Agenda

Introduction Peterson Solutions

RED III & Biofuels

RED III & Forestry Biomass

Explore our global   services

We focus on consultancy and technological solutions and provide skills and knowledge through practical training options.

To explore our complete global services please visit us at onepeterson.com.

Peterson Solutions

Peterson Technology

Peterson Academy

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Peterson   Solutions

We provide hands-on consultancy and tailor-made solutions to your sustainability challenges supported by a team of experts in the social, environmental, sustainable finance, and responsible sourcing areas.

We are Peterson

Peterson has been helping to build a better world for many decades. From our roots in agriculture, we have grown to become a trustworthy global partner for consultancy, sustainability, technology, and training, providing a comprehensive range of high-quality services to customers in 80+ countries.

Our in-depth knowledge and experience covers all aspects of the supply chain, across a wide range of industries, and cargo types. From oil and gas to renewable energy; from feed to regenerative agriculture and textiles.

Thanks to our global network of offices, and our 5,000+ people, we are uniquely placed to support businesses anywhere in the world, providing on-the-ground support and insight to assist our partners with local challenges that matter to them and the world around them.

From a family-owned business in the port of Rotterdam to a multinational with offices and a broad scale of activities around the globe. Still family owned after over 100 years.

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15+
Industries

80+
Countries with operations

5.000+
Number of **employees**

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About the service

Bringing you ahead of the business

We assist in defining sustainability policies, reducing environmental footprints and identifying potential sustainability claims, and defining them accordingly.   Our customers are multinationals, small and medium-sized enterprises, farmers' cooperatives, associations, non-governmental organizations, and governments. Our consultants work closely together with our Technology and Academy departments to provide organizations with a full-service package; from data services to expert insights, local training and more.

Industries we work in

| Agriculture | Biomass and biofuels | Feed | Fertilisers | Forestry and wood | Textiles |

| Water | Manufacturing | Renewable energy | Tourism |

Peterson Solutions

Grow your business sustainably with our solutions

Certification support

Need to get **certification** for your products and/or way of working? Your **products must** be **certified** to **enter** the **market**. **We help** you on this journey by **analyzing** existing **procedures** and **documents**, making **recommendations** for certification, and **solve** any problems to prepare you for audits.

Sustainability services

We support companies in achieving their sustainability goals by assisting them in defining their **ESG strategy** and **reports**, managing their **environmental footprint**, and meeting their **sustainability commitments**.

Sustainable sourcing

Sustainable sourcing is the **integration** of **social** and **environmental factors** into the **selection process** for your **suppliers**. **We help** organizations meet common issues found in **value chains**, such as reputational **risks**, lack of **control** over suppliers, **sustainability gaps** at the value chain level, and **compliance** with **global sustainability standards**.

Strong track record in different certification markets and beyond

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⛽	Road Fuels & RED EU
🚢	Shipping & Maritime Fuels
👮	SAF for Aviation & ICAO CORSIA
🧪	Chemicals, Fertiliser, Feed & Food Certification
🏛	Biogas Production & Trading

- **RED** and **bio mandate compliance** support for obligated parties
- **Due diligence** services along **M&A** projects within the energy industry
- **Scope 1-3 emissions** and set-up of **LCA &** verification standards
- Implementing & bechmakring **CORISA** standards for **SAF**
- Support for **ISCC PLUS** standards across various industries
- **Maritime** and **Aviation** Regulation / **RED III**

Background of the RED III

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2020 EC Renewable Energy Progress Report

In 2018 Member States reached an average share of 18% RES

Electricity, heating and cooling reached a higher share than anticipated

Transport only 8% with only two MS exceeding the 10% (SWE & FIN)

Bioenergy remains the main source of RES in the EU with ~60%

Majority comes from forestry → Concerns about its sustainability

Climate neutrality / net zero emissions by 2050 → **new intermediate target of 55% GHG reduction required by 2030** compared to 1990

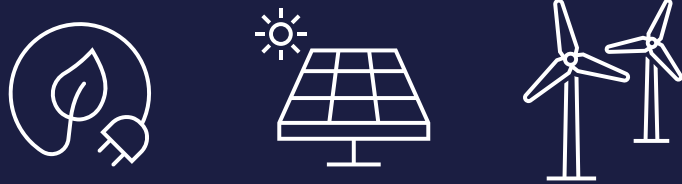This required 38-40% RES in final energy consumption by 2030

→ **Revision of the RED II required**

Changed Target Setting

The Dutch government is working on implementing an obligation based on the GHG emissions intensity reduction for transport fuels

Current Ordinance establishes a renewable energy target

RED III allows to opt for a **GHG emissions intensity reduction target** or a renewable energy target

How does the RED III affect the energy industry?

