



SUPPORT_ERS

FINAL REPORT

Intelligent Energy  Europe

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I Executive Summary

The SUPPORT_ERS project contributes to the reduction of administrative barriers for the use of RES in the new EU member states and candidate countries, shows political decision makers in the region options to support RES-H, and increases the awareness of regional stakeholders for the benefits of RES. SUPPORT_ERS is implemented from November 2007 to Mai 2010. The consortium consists of 11 partners - ministries and national energy agencies with a direct link to RES policy processes form the core of the consortium. A network of municipalities and a European interest group are involved in order to ensure the link to the regional level and to the European RES industry. SUPPORT_ERS helps to optimise support mechanisms to speed up RES market development and to intensify the cooperation among political decision-makers and policy consultants in energy agencies to meet the ambitious RES targets of 2020.

During the project implementation period the SUPPORT_ERS project has organised a series of six regional training seminars on support mechanisms for RES heating, cooling and electricity in the partner countries Romania, Slovakia, Estonia, Croatia, Bulgaria as well as in Poland. The seminars were used to discuss best practice examples and RES support mechanisms in different European countries among stakeholders.

The project has developed several studies and publications. The SUPPORT_ERS report on "Support Instruments for Heat Produced from Renewable Energy Sources" contains an evaluation of support instruments for RES-H in Austria, Croatia, Estonia, Germany, Latvia, Romania, Slovakia and Spain. The report includes policy recommendations on how to develop effective support instruments for RES.

Developed within the project the "Market Reviews on Renewable Energy Technology" describes renewable technologies in Europe and presents key figures on the economic opportunities these technologies offer.

The SUPPROT_ERS "Assessment of Administrative Structures and Procedures" assesses the situation relating to the administrative structures and procedures involved in the preparation and permitting of RES projects. The assessment process focuses on the administrative barriers for large installation for RES-E technologies, but also for larger installations for RES-H in the partner countries.

Furthermore, a procedure for the review of administrative procedures related to RES-E and RES-H projects on the basis of a checklist for administrative procedures was developed by a working group and best practices examples from participating countries were given.

This final report gives a detailed overview about the results and the deliverables of the SUPPORT_ERS project, linking them to the aims and the structure of the IEE-funded project.

II Final Project Report

1. Introduction

Supported by the Intelligent Energy Europe programme, the SUPPORT_ERS project works in a European consortium to reach its aims of supporting Renewable Energy Sources (RES) in the participating countries, focusing on the new Member States and candidate countries of the European Union. The project gathers detailed information on administrative barriers for RES in the new Member States and candidate countries involved in the consortium. It develops a checklist on how to reduce administrative barriers for RES as well as recommendations to policy makers on options to support RES-H. Furthermore, the lessons learned and the findings of the project are shared in regional RES seminars in the new Member States and candidate countries.

This final report of the project informs about the outcomes of the project within the implementation period between November 2007 and May 2010. It provides the reader with an overview about the objectives and the findings of the SUPPORT_ERS project while more detailed information can be downloaded from the project homepage www.support-ers.eu.

2. Project Summary

The EU has set its 20/20/20 targets. All EU countries and also the candidate states have established RES-E support mechanisms to meet the targets and to boost the use of RES in Europe. The support mechanisms are implemented with different impact and success. Administrative barriers have been identified as one of the main obstacles to effective support for RES. In the field of RES-H the lack of consistent support instruments contributes to a slow market development. SUPPORT_ERS helps to optimise support mechanisms and to intensify the cooperation among European actors to meet the ambitious targets.

SUPPORT_ERS addresses both electricity generation and heating based on RES because in most countries the administrative responsibilities for national support schemes for different RES are concentrated in one institution.

The overall objectives of SUPPORT_ERS are to strengthen the capacities in RES related administrations particularly in the new EU member states and the candidate countries in order to increase the impact of support schemes and to fulfil future expectations, especially for the heat market. In the field of heat production SUPPORT_ERS aims to provide an overview of options to support RES-H under varying starting conditions and to involve new member states and candidate countries in the European process of the development of support mechanisms.

Regarding to RES-E the project focuses on measures to reduce administrative barriers for RES investment, e.g. the lack of transparency of administrative procedures and the long lead-times to obtain necessary permits, the insufficient integration of RES in spatial planning and the low awareness of benefits of RES on regional level.

SUPPORT_ERS works with 11 partners from EU-27 and the candidate countries. Ministries and national energy agencies with a direct link to RES policy processes form the core of the consortium. A network of municipalities and a European interest group are involved in order to ensure the link to the regional level and to the European RES industry. In the first phase SUPPORT_ERS starts to review market potentials and existing support instruments for RES-H. Information on common administrative barriers is analysed. In the second phase specific administrative barriers in the partner countries are assessed thoroughly with the help of stakeholder interviews. The results of the administrative assessment, market reviews and the overview of support instruments for RES-H are used to develop training modules for selected partner regions. In the last phase regional seminars and a conference take place to highlight RES-H policy recommendations and approaches to overcome administrative barriers.

The outcomes produced by the SUPPORT_ERS consortium are a comprehensive overview of RES-H support instruments and policy recommendations for RES-H support in the partner countries. Further a checklist for the improvement of administrative procedures relating to RES support schemes is elaborated and disseminated. A training programme for regional administrations and stakeholders is developed and implemented.

As a result of optimised support instruments for RES e.g. revised application and permit procedures, increased investment in RES projects and an increased market penetration of RES technologies is expected. The capacity building in national and regional RES related administrations and authorities facilitates the future communication and co-operation for the development of RES-H support schemes.

3. Objectives of the Action

The two overall objectives of SUPPORT_ERS are:

- to increase the share of RES in energy consumption in particular in the new EU member states and candidate countries.
- to contribute to the development of efficient support schemes for heating and cooling on the basis of RES.

The specific aims of the SUPPORT_ERS project can be summarised as follows:

1. **to reduce administrative barriers for the use of RES relating to support schemes in the new EU member states and the candidate countries in order to increase the impact of the support instruments.** All new member states have implemented support schemes for RES-E and there are support instruments for RES-H in some countries but still performance and effectiveness of the support system is low and the share of RES in electricity and heat consumption grows only slowly. One of the main causes impeding the efficient implementation of support schemes and the increase in market share for RES are administrative barriers. The approach of SUPPORT_ERS is to reduce administrative barriers for RES projects (e.g. many authorities involved and intransparency of responsibilities, no clear procedures for application and permitting, long lead times needed to obtain necessary permits) through the analysis of common obstacles and the exchange of best-practices for administrative procedures.
2. **to increase the number of RES projects initiated on regional level.** Support schemes for RES are often developed on the national level and the link to the regional stakeholders is missing [regional level means non central level, depending on national structures local, municipal or communal etc.]. Regional administrations are not aware of the benefits of RES, of the existing support mechanisms or of necessary planning steps for the integration of RES projects in spatial planning. Therefore SUPPORT_ERS addresses also regional stakeholders and in particular regional administrations in order to optimise the implementation of support schemes and to increase their awareness in RES-E and RES-H.
3. **to involve the new member states and candidate countries in the process of the development of support schemes for RES-H in the EU.** Support instruments for RES Heat are developed in the EU with different scope, speed and on different levels of intervention (national, regional, sectoral etc.). The existing instruments vary considerably and SUPPORT_ERS aims to contribute to the development of systematic support schemes through the elaboration of an overview of existing instruments and the development of best practises.

3.1 Results and Impacts

R1: Capacity building outcomes

SUPPORT_ERS contributes directly to strengthening the capacities of public institutions in the field of promotion RES, particularly in the new member states and the candidate countries. The project increases the awareness and understanding concerning support instruments and enables administrations and authorities to adopt and implement support instruments for RES.

Capacity building I: project partners

Within the project the partners, who are representatives from RES related national administrations and authorities:

- prepare a questionnaire for interviews on administrative barriers for RES in their countries, evaluate and summarise the interviews;
- prepare and carry out a call for pilot region (or pilot project) in their country, discuss and develop criteria for the selection of pilot regions, generate a shortlist and identify pilot region;
- develop training programme for regional administrations and stakeholders;
- elaborate a checklist for administrative procedures;
- develop and formulate policy recommendations on support instruments for RES-H.

Capacity building II: regional stakeholders

Regional training seminars are implemented and trainees such as representatives of RES related administrations and authorities, local politicians, decision makers and other stakeholders attend each regional training seminar.

The developed training modules are made available to administrations and authorities in the partner countries.

R2: Experience and know how transfer outcomes

SUPPORT_ERS project consortium provides and exchanges specific know how and experiences about support instruments and administrative procedures for RES in the participant countries.

Until now the RES-H market and related support instruments in the new member states and candidate countries are not well documented. A report on support instruments for RES-H is elaborated as well as market reviews with detailed surveys on the market potential for RES-E and H technologies.

SUPPORT_ERS presents two reports on administrative aspects: one administrative assessment report and one report on good practices for strengthening administrative structures.

An international conference was organised and worked as media for presenting projects results, exchange of experiences and for discussion for the participants such as representatives from national and regional administrations, authorities, politicians and decision makers, international RES industry and associations, financial institutions and researchers.

R3: RES policy support outcome

SUPPORT_ERS develops two tools for supporting RES on the political level:

- SUPPORT_ERS elaborates and publicises policy recommendations for the development and implementation of RES-H support instruments.
- SUPPORT_ERS provides a checklist for best practise administrative procedures for the implementation of RES projects in order to strengthen RES related administrations and authorities in the partner countries.

3.2 Target Groups and Key Actor

3.2.1 Public sector

In the public sector SUPPORT_ERS directly addresses the following **target groups**:

- Administrations and authorities on a national level which are directly involved in decision-making processes and policy framework setting for the use of RES at the national level and which participate in European policy processes as well.
- On the regional level SUPPORT_ERS directly addresses administrations and authorities which are involved in the implementation of RES support schemes and in the application, planning and permit procedures for RES projects.

Depending on the national administrative structures and responsibilities in the partner countries, the **key actors** of the project are located in:

- Renewable Energy Divisions of Ministries of Energy, Energy and Renewable Energy Divisions of Ministries of Economic Affairs, Ministries of Environment and Ministries of Building and Urban Development on the national level as well as in National Energy Agencies.
- On the regional level the key actors are located in regional energy agencies; energy and/or renewable energy departments and departments of building and urban development of regional administrations, municipalities and communes; environmental authorities and departments of urban and spatial planning.

Regional key actors participate in the SUPPORT_ERS project:

- by taking part in interviews on administrative barriers for RES project on the regional level,
- by preparing and taking part in the regional training seminars,
- by disseminating the results of SUPPORT_ERS.

3.2.2 Private sector target groups and key actors

The improvement of the efficiency of national support instruments as well the reduction of administrative barriers for RES-projects has a direct impact on RES-industry activities and increases investment in RES projects. Hence in the private sector the project directly addresses the following **target groups and key actors**: RES Industry and associations, heat supply companies, financial institutions and research institutions.

The RES market is mainly dominated by SME, which are manufacturer of RES equipment and installations, equipment supplier, project developer etc. In the new member states and candidate countries the RES sub-sectors are partly organised in associations, e.g. in the most partner countries biomass associations are established. As in the most new member states and candidate countries the heat market is characterised by district heating, heat supply companies are addressed too.

Various stakeholders from the public sector are involved in the project implementation:

- Representatives from the RES Industry and from ongoing RES projects are interviewed about their experiences with implemented support schemes, administrative barriers for RES investment and projects.

- Representatives from the RES Industry and especially from RES associations are invited to the conference as well as to regional training seminars.
- EREC – the European Renewable Energy Council – as the organisation of the leading European RES-industry, trade and research associations supports the project with its large experience and expertise and is a project partner.

3.3 Work program and structure of the project

In order to achieve the SUPPORT_ERS objective (to reduce administrative barriers relating to RES support schemes on national and regional level and to involve the new EU members and candidate countries in the process of the development of RES-H support schemes) the consortium partners address in a joint work programme the following relevant fields that correspond to the central work packages of the project:

- Support Instruments for RES Heat
- Assessment of Administrative Structures and Procedures
- Strengthening Administrative Capacities
- Strengthening support for RES on the regional level

The project activities are structured in 8 work packages including management and dissemination activities. For each work package a leader is selected who coordinates the work of all project partners involved.

The approach chosen to achieve the project objective is a three-phase approach which has proven useful for carrying out projects with a wider consortium:

PHASE 1: Establishment of project structure and review

In the first phase the project structure including an efficient communication system is established. During the kick-off project meeting all project participants inform one another about their current activities in the field of RES support systems. The consortium partners discuss in detail the implementation phase of the project (WP 2). Within three working groups partners with similar interests and expertise are assembled in order to prepare the planned activities. During the first phase the review of RES-H markets and the existing RES-H support schemes (WP 3) are carried out. In addition already existing material, information and research results on administrative barriers to the use of RES are analysed as basis for the assessment of specific administrative barriers in the partner countries (WP 4).

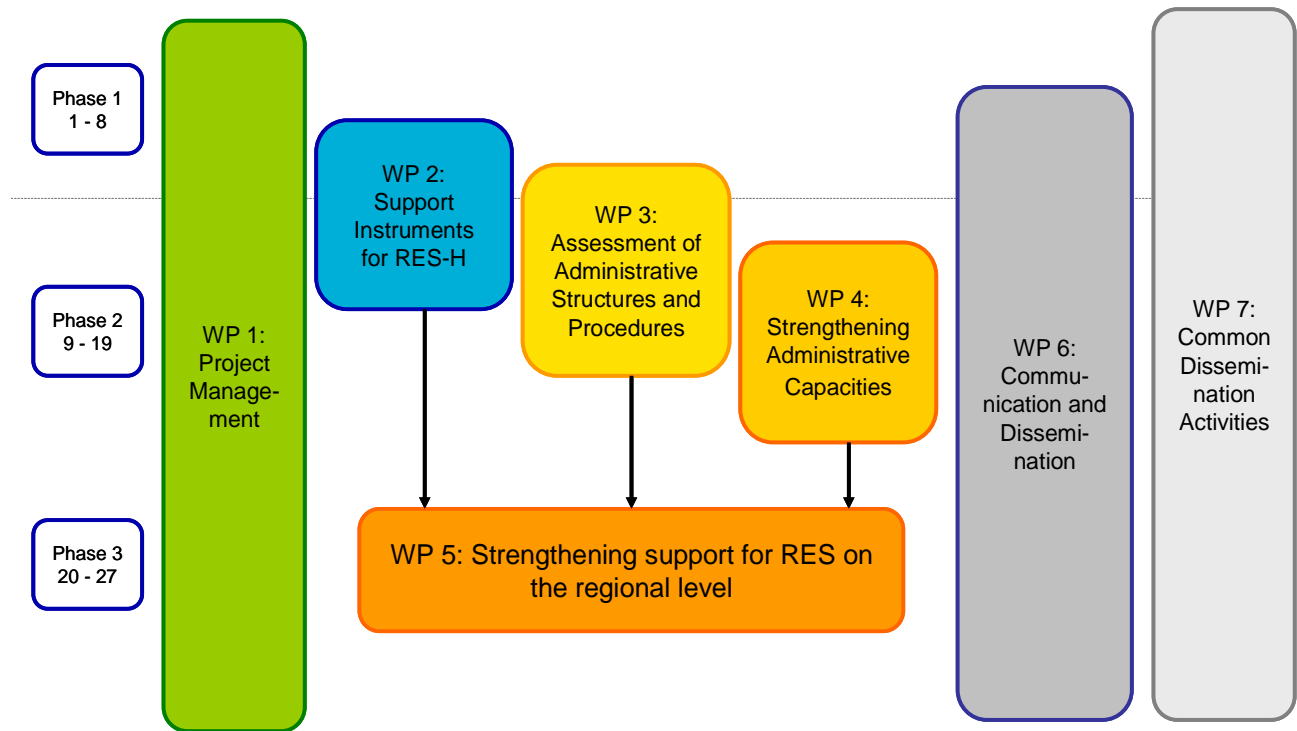
PHASE 2: Optimisation of support schemes on national level

In the second project phase a comprehensive overview of RES-H support instruments is elaborated (WP 3). The assessment of specific administrative barriers in the partner countries is prepared by developing guiding questions for stakeholder interviews. The administrative barriers are thoroughly with the help of these interviews and a joint report is produced (WP 4). Further approaches to optimise RES support schemes are explored by the project consortium and a checklist for optimised administrative procedures is developed (WP 5). The results of the administrative assessment, market reviews and the overview of support instruments for RES-H are used to develop training modules for selected partner regions (WP 6). Within this project phase the project partners are the key actors because they represent the national level of actors in the renewable energy field in the partner countries.

PHASE 3: Regional training activities

In the last project phase the main focus of the activities is on the regional level where training seminars are held (WP 6). Besides the project partners also partner regions are involved in the implementation of the SUPPORT_ERS project. Based on the overview of RES-H support instruments the project partners develop policy recommendations for the respective country. The recommendations and the results of the work relating to the optimisation of administrative structures are presented at the SUPPORT_ERS conference (WP 3/5).

The implementation approach is depicted in Fig. 1



3.4 Dissemination of Project Results

Within the scope of WP 7 the communication with the interested public as well as parallel projects and initiatives is ensured. The aim of the dissemination is to communicate the project progress and to disseminate the project results beyond the consortium. The dissemination is used as a tool to ensure the sustainable use of the project outcomes.

Deliverables of the SUPPORT_ERS projects are ready for download on the SUPPORT_ERS homepage www.support-ers.eu. Furthermore, to spread the ideas of the SUPPORT_ERS project and to make it better known among stakeholders SUPPORT_ERS developed a flyer and a poster to be used by project partners to be distributed among the interested public. All these activities were part of the communication strategy developed in the first part of the project. Furthermore, the project aimed and succeeded in disseminating the project results, its aims and its progress in media beyond the project consortium. Also the final conference during the European Sustainable Energy week was used to disseminate the outcomes of the project among stakeholders to guarantee a use of the project outcomes and deliverables after the end of the implementation period of the project. As part of the project the European Renewable Energy Council, member of the SUPPORT_ERS consortium, wrote and published a book on market review. The book is

clearly linked to the SUPPORT_ERS project and will help to guarantee a sustainable effect of the project.

In terms of broadest outreach, the two most successful communications channels were the project webpage as well as the article SUPPORT_ERS posted in the Intelligent Energy News Review in 2009. Both led to numerous requests for more information and/or future collaboration from our audience.

In terms of outreach within national boundaries, big fairs like renewable energy fairs turned out to be a great platform to present the project and its result and to make contact with stakeholders and experts in the field.

With regard to the European expert community and future project collaborations, partnerships with other EU-founded projects like RES-H and INTER PARES turned out to be most fruitful. The SUPPORT_ERS presentations at an INTER PARES workshop and the hosting of the Polish regional meeting within the RES-H meeting in Warsaw turned out to be a good vehicle for lasting contacts with experts working towards similar goals in the field of Renewable Energies.

4. RES-H support instruments

Regarding the total energy consumption the EU has set an indicative target of 20 % renewable by 2020. So far all EU countries have established RES-E support mechanisms to meet the targets and to boost the use of RES in Europe. In the field of RES-H the lack of consistent support instruments contributes to a slow market development. Therefore the overall aim of the WP 2 report “Overview of existing support instruments for heat generation from renewables and policy recommendations concerning the development of RES-H support instruments” (http://www.support-ers.eu/fileadmin/pics/Documents/Downloads/WP2_Report_January_2009_new_1_.pdf) was to

increase the awareness regarding possible support schemes for RES-H/C and to help the partners from the new Member States to develop their own efficient support schemes for heating and cooling on the basis of RES by providing best practice examples and recommendations.

Almost 50 % of the final energy consumption of the EU is used for heating and cooling. As RES-H/C technologies are often not competitive compared to conventional systems based on relatively cheap electricity, gas or coal, public support is necessary to ensure a growing deployment of RES-H/C.

Efficient support schemes on RES-H/C can help to

- reduce the high investment costs compared to conventional heating and cooling systems,
- increase the market confidence (by a positive signal from a public authority) and
- balance the gap in market development between different European countries.

Furthermore an increasing use of RES-H/C would lead to

- a reduction of external costs,
- a decrease of dependency on imported energy sources,
- economical growth and job-creation (technological leadership of the EU-RES-H/C industry) and
- creation of economies of scale which reduce the price of RES-H/C in the medium term.

4.1 Overview of existing support schemes for Renewable Energy Sources

The overview of the existing support schemes for RES-H shows that several of the project countries have already taken strong action with respect to policy development that supports RES-H technologies. The implemented instruments include financial incentive schemes, regulatory schemes and educationally based schemes. The following table gives an overview about the categories of support schemes implemented in the different project partner countries.

Table 1: Categories of support schemes available in the different project partner countries.

	Austria	Bulgaria	Croatia*	Estonia	Germany	Latvia	Romania	Slovakia	Spain
Financial incentive schemes	yes	yes	yes	yes	yes	yes		yes	yes
Direct grants	yes	yes	yes	yes	yes	yes	yes	yes	yes
Tax incentives	yes	yes	no	yes	yes	no	no	no	yes
Soft loans/Loan guarantees	no	no	yes	no	yes	yes	no	yes	yes
Incentives linked to housing subsidies	yes	yes	no	yes	yes	no	no	no*	no
Regulatory schemes	yes	yes	no	yes	yes	no	no	yes	yes
Educationally based schemes	yes	no	yes	yes	yes	no	no	no	yes

In some of the countries energy policy is conducted only at federal level (e.g. Bulgaria, Romania) while in other countries also regional and local authorities have responsibilities in this field (e.g. Austria, Germany, Spain). The target group of the support instruments mentioned in the report cover all kinds of actors (e.g. companies, households, municipalities, etc.)

Examples for existing support instruments in the SUPPORT_ERS partner countries are as follows:

Name of policy	AUSTRIA: Environmental Support Scheme for Austrian Enterprises
Year of implementation	2001
Current Status	in force
Policy Target	multiple renewable energy sources (e.g. biomass, geothermal, solar thermal)
Policy Type	financial incentive
Target Group	companies
Funding	in 2006: € 75.7 million; in 2007: € 92.2 million
Responsible Institution	Federal Ministry of Agriculture, Forestry, Environment and Water Management
URL	www.public-consulting.at
Description	<p>In the frame of the Environmental Support Act the Environmental Support Scheme for Austrian Enterprises offers subsidies to companies. Companies can obtain subsidies for the use of renewable energies (precondition: standards of heating and cooling equipment have to be met), for the enhancement of energy efficiency and for other climate related measures.</p> <p>In the field of renewable energies the fund supports:</p> <ul style="list-style-type: none"> • biomass (individual plants, local heat, CHP) • heat distribution • geothermal installations • energy recovery from organic waste • solarthermal systems • electricity producing plants <p>The fund is managed by Kommunalkredit Public Consulting GmbH on behalf of the Federal Ministry of Agriculture and Forestry, Environment and Water Management.</p> <p>In 2006 2,333 projects with a total investment volume of € 437.6 million and a total funding of € 75.7 million were supported.</p>

Name of policy	BULGARIA: Energy Efficiency and Renewable Energy Credit Line (BEERECL)
Year of implementation	2004 – 2008 (and second extensions until 30.06.2011)
Current Status	in force
Policy Target	multiple renewable energy sources
Policy Type	financial incentive (loans, incentive grants)
Target Group	industrial companies
Funding	The financial support is provided by EBRD (loans) and KIDSF (Kozloduy International Decommissioning Support Fund) incentive grants plus free of charge technical assistance.

