



**EXPERT EVALUATION NETWORK
DELIVERING POLICY ANALYSIS ON THE
PERFORMANCE OF COHESION POLICY 2007–2013
YEAR 1 – 2011**

**TASK 1: POLICY PAPER ON RENEWABLE ENERGY AND
ENERGY EFFICIENCY OF RESIDENTIAL HOUSING**

HUNGARY

VERSION: FINAL

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**A report to the European Commission
Directorate–General Regional Policy**

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LIST OF ABBREVIATIONS

- CPEEBCP – Complex Program for Energy Efficiency Building and Climate Protection
- EAFRD – European Agricultural Fund for Rural Development
- EEN – Expert Evaluation Network
- EE – Energy Efficiency
- EEOP – Environment and Energy Operational Programme
- ERDF – European Regional Development Fund
- ESF – European Social Fund
- GIP – Green Investment Program
- NEEAP – Hungarian National Energy Efficiency Action Plan
- NHDP – New Hungary Development Plan
- NHRDP – New Hungary Rural Development Program
- NCS – National Climate Strategy
- NREAP – National Renewable Energy Action Plan
- NSP – New Széchenyi Plan
- RES – renewable energy sources
- SEFF – Sustainable Energy Financing Facility
- SME – small and medium enterprise

1. EXECUTIVE SUMMARY

Hungary's most important document regarding energy policy in the 2007–10 period was the National Climate Strategy (NCS) approved in 2008.

Renewable energy

In spite of the fact that Hungary's potential renewable energy source capacities differ, the national policy does not react to these differences. Rationales in the EEOP (ranging from energy security through its employment effects to the combat against climate change) are too vague to give guideline for ERDF support to which RES and how to support.

Among policy measures, the most important one is the Feed-in-Tariff (FiT). Despite its sophisticated factor evaluation methods, it does not really define priorities among energy sources. At the same time, 70% of the funds support the most efficient green energy: producing combined heat and power plants (cogeneration technologies, usually with biomass).

In addition to FiT support, ERDF funds (above all the 4th priority of Environment and Energy Operational Program – EEOP) back technological development projects with almost no differentiation between energy sources. Due to the lack of available domestic funds for development, we may call ERDF support the only financing scheme for the development of domestic opportunities. ERDF funds represent approximately 8.7% of the annual FiT support. Hungary puts much emphasis on competition neutrality; therefore, almost the only differentiation made between energy sources is in the project's profitability based on FiT supported prices.

Energy efficiency of residential housing

Since 2008, Hungary's national aim has been to reduce its energy consumption by 1% on average annually.

As in the previous field, a price supporting system can also be observed here, although it supports only district heating methods with a value added tax reduction. Domestic funds are available, mostly for panel insulation projects financed by the selling of Kyoto Treaty CO₂ quotas.

Due to the fact that the 5th priority of the EEOP is financed by the Cohesion Fund, where this field is non-eligible, apart from some linked development projects (mostly technological developments in district heating), there are no available funds for this field.

Some of the new government's strategies in 2010 put more emphasis on the field of energy, and in May 2011 they released the new national energy strategy, containing aims for 2030, to public debate.

2. NATIONAL POLICY

There are numerous strategies and programmes regarding the energy efficiency of residential housing and renewable energy sources in Hungary. Our paper will refer only to the most important policies that show how the policy structure has developed and changed:

- The New Hungary Development Plan (NSRF) and its Environment and Energy Operational Program (EEOP) were accepted in 2007 and the policy defined till 2013 (+2 years)
- The National Climate Change Strategy, accepted in 2008, defines the goals in both fields of our paper till 2025
- The Hungarian National Energy Efficiency Action Plan (NEEAP) was published also in 2008 with a perspective to 2016
- The Green Investment Program, dealing with the usage of Kyoto quotas on energy efficiency, was introduced in 2009
- The New Széchenyi Plan was communicated in January 2011, defining the development strategy of Hungary till 2020
- The National Renewable Energy Action Plan was announced in 2011
- A proposal of the new Hungarian National Energy Strategy was published on May 13th 2011, defining goals till 2030

For a more detailed description of strategies, see Annex 1

Renewable energy sources

Regarding the field of renewable energy sources (RES), Hungary declared the following aims. The first column shows the policy goals of the 2008 strategy, the second refers to the newly published energy strategy of 2011. As one can see, radical change is not planned.

	National Energy Strategy (2008) goals to 2020	National Energy Strategy (2011) goals to 2030
energy produced from renewable energy sources by the end of the term, percent of total energy consumption	14.65%	20%
renewable energy share of transportation by the end of the term	10%	14–15%
renewable energy share of electricity by the end of the term	10.9%	15–20%
renewable energy share of heating and cooling by the end of the term	18.9%	25%
electricity produced from water energy by 2020	16–17 MWe	
electricity produced from wind energy by 2020	750 MWe	

	National Energy Strategy (2008) goals to 2020	National Energy Strategy (2011) goals to 2030
electricity produced from geothermal energy by 2020	57 MWe	
achieved loss of energy demand from overall heating demand by 2030		30%
maximum primary energy consumption level by 2030		1 140 (PJ/year)

Although the existing strategy defines individual goals for some renewable energy sources, the policy, in its measures, makes no variation between energy sources or regions.

The Feed-in-Tariff system (FiT) is the most important supporter of these goals. The FiT support is eleven and a half times the average annual sum of direct development support. Since its modification in 2008, the sources of energy and the capacity of production have also been taken into account in the FiT. In spite of this alteration, no important differentiation can be observed in the amount of support (see Annex Figure 1 and 2).

In Hungary, apart from some exceptions, development support is only available from the various forms of EU funding. Most of this support comes from the 4th priority of the EEOP, funded by the ERDF. On a much smaller scale, other funds are available through the ERDF objective "Territorial Cooperation", where support is linked to a certain energy source or to a certain utilisation category (for details, see Annex 1).

In the case of development grants, the support takes into account the project's rate of return (taken into account by the FiT), therefore implicitly differentiating between energy sources. The only explicitly emphasized energy source is biomass energy, addressed in a single measure. (Support for the production of energy crops is available from the EAFRD, on a moderate scale.)

There were no significant alterations in the Hungarian energy policy prior to 2010. However, due to the unexpectedly slow deployment of EEOP funds, the conditions were loosened leading to the increase in the number of commitments made in 2009. This act was carried out during the economic downturn. However, the main reason for this mitigation was not a policy decision, but rather a delay in the absorption of the funds. The constraint of sources has not caused problems, so far.

The government that came to office in 2010 declared in both its governmental programme and in its new economic development plan (the New Széchenyi Plan) the aim to strengthen the green economy. They plan to support the utilisation of RES in order to promote their economic and social benefits. The government released its new energy strategy to social debate on the May 13th 2011.

