Bioenergy for the European Union

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Bioenergy EUROPE

#bepartofbioenergy

About Us

Common voice of European bioenergy since 1990

Unites **40+ national associations** and around **140 companies**

Hosting the European Pellet Council (EPC)

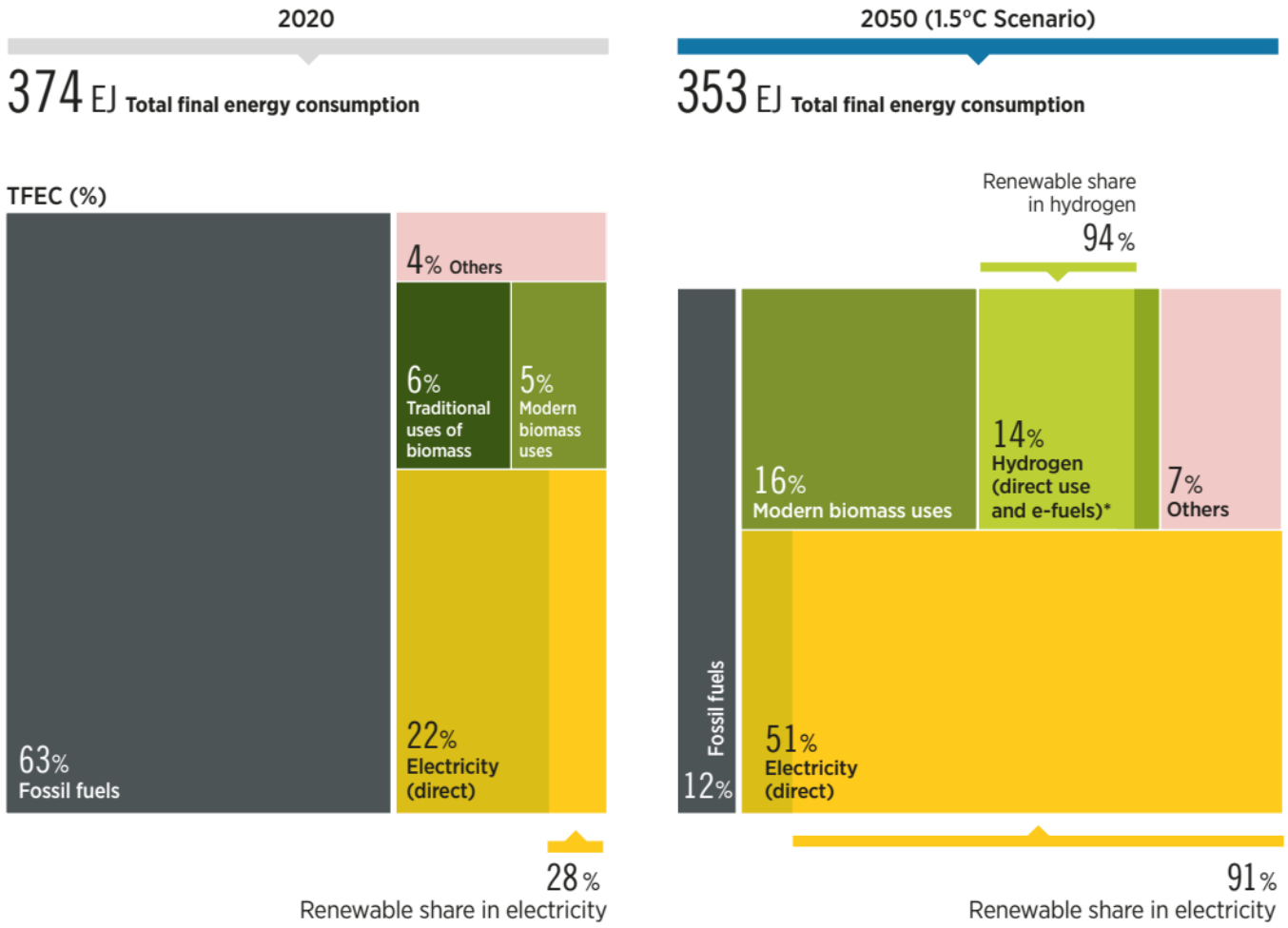
Quality & Sustainability **Certifications**

Our Services:

- **EU Policy Monitoring & Influence**
- **Market Data**
- **Visibility**
- **Networking**
- **Free & Discounted Events**

Current and future role of bioenergy

FIGURE 1.2 **Breakdown of total final energy consumption by energy carrier between 2020 and 2050 under the 1.5°C Scenario**



Highlights:

- "Bioenergy plays a key role in the energy transition"
- "Bioenergy would need policy support"
- "countries would have to implement regulations and certificates, and promote partnerships to ensure sustainability of biomass feedstock and the entire supply chain"
- "bioenergy deployment should be based on the local context and coordinated with other sectoral strategies"

Is the EU policy for bioenergy enabling for its future role in the energy system?

