Project Fact Sheet

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BioEnergy Promotion (BioProm)

Programme area:	"Intelligent Energy – Europe" Programme
Status:	"ongoing""
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Website:	http://www.bioprom.net
Objectives:	- Identification of non-technical barriers concerning bioenergy facilities in urban areas - implementing biomass facilities in urban areas
Benefits:	Job creation; advancement of renewable energies; new markets for service providers; fossil fuel savings, diminuation green-house effect
Keywords:	Regional networks, bioenergy facilities, market penetration
Duration:	01/2005 – 06/2007
Budget:	€ 717.942 (EU contribution: 49,7 %)
Contract number:	EIE/04/100/S07.38585

Short description

The project aims to identify and to overcome non-technical constraints of the realisation of bio-energy projects in densely populated urban areas. It tends to bring bioenergy projects on their way by establishing a network of actors and stakeholders of the bioenergy sector in five European regions. Special focus lies on interregional knowledge transfer and the exchange of experiences (best-practise-models). The overall aims are:

- **initiation of ten bioenergy projects – two per region**
- external workshops to train farmers and public bodies in realizing bioenergy projects
- to stimulate the market introduction of bioenergy projects by increasing awareness and information on bioenergy and on project initiation

Expected and/or achieved results

The installations of new biomass plants are in progress, and the most important success factors and constraints have been identified. Working groups have been installed, and some studies and publications have been spreadened too, e.g. Biomass in urban areas, done by the University Linz by order of ESV (Upper Austria). The tradefair "renewable resources" will change in 2008 from the city of Böblingen to the new fairground (named "Neue Landesmesse") close to the Stuttgart Airport.

The main barrier for bioenergy projects is the economic one. The cost competitiveness with respect to conventional technologies and fuels is nowadays still difficult if other factors other than economics are not considerate very important.

Companies interested in bioenergy projects are not aware of the sources of funding that can be obtained from demonstration projects.

The link between potential bioenergy users and bioenergy technologies providers is very weak. The realisation of viability studies should be encouraged to be done by third parties other than engineering companies that in many cases are focused on the introduction of their own products.

Some more results are:

- emissions and space requirements are considered as one of the most important barriers
- existing guarantees and a good strategy for project finance are important for credit conditions and financial negociations
- the location of the plant has the strongest influence on the acceptance of bioenergy projects in urban areas
- specialised organisations and institutions are main sources of information for bioenergy projects.

Economic factors: The competitiveness of bioenergy depends on the availability of alternative energy options, relative costs and prices, and regulatory frame-works. It is expected that as the policy environment around the Kyoto protocol develops, the trade in “carbon credits” will impact positively on the economics of bioenergy projects. By pricing the greenhouse gas emissions, especially CO_2, environmental benefits become part of business planning on the revenue side.

For urban areas it seems that the best option are biomass pellets. This is the biomass fuel that seems to be less problematic from the point of view of space available and logistics. For urban areas it will be important to make the public aware about the benefits of using biomass that surpass the problems that can cause a wood combustion facility close to home. This will have beneficial economic implications.

Financial factors: The financial instruments that could be implemented for the correct development of bioenergy projects should include some of following:

- funding for execution of feasibility & market studies
- investment subsidy scheme
- soft loan schemes for bioenergy projects
- fiscal measures
- utilisation of internationally available funds for the reduction of greenhouse gases
- utilisation of EU-funds simultaneously to other more close funding sources

In some of the regions studied this situation has started to change with loans especially focused in medium to small size biomass heating systems.

Legal factors: The environmental impacts of a biomass plant should be determined in advance and a lot of different departments of public administration are involved in the process. The "polluting" emissions (PAH's and VOC's and also dust) and data regarding the quantities emitted by each category of project - individual, small and medium output and large output – can represent an important legal barrier.

Socio-economic factors: direct employment in the conversion plants is not big, but other (direct and indirect) employment is more important (bio-fuel preparation, transporting of bioenergy fuels, construction/operation of plants).

Information deficits: For planning a biomass district heating network it is essential to know the estimated grid length and the expected number of connections. When designing bio-energy projects in urban areas it is decisive that citizens accept or even support the project. Citizens perhaps worry about increased air pollution, noise exposure and volume of traffic. It is necessary to inform the local population right from the design or planning stage to avoid opposition against the bio-energy project.

Lessons learnt

- The location of biomass facilities is a much more important barrier than expected.
- The specific capital costs per unit of capacity increase with decreasing plant capacity (“economy of scale”). Subsidies should differentiate between the different biomass plant sizes that face different types of problems.
- urban development leads to more constraints (transports, implantation…)
- The socio-economic impacts on local level are diverse according to such factors: technologies, local economic structures, social profiles and production processes