Responsible Institution	http://www.beerecl.com/
URL	<p>The Bulgarian Energy Efficiency and Renewable Energy Credit Line (BEERECL) was developed by the European Bank for Reconstruction and Development (EBRD) in 2004 in close co-operation with the Bulgarian Government and the European Union. The facility extends loans to participating banks for on-lending to private sector companies for industrial energy efficiency and small renewable projects.</p> <p>Bulgarian banks participating in the BEERECL:</p> <ul style="list-style-type: none"> • Bulgarian Postbank • DSK Bank) • Raiffeisen Bank • UniCredit Bulbank • Unionbank • United Bulgarian Bank • Piraeus Bank <p>The BEERECL will help to significantly reduce emissions and will generate considerable amounts of tradable Green Certificates. The facility is also supported by the Kozloduy International Decommissioning Support Fund (KIDSF), which undertakes safety and decommissioning activities related to the closure of the Kozloduy nuclear power plant. The European Union, a number of member countries and Switzerland have contributed to the Fund that also promotes energy efficiency and renewable energy.</p> <p>The EBRD contracted DAI Europe which in co-operation with EnCon Services, will provide consultancy services to project developers in preparing business plans (rational energy utilization plans), loan applications and implementation. The EBRD furthermore contracted ESBI as Independent Energy Expert, which will verify the project after completion, on whether it meets the objectives of the facility, which will be the basis for the decision to pay the project developer an incentive, being a percentage (15 % for energy efficiency or 20 % for renewable energy) of the loan given to the developer under the BEERECL facility.</p> <p>Projects eligible for loans from the participating Banks under the BEERECL Facility are:</p> <p>Industrial Energy Efficiency, such as:</p> <ul style="list-style-type: none"> • co-generation • heat and steam recovery • automation and control systems • upgrade/replacement of utilities • fuel switching (coal/mazut to gas) • process optimization <p>Renewable Energy, such as:</p> <ul style="list-style-type: none"> • biomass • biogas • wind • run-of-the-river hydro • geothermal • solar

Name of policy	CROATIA: Support for installation of solar thermal collectors in Sisacko-moslavacka county
Year of implementation	2008
Current Status	tender closed
Policy Target	multiple solar thermal collectors
Policy Type	financial incentive
Target Group	households
Funding	grant: 20 % of investment and installation costs (max. 1 370 EUR) per solar thermal collector
Responsible Institution	Sisacko-moslavacka county
URL	http://www.smz.hr
Description	The purpose of the tender was to multiple solar thermal collector installations in Sisacko-moslavacka county. Only natural persons (households) could apply on the tender for financial incentives for solar thermal collectors. Financial incentives were 20 % of investment and installation costs (max. 1 370 EUR). Incentives could be received only after installation of collector and audit by county committee.

Name of policy	ESTONIA: Environmental Programme
Year of implementation	2000
Current Status	in force
Policy Target	Ambient air protection Renewable energy: thermal, geothermal, biomass
Policy Type	Financial incentives: capital grants, soft loans, co-financing grants Financing of awareness raising activities: labelling of appliances, information distribution (marketing campaigns, brochures, newsletters), training programmes (in schools, universities or amongst key professional groups) etc.
Target Group	Municipalities, private companies, institutions scientific research and education, non-profit organisations and foundations, governmental organisations related to environmental protection
Funding	Environmental Programme mediates state budget funds received from the environmental fees through the environmental programme (amount of annual funding depends on environmental fees gathered).
Responsible Institution	Ministry of the Environment
URL	www.kik.ee
Description	The Environmental Investments Centre (EIC) was founded pursuant to the Use of Proceeds from Exploitation of the Environment Act. The main activities of the EIC are to channel the proceeds from the exploitation of the environment into environmental projects and to lend money for the implementation of environmental projects.

Name of policy	GERMANY: Energy counselling on site
Current Status	In force
Policy Target	Increase the knowledge of potentials for energy savings and for the application of renewable energies in buildings.
Policy Type	financial incentive; awareness rising
Target Group	All natural and legal persons, independent commercial enterprises including housing industry and agriculture, all kinds of non-profit organisations and churches. Tenants may apply if the owner of the building agrees in writing.
Funding	max. € 175 for a single- or double-family home max. € 250 for homes with at least 3 apartments
Responsible Institution	Bundesamt für Wirtschaft und Ausfuhrkontrolle BAFA Federal Office of Economics and Export Control
URL	www.bafa.de
Description	The programme supports the on-site counselling focussing on constructive heat savings as well as on heat generation and distribution including hot water supply and the utilization of renewable energies. The counselling must be performed by an engineer or an architect. The results must be provided by means of a written report.

Name of policy	ROMANIA: Structural Funds
Year of implementation	2008
Current Status	in force
Policy Target	Increasing the competitiveness
Policy Type	Financial support
Target Group	Local authorities, small and medium enterprises, micro enterprises from urban area.
Funding	Grants
Responsible Institution	Ministry of Economy and Finance
URL	www.minind.ro
Description	Under Operational Programme Competitiveness and Economic Growth – Priority Axis IV – Increasing the energy efficiency and security of supply, measure 4.2 – RES use for energy production, can be financed the following projects: Implementation of new capacities for electricity and heat production using RES (biomass, bio fuels, wind, small hydro, geothermal) Modernization of the existing capacities using RES

Name of policy	SLOVAKIA: Different tax levels
Year of implementation	1993
Current Status	expired
Policy Target	solar thermal, geothermal, biomass
Policy Type	Financial Awareness raising
Target Group	everyone
Funding	lower tax
Description	On 1 st of January 2004 the tax flat rate was introduced – 19 %. Until than there were different tax levels and the RES were in the more attractive one. This partial advantage was diminished with the introduction of the flat rate.

Name of policy	SPAIN: Solar bylaws
Year of implementation	Since 2006
Current Status	in force
Policy Target	Implementation of renewable energies in new buildings.
Policy Type	Obligation
Target Group	All new buildings and old buildings highly refurbished.
Funding	
Responsible Institution	Municipalities
URL	
Description	The requirement for solar energy contribution established in the Technical Building Code may be increased by the existence or future approval of a Solar Bylaw in the town where the building is to be built. There are now more than 60 published bylaws in Spain affecting more than 20 % of the Spanish population.

Further best practice examples from other countries show that most of the policies are financial incentive schemes, even if the allocated budget can vary significantly for each policy as well as the time-spans, technologies applicable, and eligible parties.

One example is the tax incentive on biomass in Sweden: By exempting biomass from Swedish energy taxes, the government provided strong, indirect support for biomass heat. In 2006 CO₂ tax levels were approximately €100/t CO₂, being around 250 % higher than when the policy was first introduced in 1991. These high taxes have had significant repercussions on the development of biomass because when used in district heating systems, it is exempt from the combination of oil, CO₂ and sulphur taxes. This situation has created a cost competitive advantage such that in district heating systems biomass-based heat can be produced at a much lower cost than heat produced from fossil fuels. Besides that subsidies were offered for biomass installations, technology demonstrations, and long-term R&D efforts. Due to the package of government incentives, for the existing forest industry infrastructure to produce biomass fuel sources and the adaptability of the district heating systems (facilitated by the 1982 Solid Fuel Act), Sweden is a global leader in biomass heat generation.

Another example is the tax credit for sustainable development in France: The French 2005 Finance Law has created a tax credit for sustainable development and rational use of energy. The goal **is to favour equipments with high efficiencies and using renewable energies**. The system is valid from beginning 2005 to end 2009 and covers a wide range of equipment such as

- heating equipment (low temperature boilers, condensation),
- insulation materials,
- equipment using renewable energies,
- heat pumps for heat production and
- equipment for connection to heat networks supplied with renewable energies or cogeneration installations.

The tax credit was 40 % for all expenses carried out in 2005. Starting 1 January 2006, the tax credit is 50 %. All tax payers are eligible for the tax credit. This credit is withdrawn from the tax payer declaration at the very end of the calculation. It means that it corresponds really with a 50 % subsidy of the installation cost.

4.2 Lessons learnt by current policies

The most important lessons learned by current policies are listed in the following table including information about the level of realisation in each project partner country.

Table 2: Implementation of “lessons learned” from current policies in the different project partner countries (*possible answers: good, medium, bad, neither*)

	Austria	Bulgaria	Croatia	Estonia	Germany	Latvia	Romania	Slovakia	Spain
Each country and state has a unique set of circumstances, needs, and resources that play an important role in the design and success of policies for RES-H/C and may influence the appropriateness of a policy for a given area.	good	good	good	good	good	good	medium	good	good
The success of a support scheme depends on its design and the supporting levels of enforcement. In order to promote strong, substantial growth in each renewable sector, policies must be reliable and long-term. Targets for definitive quantities or percentages of renewable energy should be clearly outlined and verifiable.	good	good	good	good	good	bad	medium	medium	good
Policy targets should be based on the actual generation of heat rather than on total capacity or number of installations. This ensures that the specific goal of the policy is to promote renewable heat. Basing incentives in terms of plant capacity alone may risk the installation of RES-H/C technologies that are not actually utilized.	good	good	good	good	good	medium	neither	good	bad
A mix of instruments is essential for success: Increasing supply-side confidence may have a positive impact on deployment. Private investment in facilities, marketing and distribution structures and the training of installers tends to accompany stable, predictable and long term policies. In the medium term this leads to a higher market presence, economies of scale, lower costs and improved product quality. Poor quality systems and inferior installations compromise the reputation of the technology and can produce a lack of consumer confidence.	good	good	medium	good	good	neither	bad	good	good
Support schemes for RES-H/C need to address the specific challenge of the distributed nature of local heat demand and variability of use, especially for hot water. In contrast to large scale renewable electricity projects, policies in support of renewable heating should address to a greater extent the availability of local information, the success of local projects, and local circumstances.	good	good	good	good	good	good	medium	medium	good
Bureaucratic and administrative barriers, such as needing planning permission even for simple solar collector roof installations, or mining rights for geothermal heat extraction, may inhibit deployment and	good	good	medium	medium	good	good	medium	medium	medium

should be minimized.									
Continuity should be considered as the most important single element of a well designed and managed financial incentive scheme. Several examples from different countries and RES-H technologies show that discontinuous financial incentives can damage the development of healthy market structures by creating a stop & go market dynamic. Under such conditions the supply side and the professional groups (e.g. installers, heating engineers, architects) are discouraged from investing.	good	good	good	good	good	bad	medium	good	good
To avoid creating an incentive to postpone installation of RES-H/C systems, the introduction of new support schemes or the increase of an existing financial incentive system should not be announced before they become valid.	good	good	good	good	good	medium	medium	bad	good
Within a support scheme to last some years, adjustments of certain conditions should be possible to adapt the support scheme to the market development. The adjustments should be discussed with market experts and be introduced aiming at minimizing any negative impact on the market development.	good	medium	medium	medium	good	medium	medium	good	good
The procedures of a support scheme should be simple, both for the applicant and for the public administration.	good	good	bad	medium	good	medium	medium	bad	medium
Financial incentive schemes should not create barriers to trade within the EU. Any technical parameter linked to the eligibility for financial incentive schemes should be strictly oriented to European standards and certification procedures, when they are available. Otherwise it can contribute to create "isolated markets" at national or even regional level, thereby increasing the costs for the users.	good	good	good	good	good	good	good	good	good
Applying the "polluter pays principle": The costs of the support scheme should be financed by users of non renewable energy.	bad	good	good	medium	good	neither	bad	medium	good
An accurate national data collection relating to heating and cooling supply is necessary to understand the outcome of policies. Due to the distributed nature of heat supply and the local demand, this may be difficult to achieve without extensive user surveys or national sales figures.	medium	medium	bad	bad	medium	medium	bad	medium	vey bad

5 Summary of Market reviews

As a complimentary element to the policy recommendations also produced under work package 2, EREC led the edition of a market review in the form of a book. “Renewable energy in Europe – markets, trends and technology” is the title of this publication that aims at both offering a wide overview of the state of the art of renewable energy technologies (i.e. RES-H+C, RES-E and biofuels for transport) and at giving figures on the economic possibilities these technologies offer, in view of the 3x20 by 2020 target.

The main stakeholders the book addresses are: politicians (national and local, European) and decision makers, the insurance sector, financial institutions and financial analysts, financiers, civil servants, project developers, and multipliers who are all involved in the promotion of renewable energy.

For each of the sectors encompassed, an overview has been developed which focuses not only on benefits and applications, but also on costs and prices; markets and installed capacity; policy instruments; key countries and success stories; and targets and long term potential.

In the long run, renewable energies will inevitably dominate the world’s energy supply system. The reason is at the same time very simple and imperative: there is no alternative. Mankind cannot indefinitely continue to base its life on the consumption of finite energy resources.

Today, the world’s energy supply is largely based on fossil fuels. These sources of energy will not last forever and have proven to be one of the main causes of our environmental problems. Environmental impacts of energy use are not new but they are increasingly well known.

As linkages between energy use and global environmental problems such as climate change are widely acknowledged, reliance on renewable energy is not only possible, desirable and necessary, it is an imperative.

The Earth receives solar energy as radiation from the sun, in a quantity far exceeding mankind’s use. By heating the planet, the sun generates wind. Wind creates waves. The sun also powers the evapotranspiration cycle, which allows generation of power by water in hydro schemes – currently the largest source of renewable electricity in use today. Plants photosynthesize, which is essentially a chemical storage of solar energy, creating a wide range of so-called biomass products ranging from wood fuel to rapeseed, which can be used for the production of heat, electricity and liquid fuels. Interactions between the sun and the moon produce tidal flows that can be intercepted and used to produce electricity. Renewable energy sources are based on the natural and interconnected flows of energy of our planet Earth.

Though humans have been tapping into most renewable energy sources (wood, solar, wind, geothermal and water) for thousands of years for their needs, so far only a tiny fraction of the technical and economic potential of renewable energy has been captured and exploited. Yet, with existing and proven technologies, renewable energies offer safe, reliable, clean, local and increasingly cost-effective alternatives for all our energy needs.

The Renewable Energy Sector has become a driving force for a sustainable economy in the 21st century. Investments in renewable energy and energy efficiency will lead the way out of the economic crisis that Europe and the world at large are facing today. Confronted not only with an economic crisis but also with the challenge posed by climate change, as well as increasing import dependency and raising fossil fuel prices, it is a matter of urgency that we

come up with a solution now and for future generations on how to conserve economic and social livelihoods and maintain a balanced ecological system.

By promoting renewable energy technologies, we are able to tackle both security of energy supply and climate change, while at the same time creating a future-oriented sustainable economy. Already today the sector is providing more than 450.000 jobs and has an annual turnover exceeding €45 billion.

Combined with improvements in energy efficiency and the rational use of energy, renewable energy sources can provide everything fossil fuels currently offer in terms of energy services such as heating & cooling, electricity as well as transport fuel. However, as current energy prices do not incorporate any external costs, the energy market is still distorted & the deployment of renewable energy sources depends on the appropriate framework conditions in place.

5.1 20 % RES by 2020 – the EU’s RES policy framework

In March 2007, the Heads of States and Governments of the 27 EU Member States adopted a binding target of 20 % renewable energy from final energy consumption by 2020. Combined with the commitment to increase energy efficiency by 20 % until 2020 and to reduce greenhouse gas emissions by at least 20 % within the same period (or respectively 30 % in case of a new international agreement), Europe’s political leaders paved the way for a more sustainable energy future for the European Union and for future generations.

In January 2008, the European Commission presented a draft Directive on the promotion of the use of energy from Renewable Energy Sources (RES) which contains a series of elements to create the necessary legislative framework for making 20 % renewable energy become a reality. The Directive sets the legislative framework that should ensure the increase of the 8.5 % renewable energy share of final energy consumption in 2005 to 20 % in 2020 and, if properly transposed into national law, will become the most ambitious piece of legislation on renewable energy in the world.

The RES Directive (DIRECTIVE 2009/28/EC) was approved by the European Parliament in December 2008, by the Council at the end of March 2009, published in the Official Journal in June 2009 and will then need to be transposed in national law. By June 2010, Member States will need to submit national action plans on how they foresee to reach their binding national target.

In order to reach the binding overall 20 % target outlined in the RES Directive, the development of all existing renewable energy sources and a balanced mix of the deployment in the sectors of heating and cooling, electricity and transport are needed.

5.2 Electricity from renewable energy sources

The European Union aims to have 21% of its electricity coming from renewable energy sources by 2010. This target has been formulated in the Directive 2001/77/EC on the promotion of renewable electricity. While some Member States such as Germany, Spain and Denmark are well on track in reaching their targets, others are far behind. The Renewable Energy Framework Directive needs to maintain and strengthen the existing legislative frameworks for renewable electricity. It needs to establish minimum requirements for the removal of administrative barriers, including streamlined procedures such as one-step

authorization. Issues such as priority grid access and a more balanced sharing of the costs related to grid connection need to be addressed.

5.3 Heating & cooling from renewable energy sources

As far as the heating and cooling sector is concerned, the Directive finally closes the legislative gap which existed so far for this sector. Until recently, Renewable Heating and Cooling (RES-H) has received little political attention and in most EU Member States there is not yet a comprehensive approach to support RES-H. This is particularly striking in view of the fact that nearly half of the EU's final energy consumption is used for the generation of heat, making the RES-heating sector a sleeping giant.

5.4 Biofuels for transport

The EU's biofuels policy kicked off in 2003 with the first Biofuel Directive, which set indicative targets to promote the use of renewable fuels in the transport sector. For 2010 the target was set at 5.75% by energy content. As the experience with the existing Biofuels Directive shows, fuel distributors only use biofuels if there is a financial incentive or because they are forced to use them. Therefore the Renewable Energy Directive introduces a binding target of 10% renewable energy in transport by 2020. However, only sustainably produced biofuels are allowed to count towards the target and the Directive proposes a comprehensive sustainability scheme.

5.5 The RES Directive

The RES Directive

- **Sets mandatory national targets for renewable energy shares of final energy consumption in 2020, including a 10% renewables in transport target**

The Renewables Directive sets mandatory national targets for renewable energy shares of final energy consumption in 2020 which are calculated on the basis of the 2005 share of each country plus both a flat-rate increase of 5.5 % per Member State as well as a GDP-weighted additional increase to come up with the numbers as outlined in the table below:

	Share of energy from renewable sources in final consumption of energy, 2005	Target for share of energy from renewable sources in final consumption of energy, 2020
Belgium	2.2%	13%
Bulgaria	9.4%	16%
The Czech Republic	6.1%	13%
Denmark	17.0%	30%
Germany	5.8%	18%
Estonia	18.0%	25%
Ireland	3.1%	16%
Greece	6.9%	18%

Spain	8.7%	20%
France	10.3%	23%
Italy	5.2%	17%
Cyprus	2.9%	13%
Latvia	34.9%	42%
Lithuania	15.0%	23%
Luxembourg	0.9%	11%
Hungary	4.3%	13%
Malta	0.0%	10%
The Netherlands	2.4%	14%
Austria	23.3%	34%
Poland	7.2%	15%
Portugal	20.5%	31%
Romania	17.8%	24%
Slovenia	16.0%	25%
The Slovak Republic	6.7%	14%
Finland	28.5%	38%
Sweden	39.8%	49%
United Kingdom	1.3%	15%

Source: EREC (2008)

Table 1: Mandatory national targets set out in the Directive (2005 and 2020)

- **Sets interim targets**

The Directive sets interim targets per country for 2011/12, 2013/14, 2015/16 and 2017/18 as a % share of their 2020 target. These interim targets are crucial for monitoring the progress of renewable energy development in a Member State, although they are unfortunately only of indicative nature.

- **Requires national action plans from Member States stating how they intend to reach their targets**

Member States shall adopt national action plans which set out their targets for the shares of energy from renewable sources in transport, electricity and heating and cooling in 2020 and adequate measures to achieve these targets. Member States shall notify their national action plans to the Commission for examination at the latest until June 2010.

These plans should provide for two things: they give Member States the flexibility to decide for themselves how they want to meet their national targets, but at the same time they create investor security and help to mobilize private capital by setting clear goals and mechanisms on the national level. National action plans should include detailed mandatory outlines and targets for the different renewable energy sectors (heating/cooling, electricity and transport fuels), which show the way ahead on the national level. In addition, support measures to meet the national targets must be outlined.

- **Requires reduction of administrative and regulatory barriers to the growth of renewable energy, improvements in information and training and in renewables' access to the grid**

Administrative barriers are still a major problem for renewable energy development and need to be removed. There are a number of non-cost related options to be integrated for any Member State in its regulatory framework in order to really push renewable energies. This is reflected in planning regulation and administrative procedures. The Directive provides important provisions to further remove administrative and regulatory barriers which must be put in practice to pave the way for a quick and large-scale RES deployment.

Infrastructure development and priority access for renewables to the grid are key for a large-scale penetration of renewables. This should not only apply to electricity networks but should also apply to district heating networks sourced by renewable and gas pipelines for the increased use of biogas.

On information and training, the Directive requests Member States to introduce a certification of installers by accredited training programmes.

- **Creates a sustainability regime for biofuels**

The binding nature of the 10% target has triggered the very important debate on sustainability criteria and a certification scheme. This scheme will serve as an example for biofuel production standards globally. The industry is committed to strict but practical sustainability standards that apply for domestic production as well as imports and that will eventually be applied to all energy sources be it biomass, food or fossil fuels.

5.6 RES industry roadmap up to 2020

EREC has for the first time in January 2004 called for a binding 20% renewable energy target by 2020. In November 2008, EREC together with its members has drawn an EU Technology Roadmap outlining how the EU Renewable Energy Industry foresees to reach the 20 % renewable energy consumption target. The estimates given by the Renewable Energy Industry are based on a feasible annual growth scenario for the different technologies. Some renewable energy sectors have developed much more ambitious projections showing that the European renewable energy industry could deliver much more than 20 %.

5.7 Contribution of Renewables to Electricity Consumption for the EU-27 by 2020

Under the present state of market progress and the political support given to electricity generation from Renewable Energy Sources, the current target for RES-Electricity for 2010 can be met. The overall target can be reached through a higher contribution by some of the more successful technologies. The figures of Table 2 outline the new targets for 2020 with the expected annual growth rates and the necessary growth rate to increase the share of RES-Electricity significantly.

Type of energy	2002 Eurostat	2006 Eurostat	Annual growth rate 2002-2006	Projection 2010	Annual growth rate 2006-2010	Projection 2020	Annual growth rate 2010-2020
Wind	23.1GW	47.7GW	19.9	80GW	13.8	180gW	8.5
Hydro	105.5GW	106.1GW	0.2	111GW	1.1	120GW	0.8
Photovoltaic	0.35GWp	3.2GWp	73.9	18GWp	54.0	150GWp	23.6
Biomass	10.1GWe	22.3GWe	21.9	30GWp	7.7	50GWe	5.2
Geothermal	0.68GW	0.7GW	0.7	1GW	9.3	4GW	14.9
Solar Thermal elect.	-	-	-	1GW	-	15GW	31.1
Ocean	-	-	-	0.5GW	-	2.5GW	17.5

Source: EREC (2008)

Table2: Renewable Electricity Installed Capacity Projections¹

If the projected growth rates were achieved Renewable Energies would significantly increase their share in electricity production. The estimations below are based on the rather moderate growth rate projections.

	2005 Eurostat TWh	2006 Eurostat TWh	2010 Projections TWh	2020 Targets TWh
Wind	70.5	82.0	176	477
Hydro ²	346.9	357.2	360	384
Photovoltaic	1.5	2.5	20	180
Biomass	80.0	89.9	135	250
Geothermal	5.4	5.6	10	31
Solar thermal elect.	-	-	2	43
Ocean	-	-	1	5
TOTAL RES	504.3	537.2	704	1370
Total Gross Electricity Generation EU27 (Trends to 2030-Baseline) ³	3320.4	3361.5	3568	4078
(Combined RES and EE) ⁴				3391
	15.2%	16.0%	19.7%	33.6-40.4%

Source: EREC (2008)

Table 3: Contribution of Renewables to Electricity Consumption

Depending on the development of the total electricity generation, renewable energies will be able to contribute between 33% and 40% to total electricity production. Assuming that the EU will fulfill its ambitious energy efficiency roadmap, a share of over 40% of renewables in electricity production by 2020 is realistic.

5.8 Contribution of Renewables to Heat Consumption for the EU-27 by 2020

The lack of a favorable political framework in Europe for the renewable heating and cooling sector up until now was preventing higher market penetration so far. With the creation of such a political framework the expectations can be raised and the contribution of RES heating is especially significant in the biomass sector. But geothermal and solar thermal energy will also be able to increase their shares significantly.

