



IPA 2009 Twinning Project

European Union's IPA 2009 Program for Croatia

Reinforcement and Further Development of Internal Energy Market with the Scope of the Energy Community Treaty



This project is funded by the
European Union



From left to right: Mr Dietmar Preinstorfer, MS Project Leader, Mr Tomislav Jureković, President of the Board of Commissioners, HERA, Ms Kristina Čelić, BC Project Leader and Mr Martin Graf, CEO, E-Control

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1. TWINNING PROJECT FACTSHEET

Twinning Contract Number	HR/2009/IB/EY/01
Project Title	Reinforcement and Further Development of the Internal Energy Market with the Scope of the Energy Community Treaty
Twinning Partners	<p>BC (Beneficiary Country):</p> <ul style="list-style-type: none"> • Ministry of Economy (MoE); • Croatian Energy Regulatory Authority (HERA); • Croatian Market Operator (HROTE); • Croatian Electricity Company (HEP); • Croatian Gas Transport Company (PLINACRO). <p>MS (Member State):</p> <ul style="list-style-type: none"> • Energie-Control Austria; • Austrian Energy Agency (AEA); • Austrian Federal Ministry of Economy, Family and Youth (BMWFJ); • Austrian Energy Exchange (EXAA).
Project Duration	<ul style="list-style-type: none"> • 15 months overall duration; • 12 months on-site implementation: August 2012 - August 2013
MS Project Leader	Dietmar Preinstorfer, E-Control
BC Project Leader	Kristina Čelić, MoE
MS RTA	Karina Knaus, E-Control
BC RTA Counterpart	Nataša Mihajlović, MoE / Dražana Halar, MoE (until april 2013)
On-site Twinning Office Team	Karina Knaus (RTA) Zorana Lerotić (RTA Assistant)

2. FOREWORD: E-CONTROL

The following pages of this brochure outline the detailed progress, activities and key achievements accomplished during the implementation of the EU funded Twinning Project “Reinforcement and further development of internal energy market with the scope of the Energy Community Treaty” - configured to support the Ministry of Economy and its partner institutions to level up and adjust its institutional capacity to the EU energy acquis, in particular the so-called 3rd package for electricity and natural gas.

With Croatia becoming the newest EU member state on the 1st of July 2013, this Twinning project was perfectly timed to aid a smooth transition into the Internal Energy Market during this crucial phase. With this in mind, we at E-Control are even more delighted to have earned the trust to work alongside our partners on transferring and adapting our knowledge and experience to best fit the needs of our Croatian colleagues.

Since being a member of the European Union brings its own unique set of challenges, we are aware that building upon all the positive advances and headways made in this project in the follow up period will be a formidable test for all involved. However, looking at the results that have been achieved within this project, we are confident that our colleagues from the Ministry of Economy and our sister organization HERA will confront these complexities head-on and continue rolling forward this momentum that has been built up: living up to the responsibility of EU membership while at the same time reaping all its benefits.

We hope that we have been able to contribute to the successful achievement of energy market liberalization in Croatia to the benefit of the local energy consumers. We look forward to continued work with our Croatian partners in the framework of all EU institutions, as-well as other forms of cooperation.



Walter Boltz

Walter Boltz
Executive Director
E-Control



Martin Graf

Martin Graf
Executive Director
E-Control

3. FOREWORD: MINISTRY OF ECONOMY

Recent history shows that countries that have the capacity and unshakable commitment to reforms are successful in paving the way to progress and prosperity.

Being aware of the challenges of energy market liberalization, the primary objective of the Twinning project “Reinforcement and further development of internal energy market with the scope of the Energy Community Treaty”, which was implemented in conjunction with the Austrian energy regulatory authority E-Control, was to strengthen Croatia’s institutional capacity in accordance with the European acquis, and to assist its further integration into the common European market.

