




THE ROLE OF BIOENERGY IN EU ENERGY POLICY

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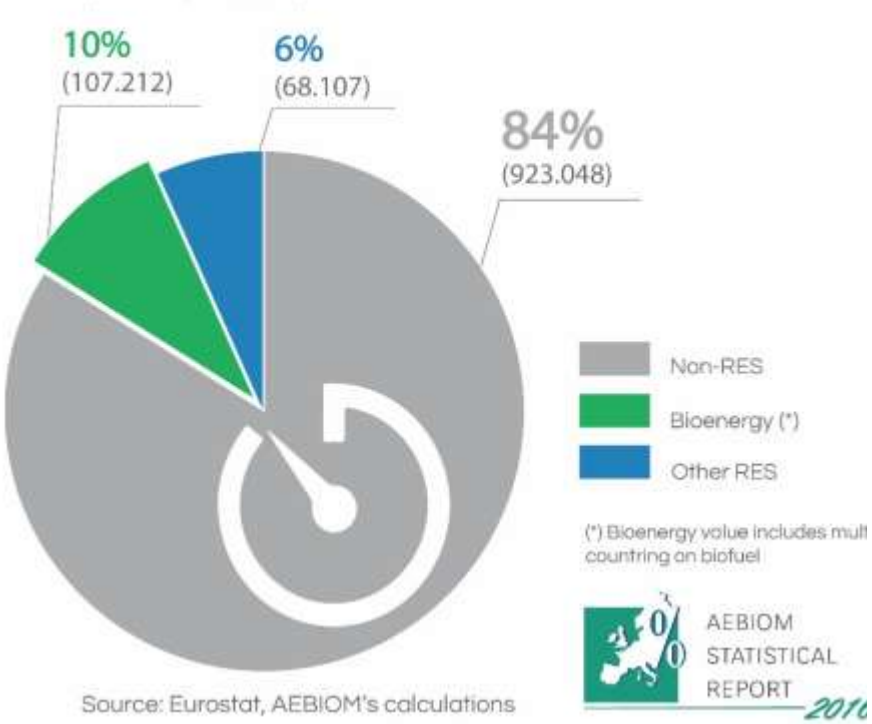
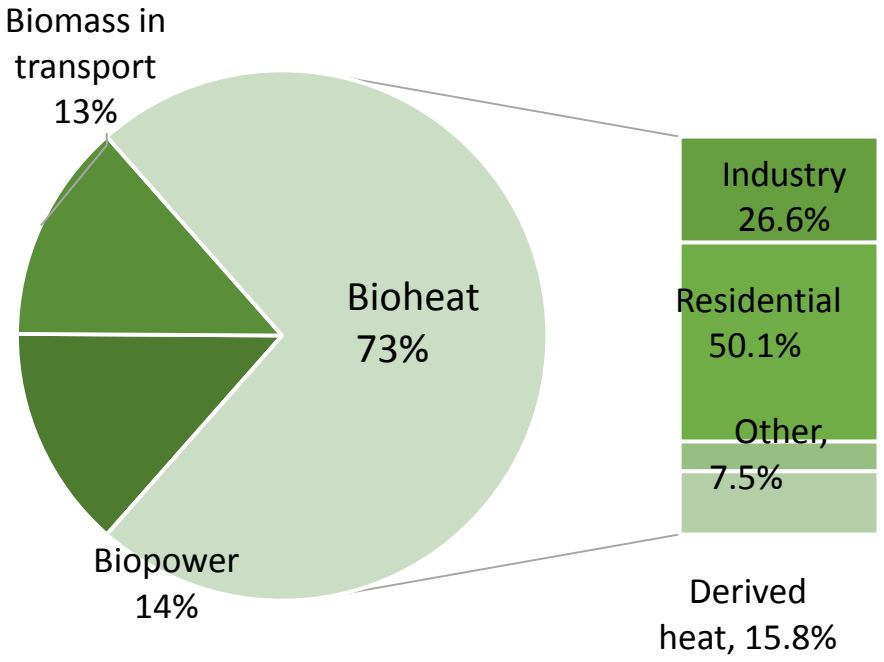
BIOENERGY IS THE MAIN RENEWABLE ENERGY SOURCE: 10% OF EU FINAL ENERGY CONSUMPTION

Gross inland energy consumption (2014 , %)



Gross final bioenergy consumption (2014 , %)