Type of energy	2002 Eurostat Mtoe	2006 Eurostat Mtoe	AGR 2002-2006	Projection 2010 Mtoe	AGR 2006-2010	Projection 2020 Mtoe	AGR 2010-2020
Biomass ²	51.2	60.0	4.0%	75	5.7%	120 ⁶	4.8%
Solar thermal	0.51	0.77	10.8%	1.5	18.1%	12 ⁷	23.1%
Geothermal	0.59	0.68 ⁸	3.6%	3 ⁹		7 ⁹	8.8%

Source: EREC (2008)

Table 4: Renewable Heat Consumption Projections

If the projected growth rates were achieved renewable energies would significantly increase their share in heating production. The estimations below are based on the rather moderate growth rate projections and a share of 25% in 2020 seems to be possible.

	2005 Eurostat Mtoe	2006 Eurostat Mtoe	2010 Projections Mtoe	2020 Projections Mtoe
Biomass ⁵	57.5	60.0	75	120 ⁶
Solar thermal	0.68	0.77	1.5	12 ⁷
Geothermal	0.63	0.68	3	7
TOTAL RES HEAT	58.8	61.45	79.5	139
Total Heat Generation EU27 (Trends to	579.2	570.1	583.5	606 541

2030) ⁸ (Combined RES and EE) ⁹				
Share of RES	10.2%	10.8%	13.6%	22.9-25.7%

Source: EREC (2008)

Table 5: Contribution of Renewables to Heat Consumption (2006-2020)

5.9 Contribution of biofuels to transport fuel consumption for the EU-27 by 2020

The EU depends heavily on imported energy for running its economy. For the transport sector there is hardly any diversification of energy sources: crude oil fuels more than 98% of the EU's transport sector. Biofuels have a major role to play both in improving energy security and tackling climate change, which are the core objectives of the EU's biofuels policy.

The current Biofuels Directive sets an indicative target of 5.75% in 2010. In 2007 the EU consumed between 2.5% and 3% of biofuels for road transport. Giving the fact that the European biofuels industry experienced strong double-digit annual growth rates during the past several years Europe is well on track to reach the 5.75%. With the 10% binding target for the transport sector the Renewable Energy Directive sends a clear signal to investors and confirms the EU's strong commitment to renewable transport fuels.

Type of energy	2002 Eurostat Mtoe	2006 Eurostat Mtoe	AGR 2002- 2006	Projection 2010 Mtoe	AGR 2006- 2010	Projection 2020 Mtoe	AGR 2010- 2020
Transportation biofuels	1.05	5.38	50.5%	16	31.0%	34	7.8%

Source: EREC (2008)

Table 6: Biofuels Production Projections

The Renewable Energy Directive will set an important framework for the future growth of the industry and will pave the way for a stable investment climate. New technologies and applications of biofuels will be developed and marketed up to 2020. With this stimulation of the industry and a further coordinated development of biofuels throughout the EU and the possibilities of significantly reducing the oil dependence in the transport sector over the next years, the European biofuels industry is committed to reach the share of 10 % biofuels by 2020.

	2005 Eurostat Mtoe	2006 Eurostat Mtoe	Projection 2010 Mtoe	Projection 2020 Mtoe
Transportation biofuels	3.13	5.38	16	34.0
Gasoline and oil consumption (Trends to 2030- Baseline) ¹⁰ (Combined RES and EE) ¹¹	297.2	300.4	317.3	349.5 323.9
Biofuels' Share %	1.05	1.79	5.0	9.7-10.5

Source: EREC (2008)

Table7: Contribution of Renewables to Transport Fuel Consumption

5.10 Contribution of RES to Final Energy Consumption

Given the present state of market progress and strong political support, the European Renewable Energy Industry is convinced it can reach and exceed the 20 % renewable energy share in final energy consumption by 2020. The estimates by the Renewable Energy Industry are based on a moderate annual growth scenario for the different technologies. Strong energy efficiency measures have to be taken to stabilise the energy consumption between 2010 and 2020.

Type of energy	2005		2006		Projection 2010		Targets 2020	
	Eurostat	%	Eurostat	%		%		%
Final Energy Consumption ¹² (Trends to 2030) ¹³ (Combined RES and EE) ¹⁴	1,211.5		1,214.8		1,272		1,378 1,266	
Wind	6.06	0.50	7.05	0.58	15.13	1.19	41	3.0-3.2
Hydro ¹⁵	29.82	2.46	30.71	2.53	30.95	2.43	33	2.4-2.6
Photovoltaic	0.13	0.01	0.22	0.02	1.72	0.14	15.5	1.1-1.2
Biomass	67.51	5.57	73.11	6.02	102.60	8.07	175.5	12.7- 13.9
Geothermal	1.10	0.09	1.16	0.10	3.86	0.30	9.4	0.7

¹⁰ European Energy and Transport: trends to 2030 – update 2007, 2008, European Commission Directorate General for Energy and Transport

¹¹ European energy and transport: Scenarios on energy efficiency and renewables, 2006, European Commission Directorate General for Energy and Transport.

Solar Thermal	0.68	0.06	0.77	0.06	1.5	0.12	12	0.9-1.0
Solar Thermal elect.	0		0		0.16	0.02	2.2	0.2
Ocean	0		0		0.08	0.01	0.4	0.03
Total RES	105.3	8.69	113.02	9.30	156.0	12.3	289	20.9-22.8

Source: EREC (2008)

Table 8: Contribution of RES to total final energy consumption (Mtoe)

EREC and its members assume that a 20% share of Renewable Energy of final energy consumption by 2020 is a realistic target for the EU under the condition that certain policy developments will occur and a continuation of the existing policy instruments are ensured. The individual sector projections are based on moderate estimates, some of the sectors forecast much higher numbers for their sectors by 2020.

A development of all existing Renewable Energy Sources and a balanced mix of the deployment in the sectors of heating and cooling, electricity and transport guarantees the start of a real sustainable energy mix for Europe. The table below gives an overview of the resulting contribution of renewable energy in the electricity, heating and cooling and transport sectors towards attaining the overall 20% target.

Type of energy	2005		2006		Projections 2010		Targets 2020	
	Eurostat	%	Eurostat	%		%		%
Final Energy Consumption ¹⁶ (Trends to 2030) ¹⁷ (Combined RES and EE) ¹⁸	1,211.5		1,214.8		1,272		1,378	
							1,266	
Electricity	43.36	3.6	46.19	3.8	60.5	4.8	116	8.4-9.2
Heating and Cooling	58.81	4.8	61.45	5.0	79.5	6.2	139	10.1-11
Transport biofuels	3.13	0.3	5.38	0.5	16.0	1.3	34	2.5-2.7
Total RES	105.3	8.7	113.02	9.3	156.0	12.3	289	20.9-22.8

Source: EREC (2008)

**Table 9: Contribution of RES to Total Final Energy Consumption by sector (Mtoe)
Integration of renewable energy sources**

¹⁶ Including electricity and steam transmission/distribution losses and own consumption

¹⁷ European Energy and Transport: trends to 2030 – update 2007, 2008, European Commission Directorate General for Energy and Transport.

¹⁸ European energy and transport: Scenarios on energy efficiency and renewables, 2006, European Commission Directorate General for Energy and Transport.

The rapid deployment of renewable energy technologies, and their even greater deployment in the near future, raises challenges and opportunities regarding their integration into energy supply systems. Energy systems are needed to meet the demands for a broad range of services (household, commerce, industry and transportation needs). Energy systems include an energy supply sector and the end-use technology to provide the aforementioned energy services.

5.11 Electricity sector

In the EU, the existing electricity supply system is mainly composed of large power units, mostly fossil-fuelled and centrally controlled, with average capacities of hundreds of megawatts. RES are geographically widely distributed and, if embedded in distribution networks, are often closer to the customers. Locating renewable energy and other generators downstream in the distribution network is known as “distributed generation”.

Distributed generation involves the use of small, modular electricity conversion units sited close to the point of consumption. Distributed energy generation, close to the end-consumer, differs fundamentally from the traditional model of an energy system consisting of large power stations generating centrally controlled power. The approach is completely new, replacing the concept of economy of scale using large units by economy of numbers (using many small units). Far from being a threat, distributed generation based on renewable energy offers opportunities. It can:

- Reduce the transmission and distribution losses as well as their cost;
- Provide customers with continuity and reliability of supply;
- Stimulate competition in supply, adjusting process via market forces;
- Be implemented in a short time owing to the modular nature of renewable energy technologies.

5.12 Transport sector

In the transport sector, the use of renewable energies in the form of biofuels is becoming a market reality. However, the integration of renewables requires the adaptation of an infrastructure which has grown over a century of development based exclusively on fossil fuels. Besides the gradual substitution of the vehicles in circulation, it is necessary to develop a new supply chain for the production and distribution of sustainable transport fuels. This will require substantial investments. However, the development of the fossil-fuel-based transport system also required investments that were historically subsidised by the public sector in many countries.

Electric cars will also play a more prominent role in the future. Charging electric vehicles from the grid at the current stage, however, is not carbon neutral, since the electricity mix in many countries is still largely composed by fossil fuels. The rapid deployment of renewable electricity generation is a pre-condition for a sustainable extension of the use of electric cars.

5.13 Heating and cooling

In the heating sector, the full integration of renewable energies also requires an adaptation of historically grown infrastructures. This process is particularly important because, in many parts of Europe, it is already possible to have new buildings which are completely independent from fossil fuels or electricity for their heating needs. This can be achieved by using state-of-the-art renewable heating and cooling applications which are combined with energy efficiency measures and demand-side management.

A substantial economic restriction to the integration of renewable heating (solar thermal, biomass, geothermal) is caused by the long lifetime of buildings. The installation of renewable heating systems is much more cost-effective during the construction of a building or when the overall heating system is being refurbished. This means that there is a short window of opportunity for cost-effective integration of renewable heating. If this occasion is lost, for decades that building will remain dependent on fossil fuels or electricity to cover its heating demand.

For this reason, it is essential that all possible measures be taken to make sure that the available renewable heating sources are installed in all new buildings. It is also necessary to promote the use of renewable heating at the time of the modernization of the conventional heating system.

Renewable heating sources can also be used for cooling purposes. An increasing number of well working systems is being installed, mainly based on solar thermal and geothermal energy. The growing demand for cooling is having a dramatic impact on the electricity systems in Europe, with several countries reaching peak electricity demand in summer instead of winter. This problem can be mitigated by supporting the development and commercialization of renewable cooling technologies.

The choices of millions of citizens in their homes and offices are crucial to the future integration of renewable energies. Raising awareness among the general public and specific training of the professional groups involved (heating installers, building engineers, architects, building managers etc.) are therefore very important.

5.14 Research priorities

In order to development renewable energy sources to their full potential, further research activities are needed:

- Different technologies have been developed in order to produce electricity from renewable energy sources (wind, biomass, hydro, solar photovoltaic, geothermal, concentrated solar power, marine energy). These technologies are at a different stage of development, but all require some further research & development (R&D) with a view to reducing their cost, and facilitate their integration into the grid.
- Biomass, solar thermal and geothermal energy are current renewable energies used for heating and cooling in buildings, where technical research advances can be made. In order to increase the adoption of renewable energy technologies in

buildings, research should also be addressed towards improving building technologies, including passive solar design and energy efficiency.

- Different options are available for the production of renewable- based fuels for transport applications: renewable electricity to be used in electrical vehicles; renewable hydrogen to be used either in Internal Combustion Engines or in Fuel Cells; biofuels (both in the liquid and gaseous status), which can be used with the existing infrastructures. In order to increase the use of renewable energy in transport applications, research is needed not only to improve the fuel production process (feedstock production and conversion into a usable fuel), but also to create the requested infrastructure for the uptake of renewable-based fuels.

Finally, some cross-cutting issues need to be tackled in order to enable a faster development of renewable energy technologies in all end-user sectors:

- Research infrastructures (especially laboratory infrastructures): the approach to European funding of energy infrastructures should be extended to allow the integration of European experimental facilities in order to overcome fragmentation.
- There is a lack of finance for demonstration activities of new and improved renewable energy technologies. More demonstration is definitely necessary to bridge the gap between concept and implementation.
- Especially in the heating and cooling sector public funds need to be increased in order to fulfill the required research. This sector contributes to about 40 % of the overall energy demand in Europe but the utilization of renewable energy technologies remains low at present.
- Lack of qualified and skilled workers (engineers, installers, academics): More efforts are essential in education. This includes not only specific curricula for renewable energy as a course topic in itself, but more focus on renewable energy topics being included in electrical engineering, mechanical engineering, physics and other traditional technical studies. This is essential to meet the rapidly growing need for skilled personnel in the booming renewable energy industry.

6 Assessment of Administrative Structures and Procedures

6.1 Summary

The report is the results of the work within the Working Group 2 – Administrative Structures (WG 2) established in order to fulfill the objectives of the working package 3 (WP 3) – Assessment of Administrative Structure and Procedures.

The main objective of the work package is the assessment of the situation relating to the administrative structures and procedures involved in the preparation and permitting of RES projects. The assessment process will focus on the administrative barriers for large installation for RES-E technologies, but also for larger installations for RES-H in the partner countries.

The scope of work for the WG 2 consists in:

- Assessing administrative procedures and barriers hindering the efficient implementation of existing support schemes for RES-E and RES-H
- Identifying specific administrative barriers in the partner countries and common obstacles as basis for the upcoming activities.

The report consists in 3 main chapters covering the following items:

- Existing information and data related to administrative barriers for renewable energy sources (RES)
- Interviews on administrative barriers
- General conclusions and recommendations.

Related to existing information and data related to administrative barriers for renewable energy sources, the report presents data regarding to:

- Studies on administrative barriers for different renewable energy sources in more than one EU country
- Studies focusing on administrative barriers for a specific renewable energy source or technology
- Studies on administrative barriers for renewable energy sources on country and regional level
- Gap analysis for data on administrative barriers for renewable energy sources
- Institutions in charge of RES programs implementation

Based on identified information and available data, it was found that there are studies on administrative barriers for different or specific RES in more than one country of the EU. Within these studies, the administrative barriers were globally analyzed and even it were proposed solutions to reduce the impact of administrative barriers under development of RES project, the barrier still exist and they need deep and specific analysis and finally find a unique solution to solve them.

In order to assess the administrative structures and procedures a minimum of 10 expert interviews per country was performed. During the interviews the following aspects were

addressed: Number of involved institutions and coordination between them; lead times of application for funding; lead times for necessary permits; access to information about support schemes; transparency of administrative procedures; awareness of benefits of RES in involved administrations; integration in planning procedures.

The report presents an evaluation of interviews results for each partner countries.

Based on interviews results, the following conclusions could be draw up:

- Even the experience in RES promotions is higher in some countries, interviews results show that there is still potential for optimizing the support scheme;
- Different support schemes are applied in different country and the obtained results are direct influenced by the applied support scheme;

In order to reduce the administrative barriers for RES projects implementation, the following recommendation can be draw up:

- Increase or fix the existing financial support schemes for a longer period of time;
- Establish individual support-schemes for different technology;
- Establish a special authority for RES projects, where all relevant people from institutions involved in permitting process would meet at regular occasions (i.e. once a week) to resolve potential issues among themselves and investors;
- A better coordination between the involved authorities is recommended.

6.2 Existing information and data related to administrative barriers for renewable energy sources

The analysis will offer an overview of existing information and data related to the administrative barriers for renewable energy sources. There will be presented data regarding:

- studies on administrative barriers for different renewable energy sources in more than one EU country
- Studies focusing on administrative barriers for a specific renewable energy source or technology
- Studies on administrative barriers for renewable energy sources on country and regional level
- Gap analysis for data on administrative barriers for renewable energy sources
- Institutions in charge of RES programs implementation

The review summarizes the main findings of the studies.

6.2.1 *Studies on administrative barriers for different renewable energy sources in more than one EU country*

The main studies elaborated at the EU level, related to the administrative barriers for renewable energy sources in more than one country, are presented below.

<i>Title of the study</i>
Optres Report (D8) “Analysis of barriers for the development of electricity generation from renewable energy sources in the EU-25”
<i>Date of study</i>
Conducted in March - June 2005/ Published in May 2006
<i>Author / Commissioned by:</i>
The analysis was carried out as part of the Optres Project “Assessment and optimization of renewable support schemes in the European Electricity market” on behalf of the European Commission / Directorate-General for Energy and Transport. Authors: Rogier Coenraads, Monique Voogt, Attila Morotz, ECOFYS
<i>Countries covered by the study:</i>
24 EU countries (no response from Slovakia)

<i>Title of the study</i>
Administrative Barriers to Renewable Electricity - Barriers related to regional/local competences and practices
<i>Date of study</i>
Results presented in June 2007
<i>Author / Commissioned by:</i>
The results of the study were presented by Christine Öhlinger, O.Ö. Energiesparverband
<i>Countries covered by the study:</i>
11 European regions : Andalusia, Castilla y Leon, Copenhagen, Liguria, Navarra, Oberösterreich, Rhône-Alpes, Saarland, Västra Götaland, Slovenia, Wales.

<i>Title of the study</i>
Workshop on administrative barriers to renewable electricity - An industry point of view
<i>Date of study</i>
June 2007
<i>Author / Commissioned by:</i>
Oliver Schaefer, Policy Director of EREC
<i>Countries covered by the study:</i>
General approach at the European level

<i>Title of the study</i>
Drivers and main barriers for the development of renewable energies
<i>Date of study</i>
October 2007
<i>Author / Commissioned by:</i>
IBERDROLA RENEWABLE ENERGIES - Spain
<i>Countries covered by the study:</i>
EU

<i>Title of the study</i>
Report on the Implementation of the Acquis on Renewables in the Energy Community Contracting Parties
<i>Date of study</i>
May-November 2007
<i>Author / Commissioned by:</i>
Energy Institute Hrvoje Pozar, Zagreb, Croatia / EC Secretariat, Vienna, Austria
<i>Countries covered by the study:</i>
Albania, Bosnia and Herzegovina, Croatia, The former Yugoslav Republic of Macedonia, Montenegro, Serbia and UNMIK

6.2.2 Studies on administrative barriers for a specific renewable energy source or technology

The main studies elaborated at the EU level, regarding the administrative barriers for specific renewable energy sources or technology, are presented below.

<i>Title of the study</i>
Administrative barriers – European Photovoltaic Industry Association
<i>Date of study</i>
IEEA workshop June 2007
<i>Author / Commissioned by:</i>
European Photovoltaic Industry Association
<i>Countries covered by the study:</i>
13 European key solar nations through their Energy Agencies and EPIA

<i>Title of the study</i>
Main Policy Barriers for Wind Energy – European Wind Energy Association
<i>Date of study</i>
<i>Author / Commissioned by:</i>
Dr. Nicolas Fichaux, EWEA Policy Department
<i>Countries covered by the study:</i>
Poland, France, Italy, Spain
www.ewea.org

<i>Title of the study</i>
Administrative barriers for small hydropower development in Europe
<i>Date of study</i>
June 2007
<i>Author / Commissioned by:</i>
ESHA
<i>Countries covered by the study:</i>
France, Italy, Spain, Sweden, Austria, Germany, Lithuania, Latvia, Estonia, Poland
<i>Method:</i>
Information gathered by ESHA through a survey to its members.
<i>Data base and sources of information:</i>
Information gathered by ESHA through a survey to its members. The paper also builds on the results of two IEE Projects: the Project SPLASH and the Project SHERPA;
<i>Summary of findings:</i>
<ol style="list-style-type: none"> 1. The main non-technical problem that constitutes an obstacle to the development of small hydro is the difficulty in obtaining the necessary authorizations to build a new site. Apart from the very long time required to process them, procedures vary strongly from one country to another, or even, for federal states, from one region to another. 2. Numerous institutional barriers exist, the main one being, in many countries, the difficulty in getting the concession to use and divert water from the river 3. Difficulties in gaining affordable connections to the grid are also common, as are very long procedures in order to get all permits since hydro operators have to deal with many administrations 4. Time limits for responses from the Administration are not usually respected. 5. Co -ordination between different administrative authorities is not working successfully as regards deadlines, reception and treatment of applications for authorization

6.2.3 Studies on administrative barriers for renewable energy sources on country and regional level

This chapter is completed based on input data provided by partners and presents the main studies elaborated at the national and/or regional level of partners countries, regarding the administrative barriers for renewable energy sources or technology.

Only in a few of partners countries in the project were identified these kinds of studies.

6.2.3.1 Estonia

<i>Title of the study</i>
Analysis of Domestic and European Union Regulations for Bio-energy Market
<i>Date of study</i>
2007 May – 2008 March
<i>Author / Commissioned by:</i>
Ernst & Young Baltic AS
<i>Countries covered by the study:</i>
Estonia
http://www.bioenergybaltic.ee/bw_client_files/bioenergybaltic/public/img/File/EYMESRaport_Summary_in_English.pdf

6.2.3.2 Slovakia

<i>Title of the study</i>
EPA-NR Survey: “National context and need for instruments”, “Country reports on national context
<i>Date of study</i>
May 2005
<i>Author / Commissioned by:</i>
The analysis was carried out as part of the EPA-NR Project – “The Energy Performance Assessment of existing Non-Residential buildings”. The project was supported by the Community's Intelligent Energy - Europe program. Contact person – Popi Droutsas, Institute for Environmental Research and Sustainable Development, National Observatory of Athens
<i>Countries covered by the study:</i>
Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Slovakia, Slovenia, Spain, Sweden, UK, Italy
URL: www.epa-nr.org

<i>Title of the study</i>
Concept of RES Utilization
<i>Date of study</i>
April 2003
<i>Author / Commissioned by:</i>
The analysis was carried out by the Ministry of Economy. It is the general documents concerning the RES utilization in Slovakia. Among others it encompasses the barriers

identification.
Countries covered by the study:
Slovak Republic
URL: : www.economy.gov.sk

Title of the study
Information about the progress in RES development inclusive the national indicative targets for RES
Date of study
April 2004
Author / Commissioned by:
The analysis was carried out by the Ministry of Economy, Ministry of Environment and Ministry of Education.
Countries covered by the study:
Slovak Republic
URL: www.economy.gov.sk

Title of the study
Strategy of higher utilization of RES
Date of study
April 2005
Author / Commissioned by:
The analysis was carried out by the Ministry of Economy. It focuses on the RES potential, the barriers of its development, the measures and objectives.
Countries covered by the study:
Slovak Republic
URL: www.economy.gov.sk

6.2.3.3 Spain

Title of the study
Plan de energías renovables en España 2005 – 2010. Spanish Renewable Energy Plan 2005-2010
Date of study
August 2005.
Author / Commissioned by:
IDAE
Countries covered by the study:
Spain
Data base and sources of information:
Experience for the main stake holders. http://www.idae.es/uploads/documentos/documentos_Plan_de_Energias_Renovables_en_Espana_completo_49e2ac7d.pdf

6.3 Gap analysis for data on administrative barriers for renewable energy sources

This chapter identifies lack in information and data as a basis for the further activities in the SUPPORT_ERS project (e.g. stakeholder interviews, administrative assessment report).

Based on existing information and available data on administrative barriers for RES promotion, we can say the following:

- There are some studies and analyses available on administrative barriers for different renewable energy sources in more than one country of the EU. These studies and analyses identified as main barriers for RES projects implementation administrative and regulatory barriers. These barriers are related especially to the following aspects:
 - High number of authorities involved
 - Lack of coordination between different authorities
 - Low awareness of benefits of RES of local and regional authorities
 - Legal framework specific evolution for each country
- Other barriers are related to:
 - Grid connection
 - Social implications
 - Financial issues
- There are some studies and analyses focusing on administrative barriers for a specific RES or technology like small hydro, photovoltaic technology, or wind technology. The main identified barriers are similar with the main barriers identified for RES projects in general.

However the above mentioned barriers were globally identified and analyzed and even some solutions to pass them were proposed, the barriers still exist and they need deep and specific analysis and finally find a unique solution to solve them.

Therefore one of the goals of our study is to identify based on specific questionnaires the proper way to eliminate the barriers in RES projects promotion at the level of all partner countries.

In this respect the questions have to be addressed to the following players in the field:

- Representatives of national authorities responsible for RES project implementation
- Regional and local authorities
- Renewable energy industry associations
- Project developers including those for large scale pilot projects
- Consumer protection organizations.

l), large-scale pilot projects, consumer associations or consumer Protection Organisations.