Source: IRENA World Energy Transitions Outlook 2023: 1.5 °C Pathway

KEY POLICY FILES

EU Emission Trading Scheme (ETS) → Adopted

Land Use, Land-Use Changes & Forestry (LULUCF) → Adopted

Energy Efficiency Directive (EED) Deal in trilogue 9 March → adoption expected soon

★ **Renewable Energy Directive (REDIII)** Deal in trilogue 29 March → vote expected soon

Energy Performance Building Directive (EPBD) Trilogues → deal expected by end 2023

★ **Carbon Removal Certification Framework (CRCF)** EC Proposal in November → ongoing

★ **Net–Zero Industrial Act (NZIA)** EC Proposal in March → ongoing

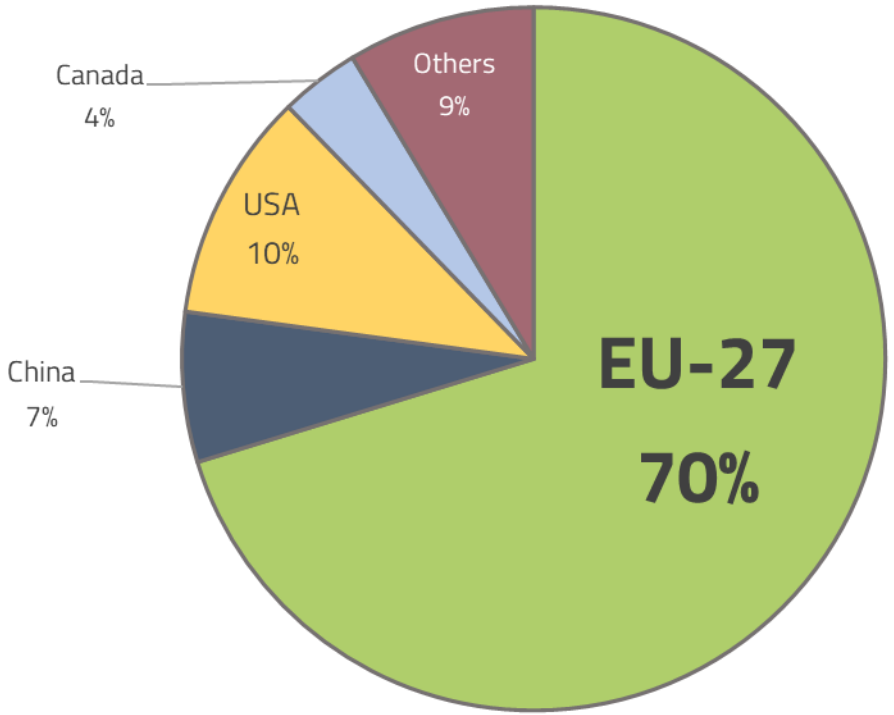
★ **Ecodesign** Study launched → impact assessment & proposal for both lots 2024

Nature Restoration Act ??

EU industry leadership

BIOENERGY INTERNATIONAL

Share of bioenergy equipment suppliers per geographical areas



Global Suppliers Directory 2018

This is the 11th annual update of Bioenergy International Global Suppliers Directory, presenting over 464 international suppliers of equipment to the bioenergy sector.

THE PURPOSE IS TO PROVIDE AN OVERVIEW and some pointers on who supplies what. To qualify companies have to be engaged in export and/or have subsidiaries in other regions, the country shown is where it is headquartered. Although comprehensive, the directory is not exhaustive neither is it an endorsement. Note that the directory does not include equipment for the small scale heating sector. For reference and reading purposes we have used same groups as previously.

CODE EXPLANATION

- g1: Field equipment (forwarders, harvesters etc)
- g2: Solid fuel preparation (chippers, pelletizers etc)
- g3: Combustion (boilers, burners etc)
- g4: Chimneys, Filters etc
- g5: Steering, Control, Automatization
- g6: Drying, Condensing etc
- g7: Storage, Handling
- g8: Turbines, Generators etc
- g9: Chemical conversion (biodiesel, ethanol, biogas, etc)

