SolidStandards

Enhancing the implementation of quality and sustainability standards and certification schemes for solid biofuels (EIE/11/218)

D4.5a
Workshop report
12 November 2013
St. Johann/Pg., Austria

Co-funded by the Intelligent Energy Europe Programme of the European Union

SolidStandards-project

The SolidStandards project addresses ongoing and recent developments related to solid biofuel quality and sustainability issues, in particular the development of related standards and certification systems. In the SolidStandards project, solid biofuel industry players will be informed and trained in the field of standards and certification and their feedback will be collected and provided to the related standardization committees and policy makers.

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About this document

This document is part of work package 4.6 of the SolidStandards project. It is the summary report of the national workshop on sharing the experience on standards implementation. This document was prepared in **January 2014** by:

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Intelligent Energy Europe

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1. Event summary

The workshop "Possibilities and limits of standards in quality assurance of wood chips and hog fuel using the example of the Maschinenring Salzburg reg.Gen.mbH" was organized at the premises of Maschinenring Salzburg in St. Johann/Pg. on 12th November 2013.
This event provided a discussion platform for stakeholders of the local wood chip supply chain within the county of Salzburg.

2. Participants

The workshop was attended by 19 persons including speakers. 9 were wood chip suppliers, 6 wood chip consumers, 3 wood chip producers, 1 was from the Government of Salzburg and 1 from an interest group of heating entrepreneurs. Holzforschung Austria represented the testing and inspection bodies.

A participant list is presented in Appendix 1.

3. Programme

3.1. Agenda

Because the implementation of a quality assurance system according to EN 15234-1 didn´t succeed, the workshop focused on the discussion of generally known problems in wood chip quality control.

10:45 – 11:00	*registration*
11:00 – 11:05	Maschinenring Salzburg reg.Gen.m.b.H. welcome
11:05 – 12:30	Inspection-/Testing body: Holzforschung Austria HFA,-Department of Bioenergy Quality control for wood chips & hog fuel - overview on standards - acceptance of wood chips and hog fuel (correct sampling, analyses) - results of sample analyses
12:30 – 13:00	*lunch break*
13:00 – 13:30	Wood chip producer: Hackguterzeugung Resch „Tailor-made" wood chips – practical experience of a long-time wood chip producer
13:30 – 14:00	Wood chip supplier: Maschinenring Salzburg reg.Gen.m.b.H. Opportunities and risks of solid biofuels mobilization - what's still reasonable?
14:30 – 15:00	Wood chip consumer: Demands on the chip quality from the perspective of the heating system operators
15:30 – 16:00	Authority: Office of the Provincial Government of Salzburg Current situation of the biomass industry in Salzburg

Representatives of the different stages of the wood chip supply chain presented their point of view on certain issues with need for improvement.

3.1.1. Problems, with which wood chip producers have to cope:

- Material can be chipped during summer, but in summer fewer heating facilities need this fuel. In winter most forest roads are not accessible, trees are not harvested (at least you can´t rely on the availability of new raw material).

- Storage places are needed to store material in summer for the higher needs in winter; problem – you can´t store logging residues without significant loss of heating energy content.
- Heating facilities often close at 3 pm and wood chip producer are not able to deliver their material after this time; still they need to finish their work on one site otherwise it would be too expensive.
- Forest owners want them to “clean up” the site – problem: this way the raw material for wood chips is easily contaminated with sand, soil and stones.
- The quality of the raw material depends on the method of extraction from the forest (can´t be influenced by the producer); cable logging uphill – good quality; cable logging downhill – bad quality; hauling – worst quality (because of stones)
- For logging residues it is not possible to produce a specific particle size because the knives are often damaged in the beginning because of a stone and then the particle size distribution can´t be influenced accurately – but there were no customer complaints so far.

3.1.2. Problems, with which wood chip users have to cope

- It is difficult to find a suitable location for the storage place due to complaints from local residents on e.g. odor nuisance or health risk.
- Often only one operator works at a heating facility – if he is at a customer’s place to “repair” something, nobody is at the site to check the quality of the incoming wood chips.
- What is the best method for raw material acceptance at a plant?
  – Acceptance by weight and water content; you get good information on the heating value of a material because the influence of the water content is taken into consideration but a high content of stones distorts the result. Certain investments are needed to be able to perform this kind of acceptance of incoming goods.
  - Acceptance by volume; you never really know, how high the heating value is. If the quality is low acceptance by volume is an advantage for the wood chipper and a disadvantage for the user.

3.1.3. Problems, with which wood chip traders have to cope

- The main problems concerning the quality control of wood chips are described in the report on standard implementation (task 4.3).
- Where will the solid biofuels for energy use come from in the future? Ambivalence between sustainability (tree tops and branches should remain in the forest) and business interests (the whole biomass can be sold for energy production). As long as the customers are satisfied with low quality – it will be sold.

3.2. Situation in your Country

Wood chips are a widely used fuel in Austria; on a small scale level for private households in rural areas and smaller commercial applications as well as on a large scale level for district heating.