One of the main criticisms concerning the previous strategy was that although it recognized the differences in the country's renewable energy capacities, it did not set differentiated aims and tools for achieving those goals. This failure, and the errors made in the price-support calculations, left Hungary's solar and geothermal energy capacities, as well as small-scale biomass production capacities, unexploited. On the other hand the wind energy and large-scale biomass production market were supported by a gratuitously large measure. The new strategy tries to solve these problems.

As we have previously indicated, theoretically there were alterations made between RES regarding support and development backing, but in practice these did not occur. For policy reasons, plans and programmes did not contain regional differentiation. The phasing-in of the region of Central Hungary was supported by another programme (Central Hungary Operational Program (CHOP)), and the calls for proposal were not always published in a standardised way with the other EEOP calls.

Energy efficiency of residential housing

In 2008, Hungary declared its National Energy Efficiency Action Plan (NEEAP) to reduce the energy use of residential housing by 1% per year in the 2008–2016 period. To achieve this goal, the country has to reduce its energy consumption by 20%, thus reducing the emission of greenhouse gases by 20%.

As in the field of renewable energy, there is a positive price distortion in favour of efficient energy use in the energy consumption of residential housing. This system is less sophisticated, and consequently may be more distortive. There is a value added tax reduction in Hungary for the district heating producers (instead of 25%, it is only 5%). This reduction also applies to companies producing both heat and electricity.

Direct support for EE developments is only available from domestic sources. EU funds are not available because the EE priority of the EEOP is funded by the Cohesion Fund. Therefore, the favourable regulation change of ERDF in this field did not impact this issue in Hungary.

The Green Investment Programme (GIP), funded by the revenues from selling Kyoto granted CO₂ quotas (HUF 28.2 billion, EUR 106.41 million¹), aims to reduce the emission of greenhouse gases in Hungary by promoting residential energy-sparing projects. The GIP consists of four different measures: EE of residential housing, development of blocks of flats, swapping traditional household machinery for EE ones and traditional light-bulbs with incandescent ones. The financial backing is secured entirely by the realisation of Hungarian CO₂ quotas. The maximum scale of support is 30%.

¹ EUR 1=HUF 265 – Hungarian National Bank, 04.28.2011

The new government published the plans of a new programme, the Complex Programme for Energy Efficiency Building and Climate Protection. It aims to combine EE building reconstruction with RES and thus promote the eco-friendly reconstruction of residential houses. This 10-year-long project would reduce the country's CO₂ emission by 10–13%, and create at least 200,000 new jobs. The programme aims to use the funding of both national and EU sources.

3. ERDF AND COHESION FUND SUPPORT AND CONTRIBUTION TO NATIONAL POLICY

Renewable energy sources

As we have previously mentioned, by distorting energy prices, the Hungarian state supports the growth of the scale of renewable energy sources. State support for production capacity is almost solely subsidised by ERDF funds, primarily the 4th priority of the EEOP, and secondly, on a much smaller scale, by the diverse sources of „Territorial cooperation” programmes. Annex 2 contains the detailed analysis of the different measures of the mentioned programmes. In this part we will focus only on the most important ones.

The 4th priority of the EEOP (financed from ERDF) was given EUR 253 million to be spent on its measures. One of the biggest measures supports the “production of heat and/or electricity”. It gives resources to enterprises, local authorities, state-owned enterprises and social institutions. The available sources per project range from HUF 1 to 500 million (EUR 3,770 and 188,679). The maximum scale of support is 50%, and it intends to support 230 projects. The measure was closed at the beginning of 2009. A new measure was published in 2010 called “Production of renewable energy based electricity, connected heat and biomet-han”, which is available to enterprises. The limit of available resources per project is HUF 1,000 million (EUR 3.7 million). The maximum scale of support is 85% (reaching 100% in case of a 100% state owned enterprise), and it intends to support 20–50 projects. In 2011 HUF 9.33 billion (EUR 35.2 million) were already contracted, and an additional HUF 11.57 billion (EUR 43.7 million) is still available.

The only case when the measure focused on a specific type of renewable energy source was in support of small- and medium-capacity bioethanol plants, available to private enterprises. This resources available under this measure amounted to HUF 8 billion (EUR 30.2 million). The maximum scale of support for smaller plants is 30% with a ceiling of HUF 1,200 million (EUR 4.5 million). For bigger plants, it is 10% and HUF 1,500 million (EUR 5.7 million), respectively. It intends to support 3–4 projects. This measure was unsuccessful, no application was accepted and finally the sources were reallocated to other measures.

The measure “Supplying the demand of local heat and cooling from renewable energy sources” is available to enterprises, local authorities, state-owned enterprises and social institutions. The available resources per project range from HUF 1 to 50 million (EUR 3,770 and EUR 18,867). The maximum scale of support is 85%, and it intends to support 80–100 projects. A 100% state-owned body can obtain the maximum support of HUF 1,000 million (EUR 3.77 million) and a 100% scale of support. In 2011 HUF 5.1 billion (EUR 19.25 million) was already contracted, and an additional HUF 10 billion (EUR 37.7 million) is intended to be.

The Sustainable Energy Financing Facility (SEFF) measure was not put into practice. It would have supported international financial institutions to back SME and local authority projects. The maximum scale of support was to be 30%, and HUF 1–150 million (EUR 3,770 and 566,000) per loan.

Apart from the unsuccessful measure which focused on bioethanol-based energy and the marginal programme in the Romanian–Hungarian CBC programme promoting biodiesel production, there is no variation between energy sources among the calls for proposal, nor is there any differentiation among the energy sources themselves. Although support for the region of Central Hungary is financed by another programme (as this region is in a ‘phasing in’ period), due to technical reasons (fewer resources available per capita and the MAs are different) the accessible funds in this region do not entirely represent the calls implemented by the EEOP programme.

Unintended regional and energy-based differentiation can occur, as the support-intensity of a project depends on its income generating prospects taking also into account the effect of FiT. Therefore, individual projects can enjoy different support intensities stemming from the varying efficiencies of energy production technologies. These efficiency differences may contain regional differences as well.

The total ERDF support for promoting renewable energy is EUR 181.1 million over a seven-year period and the allocation is as follows: 85.2% for the EEOP for Hungary’s six convergence regions (EUR 154.4 million), 10.3% for the CHOP (EUR 18.6 million), and 4.5% for the CBC programmes (EUR 8.2 million). The FiT supported renewable energy with EUR 297.7 million (HUF 78.9 billion) in 2009; therefore, the ERDF funding for these seven years provided only 8% of the field’s overall support. The funds available through ERDF sources for this purpose are less than 1% of the overall Hungarian ERDF budget.

The utilisation of resources was slow in the first two years, leading to the decrease of administrative burdens and a wider spectrum of available and supportable project types in 2009. The available support intensity was increased from 50% to 85%. Although these actions took place during the economic downturn, their main aim was not to counter its effects, but rather to spend previously unspent resources. The “Developing building

energetics with RES – with simplified administration” measure was a success and led to the early deployment of available resources.