6.4 Interviews on administrative barriers

6.4.1 Scope of interviews

In each country of the consortium, a minimum of 10 expert interviews per country was required. Interview partners include representatives of national ministries, regional administrations, industry associations, project developers (European, national, regional).

6.4.2 Scope of evaluation

The scope of the evaluation was to find out the main aspects regarding the followings:

- Number of involved institutions and coordination between them
- Lead times of application for funding
- Lead times for necessary permits
- Access to information about support schemes
- Transparency of administrative procedures
- Awareness of benefits of RES in involved administrations
- Integration in planning procedures (e.g. spatial planning)

6.4.3 Structure of the interview

The interviews were structured as follows:

- Identification of interview partner
- Experience in the RE sector
- Evaluation questions related to:
 - Political framework
 - Public awareness
 - Legal background
 - Administrative procedures
 - Financial support schemes
 - Conclusions and recommendations

6.4.4 Interview assessment

6.4.4.1 Austria

List of interview partners

In Austria 10 interviews were carried out. The interview partners include:

- a representative of the Ministry of Environment
- a representative of the regional government of Carinthia
- a representative of the Climate Protection Office of the City of Vienna
- the general manager of the LandesEnergieVerein Styria
- a representative of the Austrian solar thermal industry

- a representative of the Chamber of Commerce
- a representative of the Austrian organisation for small hydro power plants
- two representatives of energy supplying companies
- an owner of a building company

Conclusions and recommendations resulted from interviews

Most of the interviewees see potentials for optimizing the Austrian RES support scheme. Suggestions for improvements are:

- higher subsidies/feed-in-tariffs to make investments more profitable
- stronger integration of land use planning aspects: e.g. the efficiency wind power plants is highly dependent on the location
- concentration of the various support instruments and funding in the frame of the “Finanzausgleich” (financial compensation transfer).
- each federal province should have one organisation responsible for support instruments which is centrally organized by the Ministry of Environment

6.4.4.2 Bulgaria

List of interview partners

In Bulgaria 11 interviews were carried out. The interview partners include:

1. Representative from the Ministry of economy, energy and tourism.
2. Representative from the ministry of environment and water.
3. One representative from the Energy Efficiency Agency.
4. Representative from NGO – “Za Zemjata”.
5. Representative from NGO – “Sofena”.
6. Representative from the Black See Regional Energy Centre – state organization.
7. Representative from private company – project developer.
8. Representative from NGO - Dobrich Local Agency for Energy.
9. Representative from United nations development programme Bulgaria to the Ministry of regional development and public works.
10. Representative from ESD Bulgaria.

Conclusions and recommendations resulted from interviews

Main conclusion from the interviews is that there exists a legal framework for RES in Bulgaria, which has to be up dated. Main problems are the quantity of permits and the time consuming. Recommendations are more for educational campaigns for RES possibilities and reducing the existing barriers mentioned above.

6.4.4.3 Croatia

List of interview partners

In Croatia 10 interviews were carried out. The interview partners include:

- One representative of Ministry of Economy, Labour and Entrepreneurship (MoELE),

- One representative of Transmission System Operator (TSO),
- One representative of Distribution System Operator (DSO),
- One representative of Croatian Energy Regulatory Agency,
- One representative of Croatian Association for Solar Energy,
- Four representatives of developer/investor companies in the sector of wind energy,
- One representative of Energy Institute Hrvoje Požar – a consultant for wind farm developers.

Conclusions and recommendations resulted from interviews

Recommendations for reducing administrative barriers and improving the existing financial support schemes:

- Establishment of special authority for RES projects, where all relevant people from institutions involved in permitting process would meet at regular occasions (i.e. once a week) to resolve potential issues among themselves and investors (information office in MoELE).
- Establishing a single 'cookbook' for small domestic projects, such as PV or small wind turbines which would contain all the information needed. Also, typical projects and typical grid connection options should be defined. Permits such as Location permit, Construction permit and similar should not be needed for small projects.
- The completion of HITROREZ and e-Hrvatska programs (one stop shop) – that would simplify the procedures when dealing with state administration.
- Capacity building in national/regional institutions together with proper education.
- There should be something done to ensure that the developer/investor has been given basic information about the grid connection from DSO/TSO, before he gets into serious project phase. First phase project documentation regarding the grid connection should be done according to the DSO/TSO recommendations and in some way checked before the investor applies for the Location permit. So, the issuing of the Preliminary electric energy approval is just a formality.
- The registry of RES projects should be made available to public on the internet, as stipulated by the bylaws. At the moment, information about RES projects is available only on written request.
- One of the biggest limitations for higher wind-power penetration is the limited regulation capacity of the system. In that sense, when issuing the Preliminary electric energy approval (binding in the sense of allowed installed power size), the TSO/DSO is dealing with a limited resource. The TSO/DSO should not be in any way responsible for how will the RES investor in fact use the limited resource. But since the government has set up the goals in RES and since the resources are limited, it should be ensured that the limited resources are divided optimally, meaning that the power (MW) determined by the Preliminary electric energy approval will really be produced. One of the solutions is to filter (by a set of transparent criteria) the serious projects in the Ministry of Economy before they get the right to apply for Preliminary electric energy approval.
- New legal regulation is needed to stimulate the increase in system regulation capacity (regulation of auxiliary services). Also, the wind-power investors are not in any way obligated to contribute to more rational use of regulation capacity as the Croatian Energy Market Operator will pay for all the extra costs for balancing of power. More accurate production plans from wind farms would surely rationalize the use of regulation power reserves, so the wind power investors should be legally obligated to make their measurements and predictions of electricity production more accurately.
- Since the Preliminary electric energy approval is valid for two years and maximally extended to four years, it is obvious that some slower projects can block potentially

better projects having “reserved” the limited regulation capacity by obtaining the Preliminary electric energy approval. In order to optimize the planning of the grid and the issuing of the Preliminary electric energy approvals, one idea is to periodically deal with a number of applications/projects, but according to transparent criteria and in coordination with other relevant government offices.

- After the deregulation of the energy sector (TSO/DSO and electricity generation no longer in the same company) the regulation regarding verification procedures (trial run) for power plants should be revised giving clearer guidelines on who is responsible for verification procedures, at what stage the trial runs have to take place etc.
- The final feed-in tariff is adjusted according to the “domestic component share” in the project. However, there is still no legal act defining the “domestic component”. It is prevailing opinion that the “domestic component share” should not influence the feed-in tariff.
- All institutions should within 8 days (in most cases it is even stipulated so) from receiving an application issue of document declaring that the application is valid or what other documents should be included in the application. That would speed up the procedure significantly, as now there are cases that the investor gets notices of incomplete applications few months after applying.
- For PV systems there should be only one Electric energy approval, both Electric energy approval and Preliminary electric energy approval are not needed.
- Small PV systems (up to 30 kW) should not be obligated to deliver following documents in order to apply for the eligible producer status, as all of them have been required previously in the procedure: Grid use contract (from DSO), Elaboration on measurement equipment with a measurement scheme (measurement of electricity production), Monthly and yearly plans for energy production in average climate conditions including expected deviations from the plan. The procedures for small projects should be simplified.
- The limitation on maximum installed capacity of 1 MW for PV systems in existing feed-in support system should be removed.
- In case of wind farms the Approval from the Environmental commission and the Location permit should allow limited changes in the terms of size (MW), position and number of wind turbines and other facilitating objects (roads, cabling...).
- For larger power plants (over 5 MW), the regulation regarding the grid connection infrastructure should be revised in a sense that the power plant investor can be directly responsible for constructing the grid connection infrastructure (according to the TSO/DSO technical terms) and later being able to transfer the ownership rights to the TSO/DSO with tax exemption. Since the grid connection infrastructure value is in terms of depreciation sum usually much more significant to the power plant investor than to the TSO/DSO, a legal possibility of keeping that value in the power plant investor's depreciation sum should be considered.
- There are a lot of RES-E projects in different phases of preparation and some of them will be out of target for 2010 (5.8% of RES-E electricity in total electricity consumption). Consequently, there is a necessity for establishment of indicative targets of electricity production from RES for the period after 2010.
- There should be a support program for all electricity generation from RES, not only for electricity supplied to the grid.

Based on performed analysis, it was very easy to recognize significant improvements in support scheme for electricity generation from renewable energy sources in last few years. After adoptions of RES-E bylaws in 2007, feed-in tariffs were established and electricity generation from RES was regulated. However, there is a lot of space for improvements. The procedures should be simplified and harmonized. Complicated and long procedure for

acquiring eligible producer status is a barrier especially in implementation of small-scale RES project. The abovementioned recommendations could be very useful in further improvements of RES-E legislation.

Stable and well harmonized legislative framework, which follows the target based approach, is the guarantee of successful and efficient RES-E supporting scheme. The level of the set targets should be based on the realistic assessment of the national renewable potentials, both technical and economic, based on cost-benefit analysis. Additionally, feed-in tariffs for different RES technologies should be periodically recalculated, in order to be in line with new energy market conditions.

6.4.4.4 Estonia

List of interview partners

In Estonia 11 interviews were carried out. The interview partners include:

- 3 representatives from National ministries (Agriculture, Environment and Economic Affairs & Communications)
- 3 representatives from Industry associations (wind generated electricity, biomass & bio-fuels and district heating & power generation)
- 5 persons representing Project Developers

In most cases the Project Developers had experience with RES 2-10 projects (total 230mil € and 171 MW). No failed projects occurred and number of planned projects was 2-10 per developer (total 1500 mil € and 780 MW).

Conclusions and recommendations resulted from interviews

The interviewed persons recommended keeping a long-time stable national policy to create stable RES-related business environment and to open the energy market totally.

In order to improve the existing financial support schemes the interviewed persons recommended to increase or fix feed-in tariffs for longer period and increase the volumes of electricity purchased by feed-in tariffs. In order to promote different technologies there should be individual support-schemes for different technology. Technology-based investment support schemes should be elaborated (newer-better technology = higher support).

6.4.4.5 Germany

List of interview partners

In Germany interviews were carried out and recently received statements/presentations evaluated from:

- German Wind Energy Association (BWE)
- German Association for the Solar Economy (BSW)
- Developers of wind power projects (3 companies)
- State Environment Agency Brandenburg, Potsdam
- Federal Network Agency, Bonn
- Region Hannover, Hannover

- Producer and operator of Biogas plants (1 company)
- German Aerospace Centre (research group on renewable energies)

6.4.4.6 Romania

List of interview partners

In Romania 10 interviews were carried out. The interview partners include:

- A representative from the Romanian Agency for Energy Conservation (ARCE)
- A representative from the Ministry of Economy – SOP Competitiveness
- A representative from the Ministry of Economy – Energy Division
- A representative from the Ministry of Environment – MA SOP Environment
- A representative from the National Authority for Energy Regulation (ANRE)
- A representative from the Environmental Fund Agency
- Two representatives of utility companies
- A representative of a research institute in the field of RES
- A representative of a project developer

Conclusions and recommendations resulted from interviews

The main conclusions of the interviews are:

- Romania is focused on implementing the EU policy in the field of RES
- There are institution in charge with policy implementation
- Some financial support schemes are active especially focused on RES – E
- RES – H is supported under implementation phase (investment incentives)
- Public awareness is poor, need to be improved by disseminating implemented project results
- Long administrative procedure needed for a project implementation
- Grid connection: the main challenge for any project
- Investors are wary by the legal framework fluctuation
- National Plan for RES (E and H) need to be clear and focused on giving development direction in connection with European/national targets.

6.4.4.7 Slovakia

List of interview partners

In Slovak Republic 10 interviews were carried out. The interview partners include:

- a representative of the Ministry of Economy of the SR,
- a representative of Industry association (air-conditioning, heat pumps),
- an institution with Large-scale pilot project (biogas station),
- seven representatives of Project developers with:
European range of activities (solar heating systems and solar photovoltaic systems),
national range of activities (biomass),
national and regional range of activities (renewable energy sources utilization, especially wind energy) and
four companies of European, national and regional range of activities (heat, RES in general, solar energy, heat pumps).

Conclusions and recommendations resulted from interviews

Proposed recommendations to reduce administrative barriers for RES-H:

Some of the interviewees think that administrative barriers are not an obstacle in the development of this area. On the other hand, there are also missing significant supporting incentives therefore there is need to adopt an Act on support renewable energy sources in the SR.

Proposed recommendations to improve the existing financial support schemes:

In case of support schemes when submitting the project proposal, interviewees would prefer to replace the statements with the declaration on word of honor. The statement will be necessary after the project proposal is approved. This will lead to lower administration burden both for the applicant and for the administration.

Financial support schemes partially deform the energy market. The call conditions for new projects partly discriminate some of the market players and some of them are preferred.

Notice. - In June 2006 it was adopted new Act No. 309/2009 Coll. on promotion of RES and high efficient combined heat and power which guarantees long-term investments (for 15 years) and the RONI prepared new feed-in tariffs for the year 2010.

6.4.4.8 Spain

List of interview partners

Ten interviews were carried out to representatives of:

- The Institute for Energy Saving and Diversification, Ministry of industry Tourism and Trade (IDAE).
- Ente Vasco de la Energía (EVE), Regional Energy Agency from the Basque Country.
- Agencia de la Energía de Ávila, Local Energy Agency from the city of Ávila.
- Association of the Solar Thermal Industry (ASIT).
- Spanish Association for the Dissemination of the Biomass Valorisation (ADABE).
- Iberdrola the main Spanish renewable energy promoter.
- GAMESA wind farm developer.
- Prosolia solar project promoter.
- Hidráulica Molino de Suso, minihydro promoter.
- Biodiesel Alcalá, biodiesel producer.

6.5 General conclusions and recommendations

The assessment of administrative structures and procedures had as main target to offer an overview of existing information and data related to the administrative barriers for renewable energy sources projects.

The assessment was focused on:

- Studies on administrative barriers for different renewable energy sources in more than one EU country
- Studies focusing on administrative barriers for a specific renewable energy source or technology
- Studies on administrative barriers for renewable energy sources on country and regional level
- Gap analysis for data on administrative barriers for renewable energy sources
- Institutions in charge of RES programs implementation in partner countries
- Interviews on administrative barriers.

Based on existing information and data related to administrative barriers for RES, the following conclusions could be emphasized:

- At the EU level, a couple of studies were conducted in the last years. These studies found that administrative and regulatory barriers are the main barriers for the development of renewable energy projects. As administrative barriers were identified the following:
 - o High number of authorities involved
 - o Lack of coordination between different authorities
 - o Long lead-time to obtain necessary permits
 - o Low awareness of benefits of RES of local and regional authorities.
- At the EU level a couple of studies on specific RES or technology were identified. The generally findings of these studies (not depending of the addressed type of RES) show that a project developer has to face the following barriers:
 - o A complex administrative procedures – high number of permits, high number of involved authorities, different rules in different regions for decentralization, lack of transparency;
 - o Insufficient grid access
 - o Missing or restrictive building sector regulations.
- At the country and regional level, only in a few of partners countries in the project were identified studies on administrative barriers. The identified studies emphasize the same administrative barriers as the studies at the EU level.

Based on interviews results, the following conclusions could be draw up:

- Even the experience in RES promotions is higher in some countries, interviews results show that there is still potential for optimizing the support scheme;
- Different support schemes are applied in different country and the obtained results are direct influenced by the applied support scheme;

In order to reduce the administrative barriers for RES projects implementation, the following recommendation can be draw up:

- Increase or fix the existing financial support schemes for a longer period of time;

- Establish individual support-schemes for different technology;
- Establish a special authority for RES projects, where all relevant people from institutions involved in permitting process would meet at regular occasions (i.e. once a week) to resolve potential issues among themselves and investors;
- A better coordination between the involved authorities is recommended.

7. Checklist for administrative procedures

Based on gathered information and data as well as on a series of stakeholder interviews, Work Package 2 came to the conclusion that the major barriers for the development of renewable energy projects are often related to inefficient, expensive and time consuming administrative procedures, which may be characterised by, for example:

- Little awareness of the potentials and benefits of RES.
- Over-estimation of potential impacts of RES on environment or landscape.
- Low acceptance and little understanding of RES in relevant authorities.
- Complex and intransparent administrative procedures.
- Large number of authorities involved.
- Lack of transparency.
- Missing coordination between different authorities.
- Long lead-time to obtain necessary permits.
- High cost of permitting procedures.

Avoiding or overcoming these barriers is a major challenge in promoting RES-E and RES-H at the local and regional level.

7.1 Optimisation targets

Inefficient and intransparent administrative procedures, e.g. during the permitting process, may increase the economic risks of RES-E and RES-H project developments substantially. Figure 1 shows an exemplary framework for the assessment of the development risks of RES-E and RES-H projects with regard to the permitting procedure, including the following criteria:

- Uncertainty of requirements.
- Intransparency of procedures.
- Required lead-time.
- Cost and effort.
- Risk of failure (non-award of permit).
- Contestableness of received permit.

Project developers will normally assess the different criteria on the basis of their own experience and expectations or on the basis of general market experience and expectations.

The following Figures (Figure 1 to Figure 5) illustrate how the optimization of administrative procedures may contribute to the reduction of the relevant project development risks.

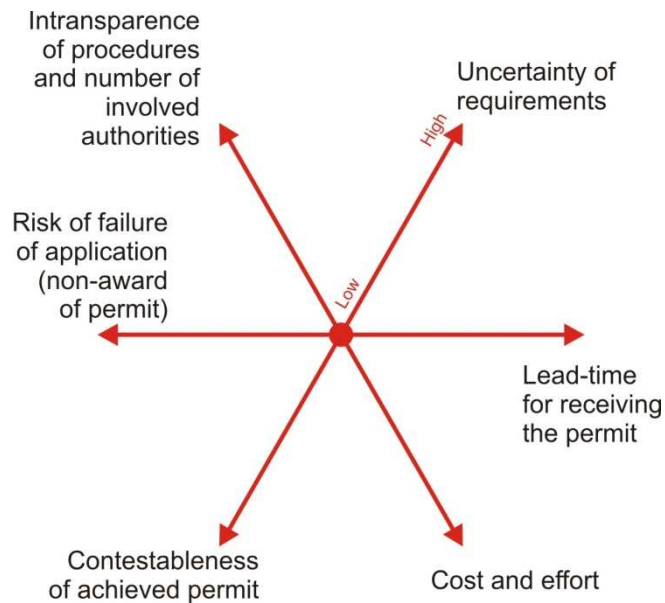


Figure 1: Exemplary framework of risk assessment for the project development of RES-E and RES-H projects (permitting procedure)

Figure 2 illustrates a high-risk situation which would in many cases prevent potential project developers from taking the risk. A first optimisation step could result in the clarification of permitting requirements and, as a consequence, in the reduction of cost and effort (Figure 3). Although there has not been anything changed in the administrative process as such, the overall risk for the project developer is already reduced.

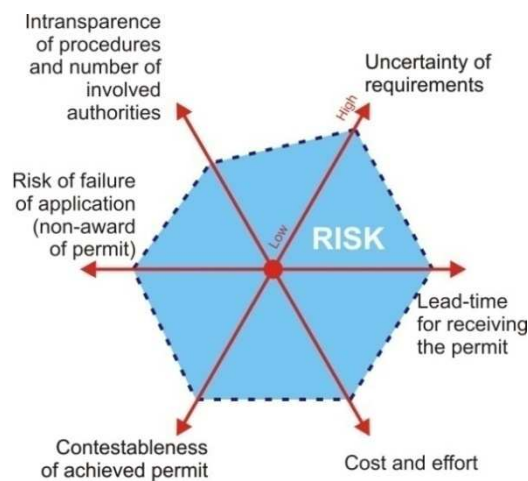


Figure 2: High project development risk (Initial situation - schematic)

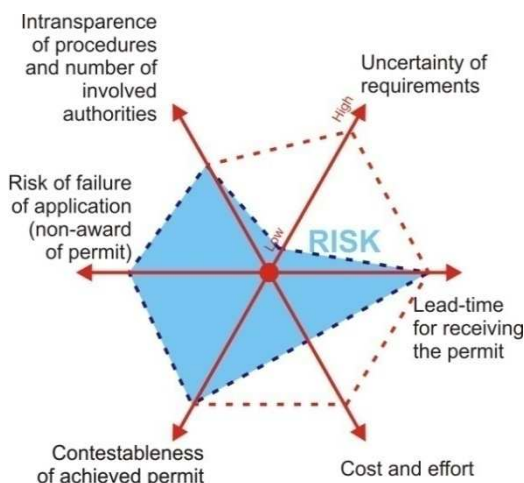


Figure 3: Clarification of requirements and cost cutting (first optimisation step - schematic)

Further improvement of the administrative procedure, e.g. by means of reducing the number of involved authorities, the lead time for receiving the permit and the risk of non-award of permit would result in a further substantial reduction of project risks at this stage of project development (Figure 4).

A final optimisation step could relate to the quality and reliability of administrative decision making which would lead to a reduction of the contestableness of the achieved permit (Figure 5).

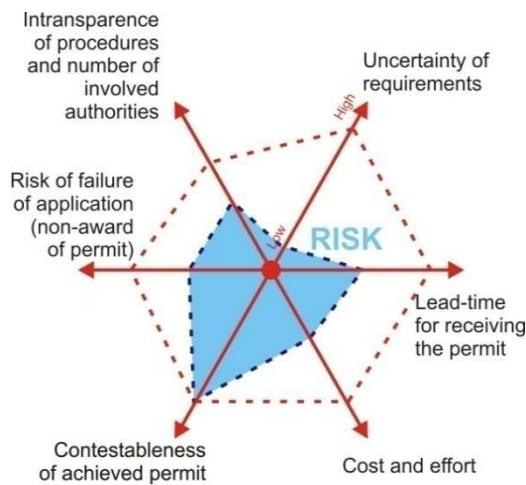


Figure 4: Improved administrative procedures and reduced lead-time for receiving the permit (Third optimisation step – schematic)

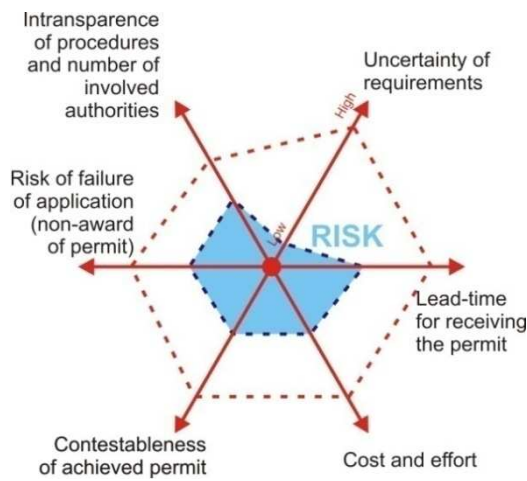


Figure 5: Reduced contestableness of permits (Final optimisation step - schematic)

The result of an optimization of administrative procedures such as illustrated in the above presented 4 optimization steps is a substantial reduction of project development risks. This attracts additional project developers and improves the perspectives for the development of new RES-E and RES-H projects.

On this basis, the optimization of administrative procedures is aiming at the following targets:

- Shorten the lead-time for reducing the permit.
- Reduce the cost and effort of procedures.
- Eliminate any uncertainty of formal requirements.
- Improve the transparency of procedures.
- Minimise the risk of failure (non-award of permit).
- Avoid the contestation of permits.

7.2 Action fields for improvement

The Working Group, based upon the results of WP3 identified 9 major action fields for the improvement of administrative procedures related to RES-E and RES-H, as illustrated in Figure 6. The involved authorities and the applicant share the responsibility for the implementation for measures in these action fields.

