

## B. ENERGY

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### **Decision-Making: Strategies, policies, programs and plans, legislation, policy instruments and the regulatory framework**

The Hungarian energy policy aims to maintain a balance between security of supply, cost-effective supply of energy to the economy, energy efficiency and the environment. These are the internationally well known 3 E's, as energy policy objectives.

EU accession has changed the energy outlook in Hungary. The transposition of the *acquis communautaire* and the unification of Hungarian markets with EU markets, including conformity with the relevant EU directives, are acting as the main drivers for sustainable energy development.

The energy efficiency and renewable energy are the important pillars of the parliamentary approved Hungarian Energy Policy (1993). The basic elements of the EE and RES energy policy are the different supporting programs, including grant and soft loan systems, the preferential feed in tariff system, and on other side extra burdens on fossil fuels (energy tax, environmental levy, EU ETS).

Hungary has a long term (up to 2010) Government's Efficiency and Renewable Energy Program and Action Plan (approved by Government in 1999). Beyond this, a strong institutional background (Energy Centre) existing (similar with NOVEM or ADEME), and there are some other financial support system (grants and soft loans). The renewable green electricity and the CHP enjoy a preferential feed in tariff too. The Government's Efficiency and Renewable Energy Program and Action Plan covers all of the sectors, naturally the financial supporting systems are "tailor made" reflecting the sector speciality. The Third Party Investment also plays an eminent role, especially in the case of municipalities.

We have started the internalization of the environmental externalities with a significant new environmental levy on air, water and soil, and with the EU conform introduction of the energy tax (on fossil fuels). The introduction of the EU's CO<sub>2</sub> emission (quota) trading system provides also an additional tool to reach our targets. The Law on CO<sub>2</sub> Trade is in force (approved by the Parliament in April 2005), the principles of the National Allocation Plan have been already worked out and approved by the Government and by the EU Commission. The final version with the allocated numbers, is due in June this year.

EU accession has changed the renewable energy outlook in Hungary too. The transposition of the *acquis communautaire* and the unification of Hungarian markets with EU markets, including conformity with the EU renewable energy source directive, are acting as the main drivers for renewable energy development in Hungary. Hungary, as an EU Accession Country, has agreed to a national indicative target for electricity production from renewable energy sources at the level of 3.6% by 2010.

Beyond the legal transposition of the EU directives a strong renewable and efficiency enhancing program with strong financial support is an absolute requisite in achieving our national targets. In the past and in the recent period we have had a well working program, but

to complain with the principle of sustainable development, we need more efforts. In accordance with this new challenge, a new National Renewable Energy Strategy has drafted by an Inter-Ministerial Committee. The Government approval of this strategy is due in this year. The targets of this draft strategy: double the renewable sources in fuel mix up to 6%, and increase the green electricity to 3,6 % in 2010 (in 2002 the actual value was 0,5%, in 2005 the forecasted value is about 2 %). *See chart 1.*

The energy policy resolution adopted by the Hungarian Parliament in 1993 [21/1993(IV.9)OGY] outlines the following strategic objectives:

- Diversification of energy supplies and limitation of import dependence on the CIS supply (mainly from Russia).
- Improved protection of the environment and pollution mitigation.
- Increased energy efficiency through the modernization of supply structures and better management of electricity consumption.
- Improved public acceptance of new energy facilities through provision of better information to the general public.

The general aim of this resolution was to lay the foundations for an open energy economy, gradually being integrated into the EU. Between 1994 and 1996, three major pieces of legislation were adopted, which created the necessary conditions for privatization of the incumbent energy public companies. The 1994 electricity and gas acts also established the Hungarian Energy Office (MEH) as the regulator of the energy sector (electricity and gas).

In 1999, a new set of policy principles was conceived and adopted by the government in consultation with private energy companies and energy consumers. The title of the 1999 document: "Hungarian Energy Policy Principles and the Business Model of the Energy Sector" (Resolution 2199/1999 VIII.6). The motivation was to outline the new medium-term objectives and to prepare a more detailed plan of action.

