Instruments and Options for Environmental Policy during the Accession Process of EU Associated Countries in the Area of Environment and Energy

Country Report Slovenia

Final Report to the R&D Project No 298 97 336 for the Umweltbundesamt

April 2000

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List of Acronyms and Abbreviations

APE	(private) Agency for Energy Restructuring
AURE	Agency of RS of EE
DE	Drava (hydro) Power Plants
DEMOS	coalition of new parties, winner of election in 1990
DESUS	Democratic Party of Pensionists
ECOs	Environmental Citizen Organisations
EE	Energy Efficiency
EGS-RI	Slovene Energy System R&D Institute, GO
EIMV	Electricity Institute Milan Vidmar
EL- Prim	Primorska (SW) Distribution Company
EL-Ce	Celje Distribution Company
ELES	Electro-Slovenia; transmission and system operation company
EL-Gor	Gorenjska (NW) Distribution Company
EL-Lj	Ljubjana (Central and SW) Distribution Company
EnDF	Enviornmental-Developmnt Fund of RS
GO	Governmental Organisations
HMZ	Hydrometeorological Institute of RS (part of MoE)
ICISA	International Commission for Independent Safety Analysis of NEK
IJS –CEU	Centre of EE of Institute Jozef Stefan
IMAD	Institute of Macroeconomic Analysis and Development -GO
JUGEL	Transmission Pool of SFRY
LDS	Liberal Democracy of Slovenia - political party
ME	Ministry of RS of Energy (till 1992)
MEA	Ministry of RS of Economic Affairs
MERD	Ministry of RS of Economic Relations and Development
MF	Ministry of RS of Finance
MoE	Ministry of RS of Environment and Physical Planning

NEK	Nuclear Power Plant Krsko
NEAP	National Environmental Program
NEP	National Energy ActionProgram
NGO	Non Governmental Organisations
Resolution	Resolution on Rational Supply and Use of Energy
RS	the Republic of Slovenia
RTH	Trbovlje-Hrastnik Coal Mine
RLV	Velenje Lignite Mine
SDS	Social Democrats of Slovenia - political party
SE	Sava (hydro) Power Plants
SE-F	Slovenian E-Forum – expert based NGO-ECO
SFRY	Socialist Federal Republic of Yugoslavia
SKD	Slovene Christian Democrats - political party
SLS	Slovene Peoples Party - political party
SoE	Soca (hydro) Power Plants
TEB	Thermal (gas) Power Plant Brestanica
TES	Thermal Power Plant Sostanj
TET	Thermal Power Plant Trbovlje
WEC-Slo	World Energy Congress - Slovene Section; expert NGO
ZLSD	United List of Social Democrats - political party
ZVO	Zakon o varstvu okolja – Environemntal Protection Act
TPES	Total Primary Energy Supply
ZS	The Greens of Slovenia - (disintegrated) political party

1 Introduction

More than four years ago the European Union (EU) decided to start negotiations on accession with possible new member countries. The Czech Republic, Estonia, Hungary, Poland and Slovenia were the first countries to be accepted into the formal accession process. These countries are accordingly the called Accession Countries.

With regard to the leading role of the EU and of individual countries such as Germany in climate protection policies and strategies in general, it is important to consider the impact of the accession process on EU climate policy. CO_2 emissions of the Accession Countries amount to at least a fifth of the carbon dioxide emissions of all 15 EU countries. Accession countries' CO_2 emissions will not influence EU commitments for the first commitment period from 2008 to 2012. However, it is important to pay early intention to the Accession Countries, because they will be included in the European commitment for the second commitment period beginning 2013.

Taking this into account, the German Environmental Protection Agency (Umweltbundesamt) commissioned a comprehensive study to analyse the options and capabilities of the five Accession Countries in the field of environment and energy. This study was carried out by research institutes in Germany in co-operation with research institutes in the five Accession Countries. The study included the analysis of the most important issues, namely:

- Status quo and development of the energy sector and structural CO_2 mitigation options;
- Legal gap assessment and analysis of performance in the accession process;
- Identification of implementation patterns through detailed policy analysis;
- Evaluation of co-operation projects in the field of environment and energy in order to develop new projects that promote the accession process.

This volume includes the analysis with regard to each of these topics, which has been carried out by the co-operation partners in the accession countries. These contributions have been compiled to country reports for each of the five accession countries. Section 2 of this report shows the results of the legal gap assessment. In section 3 the results of the policy assessment are documented. Existing co-operation projects that have been identified as best practice are described in details in section 4. Additionally there are several tables of data relevant for the field of energy and environment and overview tables about the accession process and the screening of existing co-operation projects in the appendix to this report.

The overall analysis of all five accession countries has been compiled to the main report, which includes also the conclusion and recommendations that have been derived from this co-operative investigation and research process.

2 Legal Gap Assessment

In Slovenia, the new Energy Act (Off. Gaz. Of RS, No. 79/99) has been adopted on September 30, 1999. The first orientation in drafting this law has been to open the energy market or markets as little as possible, i.e. to the minimum of required amount. Due to this, the draft provided for two markets in electricity and natural gas, the captive market composed of non-eligible customers and characterised by special and exclusive rights to supply, and open market where eligible customers could choose their supplier. It also introduced a very complex system of licensing eligible customers and negotiated third party access which could both make the market opening less effective. But, later drafts of the law and particularly the adopted text which has come into force on October 15, 1999, reversed this strategy. Partly based on experience of EU countries with market opening and partly due to the pressure of large electricity and gas consumers, the law now provides for considerable market opening, particularly in electricity.

This law is intended fully to transpose the directives treated in this presentation. However, it has only been adopted and is far from being implemented yet. It requires considerable amounts of secondary legislation, which needs to be prepared and adopted. Because of this, there are considerable implementation periods of the law, in particular with market opening and establishment of independent regulatory agency (Energy Agency).

2.1 Directives (Existing and Proposed)

2.1.1 Liberalisation of the Electricity Market

This issues are covered by the above mentioned Energy Act, particularly Chapter IV/a – Electricity Supply.

2.1.1.1 Objectives/Substantive Requirements

Existence of rules for generation, transmission and distribution. The above mentioned chapter, together with other provisions of the law, regulates these activities.

The EU Directive contains the definitions of transmission and distribution, which is important in determining the scope of the regulation. *Both transmission and distribution are defined as in the directive, i.e. transmission is transport on transmission system (defined as high-voltage system), while distribution is transport on distribution system (defined as system from transmission system to the final consumer).*

Entitlement of production of electricity; definitions of independent producers and auto-producers. A share of the market which is accessible for them. All electricity generation is subject to authorisation including independent producers and auto-producers. Independent producers are not defined since there is no tendering procedure provided for.

All customers consuming on a consumption site more than 41 kW, and all distributors, are eligible customers. This will be applied 18 months after the law will come into force (April 1, 2001). This represents about 60 to 65 % market opening, but up to 2003 it relates only to generation in Slovenia which will fulfil the requirements of the directive in 2003.

2.1.1.2 Institutional Requirements

For construction of new generation capacity there must be an authorisation or a tendering procedure - together with the responsible authorities. As mentioned above, the Slovenian law provides for the first solution – all electricity generation is subject to authorisation.

If there is a tendering, the responsible body should be independent. This body should draw up an inventory of new means of production, including replacement capacity. This is not applicable for Slovenia.

MS shall designate or require undertakings with transmission systems to designate a system operator, who is responsible for ensuring and maintenance of the transmission system. Transmission system operator is in principle the entity or entities performing transmission of electricity, which is appointed by the Government. The Government may appoint only one transmission operator for the whole territory of Slovenia, but needs to appoint at least one. This entity or entities are responsible for co-ordination, operation and maintenance of the system.

The same should be done in case of the distribution system. Here the system operator is also responsible for the operation, maintenance and development of the distribution system and in addition to these for dispatching of generating installations. Distribution system operators are entities performing distribution of electricity, which are appointed by the Government. These entities are responsible for co-ordination, operation and maintenance of the system.

Energy Law requires non-discriminative dispatch following economic precedence. However, priority may be given to qualified producers (co-generation, generation from waste and renewables) and up to 15 % to domestic primary fuel (basically coal).

MS shall develop and publish technical rules, establishing minimum technical design and operational requirements and other conditions for the connection to the system of generating installations. The Energy Act requires adoption of Network Code, which is to define closely the technical and other conditions for connection and inter-connection of the networks. The Code is to be prepared for each network by the system operator and submitted to the Minister, responsible for energy, for adoption and publication.

The distributor companies have to ensure the secure, reliable and efficient distribution system and have to operate with due regard for the environment. There is a general rule in Energy Act, in Article 2, according to which supply with energy should be carried out

with due account to the protection of the environment. More detailed rules on protection of environment are contained in Environmental Protection Act (Off. Gaz. RS, No. 32/93), which includes general obligations on using best available technique, provides specific emission limits and requires environmental impact assessment for practically all energy projects.

As concerns the secure, reliable and efficient distribution requirements, these are public service obligations. The Energy Law defines transmission, distribution, transmission system operation, distribution system operation and organisation of electricity market as public services. This relates to Trading Public Services Act which defines PSOs (security and regularity of supply, universal service, price controls). In addition, Energy Law includes a special chapter on relation between entities performing public service in energy sector, and the consumers. It requires general access to the service under published and equal terms and provides or legal remedies, available to consumers in case of denial of access.

MS may require the system operators to give priority to generating installations using renewable energy sources or waste or producing combined heat and power. As mentioned above, priority is given in dispatching to qualified producers, i.e. which use cogeneration, generation from waste and renewables. However, this priority relates only in the same economic conditions, otherwise economic precedence is required.

MS shall designate an authority to settle disputes on negotiations and refusals of access to the systems. The Energy Law establishes Energy Agency as independent regulatory body. It has the status of special legal person and more or less independent financing. Its main powers are settling disputes on access to the system and negotiations, issuing licences (they are separate from authorisations) and sets prices of access the system.

2.1.1.3 Procedural Requirements

For construction of new generation capacity there must be an authorisation or a tendering procedure. Criteria for granting authorisations: safety and security, environmental protection, land use and siting, the nature of the primary energy sources or energy efficiency. These criteria have to be public. Authorisation for new generation capacity is granted by the Minister responsible for energy in administrative procedure. Conditions for the authorisation relate to safety and security of operations, location or area of the facility, the nature of primary energy sources, energy efficiency and may contain special requirements for the technical, economic and financial capabilities of the operator. More detailed conditions for different types of generation capacities are to be published in ministerial regulations.

It should be mentioned that in addition to energy authorisation in case access to natural resources is required for generation (e.g. hydropower generation) concession to use natural resource must be acquired. This concession is granted by the Government in a special procedure according to the Environmental Protection Act. This procedure entails

so called concession act being adopted by the Government or the Parliament, public tendering process and conclusion of a concession contract. The necessary energy authorisation must be obtained before concluding this contract for the natural resource.

In case of refusal of an authorisation, the applicant must be granted the right to refer to an appeal procedure. According to Slovenian administrative procedure, there is no appeal to a ministerial decision, but only judicial review. This also applies to refusal of authorisation.

Access to the transmission or the distribution system

a. *negotiated access (supply contracts on voluntary commercial agreement basis)*
b. *regulated access (giving eligible customers a right to access, with published tariffs)*
c. *single buyer system. (within a territory covered by the system operator, but the tariffs should be published and eligible customers are free to conclude supply contracts outside the territory or directly with the producers inside the territory).*

The Energy Law provides for regulated access to the electricity transmission or distribution system, to which eligible customers and producers are entitled. Prices for use of the system are defined and published by the Energy Agency. Disputes on access are decided by Energy Agency, too. There is no single buyer entity provided for.

2.1.1.4 Monitoring and Reporting

Mechanisms for regulation, control and transparency, to avoid any abuse of dominant market position especially to the detriment of consumers. *The Energy Law has no special provision on abusing the dominant position, so general rules on this issue defined in Protection of Competition Act (Off. Gaz. RS, No. 18/93) apply. Only in case of entities performing public service, there are special provisions in the Energy Law on general access to the service under published and equal terms and on legal remedies, available to consumers in case of denial of access or termination of service.*

Notify the Commission about the technical rules to ensure the interoperability of the systems. These rules will be included in Network Codes (when they are adopted and published) and there will be no problem in notifying them to the Commission. There is, of course, no legal provision about it yet.

2.1.2 Liberalisation of the Gas Market

This issues are covered by the above mentioned Energy Act, particularly Chapter IV/b – Natural Gas Supply.

2.1.2.1 Objectives/Substantive Requirements

The gas market shall be open to eligible customers (entities to which natural gas can be sold), at the very least, gas fired power generations, irrespective of their annual con-

sumption and other final customers consuming more than 25 million cubic meters of gas per year (15 in 2003 and 5 in 2008). The result of the broad enough definition shall be an opening of the market equal to at least 20 (38, 43)%. According to the Energy Law, all customers consuming on a consumption site more than 25 m^3, all distributors with that off-take and all gas fired power generators regardless of their consuption, are eligible customers after January 1, 2003. After January 1, 2006, the 25 m^3 limit is reduced to 5 m^3. The market opening is at first slower than required by the directive, but after 2006 it is even quicker that the required minimum.

Distributors shall - having taken into consideration the economic condition - operate, maintain and develop a secure, reliable and efficient system with due regard to environmental protection. There is a general rule in Energy Act, in Article 2, according to which supply with energy should be carried out with due account to the protection of the environment. More detailed rules on protection of environment are contained in Environmental Protection Act (Off. Gaz. RS, No. 32/93), which includes general obligations on using best available technique, provides specific emission limits and requires environmental impact assessment for practically all energy projects. This, of course, also applies to distribution of natural gas.

As concerns the secure, reliable and efficient operation requirements, these are public service obligations. In gas, the Energy Law defines transmission, distribution and transmission system operation as public services. This relates to Trading Public Services Act which defines PSOs (security and regularity of supply, universal service, price controls). In addition, Energy Law includes a special chapter on relation between entities performing public service in energy sector, and the consumers. It requires general access to the service under published and equal terms and provides or legal remedies, available to consumers in case of denial of access. The requirements of the directive in relation to distribution are therefore met.

2.1.2.2 Institutional Requirements

Authorization for the construction, operation of natural gas facilities, supply of natural gas and wholesale distribution and the competent authority responsible for it. This issue is extremely complex in natural gas since it is connected to legal regulation of certain activities defined in Slovenian law as public services. The law (Public Services Act, Off. Gaz. RS, No.32/93) provides for a limited number of possible ways of performing public service. The Government can basically opt between establishing a person of public law (e.g. public enterprise) to this aim or tendering for concession. If certain energy activity or business is defined as public service in the law, there is no possibility of authorisation in the sense of both directives.

The basic idea in the draft energy law has been to retain the framework of Public Service Act limiting public services to the activities which are subject to tendering and/or exclusive and special rights. Where more open access to the construction and/or operation of a facility is required by EU law the law was intended to introduce energy authorisations.

Authorisations were to be granted for the construction or operation of each individual energy facility, except when such a facility was operated as a public service by a public body or under a concession according to the Public Trading Services Act.

However, in the process of adopting the Energy Act, this idea got confused and the law is not quite consistent any more. Transmission of natural gas is defined public service, but in addition energy authorisation is required, while gas distribution is only subject to concession tendering procedure (unless public entity is established).

In short, Energy Law provides that for each gas business except gas distribution (including beside above also storage and LNG facility) energy authorisation is needed. The conditions for this authorisation are defined in ministerial regulation, identically for similar type of operation, and are published in Official Journal. The requirements of the directive are therefore met, except for gas transmission, where in addition to authorisation tendering for concession is required, which may not be completely in line with the directive. For distribution, according to Art. 3/3 of the directive, the authorisation requirement is not introduced and it is solely subject to concession tendering procedure.

An authority designated for the settlement of disputes on negotiations on the access to the systems and on the refusal of access. The Energy Act establishes Energy Agency as independent regulatory body which has the status of separate legal person and independent financing. Its main powers are settling disputes on access to the system and its refusal and issuing licences which are separate from authorisations.

2.1.2.3 Procedural Requirements

Criteria and procedures for granting permit and their publicity. The conditions for this authorisation are, according to Energy Act, to be defined in ministerial regulation, identically for similar type of gas facility or operation, and published in Official Journal. These conditions should relate to safety and security of operations, location or area of the facility, the nature of primary energy sources, energy efficiency and may contain special requirements for the technical, economic and financial capabilities of the operator, which go beyond the necessary licence.

Licence (what Energy Law in Slovenia calls “licence for energy activity”) is exclusively limited to applicants characteristics, basically adequate number of expert employees, adequate capital and financial resources. More detailed conditions for licences are to be defined is special Governmental decree. The licences are not tendered but are issued by Energy Agency (an independent regulator) to everybody that fulfils the conditions. The licence can be revoked basically for two reasons: if the licensed person does not fulfil the conditions any more or if he operates contrary to the law, rules and regulations or energy authorisation. A licence is needed to acquire authorisation or tender for concession (e.g. gas distribution).

Regarding conditions, procedures and publicity of authorisations, the requirements of the directive are met

In case of refusal the applicant and the Commission shall be informed of the reasoning. According to General Administrative Procedure Act (which applies for issuing of authorisations and licences) reasons must be given for each decision, not only for refusal.

Existence and availability of technical rules of the connection to the system of LNG (liquefied natural gas) facilities, storage facilities and other transmission and distribution systems and direct lines. The objectivity and non-discriminatory nature of them. *The Energy Act requires adoption of Network Code, which is to define closely the technical and other conditions for connection and inter-connection of the networks. The Code is to be prepared for each network by the system operator and submitted to the Minister, responsible for energy, for adoption and publication.*

Energy Law also explicitly requires non-discriminatory treatment of consumers by gas suppliers, and requires exchange of information in case of interconnected systems. The requirements of the directive are therefore met.

Access to the system (negotiated, regulated or both). Different from electricity, in natural gas Slovenia has opted for negotiated access in the new law. Transmission or distribution system operator has to publish yearly indicative prices and other commercial conditions of access. There is an element of regulated access involved here since the Minister, responsible for energy, has to approve these terms. The reasons to deny access are identical to the directive, i.e. lack of capacity, PSOs and take-or-pay contracts.

Up-stream network access is not regulated specially in the law. The law simply applies the provisions of access to transmission or distribution network also to up-stream network. This is more stringent than required by the Directive, but the reason is simple – there is practically no up-stream network in Slovenia, and surely none that would require access to. Since there are no known deposits of natural gas in Slovenia, this simple solution was considered to be enough.

2.1.2.4 Monitoring and Reporting

Yearly publication of the criteria for being eligible customers. Yearly publication of these criteria is not necessary, since they are clearly defined in the Energy Act, which is, of course, published. Of course, this information can be sent to the Commission.

2.1.3 Energy Taxation

This issue is dealt with Excise Duties Act (Off. Gaz. RS, No. 84/98) and its secondary legislation. The act is implemented from July 1, 1999.

2.1.3.1 Objectives/Substantive Requirements

Minimum excise duty rates for mineral oils (e.g. leaded, unleaded petrol, gas oil, heavy fuel oil and kerosene); exemption: when they are used as raw materials; in the future: expansion to include all energy products (including mineral oils, natural gas, solid en-

ergy products and electricity). The excise is imposed on mineral oils and LPG, covered in the directive. All the exemptions of the Excise Duties Act are included also in the directive and the act covers all the mandatory exceptions of the directive. The excises are imposed in fixed values per 1,000 l, and per 1,000 kg in case of LPG and heavy fuel oils. The approximate levels are as follows:

Table 1: Excise Duty Rates

Fuel	Unit	Rate	Comment
leaded petrol	EURO per 1,000 l	440	far above the required in directive
unleaded petrol	EURO per 1,000 l	400	far above the required in directive
gas oil for propulsion (motor fuel)	EUR per 1,000 l	350	far above the required in directive
gas oil for heating	EURO per 1,000 l	25	below the required in directive
liquid petroleum gas for propulsion	EURO per 1,000 kg	200	far above the required in directive
liquid petroleum gas for heating	EURO per 1,000 kg	0	below the required in directive basically, this is an exemption
kerosene for propulsion	EURO per 1,000 l	350	far above the required in directive
kerosene for heating	EURO per 1,000 l	25	below the required in directive

Electricity and solid energy products are not subject to excise duty.

Other exemptions or special rules according to use (energetic, special industrial and commercial rules, heating) or to branches of industry. See above – for heating, the excise duty is very low or non-existent.

Mineral oils other than enlisted, but intended or used as heating fuel or motor fuel. Other mineral oils, additives and extenders, used as heating or motor fuel, are subject to the same excise duty, depending on their use.

2.1.3.2 Institutional Requirements

Existence of tax authority. For the collection of excise duties is responsible Customs Administration and is performing its tasks regularly. This institution is established and running.

2.1.3.3 Monitoring and Reporting

Monitoring the charge and collection of excise duties; informing the Commission on laws, regulations and administrative provisions. The Customs Administration is effectively charging and collecting excise duties on mineral oils. There will be no problem communicating necessary information to the Commission.

2.1.4 Large Combustion Plant Directive (and Proposed Revision)

The issues of this directive are dealt with in Slovenia in Environmental Protection Act and certain pieces of secondary legislation, adopted on its grounds, namely the Decree on Emission of Substances into the Atmosphere from Combustion Plants (further the Decree), and Regulation on Operational Monitoring and First Measuring from Immobile Pollution Sources 1969 (further the Regulation)

2.1.4.1 Objectives/Substantive Requirements

Emission standards on SO_2, NO_x and dust. Total emission limit from existing plants; individual emission limits on new plants. The Decree distinguishes small, medium and large combustion plants with different emission limit values, but in all cases at least medium plants are above 50 MW limit. This applies also for petrol and gas fired plants, so there are no exceptions regarding the directive. However, the limit values, provided in the Decree, are not completely compatible with the values in the directive, much less with the proposed revisions in relation to NO_x emissions of gas turbines. Due to this, Slovenia plans to amend the Decree so that full transposition will be achieved in year 2000. There is no distinction of new and existing installations and the gas are in emission limit values.

The scope: combustion plants with a rated thermal input equal to or greater than 50 MW. The Decree applies to all plants, however, the medium plants limit is in most cases this.

Exemptions: plants making direct use of the products of combustion in manufacturing processed; plants powered by diesel, petrol or gas engines or gas turbines. There are no such exemptions in the Decree.

Programs for phased reduction of total annual emission from existing plants. As mentioned, there is no distinction between existing and new plants in emission values. There is, however, a certain phasing in for existing installations provided for: for small plants up to July 2000, for medium up to July 2002 and for large ones up to July 2004.

2.1.4.2 Institutional Requirements

Competent authorities for the licensing and monitoring, plus reporting obligations. There are established and operating necessary authorities for licensing and monitoring. Environmental Protection Act requires environmental impact assessment and environmental approval by the Minister of Environment and Physical Planning in the process of issuing construction permit for a large combustion plant. Control and supervision is performed by Inspectorate for Environment and Zoning.

In case a new combustion plant is likely to affect the environment in another MS it must be consulted appropriately, and the results of the consultation shall be taken in due

account in decision-making within the frames of EIA process. There is no requirement to inform and consult neighbouring countries in Slovenian law.

2.1.4.3 Procedural Requirements

Licensing system for all combustion plants. Conditions relating to emission limits, discharge conditions and procedures relating to the malfunction or breakdown of the abatement equipment. As mentioned, there is environmental approval (basically a licence) required for all combustion plants. Procedure for granting ministers approval and construction permit is generally regulated in General Administrative Procedure Act, while certain specifics are regulated in Environmental Protection Act. In this procedure, emission limits are particularly controlled. The cases of malfunction or breakdown are subject to necessary measures of inspectors, including closing down the plant. Licences are included in ministers approval and construction permit.

Environmental approval should contain emission limits and discharge conditions, but there is no strict provision that it should contain procedures relating to the malfunction or breakdown of the abatement equipment.

2.1.4.4 Monitoring and Reporting

Emissions from new plants of more than 300 MW must be measured on continual basis, others must be measured regularly as approved by the competent authority. Operators have to report to the authorities on the results of continuos measuring. The Decree and the Regulation require continuous monitoring of combustion plants above certain value, regarding their fuel and date of construction, but all fall below the 300 MW limit of the directive. Other plants are to be monitored regularly.

Scientific institutions must be approached to monitor on behalf of the government. Organisations performing monitoring are licensed and subject to certain public service obligations to guarantee their impartiality. In licensing procedure, they have to show their scientific expertise.

2.1.4.5 *Recent Developments related to the Directive*

The scope of the Directive is going to include gas turbines NO_x emissions. As mentioned, Slovenia plans to amend the Decree to include NO_x emissions of gas turbines, but there is no definite draft prepared yet.

2.1.5 The SAVE Directive

The aims of Directive 93/76/EEC – to limit carbon dioxide emissions by improving energy efficiency are explicitly included in the Energy Use and Supply Resolution of 1996, the basic policy document of Slovenian National Assembly. However, legal transposition is achieved by Energy Law and thereon based secondary legislation.

2.1.5.1 Objectives/Substantive Requirements

Limiting carbon dioxide emissions by improving energy efficiency. Energy Act includes a whole chapter (chapter IX) on energy efficiency and use of renewable resources. In this chapter, emphasis is given also to this objective.

2.1.5.2 Institutional Requirements

Authorities to enforce the programs. These requirements are mostly met since there are established and operating necessary authorities for implementation of these programs, in particular Agency for Rational Use of Energy and Energy Inspectorate. The only difficulty may be in the necessary number and capacity of bodies certified for energy audits and certifications.

2.1.5.3 Procedural Requirements

Programs on six policy areas: what is mentioned below refers to legal obligations; different programs are prepared and implemented by the Agency for Rational Use of Energy in all below mentioned areas;

energy certification of buildings: Energy Law empowers the minister, responsible for energy, to regulate certification of buildings in his regulation, but no such regulation has been adopted yet; except for this, the law has no provisions on energy certification of buildings;

individual billing of heating, hot water and air conditioning: it is not explicitly required by law, but practised by the suppliers; however, in older buildings it is in many cases not done due to technical limitations;

third party financing: there are no laws or plans in relation to this; in private sector there are no limitations to this; in public, however, there are certain difficulties arising from public ownership of buildings, budgetary laws and regulations and public procurement rules, which will require specific regulation;

thermal insulation: there is special Minister's Regulation on acceptable heat losses from buildings from 1979 (dealing with thermal insulation and ventilation of buildings), but is rather out of date;

regular inspection of heating installations above 15 kW: no such legal requirement in Slovenian law yet;

energy audits: these are provided in draft Energy Law but will require further regulation in secondary legislation following this law.

2.1.5.4 Monitoring and Reporting

Reporting to the Commission. There will be no difficulty in implementing the obligation to report to the Commission, since there is no legal obstacle to it. The information will, of course, need to be acquired by the Agency.

2.1.6 Directives on Labelling of Consumption of Energy

Council Directive 92/75/EEC on the indication by labelling and standard information of the consumption of energy and other resources by household appliances, together with implementing directives, will be transposed in secondary legislation based on the new Energy Law.

2.1.6.1 Objectives/Substantive Requirements

Product labelling and information on the energy consumption of products:

- refrigerators, freezers
- washing machines
- dishwashers
- ovens
- lighting sources
- water heaters and hot water storage appliances
- air conditioners

These objectives are not met yet for any of the above household appliances. In Slovenian law, there is only the Decree o defining criteria or energy efficiency, reduced use of potable water and reduced environmental discharges from certain household products (1996), based on Income Tax Act. This decree, although referring to the implementing directives for this directive, does not cover the labelling and information giving requirement, is not covering all the necessary appliances and is intended solely or income tax reduction. But actually, in most cases the labels are already attached to these appliances, since Slovenian producers need to export these appliances to EU and therefore meet this obligation.

Energy Law introduces labelling obligation on producers and importers of these appliances and empowers the Minister, responsible for energy, to regulate them in detail (measuring methods, contents, etc.). However, none of these regulations has been adopted yet.

The location and the language of the label. Energy Act has no provision on this, so it will need to be dealt with in secondary legislation. It is quite clear, that according to the Constitution the labels will need to be in Slovenian language, while another language (e.g. English) may be added.

Labelling in the case of mail order products. Energy Act has no provision on this and it is referred to the secondary legislation.

2.1.6.2 Institutional Requirements

A competent authority might be established. There are established and operating necessary authorities for implementation of the above objectives, in particular Ministry of Economic Affairs (responsible for energy), Agency for Rational Use of Energy and Market Inspectorate.

2.1.6.3 Procedural Requirements

Free of charge provision of all labels and information. Energy Act has no provision on this and it will need to be provided in the secondary legislation. In practice, however, there are no cases of additional payment being requested for the product information or for the labels.

Responsibility for the accuracy of the information. According to energy act, labelling has to be done by the producers and importers of the products. When according to Minister's regulation the label is mandatory, the product cannot be put on the market without the label. Act on Protection of Consumers (Off. Gaz. RS, No. 20/98) requires any label of a product which has been put on the market has to reflect truly the properties of the product and must not be misleading. There are also penalty clauses for the breach if this provision.

Maintenance of technical documentation of the products, e. g. test reports, design calculations for 5 years. There is no such requirement in the Energy Act, and it will need to be provided in the secondary legislation.

Educational and promotional campaigns on energy consumption to encourage consumer awareness on responsible energy use. These programs and campaigns are provided in the Energy Act. The Ministry, responsible for energy, has to implement them through its Agency for Rational Use of Energy.

2.1.6.4 Monitoring and Reporting

Reporting to the Commission. There will be no difficulty in implementing the obligation to report to the Commission.

2.1.7 Directives on Energy Efficiency Requirements for Household Appliances

Council Directive 92/42/EEC on efficiency requirements for new hot-water boilers fired with liquid gaseous fuels and Directive 96/57/EC on energy efficiency for household electric refrigerators, freezers and combinations thereof are not transposed yet. It will be done in secondary legislation based on the new Energy Law. This secondary legislation will probably be adopted in 12 to 18 months but for this particular issue no definite

timetable exist yet. This relates also to planned directive on energy efficiency of commercial lamp circuits.

2.1.7.1 Objectives/Substantive Requirements

Rules for water boilers fired by liquid or gaseous fuels with a rated output of no less than 4kW and no more than 4,000kW. There is no similar Hungarian regulation.

Rules for electric mains-operated household refrigerators, frozen food storage cabinets, food freezers and combinations. Planned rules: on commercial lamp circuits. These objectives are not met and there are no such detailed rules yet. However, Energy Law deals with this and empowers the Minister, responsible for energy (Minister of Economic Affairs presently), to regulate the required minimal energy efficiency of different appliances and products. Such regulation for refrigerators and freezers, as well as commercial lamps, has not been adopted yet.

Prohibiting placement on the market of those appliances which do not meet the harmonised standards. The new (1999) Act on Technical Requirements for Products and on Certification (Off. Gaz. RS, No. 59/99) empowers responsible inspectors (for energy and for market) to prohibit placing on the market products which do not fulfil the prescribed technical requirements, which includes energy efficiency requirements. This law also specifically acknowledges foreign markings following adequate international agreement, which in particular applies for CE marking.

2.1.7.2 Institutional Requirements

A competent body for verification of the compliance of the boilers with the efficiency requirements through procedures like granting of compliance label. These requirements are mostly met since there are established and operating necessary authorities for implementation of the above objectives, in particular Ministry of Economic Affairs (responsible for energy), Agency for Rational Use of Energy, Energy Inspectorate and Market Inspectorate. The requirement to appoint bodies responsible for testing is not met yet and it will be done in the mentioned secondary legislation.

2.1.7.3 Procedural Requirements

Symbol scheme (stars) to hot-water boilers with an efficiency superior to the requirements of the Directive. There is no such requirement at present and star system will need to be regulated in the above secondary legislation.

Examination procedure, and declaration of conformity. Act on Technical Requirements for Products and on Certification regulates this procedure and declaration of conformity, so these requirements are met. Also, this act empowers responsible inspectors (for energy and for market) to prohibit placing on the market products which do not fulfil the prescribed technical requirements, which includes energy efficiency requirements.

2.1.7.4 Monitoring and Reporting

Appointed bodies have to be notified to the Commission. The above mentioned Act on Technical Requirements for Products and on Certification regulates this and there will be no problem in notifying these bodies to the Commission.

