

NATIONAL PRESENTATION ON POLICY REFORMS IN CROATIA

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OUTLINES

1. Barriers to the implementation of EE & RES projects in Croatia

- Legal, institutional and administrative
- Economic and financial
- Human capital

2. Policy reforms - recent and ongoing

- RES Heat and Cool
- RES Transport - Biofuels
- Energy Efficiency

3. Biggest challenges – Prevailing barriers

- Economic and financial
- Human capital
- **Opportunities**

4. Next steps

BARRIERS TO THE IMPLEMENTATION OF EE & RES PROJECTS IN CROATIA

1. Legal, institutional and administrative barriers

- **Complex authorization procedures** with no simplified procedures for the development of EE or RES projects
- Rapid legislative development creates **problems for project developers to follow and comply with regulatory changes**
- **Existing legislation still needs a stronger degree of implementation**, such as the building code, and the regulation on biofuels
- **The absence of a centralized database for energy consumption in buildings as well as the absence of an adequate regulatory and legal framework for ESCO** and public-private partnerships is a barrier for successful realization of energy efficiency projects
- **Massive investments in the expansion and the management of the electricity transport grid** are urgently needed, the remarkable wind potential of Croatia is very unlikely to be exploited to the fullest

BARRIERS TO THE IMPLEMENTATION OF EE & RES PROJECTS IN CROATIA - 2 -

2. Economic and financial barriers

- Main barrier to the development of EE projects are **capital constraints**, i.e. **high upfront costs and long payback periods**
- The de-facto **market monopoly of HEP** in the power sector constitutes a **barrier for new market entrants in the energy sector**

3. Lack of awareness, HC and professional skills

- The **abandonment of the project for the establishment of an Agency for Energy Efficiency and Renewable Energy Sources** appears to be an **indicator for lack of awareness on the relevance of reaching the targets** for EE and RES
- **Commercial banks** appear to **have a rather low level of awareness of and expertise** in EE and RES

REMOVAL OF LEGAL, INSTITUTIONAL AND ADMINISTRATIVE BARRIERS

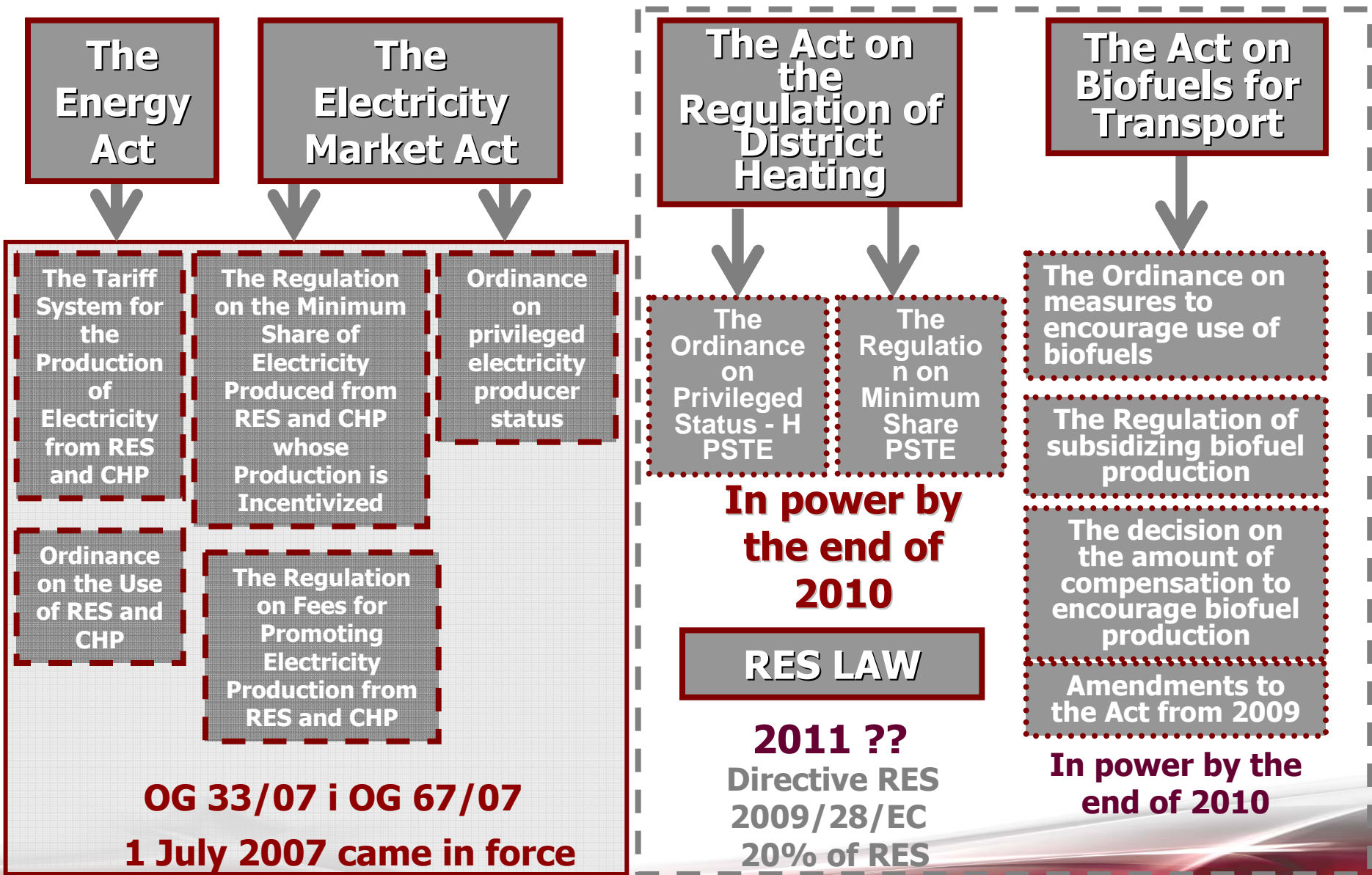
- National RES and EE legislation **almost fully in place and aligned with (transposed) EU Directives**
- **Missing** (secondary) **legislation will be in place** until the **end of 2010**
- **Normatively legislative system is in line, and no formal barriers for regulatory system functioning exist**