Energy efficiency of residential housing

The 5th priority of EEOP, which focused on energy efficiency and was funded from the Cohesion Fund, received EUR 154.4 million to finance its measures. The EEOP does not support residential housing programmes directly, but it does have some residential impact via the modernisation of district heating. This measure is financed from 8% of the priority’s resources, which is app. 4.4% of the total public support for EE investments, and only 1.75% of the total support taking into account the indirect VAT support as well.

As domestic funds promoted mostly the insulation of residential houses, the EEOP focused on reducing the losses of the district heating system by promoting the modernisation of this system used in 650,000 homes throughout Hungary. Seventeen projects were promoted by this sub-priority and will be given EUR 8.3 million (HUF 2.2 billion) by June 3rd 2011. The average support intensity was high, 47% till 2009. As this priority was funded by the Cohesion Fund, no regional distinctions were made intentionally.

4. RATIONALE FOR PUBLIC INTERVENTION

Renewable energy sources

The EEOP rationale refers to the National Renewable Energy Strategy, which had not been legally accepted at the time the EEOP was published. The OP states that the measures were going to be designed according to future energy policy (although they were published in 2008). The priority explains the need for intervention by the following general arguments: (1) promoting growth in renewable energy production, and thus enhancing the country’s energy security, (2) decreasing Hungary’s energy import dependency, (3) helping the country achieving its environmental and climate change aims, (4) creating new jobs, (5) changing the structure of agriculture, (6) promoting the use of high level technology, (7) by converting polluted materials into energy we decrease the environmental pollution.

The programme contains no differentiations between renewable energy sources in accordance with the Hungarian national strategy’s lack of focus, even though the OP includes a description of the importance of each renewable energy source.

In determining the rate of support, the EEOP takes into consideration the project’s income producing ability, its rate of return, its cost-efficiency and the declared priority of confirming the sustainable usage of the source.

Most of the debate on RES support focusing on the supports of large scale biomass energy plants. According to a study by the Hungarian Academy of Sciences, support for renewable

energy sources is distorted and, in some cases, too intensive. It mentions the unnecessary support for electricity produced from large scale biomass, where the subsidy of heat production would prove far more efficient. The FiT rate of support is tied to the amount of energy produced, instead of the resulting energy savings. It particularly recommends funding of geothermal heat production projects.

Overall, although the referenced strategies and the EEOP both draw attention to the differing potentials of energy sources, in practice the policy does not differentiate between these sources.

Energy efficiency of residential housing

As the EEOP clearly states, no funds are available from the OP for the improvement of energy efficiency of residential housing, with the exception of the modernisation of district heating systems, which is considered one of the most critical issues in Hungary concerning the energy efficiency of the country. On the other hand the necessity of tax advantage of this type of heating system is always on the focus of the debates (see below).

5. RATE OF SUPPORT AND PROFITABILITY

Renewable energy sources

Annex Figure 1 shows that the subsidies provided by the FiT do not differ much from one energy source to another, in spite of the fact that the formula for calculating subsidy rates contains reasonable potential differentiations.

The Act on Electricity defines the calculation of the FiT price. Since its modification in 2008, the Act states that the price should be in accordance with the recent energy strategies and should represent long term stability. It should compensate for the disadvantages of RES on the market, as well as maintain competition among producers. It should take into account the rate of return of each energy sources, the country's natural potentials and the future development of the utilized technology. Some categories of plants are created according to their power; plants that use installations under 50 MW are divide into two groups: below 20 MW and between 20 and 50 MW (wind power separately); another category gathers plants larger than 50 MW; finally, the water plants that are larger than 5 MW fall in another category. There is also a different category for solar power plants under 50 MW.

Excluding water plants larger than 5 MW, these differentiated pricing categories make no substantial difference to the average prices in the long run. Apart from the cost, the time and the amount energy fed differentiates between energy sources. The major constraint is in the amount of energy accepted, as it is determined separately for every plant and calculated to disallow extra-profit for the plant.

Regional differentiation among subventions is only represented in the development support due to the previously mentioned technical reasons: projects in Central Hungary financed from another programme. Therefore, the calls for proposal differ somewhat from those issued by the EEOP.

The energy efficiency of residential housing

The implicit VAT support directly favours the district heating system. Concerning direct support, EU funds are only available for district heating as well. Domestic sources provide subvention for other kinds of residential housing developments. There are no regional differences made in any of the supports. The changes in subvention methods were due to political reasons and are not evidence-based.

6. COSTS, PUBLIC SUPPORT AND PRICES

Renewable energy sources

As previously stated, there are no regional variations in the intensity of support in the FiT or other development sources. 70% of the FiT-based subsidies promoted combined heat and power projects, 29% supported renewable energy sources and 1% went to waste recycling in 2009 (see Annex 2). Out of the 29% of the renewable energy support 23% went to biomass production, 5% to wind energy, 1% to small scale water power, and some funds promoted biogas and waste-based gas production.

For geographical reasons (the thickness of the Earth's crust in the case of geothermal energy, the hours of daylight in the case of solar energy, the average wind-speed for wind energy, etc.), there are significant variations in energy production costs from one region to the next. Unfortunately, no calculations have been made. A 2010 paper presents a comparative estimation of the different energy sources (see Annex Figure 3).

Energy efficiency

Although no detailed analysis has been published on the topic, the Hungarian Central Statistical Bureau presented a housing statistics analysis in 2003 that shows the relationship between residents' own beliefs about the value of their own property and the property's attributes. In this paper, the impact of the different energetic attributes of the property affected its per squared metre price by the measures, that can be seen in (Annex Table B)

The renting sector in Hungary is marginal and operates primarily on an informal basis; therefore, pricing is not transparent and not much information is available. As rent advertisements always indicate the property's overhead expenses, we assume that the energy efficiency attributes have an effect on rent prices.

7. CONCLUSIONS

Reviewing the evolution of Hungary's energy policy and the instruments provided by the EARDF sources in this period, we have reached some observations regarding the results.

Renewable energy

Despite the fact that that Hungary has more than accomplished the mid-term goal of electric energy production from renewable source in 2010 (6% contrary to the 3.6% goal), it will be hardly possible to reach our 13% long term commitment by 2020, because the factors leading to this success have been "exhausted". (1) There was a one-time effect coming from the recession with a temporary decrease in energy consumption. (2) Most of the success is based on the energy production of old, huge, non-efficient biomass energy plants, that replaced previous coal fed plants. Using biomass for electricity production is inefficient. The actual pricing and support system does not help in building new, more efficient biomass plants. As biomass is portable, if surrounding countries improve in this field faster, Hungarian biomass capacity will strengthen renewable production in other countries. (3) Contrary to biomass-based energy, the fastest growth appeared in the field of wind energy due to the extra profit provided by the FiT. Unfortunately, Hungary's relatively peaceful weather conditions do not favour the use of this energy source. (4) Despite an estimation that shows Hungary's advantageous capacity for solar and geothermal energy production, these energies suffer greatly from the Hungarian energy production mix, apparently due to a policy failure.

