Project: BiG>East

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Local implementation strategy for biogas projects in Croatia

Contribution to Deliverable D-7.3

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1. Introduction

The project came in the proper time in Croatia as the package describing RES-E production, together with feed-in tariff have been introduced a year ago. Biomass sector has been promising and foreign investors from saturated biogas markets show their presence in Croatia to the great extend. At the beginning of the project, only one biogas plant was operated. This is a landfill gas plant, established in 2004. The second biogas plant, adjacent to the Zagreb's waste water treatment plant, was in the building phase. Media was full with announcements of agricultural biogas plant that will not only produce clean energy but bring employment to rural areas. Unfortunately, 30 months later, only one agricultural biogas plant started its operation. Current status at the Registry of Renewable Energy and Cogeneration, there are 17 projects pending for eligible producer status, among which about 13 have not exceeded maximum period valid for application (2 years). In addition, there are 14 projects prepared for IPARD funds. In total, there are about 27 agricultural biogas plants in the course of investment which is about 81.5 M€.

In terms of providing the framework for RES-E and financing options for biogas plants, there are both present at the Croatian biogas market.

The feed – in tariff for biogas plants is organised in three different categories: biogas plants on agricultural waste, energy crops, etc., biogas plants using landfill gas and biogas plants using sewage sludge from waste water treatment plants. Among those categories, the feed-in tariff differs to plants' size: ≤ 1 MW and > 1 MW. The feed-in tariff for agricultural biogas plant is abundant with 16.43 and 14.25 €c/kWh for ≤ 1 MW and > 1 MW, respectively, for 2007. The feed-in tariff is updated each year for the consumer price index. For 2010, the feed-in tariff amounted 18.23 and 15.80 €c/kWh for ≤ 1 MW and > 1 MW, respectively. RES-E has priority to the grid access and the contract is signed for 12 years. Procedure for obtaining the eligible producer status appears to be challenging for all renewables, including biogas. The eligible producer status makes the producer of electricity from renewable sources eligible for the feed-in tariff.

Croatian Bank for Development and Reconstruction (HBOR) has been providing two credit lines: for preparation of project documentation (now closed) and for investments in renewable projects.

Despite the existing framework conditions, biogas market has been developing at slower pace than expected.

2. Mobilisation campaigns

There have been three mobilisation campaigns in Croatia, each of them targeting different audience:

1st MC:

Date: 26th February 2008

Venue: EIHP, Zagreb

Target audience: agro-food industries, consultants and institutions (ministries, permitting authorities…)

Topic: introduction of the project, raising awareness of biogas features in general

Participants: 46

Media coverage: Lider –weekly business magazine: special issue; interview for Pisele piše – radio show on Radio 101, double page at Večernji list – daily national newspapers

2nd MC:

Date: 26th March 2009

Venue: Vukovarsko-srijem County, county hall

Target audience: farmers

Topic: what are their views on possibilities in having a biogas plant in their region

Participants: 38 Croatian and about 19 (registered) participants from abroad

Media coverage: local newspapers, local TV (Vinkovačka televizija), statement in the evening news at the 2nd channel of the National TV (HTV2 at 21:00)

3rd MC:

Date: 22nd September 2009

Venue: EIHP, Zagreb

Target audience: relevant ministries (Ministry of Economy, Labour and Entrepreneurship; Ministry of Environment, Spatial Planning and Civil Engineering; Ministry of Agriculture, Rural Development and Fisheries) and corresponding bodies, national Fund for Environmental Protection and Energy Efficiency, universities (University of Zagreb, University of Osijek), consultants, institutions, NGOs, energy players, future biogas plant operators

Topic: presentation of Biogas Handbook – Croatian translated and adopted version

Participants: >25

Media coverage: all Croatian daily newspapers and all energy related Internet portals, interview at the specialised show at the national TV: Eko Zona; interview for Pisele piše – radio show on Radio 101, interview for Radio Europa, independent radio.

Details on the mobilisation campaigns are provided at the D.7.1. together with media and photo gallery.

The main outcomes of mobilisation campaigns significantly helped in implementation of the other project tasks and activities as the first mobilisation campaign brought the attention of relevant stakeholders in both institutional, technical and feedstock sector.

Mobilisation campaigns in Croatia contributed very much in closing the gaps between the decision makers and farmers; foreign biogas equipment sales representatives and biogas investors and/or biogas feedstock owners and provided reliable information on biogas features to the general audience in Croatia.

Outstanding media coverage of each of the mobilisation campaigns is only one of the evidences for the necessity of further promotion of biogas in Croatia.