BUT...

Problems (challenges) of:

- **Complex authorization procedures**
- **Constantly changing regulatory framework**
- **Existing legislation still needs a stronger degree of implementation**

STILL PREVAIL



RES HEAT & COOL

Preparation of sub-laws for subsidizing RES heat & cool (RES-H/C) production is foreseen by The Act on the Production, Distribution and Supply of Thermal Energy (OG 42/05). Expected sub-laws include:

- **Ordinance on acquiring the status of privileged RES heat&cool producer** - defining eligible RES heat&cool technology (biomass, solar, geothermal) and technical criteria for each technology
- **Regulation on the minimum share of RES heat&cool production** - defining the minimum share of RES heat&cool production in total primary energy supply and final energy consumption for 2020
- **Regulation on sources and amounts of financial incentives for RES heat&cool production** - defining the source and the amount of financial incentives for different RES heat&cool technologies

RES-H/C sub-laws are in a final development phase and should be in place by the end of 2010

RES Transport - BIOFUELS

The Act on Biofuels in Transport was adopted in June 2009 (OG 65/09)

Set of biofuel sub-laws, which regulates biofuels production and consumption, as well as amendments on the Act on Biofuels in Transport, is in final preparation phase – **Full alignment with Directive 2009/28/EC**

- **Regulation on biofuels production subsidy system**
- **Regulation on special environmental fee**
- **4 ordinance and 2 decisions, introducing:**
 - **Unit subsidy [HRK/l] paid to** biofuel producer
 - **Unit fee [HRK/l] charged per** every litre of oil product sold on Croatian market (in order to accumulate financial assets needed for covering subsidised quantity of biofuels produced)
 - **Fee paid by distributor [HRK/MJ]** for not complying to its obligation (ecological rent)

Biofuel sub-laws should be adopted by the end of 2010

ENERGY EFFICIENCY LEGISLATION

- One of the strategic goals is **improvement of energy efficiency in every part of energy sector** - The Energy Strategy of the Republic of Croatia, adopted in October 2009
- Primary **energy intensity** in Croatia **is much higher than EU-15 average (approximately 20 %)** → **significant potentials for improvements!**

ENERGY EFFICIENCY LEGISLATION - 2 -

Act on Efficient End-use of Energy already adopted and enforced (OG 152/08)

- **Secondary (implementing) regulation to be implemented by the end of 2010** especially regulation on energy audits, M&V, IT system for monitoring energy savings and energy performance contracting in public sector
- **Adopted Energy Efficiency Programme of the Republic of Croatia (EePRoC) for 2008-2016** and **1st National Energy Efficiency Action Plan** of the Republic of Croatia (2008-2010)

Institutional setup

- EE policy implementation responsibility of the Ministry and EE Unit within the Environmental Protection and Energy Efficiency Fund

ENERGY EFFICIENCY LEGISLATION - 3 -

Overall MOELE goal - to obtain a **well-documented EE strategy for Croatia:**

- Definition of short-, medium- and long-term **quantified goals for EE improvements** on the national level and separately, for every sector
- Identification of and elaboration on all **prerequisites necessary for successful implementation** of defined action plan, including identification of **key stakeholders and definition of their role and responsibilities;**
- List of **eligible measures** for achieving defined goals for every end-use sector: residential, services, industry, transport;
- Addressing **cross-cutting issues;**
- Giving guidelines for **monitoring and verification** of achieved results in energy savings and reduction of greenhouse gasses

