ISCC for RFNBOs: Certification Opportunities

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Online Webinar, 11th April 2025

ISCC
International Sustainability & Carbon Certification

01

Introduction to ISCC

02

RFNBOs Certification under ISCC

03

Projects and pilot audits under Meo Carbon Solutions

ISCC
International Sustainability & Carbon Certification

01

Introduction to ISCC

Who We Are

The International Sustainability and Carbon Certification (ISCC) is an independent multi-stakeholder initiative and leading certification system for sustainable, fully traceable, deforestation-free, and climate-friendly supply chains. Under our certification, we ensure environmentally, socially, and economically sustainable production.

ISCC at a glance

15+
Years experience of certifying global value chains

68,000+
Total Certificates issued

134
Total Countries

12,000+
Current System Users

2100+
Total ISCC Auditors trained

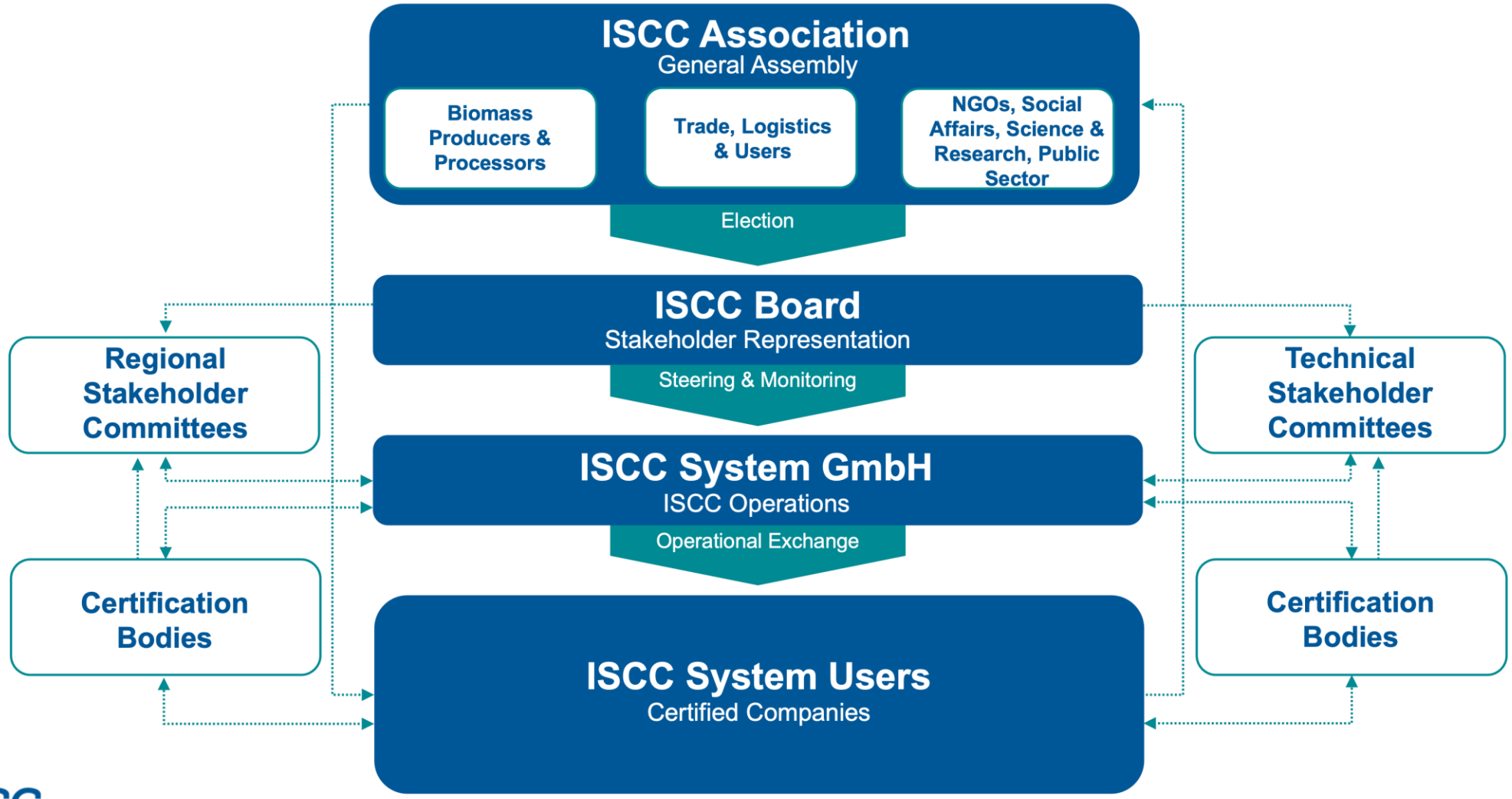
262+
ISCC training courses conducted

67
Current Cooperating certification bodies

310+
Current ISCC association members

Data as of March 2025

ISCC drives sustainability certification through a truly continuous stakeholder engagement



ISCC
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Active multi-stakeholder dialogue to cultivate innovative sustainability solutions

Commitment to sustainable, traceable, deforestation-free & climate-friendly supply chains

Continuously improving standards to meet global sustainability requirements

Further development of the circular economy and the bioeconomy

As of February 2025. A complete list of all ISCC Assocation Members can be found on the Membership List web page.

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02

RFNBOs Certification under ISCC

ISCC offers three main certification schemes – application depends on the target market

ISCC EU

- Recognized by the **European Commission**
- Scheme to demonstrate compliance with the **sustainability criteria** and **GHG emission savings of the Renewable Energy Directive**
- **Official recognition by the EU COM**

ISCC PLUS

- Application for **voluntary** and certain **regulated markets (other than RED)**
  - Industrial applications
  - Food and feed markets
  - Energy and biofuels outside the EU (e.g. Japan, Australia)
- P-t-X technologies can be **certified already today**

ISCC CORSIA

- Applicable for **sustainable aviation fuels under ICAO CORSIA**
- Demonstrate compliance with the **sustainability and GHG criteria for CORSIA eligible fuels**
- P-t-X technologies (e.g. eSAF) will be certifiable in the future (ISCC is involved in the relevant working groups)