2.1.8 Directive on Integrated Pollution Prevention Control

The Directive 96/61/EC concerning integrated pollution prevention and control is not transposed yet in Slovenian law. However, the necessary legal and institutional framework exists in Environmental Protection Act (Off. Gaz. RS, No. 32/93) and the transposition will done by amending it and amending a set of pieces of secondary legislation on limit emission values or adopting certain new ones. The legislation is being prepared, but there are no definite drafts yet nor timetable for its adoption.

2.1.8.1 Objectives/Substantive Requirements

Energy industries (combustion plants, mineral oil and gas refineries, coke ovens, coal gasification and liquefaction plants and others) represent the scope of the regulation. These industries are covered by Environmental legislation in Slovenia, in particularly by the Decree on Projects which are Subject to Environmental Impact Assessment (Off. Gaz. RS, No. 66/96). This also means that they are subject to "environmental approval", which may serve as basis for the required permits.

Integrated approach. Environmental Protection Act is based on integrated approach to pollution abatement, but the operational details required by this directive are still missing.

2.1.8.2 Institutional Requirements

Authorities which issue environmental permit with proper scientific knowledge to administer and control regimes for the environmental management of a number of industrial sectors. Each installation treated by this directive requires in Slovenia environmental approval before construction, and operational permit after construction and before it is put into operation. None of these permits is completely in line with the requirements of this directive yet, but will be met by either introducing a new environmental permit or changing the requirements and characteristics of operational permit.

The necessary institutions for permitting are established, however. Ministry of Environment and Physical Planning is responsible for environment and also issues environmental approvals, while and Inspectorate for Environment and Zoning is responsible for supervision. But, the problem will be co-ordination of different ministries and agencies in issuing the permit.

2.1.8.3 Procedural Requirements

Best Available Techniques for pollution abatement. Interpretation of techniques: used technologies, design, building, maintenance, operation and decommissioning. This requirement is not regulated yet in Slovenian law in any way.

Revision of all of already existing installations through a permitting regime with emission limits, multimedia approach and control measures. A great majority of already issued environmental approvals and operational permits in Slovenia (relating to existing installations) were issued for indefinite period of time. This means that the procedural requirements for permit revision will need to be prepared and carefully adapted to these permits in amending Environmental Protection Act. Considerable care should be given to Constitutional limitations on revising final administrative decisions, which the above permits or approvals are.

Emission limits taking into consideration of their transfer potential. Measures to protect soil and ground water and concerning waste management. Environmental Protection Act empowers minister, responsible for environment to prescribe limit values or other equivalent parameters. However, for a number of substances and pollution sources in the directive, these values are not prescribed yet, while some will need to be amended. Also, their transfer potential is not considered yet. In defining these values or in regulating permitting procedure, their transfer potential will need to be considered and they will need to be defined more flexibly.

Examination of the significant negative transboundary effects. None of this is regulated in Slovenian law.

Public participation. Permits are and will be issued according to General Administrative Protection Act. This law does not provide for public access of applications for the permit, public participation in the permit procedure and public access to permits. These requirements will need to be introduced.

Periodic reconsideration and updating of the permit. As mentioned, existing approvals and permits are issued for indefinite period. For future permits, their periodic revision and updating will need to be introduced. For existing installation this will need to be done gradually (year 2007 is a realistic target) and carefully, so as not to conflict with the Constitutional “certainty of law” clause.

2.1.8.4 Monitoring and Reporting

Authorities must regularly monitor whether the conditions of the permit are complied with or not. Monitoring is regulated in Slovenia Environmental Protection Act, and more in detail in several ministerial regulations on operational monitoring and measurements. This requirement is therefore met.

2.2 Decision and Programs

2.2.1 Law on Gradually Decommissioning of Trbovlje-Hrastnik Mine, Environmental Sanation of Thermal Power Plant Trbovlje II and Support to Development Reconstructing of the Region of Zasavje

After the proposed financial construction of construction of new coal fired power plant Trbovlje III (TET3) was rejected on national referenda on January 8 1999 and after Mrs. Tea Petrin replaced Mr. Metod Dragonja on function of Minister of Economic Affairs and Mr. Robert Golob was appointed as a new State Secretary of Energy in April, respectively May 1999, the Government changed its strategic approach with respect to the future of coal mining and electricity generation in Zasavje region (60 km East from Ljubljana). Instead of political and financial support (grants, subsides, credit guarantees) for construction of new 200 MW power plant which would neither be in-line with EU rules (ESCS 3632/93) on subsides nor would generating electricity at EU competitive price level, the Government has decided to finance retrofitting and SO_2 abatement units on existing 125 MW Thermal Power Plant Trbovlje II. It is provided that retrofitting activities and de-sulphurisation unit will be finished till 2004 at total costs of EURO 60 million. It is believed that TET2 will be after finishing "environmental modernisation" able to operate within the framework of valid emissions standards (Decree on Emissions for Heating Devices, Official Gazette of RS, No. 73/94). Both coal mine Trbovlje-Hrastnik and TET2 shall operate till 2015, when 4 year decommissioning period starts (total costs of decommission and environmental santion of mining area are estimated at EURO 350 million). In addition the state budget shall provide in period till 2019 approximately EURO 27 million for the activities which would compensate about 4,000 lost jobs in the region, which are related to coal mining and electricity generation activities.

The Law has passed the 2nd reading in National Assembly. For a time being it is not clear when the final reading will take place.

2.2.2 5th EU Framework Programme on Research and Development

Within approximately 1,000 project proposals from the field of energy efficiency and renewable energy (Non Nuclear Energy) which have been sent on the first tender of the 5th Framework Programme of EU Commission there are 8 proposals which are including the organisations from Slovenia. Since the documentation is still considered as non available to the public we can not give a detailed description of the proposals neither their title or the names of the institutions involved but only the general overview.

Most of the Slovene organisations are from technical faculties or institutes of University of Ljubljana and there is a couple of SMEs and two large privatised energy companies.

Three of eight projects has Slovene institutions as co-ordinators. Two of those programmes are of the international character. One of the co-ordinators is University entity

from the field of engineering and the other is large energy trade company. This project proposals are focused on integrated use of geothermal energy for sustainable development, OPET network and harmonisation of efficient use of energy with visual and thermal control based on fuzzy logic adoptive system.

The project proposals with one or more Slovene partner are dealing with following problems: impact of the energy technologies and policy instruments in industry for reduction of CO2 emissions, strengthened (more sustainable) production of energy from biomass in CEE, energy efficiency in retrofitted and new public buildings, JI in international emission reduction through energy companies in EU in CEE and Bruntland City Network.

Two project proposals are on Panel 8 - Renewable Energy in Buildings and on Panel 11 - Energy and RTD Strategy and there are single projects proposals on Panel 4 - Biomass (the co-ordinator is German agency for renewable energy sources), Panel 7- Solar Thermal and Other Renewable (one of the largest project proposals in financial terms) Options and Panel 12 - OPET.

2.3 Environmental Agreements

2.3.1 Energy Agreements

2.3.1.1 European Energy Charter

Slovenia has signed on December 17 1994 the Contract on Energy Charter.

2.3.1.2 Association Agreement with EU

The Agreement was signed in July of 1996. It claims that also the barriers (for example custom duties for imported energy i.e. energy carriers) for trade with energy, respectively energy carriers should be gradually removed. The Article 80. Is defining an adequate technical support on following areas:

- formulation and planning of energy policy on both national and regional level, including long term perspective;
- larger opening of energy market, including measures and activities which are facilitating the transport of natural gas and electricity; studies on modernisation of energy infrastructure;
- improved distribution with energy and diversification of energy resources;
- management of energy sector;
- development of energy resources;
- support to energy conservation and energy efficiency;

- studies on environmental impacts of production and use of energy;
- nuclear energy sector;
- electricity and gas subsector, including options for interconnection of supply networks;
- transfer of technology and know how can, if appropriate, also include support to energy efficient technologies, use of renewable energy and development of renewable energy technologies, including support of market penetration of above mentioned technologies.

The Article 81. is giving special provisions considering co-operation on the field of nuclear safety.

With respect to full EU membership the document is besides harmonisation of energy policy giving the emphasis to formation of obligatory reserves of oil and oil derivatives and gradual formation of theirs stocks for 90 days.

2.3.1.3 Convention on Long Range Transboundary Air Pollution and Subsequent Protocols to the Convention

Slovenia has inherited the obligations from Convention which was ratified by former SFRY on March 3. 1983. By its ratification in 1992 Slovenia took over also the obligations from Protocol to the 1979 Convention on Long Term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long Range Transmission of Air Pollutants in Europe, signed in Geneva on November 13. 11. 1979, which was ratified by former SFRY in 1987. (for both see: Official Gazette of RS, International Agreements, No. 35/1992). Slovenia signed in 1994 in Oslo also so called Second Sulphur Protocol which is aiming to reduce the differences between actual permitted SO_2 emissions and emissions which would not be harmful for environment. This aims are also quoted in national Resolution of Efficient Supply and Use of Energy from 1996. However the Protocol has not been ratified yet, although it is in the ratification procedure. Within the Negotiation Baselines for EU Accession Slovenia has promised that the Protocol will be ratified till November 30, 2000.

2.3.1.4 Framework Convention on Climate Change and Kyoto Convention

Slovenia has signed the Convention in Rio de Janeiro in 1992. The Convention was ratified in 1995 (Official Gazette of RS, International Agreements, No. 59/95).

Slovenia also signed at the end of 1997 so called Kyoto Convention on Climate Change, however the Convention has not been ratified nor a time frame for its ratification has been defined yet. However in July 1998 MOE issued Framework Strategy for Fulfilment of Obligations Steaming from Kyoto Protocol.

2.3.2 International Agreements On Air Pollution Protection

Within the package of ratification of inherited conventions and protocols of former SFRY (Official Gazette of RS, International Agreements, No. 35/1992) the following conventions and protocols which are relevant for the air pollution protection have been ratified:

- Vienna Convention for the Protection of Ozone Layer (Vienna, March 22, 1985)
- Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal, September 16, 1987)

A couple of months before this two international agreement also

- London Amendments and Adjustments to the Montreal Protocol on Substances that Deplete Ozone Layer, (London, June 29, 1990)

was ratified by National Assembly (Official Gazette of RS, International Agreements, No. 17/1992).

2.4 General Policies and Strategies for the Future

2.4.1 National Environmental Action Plan

At the end of September 1999 parallel to the Energy Law also the **National Environmental Action Plan** (NEAP) was adopted by National Assembly (Official Gazette of RS, No. 83/99). As one of five priority areas of activities the area of air quality and prevention of climate change is defined. Within air and climate protection the main emphasis is given to: reduction of air pollution from industry; reduction of emissions from thermal power plants, control of emissions from traffic, reduction of emissions from individual and collective heating devices in urban areas, reduction of causes of photochemical smog and troposphere ozone, abolition of ODS substances, reduction of emissions of greenhouse gases, control of problems of transboundary air pollution. The following measures for achievement of the goals and objectives in questions are provided:

- *Institutional strengthening*: enforcement of office for emission balances; monitoring of measures for reduction of GHG and their impacts; modernisation of monitoring of imissions;
- *Investments and technical measures*: de-sulphurisation facility on 5^{th} unit of Sostanj Thermal Power Plant; treatment/cleaning of gases from industry; continuing of switch fuel (from coal to gas) programme; investment in increased transport of goods on railway; measures for reduction of emission of CFC; measures for reduction of emission of NO_x, NH_3, VOC, CH_4 and CO_2; reduced emissions of heavy metals; operation monitoring system for prioritised polluters; collection and regeneration system for CFC, HCFC and HFC
- *Research*: zoning of the territory with respect to air pollution

- *Education, training and information service*: training for proper treatment of coolants in cooling and climatisation units in industry, trade and building sector; informing and training of public on regeneration of ODS and consequences of release of ODS substances in air; informing and education of public (industry, households, public sector) on energy conservation and efficiency through publications, exhibitions, expositions etc.

With respect to most important air pollutants the document is stating that the reduction of SO_2 emissions according to 2nd Sulphur Protocol was already achieved in 1986, the emissions of VOC are about 30% over the level defined by the corresponding protocol which however has not been signed by Slovenia yet, while the protocol on reduction of NO_x emissions which is under preparation would demand 42% decrease of emissions in comparison with 1987 as a base year. With respect to ODS (Montreal Protocol) the document is claiming for harmonisation of strategies in energy, transport, agriculture and forestry sector with air pollution prevention strategy and GHG reduction strategy. There are no strategies or measures defined for reduction of GHG emissions.

The other priority areas are: water protection, protection of bio-diversity, waste management and institutional strengthening of the environmental protection in general.

The document is however giving the largest emphasis on the protection of water, waste management and bio-diversity. The protection of water is seen as the highest priority with respect to EU accession since the actual state of the water protection and management is seen from the EU perspective as the most critical part of environmental protection in Slovenia and because it is expected that further expansion of economy will be water demanding. Within the negotiation process Slovenia is claiming for transition period of 10 years on the field.

From the national perspective the access to the EU is seen as a largest threat toward biodiversity since EU supported protection regime will come to force first after Slovenia will enter EU while there are many ongoing form EU supported plans and activities which are endangering biodiversity (highway construction and other infrastructure investments, for example). Thus one can expect that without additional targeting of "exogenous" actors the majority of "indigenous" actors on the field of environmental protection will be focused exclusively to three above mentioned areas where also the mayor institutional strengthening can be expected.

Thus in our opinion energy and climate issues can enter the policy agenda only as a part of well tuned strategy of an international network of the actors on the field which must be both well anchored in Slovenia as well as supported by Energy Directorate of EU Commission.

2.4.2 National Energy Action Plan (NEP)

The second document which will frame the national policy on the field of energy and environment is National Energy Action Plane (NEP). According to the Energy Law this

document must be finished within 18 months after the Law has came to force, i.e. till the end of March of 2001.

The activities on NEP has not started yet, however it is believed that the first steps will be made before the end of the year. Instead of giving the task for preparation of the draft of the document to a single expert institution - which was the case with the failed drafting process of NEP in 1996/1997 - Ministry of Economic Affairs decided to invite majority of the expert institutions and institutions with expert capacities on the field of energy in drafting of the document.

The scope, targets and goals of NEP as well as the methodology of drafting paper and the design and management of the process seems not to be clearly defined yet. It was officially only stated that NEP shall be operationalisation of policies which are incorporated within the Energy Law. It is however believed that strong emphasis will be given to energy efficiency and renewables, especial to setting national objectives and goals on both fields and to propose programmes and measures in support to energy efficiency and renewables.

2.5 Planned and Proposed Activities

2.5.1 Integrated Resource Planning Directive

Integrated Resource Planning in the electricity and gas distribution sectors. Only economically justified investments. Energy Law provides for mandatory 2 year plans of electricity and gas distribution companies but has no mention of the techniques to be used in preparing these plans. However, the Ministry, responsible for energy has the power to revise and approve these plans. In this approving the integrated resource planning technique could be required but legally it is not there yet.

Incentives for energy efficient consumer investments. In Slovenia, there is a public Environmental Development Fund established by the Environmental Protection Act. According to Regulation on the use of resources of Environmental Development Fund of Slovenia (Off. Gaz. RS, No. 75/97) it offers favourable loans and guarantees to finance or subsidise among others also energy efficiency programs. In addition to that, Ministry of Economic Affairs (responsible for energy) through its Agency for Rational Use of Energy launches programs and partly finances different energy efficiency investments by the consumers (efficient windows or heating systems, efficient light bulbs,…).

Management plans for low-income energy users. Such plans are not specified yet in Slovenia law. Energy efficiency plans ad programs are not depending on level of income.

2.5.1.1 Administrative requirements

An authority which controls the strategic development plans of the electricity and gas companies on increasing energy efficiency. As mentioned above this authority is Minis-

try of Economic Affairs, which has the power to approve mandatory 2 year plans of electricity and gas distribution companies.

2.5.1.2 Procedural Requirements

Integrated resource plan obligation of electricity and gas enterprises on how they want to meet future energy demand. As mentioned above, the Energy Law provides for mandatory 2 year plans of electricity and gas distribution companies. There is, however, no mention of integrated planning to be used in preparing these plans. The Ministry, responsible for energy has the power to revise and approve these plans and the integrated resource planning technique could be required in this procedure. But, legally it is not there yet.

Measurements disconnecting company profits from the volume of electricity and gas sales. Cost recovering by the companies. Distribution companies in Slovenia (electricity and natural gas) have tariffs controlled either by the Government (electricity) or municipalities (gas). This may cause difficulties in recovering the cost of demand side management programs. In addition, electricity distributors are not profitable, which may be another obstacle.

Third party financing. There aren't many problems with that in natural gas, but electricity distributors are at present public entities and there are limitations on them establishing daughter companies for third party financing. Otherwise, there are no limitations for this, however, the distribution companies would need incentives to do this.

2.5.1.3 Monitoring and Reporting requirements

Reviewing the implementation of economic measures. Reviewing national legislation. *There is no such legal obligation in Slovenian law, but the Ministry of Economic Affairs (Agency for Rational Use of Energy) has a project going on, the objective of which is to do exactly that.*

2.5.2 Feed in Directive (Renewables)

Fair entry of renewable energy to the electricity market. The requirements of this directive which will follow Resolution on the Commission communication: Energy for the future: renewable sources of energy - White Paper for a Community Strategy and Action Plan (COM(97)0599 C4-0047/98) are, of course, not yet clearly defined. The basic requirement will probably be equal access to the market of electricity from renewable resources. In Slovenia, Energy Law introduces the term "qualified producers", which includes producing electricity by co-generation, from waste and from renewable resources. Detailed conditions are to be prescribed by the minister, responsible for energy. The law also provides that qualified producers have certain advantage in access to the market, since the Organiser of the Market has buy primarily their energy, at least under the conditions of this market. However, this may not be enough and additional provisions will

need to be introduced in the law to guarantee fair access of qualified producers to the market.

3 Patterns of Regulation and Implementation

With respect to the Slovene energy policy one can recognise at very first the almost permanent absence of adequate legal basis but very long tradition and actors with deep roots but constantly changing legal status, the models of organisation and interaction. By introducing "town" gas in the city of Ljubljana over hundred fifty years ago when the territory of nowadays Slovenia was under rule of Habsburg i.e. Austro-Hungarian emperor and by first local electricity grids in towns of Kocevje and Ljubljana at the end of last century the modern supply of Slovenia with energy started.[1] The construction of first large (for that time) power plant Fala (40 MW) on Drava river near Maribor started just before World War I. The Swiss investors intended to supply industrial hard core of Austrian province of Styria (Graz) with electricity, yet the outcome of war radically change their market options. By constructing first large 70 km long transmission network before seven decades to less industrialised southern Styria as a part of Kingdom of Yugoslavia the electricity from at that time giant power plant started to compete with and replace small scale hydro power plants which supplied not interconnected small scale local grids. This was for generations of promoters of electrification of Slovenia a clear sign that the foreign investment both destroy domestic electricity supply and that market driven electricity supply can not provide (reliable) supply of most of Slovene population - living at that time in still predominately in (remote) rural areas - with the most advanced energy service of 20th century.

Since the second half of 19th century - after the railroad Vienna-Trieste was constructed - the expansion of brown coal mining in area of Zasavje started, followed in 1920s by opening of industrial exploitation of another larger scale coal (lignite) potentials in Saleska valley. Yet the concept of state supported electrification of whole country started first after Word War II. Only partial electrification of the country during "the capitalist times" which was partly the result of incapability of Slovenes to made larger capital joint ventures while on the other side a consequence that the Kingdom of Yugoslavia has not conceptually treated electricity as "natural monopoly" served the communist regime as a bases for starting a policy of systematic and ideologically performed electrification, based on confiscated or/and nationalised power plants, systematic expansion of the grid and destruction of small (hydro) private generation capacities and grids.

Relatively large hydro-engineering industry started from 1950s on, but since the best hydro potential was already used till the end of 1960s and the rest due to unstable fluvial regime could not assure reliable supply through whole year, the expansion of lignite fired power plants started. This resulted in large scale and trans-boundary air pollution, tackled by the environmentalist discourse at the beginning of 1980s, during the construction

[1] For detailed overview of chronological development of electricity sector in Slovenia see Fras and Valencic (1976) and Valencilc (1982).

of largest unit in Sostanj power plant. Contrary to hydro power plants the thermal power plants has never been equipped by substantial share of domestic machinery/equipment, however Yugoslavia as one of leading "non-aligned" nation was capable to open markets for large hydro turbines and electricity equipment in many developing countries till the beginning of eighties. Despite fast expansion of the grid and enlargement of capacities on Drava river, in Zasavje and Saleska mining area, the "black outs" occurred quite often till the Slovene electricity system as a part of JUGEL was not interconnected to UCPTE in early seventies.

The "black outs" was sometimes result of instrumentalisation of the electricity as a resource in political bargaining process between the (communist) political elite of the federal republics of Yugoslavia. It was happening that in case of a need of peak load in one federal republic the electricity could not be supplied from other federal republic for political and not for technical reasons. The electricity was thus one of the strategic tools of the process of political bargaining between national elite. As a consequence each of the federal republics tends to energy (electricity) self-sufficiency.

Yugoslavia had since 1950 strong ambitions to catch with development of nuclear industry in developed countries and the reasons for that has far larger political substance then policy of self sufficiency in electricity supply. However the "peaceful use" of nuclear energy has far largest support within the most developed but energy relatively poor federal republics of Slovenia and Croatia, both striving not to depend to much of energy resources controlled by communist elite in Serbia and in Bosnia and Herzegovina. Both republics has strong, ambitious and political influential nuclear institutes which both cooperated and competed with nuclear institute in Vinca (Serbia). Since late 1960s they joint efforts which resulted in 1974 started in construction of Western banks consortium credited Westinghouse technology based 630 MW NPP in Krsko which was finished in 1982 and in opening of the uranium ore mine at Zirovski vrh near Ljubljana (in process or decommissioning since 1992).

Slovenia has not any oil or natural gas resources of any importance. Yet it has its own national supplier of oil and oil derivatives (PETROL) since beginning of 1960s. This company also operates far largest part of gasoline stations and distribution of heavy-oil to industry and light oil to individual consumers. The firm is currently in redefinition of its s mission from oil trading and selling company to energy company with ambitions of generating electricity based on heavy oil and oil refinery wastes, supplying gas and exploitation of geothermal energy.

The natural gas was on large scale introduced first after the main pipeline from Soviet Union entered the country in 1978 Since 1984 the main pipeline was connected to the Italian grid, thus enabling Slovene gas supply company to made long term contracts for gas supply with Algeria. From mid 1980s on the natural gas has progressively replaced heavy oil in industry, but its role in electricity generation is still limited to industrial cogeneration and one peak load/reserve thermal power plant. In mid nineties a local distribution and trading companies with the Italian partners as main shareholders gained con-

cessions all over the country, especially in the regions neighbouring to Italy. This has two consequences. Because of lack of tradition in energy planning, missing knowledge of local policy makers, lack of institutionalised state expert support institution for municipal energy planning and in some cases most probably also because of corruption, after 1993 the selling gas for heating to individual households under municipal concession acts is booming even in areas where CHP DH would be an economically attractive option. In addition the quick penetration of natural and liquefied gas in households has not been accompanied by new efficiency standards, monitoring and control capacities on the field, and consumer awareness raising/protection campaigns, many of household bought cheap yet low fuel conversion efficient gas burns and boilers, which as a consequence resulted in increased fuel costs of the households in question.

Besides finalisation of construction of NPP Krsko the Republic of Slovenia in the eighties made large investment in the mining sector. The production of lignite exceed 5 million tones and the production of brown coal in six mines stood at 1.8 million tones. Since increased environmental protection is coming to force after 1988 - especially after Law on Environment in 1993 - the use of domestic coal has been reduced for electricity production in large power plants.[2]

Wood is traditional source for heating since many centuries also in Slovenia. After World War II the timber stocks due to the sustainable forestry management almost doubled while the forested area increased for on third. Thus with 55 % of forested area - most on the environmentally fragile and hardly accessible Karst and alpine ground - Slovenia is ranked 3rd in EU in this respect. The share of wood biomass in TPES is around 6 % and it still covers about 20 % of space heating demand and substantial part in steam and heat production in wood industry, however in both cases mostly on the bases of obsolete low technologies with low efficiency and high emissions of particles, SO_2 and CO.

DH was introduced in 1970s in Ljubljana - the capital of Slovenia - and in Saleska valley in both cases as recover of waste heat from larger coal fired power stations in Ljubljana, respectively in Sostanj. A significantly smaller DH scheme based on wood residuals from local wood processing industry was introduced in town of Zelezniki in mid 1970s. In 1998 first modern wood biomass DH was put in operation in town of Gornji Grad.

[2] First decisions considering reduction of the coal production and subsides to coal mining was introduced in the period of 1990 -1992 under the "green" Minister of Energy Mr. Miha Tomsic.

3.1 Energy Policy Relevant Legislation and Institutional Designs in Early 1990s

3.1.1 Historical Background: Policy Arena of "Self-Managing Interest Community of Energy Sector"

From 1981 till September 1999 the legal basis of energy sector was given by *The Law on Energy Industry* (Official Gazette of SRS, No. 33/81) which was amended in 1986 (Official Gazette of SRS, No. 29/86). The law has defined electricity sector and nuclear activities as activities of "special interests of society" whereas only certain parts oil-gas and coal mining subsector was defined in this way. " "Special interest of society " was carried out through "selfmanaging communities of interests" where the representatives of producers, consumers and parapolitical institutions were performing the processes of bargaining, negotiating and adjusting their interests in order to design policies which were then set-up (and later on executed or abandoned) by Executive Council of RS (The Government) and approved by all three chambers of Assembly of RS. The (s)election of constituencies of the communities in question was under control of Socialist Alliance of Working People - "catch all" "socio-political organisation" which was indeed a transmission and instrument of control of League of Communist of Slovenia over inauguration and career opportunities of the national sub-elates in management, science, culture, administration etc.

Within this "quasi" neo-corporativist designed arena the interest of mining industry, large electricity generation, energy equipment producers, engineering and consulting companies defined the paradigm of energy policy.

The set up of policy arena differs from neo-coporativist designs not only that its constituencies has never had a chance to elect in free and democratic way their representatives and that also the representatives of consumers have been included. At very first it was characteristic the absence of the state as an instance which is guaranteeing transparency and fairness of the procedures (liberal state) and is providing compensations for structurally weaker parties (social state), in our case autoproducers, small producers and small consumers of energy services.

Being limited in price setting and without power to made individual investment decisions and under permanent threat to be replaced, the actors formed a *coalition oriented toward growth of capacities and outputs*. The coalition was based on the presumption that the solidarity of its members can put enough pressure to at least maintain if not increase the share of revenues from the state budget for the investment in new capacities or modernisation/renewal of the existing ones. Thus large consumers were planning a permanent increase of energy consumption while the electricity generators and grid operators issued

licenses for this future increased consumption without having any investment capital on their own in order to prove necessity of increase in capacities to cover future needs.[3]

Within this mode of solidarity of producers and large industrial consumers everybody was supporting everyone else from the club. In this institutional design the mentality[4] of "unity of energy sector and energy experts" had its "material basis". The reconstruction of internal clashes and fights for a (larger) share of the cake can not be made by policy analysis analytical approach since it has quite different nature that is presumed by policy approach. A combination of political anthropology (focused on exchange and trade of gifts between clans) and criminology would be needed in order to reconstruct what was actually happening within this family politics of distribution of pieces of a cake.

However from the mid eighties on this "coalition of growth" was increasingly challenged by coalition of new actors - the environmentalists, political economists and dissidents among energy experts. While the first - protected by liberal wing of the elite on power created "ad hoc policy arenas" which was attractive for mass media, the second used this for communist times unconventional form of political communication to raise their arguments against the expansion of traditional industry sectors: heavy industry and energy sector. The third publicly denounced the wrong presumptions, miscalculated data outputs, hidden objectives and non-respected/elaborated options.

It seems that Slovene political elite has been aware that on the long-term the co-existence of "ad hoc" versus "de iure" political arenas, which has in mass media and public consciousness gained image of the "class struggle "between the "civil society" represented by media icons of unofficial politics and in Socialist Youth and "the state" which has been incorporated in all official institutions (except Socialist Youth) might lead toward political polarisation which could not been managed anymore.

Slovene elite vis a vis federal authorities and communist leaderships of other republic was oriented toward defence of institutional "status quo", there was no political space for any new institutional design, including of course the design of energy policy arena. The national conference made a list of conclusions which gave political normative basis for changes in energy policy: energy saving and improvement of energy efficiency was together with desulphurisation of thermal power plants and moratorium on nuclear ac-

[3] From analytical point of psychoanalysis it would be of significant importance for reconstruction of pathological identity of energy producers who in public discourse permanently denied that they have any interest of their own but were claiming only to follow the objective needs of society. This symptomatic pattern of categorical denial of someone's own in interest has in national collective identity roots which are much deeper then the period of communist rule. The paradigm is given in novels of Slovene most worshipped writer Ivan Cankar (1870 - 1919) which are glorifying an icon of a mother who is sacrificing herself for the good of her children, however she can not sacrifice the very form of scarification which is indeed source of her libidinal power over her children.

[4] Mentality in question has not only survived but also heavily influenced the policy style in energy sector in last decade despite the fact that the political and policy institutional designs has been substantially changed.

tivities declared as on national consensus based goals.[5] However only the negative goals - a moratorium on all activities related to construction of new nuclear power plants - could be achieved within existing decision making set up.

The implementation of first large and symbolically important decision - instalment of desulphurisation facility on Unit 4 of TES faced the barriers of the rules of the game within the energy policy arena of "selfmanaging community for energy and coal mining". The nature of investment was against the rules of the game within the coalition of growth and thus procedural, legal and time resources has been used to oppose it. In fact non of the actors was explicitly playing against but since any implementation depends on collective action of major actors and since this investment was not in their interest there was simple not enough support and the management of TES, faced with local "civil society" opposition and well aware that on the long term Yugoslavia and at very first Slovenia will have to implement the signed Convention against long distance air pollution, was the single promoter for the implementation of the decision (Klemenc, Luksic 1993) and because of inadequate institutional arrangements forced also to play a role of the manager of the process.

Not until the internal legal and political changes as well as international re-positioning of Slovenia as a sovereign state took place this tasks has not been moved for a single step toward implementation.[6]

3.1.2 Constitutional Changes and Amendments to Energy and Related Legislation After Fall of Communist Regime

By the *Constitutional Law on Execution of Constitutional Amendments IX to LXXXIX to the Constitution of SR Slovenia* (Official Gazette of SRS, 32/89) and by the *Law on Enterprises* (Official Gazette of SFRJ, 77/88, 40/90, 46/91) in 1990 and 1991 most institutional clauses were revoked, but no alternative institutional structure was provided except that the government had to dispatch all former responsibilities of the self-governing bodies. In 1991 the power sector was reorganised to a decentralised structure, with separate production, transmission and distribution entities (Official Gazette of SRS, 38/90). The Law on Public Services (Official Gazette or RS, 32/93) has annulled all the remaining provisions of the *Law on energy economy* (except articles 2 - 10, 12, 13, 19, 63 and 65 - 88) and defined energy supply and services as the activities of special interest of society, while the ownership has been transferred to the state or to the municipality of Ljubljana.

The above mentioned constitutional law and the law on enterprises (Official Gazette of SFRY 77/88, 40/90, 46/90) introduced the concept of *public utilities as a special form*

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[5] See: Energy, Ekologija, Varcevanje (Energy, Ecology, Saving), 1987.

[6] Later on the state subsides and credit guarantees has been provided and a substantial part (30 % of financial sources has came from Environmental Fund of Republic of Austria.

of utilities.[7] The Executive Council have been given a chance to directly establish public utilities for servicing those special needs - defined by law - which are irreplaceable for the life and work of the citizens of RS, its institutions and other on territory of Slovenia operating organisations. On this legal basis the government has by issuing a special decree (Official Gazette of SRS, No. 38/90)) established public enterprise for transmission of electricity (ELES) and five public utilities for its distribution. This has been till September 1999 only structural change within the electricity industry.

The organisational reform of 1991, which is now an adequate good basis for establishment of a competitive market, has not been completed to establish adequate economic position and relations between the companies. The power sector remained under direct supervision of the Ministry for Energy[8] (now the Ministry of Economic Affairs), which by means of an annual "value plan" directs all financial flows within the system. On the other hand, the prices to final customers are also set by the Government. Complete, if not perfect, administrative control is exercised, with little incentives left for the management to improve the operations. Nevertheless, companies maintained reasonably good level of technical performance. Obviously sufficient incentives also remain for investment in new capacity. Each of the 14 companies has investments under way or proposed. The execution of these projects depend on the go/no go decisions in the Ministry.