This document defined a number of practical transitional measures to facilitate the emergence of a competitive energy market wherever competition remains to be developed (electricity and gas).

As a consequence of European integration, the 1999 document perceives that Hungary's energy supply security will be guaranteed beyond its national borders largely by the European energy market. For this reason the government places greater emphasis on nurturing the Hungarian energy sector's competitiveness *vis-à-vis* Europe than on trying to reduce its external energy dependency through domestic production or conservation.

The 1999 document announced the establishment of a national program for energy conservation and renewable energy sources that was adopted in 1999 as the Energy Conservation and Energy Efficiency Improvement Action Program.

The government considered that environmental costs would principally be determined by new EU-harmonized legislation requirements.

The recent governments have also committed themselves to continue the reforms that were set out in the 1999 document. The principal institutions formulating and implementing energy policy remained unchanged.

#### **The state of the Hungarian privatization:**

Power stations:	All privatized except the nuclear and a coal fired one,
Electricity utilities:	All of the companies are privatized,
Gas utilities:	All of the companies are privatized,
Hungarian Oil and Gas Company:	11% state, 89% private,
Hungarian Power Company, Independent System Operator :	state owned

The Hungarian EU accession has generated the adaptation of the EU directives (Hungary has not asked for any derogation). Hungary has liberalized partially both the electricity (1<sup>st</sup> January 2003) and natural gas market (1<sup>st</sup> of January 2004). From 1<sup>st</sup> July 2004 all of non-household consumers are defined as eligible consumers.

The “real” competitive market currently is 25% in the electricity sector, and 6% in gas sector. The most recent developments are the modification the Electricity Act and the Natural Gas Act in order to harmonize with the new EU market liberalization objectives. In line with this, 100% of market will open from mid 2007.

## The state of the art of the end-use-sectors

*See chart 2.*

### **Residential sector**

Unit consumption (not adjusted to climate) decreased by 15.9% between 1990 and 2001.

Unit consumption per m<sup>2</sup> (not adjusted to climate) decreased by 23.1%.

The average floor space grew from 68 m<sup>2</sup> to 74.3 m<sup>2</sup> in the surveyed period. Two-third of new buildings are detached houses and only one-third of them are flats. *See Chart 3.*

**Unit consumption per 1 m<sup>2</sup> declined more rapidly than unit consumption per dwelling.** It is assumed that newly built flats and detached houses are better insulated and equipped with more modern heating facilities, leading to an improved heating efficiency.

Unit consumption adjusted to climate decreased by 21.9% in the surveyed period. It must be noted, however, that **unit consumption already reached its present value by 1994** and has been stagnating with slight fluctuations ever since. It is assumed that household price rises following the political changes truly **motivated consumers to reduce consumption in the first three years**. As family incomes grew later price hikes, although quite high, did not shock consumers any more and failed to motivate them to reduce or rationalize their consumption.

### **Industrial sector**

The industrial energy intensity decreased to more than half of it in the surveyed period. The reduction was originated in the collapse of the giant socialist industry between 1990 and 1992, then, later 2/3 of the reduction could be explained by structural reasons after 1996.

The **driving force behind economic growth** was **foreign direct investment**. In the surveyed period a significant number of **large green field investments** were carried out beside the privatisation of state-owned companies.

The existence of competition on the market put the weak and the strong points of the economy into a new perspective.

A key issue in industry was the development of the **machinery and vehicle manufacturing sectors**. Previously the industry made products mostly for the Eastern-european markets, however, these “traditional” markets collapsed after the early 1990s. Yet industry shortly became one of the leading sectors again as several multinational companies moved production phases into Hungary to benefit from the cheap and skilled labour force.

These production processes usually did not represent the whole verticum but brought a new culture of production to Hungary often through the use of production lines.

### **Services sector**

The tertiary sector was extended by a lot of important new units such as shopping centres, bank networks. In the same time a lot of schools- and hospital buildings were in a quite run-

down condition, and still need renovation. Due to the delay of the financial reform of the great distribution systems the available resources of funds for renovation are quite limited.

