

UN Economic Commission for Europe

Summary of Policy Developments to Promote
Energy Efficiency and Renewable Energy Investments
in **the former Yugoslav Republic of Macedonia**

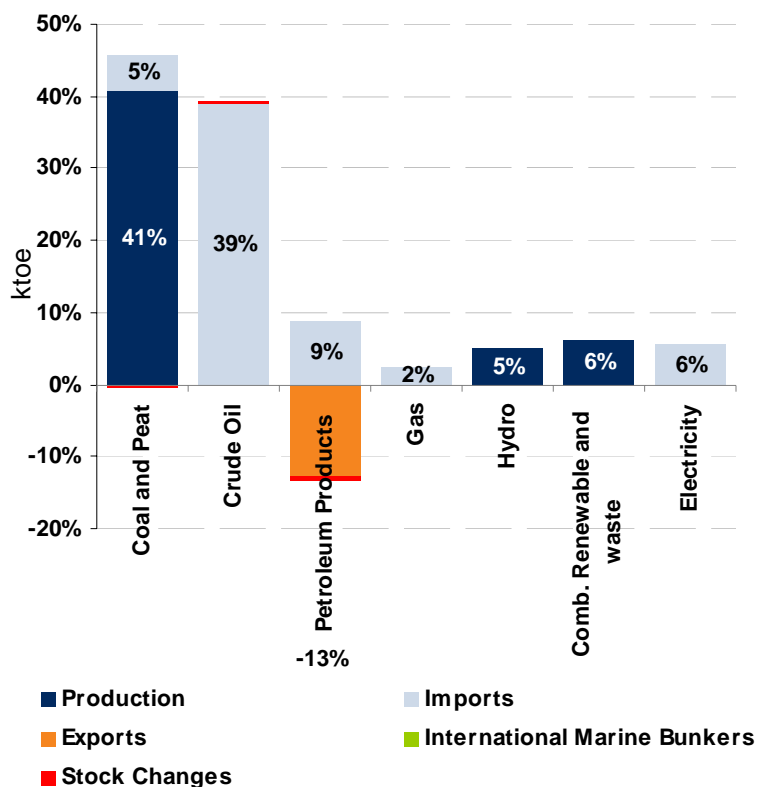
Seminar on Policy Reforms to Promote
Energy Efficiency and Renewable Energy Investments

Geneva, October 7.-8., 2009

Energy Situation in the former Yugoslav Republic of Macedonia

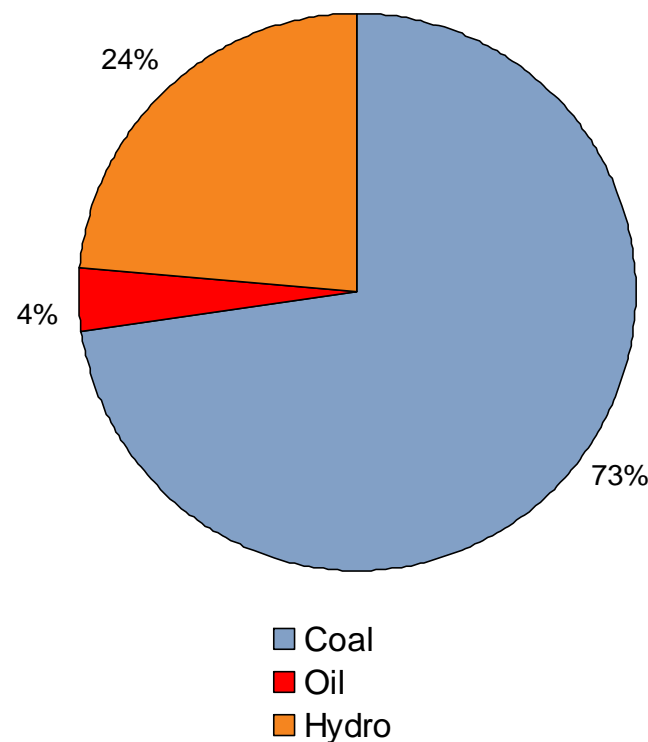
The former Yugoslav Republic of Macedonia has significant coal reserves, but imports large quantities of crude oil and electricity