According to most criticism in this field, the main problem is that policies do not really focus on those energy production capacities which have the most growth potential in the country.

To reach higher, long-term efficiency by 2014, it is advisable to put less emphasis on competition neutrality among energy sources and more on the difference among their potentials. The new government's actions and its new energy strategy seem to support these criteria.

Energy efficiency of residential housing

Although there is a significant potential in increasing energy efficiency of residential housing in Hungary, instruments in this field are extremely limited.

The huge debt burden of the Hungarian budget causes development support to come mainly from cohesion policy sources. Currently, the energy efficiency priority of the EEOP is financed from the Cohesion Fund, where financing for energy efficiency in residential housing is not eligible.

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INTERVIEWS

Klára Haidegger – Energy Centre (Intermediate Body of EEOP)

György Kasza – Managing Authority of EEOP

Anna Szendrei – Managing Authority of EEOP

TABLES AND FIGURES

Annex Table A – EARDF supports for different RES (06.29. 2011.)

	Sum of projects	Average funds per project (HUF million)*	Sum of funds spent on each energy source (HUF million)
biomass	27	165.0	4,400.0
pellet, briquette	24	95.4	2,300.0
water	8	177.0	1,400.0
geotherm	29	147.0	4,300.0
solar	174	30.6	5,300.0
solar & geotherm	16	21.3	340.0
biogas	14	407.0	5,700.0
wind	2	16.3	33.0
unknown	49	17.9	880.0
Total	343		24,653.0

*EUR 1 = approximately HUF 269 Source: own calculation based on NDA data, retrieved from www.nfu.hu, June 29th, 2011.

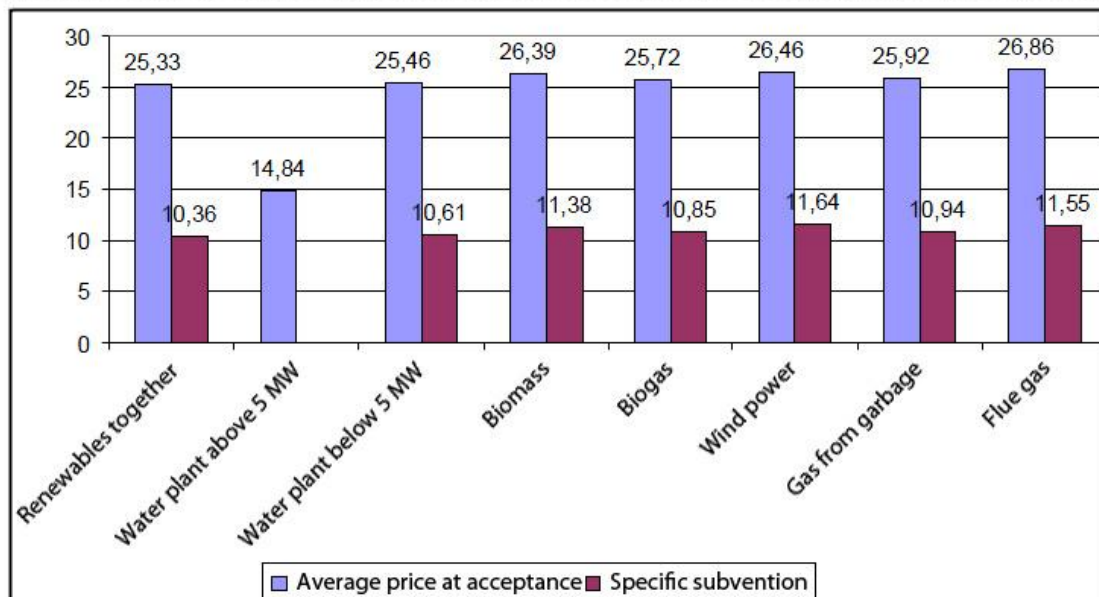
Annex Table B – The impact of energetical attributes of the property on its per squared metre price

Adobe masonry	-13%
Boiler heating	+9%
Prefabrichouses (block of flats)	-8%
Flat with room heating with coal, wood or electricity	-14%
The building needs insulation	-4,5%
District heating	-4%
Buildings with outdated heating system	-3%

Source: Farkas et al (2004)

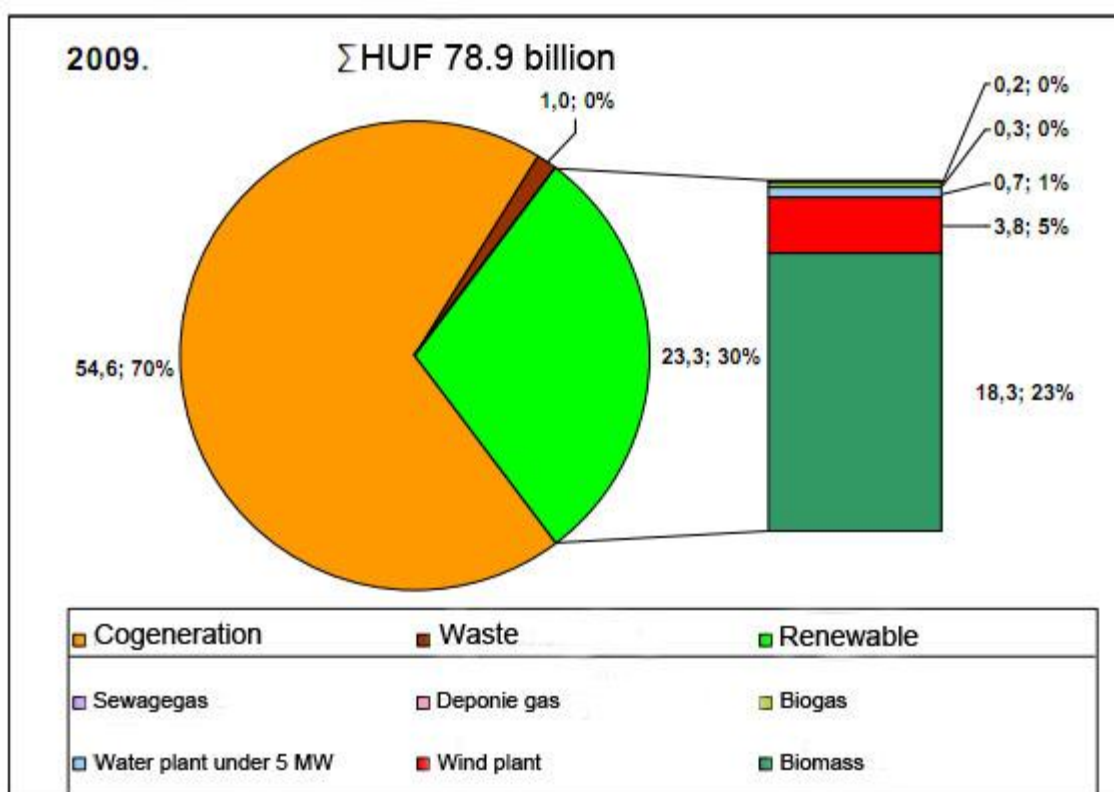
Annex Figure 1 – Average FiT support on RES in 2008