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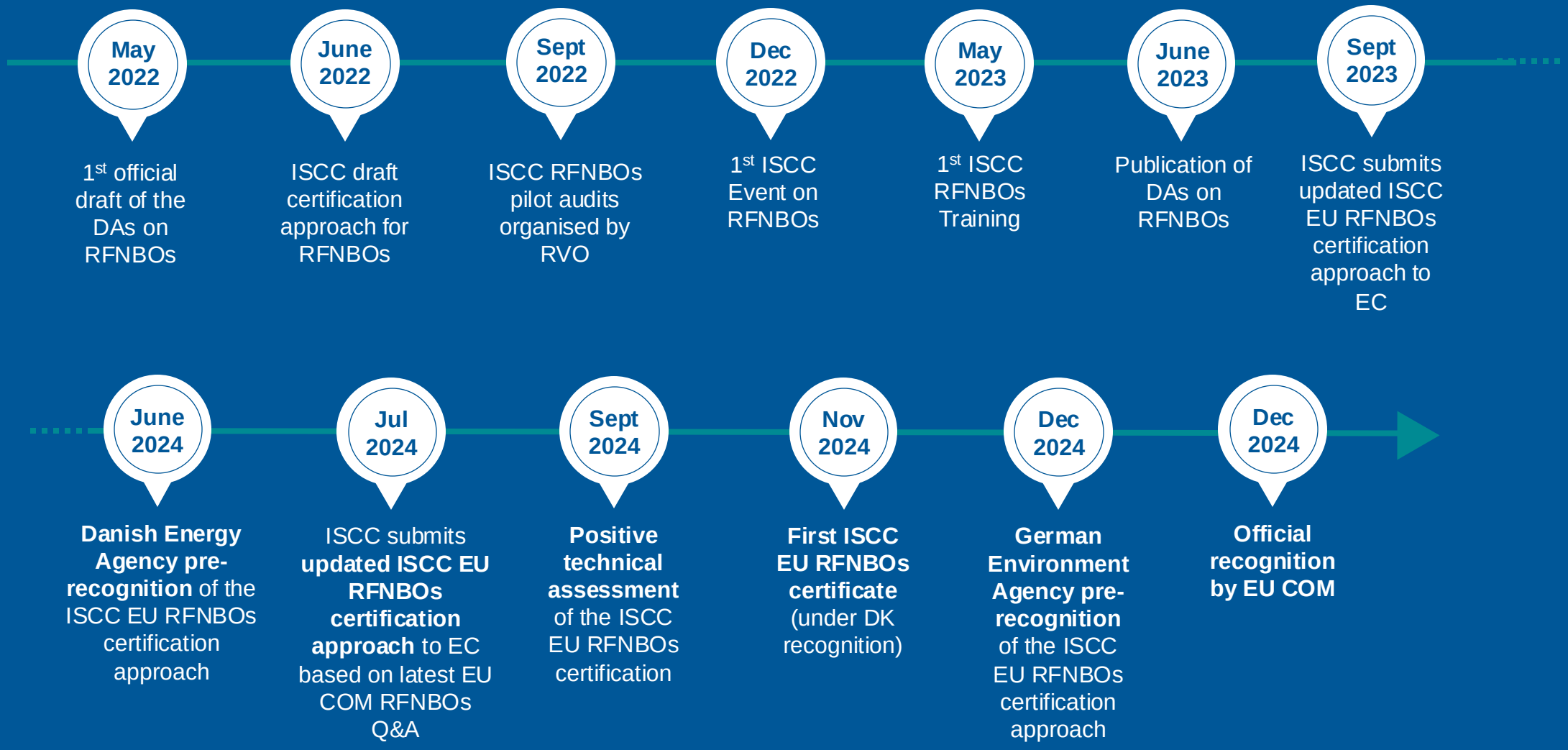
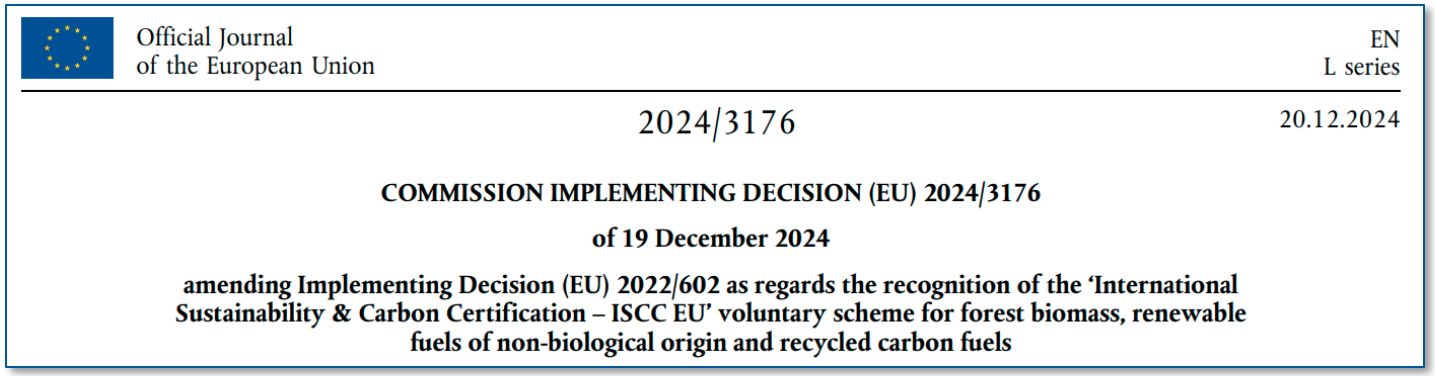
The ISCC RFNBOs timeline



EU COM officially recognised ISCC EU for the certification of RFNBOs and RCFs



Official Journal of the European Union

EN
L series

2024/3176

20.12.2024

COMMISSION IMPLEMENTING DECISION (EU) 2024/3176

of 19 December 2024

amending Implementing Decision (EU) 2022/602 as regards the recognition of the 'International Sustainability & Carbon Certification – ISCC EU' voluntary scheme for forest biomass, renewable fuels of non-biological origin and recycled carbon fuels