3.1.3 Policy Objectives, Process and Style

After the political changes in 1990 and constitutional changes of 1991 the Energy Supply Act from 1981 was not adequate legal basis for any toward innovation oriented energy policy. The legal innovation which influenced the energy sector came form other sectors. The Law on Public Services - which has introduced among others the concept of concessions - has been for example initiated by MoE. Despite its endeavours to change the policy style and legislative instruments, the ME was - due to the collapse of former Yugoslavia - overburdened by necessity of making ad-hoc decisions in order to ensure energy supply of new, internationally not yet fully recognised state. Thus an initiative on new legal framework of energy sector has been put aside because of the disintegration of energy market and electricity grid of SFRY, which has followed the break out of the war in Croatia in Summer of 1991.

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[7] In fact this is on of the variants of public service obligation, "paradigmatic" in French administrative system and its derivatives. This means a strong administrative regulation and control of the monopoly and the non-for profit character of revenues which must be spend for improvement of public service obligations.

[8] At the beginning of 1993 *The Law on Government of RS* came to power (Official Gazette of RS No. 4/93). By this act the naming of the executive power as well as its relation toward legislatory and juridical power was harmonised with the Constitution or RS. The number of ministries has was reduced and the tasks and competencies of ME and related state administration (energy and mining inspectorat) was integrated to the MEA. A function of State Secretary for Energy has replaced the functions of Minister of Energy.

Nevertheless the ME[9] in period of 1990 - 1992 made substantial efforts toward more environmental friendly policy. It has started a co-operation program with NGOs on the field of energy conservation and efficient use of energy in household and has also supported the creation of actors of new type, like private *Agency of Energy Restructuring* (APE) The prices of electricity has increased, especially for large industrial consumers. Not only that the minister was supporting an early shut down of NEK and state subsides for coal mining as well as the amount of coal production was reduced but also new programs and activities on the field of energy efficiency and renewable energy was introduced.

Reorganisation of the Ministry in order to increase transparency and efficiency has been drafted by APE and was later on carried out. Especially on the field of energy efficiency the Ministry was pro-active oriented and has APE given the task to schedule first public tender based support schemes for energy efficiency. It also changed the form of policy formulating and legitimating by establishing *Energy Advisory Council* of most prominent energy experts - including those who have publicly criticised the official energy policy - as consultative body.

3.2 Energy Policy in a Newly Independent State: An Instrument of Monetary, Social and Regional (De)Development Policy

3.2.1 The Role and General Pattern of Energy Policy in the Period of "Normalisation"

From 1993 to 1996 not much has happened at the level of policy documents nor at the level of innovative policy styles, however the first steps toward privatisation of oil and gas companies has been made. One can speak about "restoration" of old policy styles and policy objectives in electricity, mining and nuclear sector. There has not been any new task related to preliminary shut down of the NPP Krsko, yet most of the ICISA findings, and recommendations considering improvement of safety of NPP issued in November 1994 has been later on integrated in subsequent official plans for safety improvement and modernisation of NPP.

In 1993 drafted version on new law on energy which aimed to bring at least criteria for transparent and fair setting of the energy prices has never been approved by government and thus has not became a part of policy setting.

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[9] The *Law on Organisation and Sector Divisions of Ministries* from November 18 1994 (Official Gazette of RS No. 71/94) has more precisely defined the sector activities and tasks of each ministry and the administrative bodies within the ministries. With respect to energy sector it the Law has for introduce AURE as a body within the ministry; in -charge for rational use of energy and execution of the programs in that field.

From 1992 till recently the energy policy was at the level of government mainly the instrument of monetary and social policy. The main task of government was focused on keeping inflation low while maintaining employment of employed labour force in areas of decline of traditional industries, which is including coal mining region of Zasavje. However keeping the energy prices low and electricity prices under the production costs while not creating simulative environment for reduction of the costs - this would of course also mean de-employment in electricity subsector - is on the long term of course leading either to lower quality of energy services or to increased costs of maintenance/improvement of the energy services and will thus consequently contributed to inflation.

Yet because of large decrease in economic and industrial activities which have followed first two years after the "secession" from Yugoslavia, the energy sector had enough technical capacities to sustain business as usual scenario and crises management as policy style of the government without worsening the quality of energy services.

Thus the ME and the Government in period 1992 - 1998 performed with respect of mining and electricity subsector a status quo politics with non decision making as a policy style on the main issues. Yet after 1992 the attempts to downsizing the production in RTH and RLV has been stopped and has start to increase again. Large industrial consumers were tolerated not to pay bills for electricity without negotiating their financial obligations with government. The Government continue to involve into day to day management of the electricity sector - the function of ownership, operation, control and supervision has not been separated nor co-ordinated. There has not been any attempts to determine transparent and fair principles for price setting for different producers. ME and later MEA has supported activities related to modernisation and expansion of production of RTH which was not based in any political or policy documents which would be co-ordinated at the level of Government. The implementation of instalment of cleaning facilities on Unit 5 in Sostanj has been slowed down. The mining sector re-stared to play a role of trend setter in energy policy and promoter of investment option. Since it was backed up first (1993 - 1994) by Minister of Energy Mr. Franc Avbersek (a former director of RLV) and later (1994 - 1996) by State Secretary for Energy Mr. Boris Sovic, both politically originating in ZLSD (reformed communists), the mining sector has in absence of clearly defined and legally based energy policy in fact defining in on the large scale the substance of energy policy itself.

This penetration of sector defined substance of energy policy was however only possible if the other sectors (especially hydro and nuclear) has been promised to be able to take a piece of cake in the future. Thus energy policy has been again more and more the sum of investment plans of energy carrier sectors i.e. energy enterprises without clear and transparent and fair criteria of evaluation of the options and without any procedure of multi-optional choice.

While the green as a watchdog over the "productivist expansion" of energy sector has lost their toots and has been trapped into a game how to catch its own tail, the invest-

ment appetites in energy sector, especially in electricity subsector, had rapidly grown. However not only the watchdog has been missing but at very first the clear opponent and skilled manager. Nevertheless both MF and MoE has strictly played their role of gate-keeper by claiming that both financial as well as environmental limits/carrying capacities must be respected. Thus the energy policy as a policy of coalition of growth face the opponents with much stronger structural position and resources as the political resources of marginalised and disintegrated political party.

The policy of energy sector crashed with the state policies of macroeconomics, monetary and fiscal stability as a hard core policies of the state of Slovenia.

3.2.2 Legal and Institutional Reorganisation of Energy Industry

In 1994 on the bases governmental *Decree on Reorganisation of Enterprises of Electricity Industry (*Official Gazette of RS, No. 47/94) the regime of management of energy public utilities was changed. In 1996 the State took formal ownership of the power sector[10] (Official Gazette of RS, 28/96 and 47/96), including all major power plants, transmission and distribution networks. The new structure consist from:

- three hydropower public enterprises (DE, SOE, SAE);
- four thermal power public enterprises (TES, TET, TEB, TETOL)
- one nuclear power enterprise (NEK)
- one public transmission company (ELES)
- five public distribution companies (EL-Lj; EL -Pri; EL -Mb, EL-Ce; EL -Go)
- one public company for development of electricity system (EGS-RI)

Out of electricity subsector there are:

- two mining enterprises (RTH and RLV)
- two larger (PETROL and ISTRA-BENZ with total market share about 90 %) and about two dozens of small suppliers with oil and oil derivatives plus one cure oil refinery and derivatives distillery (NAFTA LENDAVA)

transport of natural gas is on the whole territory in hand of GEOPLIN, while distribution is carried out by several public enterprises or is concessioned to private companies on the basis of municipal concession acts.

Non-decision making, retroactive "crisis management", non-transparency in access to policy formulation, predominance of sector approach, lack of cost/benefits analysis, option approach and multicriterial evaluation in planning has been characteristic for a whole period as a main characteristics of energy policy. We will prove to give evidence for that

[10] In the five distribution companies minority owners (below 5% total) are the employees, similar situation is in the coal mines.

by analysing most important policy documents and processes in that period. However we will not only attempt to give arguments for this generally negative characterisation of the energy policy in general but will also try to find elements of policy process which have potentials for proactive, transparent, participative and toward solutions of the energy and environmental problems oriented policy pattern. For that reason we will focus in detail on three most important documents and corresponding political and policy processes, namely on *The Resolution on the Strategy of Supply and Use of Energy of Slovenia* (1996), the unofficial draft of *National Energy Action Programme* (1996) and on *Energy Law* (1999).

3.2.3 Resolution on the Strategy of Supply and Use of Energy of Slovenia

3.2.3.1 Background

A decision adopted by the National Assembly of the Republic of Slovenia at its 7th session on April 22, 1993 required the Government of the Republic of Slovenia to submit to the Assembly the strategy of energy supply and of the measures to ensure rational and environmentally sustainable energy use. In co-operation with other government Ministries, institutions, enterprises, and individuals, the MEA prepared the resolution on the strategy of energy use and supply, which addresses the issues of efficient energy use, energy supply, environmental protection and energy prices.

The Resolution on the strategy was being prepared in a period of substantial turmoil. Coming out of from the bottom of economic recession Slovenia was intensively entering the European integration processes. It has signed the European Energy Charter and the Contract on the energy charter, and was at that time actively engaged in the negotiations on the associated documents. Since 1993 Slovenia also signed and/or ratified several international treaties concerning the environment protection.

Following a period of growing energy intensity in which GNP decreased faster than the primary and final energy, Slovenia recorded an increase in energy consumption in 1993, accompanying the general revival of economic growth.

The transition from a recession to a period of economic growth, restructuring the economy, restructuring of ownership and the new legal provisions of protection of environment and of public health has influenced the framework of energy policy, however this was lacking both corespondent legal basis as well as policy orientation. Contrary to this needs for changes in energy policy and its legal and institutional frame the recovery of economy in 1993 re-established the old pattern of energy policy focused on supply of electricity from domestic coal and based on the prices under the costs of production in electricity subsector and in comparison with EU countries substantially lower taxes on fossil and gaseous fuels.

The need for legal and institutional change has been evident for policy makers. However the Government has set on the top of the agenda monetary, budget, fiscal and social sta-

bility. Thus besides security and reliability of energy supply there has been few space for energy policy since it has been only a function of the above mentioned priority goals. General trends of liberalisation of energy trade and markets and increased energy efficiency have been at that time know to the government, however the concrete institutional designs of market based energy policy of the grid-bound energy and energy carriers in EU came first to their presence in 1996 by famous directives 92/96EC and 98/30 EC.

In addition till 1996 when the Association Agreement with EU was signed the approximation to EU was at very first an obligation and destination at the level of symbolical politics and not a commitment followed by clear and defined steps and measures of approximation. Last but not least - the political actors of energy restructuring has lost momentum and none of the main actors in policy arena has been interested for a true change.

Within this situation when something has to be done but nothing should be changed the Strategy of Energy Use and Supply has been drafted by EGS-RI, mainly within the mandate of Mr. Boris Sovic from ZLSD as the Secretary of State for Energy.

The document has given political legitimisation to the investment appetites of “coalition of growth” by introducing list of investment of national priority.[11] This has been done without setting any criteria of choice. The "national investment list" has been an achievement of joint corporative strategy of main stakeholders within electricity subsector. Acting as a pressure group they attempt to create political shortcut which would gave the normative political basis for using public financial sources for investment. The solidarity among the actors within pressure group was based on presumption of positive sum game. As a model served national program for motorway construction, a typical infrastructure financial scheme of "post-communist" renewal".[12]

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[11] The basic programme of the construction of domestic capacities and of other measures to provide adequate power supply according to the Resolution includes: the renovation and upgrading of the Drava HPP chain; the ecological sanation (desulphurisation) of blocks 4 and 5 of the Sostanj TPP; the renovation and upgrading of HPP's on Soca chain; the construction of HPP’s on lower Sava river stream; upgrading the capacity of the Krsko NPP by the replacement of its steam generators; construction of a gas turbine unit in TPP Brestanica and reconstruction of the existing blocks for gas-firing, the construction of a replacement unit for Trbovlje TPP; acquiring reserve capacity and regulation capacity in the most economic manner; the construction, renovation and reconstruction of the transmission and distribution network etc.

[12] Yet - due to the fact that the later Program could be supported by non formal national social consensus of citizens as car drivers - there has been fundamental miscalculation of the social acceptance of expansion of electricity sector. Contrary to almost unanimous support to state financed expansion of national motorway network, there has been - both in public and in government - few understanding for an energy Program which would demand even more budget founding as national motorway Program.

However none of this investments has been in line with normative "spirit" of the text nor the document was giving any criteria which would serve as a framework for listing out the investment. Furthermore the macroeconomists in governmental administration immediately found out large financial gap between the resources demanded by the investment on the list and parliamentary approved Strategy of Macroeconomics Development of RS.

On the other side the document supported the role and activities of ***Agency of RS of Efficient Use of Energy*** as the central state actor on the field of energy efficiency, although the Agency is not explicitly mentioned in the document. The logic of action has followed the pattern of the reform wings of the communists: making space for new actors by trying to satisfy the needs of the old actors and making the political actors indispensable mediation device between the two.

Thus the Resolution has in fact legitimised twofold energy policy: an supply side investment policy based on the power play and bargaining between the stakeholders within the electricity policy arena and an energy efficiency policy mediated through state agency of energy efficiency. However since the two have followed the two opposite direction without any direct inter-mediation despite the administrative and political control of the two the process has resulted in lost coherence of the substance of energy policy and lost capacities of normative self-legitimisation of the investments in energy supply. This happened within the process of drafting of the National Energy Action Plan. The drafting of this document has been meant as an operationalisation of the Resolution, which is including few quantified goals,[13] resulted in never ending story of attempts to draft a document which would make everybody happy but has either provoked the criticism of macroeconomists from the University and Institute of Macroeconomics Analysis and Development or the protests of energy (electricity) companies who's investments have been cancelled or postponed.

3.2.3.2 The Provisions of Resolution

In its own terms the Resolution on the strategy of energy use and supply of Slovenia was set out to achieve the following targets: energy efficiency[14] and long-term reliability and adequacy of energy supply; acceptability to public health, environment and space, minimisation of risks; economic efficiency and social acceptability; technical efficiency and adaptability. The goals set in the strategy of efficient energy use requires the improvement of energy efficiency in all sectors of energy consumption. It is imperative to act in the areas of major energy consumption: process heat in industry, spatial heating (households, buildings, industry), fuel consumption in transport, and energy supply to house-

[13] Nevertheless, two important general objectives are quantified - a decrease of energy intensity for 2% a year and a four to five years annual increase of the prices of electricity for 2%.

[14] Energy efficiency is understood in the document both as the ratio of useful to final energy and the ratio of final to primary energy.

holds and industry. The goals set in the strategy of efficient energy use requires the improvement of energy efficiency in all sectors of energy consumption. It is imperative to act in the areas of major energy consumption: process heat in industry, spatial heating (households, buildings, industry), fuel consumption in transport, and energy supply to households and industry.

The long-term strategic orientation of the document is to increase energy efficiency in all setters of energy consumption. As a new concept it is introducing the concept of energy services which shall be available at a minimum of primary energy consumption and environmental impact. It is further states that also the term "lowest costs" shall in relate to the energy service (and rather not to the energy carrier) at the level of national economy. as well.

Beside energy efficiency, the use of renewable sources,[15] the utilisation of environment heat and of waste heat have to gain priority according to the Resolution.

As successful application of energy efficiency measures requires according to the Resolution the observation of technical, economic, regulative, administrative and financial factors, and co-ordination of the following: energy efficient and environmentally acceptable technologies; energy pricing policy and the implementation of a tariff system to energy efficiency; information and education activities; energy audits, monitoring, and follow-up recording of effects of energy efficiency measures; energy inspection; tax incentives; subsidies and government support for programmes; international co-operation. However, this an other tools and measures are only mentioned but not elaborated nor interrelated.

With respect to prices the recommendations of the European Energy Charter, i.e. to price energy as far as is practicable according to market mechanisms, incorporating costs and benefits to the environment, and reflecting clear and impartial orientations towards energy efficiency and environmental sustainability shall be followed. For electricity the figures of annual increase of 7 % within four to five year period are given.[16]

The document is aiming not only to prevent inefficient energy use, but also to encourage the introduction of new, energy efficient products and techniques as well as to motivate and educate public to play an active role in achieving this goals. Its further states that much can be achieved by measures not requiring direct investment.[17] Consultation which

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[15] "Projects involving utilisation of renewable energy sources will attain such financial means and incentives as required to facilitate their market assertion and to increase their competitiveness in relation to non-renewable energy sources".

[16] The document call that "at the latest in two years, total generating costs have to be incorporated into the power prices with individual power utilities, including full asset amortization costs in compliance to Slovenian accounting standards".

[17] Organisational and technical discipline, adequate maintenance, sensible operation, introduction of in process measurement, energy audits of companies and buildings are mentioned as non-investment options.

should invoke confidence, and shall therefore be non-bureaucratic and independent from the equipment producers and, at least at the beginning, free of charge are mentioned as an institution which needs to be develop in order to raise skills of all type of consumers.

The Resolution also calls for development of by-laws to define the regulations and instructions, as well as the application of standards of energy efficiency in appliances and buildings, as well to define the methods for governmental promotion of efficient energy use. Further on the adoption and enforcement of standards in energy equipment, complying to the relevant international standards and the process of energy certification and equipment labelling shall be implemented according to the document.

In the situations where the criteria of profitability hinder the directing of investment into energy efficiency measures, or where adoption of new legislation is not anticipated or readily feasible, the Government is addressed by Resolution to stimulate such investment appropriately by allocating to public competitions in programmes and investment projects, stimulation of energy efficiency and reduction of energy losses from state budget.[18]

The Resolution is further on claiming for research and development of new technologies and pilot projects in the domain of energy efficiency and environmental sustainability, introduction of renewable energy sources, and methods of integral decision-making in energy use, energy supply, assessing environmental impacts and other national economic criteria.

While addressing the institutional set-up of energy efficiency activities all the activities shall be, according to the document, carried out by the Government, either directly or by appointing agents for individual activities. From the ministries only the MEA is mentioned. It is also predicted that consultation services will be established at the level of the communities ‘s influence in the domains of energy use and supply will be increased by conceiving, adopting and monitoring their own local energy policies.[19] The adopted energy concepts of the communities are considered as a precondition of investment decisions regarding communal energy systems, especially where budget contributions are involved.

Further on the activities and investments needed to achieve the reliable and environmental sound supply of energy are specified more precisely, especially in electricity generation and transmission but also in coal-mining, where full maintenance of the existing

[18] Beside investment projects, the following activities shall be promoted: energy consultation in industrial and commercial/residential sectors, the development of energy concepts of local communities, industrial enterprises and public buildings, and educational, informational, demonstration and other programmes.

[19] “Local communities will assume responsibility for communal energy systems by determining the areas of supply (of heat, gas, etc.), adopting concession agreements or founding their own energy supply companies (district heat, gas), and above all, by adopting energy concepts consistent with the national strategy reflecting their local situation.”

capacities in Velenje and Zasavje is approved by reason of self-sustainability and reliability of supply.

While addressing the issue of environmental protection the document is by referring to the Convention on Long Range Transboundary Air Pollution defining as a national goal a reduction of SO_2 emissions by 65 % by 2000. No figures for NO_X and CO_2 emissions are given, however the Resolution is declaring that per capita and imissions per unit area shall remain substantially lower in comparison to the EU.

3.2.3.3 The Policy Process

Despite being carried out form a single institution without organised structure of consultations with stakeholders the drafting process of the Resolution was smooth.[20] Taking into account the declarative and legal non-binding nature of the document this shall not surprise. In addition the informal process of consultations and consensus seeking which was ongoing both within the structures of ZLSD and even more within the informal structures of "energy lobby". Last but not least the energy issues had already lost their "transcendental", symbolical political meaning and the public discourse on energy has been absent or de-politicised. Thus nobody really cared if the whole process was indeed a ritual of simulation of political will without corresponding legal and policy substance and has indeed neglected the policy recommendations of the experts on the field of energy legislation, policy and planning.

Before the Resolution was approved in parliament, the policy makers had had on their disposal the results and recommendations of studies on reform of legal and institutional framework of energy sector in general (and electricity subsector in particular) as well as the robust conclusions of IRP study for Slovenia, carried out by foreign and domestic energy policy experts. All studies suggested that substantial legal and institutional reforms are needed in order to make the sector compatible with challenges of EU approximation and accession. Contrary to the famous "investment list" of the Resolution the robust conclusions of IRP study suggested that within a given circumstances the investment in gas power plants and cogeneration are the only investments which are not endangered by potential large scale economical risks.

Expect routine debate in the National Assembly there has been few public debate on the Resolution. A marginal and from media ignored, yet detailed and expert knowledge based critical public debate was organised in spring of 1996 by Slovenian E-Forum, society for energy economics and environment. At this occasion the fact that Slovenia finally has an energy policy document was welcomed however the document was criticised both of its pure normative but totally unbinding character as well as because of the attached "national investment list" which was identified as "symptomatic surplus of the text".

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[20] The reconstruction of potential internal clashes and bargaining process would be a hard and time consuming task which is out of scope of our inquiry.

3.2.3.4 The Policy Style

The policy style of the designers and promoters of the Resolution can be characterised as pragmatic, de-politicised consensus seeking, however lacking a clear conceptual background and transparent procedures of participation and limited to the interests of most powerful actors within energy (electricity) supply sector. The experts striving for a legal and institutional reform of the sector and the organisations from demand side have been left aside. Thus one can not speak about broad but narrow, supply side oriented consensus. With respect of policy instrumentalisation no innovative instruments has been brought into being by the resolution, however the role and impact of the AURE has been strengthened. Rather then by pro-creative approach in seeking of solution for the structural problems of energy sector the policy style has been characterised by avoiding to address the contradictions between the objectives of policy document and objective dynamics within energy policy sector.

3.2.4 Drafting of the National Energy Action Programme: a Never-ending Story

3.2.4.1 The Policy Process

The Resolution is claiming for NEP as the operationalisation of its goals, objectives and tasks. According to the Resolution NEP should be finished within 6 months after adoption of the Resolution. However the document - which preparation started in April 1996 - has never been officially confirmed by the Government and proposed to the National Assembly.

The drafting of the document - except of chapter on strategy of energy efficiency policy which was drafted by AURE - has been given to EGS-RI, an analytical-research-development entity of Electro Slovenia, which has not had references out of electricity subsector and thus has not been familiar neither with project management of this kind nor with energy planning out of electricity sector. Another problem was that due to the in advance given “national investment list” which had to be respected and confirmed, the project parameters has been set very narrow, without reasonable “degrees of liberty”. EGS-RI thus proposed that the attempt should be focused first only to the national programme of investments in electricity sector. This proposal has been rejected by MEA. Because of the lack of experts for prices EGS-RI has suggested to MEA to involve experts from MERD and MF, however this has been rejected, too and the chapter on prices has been rather simply cancelled from the structure of the draft document.

The first draft was sent to MEA in October of 1996. It was expected the after from MEA demanded explanations and improvements the document will be send to the inter-ministerial cross-adjustment procedure, however this was not the case. The draft was submitted to revision of the large group of energy experts from University and research and consulting institutes who were surprisingly not engaged on behalf of the MEA but on behalf of Chamber of Economy. With this unusual procedural step however the procedural mess first started.

Based on the opinions of the experts Slovene Committee of WEC published a set of public contributions to the draft of NEP. The criticism could be summarised as follows: the document is not dealing with legal, institutional and macroeconomics frameworks of an energy action plan, the chapter on prices is missing, the assessed amount of investment in electricity sector is exceeding at large the framework given by the ***Resolution on Strategy of Macroeconomics Development of RS***[21] for the whole energy sector, the expected increase of energy consumption was to low for certain experts and to high for the other, few of experts also claimed that the document is not taking in any account the EU policy of internal liberalised and deregulated energy market etc. Within discussion also the Government and the National Assembly have been criticised because the national strategies have not been prepared and confirmed in a way which would follow the logic of priority of integral and general policy documents over sector policy documents, i.e. the fact that the strategy on energy had been adopted previous to the general macroeconomics strategy of the state.

Not at very much the criticism itself but at very first its form has been out of any usual policy procedure of the government. First of all it was unusual that the Chamber of Economy has taken over the role of intra-governmental co-ordination. Second, it was very unusual that this task has been carried out in a form of public criticism to the draft document of the Government which did not have a status of a public document yet. Further on, it was most unusual that in February 1997 the mandate was given to Slovenian Committee of WEC to organise a public round table on this not yet public document. And it was far from practice of fairness that certain participants of the above mentioned event have had access to the latest version of the draft of NEP while the access to the document in question has been restricted to the others. Last but not least, it sounded confused and cynical when a months later an official demand of another energy NGO (SE-F) to MEA to get access to the document in order to organise another public debate, however based on the principle of equal access to the policy document in question, was officially denied by explanation that the document is not available to the public.

The procedural “mess” within the drafting process of NEP can be in our opinion only partially explained by weaknesses of its structure and/or methodology. Far more it was a result of weak internal procedures of transparent and fair solution finding in case of structural conflict of interests within the government and its weakened consensus making capacities within the period of election campaign.

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[21] The Resolution on Strategy of Macroeconomics Development was confirmed by parliament in May 1996. This document has limited the investment in energy sector for next 10 years at 1.1% of GDP, which is equal to annual sum of EURO 190 - 210 million. Within the draft of NEP the investment in energy sector within the same period was estimated at EURO 4.0 - 4.3 billion, which would thus be around 2.3% of GDP. According to 6th draft of NEP (October 1996) approximately 2/3 of the investment would be earmarked for electricity subsector.

3.2.4.2 The Policy Style

We did not however find any signs that the opposition to the NEP was motivated or influenced by political parties. Nevertheless the timing of intra-governmental co-ordination of NEP overlapped with the time of 1996 election campaign. It was thus for Government an impossible task to recognise the limits set by strategy of macroeconomics development and start to cut the national lists of investments in electricity sector. The political function of this list was however exactly in maintaining electoral support within the powerful and influential socio-political pillar of mining-electricity sector which could ensure support in electorates which are closely linked to the traditional domestic energy supply sector. The compromise with "coalition of growth" to include an bottom up designed "national investment list" within Resolution on Strategy of Energy Supply and Use has followed the calculations of political loyalty and support. However even if the Government would be willing to follow the line of restrictions set by its own strategy of macroeconomics development and started to "shorten" the national investment list, it would lack any generally accepted criteria. In this case it would risk that political opposition will bring this to the public evidence and demonstrate the political motivated character of the energy resolution.

One can however not exclude a priori that the opposition to NEP within the Government was not motivated by different political fractions and interest groups represented in Government. However in our case this is not of the ultimate importance. What however is important is that this opposition to NEP has not been generated in form of political party (or its fraction) or interest/pressure group but as decentralised, non co-ordinated opposition based on expert knowledge on economy and on strategic knowledge on political technology of intergovernmental actions and procedures.

The whole policy process from agenda setting of the "energy" Resolution on can be thus explained in following manner. The policy manager (MEA) has given a privileged access to policy process to most interested stakeholders, i.e. promoters ("coalition of growth") while using its mandate of management of the process to minimise the influence of important procedural stakeholders: MERD and MF as gatekeepers. Further on the manager limited the policy process within informal corporativist arena of bargaining between the promoters (mining and electricity companies) in order to exclude the potential opponents (independent experts, interests groups, NGOs) from policy making. Thus MEA broke the rule of the neutrality of the manager to the outcome of the policy process and blocked not only the potential empirical opponents but the very role of an opponent. The process on "energy" Resolution was smooth because its outcome was of pure normative-symbolical importance while at the same time it has been limited to informal depoliticised arena of interest bargaining and to a political-administrative arena.

However at the second stage - drafting and decision making process on NEP - the character of the process has changed because of the nature of the decision which was not limited to the symbolical-ritual aspects but focused on the issue who will qualify (and in what order) for getting material benefits (budget revenues and/or state credit guaran-

tees). The coalition of promoters break up because each of them lost confidence that together they can achieve the positive sum which would fulfil the needs of all members. Being aware of the forthcoming EU rules of the game and the limits of the positive sum they can achieve, and acting within an arena which was lacking a transparent rules, conceptual framework and capacities of strategic management, they rejected both mutual solidarity and obedience to the policy manager and start to run on their own and for their own. In that manner nobody was willing or able to take over the role of promoter of NEP, so the policy manager was forced to take over this role too. Because of elections the options of the manager to redesign the process was very limited, while at the same time because of the character of the stake it could not minimise the involvement of the gatekeepers. Being locked out in the first part of the policy process the gatekeepers were not willing to minimise or postpone their claims and demands. The whole management of policy process collapsed and the process moved to the ad-hoc public arenas and wild participation of those who felt excluded from policy making.

The procedural “mess” can be in our opinion at very first explained as a non intended consequence of the policy style of non-decision making and the governance with temporal and procedural instruments of power over the governance by political consensus, which are characteristic for the policy style of LDS governments, i.e. for Mr. Drnovsek as prime minister.

Lack of conceptual baselines and strivings to produce consensus on this baselines not only within the most powerful interest groups on the field but also within the expert community is one of the main characteristic of policy style. Expert knowledge is used not as a tool of seeking consensus between different paradigms and para-praxis of the stakeholders or to improve learning capacities of the actors and produce new concepts but as an instrument to legitimise secret decisions made before the formal policy process in started. This “policy culture” is commonly shared between the main stakeholders in energy policy arena. Thus the main conflicts are not settled within the formal policy process but are taking place at the level who and to what extent will define the “reality” by imposing his expert based model as the reality the policy process will focus on. This technology and investment based and driven policy approach is inevitably leading to the conflicts with gatekeepers at the level of the development, budget and monetary policy, at very first with MERD and MF. The government, i.e. the Prime minister are however using the gatekeepers as strategic tool of the dominance over the sector policies and are not making any efforts to redesign the dominant rules of the game within certain policy arena, but can however directly intervene in policy process or attempt to manage it by giving advantages and priorities to politically loyal stakeholders.

3.3 The Troublemaking New Agenda of Energy Policy

3.3.1 Legal Harmonisation to EU Internal Market and Climate Issues

By signing and ratification of *Agreement on Associated Membership to EU* (Official Gazette of RS, No. 44/97) and *Energy Charter* (Official Gazette of RS, No 45/97) Slovenia has obliged to harmonise its legislation with "acquis communautaire" also on the field of energy.

Slovene government has underestimated both the importance as well as the size of legal gap in approximation process. Instead of reassessing the conclusions and recommendations of several studies considering privatisation and restructuring of energy sector and forming an strategic team of most prominent experts for energy planning, policy, legal issues, subsectoral policies etc. in order to work out strategic plan for an active accession process, MEA has in period 1996 - April 1998 focused on energy policy as a matter of construction of energy supply capacities which correspond to narrow, sector defined criteria of national interest: security of supply, use of domestic resources and continuation of energy activities as a policy of regional (de)development of traditional energy regions.

Despite the signals has been given that neither within the government and the ruling party nor within the energy sector and even not within the "hard core" of traditional actors on the field of electricity supply, the state support to investment to instalment of new 200 MW power plant (TET3) in Trbovlje will face resistance and opposition within the energy as well as within macroeconomics, environmental and EU accession policy communities, the MEA followed the line of influential mining, trade union, regional and investment lobby for construction of new plant. This would be most probably not the case if there has not been signs of the top political leaders of the country that this line is in concordance with their political interest.[22]

At the end of 1997 and in beginning of 1998 Slovenia was criticised by EU Commission, especially its accession secretary Mr. van den Broek, for slow progress in structural reforms (especially privatisation of state monopolies, delays in fiscal and pension system reform). This has provoked an turbulent echo on the domestic political scene and put considerable pressure to the government to accelerate the harmonisation of the legislation and change its defensive attitude toward EU, oriented at very first to protect national monopolies against the EU competition as long as possible

[22] During the communist regime the local power structures has been always closely linked to the top of the "nomenclature" which has as a consequence that the whole cluster of regional economy depend on mining and electricity generation, which has been for decades cross-subsidised while all other economic activities could not made deeper roots and has not survived the economic shock which has followed to disintegration of SFRY.