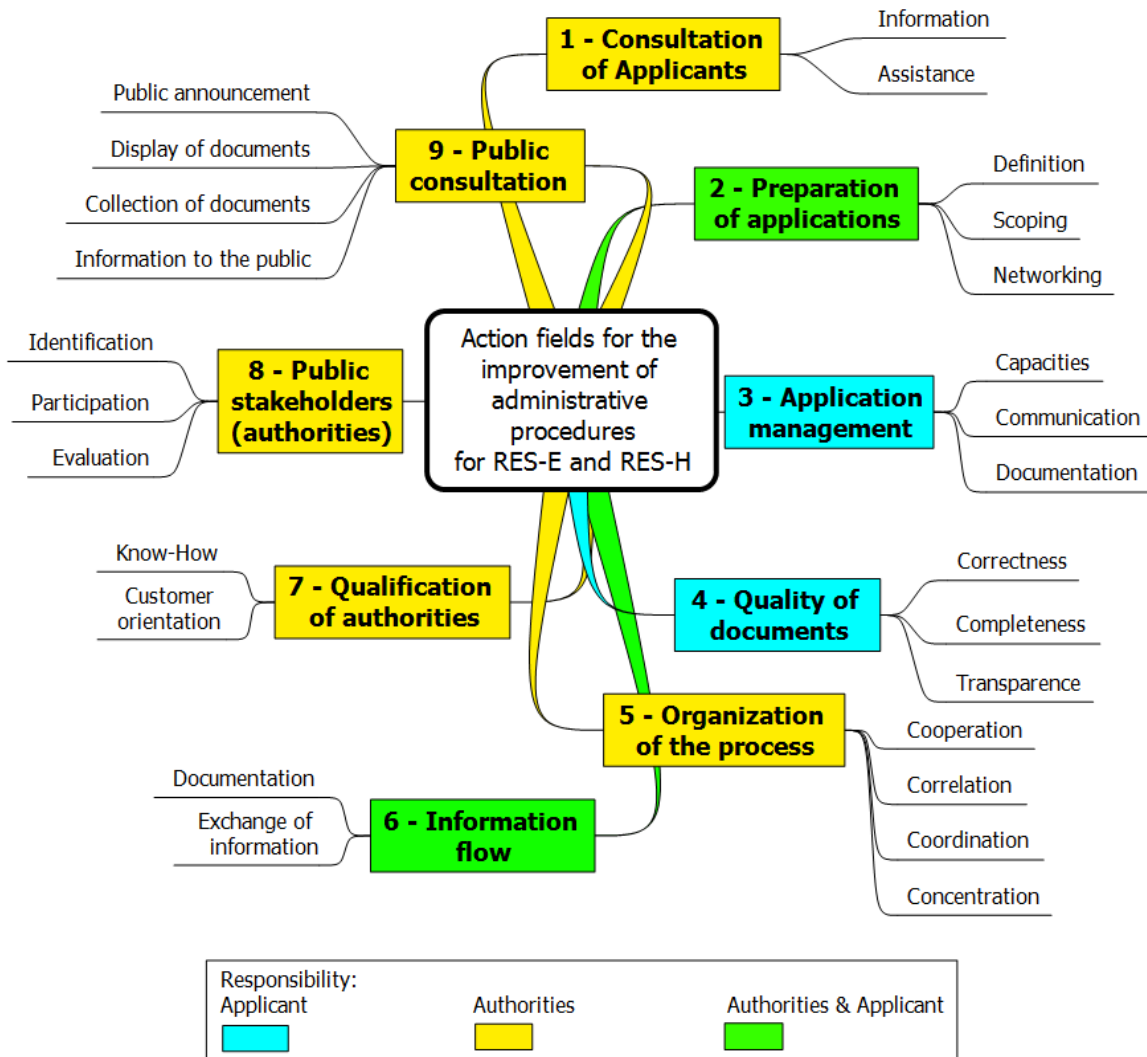


Figure 6:
Action fields of the improvement of administrative procedures for RES-E and RES-H

For each of these 9 action fields, the Working Group identified the key activities which have to be performed in order to contribute to an efficient implementation of relevant procedures.

7.3 Proposed checklist

With a clear view to the identified optimization targets (chapter 0) and the identified action fields (chapter 7.2), the Working Group developed a lean procedure for the review of administrative procedures related to RES-E and RES-H projects on the basis of a checklist for administrative procedures.

- 1st Step: Identification and determination of the procedure under review
- 2nd Step: Selection of relevant Action fields
- 3rd Step: Analysis of key activities
- 4th Step: Definition of objectives
- 5th Step: Analysis of the performed activities and documentation of observations
- 6th Step: Compilation of conclusions & recommendations

The Working Group proposes to implement these steps on the basis of a concise checklist as proposed in the following table. The list of action fields and activities included in this checklist is taken from Figure 6.

Table 1: Structure of the proposed checklist for administrative procedures

Criteria				Observations	Conclusions &/ recommendations
Action field	Responsibility	Activity	• Objectives		
(1) Consultation of applicants	Authorities	Information	•		
		Assistance	•		
(2) Preparation of applications	Authorities & Applicant	Definition	•		
		Scoping	•		
		Networking	•		
(3) Application Management	Applicant	Capacities	•		
		Communication	•		
		Documentation	•		
(4) Quality of documents	Applicant	Correctness	•		
		Completeness	•		
		Transparency	•		
(5) Organisation of the process	Authorities	Cooperation	•		
		Correlation	•		
		Coordination	•		
		Concentration	•		
(6) Information flow	Authorities	Documentation	•		
		Exchange of information	•		
(7) Qualification of authorities	Authorities	Know How	•		
		Customer orientation	•		
(8) Stakeholder consultation	Authorities	Identification	•		
		Participation	•		
		Evaluation	•		
(9) Public consultation	Authorities & Applicant	Public announcement	•		
		Display of documents	•		
		Collection of comments	•		
		Information to the public	•		

The checklist should be accompanied by a brief description of the process and a presentation of the key contacts.

Examples for the definition of objectives per activity have been developed by the Working Group during its meeting on 9th June in Bucharest on the basis of proposals which the participants of the Working Group had developed in advance. These exemplary proposals for the definition of objectives are included in the following sample checklist.

Table 2: Proposed checklist for administrative procedures including proposals for the definition of objectives per activity (example – permitting process)

<Name of the procedure under review>					
Source of Information:					
Legal basis:					
Short description:					
Contact:					
Criteria				Observations	Conclusions & recommendations
Action field	Responsibility	Activity	Objectives, for example:		
(1) Consultation of applicants	Authorities	Information	<ul style="list-style-type: none"> Support the applicant by means of an efficient information management. Access to information material (brochures etc.) - preferably in electronic format. Provision / adaptation of information as required for the specific permitting procedure for use by the applicant. Limited risk of planning failures, unnecessary losses of time and money and unrealistic expectations regarding timelines of the permitting procedure. 		
		Assistance	<ul style="list-style-type: none"> Qualified advice to the applicants with regard to the planning and performance of the application procedure. Early Problem solving. Fast and efficient implementation of the permitting procedure. Limitation of the risk of delays and failures. 		
(2) Preparation of applications	Authorities & Applicant	Definition	<ul style="list-style-type: none"> Pre-application talks and meetings, including e.g. on-site inspections, project documentation as far as already available, discussion of potential problems. Identification of critical issues. 		
		Scoping	<ul style="list-style-type: none"> Project-specific identification of required type and extent of application documents. Checklist of required input to the permitting process. Identification of the key person(s) within the involved authority(ies). 		
		Networking	<ul style="list-style-type: none"> Encourage applicants to contact relevant authorities as early as possible for initial contacts and preparatory discussions. Support communication between applicants and other authorities. Identify and avoid potential conflicts and contradictions at an early stage of the planning process. 		

<Name of the procedure under review>					
Source of Information:					
Legal basis:					
Short description:					
Contact:					
Criteria				Observations	Conclusions & recommendations
Action field	Responsibility	Activity	Objectives, for example:		
(3) Application Management	Applicant	Capacities	<ul style="list-style-type: none"> The applicant company announces an application manager who has at least: <ul style="list-style-type: none"> - technical know how. - legal and procedural know-how. - communication skills. - realistic understanding of his needs of further support. 		
		Communication	<ul style="list-style-type: none"> Fast and efficient communication with all involved public stakeholders (authorities). Acceleration of the procedure. 		
		Documentation	<ul style="list-style-type: none"> Check against the documentation needs defined during the scoping phase. 		
(4) Quality of documents	Applicant	Correctness	<ul style="list-style-type: none"> Delivered documents are elaborated on the basis of approved methods and state-of-the-art technology and know-how. 		
		Completeness	<ul style="list-style-type: none"> All documents are completed as required according to the checklist which was defined during the scoping phase. 		
		Transparency	<ul style="list-style-type: none"> Clear structure (content list and references). 		
(5) Organisation of the process	Authorities	Cooperation	<ul style="list-style-type: none"> Reliable framework conditions. Clear interfaces. Administrative and technical staff must cooperate in a spirit of mutual confidence and appreciation. 		
		Correlation	<ul style="list-style-type: none"> Clear allocation of competences and responsibilities. Provide the applicant with the appropriate and competent counterparts within administration. 		
		Coordination	<ul style="list-style-type: none"> A key person (responsible manager of the permitting procedure) within administration should perform as the main contact for the applicant and help to coordinate the contacts with other involved authorities. 		
		Concentration	<ul style="list-style-type: none"> Customer-friendly concentration of all competences in one spot (one-stop-shop) as far as possible and reasonable. 		
(6) Information flow	Authorities	Documentation	<ul style="list-style-type: none"> Systematic storage and provision of all documents and all correspondence related to the permitting procedure. 		
		Exchange of information	<ul style="list-style-type: none"> Fast and efficient sharing of information with all involved authorities (preferably in electronic formats). Fast response on relevant requests for information and consultation. 		

<Name of the procedure under review>					
Source of Information:					
Legal basis:					
Short description:					
Contact:					
Criteria				Observations	Conclusions & recommendations
Action field	Responsibility	Activity	Objectives, for example:		
(7) Qualification of authorities	Authorities	Know How	<ul style="list-style-type: none"> • Technical understanding. • Legal know how. • Procedural security and reliability. 		
		Customer orientation	<ul style="list-style-type: none"> • Service-mindedness. • Accessibility. • Availability. • Reliability. • Efficiency.. 		
(8) Stakeholder consultation	Authorities	Identification	<ul style="list-style-type: none"> • Transparent and reliable list of involved public stakeholders (authorities). 		
		Participation	<ul style="list-style-type: none"> • Efficient dissemination of documents and delivery of comments in time. 		
		Evaluation	<ul style="list-style-type: none"> • Clear criteria for the evaluation and prioritisation of received comments and objections. 		
(9) Public consultation	Authorities & Applicant	Public announcement:	<ul style="list-style-type: none"> • Clear announcement procedure. • Comprehensive announcement information. • Used communication channels and applied media. • Public awareness of and public interest in the announcement. 		
		Display of documents:	<ul style="list-style-type: none"> • Easy access to displayed documents during normal working hours and in some evenings. • Clarity and comprehensiveness of displayed documents. • Understandable wording. • Illustrative charts and informative tables. • Concise summaries. 		
		Collection of comments:	<ul style="list-style-type: none"> • Low-threshold procedure of commenting. • Clear address for the delivery of comments. • Non-discriminating format of commenting. 		
		Information to the public:	<ul style="list-style-type: none"> • Public hearings. • Notification of the applicant of the comments, as far as it is concerned. • Publication of consultation results respectively of the award of permit. 		

7.4 Conclusions and recommendations

Based upon the results of SUPPORT_ERS, the Working Group comes to the conclusion that an optimization of relevant administrative procedures, in particular of those procedures which are related to required permits, will in most cases help to promote RES-E and RES-H more successfully in the new EU Member States.

Major optimization targets should be:

- Shorten the lead-time for reducing the permit.
- Reduce the cost and effort of procedures.
- Eliminate any uncertainty of formal requirements.
- Improve the transparency of procedures.
- Minimise the risk of failure (non-award of permit).
- Avoid the contestation of permits.

It is recommended to develop optimization schemes on the basis of a methodology which makes the results comparable to best practice examples from other regions or from other countries.

The proposed checklist method and format are presenting an efficient methodology and an appropriate structure for the performance and documentation of a sound analysis of relevant administrative procedures as well as for the drawing of conclusions and the completion of recommendations for optimization measures.


It is recommended to apply this instrument for the documentation of best practice examples as well for the analysis of administrative procedures which are to be improved on the basis of experience from comparable activities in other regions or in other countries.

Consequently, the format of the checklist is also used as a for the documentation of best practice examples in D12 (see chapter 7.5).

7.5 Good practices for strengthening administrative structures

7.5.1 Introduction

In the following chapter the Working Group is presenting 8 examples for good practices for strengthening of administrative structures and procedures. These examples are taken from the following countries:

	Austria	Environmental Support Scheme for Austrian Enterprises
	Bulgaria	New aspects of energy policy in Bulgaria - Incentive mechanisms for production of electricity, heating and cooling energy from RE
	Croatia	Renewable Energy Advisory Facility (REAF) at the Ministry of Economy, Labour and Entrepreneurship - support to the project developers in administrative procedures
	Estonia	Web-based application of Guarantee of Origin
	Germany (2)	Licensing procedure with EIA in Brandenburg Energy Supply Breuberg Rai-Breitenbach with Renewable Energies
	Romania (2)	Licensing procedure and authorizations set up in electricity field Intermediate Body for Energy (IBE) - RES projects promotion in Sectoral Operational Programme Competitiveness, Priority axis 4

Examples are covering all levels of administration: National (6), Regional (1), and Local (1). The distribution of the best practice examples to the various levels of administration is, on the one hand, corresponding to the situation that in many countries, particularly in the new EU Member States, it is still the national level of administration which is playing a major role for the development of RES-E or RES-H markets.

On the other hand, experience from EU15 Member States shows that the implementation of projects promoting RES-E or RES-H is most probably depending on administrative procedures at the local or regional level. Therefore, the strengthening of local and regional level of administration will gain increasing importance in the near term in all countries represented in SUPPORT_ERS. An idea on how to develop administrative structures and procedures for RES-E and RES-H at the local and regional levels is given by the examples from Germany.

7.5.2 Presentation of good practice examples

In the following tables, the structure of the proposed checklist (see chapter 7) is used for the presentation of best practice examples.

Environmental Support Scheme for Austrian Enterprises



Source of Information:	www.public-consulting.at
Legal basis	Environmental Support Act
Short description	<p>In the frame of the Environmental Support Act the Environmental Support Scheme for Austrian Enterprises offers subsidies to companies. Companies can obtain subsidies for the use of renewable energies (precondition: standards of heating and cooling equipment have to be met), for the enhancement of energy efficiency and for other climate related measures.</p> <p>In the field of renewable energies the fund supports:</p> <ul style="list-style-type: none"> • biomass (individual plants, local heat, CHP) • heat distribution • geothermal installations • energy recovery from organic waste • solar thermal systems • electricity producing plants <p>The fund is managed by Kommunalkredit Public Consulting GmbH (KPC) on behalf of the Federal Ministry of Agriculture and Forestry, Environment and Water Management. In 2006 2,333 projects with a total investment volume of € 437.6 million and a total funding of € 75.7 million were supported.</p>
Action fields:	Activities / Description
(1) Consultation of Applicants	<p>Information / Assistance:</p> <p>Besides folders and brochures being printed, information on the Environmental Subsidy Scheme for Austrian Enterprises is mainly provided online. Furthermore, staff of the Kommunalkredit Public Consulting GmbH also inform potential beneficiaries via phone and they organise workshops and seminars.</p>
(2) Preparation of applications	<p>Definition:</p> <p>Detailed information on the necessary application documents is available on the website from which the relevant documents can be downloaded. Specific information on the eligibility criteria is also available online. Personal guidance on how to fill the application documents is also provided when necessary.</p> <p>Screening & Scoping:</p> <p>When applying for a subsidy in the framework of the Environmental Subsidy Scheme for Austrian enterprises, technical and economic criteria have to be met. The criteria are laid down in a handbook and in specific information sheets. When applying for funding, the following indicators have to be filled in the application form:</p> <p><u>Core indicators:</u></p> <ul style="list-style-type: none"> ▪ Size of the company (SME, big enterprise) and type of company ▪ Dimension of environmental impact regarding pollution (in accordance with statutory requirements/positive impacts/very positive impacts) ▪ Dimension of environmental impact regarding consumption of resources (in accordance with statutory requirements/positive impacts/very positive impacts) ▪ Dimension of environmental impact regarding biodiversity (in accordance with statutory requirements/positive impacts/very positive impacts) ▪ Dimension of environmental impact regarding waste (in accordance with statutory requirements/positive impacts/very positive impacts) ▪ Project location (urban/rural) ▪ Project impact regarding equal opportunities <p><u>Environmental indicators:</u></p> <p>Reduction of: Dust, SO₂, NO_x, Volatile hydrocarbon, Sewage water, BOD₅, COD, Waste, Coal, Oil, Gas, Electricity</p> <p>Production of: Biomass, Biogas, Solar energy</p>



	<p>In addition to specifying the core and environmental indicators, technical data has to be supplied in order to assess the project's environmental impact. For each project type, a technical data sheet was elaborated and can be downloaded from the website of the KPC. Examples of such technical data sheet will be enclosed in the appendix. Depending on the type of project, it is required to fill in data on the expected reduction of emissions, waste and noise, the type of energy source used before and after implementation of the project, the expected energy savings and the efficiency of the technology.</p>
<p>(3) Application management (4) Quality of documents (5) Organisation of the permitting procedure (6) Information flow</p>	<p>The most important steps when submitting a project in the framework of the Environmental Subsidy Scheme for Austrian Enterprises are:</p> <ol style="list-style-type: none"> 1. Application The applicant has to submit his request for funding before the project is actually implemented. As soon as the request for funding is submitted, the applicant can start with the implementation of the project. However, he/she has to bear in mind that his/her request for funding can be rejected. 2. Processing Experts check whether the project is technically and economically eligible for funding. In case any documents are missing, the application has to hand in the missing documents. It usually takes between three to six months to process a request for funding (depending on the quality and complexity of the proposal). 3. Recommendation of funding The experts inform the applicant about the amount of funding he/she might receive. The applicant is entitled to comment on the recommendation of funding. 4. Final check by the Commission, approval by the Minister of Environmental Affairs The Commission has to approve the proposal before the Minister of Environmental Affairs grants funding for the proposed action. 5. Contract issuance and contract acceptance The funding authority sends the contract to the applicant who has to sign the contract and return it to the funding authority. 6. Project finalisation No longer than 12 months after completion of the project, the applicant has to issue a final settlement (including invoices, receipts of payments, etc.) and present it to the funding authority. 7. Final settlement The funding authority checks the final settlement. In case any documents are missing, the application has to hand in the missing documents. 8. Payment The funding authority informs the applicant about the results of the final settlement and authorises the payment of the subsidy to the applicant. 9. Monitoring In order to make sure that the project has a positive environmental effect, it is subject to random inspections. <i>It has to be noted that the implementation of the project should take no longer than two years (exceptions possible).</i>

Environmental Support Scheme for Austrian Enterprises





<p>(7) Qualification of authorities; Monitoring & Evaluation</p>	<p>Monitoring:</p> <p>In the framework of the Environmental Subsidy Scheme for Austrian Enterprises, evaluators are chosen according to their experience and specific know-how in evaluating a project. In general, every project is evaluated by two evaluators.</p> <p>Investors are aware that they will be monitored throughout the project and have to accept technical visits as well as to supply information and data when being asked to. The monitoring procedure is also specified in the support contract.</p> <p>Information supplied for monitoring must include cost sheets as well as technical information on the project. Each project is monitored according to the current stage of realization</p>
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New aspects of energy policy in Bulgaria - Incentive mechanisms for production of electricity, heating and cooling energy from RE



<p>Source of Information:</p>	<p>Ministry of economy, energy and transport State Commission for Energy and Water Regulation Energy Efficiency Agency</p>
<p>Legal basis</p>	<ul style="list-style-type: none"> • Law on the Renewable and Alternative Sources of Energy and the Biofuels • Law on Energy Efficiency • Decision on the State Commission for Energy and Water Regulation
<p>Short description</p>	<p>The Bulgarian energy policy is dynamically updated in harmony to the latest European energy policy, based on climate changes, depletion of energy resources and increased energy consumption of the society. As part on the EU Bulgaria has to fulfil the requirements on the package "Energy and Climate" the so called "triple 20-20-20" targets of the EU, which must be reached by the year 2020. The national indicative target of Bulgaria, considering the national potential and specific conditions will be 16% RES energy in the final energy consumption by 2020. In the year 2008 it was 8%, by 2009 it was 9,4%.</p> <p>RES share in the Bulgarian energy mix: The consumption of biomass was increased 3.3 times in the period 1997-2006 and the share of biomass in the RES mix in 2006 was 67 %. 80-85 % of the biomass is firewood used for heating. The share of hydroelectricity in the RES mix in 2006 is 30 %. The electricity produced from hydro energy is with high energy value for final consumers compared to biomass. The hydroelectricity is also the cheapest electricity produced from RES. The share of other RES (geothermal, solar and wind) is only 3 % in the RES mix and the price of the energy produced is relatively high.</p> <p>The new law on the use of RES, AES and biofuels opens the land for new investments in this area by offering a couple of incentives:</p> <ul style="list-style-type: none"> • Priority connection of the RES/AER electricity producer to the grid • Preferential prices • 25 years – electricity from geothermal and solar RES • 15 years – electricity from HPP less 10 MW and other RES • Origin certificates not only for electricity but also for heating energy from RES, • Every year by 31 March the State Commission for Energy and Water Regulation determines the preferential prices for selling electric energy, generated from renewable or alternative energy sources, except for the energy, produced by hydroelectric power plants with installed capacity over 10 MW. <p>Preferential prices for electricity from RES after 01.04.2010:</p> <ul style="list-style-type: none"> • Hydropower plants (to 10 MW) – 56.65 Euro/MWh. • Solar PV plants (to 5 kWp) – 405.4 Euro/MWh. • Solar PV plants (above 5 kWp) –372.88 Euro/MWh. • Biomass and waste for producing electricity - between 61.02 and 131.22 Euro/ MWh., depending on the art of used biomass and waste.