Average acceptance prices and specific subvention of renewable electricity sources, 2008 (Ft/kWh)



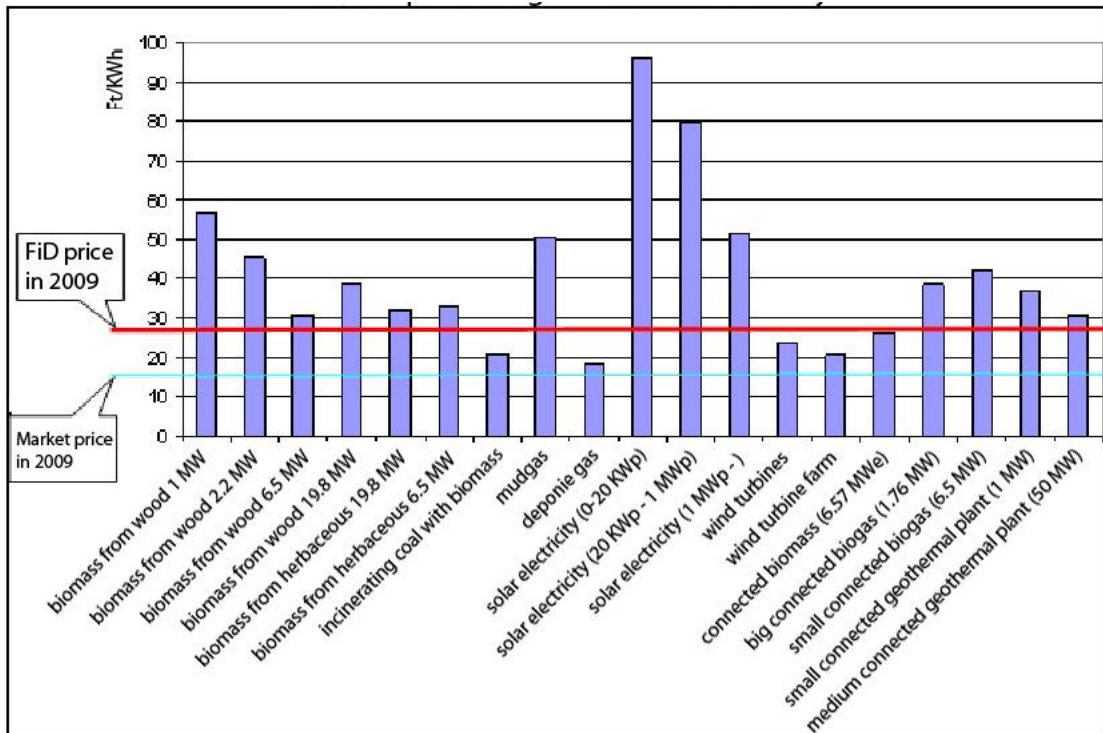
Source: Infrapont MEH (2008) in: Infrapont (2010)

Annex Figure 2 – Total FiT support on RES in 2009



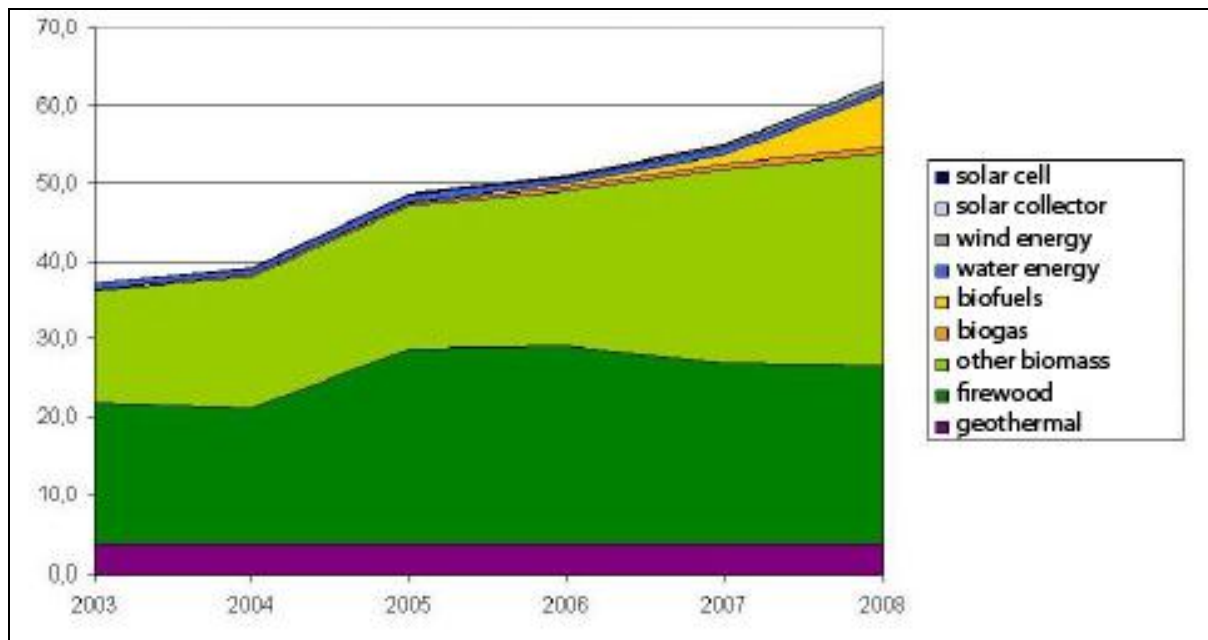
Source: Csikós-Tóth (2009) http://www.eh.gov.hu/gcpdocs/201004/kat_2009_ev.pdf