The conflicts in drafting and decision making process on ESD Strategy and reactions on the text from critical energy experts as well as turbulent and unfinished process of drafting of NEP has been very clear indicator that even after self-destruction of the Greens as a (parliamentary) political party which led to decrease of symbolical importance of the energy policy and withdrawal of the energy issues form arena of political parties, the substantial national energy policy decision can not be made without corresponding legal basis and/or (at least passive) consensus of large majority of actors in energy policy and related arenas

The drafting of new legislation thus happened with large delay and has not included all most relevant, yet toward actual energy policy of the government critical energy policy experts. The final version of the text was drafted at the end of June of 1998and entered the parliamentary agenda in March of 1998.

With respect to the political process one has to mentioned at very first almost total absence of the public discourse considering energy policy as such, including the consequences, barriers, risks and chances which are related to approximation and accession process to EU. None of political parties have elaborated political program on the energy & accession, neither capacities to deal with complexity of the issue in order to anticipate the potential political gains by reducing the complexity into political discourse which is sound to their political program. The political style of party politics is thus non-innovative and reactive.

Political parties do not try to engage the experts on the field and the later are not starting public discourse on the energy & EU issue in media focused on intelligentsia. This is however in sharp contrast to the political discourse on certain from the government proposed energy investments which does not have consensual support within the government. Then there are disputes both within political parties as well as public disputes between experts. In this disputes the simplistic rhetoric of cultural fight ("Kulturkampf") of the political blocks ("red" against "black"; "forces of communist continuity" against "forces of Slovene spring") are used. The public dispute is dominated by experts with the background of energy planning and technologies, while the economists and other social scientists are taking minor part. Nevertheless the experts in the conflict are usually elaborating innovative approaches and concepts, but this remained untouched by political parties.

Neither in mass media nor at parliamentary discussion, on the draft of the law which took part on March 25 one can not find considerable conceptual and substantial criticism to the drafted provisions and solutions or amendments with policy alternated solutions. The Committee for Economy has issued together with the Office of the Government for Legal Affairs a set of conclusions which has been more or less technical or nomotechnical character. Political parties has not played (important) role in both, policy (principals) setting as well as in legal-political process.

Thus the radically changed rhetoric on the issue,[23] conceptual changes in the draft law which was submitted to the second reading in parliament on June of 1999[24] and a new policy style[25] which have followed the personal changes at the top of MEA and Energy Secretariat of MEA, can not be explained within the concept of political dynamics which is driven by the competition of the political parties and their capacities to design, aggregate and represent the different values and interests of their electorates. It seems that the theory of dynamics of political elite and contra-elite can have a much larger range in explaining the nature and dynamics of this kind of conflicts. Thus the radical changes can be simply interpreted as a consequence of pragmatic and opportunistic political style of decision making by not decision taking of the Government i.e. The Prime Minister which has after symbolical defeat of the governmental energy policy in TET3 conflict and contemporary criticism from EU Commission because (to) slow progress in accession, following the slogan "che sera sera" given a chance to fraction of the political elite who's power depends more on support of EU and positive sides of EU integration process of export oriented industries as from direct support of national energy industry. The reconstruction of the internal personal and party fraction clashes is of course not the topics of our research nor is of the direct importance for definition of national policy style thus we do not have any ambitions and attempts to do this kind of investigation.

3.3.2 The Energy Law

The new Energy law has a long unofficial history and a short official one. Drafts have been prepared in the Ministry of Energy since 1991, but there was no legislative urge. Considering the changes that occurred on the scene, probably mistakes have been avoided by the delay, at the cost of a late start of institutional reforms.

First draft of the new Energy law has been introduced to the Parliament in 1998. That version provided a minimal, if at all satisfactory, transposition of the EU law. The main characteristic of the first draft is the general scepticism and negative attitude toward introduction or the market forces in energy policy, especially on the electricity and gas subsectors is evident from the very beginning of the explanatory text of the law. Market

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[23] Mrs. Tea Petrin, who was appointed as a head of MEA in late April 1999 has at every occasion stressed the importance of the new Energy Law as an instrument which would on the mid and long term enable Slovene industry to improve its international competitiveness due to lower energy prices as a consequence of market competition in energy sector. This is at the level of the political rhetoric a real "salto mortale" since from 1992 on the main rhetoric "topos" was "reliable supply of energy, use of domestic resources and protection of domestic energy industry".

[24] According to reliable sources the complete text has been re-drafted by giving emphasis on faster market opening and more space for market forces within less then a week.

[25] This style is characterised by clear conceptual approach aiming on restructuring of energy sector, strong defence of the basic principles and conceptual solution and preparedness to discuss and seek for mutually acceptable solutions with all interested stakeholders not taking into account the social and/or political "weight" of their interest.

regulation and control mechanism as tools for assuring reliable and environmental sound supply of energy are not mentioned. Competitiveness of supply is not mentioned in preambule and in Article 9. which is defining basic principles of energy policy, but is mentioned in Article 10 within the context of the role of the state in energy policy. The whole explanatory preamble is focused on energy supply. The energy demand or the concept of energy services are not mentioned. Energy efficiency and environmental protection are contextually treated within this supply oriented context.

In a final step, between the second and third reading, under a new minister and a new state secretary of energy (Ms. dr. Tea Petrin and dr. Robert Golob), a substantially different proposal was eventually adopted.

3.3.2.1 Provisions of the Energy Law

The main objective of the law was to define co-ordinated long and short term planning the energy supply on the basis of its economics, reliability and quality. The law is based on the principle that the main task is to assure energy supply in all cases where market supply can not fulfil the criteria of security of supply its regularity, quality and price and environmental protection. The law is defining energy supply activities which are carried out as public services by public utilities, other public institutions or concessionaires under the public service obligation provisions. Further on the law is foreseeing minimal market opening of the electricity and gas market in concordance with Directive 96/92 EC. Following EU provisions the law is also defining the amount of strategic stocks of oil and oil derivatives in case of crisis of supply.

The law is also giving basis for state support to:

- diversification of energy carriers with an emphasis of use of domestic renewable and non renewable energy carriers;
- generation of electricity from qualified IPP, i.e. the producers which are generating energy with high fuel to energy ratio and/or on the basis of renewable;[26]
- research and expertise's considering supply and efficient use of energy;
- connection with foreign energy systems and providers of energy carriers.

The main choices made in the Energy law of 1999 are: regulated TPA with no single-buyer entity, market to be supervised by an independent regulator (the Agency for Energy, to be established within 6 months). The Agency for Energy will also set prices for

[26] Article 30 is defining that the distribution companies must purchase all generated electricity from qualified IPPs with installed capacities till 5 MW under the conditions which are at least equal. The criteria for qualified generation of electricity as well as special terms of purchase are defined by Minister, responsible for energy sector. Article 22 is by dispatching of electricity within guaranteed supply providing option for favouring purchase from CHP, electricity from renewable sources and wastes, electricity generated from domestic resources.

network access. Market opening is expected to be above 60%, effective 18 months after validity of the law.. The government will adopt market rules, where it will also spell out how the market operator “may” give preference to the domestic sources, as permitted by the directive 96/92/EC (up to 15% of primary energy consumed used for electricity production). Regarding “qualified production” the law is more decisive (discussed briefly later).

All producers will be able to sell their electricity in the internal electricity market no later than April 15th, 2001. For new plants authorisation is required. Eligible customers will be all final consumers with connection capacity over 41 kW and all distribution companies. The remaining captive customers, mainly households, will be serviced by the distribution companies under a public service regime. The market will be open for imports on January 1st 2003 under a reciprocity clause. Reciprocity principle may well have been the main underlying argument for such wide market opening. Slovenia is a net exporter of electricity, so the electricity companies wish to sell directly to a broad base of eligible customers abroad.

The gas market will be liberalised at a slower pace. All electricity producers, including autoproducers, will be eligible consumers for natural gas from January 1st 2003. Gas network access will be negotiable with providers of the transmission and distribution public services.

3.3.2.1.1 Qualified production

Cogeneration and small hydro interests have lobbied and generally succeeded in introducing favourable clauses for "qualified production" (QP), i.e. production of electricity with high efficiency, such as CHP, or from renewables. The market operator will have the responsibility to secure purchase of electricity from QP at conditions that are at least equal to the conditions on the organised market. The real meaning of this will be clarified when the regulations on market operation are issued, within 12 months from validity of the law. It may mean that "qualified production" will sell at the market clearing price, whereas other market participants will conclude contracts at the price they offer.

Two further clauses favour small CHP and renewable production. Firstly, qualified producers (small QPs) up to 1 MW will be allowed to sell the electricity produced to all consumers, including those under 41 kW. For them also the household market will be open, with probably more lucrative prices.

Second provision will limit the network access costs for small QPs. It reads: "The price for use of transmission and distribution systems for electricity produced by qualified producers of up to 1 MW nominal power may not include cost elements in excess of the costs that are minimal for provision of these services". At any rate, this precludes any explicit stranded cost elements to be included in the system access charges for QPs. As different estimates and allocations of the system costs are possible, the regulatory office

may choose a favourable estimate of the system costs for local producers, should the favourable attitude towards CHP and renewables continue to prevail.

With these provisions, introduced as amendments for the last reading, the lobby for local energy systems, supported in the Parliament by environmentalist MPs (GLOBE - Slovenia), has struck a compromise with the Government. Formally, a draft “Law on local independent producers of electric power”, introduced by a group of GLOBE MPs, is still in the procedure, but may be dropped, if arrangements under the Energy law will adequately protect the small scale, environmentally benign production.

3.3.2.1.2 Energy Policy Instruments

The Energy law sets the main energy policy directions, including also the criterion of sustainable development, and calls for preparation of a National energy programme (NEP), to be adopted by the Parliament. A revised NEP is to be prepared by the government at least every five years. Integrated resource planning (IRP) is identified as the approach to be used for preparation of the NEP. Short and long term operational documents of the government are the Energy balances (for one and 20 years respectively, the later to be renewed at lest every 5 years).

Local governments (municipalities) are expected to prepare "local energy concepts", in line with NEP and other local physical planning decisions. Non-compliance sanctions are indirect: a municipality without an energy concept can not apply for specific budget funds.

Further energy policy instruments are provided by the law. Authorisation is required for any production facility with rated power above 1 MW and for distribution at voltage levels above 1 kV. The specific requirements for obtaining authorisation may relate also to the plant site, type of primary fuel, efficiency and environmental impacts. Use of natural resource may require obtaining a concession (e.g. for use of running water for energy production), which in that case substitutes authorisation.

There are provisions in the law for introduction of "green electricity" certification and quota for the resellers (distributors). There is no obligation regarding when and how much this instrument is to be used.

No provision exists for introduction of an energy tax. Such policy instrument, if different in design or earmarking from other taxes (e.g. excise tax), would need additional legal basis. The CO_2 tax is based on the Environment Protection Act (1993).

3.3.2.1.3 Privatisation in the Electricity Sector

State is the owner of almost all assets in the electric power sector, except a small share of the distribution companies owned by employees (less than 5%). To direct the process, articles on privatisation have been included in the Energy law. The transmission grid and the Nuclear power plant Krsko are excluded from privatisation. Up to 45% of the shares

of the other companies (generation and distribution) may be privatised before the year 2003. No single owner or group may acquire more than 24% of all shares. Detailed plans for privatisation have not yet been released. It seems that sale will begin in the year 2000, as the treasury is already considering the budgetary income from the proceeds. Part of the proceeds (first 10% of the value of assets) is earmarked by the Energy law for resolution of the stranded investment problems.

The market value of the companies that are to be sold substantially depend on the prices for the grid services which the Agency for Energy is to determine by November 15th 2000.

3.3.2.2 Policy Process

As mentioned above the Energy Law has a short history but a long prehistory. It would be far above the cope an tasks of our analysis to try to reconstruct the whole prehistory, started from 1990 on. There has been more attempts to start the process and even some unofficial drafted versions, however the official policy process has not started until the new energy legislation became a precisely defined task of the accession process, i.e. until the Government has not made commitments to EU Commission to prepare and enforce a new, EU sound energy law. Therefore we will focus our analysis of the policy process and policy style only to the politically dynamic process of drafting, redrafting and adoption of the law.

After the election in Autumn of 1996 and long process of seeking for establishment of governmental coalition with stable support, a coalition of LDS, SLS and DESUS brought into being a new government in spring of 1997. The mandate over MEA remained in hands of LDS, which by appointing Mr. Alojz Kovse as a State Secretary for Energy gained for the first time direct operative control over the state activities in energy sector. This has however not influenced the policy style in the field of energy policy. By making this choice LDS and Prime minister Janez Drnovsek demonstrated that in their opinion no change of energy policy or policy style are indeed needed. Thus despite the coalition agreement which has emphasised the need for accelerated process of legislative adaptation to “acquis” and start of the negotiation process for full EU membership in Autumn of 1997, the activities of MEA on the field of preparation of new energy legislation have not been accelerated. New, EU sound energy legislation might of course endanger some energy projects which were political important for the support of the “coalition of growth” to the LDS.

Contrary to declared intensified legal accession to EU also in energy sector MEA has accelerated the activities in favour of construction of new 200 MW power plant in Trbovlje. This - despite being within the EU internal market in advance treated as “stranded investment” - should start to operate in 2004 by replacing the old 120 MW unit. This activities have been in fact not so much in function of energy but at very first in function of regional development and social policy, however at the same time related to maintain the regional structure of power which was loyal and supportive to the dominant

party on power. Thus one can speak about continuity of "catch all" energy policy, once serving not only to cover the supply of consumers with energy but also to ensure development of technology, technical modernisation, regional development, full employment and social progress in general. In concordance with this old fashioned policy was also the policy style, which was lacking consistency, transparency and fairness.

The activities for new energy law has been thus put aside through the long and intensive conflict on Law on Sovereign Guarantees for Construction of Replacement Power Plant Trbovlje 3, proposed to the parliament by Mr. Miran Potrc, distinctive and influential MP of reformed communists. As already mentioned the law was down-voted on the national popular vote on January 10, 1999. By accepting clear majority decision of indeed large minority of voters who took part on the referenda, the internal conflicts and clashes within the governmental coalition as well as within the LDS itself has calmed down, thus giving space for intensified activities on new energy legislation.

In March of 1999 the first reading of the Proposal of Energy Law entered the agenda of National Assembly. The text has been prepared in MEA with intention to correspond to the provisions of EU Commission on energy market at minimal level which was considered to be still accepted by EU Commission. Its main intention was to protected as long as possible and as much as possible the domestic electricity producers, oil derivatives and gas whole-sell companies from the market opening as well as domestic competition. The emphasis was still given to "reliable and diversified" energy supply, while competitiveness of energy supply and services have been mentioned, yet not given a priority. Within the manner of traditional policy style on the field, actors who were not representing the interests of national monopolies has been not consulted during the drafting procedure neither have had a direct access to information. The first reading in National Assembly however confirmed the Proposal without mayor remarks and demands for amendments.

In the meantime however the minister of economic affairs Mr. Metod Dragonja resigned and Mr. Tea Petrin, a professor of economics from University of Ljubljana was appointed to the function in early April of 1999. Within a month also state secretary of energy Mr. Alojz Kovse also subscribed its resignation and Mr. Robert Golob, at that time main negotiator of Slovenia in energy field within the EU accession process was appointed to the function in question.

3.3.2.3 Policy Style

After this personal changes on the head of MEA the policy orientation as well as policy style substantially changed. In opposition to the former attempts of maximal protection of domestic energy suppliers new minister has declared as a main goal of energy policy to enable Slovene industry to decrease its production costs by getting access to the (cheaper) energy on the energy market. She has further claimed for stepwise reduction of state subsides to (energy) industry and for new support mechanisms to the companies with perspectives to survive on EU market.

Within a few weeks the proposal of energy law has been substantially re-drafted in favour to more competition and faster and more dynamic market opening to EU. This intentions have been announced in advance and supported by comprehensive and publicised arguments, based at very first on the need to adopt as soon as possible to EU rules and to enable the export industry to benefit from market dynamics on energy market.

We can only speculate on the political and interest background of the radical change in energy policy in Spring of 1999. It would be outside the range of our task to even try to reproduce the internal dynamic within the arena of political parties and within the arena of organised interests groups which has lead toward change of policy orientation. For a policy style analysis is this however less relevant then the form of the changes in question. The radical change of policy orientation occurred totally unexpected to those who are not included policy set-up. It was not a consequence of any from outside visible changes neither in the dominant political party (LDS) nor within the coalition on-power. It was not based or explained by any political or policy document of the government or demanded by political opposition or main stakeholders in the field. It can be however explained by the policy style of the government, imposed by the prime minister himself.[27]

The style is based on the principle of non-intervention in the process of articulation and aggregation of interests in the specific policy field (in our case energy). Neither the institutional framework nor the policy set-up are subjected to the political power or administrative control of the government. The government is however setting the agenda and waiting of the outcome of the articulation and aggregation of the interests, thus the structurally privileged interests as articulated by most powerful stakeholders usually prevail. The state administration, weak in its capacities and influenced by tradition of being directly influenced by most powerful industrial stakeholders (large companies and sector trade unions) has been usually supportive to the dominant interest of industry. The ministers and the top of state administration are subjected by the Government to follow the interests as articulated by the industry even if they have personal objections to the decision in question.

If the opposing interest within the arena are not supported from any politically important actor outside the core arena (coalition partner or/and political party, or, more recently EU) and/or the process is not transferred either to symbolical arena of party politics or publicly visible and symbolically prestige “ad hoc” arenas, the process is smooth and consensus between main stakeholders can be reached.[28]

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[27] The position of prime minister within all governments lead by LDS is not a position of “primus inter parites” but rather a position of the emperor over subordinated gentlefolk.

[28] However if this is a consensus between public administration and the industry the price of this type of consensus making are the problems in implementation and enforcement, since the “deal” is usually that the new legislation will be adopted yet implemented selectively, if at all.

However, if a substantive opposition is raised despite the policy process is giving advantages to the structural privileges and "harmony" between the industry and sector public administration, the strategic instruments of policy procedure and timing within the form of "non-decision making" are used to play-out the opposition. Nevertheless if the internal opposition persists and could be enforced by some important stakeholder/actor at international level (EU Commission, for example) the government avoid to be trapped in position when it has to deal simultaneously with both internal and external opposition by sacrificing the formally responsible top managers of the policy process (i.e. state secretaries or/and ministers).

In the political vacuum which follows the promoters of new concepts are appointed on the function of policy managers. In that manner the alternative concepts are not enforced by change of the framework conditions of the policy arena or internal rules within the arena. Being in dominant position within the policy process the interests represented by new policy process managers can still hardly aggregate inside the existing set up and rules of the game. With an external support new concepts thus can reach the level of the legislative change, however this does not automatically mean that the rules of the game within the policy arena has changed. Without changing this rules in order to enable articulation and aggregation of the interests which structurally correspond to the new legislative order the implementation and enforcement processes are endangered, since the structure of policy arena still oppose the content of the legislative change.[29]

By not taking an active and conceptualised part in institutional re-design of policy arenas which would follow the idea of fair access to information, on transparent procedures based access to policy formulation and support to structurally weakened stakeholders to articulate and aggregate their interests, the government risks to face a general policy and political opposition if the interests of the dominant policy stakeholders are endangered. In case of opposition raised in other policy arenas which could get political momentum and lead toward opened political conflicts, the "non-decision making" is used.[30]

When because of external reasons (EU accession) the government is forced to make (at least legislative) change which does not correspond to the interests as aggregated in the policy arena, new policy process managers are appointed and the policy process is reduced to the process of changes of legislation within very restricted time framework.

This was also the case of policy process on Energy Law. However the new policy process managers brought a new policy style. By emphasising certain distance to the energy industry and this sty is to a certain degree similar to a policy style of the period 1990 -

[29] The legislation changes, however the actors not neither the structure of their relations. Or using the language of political metaphors - one is facing the logic of permanent "conservative revolutions", which despite its "revolutionary character" never addresses the sources of political power and domination.

[30] This usually leads toward delays in decision making, permanent conflict potential and highly increased costs of implementation.

1992 when it was - however in more “revolutionary manner” - also stated that the interests of state owned energy industry is not automatically equal to the interest of the state in the field of energy and the top policy managers tried to change the rules of the game within the energy policy arena.

The policy style of the new top policy managers is also characterised by being based on transparent concept which can be subjected to the criteria of rational argumentation. Further on it is characterised by not giving support in advance to any investment or by setting the criteria of decision to fit the decision which has already been made before.

Within a short (from end of May 1999 to end of September 1999) and intensive policy process on Energy Law which followed the changes of top personal in MEA the process was characterised by an approach which was opened to the interaction with all stakeholders, including those with marginal or not yet aggregated interests. The nature of this interaction was more then formal but rather consultative, thus the suggestions for amendments and changes of the proposal of the Energy Law were accepted as long as they can fulfil the criteria of corresponding to the conceptual framework of the Law and criteria to fit into legislative procedure. However this on partnership based and toward innovation and compromise oriented interaction took because of time restrictions a form of bilateral negotiations between the policy manager and interested individual stakeholders.

Thus it is not clear yet whether or not this until now successful new policy style will be reflexively used as an instrument of institutional redesign of energy policy arena in Slovenia and will lead toward a new style of policy making on energy policy in a long term or it was just a “one day flee” in yet another ad hoc arena which will expire soon. The first real test to a what extent will new policy style influence the rules of the game within the energy policy arena is a process on new National Energy Action Plan which has just started.

Table 2: Governments - Political/Policy Tasks & Policy Styles 1990 -2000

Year	Government Coalition	Political Agenda	Energy Minister	Policy Objectives	Policy Actors/ROLE	Policy Results	Policy Style
1990/ 1992	**DEMOS:** DS SLS SKD SDS ZS	*Constitutional Reform, National Independence, International Recognition Economy restructuring, Building of nation state,* ***Denationalisation***	Miha Tomsic *(ZS,) expert*	"***greening" of sector****; preliminary shut down of NEK;* instit. reform; EE capacities building; reduction of coal production; **stability of supply in critical circumstances**	Minister; manager ZS; promoter, ***Nuclear lobby, coal lobby; opponent***	**Internal reform of ME,** ***Establishment of ICISA; Support scheme of EE; emission decrease*** **stable supply**	minister driven innovative - opened; sol. oriented
1992/ 1996	**LDS 1:** LDS SKD ZLSD SDS **LDS 2:** LDS ZLSD	***Political stability, International Recognition*** Economy Recovery; *Consolidation of national elite; Monetary and Fiscal Stability: Decrease of inflation*	Franc Avbersek, *ZLSD, Director of RLV* Boris Sovic, *ZLSD, Politician*	**Stability of supply; consolidation of supply side coalition,** ***EE policy Institutional.***	Government; manger, gatekeeper Supply sector; Promoter ZLSD; supporter	stable supply; ***consolidation of power of supply sector***; EE policy institutionalis. RESoRE	government/ mining sector driven; non-innovative closed,
1996/ 1998	**LDS 3:** LDS SLS DESUS	**Stability** *EU approximation Monetary and Fiscal Stability Restructuring Privatisation*	Boris Sovic, *ZLSD, Politician* Alojz Kovse, *LDS, Manager*	status quo "let it be" consolidation of power NEP TET3	Government ZLSD. ELES mining sec. *MERD, MoE Opponent NGOs;* Opponent	Increase prices & EE gradual reforms	government driven; corporativits, pragmatically semi-opened
1998/ 1999	**LDS 3**	***Stability*** **EU accession** *Monetary and Fiscal Stability* *Reforms (pension, health)*	Alojz Kovse, *LDS, Manager*	status quo "let it be" ***maximalisation of single option:*** TET3	LDS; *promoter-opponent* Ch. of Economy, Trade Unions, promoters MEA-manager SKD, SDS***; opponents,*** NGOs, ELES; opponent	Keep on going Referendum on TET3; supply side coalition breakdown	mining lobby driven; crisis management clientelistic
1999/ 2000	**LDS 3**	***stability*** ***EU - "acquis"*** *polit. Reform (election system)*	**Robert Golob,** *Expert*	new EU sound legislation; reform of policy style; new NEP	MEA, State Secretary; *manager, promoter,* NGOs; supporter	**EU sound Energy Law**	innovative; expert supported; opened, consensus oriented

3.4 The Energy Policy Relevant Environmental Policy in Slovenia

3.4.1 The Origins and Brief Overview of History of Environmental Protection in Slovenia

Slovenia has relatively long tradition of protection of environment. Already in early 1920s an initiative from prominent scientists for establishing first national park was raised. The first nature protection associations were also established at that time. After the World War II the environmental issues became relevant discursive topics at the beginning of 1970s, when liberalisation of the economy and of the public life enable conditions for critical evaluation of the environmental consequences of rapid industrialisation. First environmental "NGOs" came into being within this period of liberalised communist rule. By publishing the so-called Green Paper on the Environment, which presented the state of the environment in Slovenia and laid down the first guidelines for improvement of that state therefore Slovenia marked the occasion of the First World Conference on the Environment, held in Stockholm in 1972. Couple of years later the Assembly Commission and the Republic Committee for Environmental Protection were established. First, relatively strict environmental protection regulations had been issued, however their implementation have been only partial.

Despite to the fact that the institutional framework did not support efficient protection of the environment it however still it gave the organisations and individuals involved in environmental protection opportunities and enough freedom to demonstrate the environmental problems in public and to the public as well as to carry out the pressure on the decision makers. Within 1980s this pressure and soft environmental public protests gained increasing support in media and in mid 80s the environmental discourses created and dominated ad hoc political arenas of "wild participation", which were protected and sometimes also initiated by reformist wing of communist elite of power. Environmentalism became at that time also a distinctive "trade mark" of Slovenia within SFRY as well as arena for challenging the borders o institutionalised politics.

National conference on ecology, energy and their mutually linked impact on national economy organised one year after Chernobyl disaster resulted in an official ban on further activities aimed for construction of new nuclear power plants in SFRY and succeeded in linking the numerous efforts for improvement of most critical environmental problems, especially those raising from air pollution from thermal power plants. Foundations were laid for the rehabilitation of large thermal power plants and the construction of a national gas network, etc. At that time, Slovenia established its first ecological fund

and a special-purpose resource, intended for financing this fund.[31] The first programme document was drafted, as a basis for allocating the funds accumulated in this fund, defining priorities in the fields of air, water and soil protection and waste management. However the implementation of the decisions have been faced with and slowed down by an inappropriate institutional framework. Its political frame was broken by unexpected and revolutionary, yet consensual and reform political changes which have established Slovenia as parliamentary democracy and have led within the turbulent political (and later on military) events of disintegration of SFRY toward its national independence, proclaimed in June 1991 and recognised by majority of EU states in first part of 1992.

3.4.2 Energy Relevant Environmental Policy Actors

From the environmental policy processes which were relevant for energy policy in Slovenia we selected three process which are in our opinion most relevant and at the same time also characteristic for the policy styles. Before touching the processes we would however like to give a brief description of the actors which has been involved in one or more of them.

Parallel to weakening (or more roughly said - vanishing) of the ZS and the green political parties in general new actors emerged while some old actors faced the process of their internal and external restructuring and/or redefinition of their roles in new political, polity and policy context

As new "post green" actors three different type of actors should be mentioned: environmental citizens organisations and services, new (small scale) enterprises producing and/or trading "environmental" products and/or services, and the EU.

3.4.2.1 The Greens of Slovenia

At the beginning of nineties a new actor emerged who has played a major role in paradigmatic change of the concept of environmental legislation in Slovenia - the political party Zeleni Slovenije (Greens of Slovenia - ZS) which has as a part of DEMOS and LDS 1 coalitions had (also) mandate on governmental responsibility on environment. The ZS are movement-party which failed to establish transparent and stable party structures and comprehensive political program. Rather then an actor (among the others) they considered themselves as a subject of revolutionary change which has very much influenced

[31] At that time the atmosphere in Slovenia was favourable enough for us to set up the Ecological Fund, which was financed by the so-called "ecological dinar" (a tax for environmental protection), in spite the various obstacles. Slovenia was the first Central or East European country to set up such a fund. The funds collected in this manner were to be spent in accordance with the special programme adopted by the then Assembly of the Republic of Slovenia. This programme even then contained certain elements (rehabilitation of thermal power plants, improving the quality of watercourses, implementation of the strategy for and operational programme of waste management, and protection of soil against pollution) which are still of interest even today.

not only the party but also some of its ministers, especially the minister of environment in period 1990 - 1994 Mr. Miha Jazbinsek.

3.4.2.2 Environmental citizen's organisation

After 1992, supported by foreign foundations and programmes in support of development of civil society some new environmental non profit NGOs - generally following the "offensive principle" of sustainable development rather the "defensive principle" of environmental protection - emerged and acclaimed their aspirations to take part in decision making process in environmental and related policies, while some nature protection associations switch from paradigm of actors determined by national territory and make efforts to be integrated within well structured networks of global nature conservation actors (WWF, Bird Watch).

However due to the geo-politically marginalised position and importance of Slovenia for international environmental NGOs and its relatively high GDP per capita the support to environmental NGO community was marginal and far less then in majority of CEE transition countries. The domestic programmes in support of the development of so called "third sector" are conceptually as well as financially weak in general and especially for environmental sector. Despite to this environmental citizens organisations and services are playing important role as promoters and lobbyists of concepts and programmes of sustainable development, environmental space, Agenda 21, public participation, climate change etc. as well as the role of opponents toward state policies and investments which are considered as unsustainable. Their participation in legal process or its initiation is rather limited.

3.4.2.3 Business Community

Many of the "environmental" small scale enterprises emerged since 1989, when private initiative has been given free space. There has however not been made any report or study on that which would have been known to the author of this text and the topics out of the scope of the research in question. Nevertheless with respect to policy process it could be concluded that they either have no aspirations or they lack skills and capacities to claim to influence the policy process in the field.

The later is however not true for larger and/or within business sector well anchored enterprises. Despite many large polluters are not privatised yet and their management has been transferred to Slovene Development Fund and regardless to the obstacles and delays in privatisation process, the majority of enterprises have been privatised until now, including largest gas transmission and oil derivatives wholesale companies. This is however not true for whole electricity subsector where the privatisation in first to start.

We are lacking knowledge on any study which would have been focused on policy capacities, orientations and styles of Chamber of Economy as the most important representative of the interest of business community nor we are familiar with any kind of sys-

tematic overview of the policy goals, objectives, measures and tools of its Energy Sector. Yet based on their public statements and lobbying activities within the conflict on construction and financial scheme of TET3 one might conclude that both have not changed their perception of energy policy as supply side corporativist designed national monopoly driven approach. Chamber of Economy is far as it is know to us never played a role of promoter of new approaches and instruments of environmental protection but mostly the role of the opponent to the proposed changes.

3.4.2.4 The EU

Especially after 1996 when Slovenia made final political commitment to apply for full EU membership the EU is far most influential new actor not only on the field of environmental protection and energy policy but also taking into account the reforms of legal and regulatory frameworks of policies in general. The role of EU is however triple. On the one side it is supporter toward institutionalisation of framework conditions of modern markets, however it is also a provider of support of policies which are not driven by the market but are in function to stabilise the commodity form as the basis of social integration. The third and most visible is however the role of EU as gatekeeper within the formal political-administrative accession process.

Within this large and fast modernisation process in most policy arenas EU is even not present at the level of personalised actors, yet it is exactly even more present through its absence in a form of absent, yet hegemonic power or in other words, as a regulative concept.

3.4.3 The Environmental Protection Act

The first process is a political process on defining the new legal framework of environmental policy aimed to change the paradigm of environmental policy from passive approach of environmental/nature protection to an active, integrative sustainable development policy. The process is parallel to - and a part of - dramatic process of establishment of new political regime and very risky and dramatic process of establishment and international recognition of new nation state. It is characterised by not yet finished process of transformation of political institutions, arenas and actors and by the process of redesign of environmental administration.

