

Paving the way for proper future implementation of GO in Croatia

Renewables and Cogeneration Department
Renewables and Cogeneration Market
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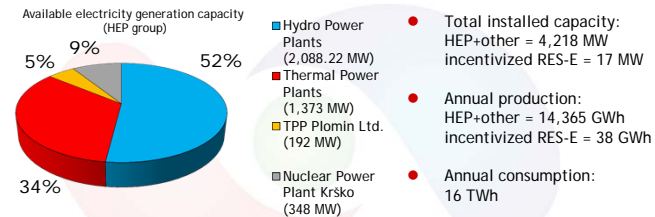
Workshop
"Perspectives on
Certification of Electricity Generation and Disclosure
in the light of the new EU Energy Policy"

1st October 2010
Radisson Blu Resort, Dubrovnik

Outline

- Electricity in Croatia - At a glance
- The Role of HROTE in Supported FITs model for RES and CHP
- Our Vision of Implementation GO in Croatia
- Next Steps

Electricity Profile in Croatia



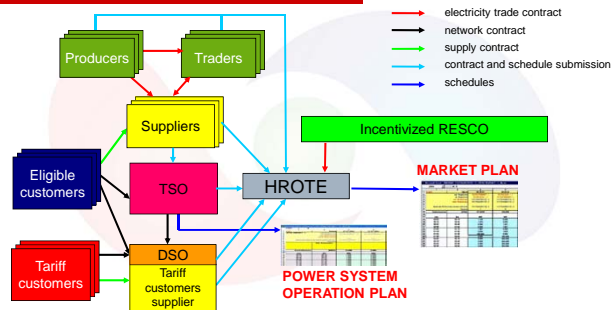
Industrial power plants
TPP 210,18 MW (fed to the grid 11 GWh)

Source: Energy in Croatia, Ministry Annual Energy Report, 2008

The New Energy Strategy in Croatia

- EE policy: decreasing by 10% of final energy consumption until 2020
- To be in line with Directive 2009/28/EC the new target was set at 20%:
 - 9,2% RES-E
 - 2,2% RES-T
 - 8,6% RES-H&C
- The goals for three sectors:
 - 35% RES-E
 - 10% RES-T
 - 20% RES-H&C
- Hydro
 - New HPP: 300 MW
 - SHPP: 100 MW (at least)
- Wind: 1200 MW
- Photovoltaic: 45 MW
- Geothermal: 20 MW
- Biomass: 85 MW
- Cogeneration
 - Micro CHP (DG): 100 MW
 - CHP: 300 MW

Croatian Electricity Market



Roles of the Ministry, Agency and System Operators

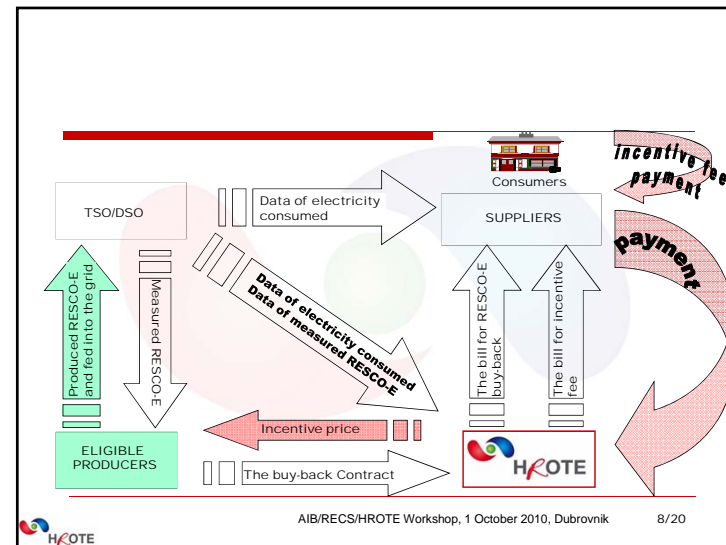
Incentivized RES and CHP

- Ministry of Economy, Labour and Entrepreneurship monitors implementation and compliance with set targets for RES and CHP, keeps the registry with RES and CHP projects
- Croatian Energy Regulatory Agency is responsible for granting energy permits and granting the status of eligible producers, can carry out inspections of premises, is in charge of supervision the eligible producers (maintaining the characteristics and terms of eligibility)
- The System Operator is responsible for connecting and taking deliveries of electricity from RES and CHP

Role of Croatian Energy Market Operator

Incentivized RES and CHP

- Enters into contract with eligible producers entitled to FIT
- Enters into contracts with all suppliers for the purpose of ensuring a minimum share of electricity produced from RES and CHP
- Monthly collects from the suppliers:
 - fees for incentivizing RES and CHP;
 - financial income regarding the buy-back share of produced electricity from RES and CHP.
- Monthly makes the settlement, collection and allocation of funds from the financial income from suppliers:
 - onto producers of electricity from RES and CHP based on the contracts entered into;
 - onto TSO for payment the balancing energy.



Current Situation...

