

**BioProm – BioEnergy Promotion**



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Report on integrated legal factors

**Work Package 5**

Executing Region

Rhônealpiénergie-Environnement (RAEE)



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**Table of contents**

Introduction..... 3

I. Description of the factor ..... 3

    1. Context of the study ..... 3

    2. Identification of legal barriers ..... 3

II. Legal barriers and good practice-examples ..... 4

    1. Environment ..... 4

        (a) Reduction of CO2 emissions and air pollution..... 4

        (b) Protection against damaging environmental impacts ..... 6

        (c) Administrative legal ..... 7

    2. Urban planning ..... 8

    3. Production of electricity ..... 9

    4. Energy market and Energy plans ..... 11

    5. Fiscal and taxation ..... 12

III. Solutions or proposals to overcome the legal barriers..... 14

IV. Conclusions..... 16

## WP5- Legal factors

### Introduction

In this part, our priority will be to precise the main laws and regulations which put a brake on developing biomass use in urban areas, and this for the different partners countries in the programme. The negative as well as positive fallouts of the applied regulations will be put forward through examples and good practices. Concrete solutions will be then proposed to allow a more efficient use of biomass in urban areas.

The chosen method was the sector approach, this means environment, urban planning, electricity production, energy market and taxation

For each sector the main brakes relating to the question will be detailed, whether they concern only one country or are common to all the partners' countries.

A distinction could be made according to the biomass type: wood energy, biogas, biofuels and/or grain energy. In fact, some laws remain very specific to a type of renewable energy, as in France with pure plant oil.

For other countries such as Slovenia, all regulations are valid for all bioenergy projects and other energy projects on the national level.

It is important to underline again that the study concerns specifically the urban area. We will not have an exhaustive overview of the applied biomass regulation but the analysis of texts which weight upon its use and development in towns.

### I. Description of the factor

#### 1. Context of the study

At first, it is necessary to mention some relevant European legislative provisions, which could have an impact on the use of biomass in urban areas:

- Directive on Renewable Electricity (2001/77/EC);
- Directive on Energy Performance Buildings (2002/91/EC);
- Directive on Biofuels (2003/30/EC);
- Directive on CO2 emissions trading scheme (2003/87/EC);
- Directive on the promotion of cogeneration (2004/8/EC);
- Green Paper on Energy Efficiency (COM (2005) 265);
- Biomass Action Plan (COM (2005) 628).

All these legislations allow to promote renewable energies and encourage the development of national action plans on biomass.

In this study, it is important to show how these laws are applied at a national or regional level and precise the specific laws involved in the development of biomass in the cities.

Although we are considering only the non-technical aspects of this study here, these are connected with all the topics under consideration. It is true that building plants costs more in urban areas than in rural areas. Available land is more difficult to find in urban areas. The characteristics of wood mean that transport is necessary, producing emissions that contribute to the local population opposition to this type of facility.

The regulatory aspects can represent an important obstacle to installing wood-fired boiler plants.

#### 2. Identification of legal barriers

The relative importance of legal issues as a barrier for bioenergy projects in urban areas in the partners countries was assessed with a questionnaire elaborated in the WP2 of this project and distributed among experts on the bioenergy field. The detailed results are included in the corresponding deliverable of WP2. With respect to the difference legislation treatment of urban and rural biomass projects, there is not a clear position and we get divided opinions among the interviewed experts. And also according to these experts the key points with regard to legal issues are the following :

- Urban development leads to more constraints (transports, implantation...);
- Environmental protection regulations are seen as a constraint (level of emissions, procedures for authorisation request...);
- Administrative waiting periods are too long;
- It is difficult to obtain the authorisation stage.
- There is not a real interest among the politicians for bioenergy projects.
- Legal barriers can be strong enough to completely stop a project or delay it for a very long time.
- Some times legal barriers are not related to existing laws but to administrative barriers. And the permitting required for a project is much more adapted to legal norms than to technical normative.
- There is not a specific legal framework for biomass.
- Some experts are of the opinion that municipal legislation is too restrictive.
- In some cases the main barrier to obtain the required permitting from the administration and also for the public acceptance is the reluctance to get close to a centralised combustion system with the corresponding chimney.

Other barriers that are also considered relevant are:

- Permitting difficulties resulting in schedule delays and their associated cost escalation
- The need for the standardisation of Biofuels.

The relative importance of legal issues as a barrier for bioenergy projects in urban areas in the partners countries will be investigated through different aspects: environment, urban planning, production of electricity, energy market and taxation.