### **Transport sector**

In the transport sector, the performance indicators of passenger transport decreased a little, whereas the performance indicators of the transport of goods reduced dramatically, causing the reduction of energy consumption. In parallel with the start of economic growth the performance indicators of transport began to grow as well and due to the market conditions a significant switch took place from the railway to the road transport. Due to that switch, the energy consumption of transport has been increasing since 1996.

Traffic in **passenger transport moderately** fell as commuting became less frequent. Since then it has almost reached its original level again. *See Chart 4.*

#### Passenger km by type of vehicle:

After slightly falling, total passenger km has been stagnating. Total km of buses, rail and air transport have shown a moderate growth.

### **The structure of freight transport dramatically changed.**

Rail ton km was almost halved by 1994.

Inland water ton km declined to less than one-tenth of the original figure.

Ton km of road transport also decreased by over 30%.

The above reductions have a single root: the collapse of the Eastern markets which led to a drastic drop in demand for the freight transport of mass products.

Along with economic growth the ton km of road transport started to increase moderately then grew rapidly. **Multinational companies** dominate the economy preferred road transport to rail and inland water owing to its increased flexibility and volume.

Due to the suppliers of multinational companies international deliveries gained ground against domestic deliveries as the internal cooperation of the economy considerably declined compared to the previous planned economy system.

With the collapse of Eastern markets the direction of deliveries changed from the East to the West. 75% of exports and imports are executed with EU member states.

Road transport gained significant ground in Hungarian freight transport. This **modal split** projects a **growing energy use** per ton km as more energy-intensive transport modes are favored.

Road construction, in particular highway construction, became increasingly important in transport development investments. Although capital intensive, these investments are essential to ensure that the density of Hungarian highways reaches the European level.

At the same time more funds are allocated to develop railways in several EU countries than road traffic to reduce the energy use of transport. *See Chart 5.*

# ENERGY EFFICIENCY POLICIES

## **Energy Saving and Energy Efficiency Improvement Action Program**

This policy was established in the framework of Government Resolution 1107/1999 following the National Energy Saving and Energy Efficiency Improvement Program of 1995. The program defines the following targets by 2010:

- Reduction of energy intensity with 3.5% per year, assuming an annual growth of GDP of 5% per year and a growth rate of energy consumption of 1.5% per year.
- Saving of 75 PJ/year (1.8 Mtoe/year) of primary energy sources.
- Reduction of 50 kt/year of SO<sub>2</sub> and 5 Mt/year of CO<sub>2</sub> emissions.
- Increase of renewable energy production from the present 28 PJ to 50 PJ/year (1.2 Mtoe/year).

The Energy Saving and Energy Efficiency Action Program includes 15 actions. Briefly, the main highlights of the various actions are the following (from the annex of the Government Resolution):

- Increase of heat production by the increased use of biomass, geothermal energy, wastes and solar energy.
- “20 000 roofs with solar collectors” program, which announces that by 2010 20 000 buildings (institutions and dwellings) should have solar collectors installed on their roofs.

## **Széchenyi Plan**

The Széchenyi Plan was the Hungarian government's economic development proposition to domestic and international businesses and to the regions. In this proposition the government indicated the areas where it considered development essential so that the economy and the country itself could catch up with Europe.

It provided support for renewable energy projects through application to a one-time grant aid. This plan could support 30% of investments in renewable energy; however, the upper limit differed depending on the type and purpose of the project.

## **National Energy Efficiency Program (NEP)**

The program was established to replace the energy portion of Széchenyi Plan. The program has stopped to accept new application in mid 2004, but the all of the earlier accepted applications were financed.

## **Legal Framework**

There is no dedicated energy efficiency law, but in the energy legislation several paragraphs mention the necessity of energy saving.

