Energy Community Secretariat

FINAL REPORT

Facilitating the Implementation of RED II in the Western Balkans

Montenegro

Renewable Energy in the Transport Sector and Sustainability Compliance

April 2026

CONTENTS

Abbreviations

Abbreviation	Meaning of the abbreviation
ACM	Dutch Authority for Consumers and Markets
BOS	Biofuel Obligation Scheme
CB	Certification Body
CP	Contracting Party of the Energy Community Treaty
DfB	Database for Biofuels
EnCS	Energy Community Secretariat
EO	Economic Operator
EU	European Union
GHG	Greenhouse Gases
GO	Guarantees of Origin
HBEs	Hernieuwbare Brandstof Eenheden (Renewable Fuel Units)
ILUC	Indirect Land-Use Change
MID	Measuring Instruments Directive
NEA	Dutch Emissions Authority
NECP	National Energy and Climate Plan
NORA	National Oil Reserves Agency
NUTS	Nomenclature of Units for Territorial Statistics
PoS	Proof of Sustainability
RED II	Directive (EU) 2018/2001
RES -T	Renewable Energy Sources in Transport
REV	Renewable Energy Registry
RFNBO	Renewable Fuels of Non-Biological Origin
RTF Certificate	Renewable Transport Fuel Certificate
RTF Registry	Renewable Transport Fuel Registry
RTFO	Renewable Transport Fuel Obligation
RvA	Dutch Accreditation Council
VS	Voluntary Scheme

Glossary

Advanced biofuels	Advanced biofuels are renewable transport fuels made exclusively from the feedstocks listed in Annex IX Part A of the EU Renewable Energy Directive.
Biofuels	Liquid fuel for transport produced from biomass.
Bioliquids	Liquid fuels for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass.
Biomass fuels	Gaseous and solid fuels produced from biomass.
Biomass	Biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin.
Certification audit	Initial audit before participation in a scheme, with the purpose of issuing a certificate under a voluntary scheme.
Certification body	Independent accredited or recognised conformity assessment body that concludes an agreement with a recognised voluntary scheme to provide certification services for raw materials or fuels by carrying out audits of economic operators and issuing certificates on behalf of the voluntary schemes using the voluntary scheme's certification system. It must be accredited pursuant to the relevant delegated act, as adapted for the Energy Community.
Database for Biofuels	Central point for transmission and tracing of sustainability and greenhouse gas emissions saving characteristics of consignments of liquid or gaseous fuels through the whole supply chain from economic operator to economic operator, as well as data that is specific for the individual transaction.
Economic operator	Producer of raw material, a collector of waste and residues, an operator of installations processing raw material into final fuels or intermediate products, an operator of installations producing energy (electricity, heating or cooling) or any other operator, including of storage facilities or traders that are in physical possession of raw material or fuels, provided that they process information on the sustainability and greenhouse gas emissions saving characteristics of those raw materials or fuels.
Food and feed crops	Starch-rich crops, sugar crops or oil crops produced on agricultural land as a main crop excluding residues, waste or ligno-cellulosic material and intermediate crops, such as catch crops and cover crops, provided that the use of such intermediate crops does not trigger demand for additional land
Implementing and delegated acts	Secondary legislation adopted by the European Commission which either supplements or amends non-essential parts of EU legislation (delegated act) or sets uniform conditions for applying EU law

	(implementing act), as adapted and adopted by the Energy Community's Permanent High-Level Group.
Mass balance system	A chain-of-custody approach mandated under the RED (e.g. RED II / RED recast) whereby materials (raw materials, intermediate products, fuels) with different sustainability and greenhouse gas (GHG) emission characteristics may be physically mixed in the supply chain, but their sustainability attributes (e.g. "certified sustainable" or "non-certified") are tracked and allocated by bookkeeping, so that the volumes leaving the system do not exceed the volumes entering with the given sustainability attributes. Article 30 of REDII defines the characteristics of the mass-balance system while Article 19 of the Implementing Regulation 2022/996 prescribes the implementation rules.
Obligated fuel supplier	The entity designated by a Contracting Party as responsible for meeting the renewable energy obligation in the transport sector.
Proof of sustainability	Declaration by an economic operator, made on the basis of a certificate issued by a certification body within the framework of a voluntary scheme certifying the compliance of a specific quantity of feedstock or fuels with the sustainability and greenhouse gas emissions savings criteria set out in Articles 25(2) and 29 of Directive (EU) 2018/2001.
Recycled carbon fuels	Recycled carbon fuels are liquid and gaseous fuels produced from liquid or solid waste streams of non-renewable origin, or from waste processing gases and exhaust gases of non-renewable origin, that cannot be avoided, and that would otherwise be released into the environment.
Renewable Transport Fuel Certificate	A compliance unit used in many EU Member States (and the UK before Brexit) to show that an obligated fuel supplier has met its renewable energy obligation in transport under the Renewable Energy Directive (RED II/III).
Renewable Transport Fuels of Non- biological origin	Liquid and gaseous fuels used in transport and other energy sectors whose energy content comes from renewable sources other than biomass.
Renewable Transport Fuel Registry	Electronic registry that records renewable transport fuels (biofuels, advanced biofuels, RFNBOs, recycled carbon fuels, electricity) placed on the market and enables trading of certificated.
Surveillance audit	Follow up audit of certificates issued by a certification body within the framework of a voluntary scheme after certification and before a re-certification audit, which can be carried out quarterly, half annually or annually.
Supervision of certification bodies	Supervision of certification bodies by national authority to check the issued sustainability and GHG emission compliance certificates, data used, and procedures applied in independent verification process.
Supervision of economic	Surveillance monitoring by a) certification body under voluntary scheme to confirm if the economic operator complies with the rules of

operators	the scheme and reports correct information and procedures; b) by national authority pursuant to Article 17 of Implementing Regulation 2022/996 or to the governance of the national DfB (if any).
Sustainability and GHG compliance certificate	Conformity statement by a certification body within the framework of a voluntary scheme, certifying that an economic operator complies with the requirements of RED II.
Sustainability and GHG emissions saving characteristics	Set of information describing a consignment of raw material or fuel that is required for demonstrating compliance of that consignment with the sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels under RED II, Article 29.
Voluntary scheme	Organisation that certifies the compliance of economic operators with criteria and rules including, but not limited to, the sustainability and greenhouse gas saving criteria set out in Directive (EU) 2018/2001 and in Delegated Regulation (EU) 2019/807. A voluntary scheme is considered as recognised voluntary scheme if it is recognised by European Commission for the purpose of demonstrating compliance under RED II and thereafter recognised by the Secretariat in relation to the Energy Community.

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1. INTRODUCTION AND PROJECT CONTEXT

1.1. Project background and rationale

Montenegro, as a Contracting Party to the Treaty establishing the Energy Community, is legally bound to align its national energy frameworks with the European Union's renewable energy legislation. The Energy Community extends the EU's internal energy market to its neighbouring countries with the aim of creating an integrated, secure, and sustainable energy market. In this context, Montenegro has committed to transposing Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (RED II), a component of the EU's "Clean Energy for All Europeans" package.

RED II requires Contracting Parties not only to set binding renewable energy targets across electricity, heating and cooling, and transport, but also to adopt sector-specific rules, sustainability criteria, and monitoring systems. For the transport sector in particular, the directive prescribes a minimum 14% share of energy from renewable sources by 2030, while setting detailed conditions on advanced biofuels, renewable hydrogen, and limitations on food and feed-based biofuels. These obligations are reinforced by sustainability and greenhouse gas (GHG) emissions savings criteria that ensure renewable fuels deliver real climate benefits. Only fuels meeting these criteria are eligible to count towards national targets. Furthermore, RED II establishes a strengthened system of guarantees of origin, mechanisms for statistical transfers and joint projects between countries, and transparent monitoring and reporting frameworks.

Recognising the importance of these reforms, the Energy Community Ministerial Council in 2021 adopted a decision requiring Contracting Parties to implement RED II provisions into national legislation by the end of 2022. This includes not only the adoption of binding national renewable energy targets and sectoral trajectories, but also the establishment of systems to monitor fuel supplier obligations, verify sustainability standards, and report progress to the Secretariat. However, as of early 2025, significant gaps remain in the Energy Community regarding the promotion of renewable energy in transport and the implementation of sustainability and GHG emissions saving criteria. Montenegro has taken steps to adopt primary legislation aligned with RED II, but secondary legislation and enforcement systems are still under development.

The rationale for this project is therefore twofold. First, it responds to a clear legal obligation: Montenegro, as a Contracting Party, must transpose and implement RED II to remain compliant with the acquis and avoid enforcement measures. Second, it addresses urgent policy and energy system needs. The transport sector in the county remains heavily dependent on imported fossil fuels, contributing to energy insecurity, exposure to volatile oil markets, and rising emissions. Establishing clear renewable energy targets and a sustainability framework will help diversify energy supply, improve resilience, and accelerate the transition to low-carbon transport.

1.2. Objectives of the assignment

The principal objective of this assignment is to translate the RED II requirements for renewable energy in the transport sector into practical, enforceable, and country-specific systems for Montenegro, ensuring full legal alignment with Directive (EU) 2018/2001 and its implementing and delegated acts while responding to the institutional and market realities of the country. This work aims to close the gap between regional Energy Community obligations and national practice by delivering ready-to-use designs, legal instruments where required, and the operational arrangements needed to monitor, verify, and enforce renewable transport fuel targets.

More specifically, the assignment will first establish a Renewable Transport Fuel Obligation model tailored to the country's market structure and administrative capacity.

The first objective is to define who is obliged to supply renewable transport fuels, how annual obligations and trajectories to 2030 should be set and applied (including appropriate use of multipliers and limits on food and feed-based biofuels), and which compliance instruments are both legally sound and practicable in the national context. The design model will also specify the reporting requirements, data flows, and traceability arrangements necessary for transparent monitoring.

The second objective, is to design a credible sustainability verification and GHG accounting framework so that only fuels meeting RED II sustainability and lifecycle emissions thresholds are eligible to count toward RES-T targets; this includes recommendations on recognition of voluntary certification schemes, national accreditation and audit roles, mass-balance and chain-of-custody rules, a REDII-

compatible GHG calculation methodology, and the technical specification for a database to record certified consignments and guarantees of origin.

The third objective is to convert the RTFO and verification concepts into draft secondary legislation and complementary regulatory instruments that integrate seamlessly with existing primary laws and sectoral regulations, thereby ensuring the legal texts are immediately adoptable and operable by designated authorities.

The fourth objective is to secure stakeholder understanding through targeted engagement and a workshop that will present the proposals, gather feedback, and provide practical guidance so that ministries, agencies, regulators, fuel suppliers, certifiers, and auditors share a common implementation roadmap.

2. RED II REQUIREMENTS AND RELATED DELEGATED AND IMPLEMENTING ACTS

2.1. EnC Aquis related to renewable energy in transport

In 2021, the EnC Ministerial Council adapted and adopted five key legislative acts stemming from the EU's Clean Energy for All Europeans package (Decision 2021/14/MC-EnC). [1] The 2030 renewables, energy efficiency, and greenhouse gas reduction targets were adopted for the Energy Community a year later (Decision 2022/02/MC-EnC)[2].

Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources (RED II), as adapted and adopted by Decision 2021/14/MC-EnC and Decision 2022/02/MC-EnC, has been integrated into the Energy Community acquis, in line with the Energy Community's efforts to align with the European Union's climate and energy policies.

According to RED II, Contracting Parties are required to achieve a minimum share of energy from renewable sources in the transport sector (RES-T) by 2030. This includes specific obligations regarding the contributions and limitations of various fuel types along the RES-T trajectory, ensuring the target is met. To promote the use of renewable energy in transport, RED II mandates that Contracting Parties impose obligations on fuel suppliers to integrate renewable fuels into the market. This measure aims to ensure that the targeted share of renewable energy consumption in transport is achieved by 2030. Furthermore, RED II stipulates that only biofuels, bioliquids, and biomass fuels that meet the sustainability criteria and greenhouse gas (GHG) emissions savings requirements outlined in the Directive can be counted towards the RES-T target.

In addition to RED II, the detailed implementation and technical elaboration of its provisions are enabled through delegated acts adopted under RED II by the European

[1] https://www.energy-community.org/dam/jcr:c755f9db-f6e7-448c-9cf5-0a5f02113ae2/19thMCDecision14_CEPII_30112021.pdf
[2] https://www.energy-community.org/dam/jcr:421f0dca-1b16-4bb5-af86-067bc35fe073/Decision_02-2022-MC_CEP_2030targets_15122022.pdf

Commission. These delegated acts supplement RED II provisions on mainstreaming the use of energy from renewable sources in the transport sector and the sustainability criteria and GHG emissions saving criteria for biofuels, bioliquids and biomass fuels by i) defining the rules and procedures to ensure an efficient and harmonised approach to verifying sustainability compliance, ii) providing the detailed methodologies for assessing the compliance of specific fuels with the sustainability criteria and iii) defining the methodologies that can be used for determining the shares of biofuel and biogas for transport when produced from biomass that is processed with fossil fuels in a common process and specifying the required content of information to be submitted by economic operators.

In line with Article 2 of Decision 2021/14/MC-EnC, the Contracting Parties were required to bring into force the law, regulations, and administrative provisions necessary to comply with RED II by 31 December 2022. Delegated acts under RED II have not yet been incorporated into the Energy Community acquis, and their application within the Energy Community framework remains pending, subject to future adoption processes.

