

## Bulgaria Bioenergy Potential

The Conf is good potential for utilizing biomass as an energy source in Bulgaria.

While information regarding the use and potential of biomass has been limited, there have been recent developments through pilot projects and preliminary evaluations.

Results have appeared promising, although a lack of project funding has hindered the ongoing progress of this resource.

Next to the country's hydro resources, biomass accounts for a sizable share of Bulgaria's energy consumption, approximately 3.7 percent or 409,000 toe of the 10,918,000 toe total consumption (Sofia Energy Center, 2002).

Due to the lack of reliable nationwide assessments and data, it is estimated that in practice this number is much larger.

The majority of the biomass energy consumption exists mainly in the rural areas, where firewood, followed by the residential consumption of wood briquettes produced from forestry wastes and sawmill by-products amount to approximately 2 million m<sup>3</sup> per annum.

Bulgaria has sizeable timber, paper and pulp industries, although utilizing the associated residues as an energy resource has yet to be fully exploited.

Source: <http://ebrdrenewables.com>

## 27 European bio-standards so far published Time to globalize the bio standards

In 1998 the first step towards a common European standard on solid biofuels was taken. SIS, Swedish Standards Institute, was asked by the European Commission (EC) for a definition on solid biofuels. The reason was that EC had started two new projects aiming to write standards on solid biofuels. SIS contacted CEN, the European Standards Organization, and together with EC they started a Technical Committee, CEN/TC 335 Solid Biofuels, for the production of 30 new standards on solid biofuels. Today 27 standards are published. Lars Sjöberg now directs the light into the next step - it is time to globalize the standards into ISO - standards.



The work of TC 335 Solid biofuels has been organized in five working groups:

- Working group 1 (WG 1) Terminology, definitions and descriptions,
- WG 2 Fuel specifications and classes,
- WG 3 Sampling and sample preparation,
- WG 4 Physical and mechanical test methods and
- WG 5 Chemical test methods. Each working group has a secretariat with a convenor and a secretary. Sweden has the secretariat of TC 335 and WG 4, Germany leads WG 1, Finland WG 2 and the Netherlands is the head of WG 3 and 5.

When all are satisfied the draft is sent out on a Formal vote to the CEN member bodies. If more than 70 % are voting "yes", the draft is approved and then published by CEN. This is the formal process of a standard.

**Time consuming process**  
The creation of a standard is very time consuming.

The process normally starts with a meeting where experts from different European countries are invited to participate. A project leader is nominated to each work item and he is responsible for the drafting of the standard. The draft is then circulated

for comments within the group.

When the working group is 75 - 80 percent agreed the draft is circulated to the Technical Committee (TC). The comments from the TC are handled by the working group at a meeting and a new draft is prepared.

When all are satisfied the draft is sent out on a Formal vote to the CEN member bodies. If more than 70 % are voting "yes", the draft is approved and then published by CEN. This is the formal process of a standard.

**Mandate**  
The solid biofuels standards are written on a mandate from the Commission. When the project started the Commission was very eager to bring the standards out on the market and therefore it was decided to write Technical Specifications which are a "simple" form of standards.

This means that the next step is to upgrade the Technical Specifications to "real" standards, i.e. European Norms. This work has

started during the autumn 2006 and will go on until 2010.

**Will stimulate the market growth**

The main reason for writing these standards is that EU wants to increase the use of solid biofuels, e.g. pellets and chips, and thereby decrease the emissions of carbon dioxide. In 2010 the contribution from renewable energy must be at least 12 percent of the total energy consumed. European standards facilitate the trade in solid biofuels.

**The research project BioNorm**

Parallel to the standardization work the Commission has a research project called BioNorm. The results from this project are incorporated in the European Standards. The first part of BioNorm was finalized in 2004 and the second part will start during the spring 2007. More information on BioNorm you are able to find at <http://www.ie-leipzig.de/BioNorm/Standardisation.htm>.

Outside Europe there is a great interest in the European standards. China, Canada, Brazil etc are asking when there will be ISO - standards on solid biofuels.

**Market acceptance and views**

An important task now is to get the standards out on the market. As they are going to be upgraded within three years there are possibilities for the users of the standards to leave comments and make the standards even better. There are different channels to spread the knowledge of the new standards. One is writing articles in papers, e.g. Bioenergy International. Another one is by making presentations at conferences like World Biomass Conference and World Bioenergy.

**World wide interest**

At the World

Bioenergy conference in Sweden last year delegates from China asked if they could buy the standards. And of course it is possible to buy them from e.g. the Swedish Standards Institute SIS. But in the long run common global standards must be a better solution.

In Sweden SIS is investigating the possibilities to start an ISO Technical Committee on solid biofuels.

The future on solid biofuels looks very good. The use of it will increase during the next years and the need of international standards will be high.

