



EUROPEAN COMMISSION
Directorate General for Energy

Directorate C
New and renewable sources of energy, energy efficiency and innovation

**Results of the public consultation on additional sustainability measures at
EU level for solid and gaseous biomass used in electricity, heating and
cooling**

European Commission
Directorate-General for Energy
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In line with the Commission's commitment to transparent and interactive policymaking, this document aims at providing an overview and general impression of the feedback provided to the Commission in the context of a public consultation. The statements and opinions expressed in the document do therefore in no way necessarily reflect those of the Commission or its services.

Executive Summary

As a follow-up to its Report on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling published in February 2010 (COM(2010)11), the Commission is assessing the need for additional measures at EU level.

Between 1 February and 29 March 2011, the Commission undertook a public consultation with an online questionnaire with four sections and seven questions. This report summarises the 159 responses received.

Section A – Developments in the bio-energy sector. Many respondents considered that a number of Member States, primarily the UK, the Netherlands, Germany and Italy, will increasingly rely on biomass imports from third countries in order to meet their 2020 renewable energy targets. These imports are expected to come mainly from Russia, North America, Central and Southern America and, to a lesser extent, from Africa. Wood pellets and wood chips are considered the most likely types of imported solid biomass.

Section B – New policy developments related to biomass sustainability. Close to half of the respondents considered that recent initiatives, chiefly the EU Timber Logging Regulation, the EU Flagship Initiative on Resource Efficiency, and the upcoming negotiations on a pan-European legally binding agreement on forest, can play a positive role in ensuring the sustainability of solid and gaseous biomass used in the EU. In addition, a number of certification schemes and standards were also mentioned as being relevant to biomass sustainability. Those that did not agree (40%), mainly NGOs and citizens, considered these new policy developments not to be sufficient to ensure biomass sustainability.

Section C – Impacts of national biomass sustainability schemes. Many respondents referred to sustainability schemes in place or under development in a few Member States, such as Belgium, Netherland, Italy, Germany and UK. Beside these, some stakeholders referred to Sustainable Forest Management (SFM) regulations in place in Austria, France, Finland, Germany, Spain and Sweden, which indirectly address the biomass used for energy purposes. The majority of respondents, including utilities, the biomass sector and the paper industry, believed that national sustainability rules have negative impacts on average biomass costs and biomass trade both within the Union and with third countries.

Section D – Consideration of additional EU measures. The majority of respondents supported the establishment of binding sustainability criteria for solid biomass and biogas at EU level, arguing for consistency with the criteria imposed on biofuels by the Renewable Energy Directive. However, NGOs and some citizens also requested SFM certification for fuelwood. Respondents that did not agree with additional EU measures consisted mainly of public authorities from forest-rich Member States.

Replies on the scope of the sustainability criteria were mixed. One group, mainly consisting of NGOs, the paper industry and large power companies, requested application to all energy producers, regardless of the size. Another group, including part of the biofuels industry and a number of public authorities, felt the 1 MW threshold was appropriate. Power companies and the biomass industries favoured a 20MW limit, arguing that sustainability criteria should be proportional to risk and not imply excessive administrative burden on small players.

1. Introduction

Article 17(9) of the Renewable Energy Directive (2009/28/EC) requires the Commission to report on the need for sustainability requirements of solid and gaseous biomass in heating, cooling and electricity sectors. In the report adopted in February 2010 (COM (2010)11), the Commission recommended to Member States with national sustainability standards planned or in place to follow, in almost all respects, the same criteria as those laid down for biofuels and bioliquids¹.

The Commission also undertook to evaluate by the end of 2011 whether national schemes have sufficiently and appropriately addressed the sustainability issues relating to biomass produced domestically or imported, whether such schemes have led to barriers to trade and/or to the development of the bio-energy sector, and to consider if additional measures such as common sustainability criteria at EU level would be appropriate.

In this context, the Directorate-General for Energy launched a web-based public consultation with four sections and the following seven questions:

- A1. What are the future changes in the EU amounts of imported solid biomass from outside the EU?
- A2. What are the most important countries / regions which will supply the EU with solid biomass?
- A3. Which types of solid biomass are most likely to be imported from outside the EU?
- B1. Which new policy developments contribute to the sustainability of solid biomass for energy?
- B2. Are there any other policy developments contributing to ensuring the sustainability of biomass?
- C1. What are the national/regional biomass sustainability schemes and what are their impacts?
- D1. Is there a need for additional measures at EU level to ensure the sustainability of solid and gaseous biomass for the electricity, heating, and cooling sectors?