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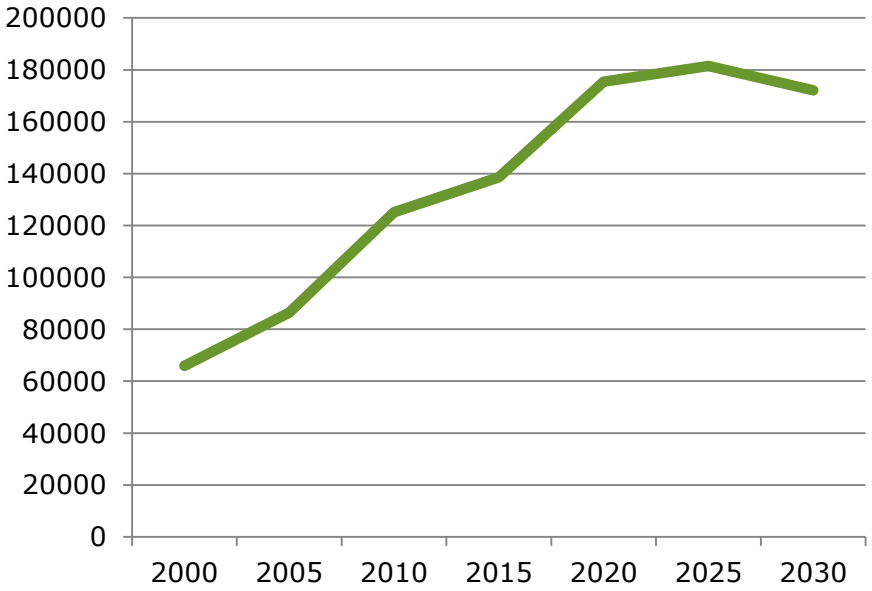
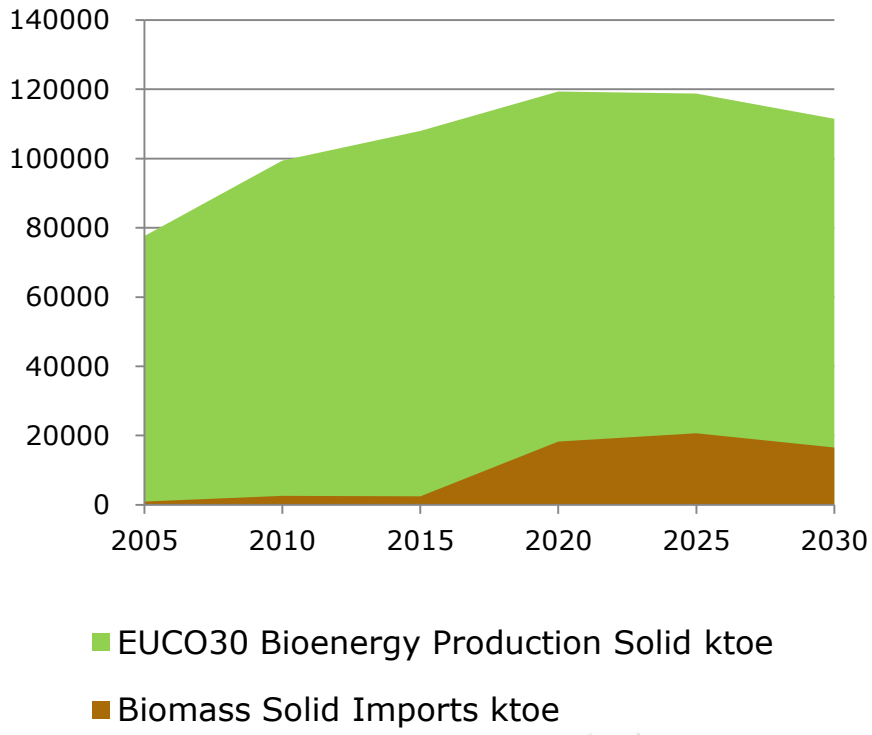
BIOENERGY WILL CONTINUE TO PLAY A KEY ROLE IN THE FUTURE, PICKING IN 2025 AND THEN DECREASING

EU Bioenergy Consumption (ktoe, 2005-2030)



Solid biomass imports (ktoe, 2005-2030)