## **Energy Efficiency Targets**

The Energy Saving and Energy Efficiency Improvement Action Program defines the following targets by 2010:

- Reduction of energy intensity with 3.5% per year, assuming an annual growth of GDP of 5% per year and a growth rate of energy consumption of 1.5% per year.
- Saving of 75 PJ/year (1.8 Mtoe/year) of primary energy sources.
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- Increase of renewable energy production from the present 28 PJ to 50 PJ/year (1.2 Mtoe/year).

## RENEWABLE ENERGY

The total share of the renewables in the energy balance in Hungary is 3,6% and the share of the renewable generated electricity is about 2%. In accordance with the 1999's Energy Efficiency Program of the Government until 2010 we have to nearly double the share of the total renewables from 28PJ to 50 PJ. Based on this target the Ministry of Economy and Transport has prepared a draft Strategy for Renewable Energy Sources.

In Hungary 38,6PJ was produced using renewables from the 1092 PJ of total energy use (heat and electric energy) in 2003. It is 3,5 % and the strategic aim is to increase it to 63-70 PJ/year (that is 5-6 %). The predicted total energy use for 2010 is 1150 PJ/year.

In 2003 the share of renewable sources from the electric energy production was only 0,77 % (0,9 % with the electricity generated from Waste Incineration in Budapest) .According to the 2001/77/EC directive it must be increased to 3,6 %. Hungary undertook it as an obligation in the Law XXX. 2004, 2nd annex, paragraph 12.

### **Renewable Energy Potential and Supply**

The electric energy produced from renewable sources (data of 2003):

- Hydro power            0,49 %
- Biogas                    1,15 %
- Biomass                 0,22 %
- Wind energy            0,01 %

Recently investments were initiated in the fields of solar energy, geothermal energy, biogas from agriculture and waste water plants and wind energy. Plants using wood are more and more frequent and the civil sector uses more and more renewable energy. In order to fulfill the regulation on emission of the large combustion plants several coal plants changed for biogas. Also the electric energy production from renewables is appeared.

### **Hydropower**

Hungary is one of the less mountainous country in Central Europe, therefore has only limited hydroelectric potential. There are three small commercial hydroelectric power plants in the country, Hernadviz, Kiskore and Tiszalok, their total capacity is about 44 MW. They provide about 200 GWh of electricity annually.

### **Bioenergy**

Significant energetic investments:

- District heat production from solid biomass: Szigetvár (2 MW), Mátészalka (5 MW), Papkeszi (5 MW), Körmend (5 MW), Szombathely (7 MW),
- Heat and electricity: Balassagyarmat (2 MW), Szentendre (9 MW),
- Coal fired plants using for biomass: Pécs (49 MW), Kazincbarcika (30 MW), Ajka (20 MW)

In long term these last plans plan to fulfill their resource need from the energy fields of the surrounding areas. It is predicted that the share of the electric energy production can increase from 0,77 % (0,9 %) to 2,2 % due to the biomass plants in 2004.

Biomass accounts for the largest share of Hungary's renewable energy consumption. Nearly 40 percent of the round-wood production is used for energy purposes. There are three former coal fired power plants which have switched to fire wood, which is currently mostly forestry waste. Their total capacity is 100 MW, 700 GWh in electricity production. There are 7 heating plants providing hot water and heating to residential areas utilizing forestry waste and sawmill by-products with the capacity of 40 MW.

The process of planting energy forests has already been started.

The process of producing energy grass has started in Hungary. There is a potential to produce 500,000 – 700,000 t/year of this fuel material.

In the last years most of the biomass investments were aimed at the heat production, electric plants were rare.

Biogas produced from the waste of animal farms is utilized by 5 plants, the largest is in Nyírbátor with the capacity of 1.6 MW. The Biogas Plant Nyírbátor was turned into operation in 2003.

The EU requires the increase of the bio-fuels in the 2003/30/EC Directive. The Hungarian target is to reach 2 % (with bio-ethanol, bio-diesel) prescribed by a Governmental Decision (2233/2004. IX. 22). Now it is 0 %.

### **Wind energy**

The technical wind energy resource potential of Hungary is seen as fair – good.