RECOGNITION

- Official **recognition in place as of 19th December 2024**
- Already **pre-recognized by Danish and German** authorities

CERTIFICATES AND PILOT AUDITS

- **5 certificates have been already issued** and many others in the pipeline
- **More than 20 pilot audits** have been conducted

STAKEHOLDER ENGAGEMENT

- **+120 Auditors trained** in **three ISCC RFNBOs Training**
- **+800 participants** in RFNBOs events and TCs RFNBOs

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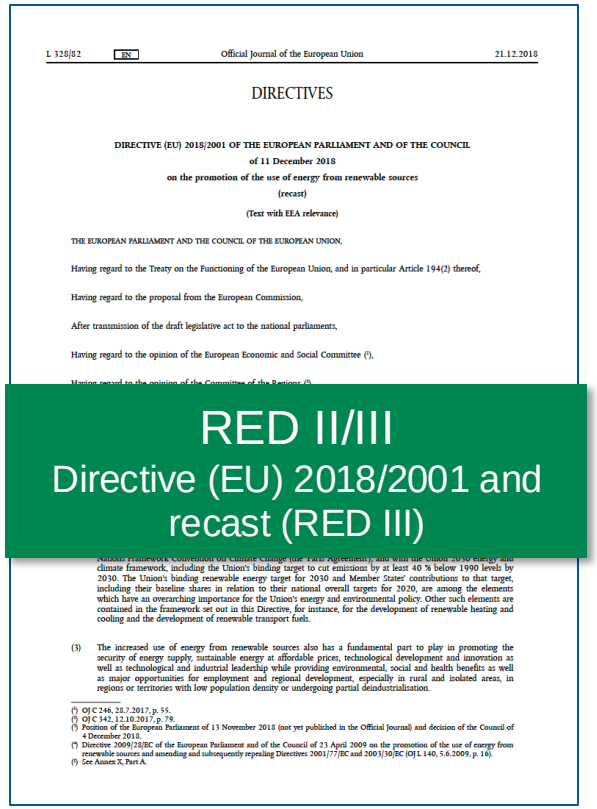
The regulatory framework in the RFNBOs context



L 328/82 EN Official Journal of the European Union 21.12.2018

DIRECTIVES

DIRECTIVE (EU) 2018/2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 11 December 2018
on the promotion of the use of energy from renewable sources
(recast)
(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

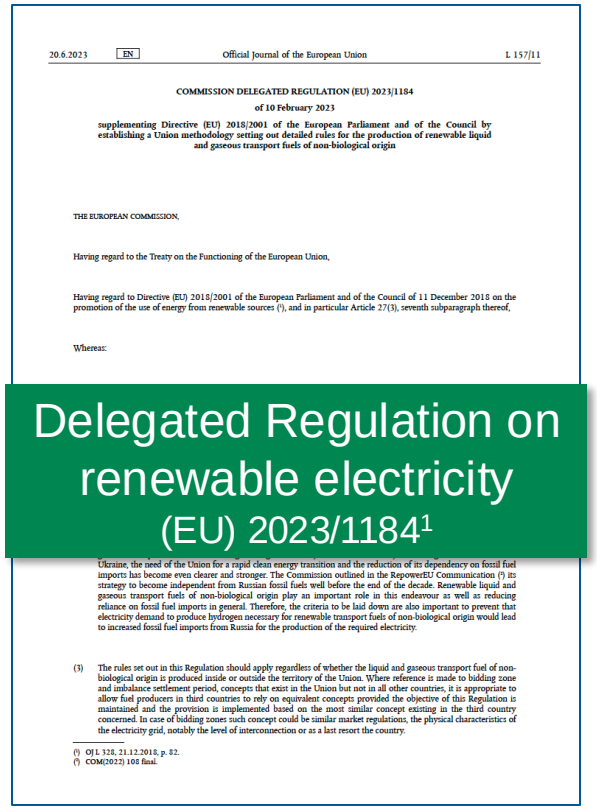
Having regard to the opinion of the European Economic and Social Committee (1),

climate framework, including the Union's binding target to cut emissions by at least 40 % below 1990 levels by 2030. The Union's binding renewable energy target for 2030 and Member States' contributions to that target, including their baseline shares in relation to their national overall targets for 2020, are among the elements which have an overarching importance for the Union's energy and environmental policy. Other such elements are contained in the framework set out in this Directive, for instance, for the development of renewable heating and cooling and the development of renewable transport fuels.

