

Bioenergy's Contribution to the Clean Energy Transition

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Bioenergy today

- Almost 60% (2021) of renewable energy in EU is from biomass
 - Thus the largest source but the least discussed
 - Delivers benefits and renews every year in Europe
- Still one of the few alternatives that can be applied now and deliver now
 - How do we increase deployment?
 - Still a window of opportunity
 - Unless we get deployment going investments will fail
- Transport applications
 - As mentioned many times before. Electrification is not the alternative as it takes time and is not suitable everywhere.
 - Transport will remain dependant on liquid and gaseous fuels for decades and permanently for aviation, shipping and long distance transport.
 - Thus failing to support bioenergy in transport means continued support for fossil fuels

An energy recipe for Europe

- Ingredients to not blend in (adds war, geopolitics, other insecurities and environmental, social and economical issues)
 - Natural gas, CNG and LNG
 - Crude oil
 - Coal
- An ingredient that cannot be excluded (if it is built it should be used, building new takes time)
 - Nuclear
- Ingredients to maximise
 - Windpower
 - Hydropower
 - Geothermal
 - Wavepower
 - Solar
 - Biomass

Sustainable and resilient energy system

- Windpower
 - Hydropower
 - Geothermal
 - Wave
 - Solar
 - Biomass
 - Geothermal
 - Energy Storage
 - Smart Grids
 - Energy Efficiency
- Diversification: Ensure a mix of different renewable energy sources to reduce dependency on any single source and enhance system resilience.
 - Redundancy: Build redundancy into the system with multiple backup power sources to maintain stability during disruptions.
 - Real-time Monitoring: Use real-time monitoring and advanced analytics to predict and address potential issues before they escalate.
 - Policy Support: Implement supportive policies and incentives to encourage investment in renewable energy and energy efficiency.
 - Community Involvement: Engage local communities in energy projects to foster acceptance and participation.
 - Research and Innovation: Invest in research and development to continuously improve renewable energy technologies and storage solutions.



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The SET Plan

- The integrated SET Plan – The plan to accelerate the development and deployment of low-carbon technologies in EU
- Biomass and bioenergy contribute with the following
 - Defossilisation
 - Circular economy development
 - Biodiversity through sustainable practices
- European competitiveness
 - Energy independence
 - Job creation
 - Innovation
 - Economic growth
 - Technological advancements

Going forward

- ETIP Bioenergy SRIA sets the overall direction
- How to increase deployment efforts?
- The need for resilience and increased energy security should give an even stronger case for bioenergy
- Provide the boundary conditions for the following
 - Continued support for low-TRL technologies
 - Clear support all the way to the market in each TRL level
 - Support the "first of a kind plants" to lead to commercial plants
- Phase out fossil fuels
 - Russian energy still imported to EU
 - Russian fossil energy replaced by other unstable supplies of fossil energy





www.etipbioenergy.eu

Project Partners



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