## II. Legal barriers and good practice-examples

### 1. Environment

#### (a) Reduction of CO<sub>2</sub> emissions and air pollution

##### France

When it comes to urban development and air quality, Prefects of urban areas with more than 250,000 inhabitants are required to draw up air quality protection plans<sup>1</sup> which, in addition to requiring air quality monitoring, must result in concrete measures to limit urban pollution. Although transport is a major source of urban pollution, biomass and particularly the burning of biomass is also considered with interest. In the long term it is possible that limits be put on new wood-fired boiler plants being installed in urban areas if there are already a certain number of sources of pollution in those areas.

Regarding wood and its "polluting" emissions (PAH's and VOC's and also dust), data regarding the quantities emitted by each category of project - individual, small and medium output and large output - is unclear and this information is not always known or available. Furthermore, this lack of information may be harmful to the future of projects in urban areas. The problems encountered by the planned wood-fired boiler plant in Lyon's 8<sup>th</sup> arrondissement illustrate this point. The daily supply of wood, the installation of such equipment in an area with a lot of inhabitants and the risks of emissions in the air made the population react violently.

##### Slovenia

The most important laws in the country are the following:

<sup>1</sup> Decree no 2001-449 of 25 May 2001 related to the atmosphere protection plans and to measures that can be applied to reduce emissions of air pollution.

- Decree on the emission of substances into the atmosphere from stationary sources of pollution<sup>2</sup>
- Decree on boundary emission values of substance in the atmosphere from large-scale combustion devices<sup>3</sup>: It concerns requirements regarding the pollution of air with emission from big installations (for large scale projects more than 50 MW)
- Environment Protection Act (Law)<sup>4</sup> : it provides the basis for several instruments, including CO2 emissions trading and the environmental levy on air pollution with CO2 emissions that was introduced in Slovenia already at the beginning of 1997.

### Austria

In Austria, a national law<sup>5</sup>, EC application of «clean air and energy technology law», deals with installing and operating heating plants including storage of fuels. It comprises among others:

- the labelling of heating installations: All new heating systems need to have a label on them that provides technical information. And all new system types are tested to check that they meet certain emission, efficiency and safety standards (the so-called "Typenprüfung").
- regular checks for all heating systems (like for cars): All new heating systems have to be checked individually before being started up for the first time by authorised personnel and then are inspected regularly. The scope of the regular check-ups depends on the installed capacity of the boiler:
  - up to 15 kW: safety (every 3 years)
  - over 15 kW: safety and environmental check-up (every second year)
  - over 50 kW: safety and environmental check-up (every year)
- the first check of existing installations has to be done within 2 years
- emission limits
- other legal measures are for example, as mentioned before priority to use RE in heating & hot water supply for public buildings and the obligatory energy certification of buildings.

This law concerns the heating installations up to 400 kW. The target groups are private persons (who operate a heating installation) and municipalities (who are the authority to carry out the law).

#### Good practice

Increases the quality of heating installations e.g. by stating regular checks and sets emission limits to new heating installations.

Details especially on the regular checks of the heating systems have to be fixed by a regional regulation. It was only in February 2006 that such regulation went into force.

It concerns bioenergy projects, because:

All new system types undergo are tested to prove that they meet certain emission, efficiency and safety standards (the so-called Typenprüfung)

All new heating systems have to be checked individually before being started up for the first time by authorised personnel and then are inspected regularly

### Germany

Bioenergy plants have the possibility to increase their economic effort from selling the emission licences.

The plant must reach the size of 20 MW. This goal concerns only a very few bioenergy plants. Most of the plants are much smaller.

<sup>2</sup> Decree of 29 November 1996 Uradni list RS 68/1996, EC application 2001/80 EC

<sup>3</sup> Ur.l. RS 73/2005, EC application 2001/80/EC

<sup>4</sup> Ur.l. RS 41/2004

<sup>5</sup> O.Ö. Luftreinhalte- & Energietechnikgesetz 2002 LGBl.110

The reduced emissions of greenhouse gases through biomass projects allow the operator of the plant to sell his emission-certificates and to maximise his economic effort.

The law<sup>6</sup> gives a direct possibility to assess the positive ecological performance of a biomass plant and to point out the advantage of energetic use of biomass. This is the first step toward external cost of energy production.

### (b) Protection against damaging environmental impacts

This part does not concern only air pollution, but other aspects of the environment, such as security, prevention/precaution, and noise...