Currently there are six wind energy installations (wind power plants) in operation with 3,6 MW total electric energy production:

- 250 kW in Inota
- 600 kW in Kulcs
- 2x600 kW in Mosonmagyaróvár
- 2x600 kW in Mosonszolnok.

It is expected to reach the capacity of 20-50MW of wind energy by 2010.

### **Solar energy**

Adequate potential for low intensity solar energy has been identified. However, currently there is no widespread implementation of this resource. Photovoltaic applications have been implemented on an experimental basis in the telecommunications and other sectors. But this technology has not yet reached wide scale of commercialization in Hungary.

### **Geothermal Energy**

The primary geothermal resource area in Hungary is the Upper Pannonian reservoir system that extends through nearly the entire country and enters some of the adjoining countries.

Hungary has some of the largest reserves of geothermal energy in Eastern Europe. Generally, the identified resources are low to medium enthalpy, 50 C to 100 C, and more suitable for heat supply than electricity production. As the result of this, there is currently no utilization of geothermal energy for electricity production. Current demands for geothermal energy are for direct heating and balneology. Direct heating is very extensively used in horticulture. The residential and industrial demands are also very high for direct heating. These three areas use 3,6 PJ of energy yearly.

### **National Policy for Renewables Deployment – Policy Instruments**

In the recent years significant governmental steps were made in order to increase the use of renewable energy:

- Among the aims of the Hungarian energy policy the increase of the use of renewable energy has an important role beside energy efficiency and energy saving,
- For the aims of the sustainable development and climate protection the increase of the use of renewables is a priority also in the integrated environmental policy,
- The accepted Energy Saving and Energy Efficiency Action Plan is a part of the program of the increase of renewables
- An informative study is being developed for the government about the possibilities of the increase of the share of renewable energy use. According to the study the support

of renewable energies should be separated from the long term energy efficiency program and an independent program should be launched: the Renewable Energy Sources Program. It should aim the increase of renewables up to 5.6 % and up to 3.6 % regarding the electric energy.

The first priority of the planned Renewable Energy Sources Program is the increase of the biomass use that has the highest potential, particularly for co-generation purposes and for transportation: biomass use in plants, biogas use from waste water plants, communal waste plants, animal farms. A boom of the biomass energy use could also provide a solution for the problems of the agriculture and the rural areas.

A part of the planned Renewable Energy Sources Program will be the Agro-energetic Program aimed at the elaboration of the possibilities of cultivation of energy-fields, energy-forests and supporting questions. In the future not the existing forests, but the energy-fields must be taken into consideration as growing potential.

EU accession has changed the renewable energy outlook in Hungary. The transposition of the acquis communautaire and the unification of Hungarian markets with EU markets, including conformity with the EU renewable energy source directive, are acting as the main drivers for renewable energy development in Hungary. Hungary, as an EU Accession Country, has agreed to a national indicative target for electricity production from renewable energy sources at the level of 3.6% by 2010 from 0.5% currently. This is expected to result in a 1% increase per annum over a ten-year period. Also, by 2010, the government aims to increase the share of renewables in TPES to at least 5%. This target has been integrated as part of the government's Energy Conservation and Energy Efficiency Improvement Action Program.

#### **Energy Saving and Energy Efficiency Improvement Action Program**

This policy was established in the framework of Government Resolution 1107/1999 following the National Energy Saving and Energy Efficiency Improvement Program of 1995. The program defines the following targets by 2010:

- Reduction of energy intensity with 3.5% per year, assuming an annual growth of GDP of 5% per year and a growth rate of energy consumption of 1.5% per year.
- Saving of 75 PJ/year (1.8 Mtoe/year) of primary energy sources.
- Reduction of 50 kt/year of SO<sub>2</sub> and 5 Mt/year of CO<sub>2</sub> emissions.
- Increase of renewable energy production from the present 28 PJ to 50 PJ/year (1.2 Mtoe/year).