Energy Balance



Source: IEA 2006

Energy Sources for Power Generation

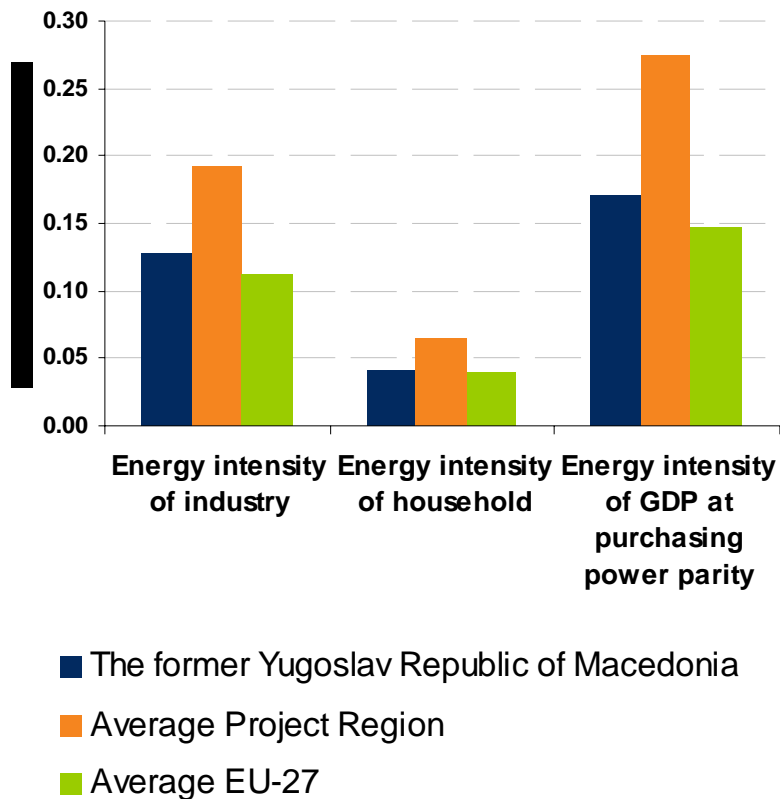


Source: IEA 2006

Energy Efficiency and Renewable Energy Sources in the former Yugoslav Republic of Macedonia

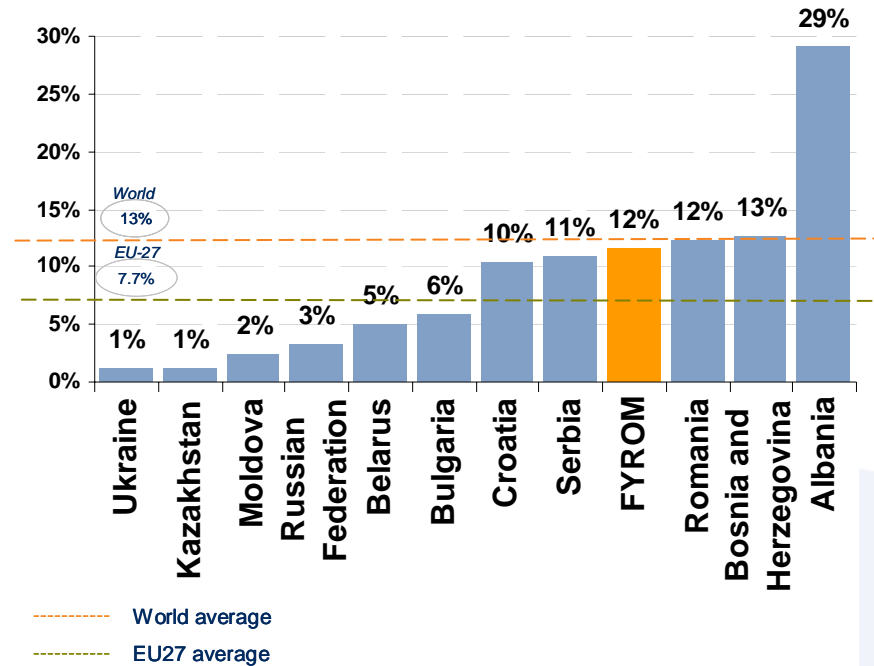
The former Yugoslav Republic of Macedonia has a moderate energy intensity and a high share of renewable energy sources

