

## Press Release

Leipzig, 20<sup>th</sup> of December 2011

European Research-Project SECTOR coordinated by DBFZ starts in 2012

### THE EUROPEAN PROJECT SECTOR RESEARCHES ON THE TORREFACTION OF BIOMASS

#### SECTOR supports market introduction of torrefied products as solid sustainable energy carrier

SECTOR (Production of Solid Sustainable Energy Carriers from Biomass by Means of Torrefaction) is a large-scale European project with a strong consortium of 21 partners from industry and science. The project is focussed on the further development of torrefaction-based technologies for the production of solid bioenergy carriers up to pilot-plant scale and beyond, and on supporting the market introduction of torrefaction-based bioenergy carriers as a commodity renewable solid fuel.

In parallel to the development of torrefaction and densification technologies the consortium will work on the assessment of selected logistics aspects and the use of torrefied products in existing conversion options as well as fuel specification and testing methods. This is complemented by a full sustainability assessment of torrefaction-based biomass-to-end-use value chains. The partners CENER (Spain), DTI (Denmark), ECN (Netherlands), Topell (Netherlands) and Umeå University (Sweden) provide the knowhow and equipment for the core technologies of torrefaction and densification. Industry partners such as EON (UK), RWE Innogy (Germany) and Vattenfall (Sweden), amongst others, will concentrate on logistics and end use applications. The scientific organisations, like ofi (Austria), TFZ (Germany) and VTT (Finland), bring in their expertise in terms of analysis and testing methodologies as well as standardisation. A complete list of all project partners in alphabetical order is included below.

#### Promising technology

The torrefaction of biomass materials is considered to be a very promising technology for the promotion of the large-scale implementation of bioenergy. During torrefaction biomass is heated

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Anita Domschke, SMUL  
Johannes Wien, BMVBS  
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Daniel Mayer (admin.)

Sitz und Gerichtsstand: Leipzig  
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up in the absence of oxygen to a temperature of 250-320°C. By combining torrefaction with pelletisation or briquetting, biomass materials can be converted into a high-energy-density commodity solid fuel or bioenergy carrier with improved behaviour in (long-distance) transport, handling and storage, and also with superior properties in many major end-use applications. Torrefaction has the potential to provide a significant contribution to an enlarged raw material portfolio for biomass fuel production inside Europe by including both agricultural and forestry biomass.

In this way, the SECTOR project is expected to shorten the time-to-market of torrefaction technology and to promote market introduction within stringent sustainability boundary conditions. The European Union provides funding for this project within the Seventh Framework Programme. The project has a duration of 42 months and will start in January 2012.

The project is supported by



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## Alphabetical list of Project Partners:

- BIOENERGY 2020+ GMBH (BE2020), Austria
- BIOS BIOENERGIESYSTEME GMBH (BIOS), Austria
- DBFZ DEUTSCHES BIOMASSEFORSCHUNGSZENTRUM GEMEINNUETZIGE GMBH (DBFZ), Germany
- DOOSAN POWER SYSTEMS LIMITED (DB), United Kingdom
- E.ON NEW BUILD & TECHNOLOGY LIMITED (EON), United Kingdom
- FUNDACION CENER-CIEMAT (CENER), Spain
- HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ (UFZ), Germany
- INSTYTUT ENERGETYKI (IEN), Poland
- OSTERREICHISCHES FORSCHUNGSINSTITUT FUR CHEMIE UND TECHNIK (ofi), Austria
- PROCEDE BIOMASS BV (Procede), Netherlands
- RWE INNOGY GMBH (RWE), Germany
- STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND (ECN), Netherlands
- SVERIGES LANTBRUKSUNIVERSITET (SLU), Sweden
- TECHNOLOGIE- UND FOERDERZENTRUM IM KOMPETENZZENTRUM FUER NACHWACHSENDE ROHSTOFFE (TFZ), Germany
- TECHNISCHE UNIVERSITAET WIEN (TU Wien), Austria
- TEKNOLOGIAN TUTKIMUSKESKUS VTT (VTT), Finland
- TEKNOLOGISK INSTITUT (DTI), Denmark
- TOPELL ENERGY BV (Topell), Netherlands
- UMEA UNIVERSITET (UmU), Sweden
- UNIVERSITAET STUTTART (USTUTT), Germany
- VATTENFALL (Vattenfall), Sweden