2.2. Mainstreaming renewable energy in the transport sector

The key objectives and obligations of Contracting Parties (CP) concerning the implementation of the RED II in the transport sector are outlined in Articles 25 to 27 of RED II. These provisions set the foundation for the mainstreaming of renewable energy into transport systems and establish a comprehensive framework for ensuring sustainability, GHG emissions savings, and accountability in the use of renewable fuels. To mainstream the use of renewable energy into the transport sector accordingly to Article 25 of RED II each CP shall impose an obligation on fuel suppliers to ensure that the share of renewable energy in final energy consumption in the transport sector reaches at least 14% by 2030 (minimum share), in line with the indicative trajectory established by the CP and calculated according to the methodology set out in Article 25 and in Articles 26 and 27 of RED II. CP may exempt or differentiate between suppliers and fuels based on technology maturity and cost.

Renewable liquid and gaseous transport fuels of non-biological origin (RFNBOs) also must be included when they are used as intermediate products to produce conventional fuel, and recycled carbon fuels (RFCs) may also be considered.

Advanced biofuels and biofuels and biogas from specific feedstocks must reach minimum shares:

- of 0.2% in 2022,
- 1% in 2025,
- and 3.5% in 2030.

Caps for certain types of biofuels and biogas, notably those listed in Annex IX, Part B, are introduced, limited to 1.7% of the total energy content, unless otherwise justified and approved.

Fuel suppliers supplying fuel in the form of electricity or renewable liquid and gaseous transport fuels of non-biological origin may be exempt from the obligation to comply with the minimum share of advanced biofuels and biogas produced from the feedstock listed in Part A of Annex IX of RED II.

From January 1, 2024, GHG emissions savings from the use of renewable liquid and gaseous transport fuels of non-biological origin must be at least 70%.

To limit the environmental and social risks associated with biofuels from food and feed crops, especially those linked to indirect land-use change (ILUC), Article 26 of RED II sets out the specific limitations on the use of biofuels, bioliquids, and biomass fuels produced from food and feed crops in the transport sector. Accordingly, the specific rules stipulate that, when calculating a Contracting Party's gross final consumption of energy from renewable sources and the minimum share under Article 25 of RED II, the share of such fuels must not exceed one percentage point above their 2022 share in road and rail transport, with an absolute cap of 7%. If the share in 2022 was below 1%, it may be increased to a maximum of 2%. CP may set lower limits based on ILUC concerns and may reduce its overall renewable energy target accordingly if such fuels are further restricted. In other words, if the limit for biofuels produced from food and feed crops is set to 0%, the target can be reduced by 7 percentage points. High ILUC-risk fuels must not exceed 2019 consumption levels unless certified as low ILUC-risk, with a gradual phase-out to 0% by 2030.

The share of renewable energy in the transport sector must be calculated using a harmonised methodology. Specific rules in Article 27 of RED II regarding the minimum shares of renewable energy in the transport sector require:

- *Defining eligible energy sources that may be counted* towards the renewable energy share, including renewable electricity, biofuels, biogas, renewable fuels of non-biological origin, and optionally, recycled carbon fuels,
- Setting the denominator as the total energy content of all fuels supplied for use in road and rail transport (including conventional and renewable fuels), and the numerator as the energy content of renewable sources only, with the optional inclusion of recycled carbon fuels,
- *Applying energy multipliers* to incentivise the use of advanced renewable fuels:
  - 2× for biofuels and biogas from Annex IX,
  - 4× for renewable electricity in road transport,
  - 1.5× for electricity in rail transport,
  - 1.2× for renewable fuels in aviation and maritime sectors (excluding food/feed-based fuels,
- *Ensuring accurate accounting* of renewable electricity, particularly electricity directly sourced from renewable installations or fully renewable grid electricity, under strict conditions to avoid double-counting.

Full implementation of RED II regarding mainstream renewable energy in the transport sector requires not only the transposition of Articles 25-27 but also the incorporation of detailed methodologies and definitions in the European Commission's delegated acts, adapted for the Energy Community, as outlined in Table 3.

2.3. Sustainability and GHG requirements

To ensure that renewable energy sources contribute effectively to climate goals, any biofuels, bioliquids, and biomass fuels used to meet the national RES-T targets, or those receiving financial support through incentive schemes, must meet sustainability and greenhouse gas emissions reduction criteria outlined in RED II. This applies irrespective of the geographical origin of the biomass, i.e. independently of whether the raw materials and/or fuel are produced within the Energy Community or are imported. Article 30(3) of RED II imposes upon Contracting Parties the obligation to take measures to ensure that economic operators submit reliable information regarding the compliance with these requirements.

The sustainability requirements outlined in RED II are the following:

- Biofuels produced from waste and residues derived from agricultural land are eligible only where operators or national authorities have monitoring or have management plans in place in order to address the impacts on soil quality and soil carbon.
- Biofuels produced from agricultural biomass should not be obtained from raw material from land with a high biodiversity value (primarily forests, highly biodiverse grassland, protected areas) that had this status in or after January 2008 (whether or not the land continues to have that status), unless it can be proven that production of raw materials does not interfere with biodiversity protection purposes. The exact categories of high biodiversity value land are listed in RED II, Article 29, paragraph 3.
- Biofuels produced from agricultural biomass should not be made from raw material obtained from land with high-carbon stock (wetlands, continuously forested areas, other land with carbon stocks) that had this status in January 2008 but no longer has it. This provision does not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008.
- Biofuels produced from agricultural biomass should not be made from raw

material obtained from land that was peatland in January 2008, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

Biofuels, bioliquids and biomass fuels produced from waste and residues, other than agricultural, aquaculture, fisheries and forestry residues, are required to fulfil only the greenhouse gas emissions saving criteria. This also applies to waste and residues that are first processed into a product before being further processed into biofuels, bioliquids and biomass fuels.

The greenhouse gas emission savings from the use of biofuels, bioliquids and biomass fuels (compared to their fossil fuel comparators) must be:

- at least 50 % for biofuels, biogas consumed in the transport sector, and bioliquids produced in installations in operation on or before 5 October 2015;
- at least 60 % for biofuels, biogas consumed in the transport sector, and bioliquids produced in installations starting operation from 6 October 2015 until 31 December 2020;
- at least 65 % for biofuels, biogas consumed in the transport sector, and bioliquids produced in installations starting operation from 1 January 2021.

Since there was no biofuel production in Montenegro prior to 2021, the last threshold of at least 65% GHG savings applies in cases where the biofuels consumed in Montenegro are produced domestically.

The greenhouse gas emissions saving from the use of biofuel, bioliquids and biomass fuels should be calculated according to the principles set in Article 31 of RED II:

- by using default values provided in the Directive Annex V and Annex VI for fuels where the annualised emissions from carbon stock changes caused by land-use change are zero or less;

- by calculating actual emissions using the detailed methodology in the Directive Annex V and Annex VI.
- by combining default values for some stages of the supply chain with actual values for others (a hybrid method).

Instead of using default values a Contracting Party may submit to the Secretariat a report on information on the typical greenhouse gas emissions from the cultivation of agricultural raw materials of the areas on their territory classified as level 2 in the nomenclature of territorial units for statistics (NUTS). The reports should include description of the method and data sources used to calculate the level of emissions. That method shall consider soil characteristics, climate and expected raw material yields.

Economic operators may claim actual GHG values for biofuels only if their capacity to calculate such values has been verified by an accredited certification body through an audit, ensuring compliance with the methodology in Annex V and/or Annex VI of RED II.

The Implementing and Delegated acts adopted by the European Commission for the European Union listed in Table 2-1, are not automatically applicable in the Energy Community. The Implementing and Delegated acts are currently undergoing a process of adaptation, after which they will be adopted by the Permanent High-Level Group.

Table 2-1 Decisions, Implementing Regulations and Delegated Regulations supplementing RED II

Scope	Delegated Act
Verification of sustainability, monitoring and reporting	Implementing Regulation (EU) 2022/996 (rules and procedures for verification of compliance of sustainability and GHG saving criteria; obligations for VS, economic operators and MS) Commission Decision 2011/13/EU (information to be submitted by economic operators to MS)
Determining sustainability and GHG emissions of biomass sourcing	Delegated Regulation (EU) 2019/807 (certification of low ILUC-risk feedstock) Regulation EC 1307/2014 (criteria and geographic ranges of highly biodiverse grasslands) Commission Decision 2010/335/EU (guidelines for calculation of land carbon stocks) Delegated Directive EU 2024/1405 (amending Annex IX – Part A and B feedstock)
Demonstrating compliance with sustainability criteria for forest biomass	Implementing Regulation (EU) 2022/2448 (operational guidelines for economic operators, VS, MS)
RFNBOs and Co-processing of biofuels with fossil fuels	Delegated Regulation (EU) 2023/1184 (RFNBOs production) Delegated Regulation (EU) 2023/1185 (GHG thresholds for RFNBOs) Commission Delegated Regulation (EU) 2023/1640 (methodology for determining the share of biofuels and biogas for transport in co-processed fuels)

The compliance with the criteria regarding sustainability and GHG emissions saving of biofuels, bioliquids and biomass fuels can be proven either by recognised voluntary schemes (presented in detail in sections 2.3.1.-2.3.3 below) or national certification schemes.

A Contracting Party may set up national schemes where compliance with the sustainability and greenhouse gas emissions saving criteria is verified throughout the entire chain of custody involving competent national authorities. The Contracting Party may notify such a national scheme to the Secretariat, which may then issue an opinion on whether such a notified national scheme complies with the conditions laid down in the Directive. A positive opinion ensures that other compliance schemes established in the Energy Community Contracting Parties shall not refuse mutual recognition with that

Contracting Party's scheme. Since the national certification schemes require more administrative resources for the national authorities, in the European Union, many Member States rather opt for compliance being demonstrated through voluntary schemes recognised by the European Commission, rather than developing their own national schemes.

The approaches to certification in the Netherlands and the Ireland are presented in sections 3.1 and 3.2 below.

2.3.1. Voluntary schemes and certification under voluntary schemes

A Voluntary Scheme (VS) under RED II is a certification system recognized by the European Commission that enables economic operators (biofuel producers, traders, and importers) to prove compliance with RED II sustainability and GHG emissions saving criteria. Up to date, the Commission has formally approved 18 voluntary and national certification schemes[3], and these are considered as 'recognised voluntary schemes'.

An economic operator may freely decide which voluntary scheme to engage. The most widely used voluntary schemes for biofuels and bioliquids from agricultural feedstock and waste are briefly shown and described in the Table 2-2.

[3] Voluntary schemes

Table 2-2 Basic information on the most widely used voluntary schemes

International Sustainability and Carbon Certification (ISCC EU) https://www.iscc-system.org/	
Type of feedstock(s):	Agricultural biomass, forest biomass, wastes and residues.
Type of fuel(s):	All. The scheme covers biofuels, bioliquids and biomass fuels as well as renewable fuels of non-biological origin (RFNBOs) and recycled carbon fuels (RCFs).
Chain of custody coverage:	Full fuel chain (for biomethane from the production unit up to the point of consumption), including compliance of the consignments of biofuels, bioliquids and biomass fuels with the low indirect land-use change-risk criteria set in Delegated Regulation (EU) 2019/807.
Geographical coverage	Global
Roundtable on Sustainable Biomaterials (RSB) https://rsb.org/	
Type of feedstock(s):	Agricultural biomass, wastes and residues (forest biomass is excluded)
Type of fuel(s):	All
Chain of custody coverage	Full fuel chain (for biomethane up to the production unit), including compliance of the consignments of biofuels, bioliquids and biomass fuels with the low indirect land-use change-risk criteria set in Delegated Regulation (EU) 2019/807.
Geographical coverage	Global
Biomass Biofuels voluntary scheme (2BSvs) https://www.2bsvs.org/	
Type of feedstock(s):	Agricultural biomass (including wastes and residues)
Type of fuel(s):	All
Chain of custody coverage	Full fuel chain (for bio methane up to the production unit).
Geographical coverage	Global

Other voluntary schemes for biomass sustainability and GHG emissions saving compliance include KZR IiG system, REDcert, RTRS EU RED, SBP, SURE and Better Biomass, among the others.

2.3.2. Verification of compliance through a recognised voluntary scheme

Voluntary schemes may only certify economic operators if they meet specific compliance requirements. These include having a documentation management system and an auditable system for securely storing and reviewing all evidence that supports their claims. Operators must retain the evidence that demonstrate compliance for a minimum of five years, or longer if required by the relevant national authority. Additionally, they must take full responsibility for preparing and providing any information needed for auditing of such evidence.

2.3.2.1. Certification body (independent auditor for compliance verification)

A certification body (CB) is an independent, accredited, or otherwise recognised conformity assessment body that has entered into an agreement with a voluntary scheme to provide certification services in the context of RED II. These services include auditing economic operators (e.g., producers, traders, importers) for compliance with sustainability and greenhouse gas (GHG) emissions saving criteria and issuing certificates in accordance with the scheme's rules.

In the European Union, CBs operating on behalf of the scheme must be accredited by a national accreditation body and in accordance with Regulation (EC) 765/2008[4], and accredited to ISO 17065[5] , and 14065[6] for audits on actual GHG values. Article 11 of the transposition of Implementing Regulation 2022/996 into EnC acquis (draft version) envisages that certification bodies accredited in a Member States of the European Union shall be allowed to perform certification audits in Contracting Parties.

The Contracting Party establishes procedures allowing certification bodies to register for supervision by the State and for carrying out the supervision.