Annex Figure 3 – Costs of producing renewable energy



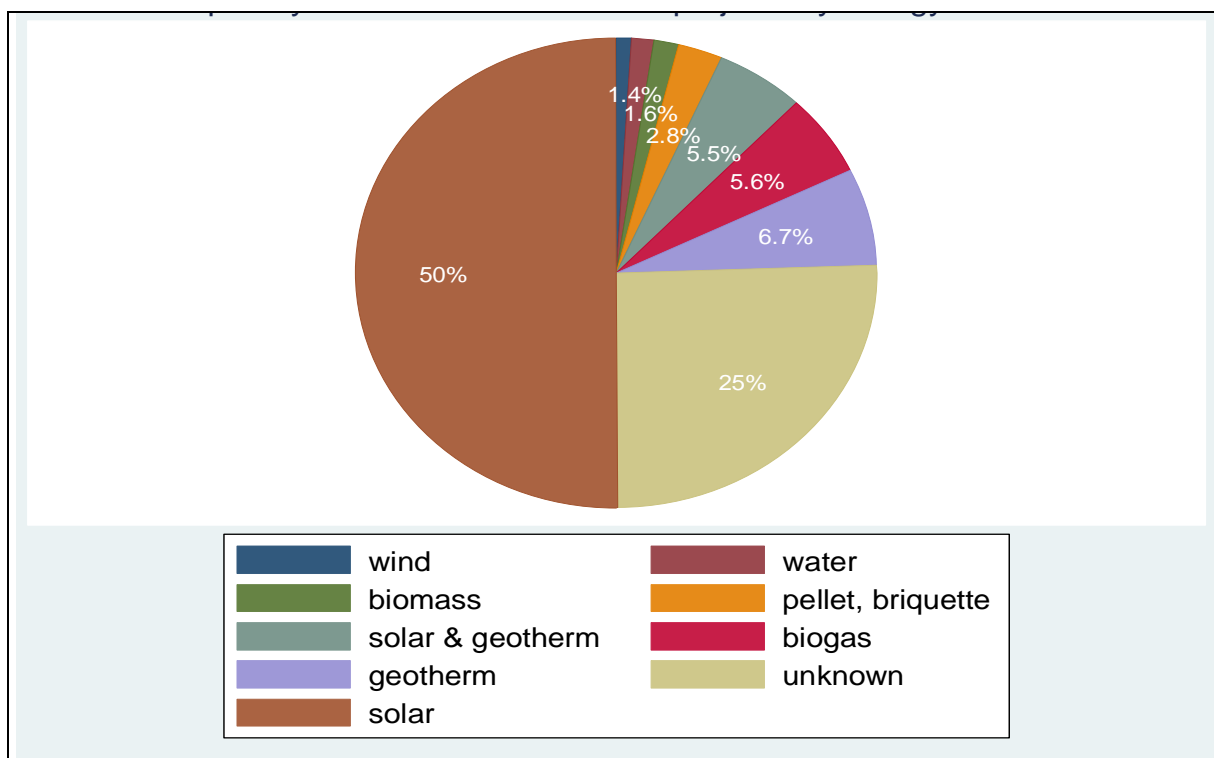
Source: Pylon (2010) in: Infrapont (2010)

Annex Figure 4 – The use of renewable energy in Hungary between 2003 and 2008, PJ



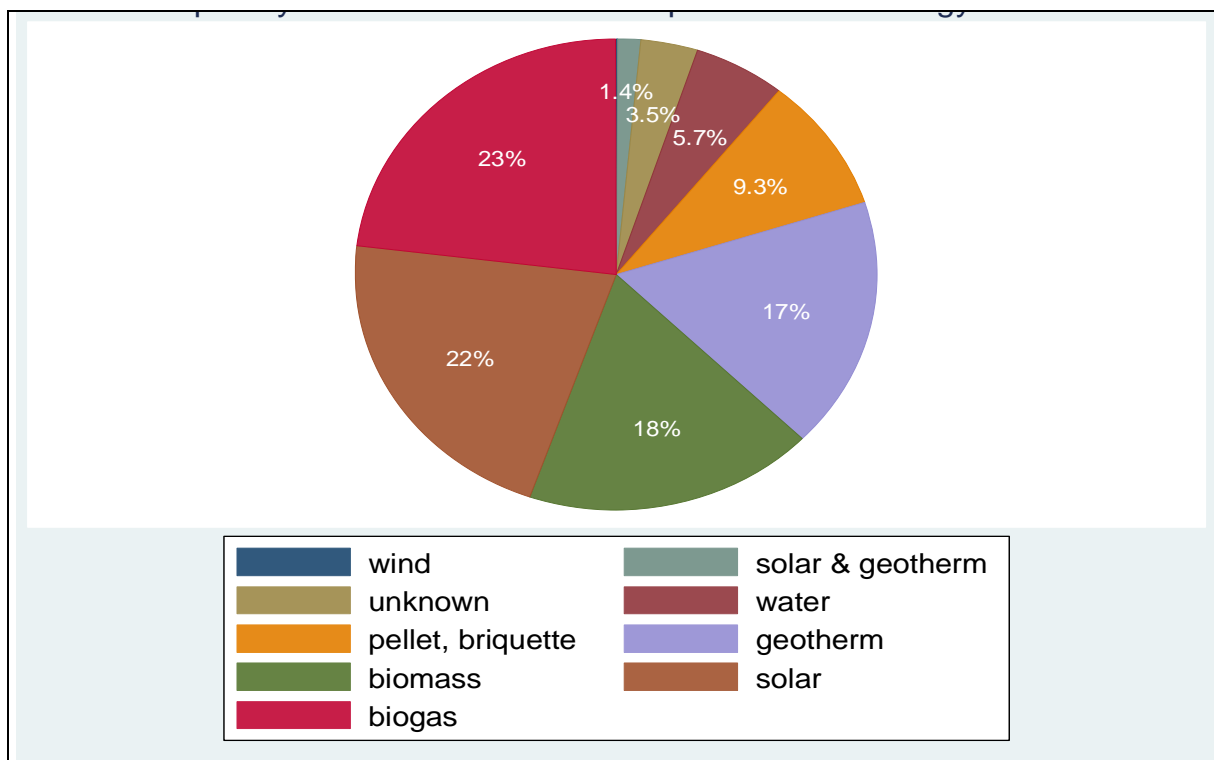
Source: Energiaklub (2009)

Annex Figure 5 – 4th Priority of EEOP: distribution of projects by energy sources

