



## Commercializing 1<sup>st</sup>- and 2<sup>nd</sup>- Generation Liquid Biofuels from Biomass

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### FROM THE TASK

Welcome to the latest issue of the Task 39 newsletter. Based on input at the most recent Task 39 business meeting, we have revamped the newsletter into a more compact, easily read format. We would like to thank Kristīne Kozlov from the EC's DG-TREN for kindly providing us with an overview of the new Directive on Renewable Energy. Some information, including upcoming symposia and workshops and Task contacts, is no longer included in the newsletter but is instead archived on the Task 39 [website](#). We welcome any comments and suggestions you have on the new format; please let us know if you have difficulty reading the newsletter through your email system, so we can address these 'bugs' in future issues!

We also invite you to continue to use the Task 39 [website](#). New features have been added, such as liquid biofuels-related news links and a constantly-updated list of upcoming symposia and workshops. Task members can access presentations from past Task 39 meetings as well as up-to-date reports such as the Biofuel Implementation Agendas; all visitors to the site will find older reports and a wealth of information on liquid biofuels. We hope to continue to expand the website into a one-stop resource for those looking for information on Task 39 personnel and biofuels research. - [Jack Saddler](#), [Warren Mabee](#)

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### IN THE NEWS

#### POET produces cellulosic ethanol from corn cobs

POET announced on June 27 that it has successfully produced ethanol from corn cobs in its Emmetsville, Iowa ethanol plant. [More information](#)

#### Energy Department Selects Three Bioenergy Research Centers for \$375 Million in Federal Funding

The US DOE announced that it will invest \$375 million in three research centres in Oak Ridge, Tennessee; Madison, Wisconsin; and near Berkeley, California. [More information](#)

#### BP and Associated British Foods join forces to build £200m biofuels plant

The new plant will produce 420 million litres of ethanol annually starting in 2009. [More information](#)

#### DuPont and BP building biobutanol facility in U.K.

New partnership will allow production of "next generation" biofuels. [More information](#)

#### European Commission sets agenda on development of biofuels

The conference in early July addressed five key issues: policies to support biofuels; development of international trade in biofuels, environmental risks and benefits of production and use, biofuels and developing countries and research activities in biofuels. [More information](#)

## EU TO ADOPT A NEW COMPREHENSIVE DIRECTIVE ON RENEWABLE ENERGY

By Kristīne Kozlova, Energy and Transport Directorate-General, European Commission

*"The views expressed are the views of the authors and do not in any way contribute a commitment on the part of the Commission nor are they necessary representative of the Commission."*

The promotion of biofuels use in transport has become a top priority on the European political agenda. Biofuels play a key role in improving security of supply and reducing greenhouse gas emissions in transport, while offering new sources of income to people dependent on agriculture, both in the EU and in developing countries. This is why development of more renewable energy sources in the EU, and biofuels in particular, have been included among the principal areas of action in the new European energy policy for the years to come.

The EU and individual Member States have supported the development of biofuels through research and demonstration projects for many years. On the policy side, an important step forward was the European Commission's 1997 White Paper on renewable energy. This set the objective of doubling the share of renewable energy in Europe to 12% by 2010. Biofuels for transport were one of the contributors to this objective.

The White Paper described a vision. But saying is not doing. Renewable energy's contribution grew slowly. By 2001, biofuels' share of the petrol and diesel market in the EU was still only 0.3%. To speed up their growth, the Commission proposed a "biofuels directive". By 2003, when the biofuels directive became law, biofuels had reached a market share of 0.5% [revised data]. Two years later – in 2005 – biofuels were in use in all but 4 of the 21 Member States and their market share had reached an estimated 1%. That represented a certain progress, nevertheless, it was less than the 2% reference value included in the directive, and less than the 1.4% share that would have been achieved if all Member States had met their targets. Moreover, progress was uneven. Only a few Member States reached their national targets. Estimated share for 2006 in the EU is 1.5%.

Having reviewed the progress in the Member States and also taking into account the general objective of reducing dependence on oil in transport, the European Commission recognised in January 2007 the need for the EU to take a much stronger commitment on biofuels, in the form of legally binding targets.

On 10th January 2007 the European Commission made proposals for a new Energy Policy for Europe. These included a renewable energy roadmap proposing a binding 20% target for the overall share of renewable energy in 2020 – the effort to be shared in an appropriate way between Member States, and a binding 10% target for the share of biofuels in petrol and diesel in each Member State in 2020, to be accompanied by the introduction of a sustainability scheme for biofuels. The proposals were formally endorsed by all 27 Member States in early March 2007, when the European Council (Heads of States and Governments of the EU Member States) formally agreed on these targets.