The list of certification bodies under a certain voluntary scheme is listed on the webpage of each scheme. The list also indicates for each certification body by which national public authority it was recognised, and which entity or national public body is monitoring

[4] Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93
[5] ISO/IEC 17065:2012 – Conformity assessment – Requirements for bodies certifying products, processes and services
[6] ISO 14065:2020 -Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.

it. Information about recognised voluntary schemes and their coverage (majority with global coverage) is available on the European Commission's website[7].

Some well-known certification bodies operating under RED II recognised voluntary schemes include Bureau Veritas, AgroVet, DQS, DNV, SGS, RINA, TÜV NORD, among others.

2.3.2.2. Certification audit

Certification audit is an initial audit prior to an economic operator's participation in a voluntary scheme, with the purpose of issuing a certificate under a voluntary scheme. The voluntary scheme provides documentation and guidelines for the audit. Certification bodies conduct the audits in accordance with ISO 19011[8] or equivalent.

Certification audit refers to auditing:

- Waste and residues
- Actual GHG emission calculations
- Mass balance
- Natural and non-natural highly biodiverse grassland,

Low ILUC-risk certificates are additional to the sustainability and greenhouse gas emissions saving criteria.

These aspects are audited to verify compliance with Articles 29 and 30 of RED II and are further detailed in Implementing Regulation 2022/996[9].

The extent of the audit will depend primarily on the economic operator type (biofuel producer vs biofuel importer) and feedstock for fuels (waste, food and feed corps ...).

[7] https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en
[8] ISO 19011: Guidelines for Auditing Management Systems
[9] Commission Implementing Regulation (EU) 2022/996 of 14 June 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria

For the certification audit, templates of traceability, quantity bookkeeping, mass balance, and GHG emissions must be readily available to the auditor. In the consequent audits, up-to-date records of such data must be available to the auditor.

Mass balance is one of the components that is addressed in depth. The mass balance system allows mixing of:

- consignments of raw material or fuels with differing sustainability and greenhouse gas emissions saving characteristics in a container, at a processing or logistical facility, or at transmission and distribution infrastructure or site. The information about the sustainability and greenhouse gas emissions saving characteristics and sizes of the consignments remain assigned to the mixture. The sum of all consignments withdrawn from the mixture has the same sustainability characteristics, in the same quantities, as the sum of all consignments added to the mixture.
- consignments of raw material with differing energy content for the purposes of further processing, provided that the size of consignments is adjusted according to their energy content.

If a company holds or has held other similar sustainability certifications within the past year, details of these must be shared, including the scheme name and scope.

Audits are typically conducted on-site at the economic operator's premises. Remote audits are permitted only under specific conditions and must be justified and documented.

Voluntary schemes provide economic operators with instructions and support on how they assess whether raw materials are considered waste and residues.

During the audit it is essential to verify that the harvesting of agricultural waste and residues does not have a negative impact on the soil quality and the soil carbon stock. Such verification shall ensure that a relevant set of essential soil management or monitoring practices is applied on the land to promote soil carbon sequestration and

soil quality. Furthermore, highly biodiverse grassland that existed in or after January 2008 may be used for fuel production on the condition that harvesting of the raw material is necessary to preserve the status of the grassland as highly biodiverse grassland and that current management practices do not present a risk of causing biodiversity decline. In that case economic operators shall provide the evidence, or evidence that they have been granted permission by the relevant competent authority to harvest the raw material in order to preserve the highly biodiverse grassland status.

Voluntary schemes may allow for group audits under defined conditions. In such cases, a group manager must be appointed to represent the economic operators included in the group.

2.3.2.3. Sustainability certificate and Proof of Sustainability

The certification body, accredited under a voluntary scheme, issues a certificate verifying that the economic operator complies with RED II sustainability and GHG emissions saving criteria. This certificate confirms eligibility of EO to participate in the scheme and to issue Proofs of Sustainability (PoS) or a self-declaration for consignments.

PoS serves as evidence of compliance at the point of placing the fuel on the market. It is essential for receiving incentives or contributing to renewable energy targets.

The sustainability certificate is published on the scheme's web page and is publicly available. It is valid in all EU Member States and should be valid in all Energy Community Contracting Parties once the system is in place.

After certification, the certification body also carries out mandatory surveillance audits which can be carried out quarterly, half-annually or annually. Certificates are generally valid for one year, after which a re-certification audit is required to renew the certificate, in accordance with the voluntary scheme's rules and RED II requirements.

If a certification body identifies non-conformities, it can suspend (temporarily invalidate) or withdraw the certificate (permanently).

2.3.2.4. Database for Biofuels (DfB)

The RED II framework requires the operation of a central database to enable the tracing of renewable liquid and gaseous transport fuels that are eligible for being counted towards targets. A Contracting Party may set up a national database that is linked to the central database of the Energy Community ensuring that information entered is instantly transferred between the databases. If set up, the national Database for Biofuels (DfB) shall include information about biofuels and biogas consumed in the transport sector that are produced, imported and placed on the market under the renewable transport fuel obligation in line with RED II.

Data to be transmitted through the whole supply chain are listed below, in line with Annex I of the Implementing Regulation 2022/996. This information should be in the database and is also a part of the Proof of Sustainability accompanying every fuel consignment of liquid and gaseous transport fuels.

(a) name of the voluntary or national scheme;

(b) proof of sustainability number;

(c) sustainability and GHG emission savings characteristics, including:

(i) statement on whether the raw material or fuel complies with the sustainability criteria (Annex X)

(ii) GHG emission data calculated according to the methodology set out in Annexes V and VI to Directive (EU) 2018/2001 or Delegated Regulation (EU) 2019/807;

(iii) description of when the installation started operation (for fuels only);

(d) name of raw material or name of raw material that the fuel is produced from;

(e) waste or animal by-product permit number (if applicable);

(f) fuel type (for fuels only);

(g) country of origin of raw material;

(h) country of fuel production;

(i) statement on whether the raw material or fuel complies with the criteria set out for low indirect land-use change-risk biofuels;

(j) information on whether support has been provided for the production of that consignment, and if so, the type of support scheme.

Data transmitted by trading, are in line with Annex I of the Implementing Regulation 2022/996 and should include:

(a) supplier company name and address;
(b) buyer company name and address;
(c) date of (physical) loading;
(d) place of (physical) loading or logistical facility or distribution infrastructure entry point;
(e) place of (physical) delivery or logistical facility or distribution infrastructure exit point;
(f) volume: For fuels, the energy quantity of the fuel must also be included. For the calculation of the energy quantity, conversion factors in Annex III to Directive (EU) 2018/2001 must be used.

Basic concept of the Database for biofuels is provided in section 4.9.

2.3.2.5. Supervision by Contracting Parties

Under the RED II framework, each Contracting Party must appoint a competent authority to supervise the operation of:

(a) certification bodies that are conducting independent auditing under a recognised voluntary scheme,
(b) economic operators.

The competent authority in charge for supervision can appoint a supervision team considering the competence needed to achieve objective of the supervision or it can outsource this activity if it considers that it does not have internal capacities and competences.

Upon request, the certification body provides competent authorities with all necessary documentation to facilitate supervision, including audit schedules, reports, and locations.
Upon request, voluntary schemes provide access to actual GHG calculations certified under their voluntary scheme together with the respective audit reports to the national authorities responsible for supervision of the certification bodies.

Where a Contracting Party identifies serious or substantiated non-compliance by a certification body, it shall inform the Energy Community Secretariat and, where appropriate, the voluntary scheme concerned.

If a Certification Body is accredited by national authority of a Contracting Party and operates only in this Contracting Party, the supervision of the Certification Body is performed exclusively by the Contracting Party's competent authority. If the Certification Body operates in more than one Contracting Parties, those states must create a common supervision framework, designating one as the lead audit supervisor responsible for consolidating and sharing outcomes. The Contracting Party shall establish procedures allowing certification bodies, regardless of whether their head office is located in a Member State, Contracting Party or in a third country, to register for supervision and for carrying out the supervision.

Supervision of economic operator is performed by national authority in the country where the economic operator is operating. This means that all economic operator s in the DfB are subjected to supervision by national authority. Upon request, economic operator provides all relevant information and evidence used to issue PoS for consignments and allows access for supervision authority. The supervision is conducted on site.

The supervision inspects and checks data and documents entered by Certification Body and economic operator into DfB.

2.3.3. Obligation of the economic operators within the biofuels supply chain

The obligations of economic operators (EO) that want to, or have to, participate in the sustainability and GHG emissions savings certification slightly differ in respect to their specific role in the supply chain (producer of biofuel vs. obligated fuel supplier). For example, the producer certifies the product (biofuel) and sells it to the fuel supplier that has legal obligation to place the sustainable biofuel on the market.

The general obligations of the economic operator are the following:

- Arranges for an adequate standard of independent auditing (under an Energy Community recognised voluntary scheme or national scheme, if any) for sustainability criteria and GHG emissions.
- Before becoming a part of the scheme, the EO undergoes initial audit (certification audit). It submits to the auditor reliable, thoroughly documented information regarding the compliance with the sustainability and greenhouse gas emissions saving criteria within the chain. The documentation is determined by the type of the operator (e.g. producer or fuel supplier) and by characteristics of the feedstock (e.g. waste or agricultural biomass).

  Some of the requirements include:

  - demonstration of fulfilment of sustainability and greenhouse gas emissions saving criteria,
  - demonstration of usage of mass balance system to assure that each consignment is counted only once in a point,
  - provision of information on support provided to produce that consignment,
  - low ILUC-risk certification, where applicable, which is additional to sustainability and GHG criteria and
  - verification of waste and residues, including traceability and classification.

The independent auditing by a recognised scheme shall verify that the systems used by economic operator is accurate, reliable and protected against fraud, including verification ensuring that materials are not intentionally modified or discarded so that the consignment or part thereof could become a waste or residue.

- Upon positive initial audit and acquiring a certificate, EO reports certificate information into national Database for Biofuels (DfB). The certificate is valid for one year.
- EO issues a Proofs of Sustainability (PoS) for all consignments of biofuel placed on the market and enters the data in the DfB. Any transactions between different EO's within the supply chain are documented within the national database (registering entry and exit point). Documentation (PoS) is transmitted together with physical shipments of raw material or fuels through the supply chain.
- All economic operators must use a mass balance system to track sustainability characteristics and GHG emissions along the supply chain.
- EO allows surveillance auditing by certification body and compliance check (surveillance) by national authority and provides all relevant documentation upon request. Records must be retained for a minimum of 5 years, and upon request, made available to the relevant national authorities.
- Fuel supplier makes information on geographic origin, feedstock type, amounts of biofuels and bioliquids placed on the market publicly available on the website and updated annually.
- Fuel supplier reports to the national authority on obligation achievement (according to defined schedule).

2.3.4. Obligation of the EnC Contracting Party

The obligations of the EnC CP are the following:

- Defines sustainability and GHG savings criteria requirements according to RED II in the national legislation. Guides the economic operators in submitting accurate and verified data regarding compliance with sustainability and greenhouse gas emissions savings criteria, as required by Articles 29 and 30 of the Directive (with clear legislation and guidelines).
- Sets a legal framework for accreditation of certification bodies by CP's accreditation body or an accreditation body of Member State of the European Union.
- Monitors the operation of certification system and performs supervision, including inspections of certification body or an economic operator, to supervise compliance. It establishes procedures allowing certification bodies, regardless of whether their head office is located in, to register for supervision and for carrying out the supervision.
- Implements mechanisms to detect, report, and take corrective action in case of fraud, irregularities, or non-compliance by economic operators or voluntary schemes in line with the provisions of the Regulation 2022/996 as adapted and adopted by the EnC PHLG.
- Establishes and enforces effective, proportionate, and dissuasive penalties for breaches of obligations under the RED II.
- May establish, and if so, oversees a national Database for Biofuels compatible with the centralised database for Energy Community to ensure traceability and oversight of biofuels, bioliquids, and biomass fuels, including all sustainability and transaction data. It monitors the transactions within the national database.
- Defines reporting procedure and submission deadlines for all actors in the

supply chain. Proscribes obligations, procedures and deadlines and modes of submission.

- May publish annually publicly accessible information on the geographic origin, feedstock type, and sustainability characteristics of biofuels, bioliquids, and biomass fuels per fuel supplier
- Reports to the Energy Community Secretariat annually, in aggregated form, information on renewable energy targets, biofuels placed on the market, their sustainability characteristics, and associated GHG emissions savings.

3. BENCHMARKING BEST PRACTICES

In the European Union, all Member States had to comply with the obligations in Articles 25–31 of RED II (as it was then applicable in the European Union[10]) on renewable transport fuels, notably a 14% renewables-in-transport target by 2030 (with national baselines), mandatory GHG savings, and strict sustainability criteria (biodiversity safeguards, GHG thresholds, certification). However, each country's obligation scheme reflects its market and institutional context. For example, Ireland administers a simple tradable-certificate RTFO noted for "market-driven compliance flexibility and real-time monitoring", whereas the Netherlands uses a segmented certificate scheme (*Hernieuwbare BrandstofEenheden*, HBEs) with detailed auditing rules.

The following case studies summarize how Ireland and the Netherlands implement RED II Articles 25–31: including RES-T targets and the respective calculation rules, specific rules for biofuels, bioliquids and biomass fuels (Articles 25–27), sustainability and GHG emissions saving criteria and their verification (Articles 29–31). Furthermore, certification, designated institutions, compliance mechanisms, and integration of electricity and advanced fuels on the market, highlighting lessons for Montenegro (e.g. ensuring flexibility, enforceability, data integrity, and administrative feasibility).