In order to implement this program aimed at increasing energy efficiency by 3.5% a year, reducing CO<sub>2</sub> emissions by 5 Mt/year and increasing renewables from 28 PJ in 1999 to 50 PJ in 2010, an action plan has been adopted by the government. These measures, effective from 1 January 2000, include: grants to perform regular audits revealing energy loss in production, grants to improve the energy management of local governments and grants provided for the population and public institutions to save energy sources.

#### **Feed in tariff system for renewable**

The increase of renewable energy use is supported on legal level with obligatory acceptance of green electricity on higher price. The most important tool to increase the share of green electricity is the preferential feed in tariff system. The legal fundament of the feed in tariff system is described by the Act on Electricity (CX of 2001). The implementation details and prices defined by Decrees of the Minister of Economy and Transport. The general regulations are in 56/2002 (XII.29) Decree of Minister of Economy and transport on "Guaranteed feed in tariff, all energy generated from renewable energy resources" (updated 105/2003 (XII. 29 )

GKM, the actual price fixed by Decree of Minister of Economy and Transport 93/2004 (VII.9.) GKM.

In line with the regulation there is a uniform price for every type of green electricity, and the price depend on the demand driven real price. There are three periods based on demand: peak, valley and deep valley. The prices are 27,50 Ft/kwh, 15,80 Ft/kwh and 8,44 Ft/kwh, the average price is 17,90 Ft/kwh (in eurocents these values 11,00- 6,32-3,38 and 7,16). For comparison, this average price is cca. 70% higher, than the normal fossil originated generation price.

In the frame of the new National Renewable Energy Strategy we will supervise this system, and if necessary some modification is possible to strengthen the long term predictability and stability.

## **Capacity-Building, Information and Research & Technologies**

### **Financing**

#### **Funding under the Energy Saving Strategy and Action Plan**

In 2000, the Hungarian government allocated HUF 1 billion (US\$ 4 million) from the Economic Development Fund of the Ministry of Economy and Transport to support energy efficiency and renewables as planned in the Energy-Saving Strategy program adopted in 1999.

The Hungarian government allocated a similar sum in 2001 and HUF 5 billion a year (US\$ 20 million/year) from 2002 to 2010 to finance the program (HUF 2 billion, supplemented by additional funding of HUF 3 billion from the Housing Program of the Széchenyi Plan, earmarked for funding of energy efficiency measures in the housing sector. The decree also established the possibility to use part of the planned Environmental Emission Fee for the Program.

#### **Széchenyi Plan**

The Széchenyi Plan was the Hungarian government's economic development proposition to domestic and international businesses and to the regions. In this proposition the government indicated the areas where it considered development essential so that the economy and the country itself could catch up with Europe.

It provided support for renewable energy projects through application to a one-time grant aid. This plan could support 30% of investments in renewable energy; however, the upper limit differed depending on the type and purpose of the project.

For the year 2000, HUF 350 million (approximately US\$ 1.5 million) were available for competitive applications announced in order to increase the use of any renewable sources of energy. The support was a grant that could not exceed HUF 35 million (approximately US\$ 160 000), unless justified.

#### **National Energy Saving Program (NEP)**

The program was established to replace the energy portion of the Széchenyi Plan. Within the applications, NEP-2003-6 (for municipalities and private persons) and NEP-2003-7 (for entrepreneurs) were declared for subsidizing renewable energy investments. The aim of these applications is to replace conventional energy sources with renewables, to contribute to the improvement of environment pollution and to adapt to the energy policy of the European Union. The disposable amount for NEP-6 was HUF 140 million and HUF 180 million for NEP-7. In 2004 NEP-2004-5 (for municipalities and private individuals) and NEP-2004-6 (for

entrepreneurs) deal with renewable energy investments, both with an amount of 100 million HUF.

The program has stopped to accept new application in mid 2004, but the all of the earlier accepted applications were financed.

Basic data of tendering system for state budget support

Year	No. of proposals received	Total budget available (Million HUF)
2001	5076	3000
2002	8996 (till August 2)	4500
2003	5428 (till July 22)	3400
2004	4779 (till May 15)	2514 + EPIOP 1200

### **EU co-financed programs:**

- **Environmental Protection and Infrastructure Operative Program (EPIOP)**

After the EU accession a new program, the Environmental Protection and Infrastructure Operative Program 2004-2006 plays the eminent role. The total grant (from EU and Hungarian budget) is 20 M EUR's.