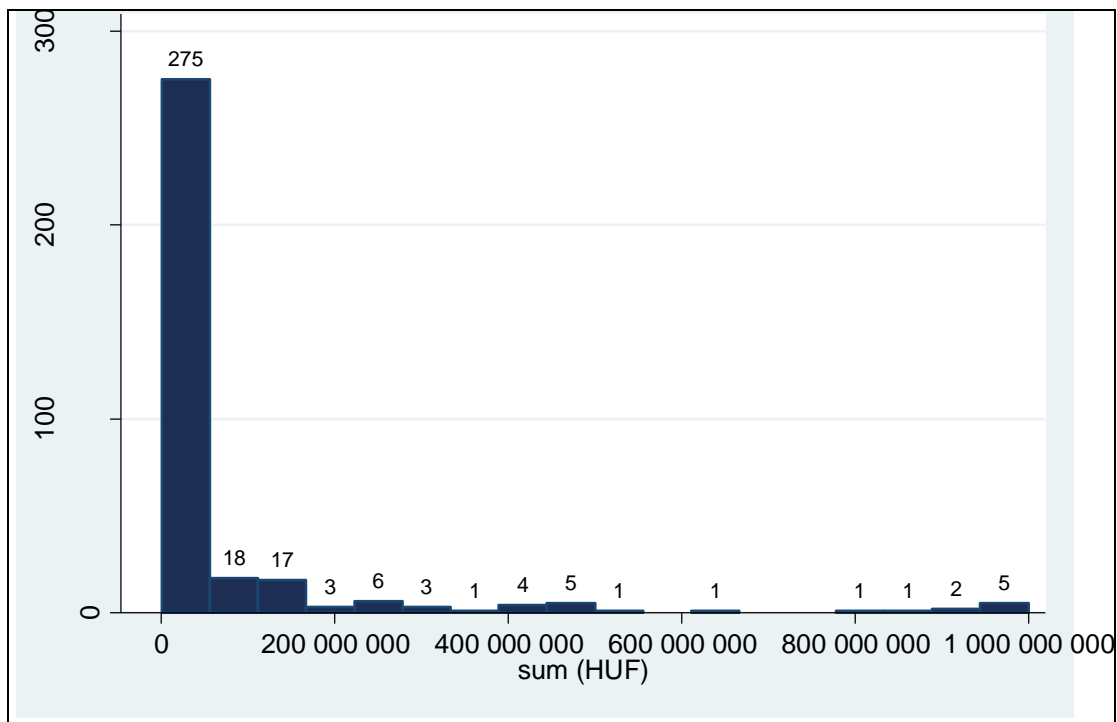


Source: own calculation based on NDA data, retrieved from www.nfu.hu, June 29th, 2011.

Annex Figure 6 – 4th Priority of EEOP: sum of funds on each energy source



Source: own calculation based on NDA data, retrieved from www.nfu.hu, June 29th, 2011.

Annex Figure 7 – 4th Priority of EEOP: histogram of funded projects

Source: own calculation based on NDA data, retrieved from www.nfu.hu, June 29th, 2011.

ANNEX

ANNEX 1

The following table shows the list of strategies, plans and programs which has an impact on the Hungarian energy policies.

Name of document	Years of operation	Authorisation	Policy
National Climate Change Strategy	2008–2025	Ministry of Rural Development	long-term environmental policy
National energy policy	1993–2008	Hungarian Parliament	National long term energy policy
National energy policy	2008–2020	Hungarian Parliament	National long term energy policy
Environment and Energy Operational Programme Action Plan	2007–2008; 2009–2010; 2011–13	National Development Agency	4 th priority of the EEOP
Feed in Tariff	2003–	Ministry of Rural Development	compulsory price for renewable energy produced and connected energy
Hungary's Renewable Energy Utilisation Action Plan	2010–2020	János Bencsik (State Secretary) & Péter Olajos (Deputy State Secretary)	renewable energy strategy
National Environmental Protection Programme	2003–2008	Ministry of Rural Development	medium term renewable energy aims
New Hungary Rural Development Programme	2007–	Ministry of Rural Development	Promoting bioethanol and biodiesel producing
Strategy for the development of Hungarian renewable energy sources	2008–2020	"Energy Centre" Energy Efficiency, Environment and Energy Information Agency Non-Profit Company	strategy for the development of renewable energy use
Energy Efficiency Programme	2000–2010	Hungarian Energy Office	National energy efficiency programme
Environment and Energy Operational Programme Action Plan	2007–2008; 2009–2010; 2011–13	National Development Agency	5 th priority of the EEOP
Green Investment Programme	2009–	Ministry of Rural Development	Promoting the energy efficiency of residential

Name of document	Years of operation	Authorisation	Policy
			housing
National Energy Efficiency Action Plan	2008–2016	Ministry of Economy and Transportation	strategy for reaching the EU energy efficiency directive by 2020
Austria–Hungary Cross–border Cooperation Programme	2007–2013	European Regional Cooperational Programme	supports the use of natural resources in a sustainable way
Hungary–Romania Cross–border Cooperation Programme	2007–2013	European Regional Cooperational Programme	Promoting bio–fuel producing projects
Hungary–Slovakia Cross–border Cooperation Programme	2007–2013	European Regional Cooperational Programme	supporting the establishment of renewable energy sources infrastructure
Hungary–Slovakia–Romania–Ukraine Cross–border Cooperation Programme	2007–2013	European Regional Cooperational Programme	Helping the establishment of pilot renewable energy projects
Slovenia–Hungary Cross–border Cooperation Programme	2007–2013	European Regional Cooperational Programme	Helping the establishment of pilot renewable energy projects
South East Europe Operational Programme	2007–2013	European Commission	Promotion of sustainable development

Directs support of renewable energy sources from ERDF sources in Hungary

The New Hungary Development Plan (NHDP) lays down the objectives of EU funds spent in Hungary. It consists of 7 programmes that are divided among 15 operational programmes. One of the 15 operational programmes is the Environment and Energy Operational Programme (EEOP). The EEOP consists of 8 priorities: the healthy and clean settlements priority, the wise water management priority, the wise management of natural assets priority, the increased use of renewable energy sources priority, the efficient energy use priority, the sustainable lifestyle and consumption pattern priority, the project preparation priority and the technical assistance priority.

The 4th priority of the EEOP, funded by European Regional Development Fund (ERDF) sources aims to help enterprises and local governments implement projects that deal with green heat and/or electricity production and projects focused on bioethanol production. Its main target groups are small and medium enterprises (SMEs).

The ERDF objective “Territorial cooperation” also includes some renewable energy projects:

In the Hungary–Slovakia Cross–border Cooperation Programme the managing body is Hungary. It has EUR 176 million to spend on its two priorities: the economy and society priority and the environment and nature protection priority. The second priority contains a measure that supports the establishment of renewable energy sources infrastructure, with implementing new technologies and supporting of cross–country network building.

The Hungary–Romania Cross–border Cooperation Programme, where the managing body is also Hungary, and receives EUR 34 million from the Hungarian and EUR 28 million from the Romanian side, includes three priorities: the sustainable development priority, the strengthening of social and economic cohesion priority and the technical help priority. In the second priority there is a measure that supports projects that produce bio–fuels.

The Hungary–Slovakia–Romania–Ukraine Cross–border Cooperation Programme helps set up pilot infrastructure and networks for renewable energy production (wind, biomass and geothermal sources), where the maximum scale of support is 90%.

The Slovenia–Hungary Cross–border Cooperation Programme also helps to set up pilot renewable energy production programs (EUR 2.1 million).