The public consultation ran from the 1 February 2011 until 29 March 2011. In total, 159 responses were received from 120 organisations, 12 public authorities, and 27 citizens. This report summarises the contributions received. The responses have been published online on http://ec.europa.eu/energy/renewables/consultations/20110329_biomass_en.htm.

¹ Exception: it is recommended that greenhouse gas performance criteria are not applied to waste. Also, the report indicates that the recommendations should apply only to energy producers of 1 MW thermal or 1 MW electrical capacity or above.

SECTION A: Developments in the bio-energy sector

A1: Do you consider that the EU amounts of imported solid biomass from outside the EU, for the heating / cooling and electricity sectors, will change in the coming years to meet renewable energy targets by 2020?

Please provide your view on which Member State(s) will rely on increased imports from outside the European Union or which are the Member State(s) where imports from outside the EU will decrease.

The vast majority (80%) of contributors expected that increased amounts of imported solid biomass from third countries will be needed in order to meet the renewable energy targets for heat and electricity by 2020.

In addition, the following countries were identified as major importers of solid and gaseous biomass used for energy purposes: the UK, Netherlands, Belgium Denmark, Germany and Italy. Some contributors indicated that Finland, Spain, Poland, and France will also increasingly rely on biomass imports.

A2: Please identify the most important region(s) (maximum 3) outside the EU from where you expect the majority of solid biomass imports to come from for the heating / cooling and electricity sectors by 2020?

As shown in Figure 1, most stakeholders felt that Russia, North America, Central and Southern America, and to a lesser extent Africa, will be the regions from which most solid biomass imports will originate.

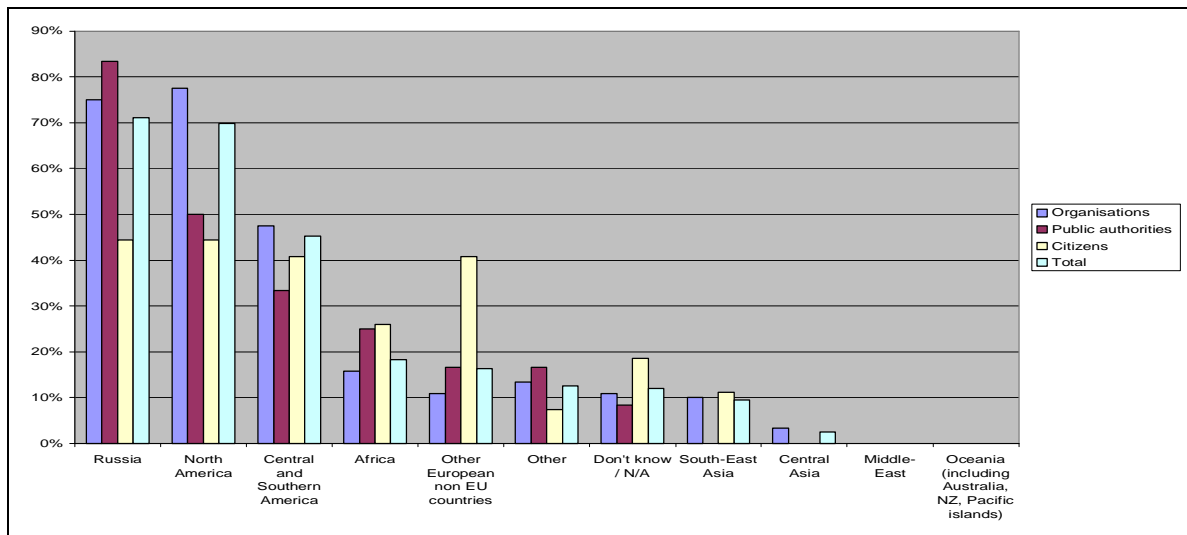


Figure 1: Third countries expected to export solid and gaseous biomass into the EU

Russia is considered to be the most likely source of biomass imports for the following reasons:

- Availability of large volumes of biomass provided in a cost-efficient way;
- Biomass exports representing an important means of income for the country;
- Many pellet industry investments aiming at the EU market are already in place;
- Current taxation policies leading to more wood being exported from Russia for energy production, since the tax levels for energy wood are generally lower than for round wood.

Respondents also felt that Northern America offered:

- High biomass availability coupled with developed logistic infrastructure;
- Structural changes which have recently occurred, e.g. a drop in the material market leading to a search for alternative markets;
- Large infested forests by the mountain pine beetle, notably in Canada, which could be used for pellets production. Productive forests could then be replanted, avoiding methane emissions from the degradation of the infected biomass.