#### Austria

A law<sup>7</sup>, which is an EC application, includes detailed regulations laid down in the "O.Ö. Luftreinhalte- & Energietechnikgesetz 2002", mainly concerning environmental and security issues of heating installations and storage of solid & liquid fuels, as for example:

- Fuel requirements (sulphur and water content, etc.)
- The safer location to place a boiler
- Requirements for heating & fuel storage rooms (fire protection, chimney, distances, emissions, flue gas)
- The procedure to put a boiler in operation for the first time
- Regular checks of boilers
- The safer location to store fuels

Target groups are mainly private persons (who operate a heating installation) and installers

The document is very complex and information activities for the target group are necessary to make them familiar with new regulations.

It concerns bioenergy projects, because:

- it comprises detailed regulations concerning heating and storage rooms for biomass and heating oil boilers
- it includes emission standards for heating plants in operation (old installations).

#### Good practice

The requirements for heating rooms for smaller biomass boilers (up to 15 kW) are made easier.

The requirements for storing biomass fuels (up to 1.5 m<sup>3</sup> wood chips, up to 15 m<sup>3</sup> pellets) are easier now.

#### Germany

We can mention the law for protection against damaging environmental impacts through air pollution, noise, vibration and related occurrences<sup>8</sup>. The decrees mentioned above (1,4,9,13,17) are the most important ones to be considered for the different kinds of plants.

The aim of the law is to reduce damaging environmental impacts. With an authorization by this law and its decrees a plant meets all technical demands, which makes it suitable for a location in the direct neighbourhood of private households, and commercial and industrial facilities in urban areas.

The reduction of emissions affords a high technical standard. This technology maximises the investment and maintenance costs. These investments can reduce the economic efforts and in some cases lead to a non-economic plant-operation.

<sup>6</sup> TEHG 2004

<sup>7</sup> Oö. Heizungsanlagen- und Brennstoffverordnung 2005 LGBl.7

<sup>8</sup> BImSchG Bundes-Immissionsschutzgesetz 1974

**Good practice**

The law helps to facilitate biomass plants in urban areas because the direct neighbourhood can be protected against damaging impacts.

One other important law<sup>9</sup> defines that the environmental impacts of a plant or other facilities shall be determined and assessed in advance in order to establish an effective environmental precaution/protection.

The size concerned is from 1 MW stepwise to more than 200 MW (main Steps are 1 MW, 20 MW, 50 MW, 200 MW). For wood the law applies for sizes from 1 MW, for biogas from 20 MW.

The environmental impacts will be identified in advance. This helps to estimate the extent of overlapping with other laws and decrees.

It takes time to define the environmental impacts in advance and a lot of different departments of public administration are involved in the process.

This is a basic law for all medium and large-scale industrial plants and other programs to identify and assess the environmental impacts. Because of the large scale of plants mentioned in the text it is only important for medium and large wood-plants and less important for biogas or pure plant oil plants. It has no specific effect on bioenergy projects in urban areas.

**Spain**

Several legislation initiatives state economic additional incentives for the development of the electricity produced using renewable energy sources such as the Ley 36/2003 of November 11<sup>th</sup>, that promotes through tax reduction measures the application of environmental improvement measures.

**(c) Administrative legal****France**

When it comes to environment-registered installations<sup>10</sup>, which involves authorisation by Prefecture Order in the case of boiler plants with an output of more than 20 MW, a public inquiry is required involving the people concerned by the project: individuals, neighbours, businesses, services, etc. The commissioner of inquiry delivers either a positive opinion, with or without certain recommendations, or a negative opinion to the administrative department in charge of the application of authorisation. A project for a wood-fired boiler plant in Lyon's 8<sup>th</sup> arrondissement is currently struggling, specifically after the negative conclusions of the commissioner of inquiry following opposition from local inhabitants, even though the boiler plant has received administrative approval (because the project complies with the technical criteria regarding emissions hazardous to the population).

**Methane production installations:**

As far as agricultural methane production is concerned, there is little legislation concerning this technology, which results in a grey area and poor interpretation by the departments responsible for planned units.

So far, except in individual cases, methane production installations have only been considered where they form part of another installation subject to the legislation on environment-registered installations. Since agricultural methane production installations are effectively classified as environment-registered installations, a change of classification would be desirable, to 2910 b instead of c, which is more restrictive.

Biogas is considered to be a "non-conventional gas" by the Environment Ministry. As a result it is subject to additional and unjustified constraints that largely make it uneconomical to use. Indeed:

<sup>9</sup> UVPG 1990 (new 2005)

<sup>10</sup> Law no 76-663 of 19 July 1976 related to ICPE

- it is subject to authorisation in the case of installations of 100 KW PCI and over under section 2910 of the "Installations de Combustion" regulations, whereas flaring biogas is not subject to any restriction.
- storage of biogas is subject to considerably stricter conditions than natural gas, under section 1411

### Germany

Bioenergy plants with more than 20 MW have to get an authorisation for their greenhouse gas emissions<sup>11</sup> (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, fluorocarbons). Operators have to measure and declare the emissions of the plant. When the level of emissions is lower than the one authorised plant has emitted less than what the authorisation allowed it to emit, the operator can sell the authorisations for the remaining tons of emissions.