Among other evidences of successfulness of the mobilisation campaigns, one could underline at least two:

- during the closing discussion at the 2nd mobilisation campaign, it has been decided that future biogas plant operators and investors should organise themselves in an association. By the October 2009, Biogas Group has been established within the Zajednica za obnovljive izvore energije (Community for RES) at the Croatian Chamber of Economy. The head of the Biogas Group is prof.dr.sc. Davor Kralik who has recognised IEE BiG>East contribution to the establishment of the Group.
- Due to the 3rd mobilisation campaign and its media coverage, digital version of Croatian Biogas Handbook has been visited more than 9000 times from 22nd September 2009 till end March 2010. All relevant universities and faculties, as well as national library, all relevant ministries and bodies have received at least one hard copy of the Handbook.

In order to keep the echo of the mobilisation campaigns, all material presented at the events has been available either on the official project web site or at the web site of EIHP.

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Local implementation strategy for biogas projects

Permitting procedure is mainly the same for all renewable energy sources and, as it can be seen from the scheme below (Figure 1), highly centralised.

The only document within the procedure not obtained at the centralised level is location permit. Location permit is issued by the competent administrative body (spatial planning office) of a county, large town or city of Zagreb, depending on their jurisdiction over the territory where the investment will occur.

HBOR provides financing options for investments in renewable energy that could be obtained either directly at HBOR or via 20 commercial banks that HBOR has an agreement. Cooperation of HBOR with commercial banks makes the financing for biogas investments available at local level. In practice, commercial banks have scarce capacity in evaluation of biogas investments which places another barrier for development of local biogas market.

With this framework, local implementation strategy for biogas projects in Croatia should focus on two main directions:

- providing positive environment for acceptance of biogas projects in the community under their jurisdiction
- capacity building.

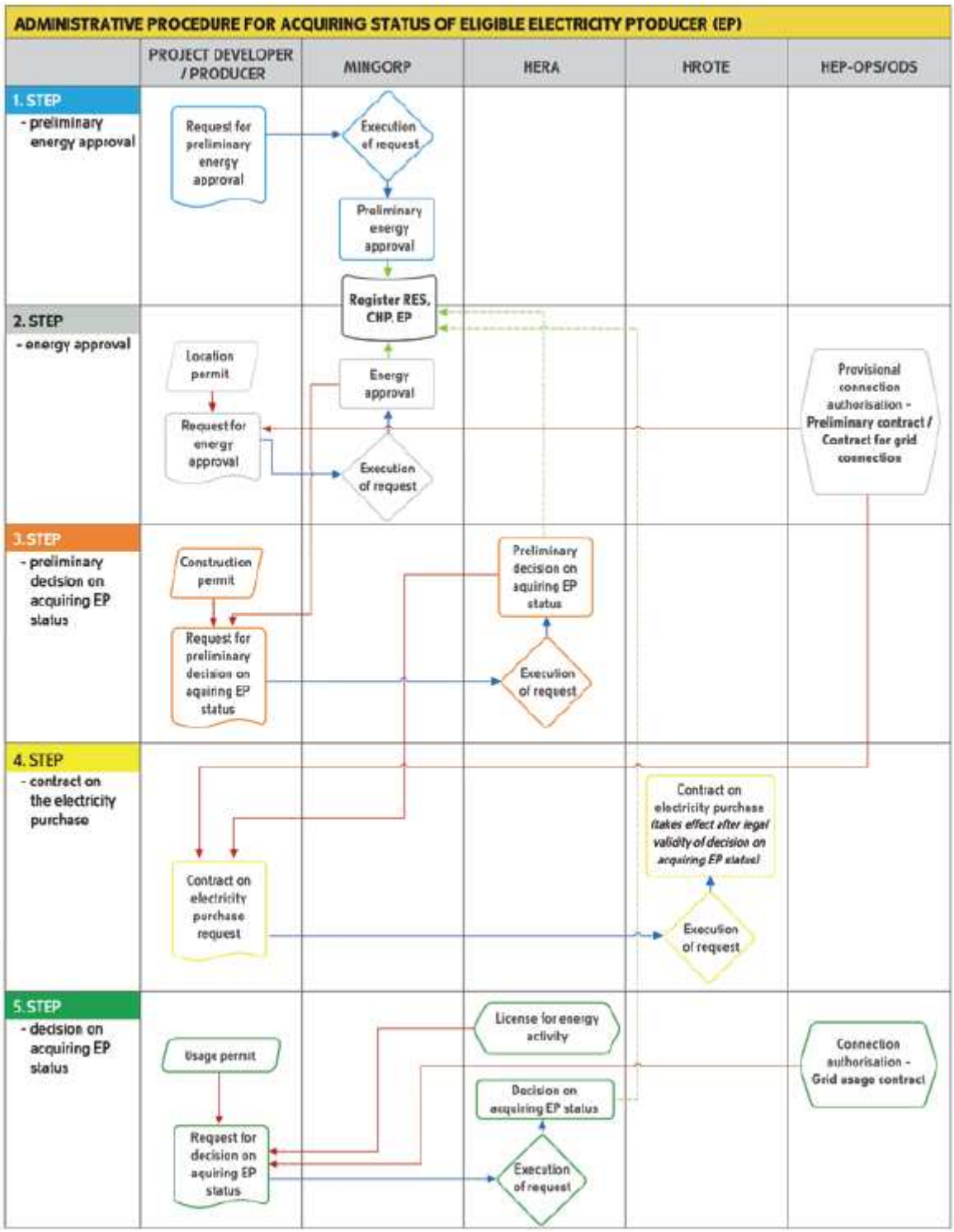

Figure 1 Administrative procedure for acquiring status of eligible electricity producer