Similarly Southern and Central America and Africa were also seen as offering:

- Abundant biomass resources from forestry and agricultural wastes;
- Lower labour (salaries) and capital (land) costs, with attractive feedstock prices and satisfactory business conditions for import companies;
- Land management not as heavily regulated as in Europe;
- Specific opportunities such as rubber-wood residuals.

Other non-EU European countries, notably Ukraine and Belarus, were also identified as future exporters of solid biomass to the EU, particularly due to their geographical proximity and high biomass availability.

A3: Which types of solid biomass are most likely to be imported from outside the EU until 2020 for the heating and cooling sector and the electricity sector?

As shown in Figure 2, wood pellets and woodchips are identified as the types of solid biomass most likely to be imported from third countries, followed by agricultural by-products, agricultural pellets, and agricultural crops.

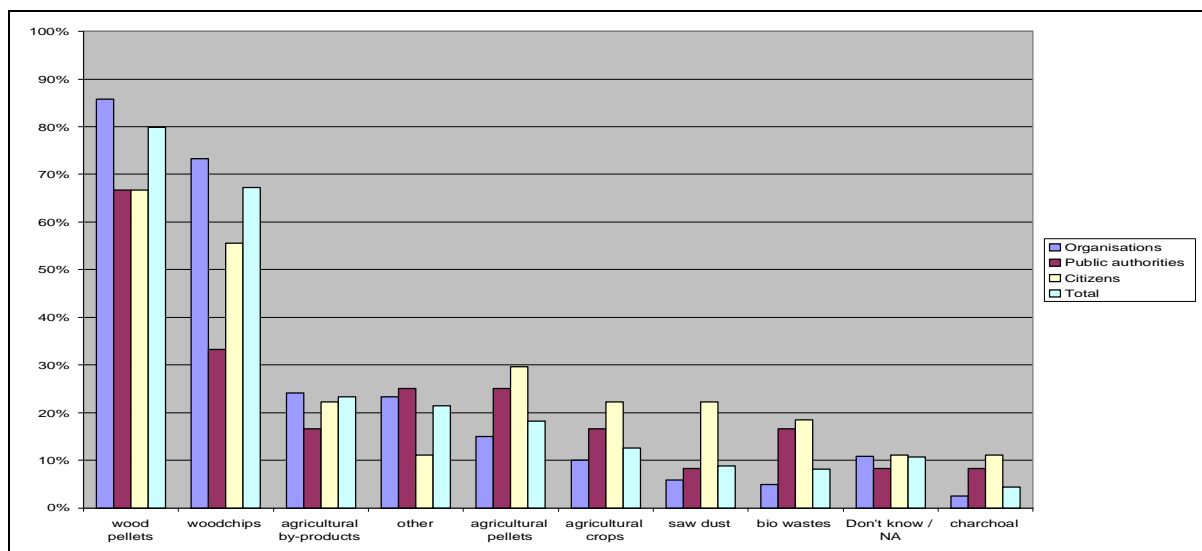


Figure 2: Types of biomass most likely to be imported from outside the EU

SECTION B: New policy developments related to biomass sustainability

B1: Do you consider that the new policy developments listed in section B of the consultation background document contribute or will contribute to ensure the sustainability of solid and gaseous biomass used in the EU for energy purposes?

Please identify the most important developments (maximum 3) that contribute / will contribute to ensure sustainability of biomass supply in the EU.

Answers to this question were mixed. 47% of the respondents, including business/trade associations, companies and public authorities, considered that new policy developments will play a role in ensuring the sustainability of solid biomass and biogas used in the EU for energy purposes. Another 40% of replies, many from NGOs and citizens, indicated that these new policy developments will not be sufficient to ensure biomass sustainability.

Respondents prioritized new policy developments impacting biomass sustainability as follows:

- *EU Timber Regulation*, notably for its rules setting a due diligence system and risk assessments aimed at stopping illegally produced wood from being placed into the EU market;
- Upcoming negotiations on a *legally binding agreement on forest* at pan-European level, which may help to promote sustainable forest management throughout the region;
- *EU Flagship Initiative for a Resource Efficient Europe*, including the upcoming Resource Efficiency Roadmap, inasmuch as they may increase confidence in investments while supporting intelligent use of natural resources, including biomass;
- *Reducing Emissions from Deforestation and Forest Degradation (REDD)*;
- *Guidance on the sustainable mobilisation of wood in Europe*;
- The possible reform of the *Common Agricultural Policy*, including a coherent forestry package;
- Possible inclusion of *LULUCF activities* (Land use, land use change and forestry) in the EU GHG emissions reduction commitment.