## 2. Urban planning

### France

When it comes to urban development and air quality, Prefects of urban areas with more than 250,000 inhabitants are required to draw up air quality protection plans which, in addition to requiring air quality monitoring, must result in concrete measures to limit urban pollution. The urban develop documents the PDU (urban transport plan) and consequently the PLU (local urban development plan) must comply with the plan.

Furthermore, in urban areas the problem of urban renewal is a key concern of the government. At stake is the future of the large residential areas built in the 1970's that form areas of dense welfare housing and large high-rise group housing developments involving large heating networks. The National Agency for Urban Renewal (ANRU) was therefore set up to organise the demolition and rebuilding of housing and the development of an urban fabric which among other things would increase social security and bring about more social integration. In this programme, each public authority proposes a renovation project to qualify for loans and financial assistance with demolition and reconstruction. This system is limited in that although the approach is one of urban renewal, the question of energy was not considered and the future of the heating networks was not taken into account. This situation results in heating networks being given less importance in reconstruction projects. With less dense housing, individual natural gas heating is used and heating sales are reduced.

#### Good practice

Legal arrangements need to be found to solve to the question of investment by setting up operators dedicated to bioenergy sources that would enable public clients particularly not to have to take on the considerable investments involved and operators not to have to take on risks.

### Slovenia

We can mention the Spatial Planning Act<sup>12</sup>: the Spatial Planning Act is arranging spatial planning and implementation of spatial measures for the application of planned spatial regulations. This act defined the conditions of application of planned spatial regulations.

### Austria

The law<sup>13</sup> mainly deals with regional and local spatial planning programmes, e.g.

- different planning councils;
- regional planning database;
- regional planning programmes;

<sup>11</sup> TEHG- Treibhausgas-Emissionshandelsgesetz 2004

<sup>12</sup> Ur.I. 41/2004

<sup>13</sup> Oö. Raumordnungsgesetz 1994 (Oö. ROG 1994) LGBl. 115

- local planning including local area planning maps and local area development strategies developed by municipalities

It targets at everybody who wants to construct a building and/or a plant and at municipalities who have to develop local planning strategies.

The law is supported by a number of activities concerning regional spatial planning, as for example: regional guidelines for spatial planning and for regional development, councils for improving the overall appearance of the landscape/towns and regional management activities, with the aim to improve the attractiveness of Upper Austria for entities and to foster regional development in every district.

Good practice

In addition local spatial planning (implemented by municipalities and towns) plays an important role. The instrument of the local area development strategy allows participation of local citizens and increases the overall acceptance of planning strategies.

**Germany**

Only for Stuttgart city, which marks the centre of the Stuttgart region there is a legislative constraint concerning the burning of wood, because of the high particle emissions which are associated with the burning and the fact that the geographical situation of Stuttgart city causes a high potential of smog.

This regulation<sup>14</sup> defines the fuels, which are allowed to be fired in certain kinds of boilers in Stuttgart city.

The regulative standards make it difficult to use wood as fuel in urban areas.

For the production of heat, wood is not an accredited fuel in the city of Stuttgart. Only some exceptions (boiler smaller than 11 kW when not only used for heat production; wood manufacturing industry) allow the use of wood as fuel.

This makes it definitely hard for biomass plants based on wood as fuel to be installed in urban areas.

Good practice

This regulation helps to reduce the emissions in the city of Stuttgart, which is vulnerable to smog because of the geographical location.

**3. Production of electricity**

**France**

Installations using biogas are those connected to facilities such as landfill sites, wastewater treatment plants and livestock farms whose initial objective is not to produce energy. It is therefore not conceivable that the generation of electricity will be considered as a priority to the detriment of the main activity. Also:

- the invitation to tender procedure is difficult to apply to new waste treatment projects. In addition, the minimum threshold of 12 MWe for eligibility for invitations to tender is considerably greater than the potential of biogas generation plants. A threshold of 1 MWe would be more suitable.
- The contractual structure on offer is unsuitable.

**Slovenia**

We can mention a decree<sup>15</sup> on the requirements to be met for obtaining the status of a qualified electricity producer (Administrative decree without any negative impacts): operators

<sup>14</sup> Satzungen über die beschränkte Verwendung luftverunreinigender Brennstoffe im Stuttgarter Stadtgebiet-1995

<sup>15</sup> Ur.l. 29/01 in 99/01

of electricity plants using biomass, biogas and biofuels can obtain the status of a qualified electricity producer.