In August 2012, we initiated this project in an atmosphere charged with enthusiasm and optimism, as well as willingness to work hard, spurred on by the ongoing transformation of the Croatian legislation in line with the provision of the Third Energy Package. Throughout the past 12 months, Croatia has provided full support to and played an active role in all project activities and tasks, thus successfully confronting the challenges and providing constructive input to achieving the set objectives and targets in keeping with best international practices. Moreover, the practical experience and knowledge gained from our Austrian partner, E-Control, as well as from the other partners participating in the implementation of this project, will be of great assistance.

Finally, I would like to express my heartfelt gratitude to the European Union for funding this project, as well as to extend my congratulations to the entire project team and to all participants in this project for their enormous efforts and selfless dedication that have led to the successful completion of this project and to achieving outstanding results, which are outlined in this brochure.



A stylized, handwritten signature in black ink, consisting of a large, sweeping 'L' shape followed by a horizontal line and a small flourish.

Alen Leverić
Deputy Minister,
Ministry of Economy

4. PROJECT CORNERSTONES

Twinning project key objectives:

- To further harmonize Croatian regulations with the *acquis communautaire* and implement it in the energy sector

Project purpose:

- To strengthen energy market sector in accordance with the EU legislation and Energy Community Treaty; in particular to help with the examples from the Austrian practice with regards the Electricity Market Act, Gas Market Act and Heat Market Act

Project benchmarks:

- Improved functioning of liberalized energy market
- Regional energy market strengthened
- Compliance of rules and regulations of EU and Croatian energy market, further compliance with Energy Community Treaty
- Final Energy Market Analysis Report produced
- Procedures and indicators developed
- Employees trained on relevant topics



5. PROJECT MANDATORY RESULTS

Component 0:

- Press release, leaflet, visibility activities, twinning website manual

Component 1:

- Final report on the present national energy market situation
- Final report on the regional energy markets
- Final report on the interactions, functionality and impact of open energy market on security, reliability and pricing policy of the energy
- Final report of the energy market (energy supply) as a public service with special emphasis on socially vulnerable groups

Component 2:

- Final report with a proposal for possible further input and indicators concerning general energy market indicators concerning general energy indicators and the energy mix in various sectors
- Final report defining methodology, parameters and indicators for monitoring energy markets with a particular emphasis on electricity wholesale and retail markets
- Final report on recommendations for procedures for the functioning of the open energy market with respect to the cooperation between the institutions that compose the regulatory framework

Component 3:

- Final energy market analysis report with detailed recommendations
- Final report with guidelines and recommendations for the reinforcement and further development of the internal energy market

Component 4:

- Final report on the training needs analysis of the relevant personnel of all institutions involved in the project
- Final report on the training programme and training material concepts
- Final report on the training conducted in the form of workshops and seminars
- Final report on a 5-day study tour for MS employees from participating institutions

6. PROJECT STRUCTURE AND CONTENTS

Component	Contents
Component 0	Project management and visibility
Component 1	Assessment of the present energy market situation on a national and regional level in quantitative and qualitative terms
Component 2	Development of methodology, parameters, indicators and procedures for the functioning of the open energy market
Component 3	Preparation of documents for further development of the open energy market
Component 4	Increasing the capacity of the personnel of Croatian institutions composing the regulatory framework for the open energy market



7. COMPONENT 0:

PROJECT MANAGEMENT AND VISIBILITY

Component 0 was designed for project management and visibility activities. The main milestones in the component were:

- Organization of the opening ceremony on 25 October 2012
- Organization of the Project Steering Committee Meetings
- Organization of the Project Implementation Unit Meetings
- Creating a twinning webwsite manual
- Organization of the closing ceremony on 2 July 2013

In total project had over 180 expert days with more than 70 mission visits of MS experts.

Project Steering Committee

The PSC meetings, convened quarterly, served as a reference and basis for further work, as well as an indication of priorities.