The objective of the program: increasing the ratio of renewable energy resources, increasing energy efficiency, decreasing CO<sub>2</sub> emission and enhancing regional development.

Maximum value of support: 300 million HUF. (No limit of project cost.)

EPIOP non-refundable supports for RES

Definition of activity	Maximum support available [%]	
	<i>Small and medium enterprises</i>	<i>Other proposers (institutional, government, etc.)</i>
Support for providing fuel material to equipment producing renewable energy, support to reconstruction of equipment in order to produce renewable energy, establishment of systems producing wood chips, pellets, straw bale making equipment, vegetable oil presses.	30%	40%
Support to the establishment of projects utilizing renewable energy sources	Biomass based projects	40%
	Geothermal energy based projects	30%
	Sun collector systems	30%
	Wind power plants	25%
	Photovoltaic projects	45%
Small capacity hydro power plants (up to 5 MW)	20%	35%
Projects for remote communities: District heating systems of anchor ring type for small settlements for utilization of biomass or geothermal energy, or landfill gas	Not applicable	60%
Support to energy efficiency development of municipalities: modernization of energy system for buildings, institutions, reconstruction of district heating systems, application of co-generation	Not applicable	40%
Support to energy efficiency development s: reconstruction of energy supply of buildings, co-generation, modernization of technologies, utilization of waste heat in case of district heating producers and suppliers, reconstruction of district heating systems.	30%	Not applicable

- **Intelligent Energy – Europe (EIE)**

Hungary as a member state participate in the EIE Community's support program which is for non-technological actions in the field of energy efficiency and renewable energy sources with the duration 2003-2006. The program is intended to support the European Union's policies in

the field of energy as laid down in the Green Paper on Security of Energy Supply, the White Paper on Transport and other related Community legislation.

- **Phare Energy Efficiency Co-financing Scheme**

There was 5 million EUR Phare support available for energy saving projects at the beginning of the program (currently it is more than 7 million EUR). The form of the support is a co-financing scheme which provides interest free credit for 25% of total project cost. The system is in operation up to 2008, afterwards the remaining sources will be spent also on energy saving purposes in Hungary.

### **Other National and International Co-financing Programs**

- **Hungarian Energy Efficiency and Co-financing Program (HEECP)**

The objective of the program is to facilitate energy efficiency investments in Hungary, and it is financed mainly by IFC (International Financial Corporation) and GEF (Global Environmental Fund).

The volume of the program has increased from February 2001, and the following resources are currently available:

16 million USD for bank guarantee

550 000 USD for technical aid

500 000 USD for the operation of the program

The direct objective of HEECP is to promote financing of energy efficiency in the Hungarian banking sector. Besides providing guarantee, HEECP helps the participating financial institutions in the marketing of energy efficiency and also the technical and financial preliminary preparations of the projects.

- **UNDP/GEF Project – Financial Support to Energy Audit and Feasibility Study to Municipalities**

The UNDP (United Nations Development Program) and the Hungarian Government have signed an agreement for a 5 year project with the objective to improve the energy economy of the Hungarian municipalities. The project is financed from UNDP resources.

- **Energy Saving Credit Fund (German Coal Aid)**

Objective: replacing traditional energy sources with renewable energy sources, as well as waste energy, establishing the conditions of energy saving utilization of energy resources, decreasing or eliminating energy losses at minimum costs.

## **Cooperation**

### International Energy Agency (IEA)

Hungary as a member country plays an active role in the Energy Efficiency Working Party activity.

### Energy Charter

Hungary signed the Energy Charter Treaty on February 27, 1995, and the Parliament ratified it with its decision of 28/1998/III.18). With the Act of XXXV/1998 it became the part of the Hungarian legislation. Based on this Hungary has active participation in the working groups including the Working Group on Energy Efficiency and related Environmental Aspects.