### **Austria**

The law<sup>16</sup> mainly deals with:

- implementation of the unbundling of grid operators;
- permission authorities for establishing electricity plants;
- regulations concerning the Austrian transmission system operator (Verbund Austrian Power Grid AG);
- measures to ensure security of supply;
- activities of the balance group coordinators.

The most important new regulation laid down in the "EIWOG 2006", especially for regional project developers is that the regional public administration is responsible for permission procedures. Until 2006 the public administration offices in the Upper Austrian districts were responsible. As there are not that many permission procedures for electricity plants ongoing, it turned out to be more efficient to have one central permission authority for the whole region.

For the main regulations concerning electricity plants, especially feed-in tariffs, national authorities are responsible.

### **Germany**

In order to develop a sustainable energy supply and to increase the share of renewable energies in production of electricity the connection to the electricity grid, the feed in tariffs and the compensation of the cost by the republic of Germany is fixed in this law<sup>17</sup>.

#### Good practice

The law guarantees a fixed price for the electricity producer, which has to be paid by the grid operator. This price goes down stepwise each year for 1,5 % but it is fixed and guaranteed. This is the most important law in Germany, which led to an enormous increase of electricity production from biomass and renewable energies in general in the last years.

### **Spain**

The Real Decreto 436/2004 establishes the methodology for the update and systematisation of the legal and economic regime of the electrical energy production in Special Regime. This Regime deals with the energy production in cogeneration plants in general and also with cogeneration plants supplied by renewable or waste sources. The purpose of the law is to improve the energy efficiency, the reduction of the energy consumption from non-renewable energy sources and the protection of the environment. It is stated also that the economic incentives will be applied to cogeneration systems of high efficiency or using renewables whenever the installed capacity is below or equal to 50 MW of electricity.

In the article 2 of RD 436/2004 the different groups of biomass applications are described. Thus the biomass facilities producing simultaneously electricity and heat and that can be included in this Special Regime are the following:

- Group b.6: Cogeneration systems that use as main fuel source biomass originated from energy crops, waste from agricultural or gardening activities, forestry waste and other forestry activities.
- Group b.7: Cogeneration systems using as main fuel biomass coming from biofuels and biogas originated by anaerobic digestion of agricultural and farm wastes, biodegradable industrial wastes, waste water treatment plants and landfills.

<sup>16</sup> Oö. Elektrizitätswirtschafts- und Organisationsgesetz (Oö. EIWOG 2006)

<sup>17</sup> Gesetz für den Vorrang Erneuerbarer Energien (EEG) 2000

- Group b.8: Cogeneration systems using as main fuel biomass coming from industrial facilities of the agricultural and forestry sectors, or a mixture of the previously mentioned biomass fuels.

The “Plan de Energías Renovables (PER)” (Renewable energy plan) approved the 26th August 2005 mentions the aim to reach an installed capacity of 1695 MW by implementing co-firing measures of biomass and carbon in existing power stations, and by increasing the bonus for electricity generated from biomass.

Good practice

The increase in the installed capacity of power generation from biomass will be conditioned to the review of the bonus and incentives established so far for the electricity generated from biomass, and also the inclusion of the co-combustion facilities in the “Régimen Especial” (special status of electricity producers).

#### 4. Energy market and Energy plans

##### France

The programme law which defines the orientations of the energy policy<sup>18</sup> (13 July 2005, called POPE act) provides the application of energy savings certificates. The objective of this system is to disseminate the concept of energy savings and to cope with the more diffuse sources which exist in housing, the tertiary sector, transports and small and medium size companies. The system came into effect on the 1st of July 2006.

The working of the system provides for/allows two targets:

III. - The obliged players

From the 1st of July 2006, the energy providers have to meet some obligations in the matter of energy savings for a period of three years. To meet their obligations, the ones who are obliged can:

- Either carry out directly actions generating savings on their own sites;
- Either bring others (in particular their customers) to make savings;
- Either buy energy saving certificates from other players who have generated savings.

At the end of the obligation period, the obliged will return the corresponding certificates to public authorities. If the obliged one has more certificates than it has to return, he can keep them for the next period or sell them to other obliged.

If the obliged does not meet his obligation, he will be imposed to pay a penalty equivalent to 2c€/kWh cumac (see the definition at the next page).

IV. - Other eligible players and standardized operations

Every legal entity the action of which is additional to its usual activity, leads to energy savings with a volume higher than 1 GWh cumac receives energy savings certificates. Local authorities can use the energy savings certificates system.