The PSC consisted of the following members:

Chair		Croatia / Croatia twinning team		Croatia / CFCA	
Co-Chair	Kristina Čelić	Member	Karina Knaus	Member	Hrvoje Grancarić
Co-Chair	Dietmar Preinstorfer	Member	Zorana Lerotić	Croatia / MoE	
Austria / E-Control		Croatia / EU Delegation in Zagreb		Member	Kristina Čelić
Member	Dietmar Preinstorfer	Member	Davor Percan	Member	Nataša Mihajlović
		Croatia / MRRFEU		Member	Dražana Halar (until April 2013)
		Member	Iva Rakić		
		Member	Željka Medven (until May 2013)		

A major topic during the entire process was project visibility. A visibility cornerstone was the Twinning project website: www.e-twinning.at. The website featured a wide range of useful information and tools throughout the duration of the project (events and mission planning overview, news, all relevant documents, etc.) and was the central communication interface for all participants.

In order to promote the project, external public events (Kick-off Workshop, Stakeholder Cooperation Workshops, Closing Workshop) and a number of media activities were organized.

In addition, a number of giveaways like pens, mugs, folders and notebooks were handed out to make the project more visible to a variety of stakeholders.

You can find all project materials at: www.e-twinning.at



8. COMPONENT 1:

ASSESSMENT OF THE PRESENT ENERGY MARKET

This component focused on providing the Croatian Ministry of Economy and other involved institutions with the tools and knowledge to:

- Get a further insight into the status quo of the national energy market through an analysis report
- Assess the current situation on the regional energy market
- Define the impact and the functionality of open energy market with regards to security, reliability and pricing policy
- Provide analysis of the energy supply as a public service

Organization

Component 1 was divided into four activities with the following main topics:

- Assessing the status quo and future requirements
- Comparing energy markets practices between Croatia and other countries
- Developing guidelines for improvements of the current status quo
- Training on the current top topics in the energy sector for Croatia; the implementation of the provisions of the Third Energy Package

In total there were 45 expert days within the Component 1, 13 missions and 8 short-term experts were included in this component.



Results, recommendations and sustainability

RESULTS

In line with the mandatory results of the Twinning contract, this component delivered a wide range of results:

- An assessment report describing the existing energy market system in Croatia, including strengths and weaknesses analysis
- Materials and information about the best practices in Europe
- Analysis of the Croatian energy mix (energy supply and energy consumption)
- Analysis of the market structure of the Croatian electricity and natural gas markets
- Analysis of the Croatian regulatory framework
- Guidelines for the green electricity and disclosure
- Data on the European regulation on guarantees of origin and disclosure
- Data on the cross-border exchange and international cooperation
- Recommendations about future proceedings

RECOMMENDATIONS

Furthermore, some concrete recommendations came out from the joint work in Component 1:

- Further improvement of the liberalized energy market mechanisms
- Harmonization of the Croatian legislative framework with the provisions of the Third Energy Package
- Implementation of the best European practices with regards to the green electricity and disclosure especially taking into account the support mechanisms
- Further integration of the renewable energy sources into the system
- Further integration of Croatia into the common EU energy market
- A stable pricing system which reflects the supply and demand conditions is needed
- The term “vulnerable consumer” should be clearly defined in the Croatian legislation so as to ensure the minimization of energy poverty

SUSTAINABILITY

The results of Component 1 have a major impact on the future activities of all involved BC partners and guarantee positive long-term effects. Component 1 implies the following sustainability aspects:

- The developed analysis and materials can be used to further optimize the functioning of the liberalized energy market
 - The materials concerning the best practice in the implementation of the EU Third Energy Package provide the BC institutions with the knowledge to further improve and optimize workflows
 - All developed tools and materials refer to the status quo of the BC and can be easily and directly implemented in practice right away
 - The quality of the developed materials embodies the European standards. These materials are essential for the future development of the Croatian and regional energy market and cross-border activities
- The topics discussed in this component represent a major contribution to protecting the weak market participants; customers.



METHODOLOGY FOR THE FUNCTIONING OF THE OPEN ENERGY MARKET

This component provides Croatia with the tools and knowledge to enable the successful operation of the open energy market. Market monitoring mechanisms are vital for ensuring non-discrimination, effective competition and efficient functioning of the market. This component focused on providing the BC partners with the know-how to be able to monitor markets and market participants' behaviour to ensure that competition is fully functioning and that energy markets as a whole function well.

