Proposal for new criteria for bioenergy

Version for public consultation – 16 October 2020

Send your comments before 31 December 2020 to info@ekoenergy.org
For more information, see also www.ekoenergy.org/bioenergy-criteria-public-consultation-2020

1. Background: EKOenergy and bioenergy

EKOenergy's current criteria for electricity from bioenergy were approved in 2013. They deal with 3 main aspects:
- The efficiency of the production processes (use in cogeneration)
- The sustainability of the origin of the biomass. We only accept residues and specific types of woody biomass.
- We limit the co-fueling with other fuels. At least 50% of the fuel used in the installation needs to be EKOenergy-eligible biomass. Only a proportional part of the generated electricity can be sold as EKOenergy.

See https://www.ekoenergy.org/ecolabel/criteria/electricity/

In 2017 we approved our criteria for biogas. With regard to biogas, the EKOenergy label can only be used for gas made from organic residues (municipal organic residues, agricultural residues, industrial residues.)

See https://www.ekoenergy.org/ecolabel/criteria/ekoenergy-gas/

Apart from the sustainability of the bioenergy, EKOenergy's criteria also focus on consumer information, reliable tracking of energy and additionality through EKOenergy's Climate Fund. These aspects are outside the scope of this text.

2. Need for an update

In the past seven years we have learned a lot. In general we received a lot of positive feedback about the basics and about the pragmatic approach of the audit process (based on available, certified information).

However, there is also a need for change and updates. Main topics that need to be updated:

- The current definition of the efficiency rate is unclear
- We're missing out peaking and load following power plants
- Sustainability criteria for woody biomass need to be updated according to new findings about the impact of biomass harvesting on forest biodiversity and on the carbon budget
- The co-fuelling criteria need to be tightened to limit or even exclude the use of peat and (other) fossil fuels
- The way we audit the fulfilment of the biomass criteria needs to be updated, simplified and streamlined

3. Challenges

When reconsidering our criteria with regard to bioenergy, we have been evaluating the pros and cons of 2 different approaches.

1) As an ecolabel, EKOenergy should implement very strict criteria with regard to greenhouse gas emissions and nature protection. If this means that there is hardly any bioenergy available that fulfils our criteria (or for which it is difficult to prove that it fulfils our criteria), so be it. This will be a reason for EKOenergy consumers to prefer other types of renewable energy, particularly wind and solar. And this is then a good market signal.

Or

2) As an ecolabel for renewable energy, EKOenergy should also be easily applicable to bioenergy. Biomass makes up an important component/share of the renewable energy production and EKOenergy is losing expertise if hardly any of the labelled energy comes from biomass.
EKOenergy's criteria should take the existing market situation as a starting point and help consumers distinguish between the best available bioenergy and the bioenergy to avoid.

Most of the interviewed and contacted persons seem to favour approach 1. The following criteria mainly adhere to that approach.

4. Timeline for this review process

- Summer 2020: Proposal on the table (Please see below the proposal for new criteria)
- September- October 2020: Translation to different languages
- October-December 2020: Presenting the text to various stakeholder groups and asking for comments.
- Early 2021: New draft + New public consultation in case of big change
- Summer 2021: Final approval process and (hopefully) launch of the new criteria

5. Proposal for new criteria

Note: - The text in *italics* is the proposal for the new criteria. - The text in strikethrough (~~strikethrough~~) is a copy from the current criteria (approved in 2013), to show the differences with the newly proposed text.

5.1 New criteria with regard to the production unit

The electricity is produced in peaking or load following power plants, or in a co-generation process (combined heat and power).

~~The electricity is electricity from cogeneration, as defined in the Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market. The volumes of the electricity produced in cogeneration are calculated as described in Annex II of that Directive.~~

~~The efficiency (average on yearly basis) of the cogeneration process is minimum 75%. The efficiency is the sum of the electricity and mechanical energy production and useful heat output divided by the fuel input used for heat produced in a cogeneration process and gross electricity and mechanical energy production. All words of the formula are interpreted in accordance with the Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market .~~

Explanation – Justification

- To ensure grid stability, peak and load following power plants are needed. We should encourage these to use 100% RE too (e.g. biogas). It's a shortcoming that bioenergy-powered load following power plants are missing from our current criteria. This leaves us only with hydropower and geothermal, but such power plants are not available everywhere. (And storage capacity is still limited)

- Directive 2004/8/EC doesn't exist any more. In addition, as an international ecolabel, we shouldn't refer to European texts only.
- The efficiency rate depends on many factors and it is often difficult to audit for small installations. The added value of adding the 75% threshold is relatively limited.