Good practice

Among standardized operations, we find the installation of a wood energy plant fuelled with biomass for heating and/or sanitary hot water.

The energy savings certificates system aim is to increase the commitment of economic players to energy savings.

##### Slovenia

We can mention two important texts:

- Energy Act<sup>19</sup>: It concerns energy policy, rules for efficient energy market, methods of execution of energy, security of supply and efficient use of energy, operational terms of energy facilities, licensing, energy permit and regulatory bodies. (Energy policy and in

<sup>18</sup> Law 2005-781

<sup>19</sup> Ur.l. 26/05, EC application 93/76/EGS

general supported the bioenergy projects) The Act also provides the measures and instruments to promote the efficient use of energy and renewable energy.

- Decree<sup>20</sup> on the uniform methodology for preparing investment public procurement programmes (obligatory only for state owned companies), it can cause higher transaction costs.

### Spain

In 2005, August 26<sup>th</sup> it was approved by the Spanish government the so called "Plan de Energías Renovables (PER)" (Renewable energy plan) for the period 2005-2010.

The main target of the new normative (PER) is that 12,1% of the consumed primary energy in 2010 will come from renewable energy sources. The other main targets are to cover 29,4% of the electricity consumption using renewable energy (in agreement with the EU Directive 2001/77/CE), and 5,75 % of the fuel consumption for transport using biofuels (in agreement with the EU Directive 2003/30/CE and transposed to the Spanish legislation as Real Decreto 1700/2003, December 15<sup>th</sup>). This Plan recognises that to reach this objective it is necessary to help the development of renewable energy technologies by means of economic, fiscal and normative type incentives.

With respect to the biomass the plan distinguishes between biomass to generate electricity and biomass for heating.

#### Good practice

The increase of biomass for heating will be conditioned to the development of a mature market for the supply of biomass, and also of a new normative development to regulate the introduction of biomass facilities in the domestic sector. And also to a greater development of the normative authority AENOR in relation with fuels, facilities, etc.

In addition to the central government incentives, all the Autonomous Communities of Spain can grant subsidies for the promotion of renewable energy technologies. Each Autonomous Community publishes every year or every two years a series of incentives for renewable energy plants, and among them it is usually included the thermal and/or electrical application of biomass and, in some cases, its application in buildings. The quantity of these incentives varies according to the zone in the range of 10 to 40 % of the investment.

#### Good practice

In some Autonomous Communities the importance of the thermal applications using biomass has lead to the development of specific promotion programs of these facilities, mainly in Andalucía and Castilla. Specific lines of incentives in many Spanish municipalities exist, like the change of old coal boilers by cleaner energies, where the biomass facilities have an important market.

Furthermore, we can mention the Plan of the Energy of Catalonia (2006-2015) which was approved by the Catalan government in October 11th, 2005, with the objective "to assure the supply of energy at high quality, minimum cost and with respect to the environment". This plan set up goals and concrete objectives in ligneous biomass, biogas (205.6 ktep from biogas in 2015) and biofuels (in year 2015, a 12.8% of the fuel consumption for transport in Catalonia will come from biofuels of vegetal origin).

## 5. Fiscal and taxation

### France

PPO: this is very popular with farmers, public authority departments and parks and gardens departments but there is a major problem because current legislation prohibits the sale of this fuel to a third party. The 2005 farming blueprint bill states that it is possible to use PPO

<sup>20</sup> Ur.I. RS 110/2002

for one's own use but prohibits its sale. This is partly due to the considerably more global approach being taken by the French government, who is championing Diester and who sees the development of this micro-industry as a potential competitor. The relevant part of the European directive on biofuels, which recognises PPO, has not been adapted to French law. As a result, the taxation on this type of fuel is inappropriate.

### Slovenia

Two texts are important:

- Decree on environmental tax for the pollution of air with emission from dioxide<sup>21</sup>: the consequence is that biomass, biogas and biofuel are exempted from paying the CO2 tax. The same exemption applies to companies that have undertaken- in an agreement concluded with the state- to implement the envisaged measures for efficient energy use and reduce CO2 emissions.
- Decree on the rules for determining prices and purchasing of electricity from qualified electricity producers<sup>22</sup>: it allows qualified electricity producers to have special conditions for considering purchase and price (positive impact).

### Austria

The law<sup>23</sup> concerns only RES-e plants to be installed in the future. It regulates the support scheme for RES-e plants. 17 million € are foreseen annually for feed-in tariffs, which are split in the following way:

- 30% each for wind power, biogas and biomass plants
- 10% for other RES-e plants (e.g. PPO)

The feed-in tariff is granted for 10 years and decreases annually. Additionally the law includes energy efficiency criteria for RES-e plants depending on the technology.