3.1. Ireland's Renewable Transport Fuel Obligation

- **Background and Targets:** Ireland's RTFO evolved from the 2010 Biofuel Obligation Scheme, which mandated rising biofuel blends (from 4% in 2010 to ~21% by 2024). Under RED II, Ireland must ensure a 14% renewable transport share by 2030. In practice, Ireland set more ambitious interim goals: for example, the 2025 RTFO was raised to 21% (energy basis) and 25% for 2025. An advanced biofuels sub-target (Annex IX of REDII) is phased in: 0% before 2023, 0.1% in 2024 and 1.5% in 2025 (rising thereafter). These targets align with Ireland's climate plans (e.g. E10 and B20 blending mandates by 2030) and

[10] In the European Union, RED II was amended by Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023, hence the usual reference to the so-called RED III

provide a clear multi-year trajectory for obligated fuel suppliers.

- Obligated fuel suppliers are primarily fuel suppliers, specifically, companies (and large oil consumers) who supply mineral oil (petrol, diesel) for transport and who are liable to pay the NORA (National Oil Reserves Agency, a State agency under the Department of Transport) levy. By statute, NORA automatically opens an RTFO account for any entity already subject to the NORA oil stocks levy. Other businesses (e.g. independent biofuel suppliers) not subject to the levy may apply to NORA to hold a voluntary RTFO account. In practical terms, almost all importers or refiners of transport fuel are covered. Equally, any renewable fuel injected into road transport networks, such as biomethane for CNG vehicles or green electricity at public EV chargers, can generate certificates creditable against the RTFO. In summary, any company owning transport fuel at the tax/duty point in Ireland is an obligated party and must either supply sufficient renewable fuel (or purchase certificates) to meet the RTFO, or pay the statutory buy out fee.
- Sustainability and GHG Emissions Saving Criteria: All renewable fuels must meet EU sustainability and GHG emissions saving rules. Producers obtain certification via approved voluntary schemes (e.g. ISCC, REDcert) to prove compliance. The RTFO requires minimum lifecycle GHG emissions saving (typically ≥50–60% compared to fossil fuel comparators, depending on technology). High ILUC-risk biofuels (e.g. palm and soybean) are effectively banned: Ireland has capped food-crop biofuels at ~2.3–2.4% of transport energy and plans to eliminate palm oil by 2030. Biomethane (renewable gas) is integrated: Gas Networks Ireland issues Guarantees of Origin, and once biomethane is injected into the transport network NORA (National Oil Reserves Agency, a State agency under the Department of Transport) issues RTFO certificates.
- Certification and Verification: Obligated suppliers apply for RTFO certificates

(RTFCs) via NORA's online registry. Each RTFC (1 MJ of qualifying fuel) is only issued after independent verification of sustainability and GHG emissions saving criteria. RTFCs are color-coded by feedstock (green for Annex IX A, red for food and feed crops, orange for all other compliant biofuels). NORA's digital system enforces the rules: it validates sustainability certificates, tracks certificate balances, and flags any shortfalls. Suspicious or non-compliant claims trigger audits; fraudulent RTFCs can be revoked, and offenders can face penalties.

- Institutional Roles: The scheme is administered by NORA. NORA maintains the registry, issues RTFCs, and enforces compliance. The Minister for Transport (via statutory instruments) sets the annual RTFO rate, sub-target and buy-out charge. Technical support comes from other bodies: e.g. the EPA (Environmental Protection Agency) and NSAI (National Standards Authority of Ireland) advise on novel biofuel pathways, and the Sustainable Energy Authority of Ireland (SEAI) models energy data and tracks RTFO progress. The Department of Climate, Energy and the Environment coordinates EU transposition and cross-sectoral policy. This clear division between one agency (NORA) running the market registry and enforcement, and government setting targets, has kept administration lean.
- Monitoring, Compliance and Penalties: NORA's online platform requires obligated suppliers to report fuel volumes and certification claims quarterly, with an annual reconciliation by March. After each quarter NORA validates claims and issues RTFCs; a "Final Statement of Account" is issued early in the following year. By April 30, suppliers must surrender RTFCs equal to their obligation. Shortfalls are covered by the statutory buy-out fee: currently €0.05/MJ for general shortfalls and €0.08/MJ for advanced biofuels shortfalls. This fixed fee caps the cost of non-compliance and provides a predictable alternative to having to purchase certificates. NORA also has audit

powers: it can rescind RTFCs and refer serious breaches to enforcement authorities. In practice, the buy-out payment is the main penalty (fraudulent schemes are subject to additional sanctions). Overall, routine data collection plus financial penalties and audits have ensured that almost all obliged fuel suppliers the RTFO.

- Renewable Electricity and RFNBOs: Ireland is extending its RTFO to e-mobility and RFNBOs. The 2025–27 policy introduces credits for renewable electricity at EV charging stations: one "electricity RTFC" is granted per unit of green energy supplied. This reward (effectively treating green charging as fuel displacement) incentivizes investment in low-carbon transport power. Similarly, future sub-targets and respective credits are planned for Renewable Fuels of Non-Biological Origin (RFNBOs, e.g. green hydrogen or synthetic fuels). Biomethane from the grid already earns RTFCs as noted above. These additions broaden the RTFO beyond liquid biofuels, aligning it with EU's policy objectives on electrification and hydrogen use in transport.
- Lessons Learned for Establishing RTFO Frameworks in New Markets: Ireland's model illustrates that a straightforward, market-based RTFO can work well in a small market. Using tradable RTFCs provides compliance flexibility, while a fixed buy-out fee (limiting non-compliance cost) ensures enforceability. A strong IT registry (NORA's platform) maintains data integrity and automates enforcement rules. Crucially, administration is lean and self-funded: NORA runs the scheme with minimal levies (e.g. a €0.001/L biofuel levy to obligated suppliers covers the costs) and charges no transaction fees. Key takeaways for new RTFOs are therefore: set clear, phased targets; define obligated parties [e.g. primarily fuel suppliers, specifically, companies (and large oil consumers) who supply mineral oil (petrol, diesel) for transport] and consider thresholds to exempt very small suppliers; require certified sustainability via recognized schemes; and implement a centralized registry to track fuel deliveries and

certificate balances. A combination of routine reporting (for data integrity) and a binding financial penalty (buy-out or fine) can enforce compliance without heavy bureaucracy. The Irish experience confirms that leveraging existing institutions (like NORA) and minimizing fees keeps the scheme administratively feasible and transparent.

3.2. The Netherlands' "Energy for Transport" System

- **Background and Targets:** The Netherlands introduced a mandatory renewable-fuel obligation in 2015 to meet earlier EU biofuels targets. RED II (14% by 2030) was transposed in 2022 (through Environmental Management Act). The current scheme uses tradable units called *Hernieuwbare BrandstofEenheden* (HBEs). It imposes an ambitious trajectory: renewable content in road fuels rises from 17.9% in 2022 to ~28% by 2030. A minimum advanced biofuel sub-target climbs from 2.4% in 2023 to 7.0% by 2030. Large caps are imposed: conventional crop biofuels are limited to 1.4% of energy, and at least ~75% of renewable inputs must come from feedstocks listed in Annex IX of REDII). In effect, virtually all compliance is planned from biofuels produced from feedstocks listed in Annex IX A and B of REDII, with minimal share of biofuels produced from conventional crops.
- **Sustainability and GHG Emissions Saving Criteria:** Dutch law adopts EU sustainability rules in full. All biofuels, biogas, electricity or hydrogen used for transport must be certified (via voluntary schemes) to prove ≥50% GHG emissions savings compared to fossil fuel comparators (rising to 70% for new plants that started production after 2017). Biofuels from high ILUC-risk feedstocks (palm, soybean) are explicitly banned. No uncertified biofuel can generate HBEs. NEa (Dutch Emissions Authority) assigns each registered HBE a fixed CO_2-reduction value (the "HBE-reductiebijdrage") so that cumulative

HBEs also realize the 6% fuel-cycle CO_2 cut. Renewable electricity to EVs and green hydrogen each earn HBEs multiplied by efficiency factors (4× for electricity, 2.5× for H_2), reflecting their higher effective savings. This structure ensures sustainability is enforced at the fuel-source level, with GHG savings outcomes built into the certificate accounting.

- Certification and Verification: The Dutch system requires strict auditing of all renewable inputs. Participating fuel and/or electricity suppliers must obtain verification from accredited auditors: each entry into the Renewable Energy Transport Register (REV) must be backed by a Verification Certificate from an RvA (Dutch Accreditation Council) accredited verifier. The REV is a database that records fuel volumes and HBE balances. NEa reviews the data and conducts inspections: it cross-checks reported deliveries against Customs/excise data. Any failure of certification or data inconsistency means no HBEs are granted. In practice, this two-tier check (company-supplied verifiers plus NEa audits) ensures high data integrity.
- Obligated fuel suppliers are all companies that supply transport fuels in the Dutch market. In practice, this means licensed excise warehouses and excise-registered consignees for petrol, diesel and heavy oil, as well as importers of those fuels, when those fuels are delivered for transport use. Key obligated fuels include petrol (benzine), diesel (gasoil), liquefied petroleum gas (LPG) and fuels supplied to road, inland-waterway and certain agricultural vehicles. Heavy fuel oil (HFO) counts only if sold to domestic vessels (marine shipping within the Netherlands). Companies with annual deliveries below 500,000 L (diesel-equivalent) are exempt from the HBE requirement.
- Institutional Roles: Policy and legislation are set by the Ministry of Infrastructure and Water Management (IenW), supported by the Netherlands Enterprise Agency (RVO) for guidance. The Netherlands Emissions Authority (NEa) implements the scheme: it operates the REV, accredits auditors, issues

guidance, and enforces compliance. NEa has legal authority to audit reports and levy fines. Supporting bodies include the Accreditation Council (RvA), which certifies private auditors, and the Customs and Excise Service, which supplies fuel sales data for verification. This clear institutional framework, i.e. IenW/RVO for policy, NEa for execution, plus statutory auditors, provides a robust governance model.

- Monitoring, Compliance and Penalties: Compliance is governed by NEa using the REV. Obligated companies register all fuel deliveries and HBE creation in the REV. Each year, NEa calculates the required HBE quota (in GJ) from reported fuel data. Companies must hold or purchase the required HBEs by April 30 each year; NEa then closes accounts. NEa enforces compliance through data audits and site inspections and retains strong sanction powers. Any shortfall can be officially determined and fines imposed under the Environment Act. The penalty system is graduated: minor errors incur warnings, while serious breaches trigger substantial fines. NEa can even correct inaccurate records up to five years later, enforcing data accuracy.
- Renewable Electricity and RFNBOs: The Dutch obligation fully integrates e-mobility and RFNBOs. Renewable electricity supplied to EVs (metred on dedicated or sub-metred connections) generates "HBE-Other" certificates with a multiplier. Liquid or gaseous renewable fuels also qualify under HBE-Other with a multiplier. In effect, EV charging and hydrogen refuelling count toward the transport target. Biomethane and renewable hydrogen from approved suppliers similarly earn HBEs (as HBE-Other) under these rules.
- Lessons for Establishing RTFO Frameworks in New Markets: The Dutch experience underscores the value of a comprehensive registry and audit framework. Segmented certificates (HBEs) ensure fuels from feedstocks listed in Annex IX of REDII carry higher weight (enforcing sub-targets), and mandatory third-party auditing for every delivery builds trust in the data.

Crucially, strict verification ensures enforceability: NEa's authority to audit records for years after creates a strong deterrent. That said, the Dutch scheme's general budget funding (no per-unit fees) and stable low-cost registry show that a well-designed market mechanism can operate efficiently without heavy charges to industry. In sum, key takeaways for new RTFOs are: establish a secure, user-friendly IT registry, require independent certification of every renewable input, define clear penalties for shortfalls, and ensure obligations phase up predictably. Including electricity and RFNBO fuels with fixed multipliers (as NL does) can broaden impact. By combining flexible certificate trading with rigorous data controls and low administrative overhead, policymakers can craft an enforceable and transparent RTFO.

4. COUNTRY CONTEXT ANALYSIS AND KEY DESIGN CONCEPT FOR MONTENEGRO

4.1. National fuel supply chain

The petroleum products market in Montenegro is entirely dependent on imports. The total annual consumption of petroleum products in 2023 amounted to around 0.41 million tons, with around 77% being consumed in the transport sector.

Petroleum products are imported to Montenegro by road and sea, with around 62% of petroleum products imported from Greece, 28% from Croatia, 6% from Albania and around 4% from other countries.

Consumption of petroleum products in road, rail, air and water transport in Montenegro amounted to about 0.32 million tons in 2023, with diesel fuel accounting for the largest share (76,9%). Motor gasoline accounts for 13,0% of total transport consumption, kerosene for 7,8% while LPG accounts for only 2,3%.

Table 4-3 Balance of LPG, Motor gasoline and Diesel oil in Montenegro in 2023

1 000 t	LPG	Motor gasoline	Kerosene	Gas/diesel oil
Import	14,5	42,6	28,6	288,4
Export	-	-	-4,9	-
Total consumption	16,2	42,5	24,7	293,6
Transport sector consumption	7,3	41,5	24,7	244,9

Source: MONSTAT (https://www.monstat.org/cg/page.php?id=549&pageid=548)Source: https://www.monstat.org/cg/page.php?id=549&pageid=548

In terms of transport modes, the highest consumption of petroleum products was achieved in road transport (about 92%), and the remaining quantities were consumed in air transport. Consumption of petroleum products in rail transport and domestic navigation is not statistically significant.