Following the mandate given by the European governments, the European Commission is now working on a new comprehensive directive for renewable energy, which will among other include a revised biofuels directive and clear requirements for Member States to achieve the new legally binding 10% target for biofuels.

The environmental dimension of bio-energy will also be included in the directive. In order to ensure that forests are not cut down to produce bio-energy and that biofuels are produced in ways that have solid environmental benefits, the Commission is working on a system that will discourage biofuel production which creates more greenhouse gas emissions than it saves and the conversion of land with high biodiversity value to grow feedstocks for biofuels. A public consultation on biofuel sustainability issues has been launched in order to gather the views of public authorities, businesses, non-governmental organisations and other interested parties on these issues, with a closing date of 18<sup>th</sup> June. The main questions on which the Commission is gathering views are the following: How should a biofuel sustainability system be designed; how should overall effects on land use be monitored; how should the use of second-generation biofuels be encouraged; and what further action is needed to make it possible to achieve a 10% biofuel share?

The aim of the Commission is to develop a sustainability scheme that works; that imposes only a limited administrative burden; and that is compatible with WTO rules. The scheme will be proposed as part of the new comprehensive directive on renewable energy sources to be adopted later this year.

As an additional measure to promote a wider use of biofuels, the European Commission also submitted in January 2007 a revised draft for Fuel Quality directive. The proposed adaptations in this directive should enable a higher volume (up to 10%) of biofuels to be used in petrol. These amendments are yet to be approved by the Council (governments of the Member States).

In view of reducing the cost of bio-energy applications and promoting research, the Commission is also currently working on European Strategic Energy Technology Plan which will set clear objectives and targets for European energy research and technology. This plan, to be tabled later this year, will, among other, address the development of second generation biofuels to become fully competitive alternatives to hydrocarbons. Their development will be speeded by supporting new projects for European demonstration plants.

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## STUDENT EXCHANGE OPPORTUNITIES



One of the mandates of IEA Task 39 is to facilitate the movement of students and scholars between member countries. UBC recently welcomed two students from Lund University in Sweden, Johanna Johansson (left in picture) and Hanna Landbring. Both are working towards completing their Master of Science in chemical engineering degrees at Lund University and will be undertaking a research project at UBC which will enable them to write a thesis and complete their degrees. Hanna will be comparing and contrasting bioenergy policies in Sweden and Canada, while Johanna will be working in the lab on the bioconversion of hemlock and Douglas-fir to ethanol.

Typically, Task 39 can assist in facilitating exchanges by providing funds for travel or accommodation costs, with matching funds from the visitor's parent institution and from the host organization. In the past, we have found that the presence of some outside funding has made it easier for host universities to find matching funds. Any member countries interested in initiating an exchange should contact Jack Saddler or any of the associate task leaders.

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## UPCOMING TASK 39 MEETINGS

The next Task 39 meeting will be held in conjunction with the [6th European Motor Biofuels Forum](#) in the Rotterdam, The Netherlands from January 9-10, 2008. More details will be available in the coming months. Please check the Task 39 website for detailed information as it becomes available.

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## UPCOMING/RECENTLY RELEASED REPORTS

### 1. Biofuel Implementation Agendas: A Review of Task 39 Member Countries

The implementation report is online at the Task 39 website, and available to all Task 39 members. Non-members wishing to view the report should contact their appropriate [country representative](#).

### 2. Biodiesel Production: Technologies and European Providers

A comprehensive review of European technology providers for biodiesel producers has been completed and posted to the Task 39 website under the 'Task Outputs/Publications' page. Non-members may contact their appropriate [country representative](#) to obtain a copy.

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## TASK 39 MANAGEMENT TEAM

### Operating Agent, Agency:

Peter Hall, Natural Resources Canada, [phall@nrcan.gc.ca](mailto:phall@nrcan.gc.ca)

### Task Leader, Agency:

Jack Saddler, University of British Columbia, [jack.saddler@ubc.ca](mailto:jack.saddler@ubc.ca)

### Associate Task Leaders:

(Implementation Issues): Manfred Wörgetter, [manfred.woergetter@blt.bmlfuw.gv.at](mailto:manfred.woergetter@blt.bmlfuw.gv.at)

(Policy, Europe): John Neeft, [J.Neeft@senternovem.nl](mailto:J.Neeft@senternovem.nl)

(Policy, North America): Warren Mabee, [warren.mabee@ubc.ca](mailto:warren.mabee@ubc.ca)

**Newsletter Editor & Webmaster:** Warren Mabee, [warren.mabee@ubc.ca](mailto:warren.mabee@ubc.ca)