

Press Release

Large biomass potential not being realised today

Brussels, June 10, 2010. *A new report published today shows that biomass for heat and power holds a very large untapped potential for Europe as a cost effective source of renewable energy and greenhouse gas emission reductions. However, this potential is not being realised today.*

The report is the work of a consortium of organisations representing many of the relevant stakeholders in the biomass debate (environmental organisations, the forest products industry, the utility industry), including the European Climate Foundation, Sveaskog, Södra, and Vattenfall. WWF was involved and extensively consulted in the development of the report, and endorses most of the main conclusions. Management consulting firm McKinsey & Company provided analytical support. The report provides a fact base on biomass as a fuel for heat and power production so that its advantages and disadvantages compared to alternative production technologies – principally fossil fuels – can be debated in an objective way.

The European Commission counts on biomass to grow in the same order of magnitude as all other sources of renewable energy together between now and 2020. If this growth is realized, biomass costs look likely to come down 15-40%, so that biomass becomes cost competitive versus fossil fuel alternatives at a CO₂ price of 30-50 EUR/ton. However, the report highlights that this growth potential is not being realised today – biomass use for heat and power is currently growing at only a third of the pace foreseen by the European Commission to meet the 2020 targets. This presents a major challenge for Europe's transition to a sustainable energy supply. To unlock growth, and avoid missing the biomass opportunity, policy makers and companies need to recognise that while biomass for heat and power is a proven technology, most supply chains are immature and face a number of barriers that need to be removed for the industry to scale up, e.g. lacking initial profitability.

As biomass for heat and power is only one of several products harvested from forests – and depends for its profitability on the other products also being harvested – the scale-up must be done in a way that does not jeopardize the rest of the industry. In addition, reinforced environmental frameworks and legislation will be needed to ensure such a development does not come at the expense of a sustainable use of natural resources.

Speaking at the launch of the report Jules Kortenhorst, CEO of the European Climate Foundation said: *“Biomass is an important part of the solution in the shift to a low carbon economy in Europe. With the right regulatory structure, business leadership and proper regard for land-use change, biomass could realise its true*

growth potential. At present the growth rate is only a third of what is necessary to meet existing targets, but our report highlights what needs to be done to rectify this situation and to ensure that biomass by 2020 delivers as much energy to Europe as diesel does today.”

Eight key observations underline the overall conclusion laid out above and are substantiated in the report:

1. The most common types of biomass energy applications reduce carbon dioxide emissions significantly, by 55 to 98 percent compared to fossil fuels, even when transported long distances, as long as it does not result in any land-use changes.
2. The European Commission expects heat and power from biomass to play a very important role in meeting the EU’s legislated “2020” targets – actually a full 850 TWh final energy consumption growth from biomass is expected. This is as much as the Commission expects from all other renewable energy sources taken together, but current European growth rates are only a third of what would be required to meet these forecasts.
3. Contrary to common belief, there is a large inherent cost improvement potential in biomass-generated power and heat as experience and volumes grow – 15 to 40 percent compared to today. Capturing these cost improvements will be challenging but would make biomass cost competitive with coal, gas and oil in a broad range of applications at a CO₂ price of 30 to 50 EUR per ton in 2020.
4. Achieving the expected growth in biomass for power and heat in a 2020 time horizon will require greatly increased biomass demand from both the energy producing industry and smaller scale heating applications – no single segment is sufficient.
5. European biomass supply for heat and power could be doubled through 2020 in an ambitious mobilisation scenario, releasing a full ~1,000 TWh of sustainable, domestically produced primary renewable energy in addition to the ~1,000 TWh primary energy that biomass already delivers. Biomass would then deliver as much energy to Europe as diesel does today. But this biomass supply mobilisation is not happening today – current supply growth is only 35-40 TWh primary energy per year.
6. A faster global biomass supply mobilisation than today is needed to avoid supply shortage in the transition phase – and the resulting negative consequences on food, feed and the forestry industry – even though there is technically enough unused land and forest/agriculture residues available globally to meet 2020 demand without compromising other stakeholder needs.
7. Biomass can play an important role in European renewable energy production beyond 2020, for instance as one of few ways (another being

CCS) to reduce carbon dioxide emissions from coal power plants with long remaining life-times. Biomass is not only a short-term bridging solution.

8. To unlock the great untapped potential in biomass, policy makers and companies will need to regard it as a proven technology that holds significant promise for the future, but also recognize that the current value chain is immature and that investments are not happening at the expected pace. To address this, policy makers will need to take targeted action to unlock biomass value chains and create some level of confidence in price and volume of demand for producers and users of biomass, companies will need to make investments for the long-term and assume some risks, and NGOs, policy makers and companies will together need to put in place reinforced environmental frameworks and legislation.

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The full report is available on the web pages of the authoring organizations including www.europeanclimate.org. For media enquiries please contact Tim Nuthall at the European Climate Foundation (tim.nuthall@europeanclimate.org or + 32 478 98 74 79).

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