Energy Intensity



Source: Enerdata 2007

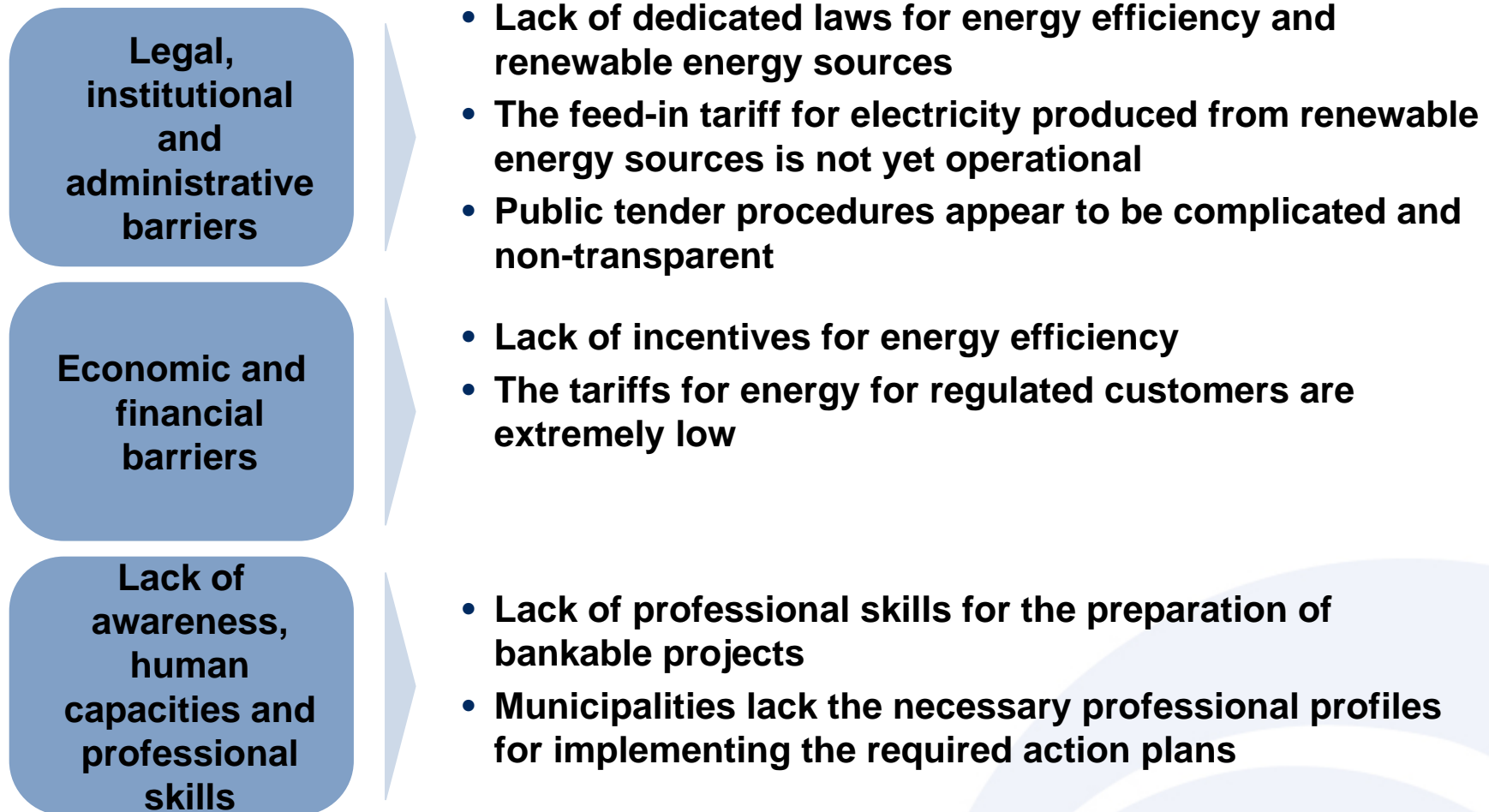
Renewable Energy Sources



Source: IEA 2006

Barriers for Investments in EE and RES in the former Yugoslav Republic of Macedonia

The main barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia are the lack of professional skills



Policy Developments in the former Yugoslav Republic of Macedonia

...however, in recent years several policy reforms have been undertaken by the former Yugoslav Republic of Macedonia to overcome these barriers

Gradual electricity price liberalization

- **The former Yugoslav Republic of Macedonia liberalized the electricity tariffs for customers connected to the high voltage grid, leading to a reduction of energy intensity in the industrial sector due to higher market prices**

Decentralization process

- **Since 2002, Macedonian municipalities enjoy more autonomy and can actively perform energy efficiency and renewable energy projects and are furthermore obliged to elaborate and implement five-year local energy efficiency programs and action plans**