Table 4-4 Consumption of petroleum products in transport sector according to the modes of transport

1 000 t	LPG	Motor gasoline	Kerosene	Gas/diesel oil
Rail transport				
Road transport	7,3	41,5		244,9
Air transport			24,7	
Domestic navigation				
Total	7,3	41,5	24,7	244,9

Source: https://www.monstat.org/cg/page.php?id=549&pageid=548

4.2. Petroleum products market in Montenegro

The largest importers of petroleum products i.e.:

- "Jugopetrol" Podgorica,
- "Petrol Crna Gora" MNE Podgorica,
- "Ina Crna Gora" Podgorica
- "Lukoil Montenegro" Podgorica i
- "Montenegro Bonus" Cetinje

participate with about 98% in the total import of petroleum products in the territory of Montenegro. In the territory of Montenegro, there are about 120 gas stations through which petroleum products are distributed to the market.

In Montenegro, energy activities are carried out based on licenses granted by the Energy and Water Regulatory Agency of Montenegro (REGAGEN), which also maintains a registry of licenses for such activities (https://dataportal.regagen.co.me/licence). REGAGEN issues the licenses for energy activities in the oil and petroleum products sector, namely: transportation of petroleum products, storage of petroleum products, wholesale of petroleum products, and retail of petroleum products. Licensing for the transport of biofuels and bioliquids, wholesale trade in biofuels and bioliquids, retail trade in biofuels and bioliquids, and storage of biofuels and bioliquids is also envisaged. According to the Law on Energy 2025, the Ministry of Energy and Mining is tasked with

overseeing the regulation of fuel quality. The Ministry defines the regulatory framework, which includes the methodology for quality control, as well as the technical and procedural requirements that an accredited legal entity must meet to perform fuel testing and certification. Additionally, the fuel excise duties in Montenegro are regulated by the Law on Excise Duties and are administered by the Customs Administration. These duties are applied per liter or ton of fuel (e.g., diesel, gasoline, LPG) and are charged when fuel is released from excise warehouses. The revenue generated from excise duties contributes to the national budget. Biofuels and alternative fuels may benefit from reduced or exempted excise rates if they meet specific sustainability criteria.

In Montenegro, there is no consumption of natural gas in transport sector, and there is also no production of biogas or biomethane.

Electricity consumption in road transport is statistically insignificant, and the related charging infrastructure is in a very early stage of development.

The achieved RES-T of Montenegro in 2023 was 0.34% and is largely the result of electricity consumption in railway transport[11].

4.3. Indicative RES-T targets

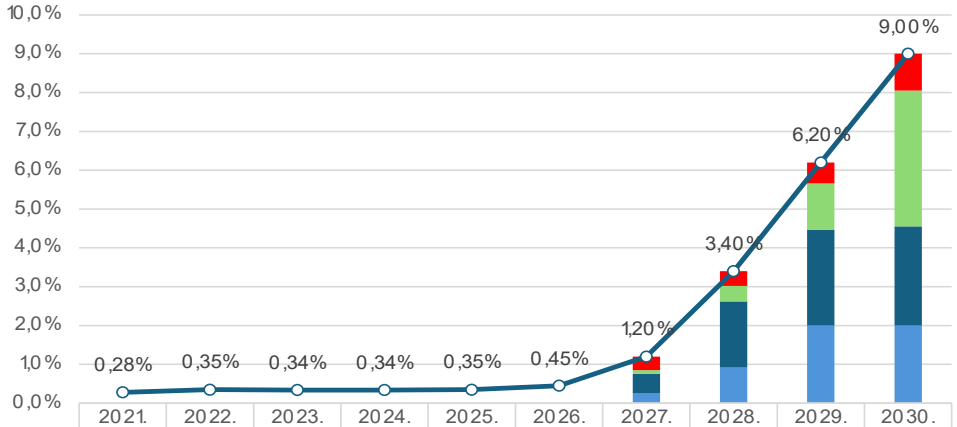
In accordance with the requirements of the RED II Directive, the RES-T target is 14%. However, if Montenegro wants to set a higher one in the NECP, it's the higher one that should apply.

The RES-T target value in Montenegro in 2030, defined by the draft NECP, amounts to 24.4%. Given that the current share of renewable energy in transport is less than 0.5%, the target of 24.4% is not realistically set, and it is not reasonable to expect that it will be achieved by 2030. It might be useful to consider certain possibilities for reducing the target offered by RED II, for example; if the share of biofuels and bioliquids, as well as of biomass fuels consumed in transport, produced from food and feed crops, in final energy consumption in the road and rail transport in 2022 is less than 1%, then the total target share for such fuels may be increased to a maximum of 2% of the final

[11] Eurostat

consumption of energy in road and rail transport sectors by 2030 (see chapter 2.2). In that case, Montenegro may reduce the minimum RES target share by 5%.
Taking that condition into account (the maximum permitted share of renewable energy in transport from conventional biofuel, produced from food and feed crops, is 2% throughout the entire observed period until 2030), the total target share for 2030 could be reduced to 9%. Regarding specific sub-targets, advanced biofuels and biofuels and biogas from specific feedstocks must reach a minimum share of 3.5% in 2030 according to RED II. The contribution of electricity from renewable sources, taking into account the planned development measures in this segment, with the electrification of road transport and an increase in the number of electric vehicles, could increase from the current 0.34% to 0.95% in 2030. In order for the electricity used in rail transport to be counted toward the RES shares target in transport, it is proposed to introduce obligation for the use of only renewable electricity in rail transport.

Ultimately, if this were shown on a graph, the difference between the indicative target of 9% and the mentioned sub-targets would be made up of biofuels from UCO (taking into account the multipliers offered by RED II). The following is a proposal for the distribution of targeted shares of individual renewable energy sources to achieve the RES-T, which considers the minimum targets as prescribed by RED II. This represents only an indicative trajectory, meaning that Montenegro may define more ambitious targets if it so wishes. The trajectory considers the multipliers in accordance with RED II.



	2021.	2022.	2023.	2024.	2025.	2026.	2027.	2028.	2029.	2030.
Electricity from RES							0,35%	0,38%	0,54%	0,95%
Advanced biofuels							0,10%	0,40%	1,20%	3,50%
Biofuels from UCO							0,50%	1,70%	2,46%	2,55%
Conventional crop biofuels							0,25%	0,92%	2,00%	2,00%
RES-T	0,28%	0,35%	0,34%	0,34%	0,35%	0,45%	1,20%	3,40%	6,20%	9,00%

Figure 4-1 Indicative targets of RES-T according to the type of renewable energy

5. KEY DESIGN CONCEPT FOR MAINSTREAMING RENEWABLE ENERGY USE IN THE TRANSPORT SECTOR

According to REDII Directive, each Contracting Party shall set an obligation on fuel suppliers to ensure that the share of renewable energy within the final consumption of energy in the transport sector is at least 14 % by 2030 (minimum share) in accordance with an indicative trajectory set by the Contracting Party and calculated in accordance with the methodology set out in Articles 25, 26 and 27 of the REDII.

Fuel supplier, according to the REDII Directive, means an entity supplying fuel to the market that is responsible for passing fuel through an excise duty point or, in the case of electricity or where no excise is due or where duly justified, any other relevant entity designated by a Contracting Party.

Taking into account the requirements of the REDII Directive and the petroleum products market of Montenegro, the proposed system for meeting the RES-T is based on several key elements:

- Defining the obligation to place renewable energy on the market for transport needs
- Establishing a system for verification of compliance with the sustainability and greenhouse gas emissions saving criteria
- Managing and controlling the entire system.

The system defines the parties obliged to place renewable energy on the market for transport needs. **Fuel supplier obliged to place renewable energy in transport are suppliers who place diesel fuel or motor gasoline on the market in road and rail transport sectors, who are considered to be subject to excise duties under a special law regulating excise duties and any other entity designated by a Contracting Party.** The amount of renewable energy that the obligated fuel supplier obliged to place on the market in a given calendar year is proportional to the amount of motor gasoline, diesel fuel and natural gas that the obligated fuel supplier put on the market in that year. The share of renewable energy that the party obliged to place on the market in a given year is equal to the national RES-T target set for that year, as prescribed by national legislation. The

methodology for calculating the contribution of individual sources of renewable energy is defined by the Law on Renewable Energy Sources and by-laws.

The proposal is that Companies with annual delivery below a certain threshold (expressed in MJ/year) are exempt from the obligation. This exemption must be defined by the relevant legislation.

The renewable energy that the obligated fuel supplier places on the market for transport needs must meet the prescribed sustainability criteria so that it can be counted towards the obligee's fulfilment of its blending obligation and the fulfilment by Montenegro of the national RES-T target. The Ministry in charge of environmental protection establishes a legal framework for the verification of sustainability criteria and greenhouse gas savings, should establish a national Database for Biofuels (DfB) through which verification is monitored and certificates of sustainability are entered (Sustainability and GHG Compliance Certificate), statements of sustainability issued by economic operators (PoS - Proof of sustainability) and certificates of placing sustainable fuel on the market issued by the Ministry (RTF Certificate). As such database is not mandatory under RED II, in the initial phase it could be organised through a simple database recording the Proofs of Sustainability and supporting information and documents.

The RTF Certificate is issued for each unit of renewable energy that the obligated fuel supplier has placed on the market. The Ministry in charge of environmental protection also supervises economic operators and certification bodies registered in the Database for Biofuels.

The obligated fuel supplier enters the obtained certificate for placing renewable biofuels on the market (RTF Certificate) into the Renewable Transport Fuel Registry (RTF Registry), which is established and maintained by the Ministry responsible for energy. The obligated fuel suppliers can trade the obtained certificates among themselves through the RTF Registry.

The Ministry approves the Plan for placing renewable energy on the market for transport needs to the obligated fuel supplier, and after the end of the calendar year, it reviews the Report of the obligated fuel supplier on the fulfilment of the obligation to place renewable energy on the market for transport needs and issues a Decision on the fulfilment of the obligation. If the obligated fuel supplier has not partially or fully fulfilled

the obligation to place renewable energy on the market for transport needs, the Ministry issues a decision on the payment of the appropriate amount of compensation for failure to place renewable energy on the market. The ministries responsible for energy and environmental protection establish a regulatory framework for the establishment of a renewable energy system in transport.

Detailed responsibilities of individual stakeholders in the renewable energy system in transport are presented in Chapter 4.12.

5.1. Renewable Energy Targets and Timelines

1. Set Long-Term Targets: Specify binding targets for renewable energy in transport through indicative trajectory as defined in NECP.
2. Include Sub-Targets and Caps: Mandate a specific sub-target for advanced biofuels (from Annex IX feedstocks) to encourage innovation. For instance, require that certain percentage of transport energy be advanced fuels by 2030 (double-counted as 3,5%). Simultaneously, enact a cap on conventional crop-based biofuels (as % of transport energy), aligned with REDII rules: cap at 2% of energy. The share of biofuels and biogas produced from the feedstock listed in Part B of Annex IX shall be limited to 1,7 % of the energy content of transport fuels supplied for consumption or use on the market.
3. Adopt EU Certification Standards: Harmonize Montenegro's sustainability criteria with RED II and related EU regulations. The 2018 Regulation already sets 50% and 60% GHG emissions saving criteria [12], but RED II raises this to 65 % emission savings for biofuels, biogas consumed in the transport sector, and bioliquids produced in installations starting operation from 1 January 2023, and even higher savins for installations for electricity, heating and cooling production from biomass (Art.29 (10) [13]. Amend the criteria so that by

[12] wapi.gov.me
[13] joint-research-centre.ec.europa.eu

2026 Montenegro requires ≥65% emission savings or biofuels, biogas consumed in the transport sector, and bioliquids produced in installations starting operation from 1 January 2023 (existing plants) and at least 70 % for electricity, heating and cooling production from biomass fuels used in installations starting operation from 1 January 2023 until 31 December 2027, and 80 % for installations starting operation from 1 January 2028. The later threshold is not relevant to transport, but it is suggested to add it in the legislation. Similarly, explicitly extend criteria to waste/non-biological renewable fuels, which RED II does (see next point).

4. Include Renewable Fuels of Non-Biological Origin: RED II defines *renewable fuels of non-biological origin* (RFNBOs) such as hydrogen and electro-fuels. Montenegro's laws should recognize these. Amend the definitions to include RFNBOs (produced from renewable electricity) as a category of renewable fuel. Then stipulate that they must meet GHG calculation rules (Annex V of RED II) and are eligible for counting (with at least double weighting). This aligns with RED II Article 25 and the EU "Delegated Act on RFNBOs" (Delegated Act 2018/2001 Annex IX Part B).
5. Double Counting and Multipliers: Explicitly allow double-counting (twice their energy content) for feedstocks to produce biogas for transport and advanced biofuels listed under Annex IX part A and B of RED II. The 2018 Regulation already gives double credit to certain wastes [14]. Extend this to include renewable hydrogen and RFNBOs (as RED II does). For EV electricity, Montenegro should follow RED II's approach of counting electricity with a multiplier. At a minimum, specify that EV charging stations sourcing grid electricity from renewables can claim that energy under the transport RES share.