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NUMBER	TITLE	PR CEN/TS	STAGE 32	STAGE 32	CEN/TS	Comments
WORK PROGRAMME FOR FIELD OF WG 1 TERMINOLOGY, DEFINITIONS AND DESCRIPTION.						
335 001	Solid Biofuels - Terminology, definitions and descriptions	14588	1-Nov	2-Aug	3-May	Published 2003-12-17
WORK PROGRAMME FOR FIELD OF WG 2 FUEL SPECIFICATIONS, CLASSES AND QUALITY ASSURANCE.						
335 002	Solid Biofuels - Fuel specifications and classes	14961	2-Jun	4-Mar	4-Dec	Published 2005-04-11
335 003	Solid Biofuels - Fuel quality assurance	15234	4-Mar	4-Oct	5-Jul	Published 2006-03-15
335 033	Solid Biofuels - Guide for a Quality Assurance System	15569	6-Jan	Stage 32 06-01-11-02-28		
WORK PROGRAMME FOR FIELD OF WG 3 SAMPLING AND SAMPLE REDUCTION.						
335 004	Solid Biofuels - Sampling - Part 1: Methods of sampling	14778-1	3-Jun	4-Jun	5-Jan	Published 2005-11
335 005	Solid Biofuels - Sampling - Part 2: Methods for sampling particulate material transported in lorries	14778-2	3-Jun	4-Jun	5-Jan	Published 2005-11
335 006	Solid Biofuels - Sampling - Methods for preparing sampling plans and sampling certificates	14779	3-Jun	4-Jun	5-Jan	Published 2005-11
335 007	Solid Biofuels - Methods for sample preparation	14780	3-Jun	4-Jun	5-Jan	Published 2005-11
WORK PROGRAMME FOR FIELD OF WG 4 PHYSICAL AND MECHANICAL TEST METHODS.						
335 008	Solid Biofuels - Method for the determination of calorific value	14918	2-Dec	3-Aug	4-Sep	Published 2005-05
335 009	Solid Biofuels - Methods for the determination of bulk density	15103	3-May	4-Jul	5-Apr	Published 05-11-30
335 010	Solid Biofuels - Methods for the determination of moisture content - Oven dry method - Part 1: Total moisture - Reference method	14774-1	2-Jan	2-Oct	4-Jul	Published 2004-09-01
335 011	Solid Biofuels - Methods for the determination of moisture content - Oven dry method - Part 2: Total moisture - Simplified method	14774-2	2-Jan	2-Oct	4-Jul	Published 2004-09-01
335 012	Solid Biofuels - Methods for the determination of moisture content - Oven dry method - Part 3: Moisture in general analysis sample	14774-3	2-Jan	2-Oct	4-Jul	Published 2004-09-01
335 013	Solid Biofuels - Method for the determination of the content of volatile matter	15148	4-Jun	4-Dec	5-Aug	Published 2005-11-03
335 014	Solid Biofuels - Method for the determination of ash content	14775	2-Jan	2-Oct	4-Jul	Published 2004-09-01
335 015	Solid Biofuels - Methods for the determination of ash melting behaviour	15370-1	4-Oct	5-Jul	6-Apr	Published 2006-09-27
335 016	Solid Biofuels - Methods for the determination of particle size distribution. Part 1: Oscillating screen method using sieve apertures of 3,15 mm and above	15149-1	3-Jun	4-Jul	5-Mar	Published 06-01
335 017	Solid Biofuels - Methods for the determination of particle size distribution. Part 2: Vibrating screen method using sieve apertures of 3,15 mm and below	15149-2	3-Jun	4-Jul	5-Mar	Published 06-01
335 018	Solid Biofuels - Methods for the determination of particle size distribution. Part 3: Rotary screen method	15149-3	3-Jun	4-Jul	5-Mar	Published 06-01
335 019	Solid Biofuels - Methods for the determination of impurities					No activity. More research is needed.
335 020	Solid Biofuels - Methods for the determination of particle density	15150	4-Feb	4-Nov	5-Aug	Published 05-11
335 032	Solid biofuels - Method for the determination of particle size distribution of disintegrated particles		6-Mar			Stage 32 2006-03-08-04-21
335 022	Solid Biofuels - Methods for the determination of mechanical durability of pellets and briquettes - Part 1: Pellets	15210-1	4-Feb	4-Nov	5-Aug	Published 05-12
335 023	Solid Biofuels - Methods for the determination of mechanical durability of pellets and briquettes - Part 2: Briquettes	15210-2	4-Feb	4-Nov	5-Aug	Published 05-12
335 034	Solid Biofuels - Methods for the determination of bridging properties		4-Sep	5-Mar	5-Dec	Stage 32 15 Dec 04 - 1 Feb 05
335 035	Solid Biofuels - Analyses of moisture content, ash content and volatile matter content of the general analysis sample by instrumental procedures					
WORK PROGRAMME FOR FIELD OF WG 5 CHEMICAL TEST METHODS.						
335 025	Solid Biofuels - Determination of total content of carbon, hydrogen and nitrogen - Instrumental method	15104	3-Feb	4-Jul	5-Apr	Published 05-08
335 026	Solid Biofuels - Determination of total content of sulphur and chlorine	15289	4-Jul	4-Dec	5-Aug	Published 06-04
335 027	Solid Biofuels - Methods for determination of the water soluble content of chloride, sodium and potassium	15105	2-Dec	3-Aug	4-May	Published 05-08
335 028	Solid Biofuels - Determination of major elements	15290	4-Jul	4-Dec	5-Aug	Published 2006-04
335 029	Solid Biofuels - Determination of minor elements	15297	4-Jul	4-Dec	5-Aug	Published 2006-04
335 030	Solid Biofuels - Calculation of analyses to different bases	15296	4-Jul	5-May	6-Feb	Published 2006-04

## 15th European Biomass Conference & Exhibition

### From Research to Market Deployment

From May 7 - 11 2007, the 15th Biomass Conference & Exhibition will be held at the International Congress Center ICC in Berlin, Germany. This will be the largest international Biomass event in 2007. It is chaired by Dr. Kyriakos Maniatis, European Commission DG TREN, sector Biofuels and Industry, and Chair of the International Energy Agency targeting the Bioenergy Implementing Agreement.

The five-day programme includes:

- Plenary lectures on the state-of-the-art in biomass technology
- Oral and visual presentations on research, development and commercial projects, selected out of more than 1040 papers received
- Political and strategic Workshops
- A social programme
- An international exhibition on technologies and products which addresses the fields from research to market deployment.

For more details please visit the web site [www.conference-biomass.com](http://www.conference-biomass.com).