Table 3: Environmental Protection Act

Period	Process	Actor	Type	Role	Instruments	Style
1990 - 1993	Legislative – Framework and Symbolical Politics	Ministry of Environment	GO - ministry	promoter/ manager	expert knowledge political pressure	expert based, exclusive, revolutionary
		The Greens of Slovenia	political party	strong promoter	political bargaining public pressure	exclusive, public
		LDS	political party	weak promoter	intergovernmental negotiations and pressure	co-operative, non-transparent
		Chamber of Economy	business NGO	opponent	strategy, targeted interest pressure, lobbying	non-transparent; court politics
		Government	GO	gate-keeper/ manager	strategy, legal knowledge	non-decision, strategic, opportunistic

3.4.4 The CO_2 Tax Decree

The second process is the decision making, implementation and enforcement process on CO_2 tax/Decree. At very first also this process has been characterised by the absence of involvement of major stakeholders in designing of the policy process, its goals and objectives. However this process is from its promoters not more motivated by gaining influence in arena of political parties or gaining position within the government but rather by combination of two pragmatic approaches: the approach to create additional source of budget revenues and the approach to install economic mechanism which will stimulate the energy efficiency. With respect to process dynamics and policy style we consider as important both the direct reaction of targeted industrial enterprises as well as the capacities of MOP to learn from the process and adopt its policy style from command and control to more opened to involvement and participation of other stakeholders. The first is in our opinion important because Chamber of Economy has lost its monopoly of representation of interests in bargaining process, which open space also for non-industrial actors (energy related environmental NGO) to at least acclaim their interests and preparedness to take part also in the processes of instrumentalisation of policies. The second is of course important because it give a clear sign that MOP is capable to learn very quickly and adopt its policy style while issuing the policy instruments of a new kind which could have a positive feedback on environmental policy making as such. However due to the pragmatic nature of objectives and ad hoc character of political arena it is not yet clear if this positive achievements will be transferred to environmental policy arena as such.

Table 4: CO_2 Tax-Decree

Period	Process	Actor	Type	Role	Instruments	Style
1996 - 1998	Policy instru-mentalisation	Ministry of Environ-ment	GO - ministry	promoter/ manager	expert knowledge process man-agement knowl-edge	expert based, pragmatic, inclusive, transparent
	Increasing budget Revenues	Industry	ind. com-panies	opponent	public protest	pragmatic, co-operative
		EE experts	political party	supporter	expert knowl-edge, lobbying	pragmatic, supportive
		Energy Association of Cham-ber of Economy	business NGO	opponent	lobbying	pragmatic, co-operative
		Slovenian E forum	expert based environ. NGO	supporter	strategic knowl-edge	strategic, reserved
		Ministry of Finance	GO	gatekeeper	strategy, legal knowledge	pragmatic, co-operative

3.4.5 The National Environmental Action Programme

The reflection of the third process - the process of preparing, drafting, designing and adopting of the National Environmental Programme - are suggesting that this (still) might not be the case. However the reasons might not only be in missing or weak capacities to transfer positive experience into main arena of policy making but also in lack of time budget to do so and in weak policy making capacities in general. NEAP process has been first postponed and later squeezed by the EU accession. Without being actually a partner in the process EU has influenced its structure and dynamics, not only its (pro EU) proclaimed goals and objectives. It could be considered as a kind of “meta-actor”, present on the structural level through its absence at the level of policy actors.

Within the third process which is a process on strategic policy document of a general character we again do not face any opposition (or even presence) of political parties. The role of representing public interests is thus fully given to the ad hoc network of environmental citizen’s organisations (ECOs) which have emerged by and after decline of the green parties. Neither any political party nor Chamber of Economy - which has been through its experts indirectly involved in the process from the very beginning on - but the ECOs can be find as an opponent in the process. Yet it is not the very document or at

very first its goals, objectives and contents which have been opposed but the procedures and policy style of MOP. Procedures have been challenged not to be strictly according to the in ZVO and other legal acts. Policy style is accused not to be based on principles of good practice (from EU) because of exclusion of certain expert knowledge, weak involvement of NGO, insufficient supply of information and missing material support for public participation. In addition the proposals for changed, amended and upgraded textual provisions have been given.

This criticism has lead toward improvements of information flows and to an internal Decree on good practice in public participation issued by the Minister. However at the level of material support to qualified public participation the gentlemen agreement on financing the contributions of the experts from NGOs has not been realised.

A more opened, pluralistic approach in expert knowledge would undermine the fundaments of policy style of MOP - the monopoly in setting up of the expert knowledge. This is not only giving credibility to policies, measures and decisions but it is also shaping/determine national policy style. An approach which would not promote certain, usually dominant (and exclusive) expert (para)praxis and as an unquestionable substance of policy would question the substance of national specific policy style - the dominant perception of expert knowledge as the objective Truth. Since ECOs are challenging exactly this notion they are challenging the very boundaries of one of the basic characteristic of national policies in general.

Table 5: National Environmental Action Programme

Period	Process	Actor	Type	Role	Instruments	Style
1995 - 1999	Policy Formulation/ Adoption	Ministry of Environment	GO - ministry	promoter/ manager	expert knowledge strategic knowledge	expert based, formalistic, inclusive, non-transparent
		Environmental NGOs Network	ECO	promoter/ opponent	bargaining, public pressure	co-operative, transparent critical
		LDS	political party	inter-mediator	intergovernmental mediation	strategic - pragmatic
		Chamber of Economy	business NGO	weak promoter	expert knowledge	co-operative
		Government	GO	gatekeeper	strategy, legal knowledge	non-decision, opportunistic

3.5 Policy Actors, Instrumentation, Arenas, Networks and Styles

In 1990 the energy and environment policy communities, arena and networks in Slovenia radically changed. Conceptually new legislation has been relatively soon after the "soft revolution" adopted and gradually implemented and enforced, yet especially on the field of enforcement this process has not been completed. From 1997 the legislation is changing again in order to fit the criteria of EU accession, however this changes are not of conceptual character.

Energy and environmental administration has been also reorganised however also here the process has not been finished and the actual changes are following the standards of EU compatibility. With respect to both legal and administrative changes we can conclude that the implementation and monitoring capacities has not achieved the level of design complexity of the legal system. Nevertheless some new institutions have been brought into being. From perspective of our inquiry the most important are the Environmental Development Fund of RS (EnDF), the Agency of RS of Energy Efficiency (AURE) and the Agency for Energy Restructuring (APE).

EnDF has brought set of a new instruments on the field of air protection and infrastructure investment and to a smaller extent also for the use of renewable energy sources: credits and soft loans. As manager of public tenders for EE and RES projects and support activities. a co-ordinator of the co-operation with EU in the field and responsible institution for the development of the regulations on the field AURE is also focal point in EE arena. After the decline of green parties APE moved to RES pilot and demonstration projects but is also operating as a kind of para-state agency for RES.

At the level of political process the Environmental Protection Council of the National Assembly (EPC) and GLOBE Slovenia should be mentioned. The first has been raised on the basis of the Environmental Protection Act to create a direct link of the policy actors to the parliament, however this link has been to a great extent monopolised by stakeholders which already have privileged access and impact on environmental policy in former regime: university and research institutes, Academy of Science etc. Thus environmental ECOs and other structurally weaker stakeholders welcomed and supported the establishment of the GLOBE Slovenia as an trans-party network of MPs who are devoted to the environment and opened to the "civil society". Since 1997 GLOBE is used as an ad-hoc arena for discussing and influencing the legislative process on environment and related issues.

Further on a set of policy instruments has been widened with pollution charges, environmental sanation assets by privatisation of the enterprises and finally also with CO_2 tax which is since 1998 an important tool for budget revenues as well as an incentive for stimulating energy efficiency. Generally speaking MoE has demonstrated its preparedness and aspiration for introducing new, "soft" instruments and assured their implementation and empowerment.

In the field of energy relevant environmental protection no stable new networks can be find. Political processes in the nineties has been characterised by ad hoc arenas and single-issued networks which have not been of a longer duration. However two more stable, however in best case semi-official networks can be detected: within the first the different nature protection and environmental NGOs and a part of nature protection state administration, occasionally supported by large electricity producers are networked in order to protect nature against the aspirations of owners and operators of small hydro power plants. Within the second the association of owners and operators of small hydro power plants, the COGEN Slovenia and energy efficiency experts based ECO (Slovenian E-Forum) are organised and connected to GLOBE Slovenia in order to improve the legal and policy conditions for independent qualified power producers (cogeneration, small hydro).

Taking into observation the national policy style in the field of environmental policy it could be concluded that it is based on a notion of objective character of scientific truth and emphasis of sector expert knowledge, however it is oriented toward new instruments and tools yet is not innovative at the level of establishing conditions for possible new coalitions of actors. It is also opened to new actors and approaches in ad hoc single issued arenas whereas in arenas of strategic policy it is tending to give time and/or procedural advantages to the actors with already aggregated interests and structures of representations while it is not supportive to positive discrimination of actors with structurally weak interest positions and weak capacities for aggregation of their interests. In general its also characterised by unstable or non-transparent procedures which are failing to meet the given time schedules or information or financial outputs.

3.5.1 Actors

The main actors in the field of energy & environment in Slovenia are:

3.5.1.1 Governmental Institutions

3.5.1.1.1 MEA - Ministry of Economic Affairs

MEA is in-charge for general energy sector planning, preparation of legislation and policies, sector regulation and supervision, energy statistic, construction permits and operating licences for power plants and for energy efficiency (EE). Through its Department for Energy headed by The State Secretary for Energy it has overall responsibility for energy policy in Slovenia.

3.5.1.1.2 AURE - Agency of the Republic of Slovenia for Energy Efficiency

As a body within the Ministry the AURE was established in 1995. The Agency principle task is the implementation of the national energy strategy, by developing and implementing of national programmes of energy efficiency in industry, buildings and transport,

in the field of cogeneration, and in the field of energy use in local communities. AURE is also in-charge for *Energy Efficiency Fund*, established in 1998. The fund's goal is to provide the industrial enterprises, institutions and building managers with financial resources under attractive interest rates, and thereby, to decrease energy costs in the long term.

3.5.1.1.3 MoE - Ministry of Environment and Physical Planning

MOP has in the field relevant to energy efficiency and climate responsibilities for urban planing and site licensing, issuing concessions for exploitation of natural resources, nuclear safety, environmental impact assessment and monitoring including control and monitoring of air quality as well as public utilities on a local level

3.5.1.1.4 HMZ - Institute of Hydrometeorology

HMZ is among other also in charge for collection, evaluation, processing and dissemination of data which are relevant for climate change (emission of GHG and other gases, amount of rain/snowfalls and their spatial and time distribution, time and spatial distribution of air temperature). HMZ has also task to prepare national climate report and to follow and take an active part in the international climate policy on behalf of MoE.

3.5.1.1.5 EnDF- Environmental Development Fund

EnDF was established in 1995[32] on the basis of the Law on Environment. It is an revolving fund which main function is to facilitate investments in environmental protection measures and environmental sound/improved technology by subsidising interest rate for loans for the investment. Since 1996 it runs soft loans for fuel switching, mainly from coal to natural gas and to a less extent also to liquefied gas and to light fuel oil. Renewable resources, such as biomass were included only recently in the programme for subsidies. In this case soft loans may not suffice.

3.5.1.1.6 MERD - Ministry of Economic Relations and Development

The MERD is responsible for trade, foreign investment, privatisation, price control, state commodity services, competition regulation and consumer protection. Its role of controlling prices and setting tariffs is of the outstanding importance for energy sector since both energy as well as liquefied fossil fuels prices are controlled by government, respectively MEOR.

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[32] Eko Sklad has been launched by a credit of 16 mio ECU provided by World Bank. Until now it has issued SIT 3.2 billion for following programmes: switch fuel to environmental friendly fuels, crediting of environmental investments (co-financed by 50% by the EU), crediting of infrastructure of municipalities (within this programme also 4 investment in gas distribution pipelines and one in DH pipeline) and substitution of ozone layer depleting substances.

3.5.1.1.7 MF- Ministry of Finance

Relevant because of its control of energy prices, fiscal and budgetary policy as well as for creating/controlling rules and procedures for public loans.

3.5.1.1.8 MAF - Ministry of Agriculture and Forestry

Relevant only for the energy use of biomass in Slovenia by issuing the forestry management regimes and subsidies. As a part of the Ministry *The Institute of RS of Forestry* is most active in the field.

3.5.1.1.9 MST - Ministry of Science and Technology

Actually very limited since there are only very few short term programmes related to energy and environment (technology of wood biomass utilisation, respectively). However in small country like Slovenia each larger programme on mid-term might be of importance for the policy in the field.

3.5.1.1.10 Slovene Committee for Climate Change Issues

In September 1997 Slovene government established "*The Slovene Committee for Climate Change Issues*".[33] Tasks of this committee are:[34]

- co-operation at implementation of state policy related to climate change
- co-operation at preparation of Slovene standpoints at The conferences of the Parties
- co-operation at preparation of The national report, anticipated by UNFCCC
- making opinions about texts on environment protection national programme and other national development programs from the fields of energy, transport, agriculture and forestry, which refer to the UNFCCC.

3.5.1.2 Research, Engineering and Consulting Companies

3.5.1.2.1 IJS - Institute Jozef Stefan

The IJS is with around 750 employees the largest national research institute on the field of natural and applied sciences, however it is not focused on climate issues as such. Nev-

[33] The Committee which is constituted form high representatives from ministries of environment (state secretary of risks and director of Hydro-meteorological Institute), agriculture and forestry, science and technology, transport and communications, finance, foreign affairs and economic relations and development as well as form chamber of industry, academy of science and arts and 2 environmental NGO representatives and experts for waste, transport, energy and agriculture from corresponding ministries is chaired by Mr. Pavel Gantar, the Minister of Environment and Physical Planning.

[34] The Resolution of the Establishment of the Slovene Committee for Climate Change Issues, Off. J. RS 59/97, pp. 4874.

ertheless in co-operation with different natural science faculties/departments of the University of Ljubljana it provides basic expert knowledge in the field of climate change as well as "scanning" of the global development of the conceptual approaches on global climate. Far more direct influence and impact on energy and climate issues has its Energy Efficiency Centre.

3.5.1.2.2 IJS CEU- Energy Efficiency Centre

The IJS CEU was established in 1993. It is focused on new approaches in energy planning (IRP DSM) in industry, penetration of energy efficient and/climate sound technologies (like cogeneration), education and training of (energy) managers in industry and last year also for representatives of municipalities. In the last period the Centre has performed also some studies for preparation of climate strategy for the MOP and the national electricity transmission company ELES. The IJS-CEU is included in OPET Network (Organisation for Promotion of Energy Technologies) and is a Slovenian national member in COGEN Europe, the European association for promotion of cogeneration.

3.5.1.2.3 GI - ZRMK Civil Engineering Institute

GI-ZRMK is the main national institution on the field of applied approach to energy conservation in building sector and energy efficiency in households. It co-ordinates the activities of national wide (37 offices with 73 qualified energy advisers) energy advisory network for consumers/households EN-SVET. In recent time it also demonstrated interest for renewable energy technologies which are relevant for household and public sector.

3.5.1.2.4 APE - Agency for Energy Restructuring

Established in 1990 as a first Slovene private energy agency, at that time in-charge for restructuring of tasks and responsibilities within the Ministry of Energy and for carrying out basic activities for promotion and support of energy efficiency and renewable energy. Since 1993 predominantly active on the field of renewable energy with emphasis on wood biomass including preparation of project documentation and carrying out pilot-demonstration projects.

3.5.1.2.5 Other Energy Consulting and Engineering Companies

There is a dozen companies dealing with drafting of municipal energy concepts, energy accounting, project and financial documentation for EE and RE projects etc. (IBE, POP Ltd., ISPO Ltd., IEM Ltd., ESO Engineering Ltd., Gejzir Ltd., Varinger Ltd,)

3.5.1.3 *Business, Professional and Environmental Organisation*

Among industrial associations the Slovene National Committee of World Energy Council should be mentioned. From about 40 networked Slovene environmental citizens organi-

sations Institute for Climate Change and *Slovenian E-Forum* are the only two who are addressing climate issues. Slovenian E-Forum is also focused on energy policy in general and on support to energy efficiency and renewable energy with and special emphasis on energy concepts of municipalities in particular. *Association of Owners and Operators of Small Hydro Power Plants* has the longest tradition and the largest constituency on the field of RES actors. *Slovene Solar Associations* and *ISEC Slovenia* originates from early 1980s and are both limited to research and promotion projects of use of solar energy. *Slovenian Biomass Association*, established in 1996 has not succeed yet to bring it activities on regular and professional level and is predominantly carrying out its policy trough personal contacts. Much stronger institutional back up has the *Slovene Association of District Heating and Cooling* which is bringing together and representing the interests of DH scheme operators, owners, engineering and technology & equipment companies.

3.5.2 Policy Instruments and Instrumentation

At the level of policy instruments one can recognise an important conceptual innovation and progress in the nineties. Nevertheless the questions of "tuning" of the instruments, their "orchestration" as well as of their absolute and relative "sound producing capacities" is far more difficult to answer.

Most important conceptual and institutional innovation on the field in Slovenia was brought by the Law on Environment and Law on Public Trading Services, both designed at the beginning of nineties by MoE, respectively by minister Miha Jazbinsek (The Greens of Slovenia).

The *Law on Public Trading Services* (1993) has brought the concept and legal arrangement of *concessions* and concession act.

The *Environmental Protection Act* (1993) has brought a legal basis for establishing of national *Environmental Development Fund* and for introduction of *pollution charges, fees and taxes.* It has also given a legal framework for so called *"environmental reservations"* in the privatisation process, i.e. for the capital stocks which must be within the process of privatisation reserved and earmarked for an improvement of environmental performances of the company and/or sanation of environmental damages.

In 1994 the *Environmental Development Fund* was created. Since 1995 it is among other also issuing soft loans for *fuel switching to environmental friendly* fuels for industry and for households as well as for environment improving municipal infrastructure (district heating for example) by *issuing soft loans*. The *fuel switching programme* is one of the most important instruments in support of penetration of natural and to a less extent also for liquefied gas however it not suffice as support instrument for renewable energy.

In 1997 MoE also introduced CO_2 *tax* which was one year later fine-tuned and substantially increased. The tax currently contributes approximately 2% of state budget reve-

nues. It has however a character of a general budget revenue and it is not anyhow and in any proportion earmarked for increase of EE, RES and/or climate policy issues.

MoE has also issued/renewed a *set of emission standards* for SO_2, NO_x, dust and particles for large combustion plant, heating plants and industrial combustion, however not for yet for small boilers and heating devices.

As far as we know there has not been any voluntary agreements with industry on the field of energy and energy efficiency.

Under minister Miha Tomsic (Greens of Slovenia) the *Ministry of Energy* in 1991 issued for the first time *soft loans for EE and RES* as well as grants for energy efficiency promotion and demonstration activities carried out by private companies or NGOs. After 1992 the loans for EE and RES was changed into the *grants and subsides for project preparation, pilot and demonstration activities for EE and RES* issued annually by public tender of the Ministry of Economic Affairs. Since 1994 MoE is *co-financing the network of energy counselling for the citizens*. In 1995 this programmes are together with programme of promotion of EE and RES operated by the *Agency of RS for Energy Efficiency*. Since 1996 the Agency is also *co-financing the energy audits in industry and public sector as well as municipal energy concepts*. In late 1998 the *Energy Efficiency Fund* was established. It is designed as revolving fund aiming to offer *soft loans* at very first for *EE in industry*. EE labelling is under preparation, too.

Generally speaking a *broad set of new, soft instruments* was brought into being during nineties. However *matching, overlapping and "orchestration" of instruments* for different target groups *remains an open issue*. Certain support instruments (like counselling, information, education and awareness raising campaign) are also financially weak, lacks regularity and continuity or both.

3.5.3 Energy Policy Arena(s)

While "sub-arenas" of energy policies gained more of less transparent structure, actors-networks and agendas the same can not be said for the energy policy arena.

Lack of transparent structure and clear divisions of roles and competencies as well as procedures has been characteristic for energy policy arena in nineties. While traditional strong *supply side actors* has influenced the agenda setting and maintained their direct access to the MEA and other policy makers they have been less successful in adjusting their collective action to a new, decentralised structure of energy policy making within the government. At very first however they can not adjust their collective identity and aggregation of interests to the situation in which due to the structural changes of the economy and politics gave few hope for long term simple positive sum game of an ever increasing supply side capacities as a result of collective pressure and solidarity of the coalition of growth.

On the other side the *new, demand side and renewable energy actors* deal with the problems of collective identity and aggregation of interest, too. Lack of economic knowledge and communicative skills as well as an imaginary of the global institutional set up (like green budget reform, for example) which would open the perspective of positive sum game for energy servicing companies are the barriers which are not enabling those actors to act politically. In addition, scarce and fluctuating resources of state and international support to EE and RES which depends from uncertain political decisions on national and EU level are further obstacle to create a perspective of positive sum game for the actors in question which it seems to be a condition of possibility to achieve an agreement of division of roles, tasks and establishment of transparent and undiscriminatory rules of the game within EE and RES subsector.

The new actors form the field of energy efficiency and renewable energy directly or indirectly try to influence the decisions in energy policy arena yet faced with over-complexity and under-transparency their action was predominately privatistic, i.e. aimed to get support from one or the other state policy managers or gatekeepers for their individual interests. This is however true also for the state agency on the field.

Only the *NGOs* supported with expert knowledge in energy matters, a mixture of professional, environmental think thanks and citizen's non- profit organisations publicly claimed for new and more transparent procedures in favour of public participation. Contrary to the eighties in the nineties energy policy matter lost the general importance for media and political actors with a single exception of the decision making process on new local coal fired power plant in Trbovlje (TET3). Otherwise after the green parties lost significance in party politics the energy issues have been generally absent from party political and public agenda.

Although the *Ministry of Environment* by Environmental Protection Act (1993) and especially by Environmental Development Fund (1994) announced its new, more active role in energy policy it despite design of CO_2 tax remained limited to the traditional role of (environmental) gatekeeper in the arena. The potentials of policy instrumentation given by Environmental Protection Act has been used, however this has not influenced the policy role and style of the Ministry. As a part of MoE the *Hydrometheorological Institute of RS* has played an visible role of the opponent to the construction of TET3.

The role of the *Ministry of Finance* has remained limited to gate-keeping with special impact on using command and control tools for keeping the inflation down.

Because of the clear positive impact on budget revenues the MF has been flexible in approval of CO_2 tax mechanisms. With respect to the removal of the barriers of third party financing of energy efficiency projects in public sector the Ministry has not find capacities to put this issue on the agenda yet.

The passive, gate-keeping attitude is also characteristic for the *Ministry of Economy Relation and Development* (MERD) where supportive role in energy field can be find

only to the project of construction of chain of large hydro power plants, which shares also the support of the political party of SLS.

The *Institute of Macroeconomics Analysis and Development* (IMAD) which is formally a part of the MERD has played an important role of the internal opponent within the process of legitimisation of the investment plans of electricity sector trough the drafting process of the National Energy Action Plan.

The *Ministry of Economic Affairs* (MEA) which is in-charge for energy sector has played in most decision making process on energy policy documents and larger state supported investments in energy field both a role of the promoter and process manager/director. However its role of promoter has usually been played on behalf of certain electricity generating and/or coal mining company and thus never really supported from the all main actors in electricity policy arena. Thus also its capacities of the policy manager within the policy process at the governmental level has been weakened. First within the recent process on the new Energy Law the MEA has clearly demonstrated not to be willing anymore to play the role of promoter and policy manager of single options and to give priority to the management of legislative process and to the procedural rationality.

Despite not succeed to establish and command the national electricity holding company *ELES* is - together with *PETROL* and to less extent also with *GEOPLIN* - due its capacities of expert knowledge and well established networks with policy makers, politicians and media (strategic knowledge) far most important single domestic non-administrative actor in the energy policy arena.

Taking into account that in nineties everything from a political and constitutional system to international networks and regimes was subjected to radical changes and uncertainties one could not be surprised that once stable although never transparent national arena of energy policy disintegrate in many ad hoc arenas which (also) emerging at sub and supra national level.

3.5.3.1 The Electricity Policy Arena

By reorganisation of electricity sector at the beginning of 1990 the later has lost the enterprise structure which is representing the interests of electricity generation, transmission and distribution. The attempts of *ELES* to create a single-head, unified representation of the interests of electricity subsector through the form of national electricity holding company failed. Especially the *distribution companies* preferred to enjoy the relative autonomy and follow their business interests. The new organisational structure and a ban on sells of domestic coal to individual consumers has however also enforced the ties between coal mining industry and local electricity generation companies, i.e. between *RLV* and *TES* and between *RTH* and *TET***.** On the other side the strong commercial interests of international trading with industry has influenced ELES business strategy, especially within a perspective of increased international trade with electricity as a consequence of EU internal market and EU enlargement. Last but not least, the interest of

independent power producers, represented first through *Association of the Owners and the Operators of Small Hydro Power Plants* and at the end of decade also by *Cogen Slovenia* have gained their legitime status and influence in electricity policy arena.

The electricity has not been commodified yet and remained under the complex and rigid administrative regime which served at very first political-administrative goals of monetary (anti-inflation) and regional employment policy. Thus the policy making is not only influenced by different ministries (*MEA, MERD, MoE and MF*) and complexity of their mutual adjustment but also by bargaining of the *political parties* and respective *interest groups* within the coalition on power. Nevertheless the tendency of commodification of electricity - addressed by rudimentary corresponding policy measures already by the first post communist Slovene government at the beginning of the 1990s - has progressively gained its momentum, especially after directive 92/96 EEC has been announced.

Although the EU, respectively its Commission, is not directly involved in the decision making process within arena, it has as the gatekeeper of the accession process progressively influenced most important decisions since 1996 as well as directly influenced the new legal and institutional framework, given by the new Energy Law.

3.5.3.2 The Gaseous Fuels Arena

The gas subsector has been exposed to a dynamic of different kind. In mid 1990 the national transmission company *GEOPLIN* was privatised and is majority owned by large number of industrial consumers. Yet present the interest of penetration of gas companies to electricity generation has been rather limited. Throughout decade one can follow the constant and dynamic increase of *gas distribution companies*, in most cases co-owned by Italian companies. The penetration of the gas for industrial processes and (individual) heating has been supported by the programmes of the national *Environmental-Development Fund*, issued as support to fuel switching from coal, heavy oil and wood to gas.

Since there has not been any decision of the infrastructural character the *EU* has not influenced the decision making process within the arena but however its new national legal and institutional framework which will have to correspond in detail to “acquis communautaire”.

3.5.3.3 The Arena of Liquid Fuels

Less dynamic have been the processes within arena of liquid fuels, however it is important that both whole-sell companies - *Petrol* and *ÖMV Istrabenz* - got privatised and maintained their monopoly status of the market. The lobbying to get rid of the foreign competition (Shell) by influencing the market rules set by the government has until now turned to be successful, however it failed to prevent emergence of some *dozen of small distribution companies*. The prices of gasoline, which significantly increased since 1997, however remained under the direct setting of the government. Despite the increased

prices the taxation of fuel remained relatively low compared to the EU countries. In Fall of 1999 Petrol announced its new strategy which aimed to transform the company from gasoline merchant to and energy company, dealing also with gas distribution, electricity generation, renewable (geothermal) energy and financial engineering of energy projects.

Although *EU* through its commissioner Mr. Hans van den Broek has once directly intervened in decision making process of set up of concessioning of sitting for gasoline stations by claiming for non-discriminatory rules, the intervention has not proved to be successful. Shell - who is assumed to provoke this intervention - has recently withdraw from selling gasoline in Slovenia. It is believed that the implementation of new energy legislation will have no dramatic consequences for subsector and the policy arena.

3.5.3.4 The Arena of Energy Efficiency

As the most important change within energy policy community of the nineties the emergence of energy efficiency policy arena could be announced. Although the activities related to energy efficiency has longer history, first the under DEMOS government at the beginning of 1990s first strategy and measures have been issued as a part of the programme of government. Establishment of private Agency of Energy Restructuring (APE) which has worked out the first set up of institutional supports programs for EE and RES was supported by Ministry of Energy. Since 1995 the central role in the field of EE has been taken over by *Agency of RS of Energy Efficiency* (AURE), who is also main coordinator of the programmes and activities with EU in the field. A set of consultant companies in the field emerged since 1992. *Centre of Energy Efficiency of Institute Jozef Stefan* (IJS-CEU) first focused on assessment of EE potentials in the country and EE technologies and approaches in industry, however it has carried out with domestic and foreign partners some general studies on efficient energy planning and policy at the national level. Since recently it is also involved in support of EE policy of municipalities. This is however also the field of *Civil Engineering Institute* (GI ZRMK) which in cooperation with Austrian partners in the beginning of 1990s started to set up national network of energy advisers EN-SVET and is carrying out main consultant as well as pilot and demonstration projects in the field of EE in building sector. Both institutions in question are members of OPET and has recently also demonstrated considerable interests in the field of RES. Nevertheless a dozen of private consultant and engineering companies started to deal with municipal energy planning and consultant activities for industry and public sector since 1994 and will challenge the monopoly of the institutions in question in the future also by partnership with foreign partners in the field.

Since the majority of the industries is privatised and faced with competition the market for EE in companies is growing and will due to the favourable provision of the new Energy Law, also include the efficient supply with electricity (cogeneration). Parallel to increased sensitivity of *industry* for reduction of (energy) costs and improvement of (energy) services there are substantial capacities in consultancy, engineering and international networking on the filed as well as the well enough tuned and undisputed central

state agency in the field. Less promising is the situation in *public sector* and in *households* where an adequate pattern of addressing and involving of the target groups and the institutional framework as well as financial engineering knowledge and practical experiences are missing.

The research, pilot and demonstration project through EU sponsored project have been of the crucial importance for emergence and dynamics of the arena in question. The EU impact on general legislative and institutional framework has also been beneficiary to the role of energy efficiency policy.

3.5.3.5 The Arena Of Renewable energy

Contrary to EE arena the arena of renewable energy still lacks its core state institution. While the provisions of new Energy Law suggesting that the *AURE* will be also in-charge for renewable energy, the *APE* - which after 1993 indeed has a status of para-state agency in the filed - has the largest experience, capacities and references on the field. However this status is recently challenged not only by AURE but also by some private consultant and engineering companies which are dealing at very first with wood biomass based DH and/or municipal energy concepts/planning.

The role of *municipalities* is important both for energy efficiency and especially renewable energy policy. However the municipalities lacks tradition and capacities to deal with (renewable) energy and in most cases even political will. With few exceptions despite the endavours of consultant and engineering companies and NGOs in the field they do not consider both energy efficiency and renewable energy as an issue, since the later are not part of environmental protection and regional development policies of the state.

This and the fact that there are not yet recognisible and centralised functions of the state might be the most important reason why the potentials of the co-operation within EU programmes and EU involvement in general has been far under the potential of the country in the field.

Favourable tariffs for small hydro as consequence of the “gentlemen agreement” between the *MEA* and owners and operators of small hydro has lead due to the weak environmental protection monitoring and enforcement capacities of the state toward increased conflicts between *MoE* and small hydro producers. This might also be on of the reason of conservative approach of MoE to the renewable energy in general. First recently the national *Environmental-Development Fund* has included support (soft loans) to modern wood to heat conversion technologies within the fuel switching program, however despite the programme of subsides for RES issued by MEA even combined measures still not suffice to support the snow-ball dynamic on the field of renewable fuels(wood biomass at very first).

3.5.4 Networks

3.5.4.1 (Over)Complexity of Interaction in a Small Country

Although Slovenia is a small country with relatively few number of actors in the field of energy and environment this does not mean that the structure of their interactions, i.e. their network is simple. On the contrary, as it is present from the which is presenting the structure of the actors in the field of energy efficiency that structure is rather complex. We believe that it is exactly the small number of the actors which are perfectly familiar with the position, goals, resources & capacities and strategies of the other actors which is making the network very complex. Relatively simple and unmediated access to the top policy makers - either of direct and official character or, which is even more common, of non official character trough different private (family, sports club, profession) networks - is making everybody accessible to literary everyone. Thus the formalised communication trough specific procedures is for many of the relations only a smaller part of interaction between two or more actors. Nevertheless it would be to simple and even untruth to simply say that everybody is interacting with everybody else since there are of course certain peculiarities, patterns and rules of interaction. In following lines we are going to give their short description.

At very first one have to mention that - taking into account their legal status and competencies - in fact all the actors are “new”, i.e. that prior to 1990 they did either nor exists or their constitutional/legal status have been substantially changed. The later is however true at very first for the ministries which gained their present names, competencies, tasks and structures trough the process of transformation of Executive Council of The Socialist Republic of Slovenia (and its Committees) into The Government of Slovenia which started in 1990 and gained its present structure by The Law on Government in 1993.