5.2 New criteria with regard to the origin of the bioenergy

The bioenergy comes from the following sources:

~~a) Woody biomass harvested in the European Economic Area (EEA), but excluding:~~

~~• Stumps and roots.~~

~~• Woody biomass harvested from protected areas: nature reserves designated by the authorities, Natura 2000 areas and UNESCO World Heritage sites, unless it has been harvested according to a nature management plan approved by a national or regional nature protection agency.~~

~~• Logs with a diameter breast height (DBH) of more than 20 cm. However, such logs can be used if they are not suited for any other industrial use because of root rot (Heterobasidion) or other pathogens. Other exceptions can be accepted by the EKOenergy Board.~~

~~• Forestry products from countries where fellings in forests available for wood supply exceed 80 % of the annual forest increment, unless it can be proven they come from a region where the fellings make up less than 70 % of the annual forest increment. The felling rate to take into account is the average of the available figures for the last 5 years.~~

- *biogenic wastes and residues that cannot be used as food or feed, while respecting the waste hierarchy*[1]
- *agricultural residues, including manure and crop residues.* [2]
- *landfill gas*
- *sewage or wastewater*
- ~~Gases originating from anaerobic fermentation of manure coming from the EEA~~
- *organic residues of production processes (so called processing residues), e.g. residues from the food industry or forest industry by-products (e.g. bakery or brewery waste) and waste products like sawdust, bark...* ~~Organic residues of production processes taking place in the EEA. E.g. residues from the food industry or forest industry by-products and waste products like sawdust, bark and wood chips as well as black liquor and other concentrated liquors~~
- *biomass originating from nature management in accordance with a nature management plan approved by a national or regional nature protection agency*

1 The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal. (See e.g. article 4 of Waste Framework Directive 2008/98/EC)

2 Crop residues are defined as an integral part of the commercial production of agricultural crops; these may include damaged or misshapen fruit or vegetables, trimmings and other plant parts which are not the intended end product, such as straw, leaves or tops. These can be collected from the field or from a packing unit, prior to leaving the farm-gate. [Environment Agency (2014, September). Retrieved October 15, 2016, from http://www.r-e-a.net/images/upload/news_270_140910_EA_Briefing_note_-_crop_residues_used_as_feedstocks_in_AD_plants.pdf]
Agricultural residues also include crops from excess production and biomass originating from intercropping cultivations which are not used as food.

- *residues of woody biomass, <u>but excluding:</u>*
    - *Stumps and roots.*
    - *Logs with a diameter breast height (DBH) of more than 10 cm.*

~~The same categories of biomass coming from neighboring European zones can be allowed by the EKOenergy board, after consultation of relevant stakeholders. The decision will be public. The use of existing forestry and biomass certification schemes may help the approval process be conducted more efficiently.~~

~~For this paragraph, the overseas territories are not considered as a part of the EEA and Switzerland is put on equal footing with EEA countries. Electricity originating from bio-energy and produced in other non-EEA countries cannot be sold as EKOenergy until the EKOenergy Board has decided about the conditions.~~

Explanation - Justification

- No need to specifically mention Europe. We are an international project.
- Should we introduce other criteria to limit the maximum distance between the place of origin and the place of production? Rather no: 1) Very difficult to audit, 2) added value (in the framework of this criteria) is limited and 3) in the case of biogas, distance doesn't necessarily matter
- Bringing the allowed sources in line with recent findings on the impact of the use of woody biomass on carbon budgets and on biodiversity. See e.g.
<u>https://www.birdlife.org/europe-and-central-asia/policy/bioenergy</u>
<u>http://www.birdlife.org/sites/default/files/a_new_eu_sustainable_bionenergy_policy_2016.pdf</u>
<u>http://www.birdlife.org/sites/default/files/attachments/Bioenergy_post_2020_NGO%20recs.pdf</u>

5.3 New criteria with regard to co-fueling

The installation is essentially a 100% renewable energy installation, using bioenergy, as defined by IPCC. Other, non-renewable fuels are used mainly for starting up the combustion and in exceptional circumstances.

If a production device uses both eligible forms of biomass and other combustibles, it can only produce EKOenergy eligible electricity and heat in the same proportion as EKOenergy eligible bioenergy has been used in the production process. The rate is calculated on an annual basis.

~~If a production device uses both eligible forms of biomass and other combustibles, it can only produce electricity that qualifies for EKOenergy if the eligible biomass constitutes at least 50% of the total yearly fuel input of the production device.~~

~~If that requirement is fulfilled, the amount of electricity that qualifies for EKOenergy is the following:~~

~~Electricity from cogeneration x used eligible biomass during the calendar year / total fuel input during the calendar year~~

~~In the case of production devices fueled by a mix of eligible biomass and non-eligible biomass, special rules apply with regard to the sales.~~

Explanation – Justification

- This is the main difference with our previous criteria. The world is increasingly calling for a fast transition towards 100% renewable energy. EKOenergy consumers seem increasingly wary/unwilling to buy energy from installations that aren't 100% renewable themselves (or at least close to that goal).

5.4 Criteria with regard to the auditing of production installations fuelled with bioenergy

The fulfilment of the criteria will be checked at least once a year. The audit will be based on information that is made available by public authorities and other information provided and warranted by reliable third party sources, e.g. information available via accepted Energy Attributed Certificate systems or information that is used for subsidy reasons.

If such information is not available, the information of the audit needs to be verified by an auditor complying with all the requirements of the International Standards on Auditing and accepted beforehand by the Licensor.

~~The fulfillment of the criteria will be checked at least once a year by~~

- ~~The same entities checking the biomass installations on behalf of the authorities in the frame of the guarantee of origin legislation, emission trade legislation and/or support scheme legislation.~~
- ~~Or by any other qualified external auditor accredited by a (full) member organization of the European Co-operation for Accreditation.~~

~~The audit report must be sent to the EKOenergy Secretariat. See also part 11.4 of this text.~~

Explanation – Justification

- Updating of the language to fit international use.

6. Transition clause

Sellers that sold EKOenergy-labelled energy from biomass in the period 2017-2020 can continue to work based on the old criteria until the end of 2023.