B2: Are there other new policy developments not listed in Section B of the consultation background document that in your opinion, contribute / will contribute to further ensure the sustainability of solid and gaseous biomass used in the EU for energy purposes?

Question B2 specifically requested views regarding other "new" policy developments – not listed in the background document – that will contribute to ensuring the sustainability of solid and gaseous biomass. The recent EU Energy Efficiency Plan 2011 was also mentioned by a number of NGOs. A third of respondents referred to voluntary forest management certification (e.g. FSC, PEFC, World Bioenergy Association) and standardisation initiatives (CEN and ISO) as being relevant to further ensure the sustainability of solid and gaseous biomass used in the EU for energy purposes.

SECTION C: Consideration of the impacts of national / regional biomass sustainability schemes in the EU

***C1:** According to your knowledge, are there regional / national rules / regulations (in place or under development) that create obligations or contribute (financially or otherwise) to the sustainability of solid and gaseous biomass for energy uses at national and/or regional level?*

Please indicate in which Member State (s) [and] provide details on the rules / regulations.

The majority of the respondents (54%) acknowledged that national biomass sustainability rules are either in place or under development in a number of Member States.

As shown in Figure 3, some stakeholders that replied "yes" to the first part of the question, also provided details on specific rules in the following Member States: Netherlands (SDE support system to green power), Belgium (regional green certificate systems), UK (Renewable Obligation and Renewable Heat Incentive), Germany (BioSt- NachV- Biomass Sustainability Ordinance), Italy (renewable power provisions in the 2008 Budget Law 2008), Poland (progressive ban for woody biomass and grants for agricultural biomass), and Spain (Feed-in-Tariff for specific biomass streams). No information was provided on national energy rules in other Member States.

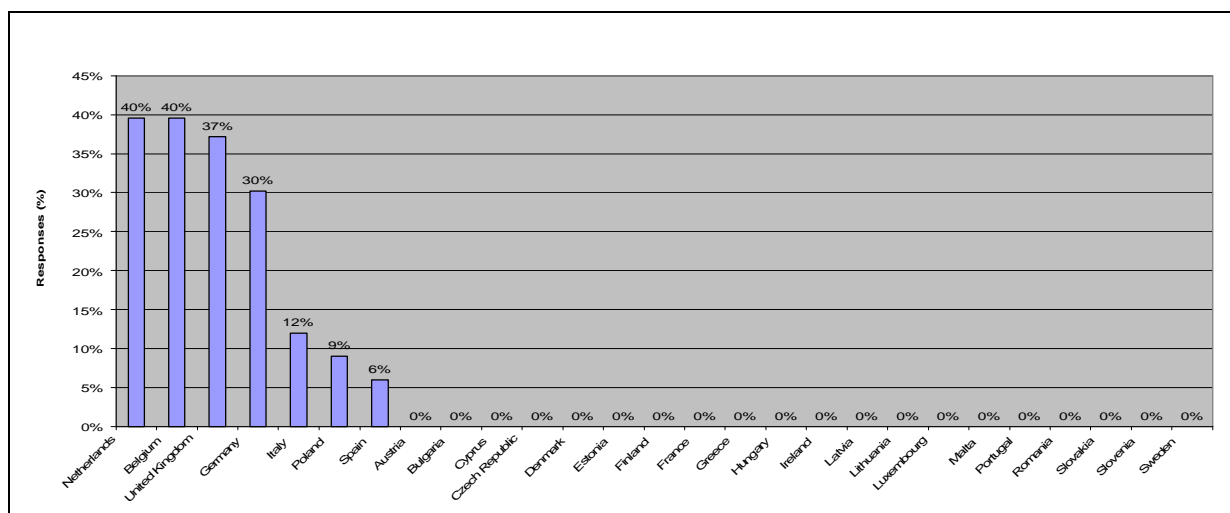


Figure 3: Energy related national biomass sustainability rules in the EU

Besides specific energy regulations, some respondents said that sustainable forest management regulations in place in a number of Member States such as Austria, Germany, Finland, France, Sweden, Spain, and UK, contribute to address the sustainability of biomass production for energy use. In addition, national sustainability standards such as CEN / TC 383 or industry-led certification schemes (Green Gold Label) were mentioned.