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RED III will **increase** the use of **renewable energy**, reducing dependence on fossil fuels and carbon emissions

Increase renewable energy share in total energy consumption:

Investments in solar, wind, bio-energy, use of advanced biofuels and renewable electricity production **42.5 % of RES by 2030**

Promoting energy efficiency:

Companies must take measures to reduce energy consumption and promote the use of energy-efficient technologies

Reporting obligation of biomass sustainability is extended :

New reporting obligation for smaller energy installations

For biomass-fueled plants, thermal threshold for sustainability criteria is **reduced from 20 MW to 7.5 MW**
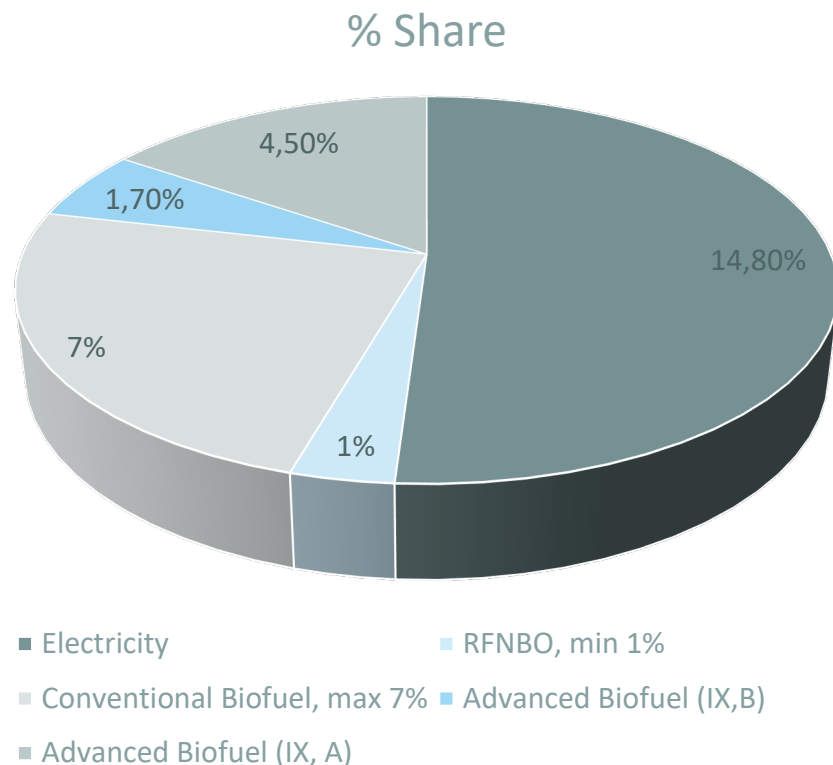
Main changes concerning the transportation targets

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Targets 2030	Targets in RED II (2018)	Targets in RED III (2023)
Advanced biofuels (feedstocks Annex IX, A)	- **3.5% share of advanced biofuels** in final consumption of road fuels - Double Counting	- **5.5% share of advanced biofuels** & **RFNBO**s in final consumption of road fuels - **1% RFNBO minimum** share
RFNBO	- No sub-target - Additional multipliers in aviation and maritime transport: x1.2	- **Indicative** goal of **1.2 % of** energy in **maritime** transport in 2030 - **Double Counting** for advanced biofuels and RFNBOs - **Additional multipliers** in **aviation** and **maritime** transport: x1.2 for advanced biofuels and x1.5 for RFNBOs