The warranty conditions of most heating facilities still refer to the former ÖNORM M 7133 as far as the quality specification of wood chips is concerned. Therefore the nationwide implementation of the European standards for wood chips is still pending and will not be completed before most facilities have been replaced by new ones.

Nevertheless it can be noticed that due to the actions taken in the course of the SolidStandards project the awareness of the new standards and the willingness to implement them has increased.

4. Quality of the workshop

4.1. Feedback from participants

This workshop was esteemed as highly valuable for the cooperation of all stakeholders in the region. The Participants agreed to meet again once a year from now on to exchange experiences and find solutions for the addressed issues.

In using the EN 14961-1 and the EN 15234-1 they don´t see a great benefit for the improvement of wood chip quality but they agree that in the future they will get used to the new nomenclature of the European standards and use it. A generally applicable procedure for the acceptance of energy wood and wood chips was seen as inevitable.

4.2. Lessons learned

In the course of the SolidStandards training events it became obvious that there are problems for certain solid biofuels implementing ÖNORM EN 14961 and ÖNORM EN 15234 series. The reason is that all standards have the same structure, convenient for homogeneous material like wood pellets. These standards do not help with the fuel specification for inhomogeneous material like forest chips or non-woody material, where one cannot rely on the typical values mentioned in ÖNORM EN 14961-1 and where analyses are often not possible due to costs/time and changing locations. Austria tried to solve this problem by elaborating ÖNORM C 4005 to facilitate the fuel specification of forest chips. Still it makes no sense to copy this standard on international level because the typical values mentioned only consider forest chips from Austrian forest and it would be impossible to consider all possible tree species.

5. Conclusions

The workshop on standard implementation for wood chips and hog fuel for industrial use confirmed the results of the standard implementation report (task 4.3) that it is nearly impossible for a wood chip trader to specify the quality of wood chips correctly and that the first step in implementing the European standards in the wood chip supply chain will probably be at the consumers place (e.g. heating plant) by implementing a generally applicable procedure for the acceptance of energy wood and wood chips (based on the European standards).

Annex I - Participants list

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Quality and sustainability standards for solid biofuels

Qualitätssicherung von Hackgut und Schredderholz

Möglichkeiten und Grenzen von Normen am Beispiel der Maschinenring Salzburg reg.Gen.m.b.H.

Ort: MR Salzburg;
St. Johann i. Pongau

Datum: 12.11.2013

Name	Firma / Email	Unterschrift	Hackgut-produzent	Hackgut-händler	Hackgut-konsument	Sonstiges
Bliem Franz	MR Salzburg		○	○	○	○
Gindele Gerold	KELAG Wärme GmbH		○	○	○	○
Göllner Matthias	Seegen		○	○	○	○
Gruber Maximilian	Josef Gruber Int. Transporte Ges.m.b.H & Co		○	○	○	○
Kaswurm Hans	MR Salzburg		○	○	○	○
Lechner Christian	MR Salzburg		○	○	○	○
Löffler Gerhard	Land Salzburg		○	○	○	○

* FORGOT TO SIGN

HOLZ FORSCHUNG AUSTRIA

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Maschinenring

SolidStandards

Quality and sustainability standards for solid biofuels

Name	Firma / Email	Unterschrift	Hackgut-produzent	Hackgut-händler	Hackgut-konsument	Sonstiges
Oberascher Otto	Fuschler Nahwärme GmbH		○	○	○	○
Pagitsch Gerhard	MR Salzburg		○	○	○	○
Pichler Wilfried	Holzforschung Austria		○	○	○	○
Posch Matthias	MR Salzburg		○	○	○	○
Prommegger Josef	Prommegger Holzernte GmbH		⊗	⊗	○	○
Promok Christopher	MR Salzburg		⊗	⊗	○	○
Putz Joachim	Fa. Joachim Putz		○	○	○	○
Resch Harald	Resch Hackguterzeugung GesmbH		⊗	○	○	○
Resch Richard	Resch Hackguterzeugung GesmbH		○	○	○	○

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Maschinenring

SolidStandards

Quality and sustainability standards for solid biofuels

Name	Firma / Email	Unterschrift	Hackgut-produzent	Hackgut-händler	Hackgut-konsument	Sonstiges
Rettenegger Christian	Rema Massivholzplattenwerk GesmbH		○	○	✕	○
Schnell Martin	Bioenergie Wagrain GmbH und Nahwärme Kleinarl GmbH		○	○	✕	○
Schreyer Andreas	MR Salzburg		✕	✕	○	○
Steindl Franz	Salzburg AG		○	○	✕	○
Steiner Monika	Holzforschung Austria		○	○	○	✕
Strasser Christian	Petrolinks Handels GmbH		○	○	○	○
Voithofer Franz	Voithofer Franz Hackguterzeugung		○	○	○	○
Walser Gerfried	Biowärme Mittersill GmbH		○	○	○	○

HOLZ FORSCHUNG AUSTRIA

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Maschinenring