[14] faolex.fao.org

5.2. Obliged Parties

1. Define Obligated Suppliers: Identify which entities are subject to the fuel obligation. The RES Law (Art. 76–77) refers to fuel suppliers ("dobavljači goriva")[15], broadly meaning wholesalers or importers of fuel. This should be suppliers who place diesel fuel or motor gasoline on the market in road and rail transport sectors, who are considered to be subject to excise duties under a special law regulating excise duties and any other entity designated by a Contracting Party.

   Consider defining criteria (e.g. any company placing >X MJ/year). Allow flexibility
   (as in EU), for example exempting small local producers but requiring main importers to cover entire market. The obligated party list should be maintained in the registry (see next section).

2. Special Provisions for Different Fuels: The new law sensibly provides that suppliers of renewable electricity or non-biological e-fuels are exempt from advanced biofuel quotas (article 76(3))[16]. Ensure equal treatment: e.g., an electricity supplier charging EVs could count that (renewable) electricity (kWh) x4 against the obligation, as RED II envisages. Similarly, specify that renewable hydrogen and renewable gas in transport can count at least once, with possible multipliers. Any exemptions or special obligations should be transparent in regulation.

[15] me.propisi.net
[16] me.propisi.net

3. Obligation Sharing / Transfers: Introduce mechanisms allowing obligated parties to transfer obligations among themselves. In many EU markets, if a supplier cannot meet its target, it can buy credits from others (see tradable certificates below). Include legal authority for companies to exchange "redemption obligations" (following a register of certificates). Also, allow carry-over of excess compliance (if a party exceeds its target in one year, it may credit future years).

5.3. Verification of sustainability and GHG emission saving compliance

5.3.1. Recognition of certification schemes and accreditation and authorisation certification bodies

- Establish clear legal framework: Define sustainability and GHG emissions saving criteria requirements according to RED II in the national legislation.
- Voluntary schemes: National regulation should enable operation of voluntary schemes recognised by European Commission/Energy Community Secretariat (e.g., ISCC, REDcert, 2BSvs) for sustainability criteria and GHG emission savings compliance verification. A possibility for development of national verification scheme in the future should be left in the legislation.
- Allow accreditation and authorisation of certification body: According to the Law on RES, verification of sustainability compliance should be performed by an accredited legal entity authorised by state body responsible for the environmental protection, while the Ministry can authorise entity from other state, if it meets requirement that will be defined by the Government (Article 78, 90 and 91 of RES Law). Therefore, first allow accreditation of independent auditing body by a national accreditation body of the Contracting Party, which is in this case the National Accreditation Body of Montenegro (Akreditaciono

tijelo Crne Gore - ATCG). Upon request, the ATCG grants accreditation to certification bodies operating under recognized voluntary schemes (VS) in accordance with ISO/IEC 17065. Secondly, allow certification bodies accredited in Member States of EU also to perform an audit in Contracting Parties (Article 11. IR 2022/996 transposition into EnC acquis). A certification body shall be accredited to ISO 17065, and to ISO 14065 where it performs audits on actual GHG values. The Ministry authorises both, ATCG accredited and accredited bodies in Member States to perform the audits. The list of authorised accredited auditing (certification) bodies should be available in the Database for Biofuels (DfB).

5.3.2. Establishment of independent audit procedures

- Provide legal framework on submitting accurate and verified data regarding compliance: The legislation should provide clear guidance for economic operator on obligations in terms of sustainability compliance and GHG emissions saving criteria. Economic operators must provide relevant evidence, demonstrate that chain of custody model is respected, have implemented mass balance system, GHG calculation procedures, and a documentation management system (sustainability characteristics are assigned and tracked through bookkeeping, allowing mixing with non-certified material under strict conditions). Required documents include feedstock origin records, GHG methodology, mass balance logs, and management procedures. Detailed guidelines should be provided by voluntary scheme chosen by EO for certification. Methodology that should be followed for GHG emissions and mass balance is outlined in RED II and respective delegated and implementing acts. Every economic operator in the chain of cultivation and conversion of biomass to biofuels has to provide purchasers in the next step information about the certificate it has obtained and the sustainability

characteristics of the product it delivers. This is recorded through Database for Biofuels.

- Sustainability and GHG emission savings compliance and low indirect land-use change-risk certificate: If compliance is verified through independent audit, the certification body issues a sustainability certificate to the economic operator. The voluntary scheme publishes the certificate in its online registry. The EO also uploads the certificate to the Database for Biofuels. Sustainability compliance certificates are typically valid for one year, subject to annual surveillance audits by certification body (within six months for waste biofuels). In terms of auditing waste and residues there should be no tolerance to deliberate misstatement of raw material description, falsification of GHG values or input data as well as the deliberate production of wastes or residues. When an economic operator is certified by recognised voluntary scheme, Contracting Party may not require further evidence of compliance with sustainability criteria.

5.3.3. Database for Biofuels (DfB)

Economic operators are required to enter information on transactions and the sustainability characteristics of the fuels, including life-cycle greenhouse gas emissions. The Database for Biofuels tracks each consignment of sustainable fuel from its entry into the system through to its final use. All economic operators in the renewable transport fuel value chain must register and submit the relevant data, from production through to the fuel supplier placing the fuel on the market.

- Setup, responsibility, maintenance: The Database for Biofuels is a web-based platform where information is submitted electronically by registered users. Platform is restricted to registered users only. The database is established, maintained and updated by entity authority responsible for environmental

protection (DfB administrator). The authority approves requests for registration from the relevant stakeholders.

- Registration: All operators in the sustainable biofuels sector, covering all liquid and gaseous fuels (excluding solid fuels from biomass) are required to register. These operators include (but are not limited to) the following players:
  - Economic operator (first gathering points (agricultural biomass and waste & residues); traders; processing plants; fuel suppliers
  - Certification bodies
  - Voluntary schemes
  - Entity authorities relevant for supervision
- Information entry and verification: After logging in, users have access to their account and, depending on user role and account, they can:
  - Enter and transfer data: producer, importer, supplier to the market
  - Verify data: certification bodies – verify sustainability certificates
  - Perform control: Relevant authorities, VS (certificates only)

  The selection of biofuel, bioliquid or biomass fuel in the platform is important. There should be several general categories to select from: advanced biofuels, Annex IXb fuels, conventional biofuels, electricity, RFNBO.

The registered economic operators are required to transmit the following information to the DfB:

- Information on raw materials (from the 1st collection point),
- Details of sustainability and greenhouse gas emissions saving,
- Material processing/conversion
- All transaction data concerning shipments (purchase and sale) of raw materials or fuels.
- Fuel suppliers should enter obligation.

Detailed list of all data is presented in chapter 2.3.2.4.

Independent auditors (certification bodies) should:

- Validate economic operator's registration in the database
- Confirms the information entered by EO into database (cross check the information entered with the mass balance and proof of sustainability (POS)).

Voluntary schemes should:

- Approve certification bodies
- Approve certificates

Any trade should be recorded in the system. For fuels in interconnected infrastructure subject to the same mass-balancing system, these characteristics must be registered at the first entry point and registered out at final consumption.

- Issuing RTF Certificates: After the data for sustainability criteria and GHG emissions data are completed, the RTF Certificate is automatically issued.
- Supervision of Database: Authority responsible for the Database should take measures to ensure that economic operators enter accurate information into the relevant database.

  To ensure transparency, the database records all biofuel consignments and their certification status, supported by relevant documentation. Accordingly, the system contains all sustainability certificates, Proofs of Sustainability (PoS), transferred (traded) amounts, and submitted reports. The authority performs periodical supervision. It involves checking information, process and relevant documentation submitted.

  In order to ensure full transparency over time, the Database could eventually interface with other systems: customs (fuel imports), environmental data, and finance (tax records), to prevent fraud. The database should allow uploading of proof of sustainability certificates and GHG calculations, analogous to the EU's RED-GO (Guarantee of Origin) platform.

5.3.4. Supervision by national authority

- Assign an Authority in charge for supervision of compliance with sustainability and GHG emissions saving criteria . Supervision of the economic operator and certification body is done under the jurisdiction of national authority for environmental protection. It is recommended that the supervision is implemented by The Environmental Agency (under the Ministry of Ecology, Sustainable Development and Northern Region Development. The authority can perform supervision itself or appoint independent experts with competence and capacity for supervision. They should have access to data in the Database, all relevant records and documentation, right for site visits and inspection of all actors in the supply chain. It performs periodic supervision of certification bodies and economic operators. RED II prescribes that non-compliant fuels cannot be counted towards the target. National legislation should enable the supervision Authority to deny certificates or cancel registrations if criteria are not met.
- Economic operators must keep documentation on sustainability and GHG emissions saving evidence for minimum 5 years and make it available to supervisors and verifiers upon request. Audit reports and verifier certificates must be uploaded to the Database or linked via Database records.
- Non-compliance or irregularities are reported to the Ministry of Ecology, Sustainable Development and Northern Region Development, which notifies the relevant voluntary scheme and the Energy Community Secretariat. Clearly define penalties for not meeting the obligation and for malversation and fraud regarding the compliance with sustainability and GHG emissions saving criteria.

The general structure of the system for Montenegro described above is summarised in the Figure 4-2.

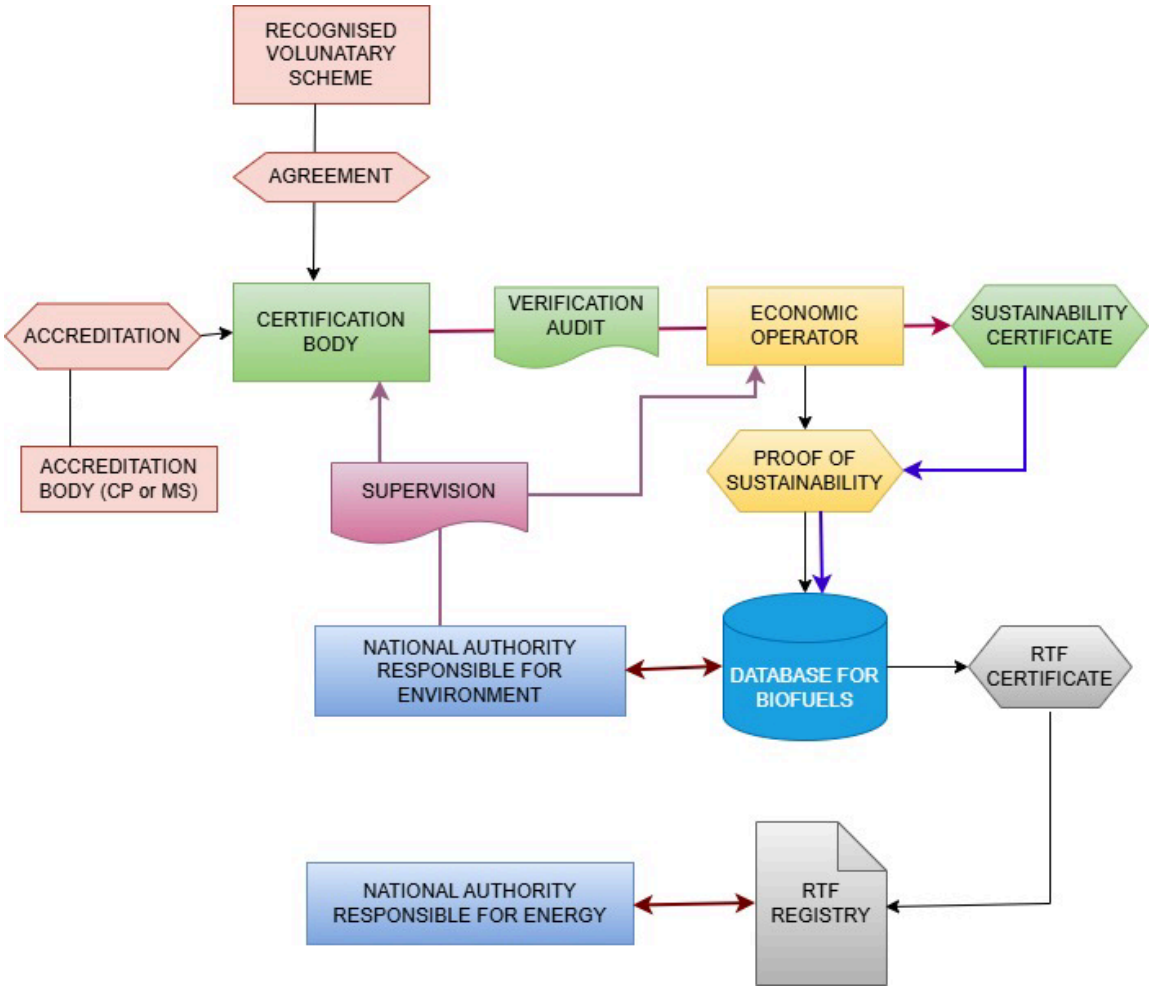


Figure 4-2 Scheme of proposed sustainability and GHG emission compliance system for Montenegro

Accreditation body accredits certification body for compliance verification under the voluntary scheme. The certificate confirms the sustainability and GHG emissions saving and low indirect land-use change-risk compliance and enables economic operator to issue Proof of Sustainability for each consignment of biofuels. The data are entered into Database for biofuels managed by authority responsible for environment. Through the Database the renewable transport certificated are issued for obligated fuel supplier. The RTF Certificates are uploaded in the RTF Registry administrated by authority responsible for energy. The authority responsible for environment supervises the certification body and economic operator.