Company	Country	Website	Code	Comment
A.B.S Silo-und Förderanlagen GmbH	Germany	www.abs-silos.de	g7	Solutions for storage, conveying, dosing and discharging bulk goods for agriculture, wood pellet storage, and other industrial applications.
Aalborg Energie Technik A/S	Denmark	www.aet-biomass.com	g3	Develops, designs, engineers, builds and provides servicing of biomass-fired boilers, CHP and power plants 25-170 MWth.
AB Alstor	Sweden	www.alstor.se	g1	Manufactures off-road machines with articulated steering, full mechanical drive on all eight wheels and full bogie boxes.
Advanced Cyclone Systems, S.A.	Portugal	www.acsystems.pt	g4	Develops efficient cyclone systems worldwide for particle emission control in biomass boilers, heaters and dryers. Products include patented Hurricane and ReCyclone Systems.
Aerovit A/S	Denmark	www.aerovit.dk	g4	Manufactures automatic soot blowing systems.
AFM-Forest Ltd	Finland	www.afm-forest.fi	g1	Manufactures high-quality single-grip harvester, processor and combi heads for demanding forest operations.
Againity	Sweden	www.againity.com	g9	Manufactures and delivers complete solutions for biodiesel production with a capacity of 2 000 to 340 000 litres per day.
Agico Group	China	www.agico.com.cn	g2	Manufactures and exports complete plants and equipment related to biomass, including small pellet mills, wood pellet mills, briquette presses, and pellet stoves.
Agrar Plus Beteiligungs-GmbH	Austria	www.agrarplus.at	g3, g9	Provides energy contracting, biomass district heating systems, cogeneration, and biogas.
AgriPower	USA	www.agripower.com	g3	Manufactures transportable medium-sized biomass burning systems for electricity production.
Agro Forst& Energietechnik GmbH	Austria	www.agro-ft.at	g3	Manufactures equipment for energy production from renewable resources like bark, sawdust, wood shavings, wood chips, scrap wood, recycled wood and straw.
Aimo Korttean Konepaja Oy (Murska)	Finland	www.murskabiopacker.fi	g2, g7	Manufactures modular pellet production plants for sawmills, furniture factories or cattle feed production.
Airex Energy	Canada	www.airex-energy.com	g3,g6,g9	Develops solutions for thermal biomass and wood processing; offers energy recovery solutions.
Akhurst Machinery Ltd	Canada	www.akhurst.com	g1	Produces equipment for grinding and shredding, material drying. Pellet equipment and briquetting presses.
AKRON	Sweden	www.akron.se	g5, g6, g7	Offers grain handling equipment, biofuel handling equipment for wood chips and pellets, industrial fans and electric motors
Alcon A/S	Denmark	www.alcon.nu	g3, g4	Develops, produces and sells straw boilers in sizes from 30 kW to 1200 kW.
Allan Bruks AB	Sweden	www.allanbruks.se	g1, g2	Develops and manufactures mobile chippers, harvesters and cranes for the forest industry.
Alstom Power Group	France	www.alstom.com	g3, g5	Provides equipment and services for power generation and rail transport. Turnkey projects; power, CHP and heat plants, and flue gas cleaning.
Amandus Kahl GmbH & Co.KG	Germany	www.amandus-kahl-group.de	g2	Complete wood pelleting plants from small to highest capacities with flat die pellet mills
Anderson Group Inc	Canada	www.grpanderson.com	g1	Designs and builds innovative, high quality agricultural and forestry equipment that ensures high yield and facilitates one-person operation.
Andritz Energy & Enviroment GmbH	Austria	www.aee-austria.at	g3	International provider of systems for thermal power generation and environmental technologies.
Andritz Feed & Biofuel	Denmark	www.andritz.com	g2	Complete process systems for industrial biomass pelletising. Total process solutions from raw material (i.e. wood logs, chips, sawdust, straw, agricultural byproducts) intake to ready pellets including debarker, chipper, dryer, grinders and pellet mills.
Andritz MeWa GmbH	Germany	www.bio-qz.de	g2	Manufactures a range of size reduction equipment and recycling machinery for different types of materials. Single machine or integrated in complete plant solutions.
Ankur Scientific Energy Technologies	India	www.ankurscientific.com	g3	Manufactures biomass gasification systems; world wide activity.
Antti Teollisuus OY	Finland	www.antti-teollisuus.fi	g7	Silo and conveying system for bulk materials within bioenergy applications. Silos for sawdust, shavings, chips and pellets. Mechanical and pneumatic conveyors for sawdust, shavings, chips and pellets.
Anyang Gemco Energy Mashinery Co. Ltd	China	www.agitc.cn	g2, g3, g9	Provides several types of equipment for biomass energy preparation; complete plants for biodiesel as well as pellets, briquets or charcoal.
Ariterm Group	Finland	www.ariterm.com	g3, g7	Central heating boilers and a variety of bioenergy burning devices from 200 kW to 6 MW, including small container bio heating systems and large amount of heating equipment.

70% of bioenergy equipment manufacturers based in EU!

Bioenergy in the NZIA?