New aspects of energy policy in Bulgaria - Incentive mechanisms for production of electricity, heating and cooling energy from RE 	
	<ul style="list-style-type: none"> • For wind installations with capacity < 800 kW (all are old) – 76,08 Euro/MWh. • For wind installations with capacity ≥ 800 kW and effective working hours less than 2250 h.- 97,48 Euro/MWh. • For wind installations with capacity ≥ 800 kW and effective working hours more than 2 250 h – 81,19 Euro/MWh. <p>All prices are given excluding VAT.</p> <p>The State Commission for Energy and Water Regulation has set the feed-in tariffs also for small hydro power plants with installed capacity up to 5MW new price as following:</p> <ul style="list-style-type: none"> • For low pressure axes hydro power plants – 78,02 Euro/MWh, excluding VAT. • For low pressure apron hydro power plants – 102,3 Euro/ MWh, excluding VAT. <p>As result from this policy at the moment RES projects with capacity around 12 000 MW are waiting for approval from the Ministry of economy, energy and tourism.</p>

Renewable Energy Advisory Facility (REAF) at the Ministry of Economy, Labour and Entrepreneurship - support to the project developers in administrative procedures 	
Source of Information:	Domagoj Validžić, Head of Renewable Energy Division, Ministry of Economy, Labour and Entrepreneurship (MoELE)
Legal basis	The Energy Act (OG 68/01, 177/04, 76/07 and 152/08) and The Electricity Market Act (OG 177/04, 76/07 and 152/08); Regulation on Acquiring the Status of Eligible Electricity Producer (OG 67/07); Regulation on Renewable Energy Sources and Cogeneration Utilisation (OG 67/07); Tariff System for Production of Electricity Production from Renewable Energy Sources and Cogeneration (OG 33/07); Regulation on Compensation for Renewable Energy Sources and Cogeneration Electricity Incentives (OG 33/07) and Regulation on the Minimum Share of Renewable Energy Sources and Cogeneration in Electricity Supply (OG 33/07)
Short description	<p>Renewable Energy Advisory Facility was established in September 2008 in the framework of the Renewable Energy Resources Project (GEF/IBRD Grant - TF054973, Project No. P071464).</p> <p>The objective of the REAF is to provide technical assistance necessary for successful activity in project preparation support, especially in support to project developers in administrative procedure issues related to prior and final authorization of the renewable energy sources (RES) projects, as well as other administrative steps that RES projects have to undertake. The technical assistance will increase the capacity of MoELE to provide such support, even after this technical assistance ends (31 March 2010). On the basis of the aforementioned, the main tasks of the REAF are:</p> <ul style="list-style-type: none"> - to provide project preparation support and know-how to project developers, - to provide support in handling the Registry of Renewable Energy Resource and Cogeneration Projects and Privileged Producers, - capacity building of MoELE in project preparation support.
Action fields:	Description
(1) Consultation of Applicants	<p>Information / Assistance:</p> <p>REAF provides support to the applicant by giving advices and know-how on financing, permitting, feasibility studies, contracting, technical issues and other development activities.</p>
(2) Preparation of applications	<p>Definition:</p> <p>REAF provides pre-application talks and meetings, including brief review of project documentation as far as it is already available, discussion of potential problems, identification of critical issues etc.</p> <p>Screening & Scoping:</p> <p>REAF gives information on required documents and procedures for every specific project, support in identification of the key persons within the involved authorities, and prepares</p>

**Renewable Energy Advisory Facility (REAF) at the Ministry of Economy,
Labour and Entrepreneurship - support to the project developers
in administrative procedures**



	support letter. In the support letter, REAF stresses importance of the project in order to support communication between applicants and authorities.
(3) Application management (4) Quality of documents	<p>Capacities / Communication / Documentation: Correctness / Completeness / Transparency:</p> <p>REAF checks the applicant documentation required for Preliminary Energy Approval and Energy Approval, i.e. approvals which are in the scope of responsibility of the Ministry of Economy, Labour and Entrepreneurship. For other steps of the procedure for acquiring eligible producer status, REAF also gives advices and above mentioned support.</p>
(5) Organisation of the permitting procedure	<p>Cooperation / Correlation / Coordination / Concentration:</p> <p>REAF is responsible for communication with applicants and for clarification of administrative procedures. REAF provides all necessary information to the applicant. However, the applicant has to contact directly all involved institutions in administrative procedures.</p>
(6) Information flow	<p>Exchange of information:</p> <p>REAF gives fast response on relevant requests for information and consultation in the scope of its responsibilities. Within the framework of its role, REAF is an information point, where project developers are able to obtain useful information for the preparation and development of the projects.</p>
(7) Qualification of authorities	<p>Know How:</p> <p>REAF has technical know how and procedural security and reliability, but not legal know how. For legal know how, external help is engaged.</p> <p>Customer-orientation:</p> <p>REAF's support is focused on assisting the applicants with regard to clarification of procedures (permitting, financing), as well as technical and management advising in order to avoid failures and save unnecessary cost.</p>
(8) Public stakeholders (other authorities) consultation	<p>Identification / Information / Participation:</p> <p>REAF gives list of authorities which are involved in the administrative procedures, on request. But, REAF is not responsible for efficient dissemination of documents neither for clear criteria for the evaluation and prioritisation of received comments and objections.</p>
(9) Public consultation	<p>Public announcement / Display of or access to documents / Collection of comments / Information to the public:</p> <p>Each RES project, after receiving Preliminary Energy Approval or Energy Approval (for RES projects with installed capacity less than 30 kW Preliminary Energy Approval is not needed), has to be announced on MOELE web page (http://www.mingo.hr/, click RES & COGEN Projects Registry).</p>

Web-based application of Guarantee of Origin



Source of Information:	Web page of National Grid Company (English version available http://www.elering.ee/index.php?id=229%2520%2520%2527&L=1)
Legal basis	Electricity Market Act
Short description	Based upon the Electricity Market Act at the request of a producer, a transmission network operator has to issue to the producer a guarantee of origin certifying that the producer generated electricity from renewable energy sources or in efficient cogeneration regime. A transmission network operator has to create a database for the administration of guarantees of origin and has to publish information regarding the issued guarantees of origin on its webpage.
Action fields:	Description
(1) Consultation of Applicants	Information / Assistance: Besides reminders for monthly responsibilities for the market participants (incl. RES-related) the web-page also contains list of different on-line application forms and guidelines for filling in the application forms.
(2) Applying the Guarantee of origin of electricity generated from renewable energy sources (§58)	Definition: Guarantees of origin of electricity generated from renewable energy sources are issued monthly and shall set out: 1)the name, address of the seat and details of the producer; 2)the name of the energy source used for the generation of electricity and the place of generation; 3)the amount of electricity generated in megawatt-hours, the period of generation, the time for generation in hours and the date of issue of the guarantee of origin; 4)the amount of electricity in megawatt-hours, which is sold during the period (specified in clause 3 of this subsection by using the support or the purchase obligation specified in § 59 of this Act); 5)the capacity of generating installations if electricity is generated in a hydroelectric station; 6)other information established by the distribution network operator.
(3) Application management	Capacities / Communication / Documentation: Correctness / Completeness / Transparency: Transmission network operator has resolved obligation to issue the certificates by web-based solution where the application is filled by the applicant in the on-line environment. As a result the work load of the transmission operator has decreased and it is easier to publish the data on the web-page. For applicants the service is quicker and for the issuer the work load has decreased.
(4) Quality of documents	Transmission network operator checks the provided data and issues certificate if the data presented turns out to be correct.

Licensing procedure with EIA in Brandenburg



Source of Information:	Mr. Sebastian Dorn, Head of Permitting Procedure Unit State Agency of the Environment Brandenburg, Potsdam <i>Landesumweltamt Brandenburg (LUA)</i>
Legal basis	Brandenburg Law on the Environmental Impact Assessment <i>Brandenburgisches Gesetz über die Umweltverträglichkeitsprüfung (UVPG)</i>
Short description	Based upon the UVPG, which is inspired by a high level of political responsibility for the environment, the LUA established an efficient <u>one-shop-stop</u> solution for the handling of licensing procedures with EIA in the State of Brandenburg. This procedure is aiming, among other things, on: <ul style="list-style-type: none"> - effective protection of the environment - efficient administration of licensing procedures - appropriate involvement of other authorities - fair public participation. The LUA is dedicated to finalise the decision making process from the delivery of application documents up to the issuing of the licensing documents within a maximum of 6 months .
Action fields:	Description
(1) Consultation of Applicants	Information / Assistance: LUA as the technical authority seconded to the Ministry of Environmental affairs is in the position to provide all required information to the applicant, a major part of it via the internet, and to provide substantial advice regarding the the planning, preparation and presentation of required studies and documents, if requested.
(2) Preparation of applications (§§ 3, 5, Annex 1 and Annex 2 UVPG)	Definition: LUA is giving the applicant a clear advice whether the project is subject to an EIA or not, based upon the criteria as stipulated in the UVPG. This advice is normally given within a few days following the announcement of the project to the LUA Screening & Scoping: This is a major step of the procedure for an EIA. Each individual project is screened with regard to its potential environmental impact. On the basis of the screening, The applicant is given a clear and reliable list of criteria which are to be studied and of documents which are to be delivered for the purpose of the specific project (scoping).
(3) Application management (4) Quality of documents	Capacities / Communication / Documentation: Correctness / Completeness / Transparence: Based upon the scoping of the procedure, it is the applicants own responsibility to compile the necessary documentation, be it by means of his own staff or by means of external experts. LUA is prepared to support the applicant and his consulting engineers by means of technical and legal advice, if requested.
(5) Organisation of the permitting procedure	Cooperation / Correlation / Coordination: The LUA is the applicant's only direct contact throughout the official licensing procedure. All other authorities are involved by LUA directly. Contacts of the applicant to other authorities may be helpful in order to accelerate the process, but they are not mandatory. Concentration: LUA is serving the applicants as a one-stop-shop for the whole licensing procedure.
(6) Information flow	Exchange of information: All participating authorities are sent the full set of documentation which was delivered by the applicant to LUA.

Licensing procedure with EIA in Brandenburg





<p>(7) Qualification of authorities</p>	<p>Know How: LUA as the technical authority seconded to the Ministry of Environmental affairs has all the required technical and legal expertise in-house.</p> <p>Customer-orientation: High priority is put on assisting the applicants with regard to:</p> <ul style="list-style-type: none"> - avoiding failures, - saving unnecessary cost, - minimising delays.
<p>(8) Public stakeholders (other authorities) consultation (§7 UVPG)</p>	<p>Identification: Clear list of authorities which have to participate.</p> <p>Information: Participating authorities will be sent the full documentation related tot he application.</p> <p>Participation: Participating authorities have to give their comments within a defined period of time. No response means “no objections”.</p>
<p>(9) Public consultation (§9 UVPG)</p>	<p>Public announcement: Each project which is subject to an EIA has to be announced to the public in the official media.</p> <p>Display of / access to documents: All documents submitted by the applicant are on display for a sufficient period of time upon public announcement.</p> <p>Collection of comments: Everybody is invited to notify the LUA of his or her specific comments or objections regarding the project.</p> <p>Information to the public: The public is informed about the decisions. The pursuit of claims in the subsequent approval procedure is not affected...</p>

Energy Supply Breuberg Rai-Breitenbach with Renewable Energies



Source of Information:	Mr. Stapp, project initiator and municipal administrator Rai-Breitenbach Homepage http://www.bioenergiedorf-odenwald.de/deutsch/wissenstransfer/realisierung/
Short description	<p>In the German Municipality of Breuberg Rai-Breitenbach an out-of-date heating system operated with heating oil was to be replaced by a combined biomass heat and power station. About 900 inhabitants and two schools with about 1200 pupils were to be supplied with 100% renewable energy from a combined biomass heat and power station plus photovoltaic.</p> <p>Timeframe: January 2005: First contact to a municipality which had implemented a corresponding system successfully. August 2008: Start of local heat supply for 150 households and two schools with combined biomass heat and power station plus photovoltaic</p> <p>Authorities involved in the permitting procedure: district office, regional council</p> <p>The project's fast realization was facilitated through: the applicant's highly proactive commitment; authorities which conducted the permitting procedure adequately, not hindering it; excellent consultation through the association of co-operatives, banks (particularly KfW, offering support to encourage sustainable improvement in economic, social, ecological living and business conditions), and the district building authority; the applicant's project design (1. early and binding commitment of interested parties: at an early stage in the project inhabitants/schools were requested to join and pay a first interest for the newly founded association; 2. the restricted size of the project creates a strong inducement to participate: the heat and power station is designed for a restricted number of users and interested parties need to sign fast in order to be able to participate)</p>
Action fields:	Description
(1) Consultation of Applicants	Information/Assistance: The applicant collects information on his own initiative, supported by external consultation (association of co-operatives, banks/KfW, district building authority)
(2) Preparation of applications	<p>Definition/Scoping: The application's definition and scoping is realized through the applicant's initiative in cooperation with: municipalities which have realized similar projects successfully; authorities, e.g. environmental ministry, building authority; experts for the formation of a cooperative; investors (KfW); interested inhabitants and schools (as future members of the cooperative and customers of heat and power).</p> <p>Networking: The networking with relevant authorities and stakeholders in general is based on the applicant's initiative.</p>
(3) Application management (4) Quality of documents	<p>Capacities / Communication / Documentation: The applicant is backed by the cooperative's management. In charge of the permitting procedure's accomplishment are two members. Furthermore the cooperative installs workgroups to take over tasks.</p> <p>Correctness / Completeness / Transparency: Documents for the permitting procedure are based on the information gathered for the procedure, advice from model municipalities which have passed similar procedures successfully, and advice from experts (association of cooperatives, bank, authorities) and therefore support an efficient permitting procedure.</p>
(5) Organisation of the permitting procedure	<p>Cooperation: Cooperation with authorities in charge of the permitting procedure proves to be positive, not complicating the procedure's success.</p> <p>Correlation / Coordination / Concentration: Several authorities with contact persons of their own are involved in the procedure. There is no concentration on one key person or a one-stop-shop.</p>

Energy Supply Breuberg Rai-Breitenbach with Renewable Energies 	
(6) Information flow	Exchange of information: The sharing of information is efficient, not obstructing the procedure.
(7) Qualification of authorities	Know How: Authorities involved in the procedure prove to be competent. Additionally the applicant largely relies on external information (e.g. ministry of the environment, association of cooperatives, KfW). Customer-orientation: Authorities are available for the applicant and support the procedure.
(8) Public stakeholders (other authorities) consultation	Identification: The applicant obtains a list of involved stakeholders. Participation / Evaluation: Authorities support the timely permitting procedure through their adequate handling of documents and comments.
(9) Public consultation	Public announcement / Display of / access to documents / Collection of comments/Information to the public: The applicant cares for information and integration of the public: information about model projects; "energy Sundays" for the acquisition of possible customers for heat and power as well as for the cooperative constitution's preparation; information tour to model project.

Licensing procedure and authorizations set up in electricity field 	
Source of Information:	Romanian Energy Regulatory Authority - ANRE
Legal basis	Government Decision no. 540/2004 modified by Government Decision no. 553/2007
Short description	The mentioned Government Decision (GD) establishes the procedure for licensing and authorisation set up within electricity sector including cogeneration. According to its provision, the competent authority gives authorization set up for: <ul style="list-style-type: none"> ○ necessary works for new electricity production unit or cogeneration units implementation, if the capacity of the unit is higher than 1 MW; ○ necessary works for refurbishment of an existing electricity production unit or cogeneration unit having more than 1 MW. There is no need authorization set up for electricity production unit or cogeneration unit having less than 1 MW. The competent authority will emit the decision for getting set up authorization or licences in maximum 60 days from the registration of the complete dossier. In case of electricity production units or cogeneration units using RES and for high efficiency cogeneration, the mentioned period of time it is reduced at 30 days.
Action fields:	Description
(1) Consultation of Applicants	Information/Assistance: Based on this Government Decision, the applicants can reduce the period for obtaining setting up authorization or licences.
(2) Preparation of applications	Definition/Screening & Scoping: ANRE provide information related to completion of the documents attached to the application for obtaining set up authorization or licences.
(3) Application	Capacities/Communication/Documentation: Correctness/Completeness/Transparency: ANRE checks the correctness of the application and ask for completion.

Licensing procedure and authorizations set up in electricity field



**management
(4) Quality of
documents**

The authorization or licences are provided based on complete application after the tax payment.

Intermediate Body for Energy (IBE) - RES projects promotion in Sectoral Operational Programme Competitiveness, Priority axis 4



<p>Source of Information:</p>	<p>Intermediary Body for Energy www.http://oie.minind.ro/</p>
<p>Legal basis</p>	<p>Governmental Decision 718/2008: regarding the approval of horizontal state aid scheme for regional sustainable development and emission reduction; GD 750/2008 regarding the approval of regional state aid scheme for recovery of renewable resources energy; GD 497/2004 establishing the institutional framework for coordination, implementation and management of structural instruments; Decision no. 28/2008 regarding the approval of the framework content of technical and economic documents related to public investment, and the structure and methodology for developing the general estimate the investment objectives and interventions work; Decision no. 759/2007 rules on eligibility of expenses incurred in the operations financed by operational programs; GD no.1069/2007 approving Romania's Energy Strategy for 2007-2020; Law no.13/2007 Energy Law; Law no 199/2000 Energy efficiency; Law no 443/2003 the promotion of electricity from renewable energy sources with subsequent additions and amendments; Decision no.1535/2003 approving the Strategy for the use of renewable sources;</p>
<p>Short description</p>	<p>The SOP IEC Managing Authority is responsible for managing and implementing the operational program in accordance with the principle of sound financial management and in particular for:</p> <p>a) ensuring that operations selected for funding in accordance with the criteria applicable to the operational program and that they comply with applicable Community and national rules for the whole of their implementation period;</p> <p>b) verifying that the co-financed products and services are delivered and that the expenditure declared by the beneficiaries for operations has actually been incurred and complies with Community and national rules; verifications on-the-spot of individual operations may be carried out on a sample basis in accordance with the detailed rules of the Commission in accordance with the procedure referred to in Article 103(3);</p> <p>c) ensuring that there is a system for recording and storing in computerized form accounting records for each operation under the operational program and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation are collected;</p> <p>d) ensuring that beneficiaries and other bodies involved in the implementation of operations maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation without prejudice to national accounting rules;</p> <p>e) ensuring that the evaluations of operational programs referred to in Article 48(3) are carried out in accordance with Article 47;</p> <p>f) setting up procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit trail are held in accordance with the requirements of Article 90;</p> <p>g) ensuring that the certifying authority receives all necessary information on the procedures and verifications carried out in relation to expenditure for the purpose of certification;</p> <p>h) guiding the work of the monitoring committee and providing it with the documents required to permit the quality of the implementation of the operational program to be monitored in the light of its specific goals;</p> <p>i) drawing up and, after approval by the monitoring committee, submitting to the</p>

Licensing procedure and authorizations set up in electricity field



	<p>Commission the annual and final reports on implementation;</p> <p>j) ensuring compliance with the information and publicity requirements laid down in Article 69;</p> <p>k) providing the Commission with information to allow it to appraise major projects.</p>
Action fields:	Description
(1) Consultation of Applicants	<p>Information / Assistance:</p> <p>IBE provides to applicants guidelines related to how an application has to be prepared in order to obtain non-reimbursable funds for a project implementation in energy field, including RES</p>
(2) Preparation of applications	<p>Definition:</p> <p>IBE organize seminars where are presented the procedures for providing an application for RES project implementation under SOP Competitiveness.</p> <p>Screening & Scoping:</p> <p>IBE announces the projects submission session and provide answers to the questions addressed by the applicants in relation with application preparation. The addressed questions and answers are made public via its webpage.</p>
(3) Application management	<p>Capacities/Communication/Documentation</p> <p>Correctness/Completeness/Transparency</p> <p>The applications provided under a projects session are evaluated by a group of experts according to a set of criteria made public through the specific application guidelines.</p>
(4) Quality of documents	<p>IBE has a webpage where are published all the relevant information related to the applications sessions, questions from applicants and provided answers, selected applications for financing, allocated budgets, etc.</p> <p>IBE checks the submitted applications and asked for supplementary information if required in order to complete and making clear the project.</p>
(5) Organisation of the permitting procedure	<p>Cooperation/Correlation/Coordination/Concentration:</p> <p>IBE advises the applicants for necessary permits. However the applicant has to contact directly all involved institutions in administrative procedures of the project.</p>
(6) Information flow	<p>Exchange of information:</p> <p>IBE gives answers to the addressed questions and make public via its webpage all the addressed questions and answers.</p>
(7) Qualification of authorities	<p>Know How/Customer-orientation:</p> <p>IBE support is focused on identification of the best projects for providing financing under SOP Competitiveness based on a transparent selection procedure publicly known.</p>
(8) Public stakeholders (other authorities) consultation	<p>Identification/Information/Participation:</p> <p>Each applicants has to know and directly contact the authorities in charge for</p>
(9) Public consultation	<p>Public announcement/Display of documents/Collection of comments/Information to the public:</p> <p>IBE announces through its webpage the opening/closing of projects sessions, the list of financed projects and the stage of implementation for the financed projects</p>

8. Capacity building at regional level

One of objectives of the SUPPORT_ERS project is to raise awareness for RES issues on regional level. The WP5 of the project address the following specific aims:

- to strengthen capacities of regional administrations and stakeholders to implement RES projects,
- to develop training modules for RES,
- to train regional administrations and stakeholders in selected pilot regions,
- to provide external expertise and experiences from partner regions,
- to establish partnerships and exchange of experiences between regions and communes in the partner countries and the enerccites network.

One of main issues in the process of awareness raising is to mediate the information and train the responsible persons from national, regional and local administration and stakeholders, therefore it is necessary to prepare the training programme focused specifically on their needs. Because of different policy priorities and local conditions in the participating countries, especially those in which training seminars would be held, it is suitable to prepare the programme using training modules that are adaptable and have to be amended to specific conditions of the participating countries.

The purpose of the training is to give overview to the responsible persons for RES issues on:

- EU legislation framework, national framework and support mechanisms,
- benefits from RES, examples from other regions,
- scheme of project development and project funding by structural funds,
- information on possibilities to integrate RES into spatial and regional planning.

This training modules document is focused from the content to responsible persons but from the form to lecturers as their background supporting document for preparation of common part of their lectures used during the regional seminars. As such, this document is a part of a broader framework which is based on the outcomes of other WP of this project.

Preparation of regional seminar has in general two main aspects:

- general organisational recommendations,
- structure of modular content.

8.1 General organisational recommendations

The first step in regional seminar preparation is to define a target group and a key message of the event.

Because the RES issue and their implementation concerns a lot of different stakeholders which play different roles, it represents a very broad target group – representatives of state administration and other policy makers, regional and local authorities, energy agencies, municipalities and their associations, manufacturers and their industry associations, financial institutions, designers, installers, researchers.

Key message of the event depends on information or problems which you want to address to the target group and the expected outcomes what you want to achieve. For this reason, focus of the seminar is partly depending on what kind of RES you want to discuss in your national context. For example it could be RES in general, policy issues, biomass with combination of heating/cooling, biogas in combination with CHP, heat pumps with combination of heating/cooling, solar thermal in combination with heating/domestic hot water preparation, PV electricity generation, small hydropower generation, waste management, wind, etc. There is also important moment whether you want to give the participants only information about issue or you want to have a discussion increasing awareness on practical problems or with possible suggestions e.g. how to proceed with barriers and what could be next development of the particular issue.

Training seminars and texts in lectures have to be based on the outcomes of several WPs, e.g. the interview summary and barriers assessment (WP3). Interview summary is important for definition of speakers and invited guests.

Lectures should stimulate an open debate with key stakeholders, municipalities, state administration.

We propose to use short lectures (15, max. 30 minutes including 10 minutes discussion) which use partly the common text from modular content. From the practical point of view is more convenient to have a discussion immediately after the particular lecture and not after the block of lectures.

The lectures could be divided as follows – two short blocks (first – 1., 2. and final one – 8.), and other larger modular blocks (e.g. two/three large in the morning – 3., 4., 5., two in the afternoon – 6., 7.) depending on message of the event. Total time of the event could be cca. 8 hours (e.g. 9 AM – 5 PM). This structure is only optional and should be adapted to local condition of regional seminar. Proposed structure and content of lectures at the regional seminar:

0. Registration

1. Welcome, introduction to content of the seminar

2. General overview of the SUPPORT_ERS Project (what is already done, module by module)

3. Framework conditions for realisation of RES projects

(legal and administrative conditions, EU RES strategy, national and EU targets, prepared national legislation, situation on national RES market)

4. Financing of RES projects

(in general - EU Structural funds, other funding possibilities, financial support mechanisms locally available ...)

5. Experiences with preparation and realization of RES projects in particular region

6. Examples of best support schemes, practices and projects for RES in other EU regions

(by foreign lecturers - European examples on framework conditions, market and technology development, financing, possibilities of interregional partnerships ...)

7. Presentations on potential of particular RES utilization and development in particular country

(current state, barriers and proposed recommendations to improve the existing situation)

8. Final discussion, summary, conclusions and end of seminar

Because of attendance of foreign lecturers or other foreign participants which do not speak local language, it is more convenient and time saving to have a provision of simultaneous translation and not semi-parallel translation.

At the end of the meeting, there is necessity to make a summary from the meeting, define conclusions and possible recommendations, introduce next steps (if any) and close the meeting.

At the beginning of the seminar it is recommended to prepare a registration and attendance list of participants.

We recommend to gather as a feedback from participants an evaluation form (example is in Annex 1) at the end of the regional seminar.

For the continuation purposes and future use is very suitable to prepare a minutes from the regional seminar.

8.2 Modular content of the regional seminar

To get approximately the same content of each regional seminar and common level of understanding of the main parts of RES policy implementation (e.g. EU RES legislation and targets, support mechanisms, use of Structural Funds, RES implementation barriers, RES in spatial planning) we propose to use this text as a background databank of text for lectures following modular structure. It could be a good tool for efficient preparation of common parts of lectures.

Definition of modules for lectures is liberal; we suggest only the basic structure. Naturally, the lectures could have the possibility to choose only a part of texts by the lecturers, adapt them for the lecture with respect to the target group and priorities of each regional seminar. Modules shall reflect the national situation and focus on RES with most perspective potential e.g. RES-H by biomass, solar-thermal, small hydro power plants, wind.

The texts could be used as the source for slides in lectures.