**If achieved, will resolve strategic issues,
BUT ECONOMIC – CAPITAL CONSTRAINTS - PREVAIL**

GRID (TECHNICAL) ISSUES

...currently limited capacity of the transmission grid restricts possibilities for new RES power generation capacity

- Barrier **specifically related to the development of wind projects** (but which could have significant effects on the implementation of the overall RES policy of the country)
- Currently the **grid capacity** for new wind plants is estimated at a maximum **of 360 MW**, in front of an **expressed interest (registered projects) of 5,000 MW**
- **Without massive investments in the expansion and the management of the transmission grid, the remarkable wind potential of Croatia is very unlikely to be exploited to the fullest**

EIHP and ECA (financed by EBRD) have finished a study exploring technical and economical preconditions on the power grid to accept greater capacity of wind power plants


HEP TSO in preparatory phase for grid expansion investment cycle – SLOW IMPLEMENTATION

ECONOMIC AND FINANCIAL BARRIERS

Energy Efficiency:

Main barrier - **capital constraints - high upfront costs and long payback periods**

PARADOX!

...several credit lines for EE are available in Croatia (EP&EEF, HBOR, EBRD, EIB, GGF etc.) and many financial resources remain unused ! 

Necessity of a further economic stimulation of the demand for energy services and energy efficiency projects

ECONOMIC AND FINANCIAL BARRIERS -2-

Renewable energy projects

- High upfront investment sums required, which are difficult to access for small independent project developers (especially under the current financial environment)
- **Institutional credit lines** (EP&EEF), do not support projects for electricity production from RES, since the refinancing mechanism through the feed-in tariff is considered to be a sufficient incentive

ECONOMIC AND FINANCIAL BARRIERS -3-

Heat production and supply

- In the case of **heat generation and supply projects**, a major barrier - **absence of a feed-in tariff or other equivalent economic incentive for heat production from renewable energy sources** and/or the increase of efficiency in existing heat production and distribution assets

SOLUTION!

RES-H/C sub-laws are in a final development phase and should be in place by the end of 2010

BIGGEST CHALLENGES

Lack of awareness, human capacities and professional skills

- **Government institutions and policymakers** do not seem to be entirely immune to lack of awareness on the relevance of reaching the targets for EE and RES
- **Commercial banks** appear to have a rather low level of awareness of and expertise in energy efficiency and renewable energy projects
- The lack of awareness among **final energy consumers** is (not only in Croatia) probably the highest hurdle to the realization of energy efficiency projects

OPPORTUNITY!

Introduction of commercial financial sources to the market (the FUND)

Awareness raising campaigns and activities (MOELE, UNDP, EP/EEF) - **ONGOING**

RECOMMENDATIONS – NEXT STEPS

- ✘
 - Establishment of National Agency for Renewable Energy and Energy Efficiency
- ✘
 - Monitoring of Policy Implementation
- ✘
 - Public Procurement Guidelines - **Planned**
- ✘
 - Transparent One-Stop Authorization – **Planned**
- ✔
 - Master Plan Transmission Grid - **Early stage of development**
- ✔
 - Strengthen Available Financing Schemes - **ONGOING**
- ✔
 - Adaptation of existing Feed-in Tariff for Electricity from Renewable Energy Sources and Cogeneration – **Final stage**
- ✔
 - National Education, Training and Public Awareness Program – **Partially ONGOING**
- ✔
 - Capacity Building for Policy Makers – **Constantly ONGOING**

FURTHER ACTIVITIES [MOELE]

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 - Removal of the **remaining key barriers** within RES authorisation procedures and improvement of the related RES-E sub-laws
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 - **Development and enactment of the secondary legislation** and incentives for RES to heating/cooling systems: solar thermal, biomass/pellet boiler, heat pumps
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 - Participation in **EU programs and projects** (CARDS, PHARE, IPA, INTERREG, CIP- IEE 2 etc) and int. cooperation UNDP/WB
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 - **Enhancing administrative** and institutional capacity in field of EE and RES, in particular in the Ministry
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 - Development of **guarantee of origin and green certificates scheme**
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 - **Promotion** and education, increase of public **awareness**
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 - **Consideration and development** of the new support schemes (green certificates, white certificates, cost effective approach etc.) after 2010 following the new RES targets by 2020
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 - Consideration of establish of the **Centre of Excellence of EE and RES** in order to spread best-practice EE & RE policy and implementation concepts in Energy Community

CONCLUDING REMARKS

In order to reach 20% RES target by 2020 we need to:



Finalize legislative reforms
Improve supporting schemes
Solve administrative barriers – One Stop Shop System



Build investor, policy and lenders capacity and awareness



ATTRACT COMMERCIAL FINANCING SOURCES



Attract cash generating RES and EE projects!

THANK YOU FOR YOUR ATTENTION



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