Organization:

Component 2 was divided into three activities:

- Establishment of energy market indicators concerning energy mix (electricity, oil, natural gas etc.) in various sectors (industry sector by main industry branches, service sector, households etc.)
- Defining methodology, parameters (e.g. traded volumes, trading prices, trends etc.) and other relevant indicators for monitoring energy market including national/regional/EU energy market follow up
- In accordance with the outcome of the analysis carried out under activity 1.1., preparation of the relevant procedures necessary for the adequate functioning of the open energy market

This component has 36 expert days in total, 7 mission visits were delivered and 10 short-term experts took part in it.

Results, recommendations and sustainability

RESULTS

In line with the mandatory results of the Twinning contract, this component delivered the following results:

- Final report with a proposal for possible energy market indicators concerning general energy indicators and the energy mix in various sectors
- Final report defining methodology, parameters and indicators for monitoring energy markets with a particular emphasis on electricity wholesale (incl. balancing) and retail markets

- Final report outlining recommendations for procedures for the functioning of the open energy
- Training sessions about tools, reports and key figures
- Input about data monitoring and price comparison tools
- Examples of data analysis
- Data on the legal basis of market monitoring in the EU and Austria
- Methodology and parameters for monitoring reports

RECOMMENDATIONS

In addition to the results, the following recommendations resulted from the joint work in Component 2:

- Data items should be collected on the basis of internal and external reporting/monitoring requirements
- Market monitoring should focus on a broader range of issues relevant to the energy field in Croatia, other than the supply/demand factor
- An element of automation should be introduced in market monitoring
 - Data items should be collected via the means of monthly, quarterly or yearly surveys
 - An analysis of the future data needs and possible flows should be carried out and cover all Croatian partner institutions involved



SUSTAINABILITY

The results and recommendations developed in Component 2 facilitate long-term development of functioning liberalized energy markets in the BC and cover important sustainability aspects:

- All the provided tools, materials and information are based on the status quo of the BC. Therefore these elements could be regarded as a further base for future activities
 - The market monitoring mechanisms are cornerstones for ensuring:
 - Non-discrimination
 - Effective competition
 - Efficient market functioning
 - Data management, transforming key figures and indicators, and developing market reports are essential for transparent markets, and increase the market participants' ability to operate and work in the market
 - Reporting and publication of facts and figures about energy markets contribute to customers' awareness of energy prices and energy demand
- Effective market monitoring increases competition in energy markets
- Effective market monitoring adds transparency and attracts new entrants



10. COMPONENT 3:

DOCUMENTATION FOR THE FURTHER DEVELOPMENT OF THE OPEN ENERGY MARKET

The aim of this component is to provide the BC with the final energy market analysis report summarizes the most important conclusions for the Croatian energy market (electricity and natural gas). In addition, guidelines for the reinforcement and further development of the internal energy market should be developed. Using findings from previous analysis the recommendations set out in the report shall address the regulatory framework, the institutional relationships and pricing policies in the electricity and natural gas market.

Organization:

Component 3 was divided into 2 concrete activities:

- Producing Final Energy Market Analysis Report, taking into account all aspects and findings by implementation of the activities under Result 1, including detailed recommendations for improvements
- Producing Guidelines for Methodologies for Reinforcement and Further Development of Internal Energy Market in accordance with the Energy Community Treaty

In total there were 63 expert days, 12 mission visits and 10 experts involved in this component.