Preferential treatment for CDM projects

- **According to the Law on Environment, CDM projects are accorded preferential status, i.e. prospective CDM project developers can apply for shorter Environmental Impact Assessment procedures (30 days instead of 270 days) via ordinance**

Energy audits

- **By January 1, 2010, energy audits will be mandatory in new buildings with a square footage above 1'000 m² in the former Yugoslav Republic of Macedonia**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

The establishment of transparent public tendering procedures and fiscal incentives is recommended for realization of the available RES potential in the former Yugoslav Republic of Macedonia

Legal, institutional and administrative barriers

- **Renewable energy action plan**
- **Adaptation and implementation of draft laws regarding energy efficiency and renewable energy sources**
- **Establishment of municipal energy agencies**
- **Transparent public tendering procedures**

Economic and financial barriers

- **Energy tariff reform**
- **Fiscal incentives for energy efficiency and renewable energy applications**
- **Implementation of feed-In tariff for electricity from renewable energy sources**

Lack of awareness, human capacities and professional skills

- **National education, training and public awareness program**
- **Capacity building for policy makers**
- **Capacity building on financing renewable and energy efficiency investments**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Legal, institutional and administrative barriers (1/3)

Renewable energy action plan

- **The former Yugoslav Republic of Macedonia has considerable potential of renewable energy sources, namely small hydro power, geothermal, solar, biomass and also wind power. The draft energy strategy currently under revision does not foresee any targets for renewable energy sources other than large hydropower.**
- **The elaboration of a Renewable Energy Action Plan combined with periodic monitoring forms the foundation for the implementation of policy instruments promoting renewable energy growth in the former Yugoslav Republic of Macedonia. The Action Plan should cover renewable heating/cooling, electricity and biofuels and become an integral part of the National Energy Strategy.**
- **Topics to be covered within the renewable energy action plan comprise:**
 - **Summary of national renewable energy policy**
 - **National overall target and sector targets**
 - **Planned Measures including time schedule of implementation and evaluation of the expected contribution to reach the national target**
 - **Specific measures for the promotion of the use of energy from biomass (more detailed information is presented in the Energy Wood Program further below)**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Legal, institutional and administrative barriers (2/3)

Adaptation and implementation of draft laws regarding energy efficiency and renewables

- **Dedicated laws and regulations promoting energy efficiency and renewable energy are currently under development but not yet adopted. As regards renewable electricity, the adoption of an advanced feed-in tariff scheme is recommended. Heat generation from renewable energy sources needs also financial support.**
- **As regards energy efficiency, the implementation of powerful instruments such as a reform of energy tariffs, enforcement of technical standards and energy labels or taxation should be considered in energy efficiency law currently under development.**

Establishment of municipal energy agencies

- **The Energy Law 2006 obliges municipalities to elaborate and implement five-year local energy efficiency programs and action plans for implementation.**
- **The establishment of Municipal Energy Agencies could overcome the barrier of lack of capacities in the municipal authorities. The primary responsibility for those Municipal Energy Agencies should be for elaboration, implementation and monitoring of local programs and actions plans for energy efficiency and renewable energy. It shall service to facilitate and promote cooperation between the Ministries, local authorities, the National Energy Agency and other municipal energy agencies. Allocation of adequate funding is a prerequisite for the agencies to be active.**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Legal, institutional and administrative barriers (3/3)

Transparent public tendering procedures

- **Public tender procedures appear to be complex, non-transparent and even non-binding from the client side in the former Yugoslav Republic of Macedonia.**
- **Transparent public tendering Procedures involve transparency about contract evaluation criteria, awarding procedures, time schedule, fees and contract condition. Therefore, the preparation of Standard Bidding Documents is highly recommended. A simplified process is recommended for smaller sites, to minimize the transaction costs of project developers.**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Economic and financial barriers (1/2)

Energy tariff reform

- Due to only partial liberalization of the energy market, energy tariffs in the Former Yugoslav Republic of Macedonia are low, too low to ensure an adequate return on investments for energy efficiency and renewable energy projects.
- In addition, the non-consideration of environmental costs associated with mainly fossil-fuelled based energy production and consumption (40% coal, 34% oil) artificially lowers energy prices representing a further economic barrier for both energy efficiency and renewable energy projects.
- The recommended tariff reform comprises the introduction of different tariff structures and charges, a tariff design reflecting actual costs of energy generation and supply, and the internalization of environmental externalities.
- In order to prevent serious political and social consequences, tariff reforms should be coupled with target subsidies allowing prices to transition to a cost-recovery level, while ensuring that those that are least able to pay the price increases are compensated accordingly.