5.4. Tradable Certificate Systems

1. Implement a Quota/Certificate Scheme: RED II permits (but does not require) market mechanisms. Montenegro should consider creating a Renewable Transport Fuels Certificates (RTF Certificate) system. Under this, obligated suppliers surrender a certain number of certificates per unit of fossil fuel sold. The competent authority (in charge for DfB) reviews the application and grants the certificate through the DfB based on audited proof of renewable fuel usage (see registry below). The RTF Certificates could be traded between the economic operators under the obligation who over-comply and those that do not meet the obligation. The trading is done through Renewable Transport Fuel Registry.
2. Design Elements: The scheme needs detailed rules. The RTF Certificates could be denominated in energy units (e.g. 1 certificate = 1 MJ of renewable fuel).
   The RTF certificate must at least contain information about the amount, type and origin of the renewable energy for which the certificate was issued.
   Obligation = number of certificates = percentage * total fuel energy.
   Allow double-counting: e.g. 1 MJ of advanced biofuel generates 2 certificates, as RED II allows. Alternatively, follow Belgium/France models: one credit per unit energy, but advanced fuel qualifies for bonus multipliers when entering registry. Crucially, establish transparency: all trades recorded in a public registry.
3. Transition Period: If market is not ready immediately, start with an obligation-and-buy-out approach (a fixed penalty price for unmet obligations). RTF Certificate issuing will start immediately from the establishment of the system, but tradability will only kick off from 2027.

5.5. Obligation Monitoring and Reporting Registry (RTF Registry)

1. Establish a central electronic renewable transport fuel registry (RTF Registry) for monitoring fuel placed on market by obligated fuel suppliers, trading with certificates and reporting to the Ministry. The Ministry responsible for energy establishes, maintains and administrates the Registry. The Regulation Article 12 (Register of obliged parties)[17] is a start, but it should be expanded to cover all aspects. The Ministry regulates all relevant aspects concerning the establishment, maintenance, procedures, deadlines, and obligations of the stakeholders related to the database through a dedicated Regulation.
2. Data Integration: The RTF Registry should interface with Database for Biofuels and potentially customs (fuel imports) and finance (tax records), to prevent fraud.
3. Reporting Requirements: Oblige suppliers to submit detailed annual reports via the registry: fuel volumes sold, biofuel content, origins, certificates held. Already the 2018 Regulation requires annual planning and reporting[18]; these should be integrated into the registry workflow. An annual report on sustainable renewable fuels supplied to the market (by obligated fuel supplier) should be submitted by 30 April of the following year, containing aggregated data on volumes, energy content, fuel types, and GHG emissions saved, accompanying certificates, origin of feedstock, all PoS issued, RTF Certificates obtained and traded. The report is submitted electronically to the national authority (Ministry of Energy and Mining). The Ministry provides feedback (acceptance or request for clarification/correction) within 30 working days. The Ministry (or responsible agency) uses these reports to verify compliance and calculate totals (as hinted by Art. 14 of the Regulation on the Mandatory Share of Biofuels in the Transport Sector.). The Ministry consolidates national

[17] faolex.fao.org
[18] faolex.fao.org

data and reports to the Energy Community Secretariat.

5.6. Compliance Mechanisms and Penalties

1. Infringement Procedures: Enact clear penalties for non-compliance. RED II requires effective fines; these can be modelled on environmental law. For example: failure to surrender enough RTF certificates might incur a fine equal to (or higher than) the market price of the shortfall, plus purchase requirement. Administrative fines (e.g. €X per MJ short) should be specified (buy-out option). Currently, no specific penalties exist for missing the blending obligation. The law or an accompanying regulation should prescribe penalties for (a) failure to register, (b) false reporting, and (c) failing to meet targets. Administrative fees could fund enforcement.
2. Buy-Out Option: This refers to the fee that an Obliged Fuel Supplier pays when failing to meet the obligation to place renewable energy on the market. The amount of the fee for failing to place renewable energy on the market must be higher than the cost an Obliged Fuel Supplier would incur in fulfilling the obligations – this will ensure the RES-T target is achieved.
3. Consumer Labelling and Sanctions: Introduce a requirement that fuel retailers display information on renewable content (as in EU Fuel Quality Directive – e.g. "contains X% renewable energy"). This promotes transparency and public awareness. Non-compliance could incur fines.

5.7. Institutional Responsibilities

Below is a diagram of a renewable energy system in transport, showing the key stakeholders and their roles in the system.

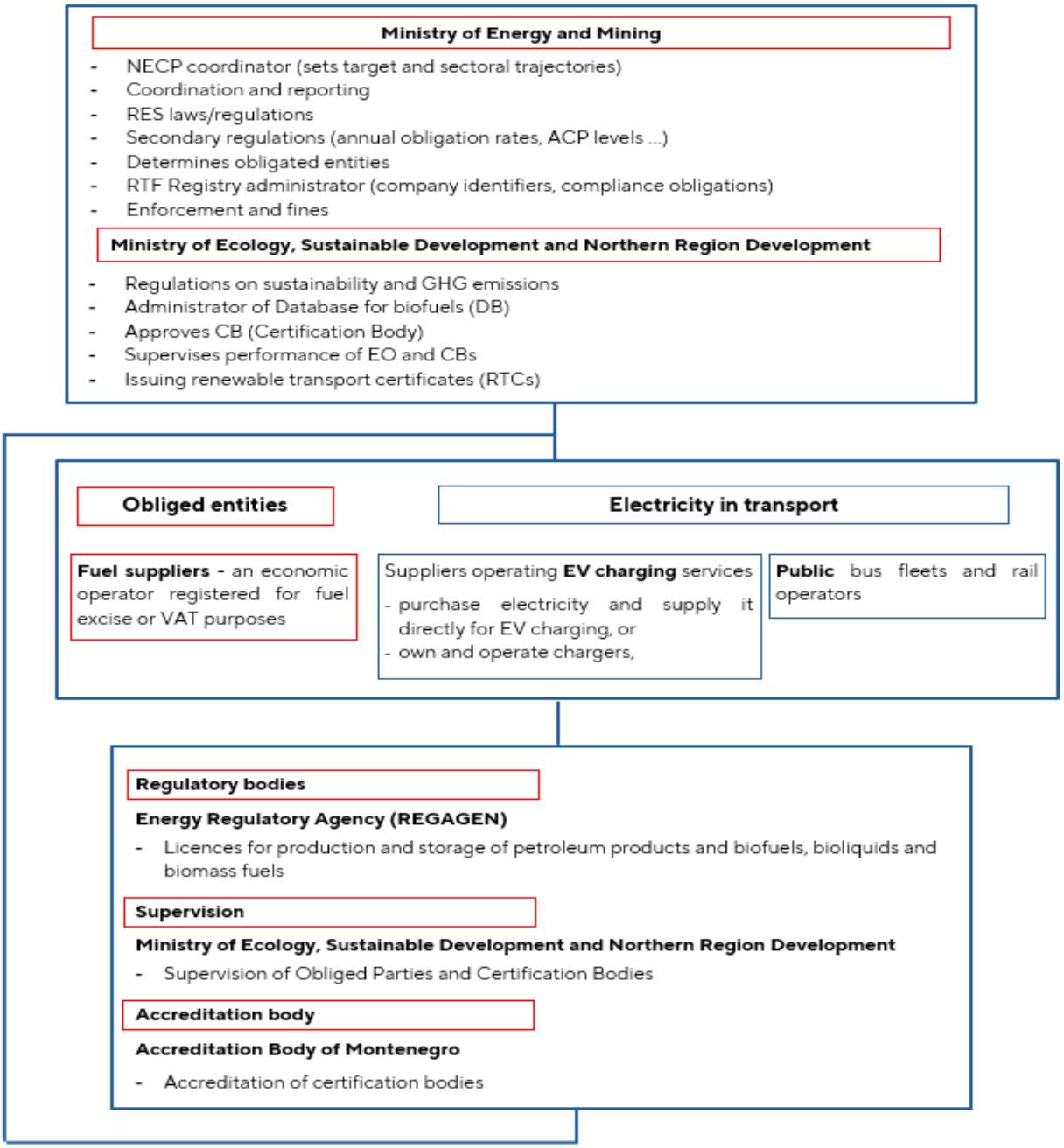


Figure 4-3 Scheme of renewable energy system in transport

1. Lead Authority: Ministry of Energy and Mining should retain overall responsibility for setting targets, proposing regulations and monitoring compliance, as RES Law Article 76 implies ("Ministry"). This Ministry should coordinate with other bodies and enable information transfer and exchange. It

authorises accredited certification bodies for verification audit. It is responsible for renewable transport fuel registry establishment and management (RTF Registry administrator) Reviews the reports from obligated fuel suppliers and reports to the Energy Community Secretariat.

2. Energy Regulatory Agency (REGAGEN): Licences for production, storage and wholesale trading of petroleum products and biofuels, bioliquids and biomass fuels.
3. Customs and Tax Authorities: Customs and excise authorities must provide fuel import and production data feeds to the RTF registry to validate fuel volumes and reconcile these with declared renewable volumes.
4. Ministry of Ecology, Sustainable Development and Northern Region Development. Responsible for development of regulation on sustainability and GHG emission. It establishes and maintains Database for Biofuels (DfB administrator). Based on data submitted via Database, issues RTF Certificates for obliged fuel suppliers. It supervises operation of economic operators and certification bodies. The Ministry acts through Environmental Agency.
5. Accreditation body of Montenegro (Akreditaciono tijelo Crne Gore): Accreditation of certification body from Montenegro (if any apply for accreditation).[19]
6. Regional Coordination: The law can stipulate that fuels certified under recognized EU or Energy Community schemes are accepted as meeting criteria (as per Article 80 on data exchange[20]).

[19] Certifying bodies accredited by accreditation authorities in EU Member States can operate in Montenegro. According to the Law on RES, article 90, national authority for environmental protection approves accredited body for performing sustainability verification.
[20] me.propisi.net

5.8. Funding and Administrative Costs

1. Cost Recovery via Fees: To cover registry and enforcement costs, institute a moderate fee on obligated parties. For example, a small per-liter surcharge (a few eurocents) could be added to fuel excise to fund the system. Alternatively, a flat annual fee for registry participation could apply. Transparency is key: earmark these revenues for the registry and auditing costs to avoid budget appropriation issues.
2. EU and Donor Support: Explore technical assistance and funding from EU pre-accession programs and international donors. For instance, use IPA funds or EBRD loans to build the registry IT system and train auditors. This relieves domestic budget pressure.
3. Subsidies and Incentives: Use public budgets to co-finance advanced biofuel production or e-mobility infrastructure as set out in Article 77 of RES Law[21]. These incentive programs should be defined by government decree, funded by state budget (as mentioned in Article 77) or EU grants. Cover at least initial certification costs so that small biofuel plants can afford initial audits. Additionally, for example, an initiative to remove excise duty on biofuels, or at least on advanced biofuels (Annex IX Part A) could be considered.
4. Penalties as Revenues: Any fines collected for non-compliance should be channelled into the Environmental Protection Fund (ECO-Fund) or budget lines supporting RES deployment. This aligns disincentives (penalties) with promoting the overall goal.

[21] me.propisi.net

5.9. Integration of Renewable Electricity and E-Mobility

- Count EV Electricity in Transport Target: Legally include electricity (for electric vehicles) in the transport energy share. RED II counts EV charging separately, but Montenegro's laws should explicitly allow renewable electricity fed to EVs to be used to meet the target.

  This requires coordination between transport and electricity sectors: the registry must track electricity supplied at EV chargers (possibly via smart meters) and certify its renewable origin (via GO certificates).
- Incentivize E-Fuels: Encourage production of hydrogen and e-methane from surplus renewable electricity. The laws should define these *e-fuels* as eligible renewable fuels (as "nebiološka goriva" in Article 76)[22]. Provide double-counting for hydrogen used in fuel-cell vehicles (similar to EU's proposed incentives for hydrogen refuelling).

  Consideration should be given to Montenegro's hydrogen strategy, which is currently under development.[23] Government programs (Article 77) should allocate subsidies or mandates for hydrogen production if possible.
- Infrastructure Deployment: Strengthen mandates for infrastructure that supports renewables in transport. For example, amend highway service station licensing to require a minimum number of EV chargers (or e-fuel pumps) per station. The incentive programs envisaged (Art. 77) should include clear targets for charger rollout by 2030, co-funded by public-private partnerships.
- Link with Electricity Sector: Integrate the registry for renewable transport with the electricity guarantees-of-origin (GOs) system. This prevents double counting: e.g., electricity cannot be counted both in the electricity sector and again fully in transport. RED II allows such integration; similarly, Montenegro

[22] me.propisi.net
[23] https://www.h2cluster.rs/nacrt-strategije-za-vodonik-u-crnoj-gori/

should ensure that renewable kWh claimed by EV charging stations are backed by GOs retired in the transport registry.

6. LEGAL AND REGULATORY FOUNDATION

Montenegro's regulatory framework for renewable transport fuels is evolving. In 2024, the country adopted its first Law on the Use of Renewable Energy Sources (RES Law)[24], and in 2025 a new Law on Energy took effect[25].

These laws establish a broad foundation for renewable energy, including its use in the transport sector. Montenegro has previously issued regulations on the mandatory biofuel share in transport (2018), quality control of liquid fuels (2016), fuel pricing (2021), and sustainability criteria for biofuels and bioliquids (2018)[26].

However, recent reports show that renewables' share in Montenegro's transport energy was only 0.91% in 2022 (far below the 10.2% target for 2020)[27]. The new laws and regulations begin to address RED II obligations, but significant gaps remain.