...and Future Projects

40 MW of incentivized RES-E and CHP-E so far:

| Technology | production | construction |
|------------------|------------|--------------|
| Wind Power Plant | 28 MW | 96 MW |
| PV Plants | 53 kW | 80 kW |
| SHPP | 30 kW | |
| Biomass (CHP) | | 6 MW |
| Biogas | 2 MW | 3 MW |
| CHP | 10 MW | 460 kW |

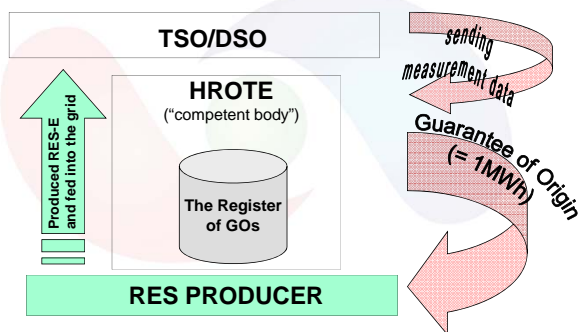
Registered projects in the Ministry (approx. 6,116 MW):

| | |
|------------------|----------|
| Wind Power Plant | 5,640 MW |
| PV Plants | 48 MW |
| SHPP | 200 MW |
| Geothermal | 5 MW |
| Biomass | 124 MW |
| Biogas | 33 MW |
| CHP | 41 MW |

GO: Why it matters

- Requirements from the new Directive 2009/28/EC, Article 15 on Guarantees of Origin (GO)
- Transparency toward consumer rights (regarding Disclosure rule Directive 2009/72/EC, Article 9)
- As international certificate standard that relies on these two Directives and therefore is recognized across Europe
- Resolve problems with auditing plants (other administrative burdens by regulating procedures)
- Introducing the protocols between market players
- Could be used for calculating the residual mix
- Could be used for statistics
- Will be extended to other kinds of energy (biogas, biofuels, EE)

According to the requirements from new Directive and the role of HROTE in FIT system, it follows



Implementation of the GO System in Croatia

- The Government of the Republic of Croatia has received a grant from the Global Environmental Facility Trust Fund (GEF) for financing the implementation of the Renewable Energy Resources Project. The main aim of the Project is to support the development of economically and ecologically sustainable market of renewable energy resources. The grant beneficiary is the Ministry of Economy, Labor and Entrepreneurship, and the Implementing Agency of the Project is Croatian Bank for Reconstruction and Development (HBOR).
- HROTE as the user of the grant
- In April 2009 HBOR announced the tender (CQS based) for submitting the expressions of interest of the consultants
- In August 2009 WB confirmed the choice of the consultant: GREXEL Systems Oy, Finland.
- 1st Workshop (21.-22.09.2009.)

The Project "Implementation of the System of Guarantees of Origin in Croatia"

The main terms from ToR of the Project:

1. Implementation of the System of Guarantees of Origin in Croatia, with necessary legislative adaptation on current support system
2. Evaluation, selection, adjustment and implementation of the software for GO database



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Approach of Grexel

- Analysis the current situation
- Give recommendations on legislation and regulation
- Use an already existing registry software solution (SaaS)
- Draft an EECS Domain Protocol package for Croatia
- Communicate constantly along the project with the AIB
- Modify existing solution (e.g. translation in Croatian)
- Testing and Deployment
- Training



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Organization of GO activities in Croatia

- Issuing Body: HROTE
 - EECS implementation
- Production Registrar: Agency
 - Production Device registration
- Measurement Bodies: TSO/DSO
 - Delivering reliable meter readings
- Central Monitoring Office: GREXEL
 - Manages Central Registration Database
- Production Auditor: Independent auditors accredited by IB
 - Can be used for special purposes



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Electricity Disclosure Implementation

- GO can be used as a proof that renewable energy has been sold or consumed
- Electricity for which a GO has been issued cannot be sold or consumed as renewable
- Designate a competent body
 - To issue detailed guidelines on how GO shall be used for disclosure
 - To calculate yearly residual mix for Croatia so that attributes are not double counted
 - To coordinate residual mix calculation and rules with other countries
- Treatment of FiT production, options
 - No GO for FiT production
 - GOs issued for all FiT production but they are let to expire
 - HROTE gets the GO and cancels it for suppliers



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Project Evaluation

- The legislative and regulatory recommendations were given
- The registry system for Croatian GO scheme was made available
- HROTE's membership in the AIB was prepared (became the observatory member)
- General recommendations on Disclosure were given
- The results need to be revisited

Next Steps

- Disclosure rule for suppliers
(The Electricity Market Act)
- Revision the current legislation
(The Electricity Market Act (the role of market operator, the role of Agency), secondary legislation on RES and CHP)
- Financial plan regarding the membership fee for AIB (currently €5,000, and €0,01 per issued certificate) and regarding the running the GO registry by CMO
- Consider the issuing GO-CHP in future

Next steps

- Resolve registration procedures (*Production/Consumption Declaration* with request on the status of eligible producer for all RES (incl. HE>10 MW))
- Resolve auditing issues
- Resolve measurement issues (delivering metering data from TSO/DSO, measurement frequency, measurement of the proportion of RES-E from biomass and pumped hydro)
- Earmarks as data for GO
 - EECS Earmark Types (0 - No Support, 1 - Investment support or past production support, 2 - Production support, 3 - Combination of investment and production support, 4 - Unknown)
- Issuing 2 kinds of GO:
 - ✓ For RES-E supported by FITs (only for disclosure purposes of suppliers, without any financial benefits), automatic issued and cancelled in line with FIT payment
 - ✓ For export/import GO, for disclosure and financial benefits of suppliers

Joining the AIB

- The first meeting with AIB Board was in September 2006
- In September 2009 started the Project GO Croatia (HROTE became the observer member in AIB)
- Hopefully believe to adopt the national legislation in 2010-2011 in regards with PRO standard (appointment HROTE as the issuing body, HERA as the Auditing Body and the Production Registrar, TSO/DSO as the Measurements Bodies, define how the certificates' market will operate in Croatia)
- Applying for the membership in AIB Secretariat
- Sending a draft version of Domain Protocol for peer review
- Joining the AIB in 2011
- Start issuing the first GO certificate



Thank you for your attention!

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