Main changes concerning the transportation targets

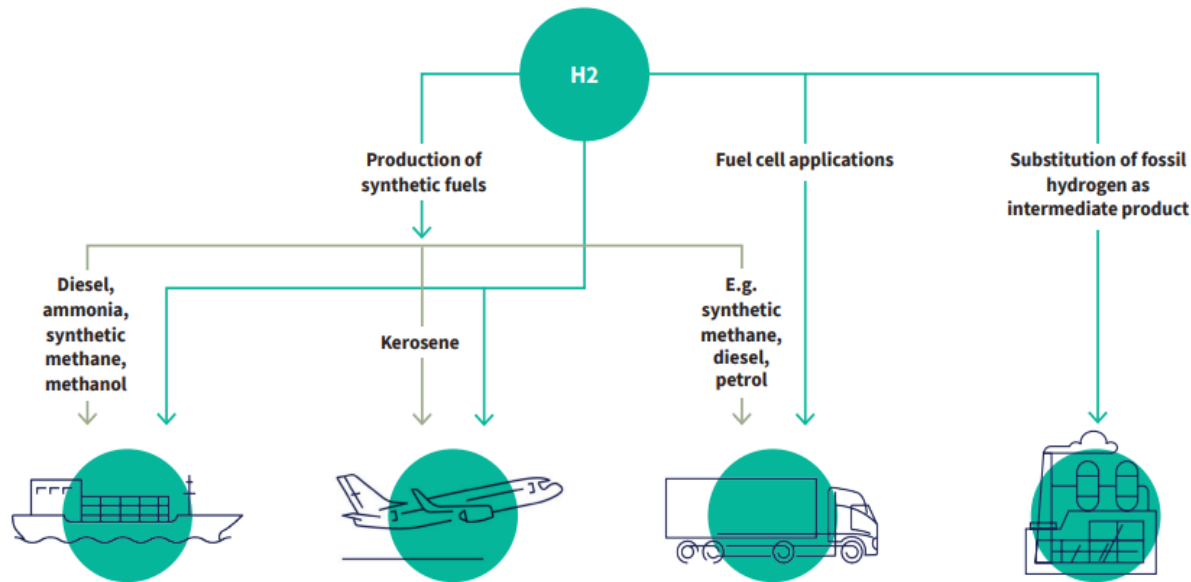| Targets 2030	Targets in RED II (2018)	Targets in RED III (2023)
Biofuels and Biogas from UCO or animal fats (feedstocks Annex IX, B)	- Use of biofuels and biogas from **UCO** and **animal fats** is **limited** to **1.7 %** in road fuels - Double Counting	- Use of biofuels and biogas from **UCO** and **animal fats** is **limited** to **1.7 %** in road fuels - Double Counting
Conventional biofuels (food & feed)	- Share of conventional biofuels consumed in 2020 **in road and rail transport in Member States +1%,** but a maximum of 7%	- Share of conventional biofuels consumed in 2020 **in the transport sector in Member States** +1%, but a maximum of 7%

Binding **GHG** intensity **reduction** of at least **14.5% in transport by 2030** compared to baseline **or a binding share of at least 29% of renewables** within final consumption of energy in the transport sector by 2030

Sample scenario: How to achieve the RED III transport target of 29% in 2030?

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% Share

Pie chart segments:
- 14,80%
- 1%
- 7%
- 1,70%
- 4,50%

Legend:
- ■ Electricity
- ■ Conventional Biofuel, max 7%
- ■ Advanced Biofuel (IX, A)
- ■ RFNBO, min 1%
- ■ Advanced Biofuel (IX,B)

- **Electricity** will play a **key role** in achieving road targets

- Production of **RFNBOs** and **advanced biofuels** *(Annex IX Part A)* **must** be significantly **increased** by 2030

- The multipliers for fulfilment options incentivise certain options

- Change to all MoTs could lead to an **increased use** of **conventional biofuels** and biofuels from **UCO** or **animal fats**

Steering Effect from Maritime and Aviation Regulations

Production of synthetic fuels — Diesel, ammonia, synthetic methane, methanol / Kerosene

Fuel cell applications — E.g. synthetic methane, diesel, petrol

Substitution of fossil hydrogen as intermediate product

The contribution of **maritime bunkering** to the **total fuel & energy pool is capped** for *maritime Member States*

Limited to 13% of the MS's gross final energy consumption → Should be the case for NL

- **FuelEU Maritime** + ETS prices direct maritime demand towards RFNBOs

- **ReFuelEU Aviation**: Incentivise uptake of hydrogen or synthetic jet fuel

- **Road**: Widespread use unlikely due to cost, availability & infrastructure

- **Refineries**: Substitution with renewable H2 can be counted towards target fulfillment

Forestry Biomass

- **Forest biomass** is the most important bioenergy source → **2/3 of EU bioenergy consumption**

  - Wood fuels include chips, pellets & logs

    - **74% of primary** material for **pellets**
- **62% of primary** material for wood-for-**energy** are **by-products**

      - Bark, saw dust & wood chips

🚫 RED III NO GO AREAS

- Primary forest and old growth forests
  as defined in the country where the forest is located
- Highly biodiverse forest
- Highly biodiverse grassland
- Heath land
- Peatland

