THURSDAY, 18 JANUARY 2018, 15:05

Bioenergy and the Bioeconomy – One and the Same?

Biomass can replace a variety of fossil and mineral resources in the EU economy. This could contribute to climate mitigation and resource efficiency; growth, jobs and energy security. Whether used as timber for construction or fibre for paper production, as a renewable energy feedstock or as a basis for novel chemicals and bio-materials; biomass use must be sustainable. This includes recognising that the level of sustainable biomass use is naturally limited and that land, on which biomass is produced, is finite.

There is mounting interest in biomass to provide heat, power and transport fuels but also as a basis for alternative products for replacing plastics, and other fossil fuel derived commodities. This implies the

for land for the delivery of biodiversity and other ecosystem services. Meanwhile, the recent IEA Roadmap

for Sustainable Bioenergy considers an increase global bioenergy consumption from 4.5 per cent of final energy demand in 2015 to 17 per cent in 2060 to be needed to support energy system transition and limit temperature rise to 2 degrees Celsius by 2100. While the IEA considers that two thirds of demand could be sourced from wastes and residues, this still implies a shift in resource distribution and a change in biomass harvest and usage patterns based on analysis completed by IEEP, and partners, for the European Commission.

There are multiple avenues through which legally binding requirements and voluntary standards are emerging to support the developing bioeconomy and to regulate bioenergy demand. In November 2017, the first attempt to provide holistic principles around the use of biomass within Europe's bioeconomy was adopted in the form of the European Bioeconomy Stakeholder Manifesto. This initiative, led by stakeholders from across Europe (under the auspices of the EU's Bioeconomy Strategy), sets out principles upon which a future bioeconomy should be built; the first principle being 'resource use within the limits of the planet'.

In 2018 the European Council and Parliament will finalise agreements on interconnected elements of the 2030 Climate and Energy Framework. This contains a suite of policies relevant to the future of biomass use in Europe and, consequently, the demand EU Member States will place on domestic and global resources. This includes: the proposal for a new Renewable Energy Directive; a proposed Effort Sharing Regulation; a proposed Land Use, Land Use Change and Forestry (LULUCF) Regulation; and the proposed Regulation on the Governance of the Energy Union.

Each element of this package will be essential to securing effective governance and responsible biomass use for energy. The laws and caveats adopted will in turn impact, on the wider demand for and management of biomass resources, influencing the development of the wider bioeconomy. Collectively, the interplay between these policies, and the evolution of the wider bioeconomy, will influence the scale of biomass demand, hence land use and management, the level of harvesting intensity and the level of environmental protection and greenhouse gas emission reductions achieved.

This week the European Parliament adopted its first reading position on the proposed Renewable Energy Directive (see IEEP's analysis here); agreements are nearing completion on the effort sharing and LULUCF proposals, and Energy Union Governance remains under debate. What is important is that the interconnectivity of these policies be recognised. Delivering and regulating sustainable biomass use requires joined up governance within the energy sector, but also beyond. Beyond the energy sector this should include the negotiations on the future of Europe's agriculture system, and the conceptualisation of the circular and green economy.

Europe's future biomass demand across all sectors should be sustainable and recognise the upper bounds of production. Achieving this ambitious objective requires all stakeholder, policy makers and decision makers to work collaboratively; and legislation that supports and facilitates coordinated, sustainable use of bioresources.

on our expertise in agriculture, forestry, economics, energy, trade and environmental policy. Our work includes

independent policy research, analysis and advice We advise EU and Member State law-makers, academics, regulatory authorities, industry and NGOs.

Please contact Catherine Bowyer, Ben Allen or Silvia Nanni if you are interested in knowing more about our work.

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