AEBIOM and EBA position paper

Sustainability criteria for solid and gaseous biomass

Sustainably produced biomass will play a major role in the EU’s transition from a fossil-fuel based unsustainable economy to a low carbon economy in less than 40 years. AEBIOM and EBA are committed to the development of sustainable biomass and welcome the introduction of a harmonized European sustainability framework which would meet the needs of the sector and would take into account its’ particularities. AEBIOM’s and EBA’s vision is to ensure a sustainable biomass production in forestry and agriculture, independently of the outlets it will be used for: feed, food, materials and energy.

The European Commission has published a report in February 2010, formulating recommendations on sustainability criteria for Member States wishing to implement a national system for solid and gaseous biomass for electricity, heating and cooling. The Commission has to report in 2011, for the second time, on sustainability criteria and, if considered necessary, propose schemes to be applied to solid and gaseous biomass for heat and electricity.

Regarding solid and gaseous biomass use for electricity, heating and cooling production, AEBIOM and EBA support the implementation of a harmonized EU sustainability framework, which is in line with the following principles:

1. **Harmonization** - avoiding EU internal trade distortions caused by incompatible national requirements;
2. **Flexibility** - adopting existing schemes, relevant national legislation and sustainable forest management initiatives;
3. **Equal level playing field** - avoiding the excessive overlapping of different rules for the same raw material and aiming at the progressive application of the criteria to all biomass independently of its’ final use;
4. **Cost effectiveness and proportionality** - avoiding excessive administrative burden and costs, in particular for small market actors.
Sustainable biomass will play a crucial role in reaching the renewable energy targets in 2020 and in achieving the low carbon economy goals by 2050. According to the national Renewable Energy Action Plans (nREAPs), the total contribution of bioenergy will amount to 139 Mtoe final energy in 2020. The 2020 biomass supply is estimated to reach 123 Mtoe. Assuming that the information given by the nREAPs is accurate, it implies that imports of biomass will increase significantly to reach 2020 targets. The increased demand for biomass and the expansion of international trade of biomass may lead to higher risks for unsustainably produced biomass. Legislation should address sustainability issues before environmental impacts discredit the whole bioenergy sector, implying potentially significant market impacts for the whole bioenergy industry.

The developments of national sustainability schemes in the member states and regions, which are not necessarily complementary or compatible, create intra-EU cross-border barriers in setting up bio-energy projects.

Current discussions on sustainability of solid and gaseous biomass have created uncertainty in terms of future sustainability requirements for biomass in the EU. Clarity should be provided to stimulate investment and ensure stability for the bioenergy sector.

For these reasons, AEBIOM and EBA support the development of a harmonized EU sustainability framework for solid and gaseous biomass for electricity, heat and cooling which takes into account the sector’s particularities.

1. Harmonized framework

With the publication of the Renewable Energy Sources Directive 2009/28/EC (RED), biofuels and bioliquids consumed inside the EU are subject to sustainability criteria defined in the RED. The implementation of a sustainability framework for biofuels and bioliquids has revealed to be quite complex and its negative impacts are currently affecting the market. Most difficulties are created by the lack of harmonization of the national applications of the framework: the 27 national systems, differently interpreting the RED, hold back the market development and force traders and suppliers to comply with a multitude of requirements.

The two associations are calling for enhanced harmonization of the rules and requirements in a future sustainability framework for solid and gaseous biomass for heat and electricity including a well defined guideline for national applications.

2. Flexible framework

While enhanced harmonization in the requirements of a future sustainability framework is crucial, Member States should be allowed to use country/region-specific legislation and
measures to prove compliance with the harmonized requirements of the EU. Sustainable forest management has a long history in Europe and existing initiatives (such as FSC, PEFC, the Forest Europe Initiative for Oslo…) and national legislations should not be neglected. A future sustainability framework should, as much as possible, allow the integration of auditing systems and controls related to existing national legislation.

A European sustainability framework for solid and gaseous biomass should allow Member States to rely on already existing relevant legislation, schemes and initiatives.

3. Equal level playing field

Supply chains overlap and a given raw material can produce different end products for different uses. Beside their use for the production of electricity and heat, lignocellulosic biomass and biogas can also be used for transport biofuels, subject to the criteria of the RED. Also, the same crops are sometimes used both for biofuels and for heat and electricity production. In order to avoid the application of different sustainability criteria to the same raw material/land - creating distorted competition - the criteria for solid and gaseous biomass for electricity and heat should be comparable to those applied to biofuels and bioliquids. The specific issues of the agricultural sector and of the forest sector should be adequately recognized especially regarding the implementation of the criteria.