The majority of respondents, including large utilities and the biomass and the paper industries, believed that national biomass sustainability scheme have a negative impact on the average cost of biomass and, to a less extent, on biomass trade both within the EU and with third countries.

SECTION D: Consideration of additional European measures

DI: *In your view, should the EU take additional measures regarding the sustainability of solid and gaseous biomass for electricity, heating and cooling?*

The majority of respondents (72%) believed that additional measures at EU level are needed to ensure the sustainability of biomass and biogas used in electricity and heating/cooling sectors. This option is favoured for the following reasons:

- Biomass imports from outside the EU will increase, which may lead to higher risks for biomass sustainability (*most chosen option*);
- The EU policy framework is inadequate to ensure biomass sustainability;
- There is the need for a consistent approach between biofuels and solid and gaseous biomass;
- The lack of a binding EU sustainability scheme affects negatively the EU internal market.

On the other hand, other group of respondents (22%), including a number of national authorities and forest groups from forest-rich countries oppose additional EU measures for the following reasons:

- The EU policy framework is adequate to ensure sustainability (*most chosen option*);
- The recommendations established in 2010 Biomass Report (COM (2010)11) are sufficient;
- Binding sustainability requirements would be too burdensome/ costly for biomass users and would limit the EU's ability to reach renewable energy targets.

If the answer to Question DI is “Yes”, what would be the most appropriate measure?

Table 1 summarises the responses on the most appropriate additional sustainability measures that should be taken at EU-level.

| Types of additional EU measures for biomass sustainability | (%) |
|--|------------|
| Binding and harmonized, proportionate sustainability criteria for all energy producers whatever the size | 22% |
| Binding only for energy producers of all sizes above 1 MW capacity | 21% |
| Binding only for energy producers of large sizes above 20 MW capacity | 9.6% |
| Binding only for certain types of biomass that are more likely to be traded in high quantities on a global scale, e.g. pellets and woodchips | 8.7% |
| Binding only for energy producers of medium and large sizes above 5 MW capacity | 7.9% |
| Binding criteria for all biomass users, not only energy producers | 6.1% |
| Others measures | 25.3% |

Table 1: EU additional measures favoured by respondents

Nearly all environmental NGOs, a number of large power companies and the paper industry favoured EU binding sustainability criteria for all energy producers regardless of their size, for the following reasons:

- Small bioenergy producers (< 1 MW) should be subject to a EU sustainability scheme as the total amount of biomass used by this group is significant;
- The exclusion of operators below < 1 MW could favour the deployment of small, inefficient bioenergy installations, with negative impacts on overall sustainability;
- A precautionary approach should be applied until more information is available on the environmental risks associated to increased biomass use.

In addition, NGOs advocated for additional criteria in order to: a) promote Sustainable Forest Management (SFM), b) exclude inefficient conversion technologies, and c) include emissions associated to forest management into the GHG accounting methodology.

A wide range of stakeholders, including biofuels producers and public authorities, felt that EU binding criteria should apply only to energy producers with a capacity above 1 MW for the following reasons:

- A balance should be reached between the avoidance of excessive administrative burdens and the creation of a level playing field with respect to the different market segments;
- There is the need to guarantee an equal level playing field with biofuel and bio-liquid producers, which are already subjected to the RED binding sustainability requirements;

A group of biomass and forest associations, as well as some power utilities and pellet producers from third countries favoured EU sustainability criteria only for energy producers above 20 MW capacity. Some respondents argued that:

- Energy producers of 20MW or more may rely on both local/regional suppliers and imports, therefore a set of sustainability criteria are necessary to ensure the integrity of all biomass supply;
- A binding scheme should be proportional to risks and should not imply a high administrative burden on small players.

Another group of power companies and a number of citizens supported binding sustainability criteria only for certain types of biomass that are more likely to be traded in high quantities on a global scale, e.g. pellets and woodchips.

A number of large biomass users proposed binding criteria for all biomass users, not only for energy producers, arguing that:

- This is the only way to tackle the problem of non-sustainable biomass. Sustainability criteria for non-energy users should be similar to those applied to bioenergy producers, except for the GHG savings requirement;
- Further analysis is needed on future biomass demand by various industrial sectors in order to estimate potential environmental risks and to establish appropriate mitigation measures.

Finally, a number of European forest owners indicated that 2010 recommendations should be maintained and that the voluntary standards should be promoted for highly traded biomass products.