Results, recommendations and sustainability

RESULTS

In line with the twinning contract, the component delivered the following results:

- Detailed input about the Energy Act and Act on the Regulation of Energy Activities
- Detailed input about supplier switching, ratification, green electricity, GOs and disclosure, heat supply and Croatian District-Heating-Act, vulnerable customers, market design, balancing, unbundling, quality of supply, market inquiry gas, standard load-profiles for gas, REMIT
- Final Energy Market Analysis Report, including detailed recommendations for improvement
- Guidelines for Methodologies for the Reinforcement and Further Development of the Internal Energy Market

RECOMMENDATIONS

The discussions in Component 3 revealed particular recommendations for the following key modules:

- Best practices from Austria with regards to the Energy Market Act, Act on the Regulation of Energy Activities, Heat Market Act and Gas Market Act might be taken into consideration and implemented into the Croatian national legislation
- Market design balancing should be further developed
- Consumer switching should be encouraged by the competent authorities via public campaigns and raising consumers' awareness
- Dispute settlement mechanisms should be set up by the relevant public bodies to ensure the maximum protection of the customer
- Benchmarking and incentive regulation should be taken into consideration when regulating DSOs.

SUSTAINABILITY

The results achieved in Component 3 imply the following sustainability aspects:

- The activities in Component 3 supported the BC to establish an open and fully functional energy market for future tasks
- The activities targeted the needs of a strong and modern regulator:
 - structured internal process
 - a strong organizational structure
 - strong processes and project management
- The new legislation enacted by the Croatian Parliament in the course of the project (the Energy Market Act, Act on the Regulation of Energy Activities, Heat Market Act and Gas Market Act) entails new tasks for the MoE and HERA, hence the results of Component 3 can be used to prepare the Croatian partners for the future work
- The results from Component 3 are designed to be used for future organizational decision processes.

11. COMPONENT 4:

INCREASING THE CAPACITY OF THE CROATIAN INSTITUTIONS

Component 4 was geared toward upgrading and increasing the capacity of the personnel of Croatian institutions composing the regulatory framework for the open energy market.

Organization:

Component 4 was divided into four concrete activities:

- Conducting training needs analysis (TNA) of the relevant personnel of all institutions involved in the project (MoE, HERA, HROTE, PLINACRO, HEP-OPS/ ODS/SUPPLY) concerning open energy market and preparing TNA report
- On the basis of the TNA report, developing training programme on functioning and further development of the open energy market and preparing training materials
- Conducting trainings in the form of workshops and seminars for a minimum of 10 participants from all involved institutions
- Organizing and conducting one 5-day study tour to MS for 8 employees from participating institutions and preparing report on findings on the study tour.

In total, 35 expert days and 17 mission visits were carried out and 14 short-term experts were involved in this component.

Results, recommendations and sustainability

RESULTS

In line with the mandatory results from the Twinning contract, the experts worked on and delivered a wide range of concrete results:

- In order to prepare and to organize useful and optimized training sessions, a training need analysis was carried out
- Training programme developed, training materials prepared
- Training block I included the presentation of the development of the Austrian energy environment and the following implementation of the liberalized market according to the EU guidelines (unbundling, market participants and roles, market model, clearing and settlement, frequency-load control reserve, balance energy and balance accounting, introduction in price formation and electricity trading in Europe and experiences after 10 years of liberalization in Austria)

- Training block II included spot trading and exchange (example Austrian Energy Exchange), cross boarder capacities and capacity management in Europe (a general overview of the power exchange EXAA, business activities and legal foundations of the exchange, trading at the power exchange and price formation and trading platform, clearing & settlement and risk management of the exchange)
- Training block III included markets & exchanges, developments and projects in Europe (function and requirements of an exchange, regional markets and exchanges in Europe, ongoing projects, market coupling and price coupling of regions)
- Workshops on the Third Energy Package, gas liberalization, industrial price surveys, energy statistics, public relations at the Austrian regulator of the energy sector as well as on the security of supply were carried out
- A workshop on REMIT (Regulation on Energy Market Integrity and Transparency, Regulation EU No 1227/2011) in cooperation with the Croatian Energy Regulatory Agency was carried out with the participation of the active market players as well as the BC partner institutions
- A 5-day study tour to MS for 8 employees from participating institutions was carried out

