bank Prototype Carbon Fund

District heating modernization in Sofia and Pernik

Joint Implementation

District Heating modernization in Rousse
(Japanese investors)

Gas distribution project for Gorna
Oriahoviza, Veliko Tarnovo and Liaskovetz
(Dutch investors)



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Other financial schemes

Equity financing

Joint venture in the city of Stambolijski

Financing by utilities

Possible financing by the regional
electrical distribution companies
(municipal projects under negotiations)



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Specialized funds and credit lines

Bulgaria Energy Efficiency Fund (BEEF)

Main sponsors: GEF / World bank, Bulgarian government / Austrian government, donors / public-private partnership

Financial products: loans, partial guarantees, technical assistance for project development

First credits already approved

Strong competition with subsidized funds



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Specialized funds and credit lines

EBRD / Kozloduy Fund

Credit lines from EBRD to several Bulgarian banks

Volume: € 50 000 000

Period: 5 – 7 years

Technical assistance

Public buildings – industries – households



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Specialized funds and credit lines

EIB / Raifeisen bank

First bank in Bulgaria, authorized by EU to finance municipal infrastructure

Grant scheme:

- 5% of project cost for SC and SW regions

- 2,5% of project cost for other regions

Project size: € 40 000 - € 5 000 000



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5.

Network building



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Where do we observe successful networking practices?

EU experience – Energie-cities

Polish experience – PNEC

Romanian experience – two networks

Bulgarian experience- EcoEnergy

Other examples – Ukraine, Macedonia, Bosnia etc.



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Which network format is the best?

Self-dependent association of municipalities

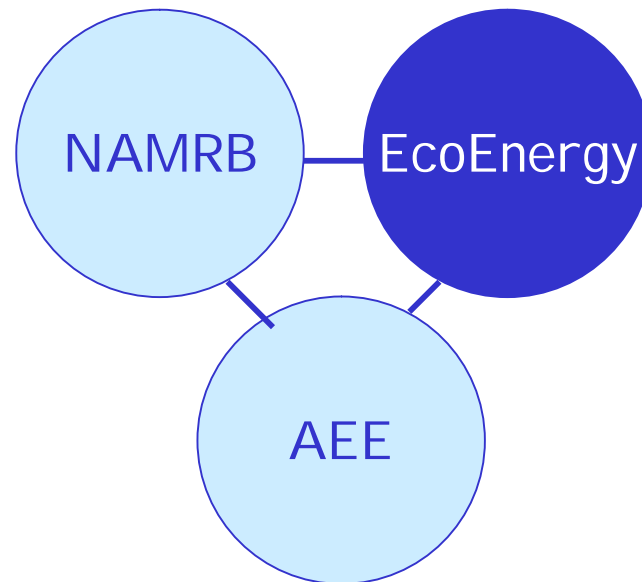
Association of municipality with a secretariat, selected on the base of an existing well experienced organization

Department of the national association of municipalities (or other similar organization) performs the role of the network



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Prerequisite to the success





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Why do we all need municipal energy efficiency networks?

Municipalities need an instrument to facilitate the horizontal exchange

Municipalities need a forum to consolidate views and positions

Networks need to cooperate with NAM and governmental EE agencies

Each country should identify the most appropriate format of networking, based on the national needs and practices

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