The Austria–Hungary Cross–border Cooperation Programme, within the project “Joint Regional Development Strategy for Vienna–Bratislava–Győr Region (JORDES+)” supports the use of natural resources (land, landscape, warm and thermal water, renewable energy sources) for economic activities like tourism, energy production and transport in a sustainable way. This programme gives EUR 1.3 million to each of the following four fields: renewable solar energy, renewable biomass energy, renewable hydroelectric and other energy and energy efficiency. The maximum scale of support is 85%.

The second priority of the South East Europe Programme, where the managing body is Hungary, includes the measure of promoting energy and resource efficiency. It supports the transfer of know–how and the co–ordination between states in the fields of wind energy, solar energy, biomass energy hydroelectric, geothermal and other energy and energy efficiency programs with EUR 865,211 each.

The 1,233 and 1,234 sub–measure of the 2nd priority of the New Hungary Rural Development Plan (NHRDP) funded by European Agricultural Fund for Rural Development (EAFRD) aims to promote bioethanol and biodiesel production. Its aim is to increase the value of agricultural products used in the production of bioethanol and biodiesel. The maximum scale of support is 40% (in the case of enterprises with 250–750 employees it is 20%).

ANNEX 2

Energy Measures of EEOP

Name of call for proposal	State of progress (closed, in progress, planned)	Planned support (EUR million)*	Beneficiaries	Minimum amount of support (EUR)*	Maximum amount of support (EUR million)*	Minimum scale of support (%)	Maximum scale of support (%)	Number of contracted projects (planned if still running or just planned)	Year of publishing
<i>Renewable energy priority</i>									
Supporting of heat and/or electricity produced from renewable energy source	closed	50.0	domestic natural person, micro and small enterprise, beneficiary enterprise, state-owned non-profit organisation; not state-owned non-profit organisation; primary, secondary and higher educational institutions	3,774 (377,400 if private large enterprise)	1.9 (3.0 if private large enterprise)	10	50	40	2007
Supplying local heat and cooling demand from renewable energy sources	closed	22.6	domestic natural person, micro and small enterprise, beneficiary enterprise, state-owned non-profit organisation; not state-owned non-profit organisation; primary, secondary and higher educational institutions	3,774	0.2	10	100 (if state-owned)	110	2009
Supplying local heat and cooling demand from renewable energy sources	in progress	11.3	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8	10	85	80-100	2011
Supplying local heat and cooling demand from	closed	20.8	domestic natural person, micro and small enterprise, beneficiary	3,774	3.8	10	100 (if state-	36	2009

Name of call for proposal	State of progress (closed, in progress, planned)	Planned support (EUR million)*	Beneficiaries	Minimum amount of support (EUR)*	Maximum amount of support (EUR million)*	Minimum scale of support (%)	Maximum scale of support (%)	Number of contracted projects (planned if still running or just planned)	Year of publishing
renewable energy sources			enterprise, state-owned non-profit organisation; not state-owned non-profit organisation; primary, secondary and higher educational institutions				owned)		
Supplying local heat and cooling demand from renewable energy sources	in progress	26.4	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8	10	85	80-100	2011
Sustainable Energy Financing Facility (SEFF)	planned	5.7	international banks (intermediary); recipients: small and medium enterprises, state-owned organisations	-	5.7 (0.0 - 0.6)	-	30		2007
Regional development based on renewable energy	in progress	22.6	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	264,151	5.7	10	85	40,822	2011
Producing electricity, connected heat or biomethan from renewable energy sources	closed	37.7	domestic natural person, micro and small enterprise, beneficiary enterprise, state-owned non-profit organisation; not state-owned non-profit organisation; primary, secondary and higher	3,774	3.8	10	100 (if state-owned)	20	2009

Name of call for proposal	State of progress (closed, in progress, planned)	Planned support (EUR million)*	Beneficiaries	Minimum amount of support (EUR)*	Maximum amount of support (EUR million)*	Minimum scale of support (%)	Maximum scale of support (%)	Number of contracted projects (planned if still running or just planned)	Year of publishing
			educational institutions						
Producing electricity, connected heat or biomethan from renewable energy sources	in progress	43.7	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8	10	85	20-50	2011
Supporting establishing large and medium capacity bioethanol production plant	planned	18.9	domestic natural person, micro, small and large enterprise	-	9.4	2	30	40,636	2007
Supporting the preparation and development of projects that produce heat and/or electricity from geothermic source	closed	11.3	domestic natural person, micro and small enterprise	113,208	3.8	10	60	0	2009
Supporting the preparation and development of projects that produce heat and/or electricity from geothermic source	in progress	6.1	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8	10	60	40,821	2011
Developments that combine building energetics with renewable energy sources	planned	30.2	domestic natural person, micro, small enterprise, beneficiary enterprise, state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8 (3.0 if hospital)	30	100 (if state-owned)	200	

Name of call for proposal	State of progress (closed, in progress, planned)	Planned support (EUR million)*	Beneficiaries	Minimum amount of support (EUR)*	Maximum amount of support (EUR million)*	Minimum scale of support (%)	Maximum scale of support (%)	Number of contracted projects (planned if still running or just planned)	Year of publishing
Financial build-up	planned	18.9	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	188,679	1.9	-	-	44,105	
developing building energetics using renewable energy sources	in progress	30.2	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.8	10	85	30-50	2011
<i>Efficient energy use priority</i>									
Enhancing energy-efficiency	closed	33.1	domestic natural person, micro, small enterprise, beneficiary enterprise, state-owned non-profit organisation; not state-owned non-profit organisation	3,774	1.9	10	50	42	2007
Third-party financing	closed	6.9	enterprises providing third-party financing	3,774	0.2	10	14,5 (10 if lighting)	56	2007
Third-party financing	closed	11.3	domestic natural person, micro, small, medium and large enterprise	3,774	0.2	20	25	69	2009
Developing building energetics	closed	11.3	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit	3,774	3.0	10	75 (100 if central budget)	111	2009

Name of call for proposal	State of progress (closed, in progress, planned)	Planned support (EUR million)*	Beneficiaries	Minimum amount of support (EUR)*	Maximum amount of support (EUR million)*	Minimum scale of support (%)	Maximum scale of support (%)	Number of contracted projects (planned if still running or just planned)	Year of publishing
			organisation; not state-owned non-profit organisation				org.)		
Developing building energetics with renewable energy sources	closed	11.3	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	3.0	10	75 (100 if central budget organisation)	13	2009
Developing building energetics with renewable energy sources	planned		micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	3,774	0.4	10	75 (100 if central budget organisation)	0	2011
Modernisation of district heating system	closed	30.2	micro, small and medium enterprise; beneficiary enterprise; state-owned non-profit organisation; not state-owned non-profit organisation	37,736	1.9	10	50	13	2009
Sustainable Energy Financing Facility (SEFF)	planned	3.8	international banks (intermediary); recipients: small and medium enterprises, state-owned organisations	-	3.8	-	15	500	2007