Module 1 – Legal framework overview, EU and national targets SUPPORT_ERS Project overview

The main aim of this module is to obtain a general overview on EU legislation and conceptual documents focused on RES at EU level and respective national targets connected to the EU legislation. Because of different national policy priorities and preferences of different types of RES used for different purposes, it is necessary that lecturer adapts the text to the national context of his/her country (e.g. national targets and available related data). In general, participants could have to get in the lectures an overview on national legislation and conceptual documents with short description.

This is an introductory module, therefore it is necessary to include also presentation giving SUPPORT_ERS Project overview.

Module 2 – Support mechanisms on EU, national, regional level

Support mechanisms for RES-H/C and also RES-E represent for these technologies very important policy component. Overview of supporting schemes' principles is based on basic findings done in WP2 of this project. During regional seminars lecturers have to present overview of national supporting schemes with short description. There exists also option to present and then have a discussion about successfully financed local projects or about examples of best support schemes from partner countries.

Module 3 – How to prepare a RES project under the Structural Funds

Structural Funds are one of the main sources used for financing of RES projects. In this module you can find some general rules that you should take into account when designing a project financed from the Structural Funds. Because the procedure and main documents for Structural Funds could differ from member state to member state, it is necessary to check it

and individually adapt it to national conditions. It must be reflected also in the lectures for regional seminar.

In section M3.1 you can find an advice on how to identify the appropriate Operational Programmes for your project and the eligible beneficiaries. In section M3.2 you learn where to seek conditions of the financial help and in section M3.3 you find the list of basic data that you need when filling out an application form.

Module 4 – RES development barriers

One of the main aims of the Intelligent Energy – Europe programme is to contribute to decreasing or elimination of different non-technological barriers. These barriers can differ from country to country depending on technology, legislation and other aspects, some of them could be also country specific. This module is therefore generally based on findings of WP3 of this project, but due to country specific content, it must be amended and addressed in lectures individually according to national conditions.

In this part of lectures for regional seminar, the focus have to be set on administrative and information barriers – e.g. number of authorities involved, tripping time, number of required approvals, central contact point for potential investors and other occurred national barriers.

Very good information could be obtain from foreign lecturers about best practices from other countries – how do they deal with barriers.

Very useful is to induce an open debate between the stakeholders (e.g. representatives of state authorities, regulatory institutions, municipalities, manufacturers of different technologies, developers, designers, financial institutions, consumers, owners) about their point of view – what and how can be improved.

Frequently identified barriers are of different nature:

Legislative and regulatory barriers

- country specific legal framework,
- incoherence of politics and regulations with other fields, unstable policy framework,
- lack of harmonization for the normative development on regional level,
- missing the obligation to buy-out electricity from RES defined in an Act,
- missing stable long-term conditions concerning the feed-in tariffs of the electricity,
- missing local and regional energy planning – poor integration of RES,
- no transparency and discriminatory rules for the grid connection,
- lack of technical standards (biofuels),
- poor statistics.

Administrative barriers

- high number of authorities involved,
- long and complicated concession application procedure, poor transparency of application procedure,
- lack of co-ordination between different institutions and authorities,

- administrative slowness in authorizations and reports - many approval steps for planning, building and operation.

Information barriers

- low awareness of RES benefits on regional and local level,
- government's scepticism towards RES,
- different social aspects and public acceptance mainly at local level,

Financial barriers

- missing financial support schemes for RES,
- low predictability of capital subsidies and cash flow,
- lack of information on available funding opportunities (at national and partially European levels),
- bureaucratic schemes for state support funding,
- lack of interest from banks.

Module 5 – Integration of RES into the spatial and regional planning

Implementation of renewable energy sources into the spatial and regional planning represents one of the key issues in support of the RES utilization. It must be done wherever it is suitable, efficient, cost-effective and does not destroy economic competition. That represents systematic approach.

RES are mostly used for heating/cooling purposes and electricity generation, i.e. the energy production and consumption are mostly concentrated on local level, e. g. in district heating/cooling systems (macro view) or directly in buildings (micro view).

Because of different legislation conditions and building codes in EU countries, the proposed general algorithm for integration of RES into the spatial and regional planning should be checked and optionally individually adapted to national conditions.

Module 6 – Summary, recommendations, end

At the end of the meeting, there is necessity to make a summary from the meeting, define conclusions and possible recommendations, introduce next steps (if any) and close the meeting.

9. Regional Seminars

9.1 Regional Seminar in Bucharest, Romania (June 2009)



The seminar starts at 9.30 with registration of the participants. At 9.45 a welcome speech was addressed by Mr. Marian Dobrin – representative of Institute for Studies and Power Engineering Romania (ISPE). In his speech Mr. Marian Dobrin emphasise the important role that renewable energy sources have at global level and their contribution to reduce the GHG emission. In this respect is necessary that more and more people to learn about RES potential and their possible contribution in replacing the conventional energy sources as coal and hydrocarbons.

Following his speech, Mr. Marian Dobrin passed the microphone to Mr. Florin Beiu - Counsellor within Ministry of Agriculture and Rural Development, SOP Rural Development. In his speech, Mr Beiu highlights the objectives of SOP Rural Development in terms of sustaining the utilisation of RES for heating in rural area. A special attention is paid by the ministry to the utilisation of biomass from agriculture for heating, Mr Beiu emphasising that the existing potential in this field is poor exploited until now. Finally Mr. Beiu congratulates the Support_ERS team for the project idea and wished them a lot of success in finalising the project and in disseminating its results.

After the welcome and introduction speeches, the first session of the seminar began. Mrs. Ulrike Leis – the representative of Gesellschaft für technische Zusammenarbeit (GTZ), Germany, presented “**Optimization of Support Schemes for Renewable Energy Sources**

for Electricity Generation, Heating and Cooling – General presentation of SUPPORT_ERS project”.

In her presentation, Mrs. Ulrike Leis highlights the following aspects related to Support_Ers Project:

- Project objectives
- Project partners
- Scope of the project
- Expected results
- How can find out more about the project
- Where to find project results

The next presentation was focused on work package 3 of Support_ERS project **“Assessment of Administrative Structures and Procedure”** and was done by Mr. Marian Dobrin – the representative of Institute for Studies and Power Engineering, Romania.

In his presentation Mr. Marian Dobrin emphasizes that the main objective of the work package is the assessment of the situation relating to the administrative structures and procedures involved in the preparation and permitting of RES projects. He told that during the project implementation within the working group, the following aspects will be assessed:

- Number of involved institutions and coordination between them
- Lead times of applications for funding
- Lead times for necessary permits
- Access to information about support schemes
- Transparency of administrative procedures
- Awareness of benefits of RES in involved administrations.

Mrs. Lucie Tesniere, policy advisor within European Renewable Energy Council, presented **“EU RES Market – General Legislation”**. In her presentation, Mrs. Tesniere emphasized that the heating sector represents half of the final energy consumption and at the level of the EU member states 10% of the heat demand is covered by RES. The EU RES policy framework establishes the following targets for member states:

- To double the share of renewable energy from 6% to 12% of gross energy consumption in Europe (EU-15) by 2010
- To establish a framework to increase the share of renewable electricity from 14% to 22% of gross electricity consumption by 2010
- To achieve a share of 5.75 % of bio-fuels for transport in the total amount of fuels in Europe by 2010
- Designing, building and renovating industrial or residential areas.

Mr. Jorjn Franck, head of waste to energy system of the city of Hamburg was invited to the seminar as external expert and he presented **“Energetic use of biomass in the city of Hamburg”**.

Mrs. Irina Nicolau, advisor within Romanian Energy Conservation Agency (ARCE), presented **“Romania – RES Market review & Successful project on RES-H utilization”**. Her presentation was focused on presenting the achievements of ARCE in terms of RES project promotion for heat and electricity production.

She presented a few projects implemented by ARCE through the National program for the reduction of energy costs for the population, by increasing energy efficiency and using renewable sources of energy (2006-2007): Local authority Târgu Secuiesc : Extending the heating and hot water system with solar energy components
Local authority Giurgiu: Modernization of hot water system (mounting solar panels).

Mr. Cristian Tantareanu, "**Romania – Present status of biomass (wood) utilization**". He presented the potential of biomass in Romania, showing the distribution of this potential by counties across Romania. Mr. Tantareanu pointed that the biomass is used especially in rural area but in stoves and boilers with very low efficiency. The National Strategy of RES utilization emphasize the that the policy makers and the regulatory bodies in energy field have the mission to increase the use of biomass together with other renewable sources in an efficient way.

Mrs. Gabriela Nicolae, advisor within Ministry of Environment – Environment Found Administration (EFA), presented "**Increasing RES utilization for heat and electricity production – project financing from environment fund**". In her presentation Mrs. Gabriela Nicolae pointed the main objectives of EFA and its role in supporting and promoting RES utilization for heat and electricity production.

Mr. Alexei Atudorei, Phd. and Scientific Secretary of Romanian Municipal waste Association (ARS), presented the last presentation of the session 1 of the seminar: "**Romania – Present status of waste utilization**". The lecturer made a general presentation of Romanian legal framework in the field of waste management and its connection to the EU legal framework.

The second session of the seminar was opened by Mr. Pavel Starinsky, representing Slovak Innovation and Energy Agency (SIEA), which presented "**Existing support instruments for RES in Slovakia**".

The lecturer presented the main objective of the supporting instruments used in Slovak Republic for RES project: to increase the share of renewable sources of energy in the electricity and heat production with the aim to create adequate supplementary sources needed to cover the domestic demand.

Mrs. Emanuela Giovannetti presented „ **Best practices of support schemes for RES in Greece**“. Her presentation was focused on good practice in Greece related to simplified administrative procedure for PV systems instalation.

Mrs. Ulrike Leis - the representative of Gesellschaft für technische Zusammenarbeit (GTZ), Germany, presented „**Existing support instruments for RES in Germany**“. Her presentation was focused on German renewable energy goals for 2020 and on the supporting instruments used for achieving these goals.

The last presentation of the seminar was done by Mr. Andreas Kress, the representative of Climate Alliance: "**Good practice support schemes for RES developed by local authorities**".

The presentation started with a general view about Climate Alliance and its main activity related to CA support offered to local authorities for environment conditions improvement at local level.

The next part of the presentation consists in good practice examples of RES using for covering the energy needs in District of Ebersberg where is promoted "Bio-energy village concept", Freiburg where is promoted "car free residential area".

At the end, Mr. Marian Dobrin (ISPE) introduced next steps of the project, acknowledged the attendance and lecturers for their active participation and closed the regional seminar.

9.2 Regional Seminar in Slovakia

The regional seminar was opened by Dr. Ing. Kvetoslava Šoltésová, CSc. (SIEA, SK). She welcomed the participants and introduced the seminar, its headlines, purposes and general trends in RES utilization.

In the next presentation Mr. Pavel Starinský (SIEA, SK) presented SUPPORT_ERS project activities. He introduced the main scope and objectives of the project, all project partners of the consortium, project duration and context of the Intelligent Energy – Europe programme. He gave an overview on existing state of activities, expected results and main deliverables – reports on support mechanisms for RES-H including the policy recommendations, publication on RES market review, administrative assessment report and report of good practices. He informed participants about next activities of the project towards capacity building and know-how transfer especially regional seminars and final project conference planned during the European Sustainable Energy Week in Brussels. In the next part of his presentation he announced the project webpage and its content, where main information and documents for download are placed and contacts to national partner and coordinator of the whole project. The discussion was concentrated on the possibilities and scope of the Intelligent Energy – Europe programme and indices on administrative barriers for RES implementation.

The first block of lectures was focused on framework conditions in Slovakia for realisation of RES projects. The first presentation of Mr. Martin Pitorák (Ministry of Economy, SK) in this block was dedicated to the EU climate – energy package and European context for RES support. He explained priorities of EU energy policy, main EU targets till 2020, content of EU climate – energy package and its legislative initiatives in higher detail. He also explained implications for national policy and the main national targets towards RES and CO₂ reduction. He presented Directive 2009/28/EC on renewable energy, its scope, content and future impact on national legislation, new national targets and indicative trajectory for RES share, revision clauses, main principles of flexibility mechanisms, certificates of origin, sustainability criteria for biofuels and requirements concerning the support measures for RES. Mr. Jozef Múdry (Ministry of Economy, SK) presented in detail new Act on promotion of the use of energy from renewable sources and high efficient combined heat and power, which has been adopted on 16.06.2009, one week before our regional seminar. He introduced main parts of this act, requirements of support mechanisms for RES-H, RES-E and production of biogas. He defined the rights and requirements for electricity producers from RES, guarantees of origin, main rules for price making, premiums and price guarantee

for 15 years and its calculation procedures and other market rules for distribution system operators and producers of biogas. He defined also main responsibilities of involved institutions.

Dr. Ing. Kvetoslava Šoltésová, CSc. (SIEA, SK) focused her presentation on existing possibilities for financing of RES projects at the national level. She targeted it mostly on EU structural funds concerning energy, environment and regional development and the different programmes and sub-programmes under which RES projects are eligible. In more detailed form she explained the eligibility rules, ministry in charge and other involved institutions, application and approval process of different state aid and de-minimis schemes under operational programmes Competitiveness and Economic Growth, Environment and Bratislava region and other RES financing mechanisms under SLOVSEFF facility (in cooperation with EBRD) and Kommunalkredit Austria loan scheme financed by AT government. Those financing schemes are underused because of complex procedures but also because of a lack of information. Discussion was focused mainly to the question how to find out suitable programme, experiences with the application for grants and market rules.

The theme of Mr. Ivan Ďuďák's (Intech Slovakia, s.r.o. SK) lecture was practical experience with preparation and realization of seven biomass district heating projects in Banská Bystrica region. He demonstrated scopes of these projects, company approach, produced amount of heat, timeframe and financial support mechanisms used for realization of these projects. He explained all steps of business operations for these projects from the harvesting of crops and acquisition of biomass waste from industry, transport of biomass, preparation of chips, storage of chips, operation of boiler houses and cooperation with district heating companies and heat delivery. He explained the possibilities for job creation. He stressed main principles and benefits in detail – cheaper energy for customers, complexity of approach, maximal utilization of regional sources, positive environmental influence through fossil fuels and CO₂ savings and job creation, which are the main results of these projects. Discussion was focused on the economic efficiency of operation, used external financial sources, price questions, business model and expected trends in utilization of biomass for district heating systems.

Next block of lectures was about examples of best support schemes and projects for RES in the Czech Republic and the Netherlands. We choose the lecturer from Czech Republic because of similar climatic conditions, similarity in national target values, affinity of legislation and legal background and partially similar support tools used. The other moment was that CZ has financially better subsidized and longer lasting support schemes with possibility to demonstrate also quantitative results and that company SEVEN has rich practical experience with preparation and application of RES projects. The Netherlands is country with long history of utilization of RES and incorporation of RES into general energy policy framework with very fast increasing share of wind, solar thermal and PV and biomass utilization in combination with stronger emphasis to energy savings during last years. Therefore it was interesting to know their experiences with RES policy creation and its application on regional level, the role of regional energy agencies like EREA in these processes and projects and supporting mechanisms used in NL. Their experiences are transferable to national/regional level for regional and state administration and also to SIEA, therefore there will be informal consultations with both institutions about the issues mentioned in their presentations.

Mr. Tomáš Chadim (SEVEN, o.p.s., Praha, CZ) started his presentation with overview of RES situation and targets in the Czech Republic. Then he defined reasons for supporting for RES in comparison to other energy sources and demonstrated three groups of RES support tools in more detail form. In the case of Green electricity scheme, he explained the legal background and mechanisms between mandatory repurchase of RES electricity and green bonuses (premiums) and how it works (risk allocation, price creation). Very interesting are lengths of the support and feed-in tariffs which last in some cases for 20 and for SHP up to 30 years. He introduced operational programmes of CZ structural funds and their different programmes and sub-programmes suitable for RES projects. Then he mentioned details of new programme for energy efficiency and RES “Green light for savings” for single family houses and multifamily houses built in non prefabricated technology systems, which supports also biomass boilers, heat pumps, solar systems, passive energy houses and state support programme “Efekt” used partially for CHP from biogas and utilization of waste energy. He explained also approach with tax exemptions which is used as a support tool. As the most perspective RES in the CZ appears biomass, but there are also several barriers for its utilization e.g. absence of systematic support, low awareness, unequal financial flows for heat producers and not producers of biomass, absence of long-term contracts, absence of crop production strategy, partial conflict with environmental protection, very complex administrative procedures.

In the beginning of his presentation Mr. Harry Meerwijk (EREA - First Regional Energy Agency, Zoetermeer-Delft, NL) explained main activities, internal procedures and organisation of regional energy agency founded by different stakeholders including municipalities. Then he illustrated the development of energy situation in NL and what role are RES playing in it. Very important part was focused on financial and legal instruments used in NL for different RES support at different level – on state level (sale to a grid), on sustainable production on local level (solar thermal, heat pumps and micro-CHP) and local subsidies. He explained administrative processes used in NL and institutions involved. Then the implementation of policy was presented on local level and how RES utilization is seen in everyday life what was demonstrated by different realized projects in the field of solar thermal systems and PV in buildings, wind turbines used for public lighting in municipality, application of heat pumps in heating of public building. The discussion was fixated on operation of regional agency, financial support and technical parameters of PV systems used in buildings and wind turbines used for public lighting.

This block of lectures was followed by last two presentations concentrated on individual RES with the highest potential in Slovakia – biomass and solar thermal.

Mr. Milan Novák (ThermoSolar Žiar, s.r.o., Žiar nad Hronom, SK) introduced his lecture with significance of solar energy with respect to the next development of energy situation in the world and a global situation of solar market with main EU framework documents. Then he explained technology potential of the solar thermal sector with its impact to the fulfilment of the EU targets. He compared situation in other EU countries with the current situation in Slovakia and defined from his point of view main reasons for that – missing fiscal impulses,

low environmental awareness of inhabitants and underestimation of RES benefits, relatively low energy prices without counting of externalities, low support from the state administration, but he also mentioned that the situation is slowly changing. The positive tendencies he saw in new grant support programme for solar collectors and biomass boilers administered by SIEA, adoption of new act on promotion of the use of energy from RES and high efficient CHP, changes reacting to the decrease of security of supply with natural gas and mandatory target for RES setting. He recommended for improving of situation measures like adoption of new act on promotion of heat from RES, transparency and simplification of administrative procedures in structural funds and other existing support programmes and increasing of importance of Ministry of Environment and capacity building to the common level like in other EU countries.

Prof. Ing. Jozef Víglaský, PhD. (University of Technology Zvolen, SK) defined in his lecture the role of biomass utilization in energy sector as important RES, what development perspectives it has and what is the current state of biomass utilization among other RES in Slovakia. He introduced also the comparison to the EU countries and possible solutions towards biomass production for energy purposes in sustainability concept with environmental and social aspects. He presented also the model of targeted growing of energy crops like salix and others and practical examples of different ways of that production with implications to the legislation, capacity building and awareness rising and with transparency of financial mechanisms. He also acquaint the participants with activities of the European Technology Platform for Renewable Heating and Cooling.

At the end, Mr. Jan Magyar (SIEA) introduced next steps of the project, acknowledged the attendance and lecturers for their active participation and closed the regional seminar.



9.3 Regional Seminar in Estonia

The regional seminar was opened by Aivar Küttim. After welcoming the participants and introduction of the seminar agenda, its headlines, purposes and general trends in RES utilization were introduced.

As the preparation of Estonian National Renewable Energy Action Plan had already started the participants were informed about the process of its composing and the possibilities of their involvement in providing input to the plan.

Then the SUPPORT_ERS project activities were introduced:

- the main scope and objectives of the project, all project partners of the consortium, project duration and context of the Intelligent Energy – Europe programme.
- overview on existing state of activities, expected results and main deliverables – reports on support mechanisms for RES-H including the policy recommendations, publication on RES market review, administrative assessment report and report of good practices.
- next activities of the project towards capacity building and know-how transfer especially regional seminars
- the project webpage and its content, where main information and documents for download, contacts to national partner and coordinator of the whole project.

Dr. Andreas Kress from Climate Alliance dedicated his presentation to good practice examples of support schemes that are currently used in different municipalities. After brief introduction of Climate Alliance he described targets and economic dimensions of renewable energies in the municipalities of Munich and Mauenheim. He also described the benefits of RES projects at regional level and economic dimensions and benefits in long term. The main technologies and most spread support schemes were introduced. The next example - “Bio-energy village” was taken from Rai- Breitenbach. Good example of using spatial planning in Freiburg and Ackemannbogen (Munich) was described as a tool for promotion of RES. The Solar Law for Application of solar thermal energy systems into buildings in Barcelona was introduced as an example legislative way of promotion of RES. For financing the RES projects there was introduced the enercity fund in Hannover.

Pavel Starinsky (SIEA, SK) focused his presentation on existing possibilities for financing of RES projects at regional level by financing by EU structural funds Programme of higher utilisation of biomass and solar energy in households. In more detailed form he explained the eligibility rules, ministry in charge and other involved institutions, application and approval process of different state aid and de-minimis schemes under operational programmes Competitiveness and Economic Growth, Environment and Bratislava region and other RES financing mechanisms. Discussion was focused mainly to the Operational Programme of Bratislava Region. The questions from audience were mainly on differences between Bratislava region and other parts of Slovakia. Wilhelm Kruse (Phyto-Energy Consulting) introduced experiences with support schemes in Lüneburg focusing on:

- overall municipality and district of Lüneburg,
- composition of different renewable energies,
- legal institutional aspects, innovative urban planning measures,
- development of RES (wind, biogas, biofuel, solar and waste),
- energy efficiency and
- outlook and future prospects.

The presentation was valuable, because it showed variety of RES support activities that have been introduced in a single municipality. It is also remarkable that the aspects of RES have been integrated into the municipality’s legal and administrative framework. The presentation interested most of the participants as Lüneburg Municipality is relatively small and approximately of the same size as Tartu. There were lot of questions regarding different technologies and set-up of different renewable energies in Lüneburg. Indrek Ranniku from Tartu Municipality shared his experiences in the field of spatial planning and using it as an instrument for designing of sustainable development in Tartu. The whole presentation concentrated on the RES-related provisions from different municipality-related legal acts (e.g.

the comprehensive plan) and examples of different projects where these provisions were implemented.

Firstly he introduced the main strategy papers – “Tartu 2030” of Tartu which gives general directions for sustainable development of the town and “Development Plan of Energy Sector of Tartu municipality”. According to “Tartu 2030” the municipality’s comprehensive plan was elaborated. Comprehensive plan is prepared with the aim of determining the general directions in and conditions for the development of the territory of a rural municipality or city, and of setting out the bases for the preparation of detailed plans for areas and in the cases where detailed planning is mandatory and for the establishment of land use provisions and building provisions for areas where detailed planning is not mandatory. The list of provisions started with the assigned areas of district heating network and was followed by provisions setting the obligation of the producers to develop their assets and services and sets a target to utilise heat that have been produced in CHP-s (combined heat- and power station) from biomass.

There are also municipal legal acts with provisions regarding building requirements. Besides requirements of energy efficiency there are also requirements promoting RES. For example the roof construction has to be designed to carry solar panels and for large public buildings to utilise alternative energy sources (e.g. heat pump). The questions were mostly about implementation of the provisions in reality and the supervision of following these provisions by developers. There were also questions about specific projects introduced in the presentation.

The last presentation by Priit Mikelsaar (Estonian Biogas Association) concentrated on potentials of production and utilisation of biogas in Estonia. He started with brief introduction of technologies and proceeded with positive aspects: lower and stable heat price, additional jobs, resolving of the odour problem, environmentally friendly, stable “fuel” supply. He also introduced the projects that are still under development and projects in Estonia that have been successfully finished and working.