A consistent approach between biofuels/bioliquids and solid and gaseous biomass constitutes a first step towards AEBIOM’s and EBA’s vision to ensure a sustainable biomass production in forestry and agriculture, independently of the final use (feed, food, materials and energy) ensuring an overall equal level playing field and avoiding distorted competition. Materials like pulp and paper are currently not subject to any mandatory sustainability criteria and are "only" driven by demand side. Agricultural energy crop production currently covers only a few percent of the whole crop production. In order to achieve significant environmental progress, it is necessary to apply similar regulations to all biomass production and to fossil fuels.

AEBIOM’s and EBA’s vision is the implementation of a framework ensuring sustainable forestry and agriculture as a whole, independently of its final use. It would help to avoid trade distortions and to achieve significant environmental progress.

Currently, the solid biomass mostly comes from by-products of forest and wood industries and from waste. This type of biomass has a relatively low economic value compared to feedstock for biofuels, which is often a dedicated production. The sustainability of European forestry is based on national legislation, ensuring sustainable forest management practices. The system, however, is not yet harmonized in the same way as in agriculture (100% under cross compliance), where the strong agricultural policies and financial support schemes are
conditioned by the respect of environmental criteria. Voluntary systems like FSC and PEFC cover only 45 percent of the EU forest area, which is due to fragmentation of ownership and the costs for certification. Therefore, a future sustainability framework for solid and gaseous biomass cannot just be simply copy-pasted from the biofuels/bioliquids sector. Criteria for forest biomass will have to be adapted up to a certain extent. The definition of appropriate criteria calls for intense consultation of all stakeholders.

Sustainability should ideally take into account all types of biomass production. Exemptions from certain criteria could be granted to residues or wastes that are not directly related to any land use. The definition of waste/residue and its differentiation from by-products is a major issue.

AEBIOM and EBA consider that the criteria for biomass used in heating and electricity production should be compatible to those applied to biofuels. The interpretation and implementation of the criteria is potentially more critical than the criteria themselves. Intense consultation with the sector is crucial when defining the criteria and the verification methods. Stakeholders should be actively involved in this process.

4. A cost effective and proportional framework

An overly bureaucratic system, and a parallel system to already existing sustainable forestry management systems, would lead to extra unnecessary costs for the whole bioenergy sector, higher energy prices, and, therefore, would harm the competitiveness of biomass as substitute for fossil fuels. Many small players are involved in the solid and gaseous biomass supply chain. A future sustainability framework should not constitute a major administrative burden and impose excessive costs for them. This would jeopardize the market development.

Around 60% of EU’s forests are in private hands, with about 16 million private forest owners. Private forest holdings have an average size of 13 ha, but the majority of privately-owned forests are smaller than 5 ha. In order to reach the national renewable energy targets, biomass from private small forest owners should be increasingly mobilised. A future sustainability framework should not constitute a barrier to this mobilisation. The same holds true for individual biogas farmers adding dedicated energy crop to the animal wastes. With an aim to limit the administrative burden and costs for small scale biomass producers, sound and lighter procedures should be put in place, primarily by relying on existing forestry control systems. A simple system could be based on self-declarations and spot-checks.

A sustainability framework should not constitute an administrative burden and impose excessive costs on small landowners, producer organisations and cooperatives.
Several small players are also involved at the end of the supply chain, especially in the heat sector where in many cases the biomass fuel is directly delivered to the final consumer. In this case, the enforcement of burdensome sustainability framework might significantly restrain the development of the market.

At the current state of knowledge, it is difficult to state whether the application of sustainability criteria should be limited to bioenergy producers exceeding a certain amount of production and in such a case, to define a value for such a threshold. In order to gain insight on the subject, the consequences of a threshold should be analysed in terms of number and types of actors involved and in terms of related risk. In the absence of such information, AEBIOM and EBA support the application of a 20 MW fuel capacity threshold for solid biomass, which is the same threshold as in the ETS system, and of a 2.5 MW fuel capacity threshold for gaseous biomass\(^1\). These thresholds are, however, indicative values which can be further discussed as soon as more insight is gained regarding the impact of such a threshold in terms of concerned plants and volumes of biomass.

A future binding sustainability framework should apply only to energy producers of at least 20 MW fuel capacity for solid biomass and 2.5 MW fuel capacity for gaseous biomass.

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1 The definition of a threshold in terms of fuel capacity leaves flexibility regarding the final use of the biomass, whether for heat, electricity or injection in the gas grid.

2 A threshold in terms of quantity of biomass (MWh lower heating value) could also be considered for bioenergy producers, as well as for biomass fuel suppliers.