The process of the changes of legal status has also affected professional and interest NGO in the field and contributed to new position of some of the core actors in the field. Both central expert/consultant institutions on the field - GI ZRMK and IJS CEU - have been established as a new institutions, respectively as a new part of reformed large institutions - operating on the market. Due to their historical roots, accumulated scientific and strategic knowledge and supremacy over the new, private institutions which emerge “ex nihilo” they gained/maintained the monopoly on the field of strategic expertise and are due to their strong networking within the referential professional communities despite their private status indeed “para-state” organisations with excellent access to the policy makers as well as domestic and international financial and other resources.

Because of wider range of activities, better networking in scientific community and direct contacts/contracts with industry IJS-CEU is relatively more independent to the policy of AURE and has more direct contacts with different ministries. Both GI ZRMK and IJS CEU have been directly involved in creation of the new actors in the field by giving initiative for the energy advisory network for citizens EN-SVET, respectively for estab-

lishment of COGEN-SLOVENIA. The prominent experts of both institutions also played an important role by establishing of Slovenian E-Forum which is not only a new NGO on the field but also a new type of NGO since it is combining the principles of NGO's of professional groups and of environmental citizens organisations with lobbying for EE and RES. Emergence of Association of District Heating and Cooling is another important innovation within the community of (non-governmental) actors in 1990s.

The traditional interest and professional groups on the field of EE and RES have also been subjected to - however less influenced by - the legal changes and adjustments, given by changes in legislation on NGOs. The same is true also for the Chamber of Industry, respectively the Section of Communal Energy of its Energy Section. The Chamber remained a vehicle of aggregation of supply side interest for larger investments in energy (electricity) sector and to a less extent also a intermediary body for industrial auto-producers of electricity (cogeneration).

As the new actors one has to at very first mention The Agency of Energy Restructuring - APE. Not only because it is the first private agency in the energy field in Slovenia which in 1990 drafted on behalf of the ME first programs of EE and RES but also because it has due to the accumulated experience and international networking on one side and lack of the activities of GOs in the field developed in a kind of para-state agency on the field of RES with strong influence on the policy in the field yet in some cases not very clear role and mandate. Its status of "privileged" institution in carrying out pilot and demonstration project and especially RES project in municipalities has been challenged by other private consultant/engineering companies. The emergence of this kind of small-scale companies is another structural innovation in the field of energy policy.

This is however also true for both state funds in the field: Environmental Development Fund, established in 1994 and Energy Efficiency Fund, established in 1998. However the most influential innovation for the policy and networking in the field was brought in 1994 by establishing of The Agency of the Republic of Slovenia of Energy Efficiency - AURE.

3.5.4.2 Basic Characteristic Of EE and RES Network

Because of its administrative and financial capacities AURE is a core institution within the network. Most of the other actors depend in large from the (co)financing trough the activities/project financed by AURE. As a body to the MEA is not directly dependent from any other actor but MEA which is also defining its annual budget and framework of tasks. Direct linking (only) to MEA is on the other side limiting its direct access to the top policy makers in other ministries, relevant for EE and RES. Thus the addressing of the ministries in question often find no answer or is responded by non-decision making. Being a part of a large and heavy conflicting structure of one of the main financial resources distributing actor in the country AURE is not always successful to put its issues on the agenda of the MEA, while it is action of official/public addressing of the other ministries or the Government is limited, too.

Having very limited expertise capacities on its own AURE depends on expert knowledge of (large) consultant organisations like IJS CEU, GI ZRMK and APE, while its performances of carrying out an efficient policy depends on the performances of the contractors of the programmes/activities.

There are indeed more semi-institutionalised networks in the field. IJS-CEU is the focal point of the most of the actors in EE in industry and is also the core institution of the industrial cogeneration. Trough the contacts with Slovenian E-Forum, which is a focal point for environmental and RES NGOs in the filed this network can be extended for public pressure and/or direct lobbying in the Parliament. GI-ZRMK is focal point for network for energy efficiency in building sector and in households and a manager of energy advisory network EN-SVET. Despite having good contacts with SE-F contrary to IJS-CEU it is not using "the NGO network" to influence policy framework and/or set-up but it remains limited to the role of expert consultant. APE is operating unofficial, ad hoc and fragmented network of municipalities and private companies interested state and EU supported RES programmes/activities.

Having a central role in a policy implementation and enforcement, the role of AURE is less central in policy set-up, especially in set up of general policy framework of energy policy. IJS CEU, GI ZRMK, APE, SE-F and other focal points of semi-official networks are making direct contacts with MEA, MoE and other ministries and/or influential MPs at that level.

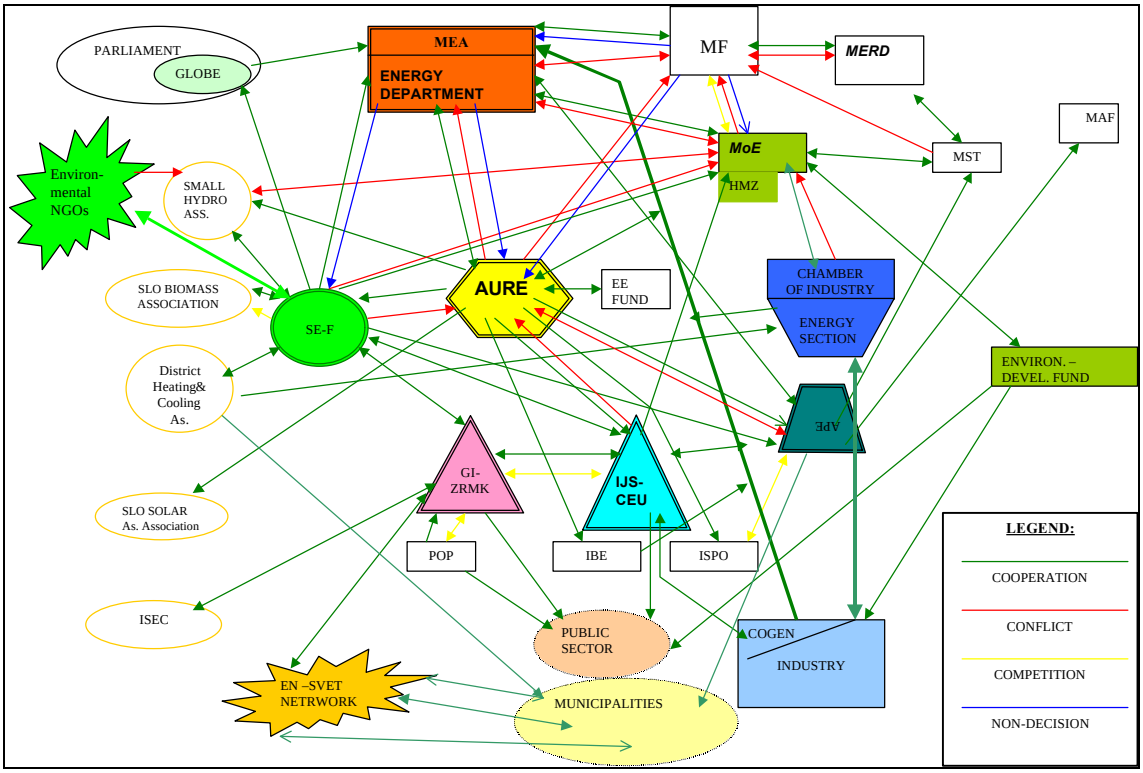
With respect of the networking of GO in the field on can conclude that there is not a stable and well structured network but ad-hoc intra-sector contacts. The initiatives raised in one sector can not overcome the barriers in the other sector if they are not beneficiary for the top decision makers in the sector in question (MF in most of the cases). Non decision-making is the most common answer in other cases and the conflict issues are not raised at the agenda of the Government.

What is last but not least characteristic for the network in the field is the absence of the large traditional energy supply companies from the field. Whether electricity (distribution) companies or gaseous and liquefied fossil fuels supply companies have not (yet) entered the network of energy efficiency and renewable energy, however since recently they have increased the number of informal contacts with the focal actors in the field

Table 6: Annual budget for EE programmes

Year	National budget	PHARE Programme
	- million Euro -	
1991	2.87	
1992	1.95	
1993	1.70	
1994	1.25	0.58
1995	1.70	0.66
1996	0.76	0.93
1997	0.83	1.65
1998	2.10	1.00

Figure 1: EE and RES Policy Network Scheme



3.5.5 Policy Style

Majority of actors within the energy policy community still share the notion of energy policy as pure set of decisions which should follow the criteria of rationality of technology set up. The slang of energy experts is serving both as a tool of dividing "us" from "them" and as discourse which is giving the whole community the dignity of an realm of experts who is because of its scientific basis somehow above the realms of politics and consumers. On the other side predominant idea of the mission of the majority of actors is still to serve to the objective needs of society and to the progress of science and technology - or, alternatively, for improvement of environment - rather then the notion to serve consumers within certain economy and legislative framework which might be addressed by (collective) action. All this has a strong influence on collective identity of the actors and consequently on policy style. This notions and self-presentations are not corresponding to the process of commodification of energy sector and are an obstacles in capacities building of actors for the processes of compromises, consensus and coalition building.

The *policy style* was predominantly based on the *production of the expert legitimisation of the decisions made within an internal circle of the dominant domestic supply side actors* (energy industry, expert institutions, suppliers of technology and equipment, engineering, civil and financial engineering companies). Not the expert legitimisation as such, but its form of single-discipline approach based objective Truth which is not expleining presumptions nor is dealing with options risks and uncertainties was publicly put under the question since early 1980s, however it remained inevitable part of all decision making process on large investment in energy sector within 1990s.

In order to increase control capacities against the powerful coalition of growth the top decision makers installed the complex divisions of power, checks and balances and decentralised procedures. Complexity of decision making procedures serves as political technology for management of well organised interest group from supply side with political influence and large potentials of social power. Within this political design *non decision making served as a emergency brake to stop the investments* which could endanger political stability and steering capacities of politics.

However within transition period of the nineties non-decision making became a "modus operandi" of decision making in energy policy. Within the energy policy the policy managers has not addressed the institutional designs of the policy arenas and has gave up the ambitions to frame the new rules of the game. To be fair we must add that they lack both allies within the policy arena as well as support of the stable political actors and administrative structures.

Their action was thus limited to *retroactive balancing between the interest* of different pressure groups on the one side and from international processes and stakeholders demanded modernisation from the other. In this manner the policy instrumentation has

gained on complexity, yet with an inadequate "orchestration" of instrument and support to the new, decentralised supply side and demand side actors.

There has been few sign of pro-creative approach in energy policy at general level. We have to change perspective and search at the level of "sub-arenas" in order to find pro-creative approaches out of the mainstream of the energy policy agenda.

Only recently, when clear demand has been addressed form EU Commission the trends in dominant national specific policy style are in favour on more transparent, toward consensus seeking and on the clear policy guidelines and transparent agenda and procedures based policy style might produce also the proactive approach in energy policy in general.

3.6 Detailed Description of the Policy Processes and Styles on Selected Environmental Policy Documents

3.6.1 The Environmental Protection Act

3.6.1.1 Political Background

Besides shutting down of NPP Krsko and reduction of pollution from thermal power plants an revolutionary reform of environmental legislation was the hard core of politics of The Greens of Slovenia (Zeleni Sovenije - ZS), proto political party which was relatively good anchored within DEMOS government (1990 - 1992) and also remained a part of the coalition on power within first LDS government (1992 - 1996) within a first period (till 1994) of the rule of the government in question.[35]

However, the reform of environmental institutions has shared broader support within DEMOS. The first reason was that environmentalism, which had at that time good public image, was perceived as a heritage of anti-regime struggles and it was - till the war in former SFRY broke out - politically relevant issue. The second reason was that at least part of the new political elite has been aware that restructuring of economy and approximation to EU needs reformed environmental sector. The third reason might be that some prominent political leaders of the other new parties have been actively involved in dealing with environmental issues as employees of pubic administration in 1980s. Thus at its beginning the task of drafting a conceptually new, integral, ambitious and - with re-

[35] In 1993, after sharp clashes within its leadership, the majority of its leadership and all MPs attempted to maintain its political "left liberal" profile by trying to rename the party into The Greens - Environmental Social Party, however the final result was that the Constitutional Court of RS decided that this is in fact a new party who is not entitled of receiving budgetary support for parties represented in parliament. MPs and majority of political leaders joined (together with former Socialist Party and a part of Slovene Democratic Party) new LDS, constituted on the Congress at Lake Bled in summer of 1994.

spect to the state of the art of business sector - revolutionary Environmental Protection Act has shared support in public as well as within new political elite.

Yet political constellations dramatically changed due to the political and military events and their impact on economy after Slovenia proclaimed independence in summer of 1991. Until 1996, when the accession to EU started to totally domain the political agenda, the issues of international recognition, restructuring of the markets and the economy, privatisation, de-nationalisation etc. totally overshadowed the environmental policy.

3.6.1.2 Relevant Principles, Definitions and Provisions

Environmental Protection Act is an integral, "catch all" law with an emphasised sustainability orientation. In conceptual terms it represents a step from environmental protection toward sustainable development since it is not only giving legal ground for direct prevention of environmental damage but is also striving for balance between development and environmental needs and minimisation of environmental impacts of production, transport, use and other processes. Further on it is also giving legal ground for establishment of economic tools of environmental protection like compensations, concessions, remedies, fees, charges and taxes as well as economic institutions in support of sustainable development like national environmental fund.

The Law comprises the basic provisions regulating the protection of human existence and the inseparably linked natural environment in order to ensure the preservation, improvement, and development of the integrity, diversity, and quality of natural elements, natural ecosystems, natural resources, and the natural treasure they represent (Article 1). The environment is defined as part of nature which is or could be influenced by human activity (Article 5). The regulation of development, the exploitation and use of space, and other activities affecting the environment must according to the Law represent a balance between developmental and environmental needs (Article 2).

Environmental protection is defined as responsibility of the Republic, except in matters of local character and significance which affect only a local population and can be managed independently by local authorities or in cases which the law designates as appertaining to municipal development.

The energy relevant operative aims of environmental protection are reducing consumption of natural resources and energy; gradual transition to the use of renewable natural resources; prevention of threats to the environment and reduction of environmental strain and remedying of environmental damage and the reestablishment of the regenerative capacity of the environment (Article 3).

Emission are defined as the release of substances (solid, liquid, or gas) or energy (noise, vibration, radiation, heat, light) from an individual source into the environment (Article 5). Principle of Prevention given by Article 8 is considering that every activity must be planned and implemented in a way which will cause the least possible change in the envi-

ronment; present the least environmental risk; minimise the consumption of space, raw materials, and energy during construction, production, distribution, and utilisation to the greatest extent possible; include consideration of the principles of recycling and regeneration; and forestall or limit environmental impact from the start. Further on 4th paragraph of the Article in question is especially relevant for climate change issue since it states that where there is the danger of serious and irreparable damage to the environment, lack of scientific certainty may not be used as a reason for postponing necessary action.

In order to encourage the reduction of environmental strains the Law is in the paragraph 4 of the Article 10 is giving possibility for prescription of an environmental tax which concerns to the level of a environmentally harmful constituents of raw materials, fuels, or products; the harmfulness of their use; the harmfulness of certain industrial processes or services; or the production of waste.

Within the provision of Article 13 the Republic of Slovenia and the local authorities are obliged to encourage those activities which reduce the depletion of the productive potential of the environment, primarily the consumption of material and energy as well as encourage through tax relief activities which prevent or minimise environmental pollution, i.e. environmentally sound installations, technologies, equipment, products, services and activities shall receive greater privileges than those less environmentally sound.

Article 23 is giving the basis for granting a concession to natural goods through Concession Act, which in case of granting of concession to a foreign legal or private person may only be a law. In cases a public tender is not necessary for granting a concession, a Concession Act shall be a ruling by the Minister responsible for specific natural goods. Among other a Concession Act specifically contains a definition of natural goods for which the concession is given; the form of the concession and a definition of the extent and possible exclusive character of the concession; the definition of conditions of environmental protection, conditions of the protective regime, and the method of management, use, or exploitation of natural goods and a description of the activity which may be undertaken by the concessionaire in connection with the rights which are the subject of the concession.

The Government is as a specific measure for environmental protection given the right to classify and regulate permissible emission levels for substances and energy into the ground, water, and air as well as related mandatory measures, however for its territory, a municipality may prescribe more Government (Article 27). As defined in Article 30 the Minister for Environment may in co-operation with other competent Ministers prescribe rules of action in production, trade, and consumption relating also to the minimisation and accumulation of emissions, energy packaging, wastes and risks; the substitution of substances, energy, and packaging; recycling, transportation, storage, warnings, labelling, and security; and other types of mandatory action.

Article 51 is defining that planning, programs, and projecting of activities and the provision of guidelines for development planning must be based on an environmental vulnerability study while Article 55 is prescribing assessment of environmental impact to realise the principle of prevention and to assess the compatibility of an envisaged activity with technical and other regulations and environmental characteristics of the location. Among others environmental impact assessment is obligatory also for the construction, modification, operation, or decommissioning of facilities and equipment; and technological and other changes related to the extraction, production, storage, transport, and use of raw materials, semi-processed goods, finished products, and energy.

For financing the environmental protection the Law is defining that a party responsible for an environmental strain shall bear the costs of his own measures and costs of public services and other environmental protection activities. A party responsible for an environmental strain shall also bear the costs of establishing a new state or the restoration of the previous state of the environment in cases of the exploitation of natural goods, including the costs of monitoring and supervising their effects (Article 77). Article 80 is defining that a polluter must pay a tax for environmental strain to water, soil, air, and the production of waste and a user of natural goods which are the property of the Republic or a local authority shall pay compensation for their exploitation and use. For natural goods of local significance the later compensations shall be determined by the local authority.

The Law is in Article 84 is giving legal ground for establishment of Environmental Fund of the Republic of Slovenia, constituted as a financial institution for the purpose of providing loans at favourable interest rates for investments in the field of environmental protection which shall as independent legal person function in its own name and on its own account. The financial resources of the Fund shall, as defined by Article 88, also be used for the granting of loans for investment in devices and technologies intended for environmental protection; and environmentally sound technologies and products.

3.6.1.3 The Policy Process

The Law, designed within a cabinet of minister Miha Jazbinsek of ZS and proposed to a parliament from Demos government in early 1992 was finally approved in spring of 1993 within the mandate of first LDS government after large conflicts with Chamber of Economy which was claiming that within given context of economy shock which has followed the disintegration of SFRY and a need of fast economy restructuring to EU markets, the national economy and business sector can not afford extension and sharpening of environmental standards and a additional tax burdens for financing environmental public services, concessions for use of natural resources and costs of (new) environmental public services. However ZS were conditioning their further participation in Government as

well as support to the Government in parliament with adoption of the law.[36] First when the Minister accepted that certain regulations and by laws will not come to force by the Law itself but will be redefined and re-negotiated with the representatives of industry the opposition within the Chamber of Associated Labour of the National Assembly has been weakened and the Law has gained majority also in the Chamber in question.

However despite to the fact that after national election in Autumn of 1992 all MPs has not only be loyal to the coalition headed by LDS but has collectively joined the new LDS in 1994, there has been a few support to design and implement the new by-laws and regulations within the Government as well as the coalition of parties in Government. Nevertheless minister Jazbinsek insisted on fast implementation of the Law at least with respect to new investments in infrastructure (National Programme of Construction of Motorways) however he was in early 1994 replaced by Mr. Pavle Gantar, a more moderate, consensus seeking and to prime minister loyal personality coming form the intellectual hard core of LDS.

The whole policy process has been characterised by absence of stable, institutionalised and transparent policy arena(s). Ad hoc and post festum negotiations with stakeholders who themselves were lacking clear and legitimate mandate, disintegration of structures of representation of the interests of environmental NGOs and other interest groups out of Chamber of Economy and domination of arena of party-political bargaining have been characteristic for the process.

3.6.1.4 The Policy Style

The policy style has been based on a notion of revolutionary mandate of the minister and the decisive roll of personal engagement and political will in creating, designing and implementing of the policies. However since the law was introducing the new paradigmatic approach in environmental policies by trying to overcome retroactive, protective "and of pipe" approach and/or reduction of environmental protection to nature conservation, within a given circumstances of establishment of new nation state at the edge of war on Balkans and transition from "socialist market economy" to concept of "free market" one can hardy expect that the promoter of the Law can find strategic allies within and without the country. In wider context the approval of the Law can be seen as a political capitalisation of the symbolical politics of the green movement as soft protest and at the same time proto-nationalist political movement of the eighties. However, with the adoption of the Law the resources of the symbolical politics has been expired. Revolutionary political style of one man band policy making faced its limits. After the self accelerating process of self destruction of ZS has started and ZS has vanished from the arena of (independent) political parties the political substance for this kind of policy style has expired.

[36] The majority support to the in Socio-Political Chamber of the National Assembly at that time depends of the support of MPs of ZS.

However the pragmatic policy style of ex ante consultations with other stakeholders faced another barriers to implementation of conceptually new legislation - the social power of the actors which are well anchored in corporativist design of status quo and the institutional absence or weakness of the actors who are in favour for new conceptual solutions. Slow progress in by-laws and regulations necessary to complete the legal system of environmental protection on the one side and continuos decrease of budget expenditures for environment or in another words, increasing discrepancy between the institutional and financial needs and the corresponding budget earmarked sources can serve as the proof for this.

It is true that under minister Pavle Gantar MOP is not a trouble maker within the government and it has successfully played the role of gatekeeper of that part of environmental policy where it has clear legal mandate and completed set of by-laws and regulations. It has also played a role of promoter of "soft" instruments of environmental policy. However its approach in creating environmental policy as part of regional, technology and economy development and in support of the actors who would claim and make a public pressure for so called "sustainable development" is rather limited.[37]

On the other side the pragmatic, yet conceptual approach of the MOP gave a positive results on the field of new so called soft mechanisms of environmental protection like environmental charges, fees and taxes on the one side and soft loans and credits on the other. It is however true that introduction of this soft mechanisms has until now never really challenged the financial and fiscal policy of the government. On the contrary it has been - intended or not - supportive to those policies. Nevertheless one can not underestimate the importance of changes in policy style which have accompanied the above mentioned introduction of new instruments. The openness and transparency of intentions and procedures as well as ex ante communications with stakeholders and preparedness for dialogue in seek and finding of appropriate solutions for fine-tuning of the proposed instruments have contributed a lot to acceptance and enforcement of the mechanisms in question. We will try to prove this by analysing the process on CO_2 tax.

3.6.2 The CO_2 Tax and the Decree on a CO_2 Emission Tax

3.6.2.1 Background - CO_2 Emissions In Slovenia

Slovenia is one of the signatories of the Kyoto protocol. Within Annex I to the protocol it has pledged to reduce the greenhouse gasses (GHG) emissions in the 2008 - 2012 pe-

[37] Despite provision in Environmental Protection Law MOP has not given any direct support to environmental non profit NGOs, for example. Also the sources for public tenders for promotion of protection of nature and environment, which has been earmarked for campaigns of environmental NGOs never exceeded 70.000 EURO/year which is - by taking into account that there are more then 50 NGOs on the field - very marginal. The earmarked resources for research in support to sustainable development remained marginal, too.

riod by 8% compared to the chosen reference year 1986. Contrary to the situation in other Central and Eastern European countries, the obligation for Slovenia already appears as a difficult one. Slovenia has - as the first among Central and East European countries - also implemented a CO_2 tax which came into force on January 1, 1997. At the beginning the tax rate was approximately 5.5 EURO/t CO_2, but in March 1998 it increased to 16 EURO/t CO_2 (Tomsic 1998).

Table 7: CO_2 Emissions from Fossil Fuels in Slovenia

	Emissions in 1986	Emissions in 1997	Target emissions 2008 - 2012
		- 1,000 ton -	
Thermal power plants, CHP and district heating plants	6,987	5,615	6,428
Local heating plants and stoves	1,846	2,676	1,698
Industrial boilers and furnaces	3,543	2,081	3,260
Traffic	2,678	5,202	2,464
TOTAL	**15,054**	**15,475**	**13,850**

Source: Bulletin Okolje & Prostor, Ministry of Environment and Physical Planning of RS, December 1998.

CO_2 emissions in Table 7 represent more than 70% of the GHG emissions in Slovenia. The total emissions in 1997 exceed the reference year emissions by 3%, thus the reduction from that year to the target period should be 11%. No detailed plans have yet been drawn how to achieve this target.

The highest growth rates in the recent years are exhibited by the traffic sector. Simple proportional reduction of 1986 are indicated in Table 1 as the target emissions. It is dubious whether it will be possible to halve the fossil fuels use for transport from now to the target period. It is expected that more than proportional burden of emissions reductions will fall on other sectors.

The ZVO gives authority to the Government of Slovenia to introduce levies on emissions damaging to the environment. After introduction of a levy on aqueous effluents, the Government has on the initiative of MOP issued in a decree on a tax on burdening of air with emissions of CO_2 to 1 Slovenian tolar (SIT) per kilogram of CO_2 emissions (1 SIT/kg CO_2), which was equivalent to 5.5 EURO/t CO_2. In the decree emission factors are defined for the main fuels, according to the carbon content in the fuels.

The level of the 1996 tax was not significant to evoke visible changes of business decisions or behaviour. In any case, the CO_2 tax is submerged by other duties on fuels that are used in two sectors: for households and vehicular traffic users. The net tax affects mainly industrial and district heating fossil fuel users.

In 1996 CO_2 tax was mainly meant to provide a budget income associated with the environment which may have been useful in budgetary debate. From the present viewpoint it was also an important pioneering step, as a precursor to the CO_2 decree of 1998.

A very brief decree issued in March 1998 increased the CO_2 levy nominally threefold, to 3 SIT/kg CO_2, or 16.1 EURO/t CO_2, according to the exchange rate at that time. This triggered a process of profound revision of the 1996 decree. The reasons for the threefold increase of the tax have been explained only indirectly, and may be a combination of the following desire to increase the budget revenues, and realization that the previous tax level was not sufficient to produce significant CO_2 emission reduction.

The Kyoto conference in the December 1997 has certainly been a stimulus for the decision. Estimates of the average external costs and/or CO_2 reduction measures costs of the order of 10 to 20 EURO/t CO_2 have been an important background information for the decision.

The CO_2 tax increase was most significant for the industrial, commercial and services sectors and it is in these sectors that the tax will have significant impact on the behaviour and investment decisions. The CO_2 tax in the case of motor fuels is only a fraction of the total tax burden. Final selling price for households is determined by the government which has authority to change the sales tax by +/- 50%.

Soon after the three-fold increase of the tax, industry voiced it's dissent in the media and through the Chamber of Commerce. The government or more specifically, the Ministry of Environment and Physical Planning, had to respond.

Faced with the distress of the energy intensive industry, for which the fuel prices increased by 10 to 20%, the government had the following options either over-the-board decrease of the CO_2 tax level or provide tax exemptions for industry and commerce.

Whereas the later options was obviously preferable, the questions remained how to redesign the tax mechanisms, so that the fiscal burden on the industrial and service sectors would not be too high, but that the stimulate effects of the tax would be retained.

The cost of the CO_2 tax is shifted to final consumers. Since October 1998 there have been some exemptions among taxpayers. Companies which own or manage devices that use fossil fuels for energy production can get an allowance for non-CO_2 taxed fossil fuels use. Since October the Decree also includes a scheme of incentives for energy efficiency measures and new low emissions qualified power producers. In 1998, the money collected with the CO_2 tax represented 2.1% of all budget income. Exemptions are designed in a way that the stimulation for CO_2 emissions reduction remains high, while the financial burden is lower. However the high budget contribution of the CO_2 tax has not been accompanied neither with increase of the governmental budget expenditures for Environment nor with a program for reduction of GHG. This is however giving a good opportunity for environmental NGOs for lobby both for increase of the budget spending for environment in general and to demand tools, measures and incentives of the comprehensive climate policy.

3.6.2.2 Policy Process and Policy Style

At the beginning the tax was considered as less important, at very first fiscal policy instrument. It came to force in a silent manner. The government has not made big (political) announcement and nobody was considered tax as an important instrument of environmental/climate policy. However things changed after its substantial increase in 1998. Some energy intensive but energy saving goods producing (rock-wool insulation, for example) companies and the Chamber of Economy protested against the increase. The representatives of MoE - which has initiated the tax - has paid considerable attention to the arguments of industry and to the proposal of energy efficiency experts how to integrate the incentives for stimulation of energy efficiency within the tax mechanism. After a couple of round s of the meetings between representatives of MoE, industry, experts and NGOs a consensus was reached in early Autumn of 1998.

In the case of CO_2 tax process MOP has demonstrated a significant capacities of social learning within the process. CO_2 tax has been introduced as a solo action based on command and control approach. Faced within a position where MOP as lonely promoter has risked that the industrial coalition of opponents will convince the gatekeepers (Ministry of Finance and the Government) to reject the proposed Decree on CO emission tax, the state secretary of risks Mr. Radovan Tauzes organised set of meetings with those industrial companies which feel effected as well as with Chamber of Economy.

By integrating members of coalition for The Law of Independent Local Power Producers in the process as allies which can prove the potentials of energy efficiency the industry can benefit from MOP has post festum find an ally and what it was even more important, demonstrated ability to adopt the Decree from general command tool into a flexible economy mechanism which is stimulating energy efficiency and use of renewable energy. Within the policy process the policy style changed from command and control approach into an approach which was both transparent and opened to the all stakeholders as well as sensitive to their interests, however only to a degree which was not endangering concept and the objectives of a Decree. Nevertheless this approach has been limited to a single issue ad hoc arena where personal style of high MOP official can have a decisive impact on policy style. Weather or not this positive experience can influence a policy style of MOP as an institution. The question therefore is what are the internal learning capacities within MOP and within the government. The general non-decision making profiled policy style of the Government is certainly not supportive to this.

3.6.3 The National Environmental Action Programme

3.6.3.1 Background

Slovenia has not yet prepared a long-term air protection strategy. The strategy will have to determine how Slovenia will ensure air quality (locally and generally) in accordance with international quality standards (e.g. those of the WHO) and at the same time enable

the development in the production, service and other sectors. The basic for this kind of strategy has been raised by NEAP.

Air quality has generally improved in recent years in Slovenia. The most evident is the reduction of pollution caused by *SO_2 emissions*, especially in urban areas (introduction of gas pipeline network, district heating systems, etc.). Improvements have been noticed in the vicinity of power plants (Sostanj, Ljubljana). Between 1980 (used as a reference year) and 1995 total SO_2 emissions in Slovenia[38] decreased by more than 50% (from more than 250,000 to 120,000 tonnes a year). According to assumed international obligations, SO_2 concentrations should have been reduced by 30% as early as by the end of 1993. In very unfavourable weather conditions the concentrations of harmful substances still exceed the critical concentrations at a number of exposed locations within the areas affected by TPPs, and may even increase the rate of mortality of the exposed population.

Pollution of the air caused by *nitrogen oxides* (NO_x), which mostly affects the immediate vicinity of roads[39] and power facilities, is also increasing. NO_x emissions temporarily abated in 1990 and 1991, due to decreased traffic and production, and have been rapidly increasing since then. Total quantity of NO_x emitted in 1997 was approx. 23% greater than that in the reference year 1987. The Protocol concerning the Control of Emissions of NO_x requires that Contracting Parties stabilise emissions of NOx at 1987 levels.

During the summer months the concentrations of *ground-level ozone* exceed the limit values at all permanent measurement points almost every day. High ozone concentrations have adverse effects on people and plants. Much of the ozone is generated due to transit traffic, but the current measuring network does not suffice for determining the extent of pollution.

The Kyoto Protocol to the UN Framework Convention on Climate Change binds Slovenia to reduce its *greenhouse gases* by 8% with respect to the reference year of 1986. The level of emissions of CO_2, the major greenhouse gas, began to fall after 1986, mainly due to economic difficulties. Following the new impetus of economic growth and the revival of transport routes in 1992, CO_2 emissions have been increasing rapidly, so that in 1997 they exceeded the emissions of the reference year of 1986.[40]

The programme for limiting emissions of greenhouse gases is in the initial phase of formulation. First estimates show that the reduction in greenhouse gas emissions will be a difficult task but at the same time a challenge and additional incentive for Slovenia to

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38 Electricity sector contributes 81% of SO_2 emissions.

39 Motor traffic is the main source (66%) of emissions of NO_x lead and volatile organic compounds (VOC), which may contribute to production of photochemical oxidants. The bulk of VOC is generated also by industry.