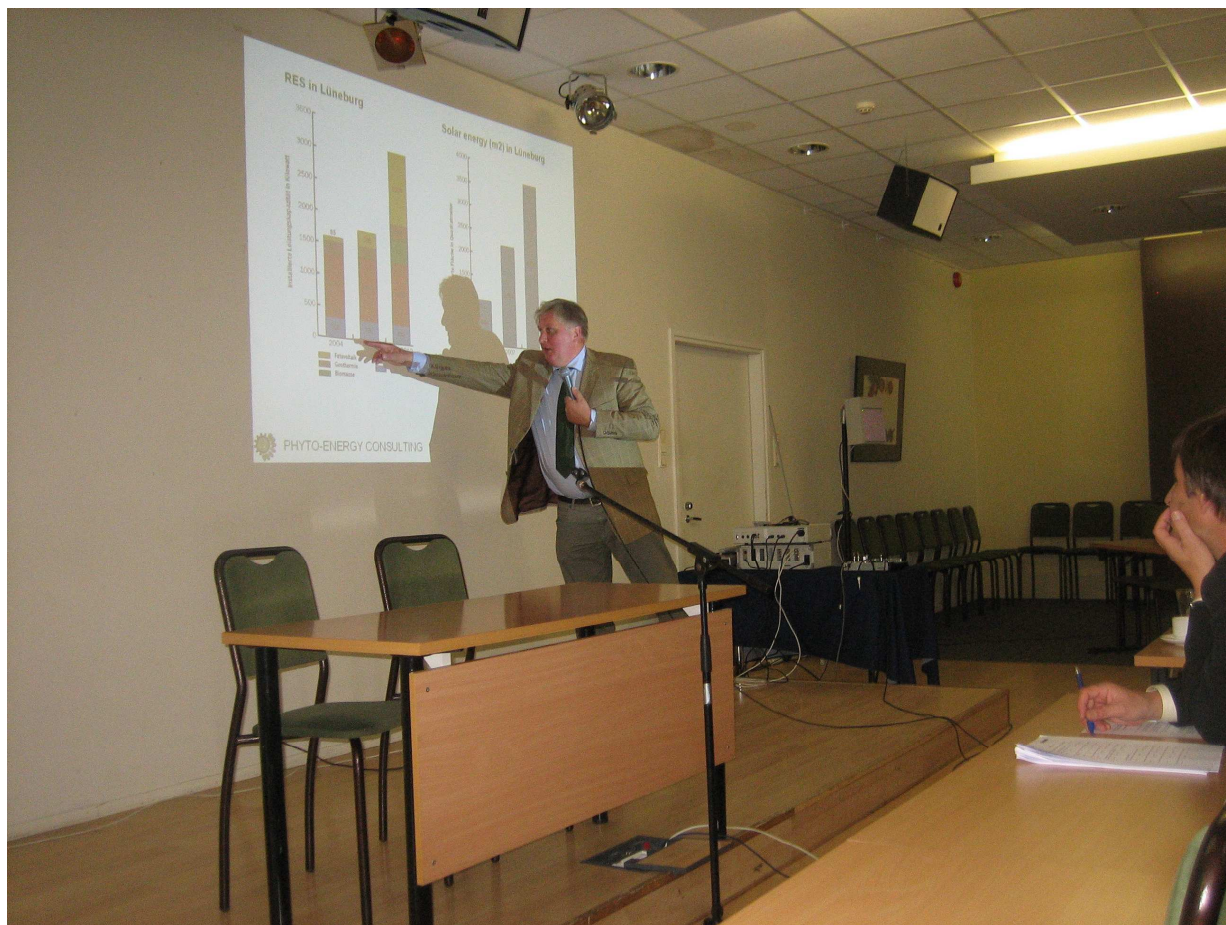
The next part was dedicated to analyses of good and not-favourable aspects of the over-all environment in Estonia to the biogas business. The favourable aspects were: the farms are relatively large and modern, heating season is relatively long that allows to utilise most of the heat production efficiently, there are also potentials of unused agricultural resources like straw etc, the rising energy prices favour utilisation of new technologies. As unfavourable he listed the following: financial support schemes do not cover the necessary financing gap, climate is not favourable for growing energy crops like corn, most of farms have made recently large investments into their main activity and capacity for new investments into energy sector is very low, the subject is relatively new and there is lack of knowledge and information.

At the end of his presentation he concluded that:

- The potential of biogas is highest in regions where are present large agricultural farms and district heating networks,
- For promotion of biogas in Estonia it is necessary to increase the sums for investment support schemes,
- It is crucial for the success of biogas projects to make the preparatory studies properly,
- The support of municipality is also important.

The questions were about potential of large-scale (selling gas to gas via gas networks) and micro-level (in smaller remote farms) biogas production and utilisation possibilities.

At the end Aivar Küttim introduced next steps of the project, acknowledged the participants and lecturers for their active participation and closed the regional seminar.



9.4 Regional Seminar in Croatia (October 2009)

9.4.1 General presentation of regional seminar

In the WP5 framework of the SUPPORT_ERS project, regional training seminars were to be organised in six new member states and candidate countries – Romania, Bulgaria, Estonia, Croatia, Slovakia and Poland. Those events have been organised during the last year of the project.

9.4.2 Organisation process for regional seminar in Croatia

Regional education seminar preparation started at the beginning of 2009, by choosing the topic of the regional seminar and possible lecturers. Support of heat and cool production from renewable energy sources (RES-H/C) was chosen, due to importance of the theme and expecting preparation of sub-laws for supporting RES-H/C in Croatia. Furthermore, lecturers were contacted, in order to cover RES policy in Croatia, existing supporting options from Croatian Fund for Environmental Protection and Energy Efficiency, best RES practice from Vienna region, experiences in RES project implementation in City of Zagreb and Zagreb County, as well as main RES for heat and cool production (biomass, solar and geothermal heat pumps). In the next step, the target group was recognized. An invitation by e-mail was sent to the companies and individuals acting in the energy sector: policy makers at

national/regional/local policy makers and administrations, financial institutions, RES industry, RES developers, RES associations, regional energy agency and RES researchers. The venue of the seminar was in the appropriate multimedia conference room of Energy Institute Hrvoje Požar. Translation was organized for participants from our partner Vienna region Ms Silke Mader (Austrian Energy Agency) and Mr Herbert Ritter (City of Vienna), as well as for representative of the Slovak Innovation and Energy Agency Ivana Duricova. Before the start of the seminar, participants received the SUPPORT_ERS leaflet, the IEE leaflet “The Power to Innovate”, the brief SUPPORT_ERS project description, two SUPPORT_ERS press releases, the Evaluation form and the Agenda of the seminar. The number of attendees was 39, including 11 lecturers.

9.4.3 Croatian regional training seminar, September 25th, 2009, Zagreb

Mr Željko Jurić, as a host of the seminar, introduced the participants with the seminar agenda, as well as distributed materials (the SUPPORT_ERS and the IEE leaflets, the brief SUPPORT_ERS project description, two SUPPORT_ERS press releases and the Evaluation form). The seminar was opened by Mr Igor Raguzin from Ministry of Economy, Labour and Entrepreneurship. Ms Branka Jelavić, head of Department for Renewable Energy Sources and Energy Efficiency, welcomed the participants for EIHP's side.

In the first presentation, Mr Željko Jurić (EIHP) presented SUPPORT_ERS project activities. He introduced the purpose of the project, project objectives, all project partners, project duration and basic information about the project. He gave an overview on current status of the activities, expected results and main deliverables – reports on support mechanisms for RES-H including the policy recommendations, RES market review report, administrative assessment report and report on strengthening administrative capacities with good practice exemplars. Furthermore, Mr Igor Raguzin from Ministry of Economy, Labour and Entrepreneurship presented legal and administrative framework for implementation of RES projects in Croatia. The focus of his presentation was recent RES policy reform and activities on preparation of by-laws for supporting of heat and cool production from RES. The next presentation was from Ms Irena Dubravec from Environmental Protection and Energy Efficiency Fund. She presented the role of Croatian Fund in supporting of renewable energy sources and energy efficiency projects and programmes. She gave information on the existing possibilities which are offered by Fund for well prepared RES projects - soft loan, interest subsidy, financial aid (i.e. grant) and donation.

The following block of presentation was from Vienna, partner region of City of Zagreb and Zagreb County. Ms Silke Mader from Austrian Energy Agency (AEA) presented supporting schemes for renewable energy sources in Austria and Vienna, while Mr Herbert Ritter from City of Vienna presented the RES strategies and projects in Vienna. The both presentations initiated large interest in the audience. Mr Ivan Kovačić and Ms Sanda Djukić from North-West Croatian Regional Energy Agency presented examples of renewable energy sources and energy efficiency projects in the City of Zagreb and the strategy on sustainable use of energy in Zagreb County, with focus on RES projects utilization. It is evident that the City of Zagreb and the Zagreb County follow EU RES policy, but with small delay. The last block of presentations was dedicated to the main RES for heat and cool production – biomass, solar and geothermal heat pumps. Potentials and barriers in solar energy utilization in Croatia were presented by Mr Ljubomir Majdandžić from Croatian Association for Solar Energy. The

geothermal heat pumps potentials and barriers in Croatia were presented by Mr Vladimir Soldo from Faculty of Mechanical Engineering and Naval Architecture Faculty in Zagreb. Finally, Ms Branka Jelavić (instead of Ms Biljana Kulišić) from Energy institute Hrvoje Požar gave information on the present and potential utilisation of the energy from biomass in Croatia.

After final discussion, Ms Jelavić and Mr Jurić closed the fruitful regional education seminar. Positive opinion on the seminar is identified by analyze of Evaluation forms, gathered from seminar's participants.

9.4.4 Photo documentation of the seminar

Ms Branka Jelavić from Energy institute Hrvoje Požar – Welcome speech from EIHP's side



Mr Željko Jurić from Energy institute Hrvoje Požar – SUPPORT_ERS project activities



9.5 Regional Seminar in Warsaw

On September 24, 2009, SUPPORT_ERS hosted a training session on support for RES at the regional level in Warsaw, Poland. The session was generously hosted by the Polish National Energy Conservation Agency, KAPE, and was held within the framework of a RES-H Policy (www.res-h-policy.eu) project workshop on „Quantitative targets of heat and cold production from RES in Poland until 2030”. Around 30 representatives from Polish administration, academia and the RES industry participated in the session.

SUPPORT_ERS project coordinator Ulrike Leis from GTZ gave an outline of the scope and goals of the SUPPORT_ERS project (www.support-ers.eu) before she presented an overview of RES support instruments in different EU countries. In the second part of her presentation she discussed barriers of RES development and policy recommendations and best practices on how to overcome these barriers. The discussion that followed the presentation focused on the German Act on the Promotion of Renewable Energies in the Heat Sector (EEWärmeG) as well as on the question of how to strike a balance between long-term support schemes and those adapting to new technologies.

The second presentation within the SUPPORT_ERS seminar was held by Mr. Andreas Drack from the Upper Austrian Academy for Environment and Nature. He presented the regional biomass strategy of Upper Austria with a focus on the regional energy concept, RES targets and achievements in the field of biomass for heating. He also presented examples of exemplary biomass plants in the region. After the presentation, Mr. Drack discussed with the audience questions that arose around the topics of biogas quality standards, energy versus food and the fear that hydropower might be affected by climate change in the future.

The presentations by Ms. Leis and Mr. Drack can be found on the SUPPORT_ERS homepage.. A meeting agenda can be also be found there.



9.6 Regional Seminar in Bulgaria

On 19th April 2010 in Sofia the Bulgarian regional seminar was held in the framework of the SUPPORT_ERS project. The seminar was planned as joint workshop with lectures from Bulgaria (the Energy Efficiency Agency) and from Austria (Austrian Energy Agency). Unfortunately due to problems with volcano ash the Austrian partners didn't manage to come to Bulgaria, so the seminar was only with lectures and representatives from Bulgaria.

The official opening on the event was made by Ms. Snezhana Todorova – director “Programs, projects and international cooperation” in the Bulgarian Energy Efficiency Agency and Mr. Michael Angerer – head on the Austrian Trade in Bulgaria.

The workshop was moderated by representatives from the Bulgarian Energy Efficiency Agency. Ms. Borjana Uzunova – head of department International cooperation in EEA presented the Bulgarian-Austrian Energy Partnership.

Ms. Alexandrina Dimitrova, head of department “RES and environmental protection” from the Bulgarian ministry on Economy, Energy and Tourism presented the “State policy in the field of RES in Bulgaria”.

Mr. Nikolay Nikolov chief expert in EEA, as person in charge presented the IEE Project “Support_ ERS” and showed the main tasks and activities in the project.

Mr. Ognjan Markovski, chief expert in EEA presented “Financial mechanisms for supporting RES in Bulgaria”

Mr. Ludmil Kostadinov, government expert in EEA presented: “The use of Biomass in Bulgaria” and this was the last presentation for the workshop.

After that there was a very interesting, long and fruitful wrap up and discussion with Statements from:

- Ministry on environment and water,
- Ministry on regional development – UNDP;
- Energy Efficiency Agency;
- Austrian Trade;
- Executive Forest Agency;
- Erato holding;
- NGO's, etc.

In general it was a very interesting workshop with 36 participants, who were satisfied with this event, and exchanged interesting and fruitful ideas. Also there were discussions about possibilities for cooperation and development of new biomass projects in Bulgaria.

10. SUPPORT_ERS Final Conference

The final conference of the SUPPORT_ERS project “FOSTERING RENEWABLE ENERGIES IN THE NEW EU MEMBER STATES AND CANDIDATE COUNTRIES” was held as an activity in the framework of the EU Sustainable Energy Week at the Renewable Energy House in Brussels on 26. March 2010. The conference was opened by Ms. Emanuela Giovannetti (EREC) on behalf of Ms. Christine Lins (Secretary General, EREC). She welcomed participants of the conference and mentioned that the conference is the final conference of the Intelligent Energy - Europe project SUPPORT_ERS with intention to present the results and outcomes of the project and to have an opportunity to exchange the opinions with participants and stakeholders. She introduced the conference and its headlines.

The first introductory part of the conference was addicted to RES situation and support schemes in Spain and Germany. Ms. Sofia Martinez (IDAE, ES) defined significance of RES in the framework of Spanish energy policy, basic instruments used for support of RES utilization and the role of the IDAE agency in it. From existing framework documents she emphasized Renewable Energy Plan 2005 - 2010 setting RES targets, necessary financial sources, specific sectoral measures and important role of biomass and wind energy in them. From different RES related programmes in Spain she mentioned Programme BIOMCASA (higher utilization of biomass in heating of buildings) and introduced the MOVELE initiative focused on electric mobility using RES-E. She stressed that for success of the policies appropriate legislation framework is needed, concepts for long-term targeting policies what demonstrated at the Renewable Energy Plan 2011 – 2020 setting ambitious targets and also support in the form of awareness and info campaigns related to solar thermal and biomass utilization for citizens and municipalities. She presented also the priorities of the European Energy policy under the Spanish Presidency and those parts of them focused on implementation of RES Directive. Mr. Nicolas Oetzel (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, DE) presented the situation of RES utilization and its support in Germany. He mentioned that renewable energies have experienced a strong growth in Germany because of ambitious targets followed by efficient policies and support instruments. He mentioned also other dimensions of RES policies than energy supply, namely their contribution to energy security, climate protection, job creation and technology innovation. He emphasized that development is only possible when strong support tools are present, which can guarantee stabile, transparent and long-term perspective in framework conditions for investment. Nevertheless, these conditions should be flexible enough to have a space for reaction on changing market situation e. g. on PV market. He gave an overview on existing instruments for RES utilization in Germany, from legislation including feed-in guarantees, obligations and other incentives, financial support from Market Incentive Programme, to obligations in biofuels blending and research and development area. He also presented RES targets and approaches towards setting ambitious targets in national RES Action Plan and National Energy Concept/Strategy in 2020, steps in legal implementation of RES Directive and possible opportunities for international cooperation in feed-in systems, Concerted Actions and flexible cooperation mechanisms.

Discussions regarding the Mediterranean Solar Plan show that for the EU and ES are important all relevant contacts towards cooperation mechanisms, one of the key role in

Mediterranean region and especially Spain would play the increasing of interconnection capacities between France, Spain and northern Africa.

Discussion regarding the DE legislation covered the issue of specificity of Renewable Heating Act which stated different targets for different uses. In current time there is no specific legislation for electric cars but there exist a lot of initiatives from the industry and other countries and DE supports information flows and projects in this area. Regarding the hydro potential utilization was stated that the best locations are used, small hydro is partly a marginal issue but there is a need also to apply environmental point of view which plays an important role, therefore no new large projects are planned. The price/investment situation at the PV market is often consulted and will result into sensitive decrease of existing tariffs; the main issue is that the long-term support should be decreasing transparently to preserve stabile market conditions.

Second part of the conference was focused on project outcomes. Mr. Tim Mahler (GTZ) presented SUPPORT_ERS project and its activities. He introduced all project partners, its duration and context of the Intelligent Energy – Europe programme, the main scope and objectives of the project. He stressed the main benefits consisting of increasing of political awareness for administrative barriers and how to reduce them, political awareness on options to support RES-H, exchange of best practices to reduce administrative barriers with focus on the needs of the new MS and Candidate Countries and awareness raising among regional stakeholders of RES. Later in his presentation he gave a detailed overview on implementation approach and content of individual work packages with their aims.

The main block of presentations started with presentation of Ms. Silke Mader (AEA) and Ms. Emanuela Giovannetti (EREC) which presented work done in WP2 focused on support instruments for RES-H. Ms. Mader gave information on importance of RES-H/C instruments, overview on kinds of support schemes in partner countries and lessons learnt. She emphasized that the policies should be based on unique set of circumstances, needs and resources in individual country, policies must be reliable and long-term consisting of a mix of instruments - supply side and demand side measures. She mentioned also that policies supporting RES-H should address local circumstances, bureaucratic and administrative barriers should be minimised. Important element is continuity and transparency of any financial incentive scheme to avoid stop & go market dynamic, any scheme must be flexible and its procedures should be simple, both for the applicant and for the public administration. Financial incentive schemes should not create barriers to trade within the EU, there is a need to apply “polluter pays principle” and schemes should be monitored. At the end she presented as an example of successful policy “Environmental Support Scheme for Austrian Enterprises” with different projects realized in its framework. Ms. Giovannetti introduced EREC and its members and presented one of important outputs of the project – book “Renewable energy in Europe”. Content of the book (wide overview of the state of the art of renewable energy technologies and economic possibilities of technologies) is complementary to the above mentioned lessons learnt. It is addressed to politicians and decision makers, the insurance sector, financial institutions and financial analysts, project developers and other multipliers involved in the promotion of renewable energy. The book supports also the implementation of RES Directive giving the industry point of view and defines particular circumstances which should be considered to reach the RES targets also above the 20 % level.

Discussion was focused on availability of the book which will be published in very short time. From the point of view of sectoral perspective it was stated that whole renewable energy sector is increasing, producing new jobs, subsectors with highest growth potential are biomass and PV, but in general it is possible to say that all kinds of RE utilization have a very good perspective.

Mr. Marian Dobrin (ISPE) introduced outcomes of the WP 3 focused on assessment of administrative procedures in the field of RES-H and RES-E, the main objective of the work and its content. He presented identified barriers related to RES projects based on analysis of existing studies (e. g. high number of authorities involved, lack of coordination, low awareness of benefits of RES at the regional and local level), methodology and structure of the interviews with relevant stakeholders done within the project in particular countries, their results (in detailed way for Romania) and defined general recommendations for reducing of administrative barriers. He stated that there is a need to increase or fix the existing financial support schemes for a longer period of time; to establish individual support-schemes for different technologies; is suitable to establish a special authority for RES projects, where all relevant people from institutions involved in permitting process would meet at regular occasions to solve potential issues among themselves and investors; and a better coordination between the involved authorities is a key point.

Discussion was focused to issues regarding preparation of action plans due to RES Directive which represent a good opportunity for discussion on simplification of administrative procedures, are needed for receiving of necessary data and are in general a good signal for developers and predictability of the market. European legislation is an impulse for the market, supporting schemes are addressed to project oriented companies and institutions but the barriers arise on the side of authorities and market environment. One of the possible solutions for this is establishing of one-stop-shops to achieve all the needed permissions in that complex administrative process.

In the framework of WP 4 focused on strengthening of administrative capacities Mr. Tim Mahler (GTZ) on behalf of Mr. Bruno Wilhelm (GTZ) presented the checklist for evaluation of administrative procedures and report on good practices for strengthening administrative procedures. Based on identified major barriers for the development of RES projects, there had been identified the targets for the optimization of administrative (permitting) procedures with action fields for improvement. As an outcome, in the presentation was proposed improvement process consisting of six steps and sample of structure for proposed checklist for evaluation of administrative procedures. At the end there were 8 examples of good practice examples from partner countries presented on national, regional and local level of governance with more detailed information on the project website.

The last presentation of this block by Mr. Andreas Kress (Climate Alliance) was focused on support schemes for RES developed by local authorities as examples of regional and local good practices transferable as the ideas to other countries. After the presentation of Climate Alliance and its commitments he mentioned that there is a lot of initiatives also at the local and regional level using various instruments in support of RES utilization e. g. local planning, political and legal instrument on local level (climate plans, ordinances, etc.) and economic incentives for measures replacing fossil sources. He stressed the role of awareness raising as a one of the key factors for success of such projects and other positive impacts such as

job creation on local level. Then he presented different realized projects on the local level from Austria, Luxemburg, Germany and realized applications of different instruments e. g. planning from Germany, local legislation from Spain and Germany, financial incentives and awareness raising from Germany.

Last round of presentations was a part of the panel discussion focused on market barriers and how to overcome them, moderated by Ms. Mader with the main panelists Ms. Georgeta Stanculescu (Romanian Energy Regulatory Authority, RO), Ms. Tuuliki Kasonen-Lins (Estonian Wind Power Association, EE) and Ms. Biljana Kulišić (EIHP, HR).

Ms. Kulišić presented overview of development of RES-H and RES-E situation in Croatia. Current situation at the biomass market was influenced by sooner preparation of support schemes and later preparation of legislation needed where a disproportion exists between the current biomass utilization and projected targets what should result to the adjustment of conditions of support schemes. There are different specific barriers as relatively complex permit procedure, partly missing legislation, utilization of biomass in boilers with low efficiency and lack of precise surveys on biomass potential development. There exist also price deformations when the imported gas is cheaper than local biomass pellets and there is lack of awareness on technical specifications of boilers among population. Ms. Kasonen-Lins at the beginning of her presentation stated that in many other countries would have similar problems as are addressed in the SUPPORT_ERS project. Her presentation was focused on wind energy utilization and its problems in Estonia. She mentioned that wind power has the greatest RES potential, exist national development plans and support mechanisms as feed-in tariffs but there are also significant problems at the market. The barriers are connected to the TSO where exist ambiguous and unpredictable technical conditions for connection to the network, lower level of authority coordination resulted to overbooked market with licences and 100 % balancing of the power output over total installed capacity of 750 MW is required so new projects are economically unreasonable. There are problems with urban planning where locations with the highest wind speed are conflicting with radars, there is a lack of consistency in the policies with struggle to reduce targets for wind energy in National Action Plan and unfair competition exists at the market where state owned coal plants will receive subsidy (20 y vs. 12 y for wind) and balancing plants for wind power not. Therefore she raised the question how to motivate the country to use its real potential. The presentation of Ms. Stanculescu was focused on application of support schemes which should have to create good investment climate for utilization of RES potential. Romania utilizes only hydro potential and other RES represent insignificant share on the market. Because of security of supply, Romanian authorities decided to prepare support mechanisms for RES using combination of electricity market prices and green certificates. After criticism from the European Commission that the scheme has a weak development, Romanian authorities decided to adjust the conditions which become very attractive for the market players what resulted to extremely high increase of projected capacity than is normally needed.

Discussion was oriented mostly to pros/cons of approaches how to overcome barriers and to solve problem situations. For Croatia was discussed issues regarding approach to use the wood waste in industry in CHP with higher efficiency and the issues connected to information campaign in the public sector. In the case of Estonian situation there were discussed methods for identification of feasibility of investment into RES, definition of credibility of the

projects and feasibility studies and possibilities how to change the grid access code. The overcome of the 100 % balancing of the power output will be a difficult point. The disproportion between capacity of new projects, existing installed capacity and grid capacity of Romania could be solved by condition for new investors also to invest into the electricity grid with combination of increase of interconnection capacities and also the limitations of quality and efficiency of installed wind turbines could be a partial solution.

At the end, Mr. Mahler acknowledged the attendance and lecturers for their active participation and closed the final project conference.



First block of presentations – Ms. Sofia Martinez presents the RES situation in Spain



Mr. Marian Dobrin presents the WP 3 results