Source: Ministry of Economy, Labour and Entrepreneurship (MINGORP)

2.1. Positive environment for acceptance of biogas project

Local population has scant knowledge of biogas plants which provokes natural reaction of fear of unknown. Possible trade offs of having a biogas plants for a local community should be promoted in a simple and transparent manner. The creation of positive environment for biogas projects should start from the local authority's staff which will further communicate this message to their fellow citizens.

According to the Law on Energy (OG 68/01,177/04, 76/07, 152/08), local authorities are obliged to include planned energy demand and supply in their development materials. Biogas production and utilisation is occurring only in those areas with sufficient feedstock to operate it, which means rural areas. Biogas plants would be the first option among other renewables to be implanted in rural areas, not only for energy reasons but also for environmental reasons.

It is important to raise awareness that biogas plant is not only the benefit for the investor or owner but also to the society as a whole. Recognising biogas plant beyond clean energy production facility is a starting point for the local authorities. Understanding that with biogas production other problems could be solved such as manure management, better living environment, job opportunities, tourism and similar, could motivate local community to take a proactive approach. Namely, local authority with excess manure could provide manure management tool in the shape of centralised biogas plant where farmers will be feedstock suppliers and beneficiaries of organic fertilisers while authority will play a role of energy player and biogas plant operator. In the case of majority of small farms, the local authority could facilitate organisation of centralised biogas plant. Local authority could identify barriers that are special for its community and provide support. Examples could be ineligibility of farmers for financing (too little collateral, too old), low level of education, lack of independent consultancy on biogas plant design… Local authorities could employ responsible institutions (departments of economy, development agencies…) to provide solutions for such barriers or apply for funding and hire relevant experts.

As identified in the WP3, the main barriers for developing of biogas market in Croatia are too fragmented agricultural land, small farms and low standard of living of farmers both in terms of income and skilled work. Taking a proactive approach on embracing biogas investments, local development strategy should prepare programmes that will overcome those barriers.

2.2. Capacity building

Modest results from planned, pending and actually realised biogas plants point out necessity of capacity building at least at two directions:

- capacity building of spatial planning officers
- capacity building of farmers and future biogas plant operators.

Capacity building of spatial planning officers should aim at providing them basic spatial descriptions of a biogas plant which will help them in deciding on the location permit. The difficulty and timeframe of obtaining location permit for a biogas plant should be brought up to the level of streamlining. Local authorities could provide capacity building either by

hiring experts, arrange education for spatial planning officers where this kind of education is available or participating in national and international project on the topic of biogas.

Capacity building of farmers and future biogas plant operators should cover at least three topics: how to prepare documentation for permitting procedure, how to prepare documentation for financing procedure and how to install and operate biogas plant. With this capacity building, farmers will gain knowledge and find their interest in participating in biogas plant operation. Farmers and/or biogas plant operators will also gain negotiation power when choosing a biogas plant equipment supplier. The last, but not the least, farmers will be familiar with permitting and financing procedures and how to fulfil the requirements. The final outcome of the capacity building of farmers and future biogas plant operators should be less challenging permitting and financing procedures.

3. Conclusions

It could appear that, due to the centralised framework for permitting and financing of biogas plants, local community could do very little to develop a local implementation strategy for biogas projects in Croatia. However, this is only partially true. Employing the existing stakeholders in agriculture (i.e. extention service, Agricultural Chamber, farmers' associations), economy (i.e. development agencies, subsidiaries of Croatian Chamber of Economy, development departments…) and its citizens – farmers for creation of positive biogas environment together with capacity building is not a negligible task.

Transition period in Croatia has been rather difficult and it is still possible to notice homeland war repercussions especially in rural areas. Approaching the EU and harmonisation of national legislation to the *acquis* places a lot of pressure on local communities that have not been learned to play a proactive role. Biogas is just one of the numerous issues that local authority has to bring to its attention. As recognised in the WP 5 that deals with training courses on biogas for farmers, there is still shortage of biogas experts and relevant educational centre that would facilitate such vocation. Combining the facts stated above, local authorities are yet again unable to provide local development strategies for biogas market without external assistance.

During the BiG>East project, awareness of local authorities have been tackled and raised but there is still heavy demand for project of similar profile that will help local authorities in implementation of local strategies for development of biogas projects in a sustainable and efficient manner.