RECOMMENDATIONS

- Further workshops on the tackled issues are encouraged to raise the awareness in the Croatian energy sector about the above-mentioned topics
- Austrian Energy Exchange will, if requested and possible, provide additional recommendations in bilateral meetings and talks to the Croatian Market Operator (HROTE) with regards to the setting up of the Croatian Energy Exchange
- The established contacts between the MS and BC experts during the course of the project as well during the study tour should continue beyond the very period of the project implementation

SUSTAINABILITY

The results of the Component 4 cover important sustainability aspects:

- All the trainings provide a valuable input and know-how for the BC partners and will ensure that positive practices are transferred into the Croatian system
 - Croatian experts are left with all the training materials, which can ensure that other BC experts benefit from the training sessions as well
- The exchange of expertise and experience will continue beyond the duration of this twinning project, thus strengthening the capacity of Croatian personnel in the long run as well.

12. CLOSING WORDS OF THE PROJECT LEADERS

The Twinning project on “Reinforcement and further development of internal energy market with the scope of the Energy Community Treaty” was a great success. All the mandatory results were met and developed in a close cooperation and partnership between the Croatian and Austrian partners. All participants were highly motivated and contributed knowledge, skills and enthusiasm to finalize the project.

Looking at what has been accomplished throughout this project, we must say that we are very proud and most pleased with the results. What E-Control, Croatian Ministry of Economy, and the other Twinning partners have achieved over the last 12 months is twinning at its best. The concept of twinning is based on cooperation, and from the very beginning of our project, the cooperation between Croatian institutions and the partners from Austria has worked extremely well. We have equally benefitted from each other by gaining new experience in our professional field of expertise, by getting to know each others’ cultures and ways of living and by establishing new friendships which will last long into the future.

Let us express our thanks to all the colleagues from MoE and HERA for the immense and sustained efforts. Furthermore we want to express gratitude to the CFCA, European Union and its Zagreb based delegation, whose support to the project team has been truly enormous, and to congratulate all the involved partners on their great success in accomplishing the outlined project results.



A handwritten signature in black ink, appearing to read 'Kristina'.

Kristina Čelić,
Ministry of Economy,
Croatia



A handwritten signature in black ink, appearing to read 'Dietmar'.

Dietmar Preistorfer,
E-Control,
Austria

The European Union is made up of 27 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

The main objectives of the IPA assistance to candidate and potential candidate countries is in their harmonization and implementation of the *acquis communautaire* and to prepare them for the use of the Cohesion Fund and Structural funds.

Twinning is an instrument launched by European Commission in the year of 1998. It is envisaged as an administrative cooperation related to provision of assistance to beneficiary countries in the process of strengthening administrative and judiciary capacities for the purpose of implementation of the *Acquis* of the European Union. The primary objective of Twinning projects is providing assistance to beneficiary countries in the establishment of modern and efficient administration by focusing on structure, human resources and management skills required for harmonization of national legislation with the *Acquis* of the European Union.

FIND OUT MORE ONLINE:

European Union - This project is funded by the European Union. Find out more about the European Union and its institutions at: <http://europa.eu>

E-Control Austria - Austrian regulatory authority for the electricity and gas markets and the main implementing body for the project

<http://www.e-control.at>
<http://www.e-twinning.at>

Austrian Energy Agency
<http://www.energyagency.at>

EXAA – Energy Exchange Austria
<http://www.exaa.at>

BMWFJ – Austrian Federal Ministry of the Economy, Family and Youth
<http://www.bmwfj.gv.at>

Ministry of Economy, Republic of Croatia
<http://www.mingo.hr>

HERA – Croatian Energy Regulatory Agency
<http://www.hera.hr>

HEP – Croatian Electricity Company (OPS/ODS/SUPPLY)
<http://www.hep.hr>

HROTE - Croatian Electricity Market Operator
<http://www.hrote.hr>

PLINACRO - Croatian gas transport company
<http://www.plinacro.hr>

CFCA – Central Financing and Contracting Agency
<http://www.safu.hr/en>

EU Delegation to the Republic of Croatia
<http://www.delhrv.ec.europa.eu>



Find out more at:
www.e-twinning.at