Positive is that – after a long period of vacancy – the support scheme for RES-e plants has to be fixed again and a definite amount of money which will be spent is agreed.

Additionally the law extends the time for operators of small hydro power plants to renovate their plant in order to get a higher feed-in tariff (until December 2007).

Unfortunately the law does not regulate the amount of feed-in tariffs granted for each RES-e technology. This has to be done by a national regulation, which is under preparation now. For potential plant operators/planners the situation is therefore very difficult and now new plants will be planned until the regulation fixing the tariffs has been passed.

The law effects all RES-e plants, especially the efficiency criteria foreseen might be difficult for some plants to be achieved.

### Germany

Bioenergy plants have the possibility to increase their economic effort from selling the emission licences.

The plant must reach the size of 20 MW. This goal meets only a very few bioenergy plants. Most of the plants are much smaller.

This law<sup>24</sup> defines a preferential treatment in taxation for mineral oil with fractions of biofuels.

The consumer of the biofuel takes direct benefit by buying cheaper fuel.

The engines of the cars have to be adapted to the new kind of fuel, which leads to higher costs.

#### Good practice

The preferential treatment of biofuels in taxation can lead to an increase of share of biofuels in urban areas: wider use of biofuels in public transport in urban areas (example for a

<sup>21</sup> Ur.l. 43/2005, 58/2005, 87/2005, 20/2006, EC application 2003/96/EC

<sup>22</sup> Ur.l. 25/2002, EC application 2001/77/EC

<sup>23</sup> Ökostromgesetz-Novelle 2006

<sup>24</sup> Mineralölsteuergesetz (MinöStG) 1993

biomass project in urban areas which is not a power or – heat-plant). Of course the law does not lead to a specific increase only in urban areas but also in all other areas.

This law defines the tax, which has to be paid for electricity. It also defines the exceptions to the law. The tax for the production of electricity from renewable sources is lowered.

Good practice

The production of renewable electricity is favoured by a reduced tax-level. This law helps to establish the production of renewable electricity, especially in combination with the EEG (Erneuerbare Energien Gesetz).

**Spain**

The Spanish electricity market is completely liberalised since January 2003 and is regulated by the Electric Power Act 54/1997, of November 27th of the electricity sector and incorporates the Electricity Directive 96/92/CE. This law sets rules for the internal market of electricity and is the norm that regulates the bases for the liberalised market of energy. Also it allows that the producers of electricity using renewable sources have guaranteed the access to the grid and that the technical and economic conditions between producers and distributors are clearly defined. Among other regulations in this law the electricity production facilities are differentiated into two groups. One of them is the so-called “Regimen especial” facilities that enjoy a special juridical and economic framework different from the big and centralised power station plants belonging to the electricity companies.

Good practice

In the Real Decreto 436/2004 it is stated the bonus for the electricity sold to the grid coming from biomass cogeneration plants.

**III. Solutions or proposals to overcome the legal barriers**

**France**

The propositions are the following:

Wood:

Provide measurement data on gas emissions from boiler plants  
Apply a global approach to wood energy in urban areas that identifies its qualities (global efforts to control the greenhouse effect, the timber industry, jobs) and its limits (local air quality), concentrating on compromises that have both local and global effects.

Biogas:

Make methane production more present in legislation so that its role can be stated clearly and objectively.

Use for heating:

There is currently no consistent and ambitious policy for using biogas in heating. However, some measures are expected:

- the application of energy saving certificates to renewable thermal energy sources and particularly biogas should be confirmed
- the tax status of biogas has not yet been clarified when it is not consumed *in situ*.
- the use of biogas in heating networks should qualify for a VAT rate of 5.5% on supply charges.
- the use of dedicated biogas pipelines enabling it to be transported over several kilometres should be encouraged once a clear technical and legal framework has been defined.

PPO

Adapt all European directives on biofuels to French law, creating a role for PPO. Some public authorities are running the risk of being taken to court by buying PPO and building up local

industries in order to set a more favourable legal precedent and push the national government into accepting it.

#### Grain energy:

The regulatory context regarding the role of grain energy and its commercial possibilities has not yet been clearly defined.

#### **Austria**

The law<sup>25</sup>, which concerns only RES-e plants, does not regulate the amount of feed-in tariffs granted for each RES-e technology. This has to be done by a national regulation, which is under preparation now. For potential plant operators the situation is therefore very difficult and now new plants will be planned until the regulation fixing the tariffs has been passed.