40 Electricity sector and traffic contribute the largest share of CO_2 emissions (35% and 32% respectively). The greenhouse effect is caused also by methane (CH_4) and nitrous oxide (N_2O) emissions, the main sources of which are agriculture, waste management, coal industry and traffic.

restructure the energy sector and industry in such a way as to ensure greater economic efficiency in the future. "Lifestyle" in Slovenia will have to be changed and the connection between the rise in standard of living and the increase in energy consumption will have to be broken. One of the key requirements to be fulfilled in relation to the Kyoto Protocol is the stabilisation of greenhouse gas emissions resulting from traffic.

Due to *long-term pollution* of air, and consequently soil, with substances (SO_2, NO_x) causing acid rain, forests have deteriorated across most of Slovenia's territory and biodiversity has been threatened.

The use of *ozone depleting substances* (ODSs) has decreased substantially. The use of CFCs in production has been abandoned, and the use of HCFCs increased between 1989 and 1996, reaching 16% of the permissible level in 1996.

The current network for automatic air pollution measurements has not been adjusted to the changes in air pollution, especially traffic pollution; in addition, the network has not yet been adjusted to the new legal regulations.

3.6.3.2 The Provisions and Solutions

The National Environmental Action Programme (NEAP), adopted by the National Assembly on September 30, 1999 has been drafted pursuant to Article 47 and in accordance with Article 104 of the Zakon o varstvu okolja (ZVO) (Ur.l. RS, st. 32/93).[41] It contains the objectives, guidelines and strategy of environmental protection and the use of natural resources for a period of minimum ten years. National programmes and strategies concerning individual activities affecting the environment and individual environmental components (e.g. water, air, soil, biodiversity, etc.) will have to be supplemented in compliance with the NEAP.

The NEAP is from MOP considered not as a collection of wishes but rather a document which directs efforts towards priority goals and a gradual expansion of tasks, as dictated by Slovenia's capacities and the expected outside support. The NEAP is seen merely as the first step towards the long-term mastering of the problem of relations between nature and society, and is therefore focused on solving only the most pressing environmental problems.

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[41] The ZVO stipulates that the NEAP must contain the goals, guidelines and strategy of environmental protection and use of natural resources for a period of at least ten years, and that it has to be harmonised with national programmes in other fields.
According to the ZVO, the NEAP should have been adopted within 12 months of the day the ZVO entered into force. There are a number of reasons for the delay. The project was technically and organisationally demanding. It had to be drafted without reliance on any real tradition, by the staff overburdened with tasks related to new functions of the State. In 1997 there was additional delay, due to the harmonisation of the programme with the tasks related to the process of accession to the EU.

In line with this, the document does not merely repeat the objectives and tasks included in Agenda 21 (Rio, 1992), the European Environmental Action Programme (Towards Sustainability) and the ZVO, but takes them fully into account in laying down objectives and development tasks, which - according to the texts - can be only solved by introducing changes in particular sectors (energy, traffic, tourism, agriculture, industry, etc.) and by improving research, spatial planning and the functioning of administration at all levels.

The fundamental objective of the NEAP is to ensure a better living environment in Slovenia and to promote the environment as a limiting, but at the same time stimulating factor of development and focused on elimination of the most significant problems. The purpose of the NEAP is to contribute to the strengthening of those institutions whose primary concern is to ensure an appropriate level of environmental protection and thus assert the principles of sustainable development in the transition to a modern state. The proposed measures are aimed at achieving the following objectives:

- Control of environmental problems by giving priority to solving the most pressing ones and by supporting Slovenia's integration into the EU
- Institutional strengthening of administration and local self-government as a the basis for gradual enforcement of sustainable development
- Enforcement of all environmental protection principles laid down in the ZVO
- Inclusion of environmental issues and principles of sustainable development in the programmes of individual sectors.

Within the document Slovenia's accession to the EU is seen as the most important external factor of change and additional external encouragement for effective implementation of a modern (sustainable) environmental policy.

In terms of methodology, the NEAP follows the proposals of the Ministerial Conference held in Lucerne (1993). It is based on the 1990, 1995 and 1996 reports on the state of the environment, on research carried out within environmental Target Research Programmes, and PHARE aid programmes, and on development programmes of individual government sectors, emphasis put on Strategija gospodarskega razvoja Slovenije (SGRS).

Further on the document states that in the period of fast post-war industrialisation and urbanisation the state of individual environmental components declined sharply, but has since stabilised. According to NEAP since independence the quality of surface waters and air has - due to the closure of number of major polluters - improved, while the quality of groundwater in certain areas has been declining and the management of urban and industrial waste remains a problem. In the field of air quality the positive results reflect the stepped-up transition to the use of more environment-friendly fuels and heating systems and the already completed desulphurisation projects in thermal power plants (TPP).

As Slovenia's priority goals at the turn of the millennium NEAP includes the successful completion of air protection programmes supplemented with programmes for reducing

concentrations of troposphere ozone and emissions of greenhouse gases, and emphasises:

- Improvement of the state of the aquatic environment
- Enforcement of modern forms of waste management
- Conservation and protection of biological diversity and genetic resources.

In addition strengthening of environmental protection institutions at all levels is stressed too.

Thus the priority status of air quality improvement and climate change prevention is somehow unclear, since both goals are not so explicitly underlined as priorities as it is in case with other four. However taking document as a whole it is obvious that far largest priorities are given to municipal sewage treatment facilities and systems of selection and incineration of wastes.

As priority guidelines the NEAP is mentioning shift towards sustainable development, the consensual problem solving and shared responsibility.

The NEAP is with regard to individual environmental policy areas divided into two periods: the period until 2008 (in accordance with the requirements of the ZVO) and the period until 2003 (as the planned year of Slovenia's accession to the EU). Within these two periods individual measures are defined, for long term provisionally, with the possibility of adjusting to new conditions, while for the short term only those measures are stated which form the basic condition for achieving the strategic goals laid down in the programme.

The NEAP summarises and puts into operation the principles and requirements arising from the ZVO, the SGRS, assumed international obligations and the strategy for accession to the EU (the principle of a hierarchy of documents).

The NEAP does not include those measures which must be identified within the programme documents of individual sectors. However, the NEAP defines the mechanisms for supervising the inclusion of environmental goals in individual activities (the principle of shared responsibility).

The costs of the implementation of the programme of measures specified in the NEAP are estimated at *SIT 263.51 billion* (approximately EURO 1.25 billion), including only the measures planned within the NEAP for the next five-year period. The annual distribution dynamics of the planned costs is linear: it is expected that *SIT 52 million (1.5% of GDP* - EURO 25 million**)** a year will have to be spent on the realisation of these measures. It is expected that nearly 85% of the funds for the realisation of the measures will be needed in the area of water protection and waste management, 11% in the area of air protection, almost 4% for the conservation of biodiversity, and less than 1% for other areas. The main source of the funds will be the public sector, which is expected to cover 77% of the total cost. The rest will be covered by the private sector.

In accordance with the SGRS, the expenditure of budget funds allocated for environmental purposes, including environmental protection investments, is expected to reach 1.5% of GDP in the forthcoming medium-term period.[42]

3.6.3.3 The Policy Process and Policy Style

After 1993 when Slovenia - at that time already fully recognised member of international community - accomplished Environmental Protection Act and economy decline reached its bottom environmental policy arena in Slovenia changed its platform. The dominant role of the ZS as promoter of legal and policy environmental change as well as mobilising social actor for the change in question was facing gradual permanent decline till the green political parties which has emerged within this process of uncontrolled chain reaction of split of core of green party politics totally lost both their public credibility as well as political influence.

The main driving force of NEAP was the MOP itself. More precisely its head departments, especially those of the environment and of the risks. According to ZVO NEAP should be prepared within a year after adoption of the law by National Assembly. However the whole process started two years later due to the slow internal reorganisation of legal administration, caused partially by insufficient capacities for implementing conceptually broad and demanding legal act. Nevertheless a very important new actor in the field of energy related environmental policy emerged as a result of this activities - the National Environmental Development Fund (Ekolosko-razvojni sklad RS) which is among other activities also issuing soft loans for fuel switching to environmental friendly fuels (gas) and credits in support of DH schemes.

Additional delays in starting process of NEAP has been made because of the process of approximation to EU legislation which started in 1996 and has been later intensified and restructured into accession process, focused at very first on adoption of “acquis communautaire”.

Drafting of the document has been carried up by team of experts hired and co-ordinated by the top officials of the ministry (the secretaries of state). Environmental experts of the Chamber of Economy have been invited to take part which was later criticised by some environmental NGOs. Partially as a result of this criticism and partially because of the spirit of Arhus conference in 1997 MOP made agreement with NGOs in question to in-

[42] According to estimates, the share of public funds allocated to environmental protection projects has been less than 0.5% of GDP in recent years. The gap between required and available funds is expected to be “covered” with the progressive setting-up of the “polluter pays” system. An important financial resource are funds companies have reserved for environmental protection (“environmental reservations”) and are obliged to invest in the rehabilitation of the environment by 2003. The terms under which by the Environmental Protection Development Fund loans are granted should become more favourable due to the reallocation of funds obtained through collection of pollution tax. It is expected that foreign financial resources will form one third of all the necessary sources.

clude on professional basis in the process of improvement of draft of the document also the experts from the NGO community as well a those proposed by environmental NGOs. Quite a number of experts in question have devoted their efforts to make changes and improvements of the document and especially in the field of air and climate their co-operation with HMZ who was in-charged for the chapter on air and policy was intensive and their contribution have been substantial.[43] However due to the "technical reasons" contrary to unofficial agreement their contributions have never been compensated in any form.

Despite the efforts of environmental NGOs in field of energy and climate experts the topics of air and climate policy has not been included among the priorities of the first official drafts of NEAP which could have substantial consequences for financing the activities in the field from domestic and foreign (EU) sources. First after lobbying activities through Environmental forum of LDS and GLOBE Slovenia the minister himself recognised the long term importance of the issue and the corresponding text has been amended within the final stage of the parliamentary procedure. Although air and climate are mentioned as a priorities they are not stressed in the same manner as water treatment and protection, waste management, protection of bio-diversity and institutional strengthening of the sector.

Contrary to the fast and "revolutionary" process of drafting and adopting ZVO the NEAP process has been slow, pragmatic and overshadowed by EU accession activities and natural catastrophes (earthquake in Posocje in 1997 and larger floods in 1998). The policy style has been more opened to participation of different stakeholders, including those who are not-included on the basis of financial, business and investment interests. However it has lacked transparency, clear time schedule and convincing preparedness of MOP not only to give a formal chance to public and NGOs to take an active part in the process but also to create material condition of fair communication and participation.

[43] The guidelines within the chapter has not directly but enough explicitly opposed the continuation of exploitation of domestic coal at present level engagement. This might also be the reason the final drafting has been prolonged and the document has not been made official before the destiny of TET3 has been decided on national referenda.

4 Existing Co-operation

After screening finished and ongoing EE programs which took place in Slovenia since 1993, we have focused to elaborated criteria and set methodology for selection of the 5 best programs. We have followed the following criteria: transparency and measurability of results; contribution to development of country capacity building and international networking; replicability and innovative approach. Experts form GO, NGO and business community have been later on asked to name and identify the projects which could have been in their opinion treated as the most important. Five of those project have been chosen for detailed evaluation by in-depth interviews of the people who have been involved in their design, implementation, monitoring and evaluation. The projects and their correspondence to the criteria are described bellow. At the end the general findings and conclusions are given.

4.1 Approach

After its recognition by all EU countries in 1992 Slovenia became eligible for EU support programs in 1993. Most of the activities on the field of energy efficiency found place within PHARE program and on bilateral basis, especially with the Republic of Austria, interested at very first on the field of energy use of wood biomass and banking of the EE projects. Because of the conceptual lack of the development of legal, regulatory and institutional framework for energy sector in general and EE in particular as well as missing data basis on EE potential (in different sectors) and the potential of renewable energy (by energy carriers) the first project has been focused to address the conceptual and data basis issues on the filed and raise activities for appropriate institutional arrangements of EE policy in Slovenia. After establishing Energy Efficiency Agency of RS in 1995 more attention was given to the energy efficiency projects in industry and on introduction or improvement of financial support scheme to the energy efficiency. Thus more projects of the promotion and support character found place among EE activities. However, PHARE remained far most important framework of co-operation on the field.

Within the large majority of the projects, foreign consultancy and domestic research and constancy organisations have been involved. We could not identify any direct industry to industry partnership and only one municipality to municipality designed program.

4.1.1 Methodology

We have asked the people we were contacting during the identification and screening of the EE projects to appoint the projects which have been in their opinion most important for the development of the EE in Slovenia. Taking into account the low number of the actors in Slovene EE "community" we can at that stage simply relay on their opinion. In this manner we elaborated the broader list of the project to be evaluated further on. By taking a deeper look in the available project documentation (at very first final reports)

and facing the list of the projects with the Best Practice criteria as set by Öko-Institut Berlin we made selection on the second stage. The outcome - eight projects - has been later on evaluated by in-depth interview with different actors involved (designers, organisers, beneficiaries, authorities). No standardised questionnaire (in written form) has been used, however by making in-depth interviews we used standardised questions before the interviewed person has been set free to express his/hers opinion on the project in narrative manner.

4.1.2 Selection

The selection of the "Best Practice Projects" has not been - due to the relative small number of the projects and limited number of the domestic actors on EE - a complicated task. Most of the people has selected almost the same answers with a single exception - none of the people dealing with energy efficiency in industry has selected biomass DH in Gornji grad as a "Best Practice Project". Otherwise almost unanimous answers[44] has been given with the exception of the standpoints on the project "Integrated Resource Planning for the Rational Use of Energy in Slovenia". It also has to be mentioned that two projects described bellow refers to the same program, namely the EE Demonstration Projects Program (ID). Since there has been a few demonstration projects on the field within the country and the projects are from different sectors (public buildings, respectively private industry) and based on different approach and technologies we consider that they might be treated as two individual cases within the scope of our research.

4.2 Best Practice Projects

4.2.1 Wood biomass based DH in Gornji grad

Transparent impact: since the project implementation phase started in 1997 the interests of the municipalities for wood biomass based DH substantially increased. There are 6 ongoing feasibility studies and 8 pre-feasibility studies on the field. The municipality of Gornji grad will on the basis of the results of the projects as a first Slovene municipality join Climate Alliance of Europe which will further contribute to the impact of the project on public awareness, potential stakeholders and decision makers

Replicability: under the same financial presumptions (almost 50% of the total value represents subsides and grants) the project is hardly to be replicable, however it could be

[44] The unanimous consensus among the actors however could be also misleading if they share at the same time also share the same limited set of presumptions or if their presumptions turned to be wrong or misleading. However we have left this epistemological issues - despite they might be very important since most of the actors as well as addressants of our evaluation share the same "parapraxis" of "science and technology as an ideology" - out of the domain of our inquiry.

expected that as a consequence of its impacts the innovative financial schemes will emerge;

Innovativness: first modern biomass based DH in Slovenia; first combination of foreign aid (PHARE, Austrian Environmental Found) and domestic technology on the field of renewable energy;

Building internal country capacity: strengthened coalition of municipalities, consultants, state institute and agencies, industry and NGOs; know how transfer of management of the project and its financial engineering to domestic actors

4.2.1.1 Project Description

Slovenia is very rich in wood biomass since it is by 55 % covered by forests. In total premier energy supply wood represents around 5 % while its share in supply of heat is around 20 %. However, wood is predominately converted to heat by obsolete inefficient, to users and environment unfriendly technologies. Until now the was only one wood biomass based district heating. The project aimed to install modern pilot and demonstration district heating, based on two 2 MW boilers, fired by waste wood, sawdust and/or wood chips, equipped with multicyclon and filters and thus fulfilling EU emission criteria considering emission of dust particles, CO and NO_x. The heat is from boiler house distributed to near wood processing factory, which is also largest supplier of wood biomass (wood wastes, sawdust) and a minor shareholder (25 %) in municipal energy supply company ENGO Ltd., where it is used as process heat and to the district heating pipeline (length: 8 km), which -when finished - is estimated to distribute heat to approximately 80 % of the households of the small town of Gornji Grad. The whole process is regulated automatically and each household can regulate its own supply with heat.

The project started by preparation of documentation in early 1995. The costs of the project documentation & engineering, boiler house, storage hall for fuel, both boilers and system of their automatic regulation were approximately 800,000 Euro. 25 % of that sum was provided as a grant by MEA, 25 % from PHARE and 15 % from State Environmental Fund of the Republic of Austria. The costs of the pipeline (8 km) are estimated at approximately 700,000 Euro. The costs of each individual heat station are subsidised by 25 % by the MEA.

4.2.1.2 Lessons Learned

Main lessons learned are on the filed of project management, technical and financial engineering. With respect to the project management the main lesson is that without a mayor who is fully devoted to realisation of such a project its realisation is hardly possible. The other lesson is that the municipalities are very weak in knowledge and capacities on modern energy data collection and planning tools, energy management, financial engineering and management of decision making process. Since there are on the field of renewable energy no energy companies which have adequate technical, organisation and

financial management skills and capital they can not offer - like gas distribution companies - "full project service" to the municipalities. Thus the transaction costs of the municipalities are very high - a barrier which for a time being could be overcome only by enthusiastic engagement of the mayor not challenged by strong business or political opponents. In order to overcome this obstacle the energy advisory service for local communities would be needed as well as incentives for creation of ESCOs on the field of renewable energy. Next lesson is that the without strict supervision the consultants and technical engineering companies - who's financial revenues are depending on the certain share (x %) of the total sum of the project - are tending to extend the projects over the optimal economics costs by respecting at very first technical limits and not economic performances. Final lesson might be that without establishment of local/regional biomass markets in case of dominant (single) supplier the contracted price for unit of wood biomass might be challenged because of the monopoly status of supplier.

4.2.1.3 Detailed description of the convergence with criteria

Transparent impact: the fact that the mayor of Gornji grad is "sold out" for the presentation of the project in the municipalities which have large potential of wood biomass as well as the number of ongoing and planed pre-feasibility and feasibility studies for wood biomass based DH in local communities can serve as the best proof that the project has important impact on the modernisation of the energy utilisation of wood biomass in Slovenia. One speak nowadays that in Slovenia at least 50 wood biomass based DH systems should be put in operation till 2010, which would contribute for approximately 10 % of demanded 8 % reduction of GHG or 0.8 % of decrease of emissions from base year (1986).

Replicability: It is unlikely that the future projects could be in the same amount supported by foreign donors (PHARE, Austrian Environmental Found) and actual political perspectives are not very promising for substantial increase of domestic subsides (25 % to the costs of the boiler, boiler house, storage and each individual heat station). Because of the long pay back (more then 10 years) and the costs of capital on domestic market wood biomass based DH are not attractive to the private investors. Besides more competition on the field of services and supply of the equipment some other steps would be needed: increase of the charges on illegal sitting of wood wastes and their consequent implementation; direct payments to the farmers for maintenance ("cleaning") of the forests should be related to energy use of the wood biomass collected in this manner i.e. creation of local/regional market with wood biomass as a fuel; (micro-) optimisation of the DH schemes to the density of the heat consumption i.e. replacement of single large DH scheme with many (micro) DH schemes in order to increase the density of heat consumption pro unit (km) of the pipeline.

Innovativness: The project was innovative both in respect of technology as well as project management. Despite the fact that the boilers and installations has been supplied by Slovene companies (KIV Vransko, CIGRAD Sostanj) it was for the first time that tech-

nology which was developed in co-operation with foreign partners (Jaehrenforsen from Sweden) has been installed for DH in Slovenia. With respect to project management it as for the first time that Slovene as well as foreign partners are involved in implementation of on a renewable energy based municipal energy concept.

Building internal country capacity: As a non intended outcome of the project a Slovene biomass "lobby" emerge. It consists from engineering companies, consultants, producers of the equipment, foresters, part of wood processing industry, regional development agencies and environmental NGOs. The project serve as "time-space" framework where their networking took place. However the structure of the network as well as the roles within the network are not clear and transparent. As it seems the main promoter of the biomass energy utilisation in Slovenia are at the moment the engineering and consultancy companies which have gained the experience by taking part in the project. However they are at very first oriented to project by project approach and maximalisaton of the budget revenues for "their" current wood biomass DH project and not for opening of the transparent markets with wood biomass as a fuel where the consumers will have the choice to claim for state subsides/grants either for individual or for (large or micro) district heating wood biomass options.

4.2.2 Integrated Approach in Energy Efficiency in Heating in Fran Albreht Elementary School in Kamnik

Transparent impact: transparent financial spending, measurable and monitored energy savings and environmental impact reductions; increased interest among directors of public schools for EE activities

Replicability: under same legal and regulatory framework hardly replicable; yet it could be used as a case for issuing motivation and third party financing barriers;

Innovativness: first integrated approach of EE in public buildings in Slovenia

Building internal country capacity: initialised coalition building between domestic energy efficiency experts and "Eco-shools" NGO network

4.2.2.1 Project Description

Elementary school "Fran Albreht" is typical school building from early sixties. It was built without thermal insulation while before their replacement the windows had wooden frames, which were in large number already damaged. The heat was provided from its own 25 years old hot water boilers which needed to be replaced, too. During the project a number of activities has been carried out, targeting the improvement of energy efficiency of heating system. The old boilers has been removed and the school connected to DH. The roof has been thermally insulated and the windows and their frames replaced by insulated low heat emission ones. Thermostatic regulation valves of the radiators in building and the hot water pumps with the regulation of frequency have been installed. The school has been equipped with computer system for manipulation of the central

regulation of the heating, measurement of energy consumption and monitoring of the energy processes. In addition the teachers and pupils has been informed about the advantages and importance of thermostatic regulation valves for user friendly temperature of the classrooms and for reduction of the heat loses.

The *total investment of 127,000 Euro* was made in 1996. A reference average consumption of heat was calculated from data between 1992 - 1995 and an annual reduction of energy consumption for 44 % was estimated. In season 1996/1997 the actual(measured) savings were 39 %. Taking into account this number the pay back period of the investment in EE measures is 4.6 years.

4.2.2.2 Lessons learned

The *most important lesson* is: if there is money available for the investment, the an investment in EE with relatively short pay back period can be achieved. However the fact is that neither the school nor the municipalities have financial resources and both are restricted by the provisions of the Ministry of Finance for taking credits in (EE) investments even if the financial savings can be proved already on the mid-term. The third party financing would be under the existing laws and rules considered from perspective of Ministry of Finance as increased public indebtedness and thus not allowed.

The *second lesson* is: neither the school management nor the (other) users of school building (pupils, teachers, members of sport clubs etc.) are motivated for EE. The financial benefits which would result form energy savings which depend from their actions, activities and deeds would not be distributed to them neither on the level of the school as an institution such nor at the level of its constitutive parts (classes). On the other side it would be also very hard to connect the curriculum with the EE activities and investments in school - thus the environmental benefits of EE efficiency measures and investments which took place in the schools as a building are not related to school as an education "vehicle". The *third lesson* is: first after a central computer system of monitoring of the energy processes in school is built in the school management and maintenance staff can also focus on EE parameters while providing energy services.

4.2.2.3 Detailed description of the convergence with criteria

Transparent impact: due to the "zero state" measurement, exact calculation of the energy saving potential of each single measure and the exact measurements after the measures have been implemented it is not hard to raise arguments and give evidence of energy and financial savings, reduction of emissions and improved standard of the users for each single measure. The impact of the project is very strong within the community of energy efficiency experts since it has proved that cost effective EE measures in public buildings can be realised even in circumstances of relatively low prices of energy. The project has however not a strong impact on the municipality despite the fact that in was in financial terms the most important beneficiary. Municipality has not raised any long term and sup-

ported activity for EE improvement in other schools and public buildings. The project has also not brought on public and political agenda a (key) issue of legal and financial framework for EE in public sector.

Replicability: Since there are no donors who would invest in EE just for sake of energy savings and environmental improvement the project is under same legal and regulatory framework hardly replicable. However removal of the barriers for third party financing and of the motivation of users for EE would make the project highly replicable.

Innovativness: As first integrated approach of EE in public buildings in Slovenia the project brought innovative approach in dealing with technical aspects of project management and logistic of technical tasks in public buildings.

Building internal country capacity: The results of project initialised a program of MGD-AURE supported activities of energy efficiency overviews of the schools and the projects aimed to raise awareness of the importance and benefits of the EE in schools. Energy efficiency in school became at least at conceptual level a common issue of the energy efficiency in buildings experts and the practitioners of "Eco schools" network which are trying to integrate environmental education within the curriculum and other activities of schools.

4.2.3 Energy Conservation Strategy

Transparent impact: clear impact on the decision making process - the energy conservation potential has been recognised as an important option in energy policy

Replicability: parts of the research are going on, the data basis is improving.

Innovativness: project has been innovative in approach and methodology

Building internal country capacity: improved strategic knowledge and strengthened awareness that the efforts on the energy efficiency and renewable energy actors have to join in order to influence on removal of the barriers.

4.2.3.1 Project Description

Before the results of the project has been given there had not been a general and comparative assessment of the potential on efficient supply and use of energy as well as renewable energy in Slovenia but only partial sectoral or single case studies. The project has aimed to bring the "total picture" of the situation on the field. The energy saving potential in industry by branches and by technologies, energy conservation potential in building sector (divided into public buildings and households) by age, type of the building and by the climate zone and the energy supply of renewable energy by energy carriers by technology have been assessed at the level of the theoretical (technical) potential and at the level of the economically viable potential (on the level of the current, i.e. 1994 prices for energy, respectively energy carriers). The results from each single category has been summarised on different levels, thus enabling an assessment for each technology, branch,

type of buildings or energy carrier end an aggregated assessment on the level of the sector as well as, finally, the assessment of total potential of energy savings, energy conservation and renewable energy in PJ within the country. Parallel to the assessment of each single potential (by category) the barriers has been identified and the recommendation for removal of the barriers and future action programs has been made

4.2.3.2 Lessons learned

The project has contributed to the transfer of know how in how to deal with an integrated approach in energy conservation. Perhaps even more important that the transfer of skills and methodology of the assessment of each single category of the study has been the transferred of strategic knowledge that despite differences in sectors, energy carriers and technologies the energy conservation options are socially much more shaped by their desegregated and dispersed structure so that the differences in sectors and methodological approaches must be overcome in order to remove the barriers for the potential on the field. The actors has learned that they have to co-operate in order to create a positive sum game on the field, however they have not learned how to co-operate and how to design the positive sum game.

4.2.3.3 Detailed description of the convergence with criteria

Transparent impact: the study has given data basis on energy conservation and renewable energy potential and methodological approach for its assessment. The fact that there are expert based data and knowledge on the energy conservation influenced the decision making process.

Replicability: it is not realistically to believe that the study will be ever made again in on its full scope, however there are ongoing activities for reassessment and finishing of the data basis and/or reassessment of the economically viable saving potential on many fields elaborated in study in question.

Innovativness: innovation in methodological approach toward integrated assessment of energy conservation potential in different subsectors as well as innovation in management of complex assessment of energy conservation potential at the country's level has been proven.

Building internal country capacity: the domestic actors (energy efficiency scientific institutes, energy restructuring agencies, civil engineering institutes, energy consulting companies etc.) worked together on an integrated approach basis for the first time. They benefited from common approach and methodology also in sense of improved strategic knowledge; i.e. knowledge about the profile and capacities of each other. By cross sectoral networking (energy efficiency in industry; energy conservation in building sector, renewable energy) the role of "new actors" in energy policy arena has strengthened.

4.2.4 Networking and Training of Energy Advisers

Transparent impact: increased number and performance of energy audits for households

Replicability: number of energy advisers has been increased, transfer of the know how

Innovativness: first state supported energy advisory network

Building internal country capacity: networking has strengthened the role of energy advisers and improved the transfer of experience and know how from the expert institutions to the network and within the network

4.2.4.1 Project Description

Although the had been some consumer's advisory activities and initiatives on the field of energy previous to the project, the project which started in 1994 for the first time brought into being a nation-wide network, common rules and standards as well as the "branch mark" of the energy advisory service (EN-SVET - this denominator is at the same time in Slovene language the abbreviation for energy advisory and it has the meaning of "one world"). Energy advising practitioners has been given a common knowledge and training in energy processes, energy conservation and energy advising. The activities of energy advisers has been certified, supported and promoted. A media promotion campaign has been launched. Additional training and distribution/exchange of information and experience has been organised as well as systematic evaluation of the results and performance of energy advisory activities. First the program had been performed and co-ordinate by The Institute of Civil Engineering, after 1995 when the Agency of RS for Energy Efficiency was established it took over also the role of co-ordination and evaluation of the activities.

4.2.4.2 Lessons learned

One of the most important lessons is that energy auditing needs permanent promotion and "marketing" activities. This can not be covered and carried only by energy advisers. The second lesson is that the energy advisers needs regular and permanent exchange not only of information but also of the experience (and problems) they have in order to create a kind of professional group identity and professional ethics. Clear rules, financial support and the system of monitoring and control has to be establish in order to prevent the energy advisory activities to serve as a hidden marketing and/or promotion of certain company or its services/ products. If there is a lack of energy efficient products on the market or there is no adequate system of energy labelling of the products the energy advises can have only a limited impact on the consumer's choice, especially on the field of household appliances. Last but not least, the consumers are looking for a complete service with respect to investment in energy efficiency and not only for a technical advises and are thus demanding also support in understanding of state and commercial schemes and procedures for getting subsides or credits under favourable conditions.

4.2.4.3 Detailed description of the convergence with criteria

Transparent impact: the number and improved performances (energy consumption reduction in kWh per advise) are proving that the project has an transparent impact;

Replicability: the project of course can not be replicated as such but it could serve as a basis for establishment for energy advisory network in some other countries or for advisory services on the other field. However, the training and evaluation activities of the energy advisory service in Slovenia should be repeated, the network could be extended and additional activities (investment and financial aspects of EE) could be integrated.

Innovativness: since the energy advisory network has been one of the first consumers advisory networks in Slovenia in general it has brought an innovative approach of de-stated as well as de-commodified self-regulating advisory network. establishment of the structures which are between the state and the market is still a challenge for the restructuring of institutional design in Slovenia and energy advisory network was one of the first attempts in Slovenia in this direction.

Building internal country capacity: the very fact that there is an active, in a great part self-sustaining network of energy advisers is contributing to the country's internal capacities on the field. However the network has not been encouraged enough to extend the scope of its activities like organising regional/local seminars/workshops and or excursions on energy efficiency in public buildings, energy planning in local communities etc.

4.3 General Findings and Conclusions

4.3.1 The character of the projects

A large majority of the co-operation programs/projects has a character of technical assistance. At the beginning this assistance was given to raise country's capacities on assessment and evaluation of EE potential, institutional set up of basic EE structures, new conceptual approaches in energy planning (DSM, IRP) as well as institutional, legal and regulatory framework of EE sound energy policy.

Since the establishment of the Agency of RS for Energy Efficiency the demonstration projects which aimed an integral approach in EE and upgrade of institutional set up by targeting the establishing of soft (market) tools for EE (revolving fund) or abolition of the barriers for new financial schemes (TPA). Form 1997 also the technical support studies for EU accession on energy field started. However it is to early (or to complex) to evaluate their results, impact, lessons learned and contribution toward internal capacity building.

The projects we have selected for detailed elaboration has all been finished in 1997 and has a character of general studies (Energy Conservation Study), pilot-demonstration projects (biomass, energy conservation of public building, energy efficiency of energy

intensive technology process in privatised industry) or institutional set up of basic EE structures (EE Advisory Network)

With respect to conceptual studies on energy planning approach and the studies on legal, regulatory and institutional framework restructuring (including "accession" studies) it is much harder to give an opinion on the lessons learned, their impact and their contribution to internal capacities building. There are several reasons for that: the impact can not be measured with simple measures on the short term, the actors lack abilities/capacities to understand the whole range and intermediary of the potential impacts and or there was simply not enough distance in time to monitor the outcomes.

4.3.2 Actors Involved

Most of the actors which has been involved in the co-operation project on the field as well as in our evaluation study are coming from the field of experts of energy planning, energy efficiency in industry/household sector or project engineering in the energy field.

No media, marketing agency or non profit public servicing NGO has been involved as an actor in the field. The coalition of the "old actors" has been successful in not allowing any new actor to enter the field or that the larger numbers of new actors on the field will emerge within the coalition in question. The only important structural innovation was the establishment of the Agency of RS of Energy Efficiency. This has been until now successful to start to integrate actors form the field of finances (banks) into the arena of EE policy.