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Economic and financial barriers (2/2)

Fiscal incentives for energy efficiency and renewable energy applications

- The investment climate for energy efficiency in the former Yugoslav Republic of Macedonia is among the best in the project region. However, ESCOs or other investors are currently showing little interest in this market.
- Fiscal incentives reduce the tax burden of a project. Successful fiscal incentives schemes promoting long term investments should be announced and guaranteed for a couple of years in advance. They could theoretically be financed through a surcharge on energy consumption (e.g. (increased) taxes on motor fuels, heating fuels and electricity based on fossil fuels).

Implementation of feed-in-tariff for electricity from renewable energy sources

- In 2007, several Rulebooks on the method and procedure for establishing and approving the use of feed-in tariffs for purchase of electricity produced from biomass, small hydro power plants, wind power plants and photovoltaic systems were drafted by the Energy Regulatory Commission (ERC) of the former Yugoslav Republic of Macedonia. According to those draft Rulebooks, technology-specific and size specific tariffs should be granted for a time period of 20 years.
- Future development of electricity generation from renewable energy sources in the former Yugoslav Republic of Macedonia must be supported by the adoption of relevant legislation.

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Lack of awareness, human capacities and professional skills (1/2)

National education, training and public awareness program

- **Lack of awareness among different project stakeholders has been identified to be one of the main bottlenecks for the development of a domestic market for energy efficiency and renewable energy projects in the former Yugoslav Republic of Macedonia.**
- **To overcome this barrier and to create a positive image for investments in sustainable energy, the Macedonian government with participation of local and regional authorities, shall develop suitable in-formation, awareness-raising, guidance or training programs in order to inform project stakeholders of the benefits and practicalities of developing and using energy from renewable sources and energy efficiency measures.**
- **Information dissemination needs to be tailored to the end-user in order to be effective. Activities could comprise advertising campaigns, information dissemination on energy labels and standards, advice on behavioral practices and financing opportunities, information dissemination through energy auditors, and capacity building for project developers, architects, installers etc.**
- **Given the lack of information and awareness in private companies, the implementation of a training program for energy auditors in accordance with the Slovenian Energy Auditing Program (EAP) is highly recommended.**

Recommendations to overcome barriers for investments in EE and RES in the former Yugoslav Republic of Macedonia

Lack of awareness, human capacities and professional skills (2/2)

Capacity building for policy makers

- In order to ensure a successful continuation of national framework implementation recommended to overcome legal, institutional and administrative barriers, it is necessary to provide adequate funding and training for the staff of ministries, regulators and other governmental or municipal agencies with responsibilities in the energy sector.

Capacity building on financing renewable energy and energy efficiency investments

- Project developers and local authorities lack knowledge about project financing mechanisms and local banks to date have not engaged in providing credits and investments in energy efficiency and renewable energy projects, despite the availability of different credit lines from international financing institutions.
- To raise awareness about the availability of funding schemes, intensive marketing including dissemination of information about schemes to project developers and local financing institutions is necessary.
- To increase expertise with financing energy efficiency and renewable energy projects, support to local banks in terms of assistance and training in refining, standardizing and evaluating loan applications and appraisal procedures is highly recommended as described. In combination project developers should receive capacity building on how to develop bankable project proposals.

Conclusions

The former Yugoslav Republic of Macedonia has just started policy development and more capacity building for project developers and municipalities is necessary

- **The former Yugoslav Republic of Macedonia generates most of its power based on its domestic coal reserves**
- **Energy imports consist mainly of crude oil and to a lesser extent to electricity imports from neighboring countries**
- **The former Yugoslav Republic of Macedonia has a moderate energy intensity**
- **The laws on energy efficiency and renewable energy sources are currently in development**
- **The former Yugoslav Republic of Macedonia is in need of capacity building regarding the development of bankable projects**
- **The establishment of transparent public tendering procedures and fiscal incentives is recommended for realization of the available RES potential in the former Yugoslav Republic of Macedonia**

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The background of the slide features a close-up, artistic photograph of a sailboat's mast and rigging against a dark, moody sky. A small, glowing globe of the Earth is positioned near the base of the mast. At the bottom of the slide, the word "PÖYRY" is written in a large, bold, light-colored sans-serif font, with a double slash symbol above the 'Y'.

PÖYRY