The law effects all RES-e plants, especially the efficiency criteria foreseen might be difficult for some plants to be achieved.

#### **Germany**

The law<sup>26</sup> defines that the environmental impacts of a plant or other facilities shall be determined and assessed in advance in order to establish an effective environmental precaution. The problem is that it takes time to define the environmental impacts in advance and a lot of different departments of public administration are involved in the process.

It would be good to make the procedure easier and to encourage work in partnership between the different departments involved.

Bioenergy plants have the possibility to increase their economic effort from selling the emission licences.

The plant must reach the size of 20 MW. This goal meets only a very few bioenergy plants. It would be good to include much smaller plants, which represent the most of them.

The legislative encouragement for medium scaled heat production alike the production of electricity is still missing in Germany.

#### **Slovenia**

The operators of all visited bioenergy projects have no important comments on the regulation, but only on the financing (price or premium of electricity from wood as defined in feed-in tariff).

At the level of municipality and in the scope of its territory, it is necessary to prepare a spatial development strategy, which represents spatial planning document to determine long-term goals and particularly the guidelines for the location of wood boilers for example.

Laws and regulations should be prepared for the management of spatial development and construction including environmental aspects, which means to elaborate strategic elements of spatial development by taking care of the use of biomass in several sectors such as transports.

#### **Spain**

The legislation support to renewable energy sources and cogeneration in Spain has proved to be efficient in general taking into account the great development of the wind energy source, and at a lower extent, the development of biofuels and cogeneration. However, so far it has been insufficient to develop as expected other areas such as solar energy or biomass.

The Real Decreto 436/2004, of March 12<sup>th</sup>, pretends to improve the situation. The Real Decreto 436/2004 has not contributed to increase the subsidy to the biomass coming from energy crops and waste materials from agriculture and forestry activities.

The IDAE (Spanish Energy Agency) and ICO (Instituto de Crédito Oficial, State's Financial Agency of Spain) have signed a collaboration agreement that will be renovated annually with the aim to create a funding line for projects on renewable energies and energy efficiency. On

<sup>25</sup> Ökostromgesetz-Novelle 2006

<sup>26</sup> UVPG 1990 (new 2005)

the other hand, several legislation initiatives state economic additional incentives for the development of the electricity produced using renewable energy sources:

- tax exemptions on economic activities and others to the companies using or producing energy from renewable sources or cogeneration.
- through tax reduction measures the application of environmental improvement measures.

We can also propose to encourage the application and the globalisation of these measures.

Besides, there is a need to create a specific framework for biomass, which is now inexistent.

### **Common proposals**

In the matter of urban planning:

- introduce energy criteria in planning (land use, urban, mobility planning)
- local spatial planning (implemented by municipalities and towns) plays an important role. It is necessary to encourage the instrument of the local area development strategy which allows participation of local citizens and increases the overall acceptance of planning strategies.

In the matter of urban development:

- designate priority areas for combined heat and power (CHP) district-heating systems and for biomass sources.

In the matter biomass use:

- Provide measurement data on gas emissions from boiler plants
- introduce specific lines of incentives in municipalities, like the change of old coal boilers by cleaner energies, where the biomass facilities have an important market.
- encourage the development of national action plan on biomass, in reference to the Biomass Action Plan of the European Commission.

## **IV. Conclusions**

In the opinion of the wood energy professionals, the regulatory aspects are not an obstacle to installing wood-fired boiler plants. What they did highlight was the fairly long and onerous administrative procedures involved.

In their opinion, installations are in line with the regulations and comply with the gas emissions standards, so much for the technical side of the issue.

In Slovenia, the operators of all visited bioenergy projects have no important comments on the regulation, but only on the financing (price or premium of electricity from wood as defined in feed-in tariff). Biomass electricity plant operators want the price of sold electricity to the grid to be increased (fixed price or premium, Feed-in tariff).

An overall view over the whole body of legislation in Germany shows that a base for the development of the energetic use of biomass was set. Besides the legislation there are several programs initiated by the government to encourage private households to invest in small biomass heating systems by giving financial aid like special credit conditions or co-payment.

As a common interpretation, the legislation in the matter of town planning is of great importance for bioenergy projects, especially if implemented in urban areas because it can allow or restricts the implementation of bigger plants by dedicating certain areas only to "green land utilisation" for example..

Also the introduction of CO<sub>2</sub>-emission-licences for industrial processes in 2005 in Europe creates a possible economic advantage for bioenergy projects and can help to push forward the development of bioenergy projects. The trade of the licences can help to improve the economic performance of bioenergy plants and production sites.