Large majority of the actors have professional background in natural sciences or/and in technology, but few theoretical understanding of economics and social processes. In majority they are coming from national para-state (or ex para-state) institutions or dominant energy consultancy-engineering companies. Thus they also prefer "concrete technical solutions" over the abstract conceptual or institutional issues. However because of their past experiences and the lack of understanding of social and institutional processes they are in most cases understand the EE as a zero sum game driven by limited resources of the state and the foreign aid and not as a (potential) positive sum game with increasing resources coming form the growing demand on energy efficiency. As a consequence most of them are "catch all" actors who are trying to catch on their own everything which is related to EE - from promotion, awareness raising and information activities to energy auditing and preparation activities for certain EE investment - rather to share a long term view, make an agreement on the distribution of the roles and task and form a development coalition on the field of EE.

Thus the future support should be - in our opinion - focused on removal of the barriers and improved condition for EE market (removal of the barriers for TPA in public sector), to the increase of domestic capacities for strategic co-operation among the main actors in the field and to establishment of appropriate capacities on the field of general

awareness raising, strategic learning and dissemination of the results in media and public discourse.

4.3.3 Dissemination of Results

Dissemination of the results of the studies and especially pilot and demonstration projects was good within the industry, however within the other sectors was rather limited since EE programs and activities are not accompanied with regular and permanent support activities in media and because few media campaigns which has been carried out has not succeed to find adequate symbols to make a distinctive an recognisable message within the media. The role and potential of (environmental) NGOs with respect of producing events and symbols which are attractive to the media has been neglected. Not enough attention has been given to raise communication skills of the EE experts, advisers and practitioners to communicate with different target groups and to raise abilities to identify potential allies and make partnership within a broader field of "sustainable development".

Generally speaking while a lot of attention has been given to raise understanding and skills on new technologies, organisation schemes, energy planning, efficiency, conservation assessment few attention has been given to raise the communication skills and understanding of their importance for design and implementation of EE programs and projects.

5 Recommendations

Recommendations for co-operation projects between the Federal Republic of Germany and the Republic on Slovenia in the field of environment and energy are given below.

5.1 Extension of EU Advisory Support in Energy Policy for at least Additional 18 Months

5.1.1 Background

In 1996 the Parliament of RS adopted the Strategy for Energy use and Supply for Slovenia - a declarative, yet legally not binding text which has brought the political normative principles in harmony with EC commission 's policy as presented in White paper on Energy and with principles of the Energy Charter Treaty. The strategy has neither given a new legal basis nor well defined action program, yet it could be treated as a symbolical turning point for the energy policy so Slovenia. Based on this document the Government has started to prepare new energy legislation which would follow the philosophy given by "famous" Directive 96/92 (EC) but the Ministry of Economic affairs was under permanent temptations to support the investment options and arrangements of the traditional domestic supply side actors, which were not in accordance with deregulated and liberalised energy policy. This has led toward certain delays and at the beginning toward relatively conservative approach in giving legal basis for market competition an opening. Nevertheless by persona and policy style changes the Government made large progress both in attitude toward market driven energy policy as well as in accelerating the corresponding procedures in parliament. Thus a new Energy Law -which could be concerned as on of the most opened and liberal not only within accession countries but also in broader EU context - was adopted in the beginning of September.

5.1.2 Project Rationale and Objectives

However there are huge needs for further development of by-laws, technical standards and support programs for fostering the restructuring of energy sector in order to be able to develop its competitiveness on internal EU market. The particular issues are the establishment of a legal and appropriate institutional base by implementation of the new Energy law, the adoption of the electricity sector to withhold the competitive pressure and development and implementation of the mechanisms and instrument for meet the Kyoto targets. The technical assistance provided under SYNERY and PHARE programs has until now made more the significant contribution toward approximation to and harmonisation with EU on the filed. It would be in opinion of the top Slovene policy makers -especially from the field of energy efficiency - to continue this assistance for at least 18 months which are asses as a critical period for implementation of the by new Energy Law given solution. This tasks are however of continuos nature and require a high degree of

confidentiality and credibility in human relations, thus as a most appropriate solution an extended mandate of the actual EU energy policy adviser Mr. Ole Boerensen is recommend. The immediate objective of the assistance in question would be to support the MEA and Agency for Efficient Use of Energy to achieve both implementation of new legal solutions as well as establishing competition, transparency and supervision structures which alleviate to join internal energy market. In particular, the policy advisor will assist in the following policy areas: energy efficiency improvements; implementation of electricity sector regulation and privatisation/market adoption of electricity companies; development and implementation of GHG abatement strategy, including development and implementation of strategy of use of renewables and CHP under the internal market provisions and conditions.

5.1.3 Time Schedule and Costs

The project would start in early 2000 and the total costs are estimated at maximum DEM 500.000. The Government of Slovenia is willing to cover the costs of housing, local travel and transport, communication, translation, reporting, office space and consumables etc., which amount between 15 - 20% of the overall costs.

5.2 Supporting the Co-operation in Development of Regional Markets with Wood Biomass Fuel and Wood Biomass Energy Utilisation Technologies

5.2.1 Background

Slovenia is by 55% covered by forest and this share is increasing due to the structural changes in ownership of forests , land use and agriculture and decreased capacities in management of forests. From World War II till now timber stock due to sustainable forestry management almost doubled while the forested area increased for 30% in last 15 years. .Large amount of wood wastes from industry are not reprocessed or used for energy proposes but in many cases stored on illegal storage. In space heating firewood, mostly in from of wood sticks, is still covering around 20% of demand (it is estimated that about 150.000 boilers are heated by wood as one of or only fuel), yet in most cases on the basis of obsolete technologies which can neither provide conform to the consumers not fulfil the EU efficiency and emission criteria. With support of the Government of RS, PHARE, environment funds of Austria and Slovenia first modern DH is to be finished and put into full operation till the end of this year. Due to the high investment costs and dispersed structure of settlements in many rural areas the DH is in most cases where the wood is still in use not the best option for energy utilisation of wood biomass. Recently UN GEF financed study precisely defined the potential as well as obstacles and barriers for energy utilisation of wood biomass. The EU supported instalment of 12 pilot small scale biomass boilers is in progress and MOE is together with Ministry of Science

and technology undertaking activities to assess Slovene potential in development, production and marketing of domestic small scale boilers.

5.2.2 Project Rational and Objectives

The project should focus on external experts evaluation of existing studies of assessment of biomass based DH in Slovenia within respect to EU accession process and country specific circumstances. Since the recent cluster analysis of much more developed biofuels cluster in Austria come to the conclusion that the number of biomass small scale boilers will be within next 10 years reduced from about actual 30 manufacturers to 5 - 10 industrial producers an external review of the actual attempts to start with own production of small scale wood biomass boilers could be recommended together with an overview of options joint Slovene - German ventures on the field in order to develop EU competitive production and marketing of small scale biomass boiler on EU market. Further one a study of perspectives of wood biomass based cogeneration and instalment of a pilot project would be of significant importance while in some areas which are reach in wood wastes and residuals the instalment of larger electricity production units will contribute toward stability and quality of supply from the grid. Last but not least - an assistance for establishing institutional set up for regional markets with wood biomass as a fuel is to be especially recommended to brake circulus viciosus when despite the fact that in certain regions there already are both potential suppliers of wood biomass as well as potential consumers, the later can not buy modern forms of biomass fuel (wood chips, pellets) because the first can not estimate the potentials and reliability of the market and are thus not willing to take the risk to invest in fuel preparation, storage and distribution technologies and supply schemes.

5.2.3 Time Schedule and Costs of the Projects

At the given stage it can not yet be estimated. A further elaboration would be needed.

5.3 Support for the Promotion of Third Party Financing of Energy Efficiency Investment

5.3.1 Background

At the beginning of 1998 the Ministry of Industry of FRG issued a tender of the TRANSFORM program for advisory activities in CEECs. To Slovenia DEM 2 million was offered. After a visit of the delegation German Ministry of Industry an agreement has been made on which basis Slovenia has on the field of energy efficiency prepared tender documentation (TOR) for TPF for investment in energy efficiency. After tendering procedure the Kreditanstalt für Wiederaufbau from Frankfurt - which had been trusted the procedure - has chosen company MVV from Mannheim to take over the project.

The first phase which has identified the legal options and barriers for TPF within the given legislative and administrative rule in Slovenia come to conclusion that TPF in energy efficiency could found ground in existing Slovene legal-administrative procedures. Yet due to its complexity, inherent contradictions and lack of capacities of co-operation between different authorities on the field, it does not come into question especially in the public sector.

The second phase which aimed to defined the proposals for re-definition and harmonisation of administrative procedures, capacity building between the involved institutions, preparation of type contracts, education and support in carrying out a pilot project should be started next year. However this is not confirmed yet, despite the Slovene authorities has expressed their interest for continuation of the project. This would be of an outstanding importance also in our opinion because the economically viable potential of energy efficiency in public buildings is according to The Energy Conservation Study for Slovenia estimated between 25 - 30%.

5.4 Schools, Municipalities and NGO Co-operation on the Field of Energy in School Related Environmental Education and Energy Efficiency Related Activities

5.5 Background

Environmental education - especially the one which is based on new pedagogic approaches and methods (like "learning by doing") - is currently making first steps in Slovenia. There are about 400 public schools in Slovenia which are financed by municipalities or/and by Ministry of Education. It is estimated that the annual energy costs in publics schools are approximately DEM 40 million. The energy auditing carried out in recent years came to the conclusion that an average economically viable saving potential in school buildings varies between 20 and 30% while in many cases is due to the missing insulation etc. much larger. However the current institutional designs are not simulative for energy efficiency. Energy efficiency management demands considerable efforts from school management and an active participation of all users (teachers, pupils, sport clubs etc.). In actual praxis energy savings are "rewarded" in negative way - the reduction of energy used would as a consequence have corresponding decrease of the budgetary financing of schools. On the other side the state and municipalities does not have money for investment in improving energy efficiency of the school building and are not allowed to get credits in order to avoid "grey" budgetary debt. Besides, overcomplex procedures are making TPF approach practically impossible.

5.5.1 The Rational and Objectives of the Project

The rational is to integrate introduction of NGO supported attractive environmental education for teachers and pupils with identifying the environmental as well as financial con-

sequences of energy use in school and to educate pupils about energy and energy technologies in a way which will make the potentials of energy efficiency in school visible to their parents, local community, media and authorities. The objectives are introduction of new, integrated approaches in dealing with energy and environment within and outside of curriculum and support to design such institutional arrangements which would be simulative for energy efficiency endeavours in school like sharing the benefits of reduced energy costs between the school and municipality/sate. A further objective is to a mid term create appropriate communicative field and interest aggregation which would be able to put pressure toward more TPF friendly environment.

In FRG there is on that field well established fifty-fifty Internet network which is including schools, environmental NGOs and authorities. Many new approaches, methods, tools and instruments on the filed has been developed. The aim is to establish similar network in Slovenia and enable transfer and adoption of the German know how and experience on the field. In addition this might lead toward concrete partnership programs an co-operation between German an Slovene schools and municipalities, which would give a fruitful ground for making contacts with providers of energy efficiency services and investors.

5.5.2 The Time Schedule and Costs

The activities should start already in 2000 since the first contacts has already been made. The minimal period of the project should be 24 moths. Within first year a Slovene networking and at least 3 German - Slovene seminars/workshops should take place in order that the partner meet and make proposal for concrete bilateral projects between the schools and municipalities. In second year some 10 school to school co-operation projects should be carried out.

The first part of the project is estimated on DEM 120.000 of which Slovenia could contribute DEM 40.000. For the second part the costs are estimated between DEM 150.000 - 200.000 with Slovene share varying from DEM 30.000 - 50.000.

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7 Appendix

7.1 Energy and Environment Data

Table 8: Energy Data, Energy and Electricty Balance

	Unit	1990	1991	1992	1993	1994	1995	1996	1997
TPES (Gross Inland Consumption)	mtoe	5.2	5.1	4.7	5.2	5.5	5.8	5.9	
Solids	mtoe	1.4	1.3	1.3	1.3	1.2	1.2	1.2	
Oil	mtoe	1.8	1.7	1.6	1.9	2.1	2.3	2.3	
Natural gas	mtoe	0.7	0.7	0.5	0.6	0.6	0.7	0.9	
Other (1)	mtoe	1.4	1.4	1.2	1.4	1.6	1.6	1.6	
Net Imports	mtoe	2.5	2.2	2.0	2.5	2.7	3.0	3.1	
Solids	mtoe	0.1	0.1	0.1	0.2	0.1	0.2	0.2	
Oil	mtoe	1.8	1.7	1.6	1.9	2.1	2.3	2.2	
Natural gas	mtoe	0.7	0.6	0.5	0.5	0.6	0.7	0.9	
Gross Electricity Generation	TWh	12.4	12.7	12.1	11.7	12.6	12.6	12.7	13.2
Nuclear	TWh	4.6	5.0	4.0	4.0	4.6	4.8	4.6	5.0
Hydro & wind	TWh	3.0	3.6	3.4	3.0	3.4	3.2	3.7	3.1
Thermal	TWh	4.9	4.2	4.7	4.7	4.6	4.6	4.5	5.1
Own use	%			-7.1	-7.3	-6.9	-7.4	-7.0	
Distribution losses	%			-5.5	-5.7	-4.2	-5.4	-5.6	
Electricity Plants	TWh				7.6	8.7	8.7	8.9	
CHP Plants	TWh				4.1	3.9	4.0	3.9	
Electricity Import & Export Balance	TWh	1.2	-2.1	-1.8	-1.4	-1.9	-1.7	-1.5	
Import	TWh	1.7	1.1	0.3	0.7	0.5	0.7	0.9	0.8
Export	TWh	-0.5	-3.2	-2.1	-2.1	-2.4	-2.4	-2.4	
Generation Capacity	GW	2.5	2.5	2.5	2.5	2.5	2.5		
Nuclear	GW	0.6	0.6	0.6	0.6	0.6	0.6		
Hydro & wind	GW	0.8	0.8	0.8	0.8	0.8	0.8		
Thermal	GW	1.1	1.1	1.1	1.1	1.1	1.1		
Fuel Inputs for Thermal Power Generatior	mtoe	1.3	1.1	1.3	1.2	1.2	1.1		
Solids	mtoe	1.1	0.9	1.0	1.0	1.0	0.9		
Oil	mtoe	0.2	0.1	0.1	0.1	0.1	0.1		
Gas	mtoe	0.1	0.1	0.1	0.1	0.1	0.1		
Net Electricity Generation by Fuel	TWh	3.9	3.4	3.9	4.0	3.9	3.9	3.7	4.5
Solids	TWh	3.9	3.4	3.9	4.0	3.9	3.9	3.7	4.2
Oil	TWh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Gas	TWh					0.0	0.0	0.0	0.1
Total Final Energy Demand	mtoe	3.3	3.3	3.0	3.5	3.7	3.9		
Solids	mtoe	0.3	0.3	0.2	0.2	0.2	0.1		
Oil	mtoe	1.5	1.5	1.4	1.8	1.9	2.1		
Gas	mtoe	0.5	0.4	0.4	0.4	0.4	0.4		
Electricity	mtoe	0.8	0.8	0.8	0.8	0.8	0.8		
Heat	mtoe	0.2	0.2	0.2	0.2	0.2	0.2		
Other	mtoe			0.0	0.3	0.3	0.3		
Final Energy Consumption	mtoe	3.3	3.3	3.0	3.5	3.7	3.9		
Industry	mtoe	1.4	1.2	1.1	1.1	1.2	1.1		
Transport	mtoe	0.9	0.9	0.9	1.1	1.2	1.4		
Tertiary-Domestic	mtoe	1.0	1.2	1.0	1.4	1.3	1.4		
District Heating									
Connected households	1,000					104			
Heat Generation	PJ				8.5	8.1	8.9	9.7	
CHP Plants	PJ				5.9	5.0	5.7	6.0	
Heat Plants	PJ				2.5	3.1	3.2	3.7	

Source: DG XVII 1998, IEA 1998a, 1997, 1996, Statistical Yearbook 1998

Table 9: Energy Markets

	Unit	1990	1991	1992	1993	1994	1995	1996	1997
Energy prices, constant US$@PPP1995									
Electricity									
Residential	$/kWh					0.03		0.03	0.03
Industry	$/kWh					0.02		0.02	0.03
Fuel Oil									
Residential	$/GJ					9.19			10.12
Services, Commercial	$/GJ					9.19			10.12
Industry	$/GJ					9.19			10.12
Natural Gas									
Residential	$/GJ					13.25		10.51	10.05
Industry	$/GJ					7.20		5.61	6.14
Heat									
Residential	$/GJ					13.04		11.69	11.43
Industry	$/GJ								10.64

Source: IEA 1998b, World Bank 1999, ELES-Elektro Slovenija, calculations by Oeko-Institut

Table 10: Greenhousegas and Airborne Emissions

	Unit	1990	1991	1992	1993	1994	1995	1996	1997
CO_2	1,000 t	13,935	13,161	13,570	14,877	14,165	13,951		
Fuel Combustion (Sectoral Approach)	1,000 t	13,294	12,556	12,946	14,192	13,514	13,309		
Fugitive Emissions from Fuels	1,000 t								
Industrial Processes	1,000 t	641	605	624	684	652	642		
Solvent and Other Product Use	1,000 t								
Agriculture	1,000 t								
Land-Use Change & Forestry	1,000 t	-2,293							
Waste	1,000 t								
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								
CH_4 (Methane)	1,000 t	176							
Fuel Combustion (Sectoral Approach)	1,000 t	7							
Fugitive Emissions from Fuels	1,000 t	51							
Industrial Processes	1,000 t								
Solvent and Other Product Use	1,000 t								
Agriculture	1,000 t	44							
Land-Use Change & Forestry	1,000 t	1							
Waste	1,000 t	76							
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								
N_2O	1,000 t	5							
Fuel Combustion (Sectoral Approach)	1,000 t	1							
Fugitive Emissions from Fuels	1,000 t								
Industrial Processes	1,000 t								
Solvent and Other Product Use	1,000 t								
Agriculture	1,000 t	5							
Land-Use Change & Forestry	1,000 t	0							
Waste	1,000 t								
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								
SO_2	1,000 t								
Fuel Combustion (Sectoral Approach)	1,000 t								
Fugitive Emissions from Fuels	1,000 t								
Industrial Processes	1,000 t								
Solvent and Other Product Use	1,000 t								
Agriculture	1,000 t								
Land-Use Change & Forestry	1,000 t								
Waste	1,000 t								
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								
NO_X	1,000 t	64							
Fuel Combustion (Sectoral Approach)	1,000 t	64							
Fugitive Emissions from Fuels	1,000 t								
Industrial Processes	1,000 t								
Solvent and Other Product Use	1,000 t								
Agriculture	1,000 t	0							
Land-Use Change & Forestry	1,000 t	0							
Waste	1,000 t								
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								
VOC	1,000 t	37							
Fuel Combustion (Sectoral Approach)	1,000 t	23							
Fugitive Emissions from Fuels	1,000 t	2							
Industrial Processes	1,000 t	3							
Solvent and Other Product Use	1,000 t	8							
Agriculture	1,000 t								
Land-Use Change & Forestry	1,000 t								
Waste	1,000 t								
Other	1,000 t								
Memo Item: International Bunkers	1,000 t								

Source: UNFCCC 1999

Table 11: Socio-demographic and Economic Data

	Unit	1990	1991	1992	1993	1994	1995	1996	1997
Socio-demographic Data									
Population	Million	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Population aged 15-64, total	Million	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Labor force, total	Million	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Appartments									
Apartments	1,000					669			695
Occupants	No./App.					3.0			2.9
Average Size	m²/App.					69.6			70.7
Heating Space	Million m²					47			49
Gross Domestic Product at Market Prices									
Current Prices									
SIT	Billion	197	349	1,018	1,435	1,853	2,221	2,553	2,907
US$	Billion	17	13	13	13	14	19	19	18
Purchasing Power Parities (PPP)	Billion			18	19	20	22	23	23
Constant Prices 1995									
SIT	Billion	1,620	1,476	1,396	1,435	1,511	1,573	1,622	1,684
US$	Billion	19	18	17	17	18	19	19	20
PPP US$	Billion	22	20	19	20	21	22	22	23
GDP Deflator	1995 = 100	12	24	73	100	123	141	157	173
Money									
Exchange Rate	CZK/US$	11.3	27.6	81.3	113.2	128.8	118.5	135.4	159.7
Inflation (Consumer Price Index)	%	551.6	115.0	207.3	32.9	21.0	13.5	9.9	8.4

Source: World Bank 1999, Bank of Slovenia, Statistical Yearbook 1998, calculations by Oeko-Institut

Table 12: Environment and Energy Indicators, Driving Forces

	Unit	1990	1991	1992	1993	1994	1995	1996	1997
Energy Intensity									
TPES per Capita	toe/Cap.	2.6	2.5	2.3	2.7	2.7	2.9	3.0	
TPES per GDP (PPP)	kg/US$1995	0.23	0.25	0.24	0.26	0.26	0.27	0.26	
Energy Prices, Current Local Currency									
Electricity									
Residential	SIT/kWh					2.48		3.68	4.10
Industry	SIT/kWh					2.10		2.82	3.19
Fuel Oil									
Residential	SIT/GJ					814			1,262
Services, Commercial	SIT/GJ					814			1,262
Industry	SIT/GJ					814			1,262
Natural Gas									
Residential	SIT/GJ					1,174		1,195	1,254
Industry	SIT/GJ					638		638	766
Heat									
Residential	SIT/GJ					1,156		1,329	1,426
Industry	SIT/GJ								1,328
Greenhouse Gas Emissions (GHG)									
GHG by Gas	1,000 t GHGE	19,212							
CO_2	1,000 t GHGE	13,935	13,161	13,570	14,877	14,165	13,951		
CH_4	1,000 t GHGE	3,701							
N_2O	1,000 t GHGE	1,576							
GHG per Capita	t/Cap.	9.6							
GHG per GDP@PPP95	kg/US$	0.9							
Driving Forces									
CO_2/TPES	t CO_2/toe	2.7	2.6	2.9	2.9	2.6	2.4		
TPES/FEC	toe/toe	1.6	1.5	1.5	1.5	1.5	1.5		
TFC/GDP	kgoe/US$	0.1	0.2	0.2	0.2	0.2	0.2		
GDP/POP	1,000 US$/Cap.	11.2	10.2	9.7	10.1	10.5	10.9	11.3	11.7

Source: Calculations by Oeko-Institut

7.2 Screening of Co-operation Project

Table 13: Co-operation Project Screening Table

Name of the Projekt (Acronym)	Description	Objectives	Co-operation Partners (Institution, Country)	Total Volume	Start (mm/yyyy)	(Planned) End (mm/yyyy)	Evaluation Report Available	Results, Objectives Achieved
ENERGY SECTOR FRAMEWORK (ID 3)	Development of Legal, Regulatory and Institutional Framework of the Energy Sector in Slovenia (Energy Strategy & Conservation)	recommendations for th organisation, operation and privatisation of the energy sector; efficiency improvements; foreign investment	BCEOM-France, GOPA Consultants-Germany, IPA-Institute for Public Administrations-Slovenia	0.350	Feb. 1993	Jan. 1995	yes	proposals of institutional, legal and organisational changes and poliy measures
ENERGY CONSERVATION STRATEGY (ENCOS) (ID 4)	assessment of the technical and economically viable energy conservation potentials in different sectors (Energy Strategy & Conservation)	development of consistent and coherent national conservation programme, to enhance coherence and cost effectiveness of the programmes ; identification of the barriers	Birch&Krogboe-Denmark, ETSU-United Kingdom, IJS-Slovenia	0.570	Apr. 1994	Oct. 1996	yes	barriers identified, recommendations for future action programmes in the field of rational use of energy,
ENERGY SAVING FOUND (ESF) (ID7)	feasibility study (Energy Saving Fund Study)	establishment of transparent procedure to implement cost-effective measures for EE, removal of the barriers for energy saving investments	Coopers&Lybrand-Netherlands, Coopers&Lybrand-Slovenia	0.135	Oct. 1995	Oct. 1996	yes	improved knowledge on management of energy saving fund and financial engineering
DEMO PROJECTS EE INVESTMENT (ID8)	demonstration projects for EE investment in building and Industry sector (Demonstrations)	demonstration of technical viability, economic and financial viability, demonstration of financial engineering	Byrne&O Cleirgh-Ireland, ETSU-United Kingdom, GI-ZRMK-Slovenia, IJS-Slovenia	0.540	Apr. 1994		yes	improwed energy efficiency of demonstratiion objects, transfer of finacial engineering know-how

Source: Slovenian E-Forum

Table 13: Co-operation Project Screening Table, contiued

Name of the Projekt (Acronym)	Description	Objectives	Co-operation Partners (Institution, Country)	Total Volume	Start (mm/yyyy)	(Planned) End (mm/yyyy)	Evaluation Report Available	Results, Objectives Achieved
INTRODUCTION OF IRP (ID9)	establishing a better IRP in energy policy field (Integrated Resource Planning)	improvement of EE, optimising the total energy system, development of energy supply networks, and demand site management	IJS-Slovenia, Institut fuer Energetik-Germany, VPL-Verbundplan GmbH-Austria	0.350	Apr. 1994		yes	know-how transfer ;identification of new strategic options, reboust recomendations to policy makers on opitmisation of energy system
ENERGY AUDITS AND TRAINING OF AUDITING (ID10)	improving EE by energy auditing and energy management (Training)	provide and disseminate information on cost-effective measures in industry and building sector	COWI Consult-Denmark, IJS-Slovenia, March Consulting Group-United Kingdom, GI ZRMK-Slovenia	0.300	Apr. 1994		yes	transfer of energy audtioing knowledge, education of domestic energy audtiting practitioners
SUPPORT FOR AEUE (ID10)	technical assistance to the Agency for Efficient Use of Energy (Energy Saving Agency)	harmonisation Slovenian and EU energy policies,; definition of th new role of Ministry/Agency	Friedmann&Johnson Consultants-Germany, SfE-Sozietaet fuer Entvicklungsplanung	0.240	Apr. 1994		yes	imprroved knowledg of Ministerial staff on EU energy policies with emphasis on policy fromulatin EE management
INFORMATION AND AWARENESS BUILDING CAMPAIGN (ID12)	design and implementation of EE awareness campaign (Awareness Campaign)	wider popularisation of EE and EC technologies, informing about Gov. supported EE programmes	Bouvcentrum International-Netherlands, NOVEM-Netherlands, SPEM Komunikacijska skupina-Slovenia	0.390	Apr. 1994		yes	increased awarnes on EE, correspoding bodies and programmes
ENERGY SAVING FUND (ESF) (ID13)	establishing teh ESF for EE investments (Energy Saving Fund)	supplying the favourable EE loans for Slo. industrial, building and commercial sector,	Bank Austria	2.000	Dec. 1999		no	establishment of ESF and issuing of EE loans

Source: Slovenian E-Forum

Table 13: Co-operation Project Screening Table, contiued

Name of the Projekt (Acronym)	Description	Objectives	Co-operation Partners (Institution, Country)	Total Volume	Start (mm/yyyy)	(Planned) End (mm/yyyy)	Evaluation Report Available	Results, Objectives Achieved
TECH. SAFETY OF NATURAL GAS SUPPLY	making maximum use of European Standards for gas installations (Clean Coal)	enhancement of health and safety standards, greater economic benefits from market oriented technology supply	Nederlandse Gasunie	0.350	Jul. 1996	Feb. 1998	yes	
SUPPORT INCENTIVE SCHEME FOR SOLAR COLLECTORS (ID15)	financial support to households for instalment of solar collectors (Promotion & Support)	coverage of appr. 2000 house roofs with solar collectors	APE - Agency for Energy Restructuring. Slovneia	0.180	Feb. 1998		no	instalment of x solar collectors
EE FINANCING SCHEME-ASSISTANCE TO THE FUND MANAGING AND MONITORING	technical assistance to th Fund Manager and Monitoring Unit Energy Saving Fund)	enabling th Fund Manager to profit from th experience gained with similar EE financing schemes, consulting th Monitoring to establish appropriate controlling procedures	Deloitte&Touche-Slovenia, Deloitte&Touche Eastern Europe-Belgium	0.200	Mar. 1998		yes	better performances of ESF management
BIOMASS FIRED DH SYSTEM (ID21)	Pilot project for biomass fired DH system in local community (Promotion & Support)	Constructing th DH System with two wood boilers in city of Gornji Grad	APE, ISPO - Consulting Ltd.; Slovenia	0.350	Mar. 1995	May 1998	yes	instalement of 2 x " MW wood bioma boilers in Gornji Grad (1998)
FIRED DH SYSTEM - FEASIBILITY STUDY (ID 31)	Completion of feasibility study for DH system (Promotion & Support)	to show internationally acceptable project appraisal, make easier decision about granting Phare money, getting clear commitments from all financing parties		0.030	Mar. 1995	Aug. 1997	yes	proven internationaly acceptable project appraisal for 4 projects and correspoding documentation

Source: Slovenian E-Forum

Table 13: Co-operation Project Screening Table, contiued

Name of the Projekt (Acronym)	Description	Objectives	Co-operation Partners (Institution, Country)	Total Volume	Start (mm/yyyy)	(Planned) End (mm/yyyy)	Evaluation Report Available	Results, Objectives Achieved
BIOMASS FIRED DH SYSTEM - EVAL. AND DISSEM. OF RESULTS (ID35)	Evaluation and dissemination of results of DH system in Gornji Grad (Promotion & Support)	expected results: successful implementation of th project in th schedule, achievement of technical parameters, financial expectations, reproducibility of th concept,		0.100	Nov. 1997		?	increasd interest of municipalites on biomas DH projects, transfer of project management know-how
MACROECONOMIC EFFECTS OF ELECTRICITY MARKET OPENING (ID37)	analyse macroeconomical effects of market liberalisation (Support to the Ministry)	examine possible effects of different options for th electricity market access (single buyer, third party access)		0.046	Jun. 1998		yes	inproved knowledge of policy makers on effects of market liberalisation and institutional opiotns of regulation
EVALUATION OF ENERGY CONSERVATION PROGRAMME IN SLOVENIA (ID38)	evaluation of finished and planned EE programmes (Support to the Ministry)+B13	Implementation of a monitoring and assessment methodology in th AEUE, th evaluation of impact of energy conservation programmes	Alplan	0.055	Jun. 1998			
PLAN FOR EU ACCESSION-ENERGY SECTOR (ID39)	strategy and business plan for EU accession for energy sector (Energy Saving Fund)	assisting th Slovenian Government with th elaboration of a strategy and busines plan, harmonisation th Slovenian energy sector to EU law and market structures	ERM Energy; U.K.; CEE-IJS - Centre of EE - Institut Jozef Stefan;, Institut of Public Administration - D2IPA, Slovenia;+D17	0.350	Jan. 98	July 1998	no	detailed knowledge on consequences and options of EU accession for energy sectro

Source: Slovenian E-Forum

Table 13: Co-operation Project Screening Table, contiued

Name of the Projekt (Acronym)	Description	Objectives	Co-operation Partners (Institution, Country)	Total Volume	Start (mm/yyyy)	(Planned) End (mm/yyyy)	Evaluation Report Available	Results, Objectives Achieved
MARIBOR- EE DEMONSTRATION ZONE	ECOS-OUVERTURE&PHARE	new organisation form, functions nad ownership structure of energy servising companies of city of Maribor; producitn of vegetables by use of low-temperature heat; cogeneration unit in larger public building	NOVEM & Municipality of Maribor; Municipaliteis of Herning and Marburg; Stadtwerke Marburg; CESEN-Italy, Liason Consultant, Slovenia; Herning Kommunale Vaerker, Denamark	0.135 plus 0.133	July 1995	June 1996	yes	study on restrucutirng on municipal eneergy services with conclusion and recomendations; technical study for co-generation unit ; technicla study for low-temperature heat use for production of vegetables in greenhouse
TPA in EE support to promotion	support of the promotin of of TPA of EE investment; bilateral- Transform, Germany	Phase 1: analysis of legal framework with respect to TPA in EE ; special emphasis to public buildings; identification of legal barriers, Phase 2: definition of new procedures, typicla contracts, education;trainning & support activities	MVV Mannheim, Germany; IPA; Slovenia	unknown	Oct. 1998	1st phase May 1999; 2nd phase: Oct. 2000	yes, only for 1st phase	confirmation that legal framework enabeling TPA but under very complicated and complex proceedures

Source: Slovenian E-Forum