EUROPEAN COMMISSION

Brussels, 16.3.2023

COM(2023) 161 final

ANNEXES
to the

proposal for a Regulation of the European Parliament and of the Council

on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)

ANNEX

STRATEGIC NET-ZERO TECHNOLOGIES

1.	Solar photovoltaic and solar thermal technologies
2.	Onshore wind and offshore renewable technologies
3.	Battery/storage technologies
4.	Heat pumps and geothermal energy technologies
5.	Electrolysers and fuel cells
6.	Sustainable biogas/biomethane technologies
7.	Carbon Capture and storage (CCS) technologies
8.	Grid technologies

Bioenergy is:

- **Renewable**
- **Carbon neutral**
- **Storable**
- **Job provider**
- **Locally available**
- **Manufactured in EU**

...but not listed in the NZIA priorities!

Bioenergy should be in the NZIA!

Image source: European Union, 2023. Meeting of bioenergy CEO delegation with Commissioner Thierry Breton (6 June 2023)

Support the Open letter for bioenergy in NZIA

Open letter: Europe can Count on the Bioenergy Industry for its Net Zero Goals

We, the undersigned CEOs, and high-level representatives of European industry, wish to draw attention to the critical role which bioenergy technologies play in delivering the European Union's net-zero goals for 2050.

Our coalition is broad, ranging from providers of food that nourishes millions of Europeans, to producers of electricity, heating and biomass fuels that help meet the energy needs of millions of EU consumers and businesses.

Several of us are manufacturing companies from a variety of industrial sectors (wood products, paper& pulp, lime, ceramics, steel, etc.). These sectors all require large amounts of energy to produce materials essential for modern day life and the construction of projects key to meeting climate goals, such as solar parks, wind farms and other infrastructure vital to the energy transition.

Others among us are technology providers for modern bioenergy solutions, which fulfil energy needs across a myriad of applications – from residential heating and specialised, high-temperature industrial heat solutions, all the way to advanced biofuels for aviation and shipping.

Bioenergy companies are small & medium-sized businesses as well as large multinationals, together employing close to half a million people across Europe.

The profiles of our companies may differ, but we are united in our belief that bioenergy will play an increasing important role in the EU's efforts to decarbonise. Bioenergy will be indispensable for meeting the European Union's climate targets for 2030, 2050 and beyond.

Sustainable bioenergy has multiple benefits. It is a cost-effective, readily available solution for decarbonisation: utilising sustainable biomass resources obtained through sustainable forest management, good agricultural practices, and the valorisation of residues. Modern bioenergy solutions maximise energy efficiency and minimise pollutant emissions in the atmosphere to negligeable levels. Bioenergy, in combination with Carbon Capture and Storage technologies (BECCS) or biochar carbon removal (BCR), can not only generate fossil-free, renewable energy but can also deliver, in a cost-effective manner, the carbon removals that will be necessary for achieving carbon neutrality by 2050.

Above all, it should not be forgotten that bioenergy is a largely indigenous, European solution: with 95% of the solid biomass used in Europe being locally sourced and the remainder overwhelmingly sourced from trusted allies. Europe is the undisputed leader in bioenergy technologies worldwide. European companies are at the forefront of deploying innovative bioenergy solutions supplied by European technology providers. At a time when the technology suppliers from so many other sectors have moved to other non-EU countries, these European technology providers are an asset we cannot afford to lose.

Confronted with Russian aggression in Ukraine and high energy prices, the EU is at the turning point today in its energy security. We therefore need to objectively consider all available options in the energy portfolio, including sustainable bioenergy.

European policymakers should not shy away from embracing the full benefits provided by bioenergy solutions, nor fail to recognize the importance of the sector in our future energy system. Considering all of this, we:

1. Welcome the recent provisional compromise on the Renewable Energy Directive (REDIII) and the confirmation that bioenergy is 100% renewable. Regulatory certainty is vital for future investments.
2. Encourage the EU institutions to include manufacturing of bioenergy technology as a strategic technology in the Net Zero Industry Act (NZIA), since this will send a strong policy message for further investments. It will also ensure that Europe maintains its technological leadership in modern bioenergy solutions, expanding the highly skilled workforce that is already active in the sector.
3. Ensure that both indigenous and imported biomass supply is not arbitrarily constrained beyond existing sustainability considerations.
4. Call for the EU institutions to create clear policy environment for further mobilisation of new sustainable biomasses from currently unexploited sources and call to ensure that negative emissions policy framework builds incentives.

Sincerely,

> 340 signatories!

We encourage you to indicate your support by signing here: **https://form.jotform.com/231022987120347**

For more details:

https://bioenergyeurope.org/articles/424-open-letter-europe-can-count-on-the-bioenergy-industry-for-its-net-zero-goals.html

Thank You!

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