6.1.1. Current Legal and Regulatory Framework

- Law on Renewable Energy Sources (2024) (RES Law): Montenegro's August 2024 law (published in *Official Gazette* 82/2024) "fully transposes Directive 2018/2001/EU (RED II)"[28]. It covers promotion of RES, incentive schemes (auctions, feed-in tariffs), guarantees of origin, energy communities, and explicitly addresses the use of renewable energy in the transport sector. For transport (Articles 76-80), it defines renewable energy share calculation in the NECP, obliges fuel suppliers regarding the achievement of the share of renewable energy sources determined by the NECP and mandates programs of incentives (for biofuels, electrification, alternative fuels, charging

[24] me.propisi.net
[25] me.propisi.net, me.propisi.net
[26] wapi.gov.me
[27] wapi.gov.me
[28] me.propisi.net

infrastructure)[29]. The law also defines quality and sustainability criteria for biofuels (Articles 88–90) and sets up certification and double-counting rules[30].

- Law on Energy (2025): In March 2025, Montenegro enacted a new Law on Energy[31]. This law enumerates energy activities and recognizes biofuels and bioliquids explicitly as energy commodities (production, transport, wholesale and retail). It also establishes the Energy Regulatory Agency's powers (e.g. licensing, market oversight) and public interests. While this law is comprehensive, its inclusion of biofuels in the energy activity list lays the groundwork for the regulation of fuel suppliers.
- Mandatory Biofuel Share Regulation (2018): In 2018, the Government issued a regulation implementing a blending mandate (*Uredba o obaveznom udelu biogoriva*)[32]. It defines *biofuels* (liquid/gaseous fuels from biomass) and sets a requirement that energy companies placing transport fuels on the market must include a minimum renewable energy share. The regulation specifies which biofuel types qualify (biodiesel, bioethanol, biogas, biohydrogen, etc.). It provides calculation rules (double-counting for waste-based fuels) and requires obligated parties to submit annual plans and reports (Articles 6–10). However, the regulation did not fix a numeric blend percentage in the text; it is expected to be set by later decisions (and the NECP).
- Quality Control of Liquid Fuels Rulebook (2016): A 2016 Rulebook (*Pravilnik o kvalitetu i kontroli kvaliteta tečnih goriva naftnog porijekla*) mandates that petroleum fuels (gasoline, diesel, LPG) meet EU standards (EN228, EN590, etc.)[33]. Certificates of quality must accompany each shipment. This act does not directly mandate biofuel blending but ensures fuel specifications comply

[29] me.propisi.net, me.propisi.net
[30] me.propisi.net, me.propisi.net
[31] me.propisi.net
[32] faolex.fao.org
[33] scribd.com

with EU norms. Current EN standards allow up to 10% ethanol in gasoline (E10) and a defined FAME percentage in diesel, implicitly permitting some biofuel content.

- Fuel Pricing Regulation (2021): A 2021 Regulation (*Uredba o načinu i visini elemenata na osnovu kojih se formiraju maksimalne cijene naftnih derivata*) sets the formula for maximum prices of gasoline and diesel by adding together international prices, taxes, and margins[34]. This cap system is neutral to fuel composition: it does not incentivize or penalize renewable blending. It applies only to conventional fuels (Euro 95/98, Eurodiesel, etc.) and exempts premium additives.
- Sustainability Criteria Regulation (2018): Also in 2018 the Government adopted a regulation on biofuel sustainability (*Uredba o bližim kriterijumima održivosti za biogoriva i biotečnosti za ostvarenje obaveznog udjela energije u ukupnoj finalnoj potrošnji energije*)[35]. It defines GHG accounting and land-use criteria largely mirroring RED II. For example, it requires biofuels to achieve ≥50% GHG emissions saving (rising to 60% for new plants that started operation from January 1st of the year following the year of the accession to the EU), prohibits feedstock from high-biodiversity lands (primary forests, protected areas, soils with high-carbon stock), and exempts biofuels and bioliquids produced from agriculture, forestry, fishing, and aquaculture from most land criteria. This regulation, however, explicitly takes effect only upon EU accession, so its provisions are not currently binding but indicate planned alignment.

Together, these laws/regulations/rulebooks establish a foundation: fuel suppliers have a general obligation to include renewables, quality and sustainability standards exist, and oversight structures are partly in place. However, they leave critical gaps: no clear national blending targets or timelines for transport (beyond the loose 10% RED I goal),

[34] wapi.gov.me
[35] wapi.gov.me

no transparent tradable certificate system or registry, and limited enforcement provisions. Montenegro's 2022 report notes the tiny 0.91% renewable share in transport, well below the 10.2% reference target. New RES Law and upcoming draft NECP recognize the need for ambitious 2030 targets, but detailed implementation measures are still needed.

6.1.2. Alignment with EU RED II Requirements

RED II (Directive (EU) 2018/2001) RED imposes an requirement on Contracting Parties to set an obligation for fuel suppliers to ensure that the share of renewable energy in the final consumption of energy in the transport sector is at least 14% by 2030 (minimum share), in accordance with an indicative trajectory established by the Contracting Party and calculated pursuant to the methodology laid down in this Article and in Articles 26 and 27 of RED II. It also includes:

- A sub-target for advanced biofuels (biofuels that are produced from the feedstock listed in Part A of Annex IX; of RED II).
- Caps on the biofuels, bioliquids, and biomass fuels produced from food and feed crops (2% of transport energy max) to limit indirect land-use change (ILUC).
- Multipliers can be applied for advanced biofuels, biogas, RFNBO, and electricity used in EVs towards targets.
- Stringent sustainability and GHG emissions saving criteria.
- Mandatory verification of compliance with sustainability and GHG emissions saving criteria and reporting (using a mass-balance system) and penalties for non-compliance.

Montenegro's framework has begun to incorporate some RED II concepts (e.g., advanced biofuels, counting of biofuels produced from feedstock listed in Annex IX Part A, double GHG credit), but has not fully transposed the provisions of RED II.

For example, the new RES Law's Article 76 defines renewable transport fuels broadly (including synthetic fuels and electricity)[36] and Article 77 plans incentives for advanced fuels and EVs[37]. Yet Montenegro has not formally set a 2030 transport target or advanced sub-target in law; instead, these are deferred to the NECP and subsequent government acts. Moreover, the legacy 10% target (from RED I/2009) was modest, and in practice unachieved. The EU ILUC limitations (freezing high ILUC-risk biofuels and phasing them out by 2030) are not currently addressed in Montenegrin law and alignments are required. High ILUC-risk biofuels, bioliquids, or biomass fuels produced from food and feed crops—where significant expansion into high-carbon-stock land has been observed—shall not be used unless certified as low ILUC-risk fuels.

In sum, to align with RED II, Montenegro must establish concrete targets and timelines for the consumption of renewables in transport, explicitly cap conventional biofuels, promote advanced biofuels and e-fuels via incentives, tighten its sustainability scheme to EU standards, and create robust compliance mechanisms (certificates, monitoring, penalties).

The recommendations in the following chapters detail how to fill each gap, drawing on EU practice and Montenegro's context.

6.1.3. Sustainability Certification and GHG Emission Accounting Status in Montenegro

Sustainability Criteria Regulation (2018) was adopted based on the previous Law on Energy[38]. In the meantime, the new Law on Renewable Energy Sources 2024[39] came to a place which requires new regulation (bylaws, etc.) to be adopted in accordance with the RES Law and in line with RED II.

The above-mentioned RES Law defines the sustainability and GHG emissions saving criteria in Articles 79-80 and 88-90. The Law prescribes the following:

[36] me.propisi.net
[37] me.propisi.net
[38] Zakon o energtici (Službeni list CG", br. 5/16, 51/17, 82/20, 29/22, 152/22 i 84/24) valid upon the entry into force of a new Law on Energy in March 2025
[39] https://me.propisi.net/zakon-o-koriscenju-energije-iz-obnovljivih-izvora/

- Ministry will prescribe **sustainability criteria for biofuels, bioliquids, and biomass fuels derived from agricultural biomass,** and separately for biofuels, bioliquids, and biomass fuels derived from forest biomass, based on the opinion of the state administration body responsible for agriculture and forestry.
- Ministry will prescribe **special rules for biofuels, bioliquids, and biomass fuels produced from food and feed crops,** for the purpose of calculating the total final energy consumption in accordance with this law and the share of energy from renewable sources in the transport sector as defined in the National Energy and Climate Plan,
- The public authority responsible for environment protection **shall determine methodology for GHG savings** according to EC rules and methodology.
- The public authority responsible for environment protection **authorizes an accredited legal entity that meets the requirements for the purpose of assessing the compliance of biofuels and bioliquids with sustainability criteria and for supervision**. The Ministry can also authorise an entity from other state, if it meets the requirements. The aforementioned requirements will be prescribed by the Government.
- The Ministry keeps **record of verification and verified parties.** The Ministry will define the procedures for maintaining the register (data base), procedure for registration and removal from the register.
- The Government shall prescribe in more detail the sustainability criteria and greenhouse gas emission savings, the method of verification and verification entities, the requirements to be met by an accredited legal entity for verifying sustainability criteria, the procedures for checking compliance with the sustainability criteria for the recognition of biofuels, bioliquids, and biomass fuels for the purpose of contributing to the share, the reporting on compliance

with the sustainability criteria and greenhouse gas emission savings, the independent audit of information submitted in the reporting process, and other elements related to sustainability criteria and greenhouse gas emission savings.

Existing legislation and supporting information for enabling sustainability certification

The information below (Table 5) is primarily relevant in case of production of biofuels from agriculture or agricultural waste. It lists the information needed in the process of sustainability compliance verification and the status in Montenegro. The status should be consulted with indicated relevant authority.

The existence of this information is beneficial for easier establishment of compliance, but it is not essential. At the end, it is the responsibility of economic operator to obtain evidence to prove compliance regardless of its public availability.

Table 5-5 Status of the information relevant to sustainability criteria

Information	Status and availability in MNE
National information on soil quality and soil carbon (relevant for biomass fuels produced from residues derived from agricultural land)	Information availability: Unknown Relevant authority: Ministry of Agriculture, Forestry and Water Management
Woodland with no human intervention; natural and non -natural high biodiverse grasslands; wetlands; peatland; highly biodiverse forests and other woodland land that is species rich and not degraded	Information availability: Habitat map- Unknown Relevant authority: Ministry of Ecology, Sustainable Development and North region Development
Continuously forested areas, primary forest,	Information availability: Unknown Relevant authority: Ministry of Agriculture, Forestry and Water Management; Ministry of Ecology, Sustainable Development and North region Development
Designated areas for nature protection purposes; designated areas for protection of rare, threatened and endangered species recognised by international agreements (IUCN)	Information availability: Partly Relevant authority: Ministry of Ecology, Sustainable Development and North region Development[40]

[40] https://www.gov.me/uprava-za-vode/registar-zasticenih-podrucja; https://biodiversitymontenegro.me/interaktivna-mapa/

6.1.4. Recommendations

1. Consolidate and Clarify Obligations: Consolidate transport fuel rules into a coherent legal structure. The 2024 RES Law already covers many elements, but a dedicated "fuel suppliers' obligation" provision should be articulated in law or regulation. This could take the form of a Renewable Transport Fuels Obligation (RTFO), obliging suppliers to ensure that a specified share of the energy they sell in transport comes from verified renewable fuels. The obligation should be set in the law (see next section) and detailed in a subordinate regulation. As EU practice shows, clear primary-law mandates backed by implementing regulations yield better compliance.
2. Harmonize Definitions: Ensure consistent terminology across laws/regulations. The new RES Law defines terms like biofuel, bioliquid and advanced biofuels (*biogorivo*, *biotečnost*, *napredna biogoriva*)[41], which match EU definitions, but the older Regulation and Rulebook use slightly different definitions. Align all definitions (e.g. of biomass, biofuels categories, sustainability terms) explicitly with RED II and Energy Community terminology. This prevents legal uncertainty about which fuels qualify.
3. Integrate Energy and Environmental Laws: The sustainability criteria currently reside in Regulation (2018), which is likely to be repealed and the RES Law. It may be efficient to consolidate all biofuel sustainability rules in a single piece of legislation (new subordinate regulation).
4. Legislative Gaps and Supplements: Enact new regulations or amend existing ones to cover areas currently unaddressed. For instance, a regulation should explicitly require fuel suppliers to join the national fuel registry (follow further sections) and to obtain sustainability certificates for each batch of biofuel

[41] me.propisi.net me.propisi.net

brought to market. Penalties for non-registration or false reporting should be codified. Also, update the fuel quality *Rulebook* (2016) to explicitly permit and standardize biofuel blends (e.g., specify that E10 petrol and EN 590 diesel with up to X% FAME are compliant). EU fuel standards allow up to 10% ethanol; Montenegro should reference these values to avoid inadvertently banning common blends.

7. Conclusion

This Final Report for Montenegro sets out a pragmatic and legally grounded pathway to achieve RED II compliance in the transport sector by combining international best practice with measures tailored to Montenegro's market structure, institutional framework and administrative capacities. The analysis establishes that a tradable-certificate obligation, supported by the national Database for Biofuels and robust sustainability verification procedures.

Furthermore, report documents Montenegro's starting point; a largely import-dependent fuel market, modest current RES-T shares and a new RES Law that provides a sound primary-law basis, but it also identifies clear gaps that must be closed through secondary regulation.

The decisive next steps are adoption of the recommended secondary regulations, rapid deployment of the national registry and surveillance systems, and targeted capacity building for the supervisory authority, certification auditors and obligated market actors.

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