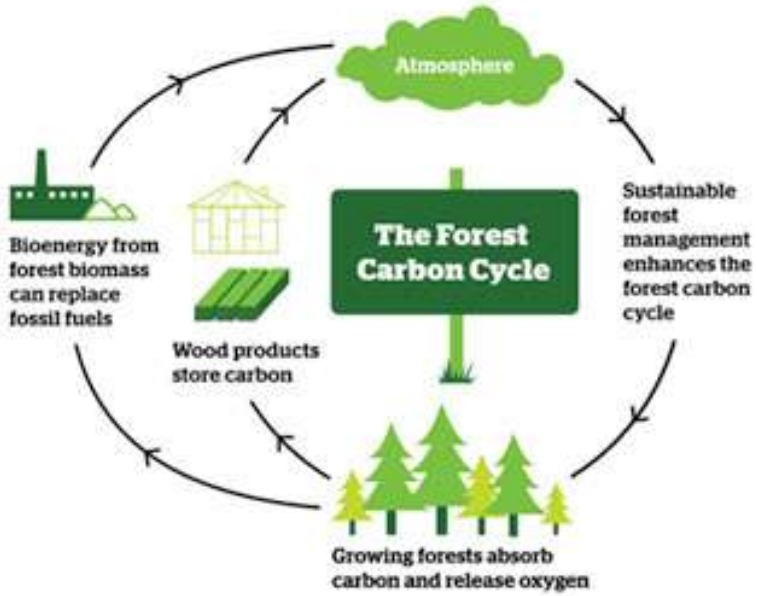


Source: PRIMES EUCO scenarios

MAJORITY OF FOREST BIOENERGY DELIVERS GHG BENEFITS, EVENT TAKING INTO ACCOUNT BIOGENIC EMISSIONS

Carbon impacts of forest bioenergy can var depending on:

- Forest management regimes
- Supply chain GHG emissions
- End-use efficiency
- Time horizon of assessment, contra-factual



RED II REINFORCES THE EU BIOENERGY SUSTAINABILITY FRAMEWORK

- ✓ Cover all **bioenergy uses** (biofuel, heat and power)
- ✓ Minimize risks of negative **environmental impacts** (e.g. deforestation, degradation, impacts on biodiversity and carbon stocks, ILUC)
- ✓ Deliver **optimal greenhouse gas savings** compared to fossil fuels
- ✓ Promote **resource efficiency** and avoid **market distortions**

*Ensuring **proportionality** and **cost-effectiveness**, avoiding double regulation or excessive administrative burden for economic operators*

OVERVIEW OF THE EU BIOENERGY SUSTAINABILITY FRAMEWORK POST-2020

Land criteria: feedstock based

1 AGRI BIOMASS
No go areas:
- ✓ with high carbon stocks and
- ✓ high biodiversity values

2. FOREST BIOMASS (risk-based)
Minimum requirement for:
- ✓ Forest regeneration
- ✓ Biodiversity and soil protection
- ✓ Long term productivity
- ✓ LULUCF accounting

Performance criteria End-use based

3. GHG SAVINGS CRITERIA
- ➢ 70% for new biofuels/biogas for transport (all plants)
- ➢ 80% (85% in 2026) for biomass and biogas in heat and power (only for large plants with fuel capacity equal/above 20 MW)

4. CHP CRITERIA for bioelectricity
- ➢ Applies to new bioelectricity plants (equal/above 20 MW); 3-year transition period after adoption of Directive + exceptions for national risks of security of electricity supply

NEW FOREST BIOMASS CRITERIA TO AVOID UNSUSTAINABLE FOREST HARVESTING AND ENSURING LULUC ACCOUNTING

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- Economic operators can use two types of evidence for demonstrating compliance:
  - ❑ Evidence A. National or sub-national legislation related to the harvesting area
  - ❑ Evidence B. If evidence A not available, evidence from forest holding assessment

Benefits:

- ✓ *Proportional*: focus on risky biomass that is not subject to environmental safeguards, builds on national sustainable forest management policy
- ✓ *Cost-effective*: the 20 MW capacity threshold covers 75% of commercial forest biomass used for energy, only 16% of the installations

'Only waste & residues': is it environmental desirable or technically feasible?

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END USE PERFORMANCE CRITERIA EXTENDED TO BIOMASS IN HEAT AND POWER (ABOVE 20 MW)

GHG saving criteria (heat and power)

- 80% GHG saving requirement for biomass for heat and power (85% in 2026)
- New GHG calculation methodology and default values for most common pathways

Benefits:

- ✓ *Effective: promotes carbon efficiency along the bioenergy supply chain*
- ✓ *Efficient: operators can use default values or calculate project values*

End-use efficiency criteria (bioelectricity only)

- Electricity from biomass must be produced in highly efficient CHP
- Transition period for plants starting operations after 3 years from the date of adoption of the directive, exceptions for security of electricity supply risks

Benefits:

- ✓ *Effective: promotes end-use efficiency*
- ✓ *Efficient: it does not impact already made/approved investments*

THANK YOU!

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http://ec.europa.eu/energy/en/topics/renewable-energy