Updated definition of sustainable harvesting:
- **No forest conversion** into plantations
- Minimise **clear cuts**
- **No** use of **roots** & **stumps**
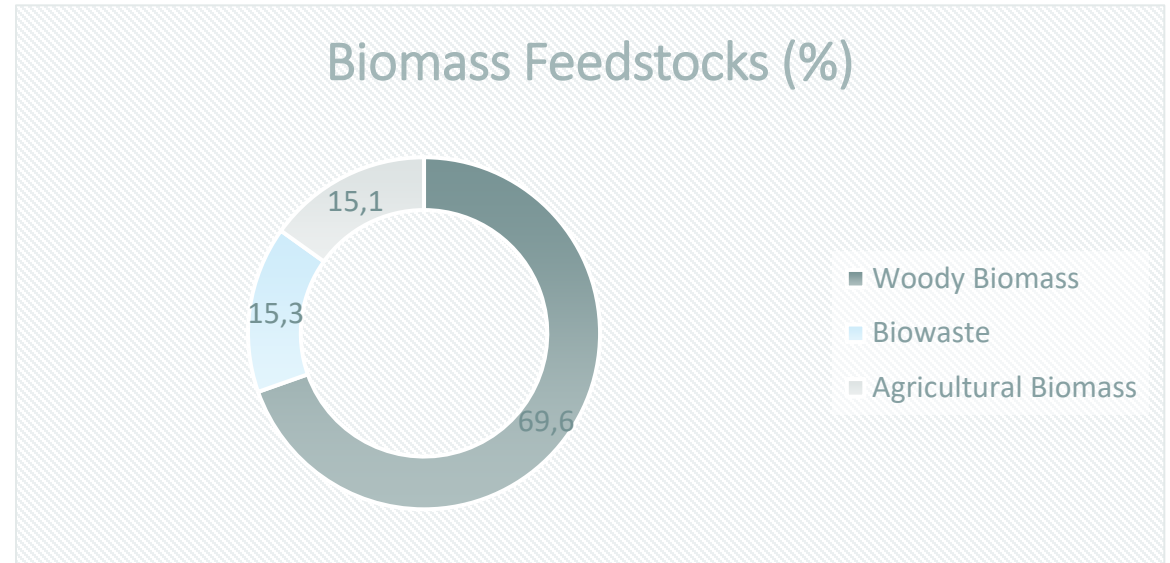- **No degradation** of primary & old growth forests

Member States to implement
Cascading Principle

Wood-based products

Extending service life

Re-use

Recycle

Bioenergy

Disposal
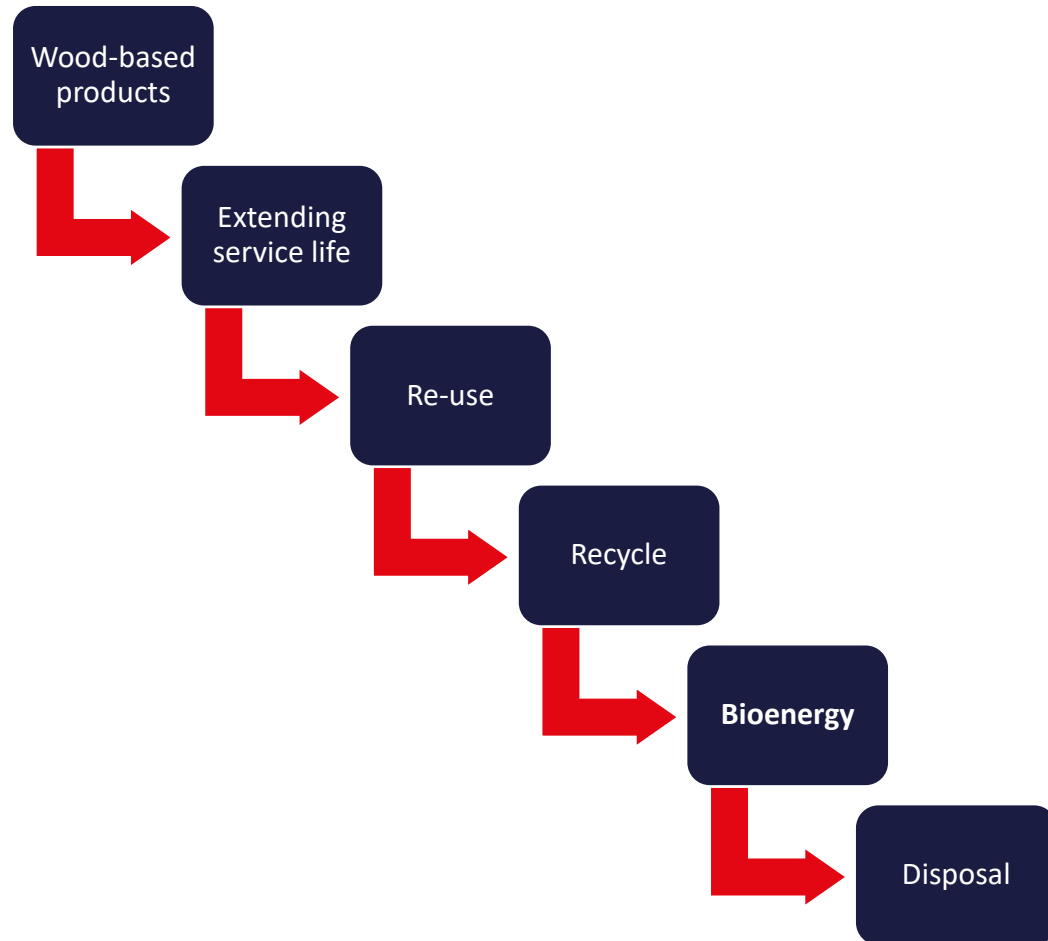
- Woody biomass to be used where **highest** economic **environmental added value**

- MS may **not** grant **direct financial support** for use of:
  - Saw logs
  - Veneer logs
  - Industrial grade roundwood
  - Stumps & roots for energy

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Forestry Biomass

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Biomass Outputs (%)

Output Share

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |

■ Electricity ■ Transport ■ Heat
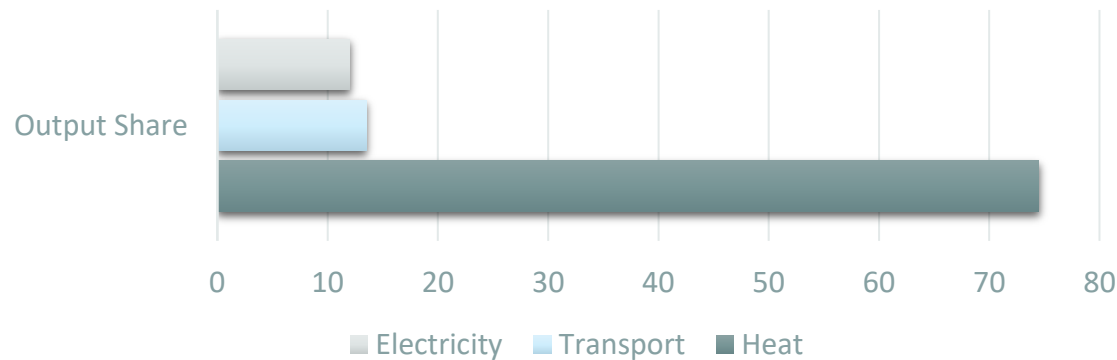
Source: Bioenergy Europe

Biomass Feedstocks (%)

15,1

15,3

69,6

■ Woody Biomass
■ Biowaste
■ Agricultural Biomass

- **Forestry biomass remains eligible**, but must meet **additional sustainability requirements**

- Generally, MS **not allowed** to **support electricity-only** installations using **forest biomass** (with exceptions)
- MS determine bioenergy installations that shall not be supported → regional differences

- The **scope** of RED III is **reduced to 7.5 MW for biomass plants** that use solid biomass fuels

Extension requiremens   in NL in other   sectors

- Peterson supports RVO with „**Sustainability Framework for Bio-Based Materials in the Netherlands**" – focus on:
  - Chemical sector
  - Construction sector

- The **basis** are **RED II sustainability** and management **requirements**
  - Where possible SIMPLIFIED

- Recognition process for schemes will be similar to the SDE++
  - Sustainability Criteria for Solid Biomass Under the SDE++-scheme (rvo.nl)

- Relevant for:
  - ISCC PLUS, REDcert[2], RSB, FSC, PEFC, SBP, SURE, Bonsucro, RTRS

Extension requirements in NL in other sectors

- **Is this an interesting topic for your organisation?**

1. Check with us if your supply chain is in scope
2. Share current supply chain practices for the chain of custody requirements

- **Peterson** aims to **connect** the **criteria** with **practical indicators** for the sectors!
  - Share your business card, we'll contact you for more information!

Your partner in what matters!

Connecting people, expertise and technology
to create innovative solutions

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Thank you for your attention!

Peterson Solutions

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For more information,
please visit our website.