(3) The increased use of energy from renewable sources also has a fundamental part to play in promoting the security of energy supply, sustainable energy at affordable prices, technological development and innovation as well as technological and industrial leadership while providing environmental, social and health benefits as well as major opportunities for employment and regional development, especially in rural and isolated areas, in regions or territories with low population density or undergoing partial deindustrialisation.

(1) OJ C 246, 28.7.2017, p. 55.
(2) OJ C 342, 12.10.2017, p. 79.
(3) Position of the European Parliament of 13 November 2018 (not yet published in the Official Journal) and decision of the Council of 4 December 2018.
(4) Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16).
(5) See Annex X, Part A.

RED II/III
Directive (EU) 2018/2001 and recast (RED III)



20.6.2023 EN Official Journal of the European Union L 157/11

COMMISSION DELEGATED REGULATION (EU) 2023/1184
of 10 February 2023
supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (1), and in particular Article 27(3), seventh subparagraph thereof,

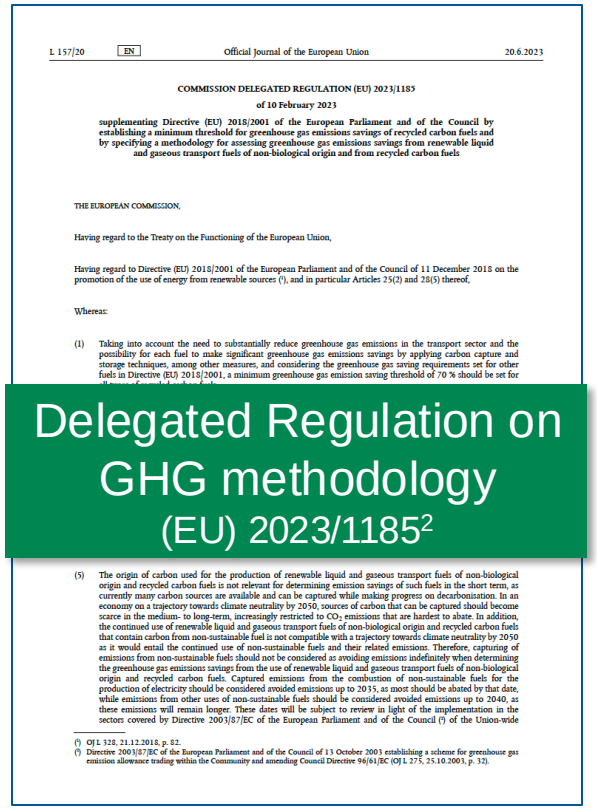
Whereas:

Ukraine, the need of the Union for a rapid clean energy transition and the reduction of its dependency on fossil fuel imports has become even clearer and stronger. The Commission outlined in the RepowerEU Communication (2) its strategy to become independent from Russian fossil fuels well before the end of the decade. Renewable liquid and gaseous transport fuels of non-biological origin play an important role in this endeavour as well as reducing reliance on fossil fuel imports in general. Therefore, the criteria to be laid down are also important to prevent that electricity demand to produce hydrogen necessary for renewable transport fuels of non-biological origin would lead to increased fossil fuel imports from Russia for the production of the required electricity.

(3) The rules set out in this Regulation should apply regardless of whether the liquid and gaseous transport fuel of non-biological origin is produced inside or outside the territory of the Union. Where reference is made to bidding zone and imbalance settlement period, concepts that exist in the Union but not in all other countries, it is appropriate to allow fuel producers in third countries to rely on equivalent concepts provided the objective of this Regulation is maintained and the provision is implemented based on the most similar concept existing in the third country concerned. In case of bidding zones such concept could be similar market regulations, the physical characteristics of the electricity grid, notably the level of interconnection or as a last resort the country.

(1) OJ L 328, 21.12.2018, p. 82.
(2) COM(2022) 108 final.

Delegated Regulation on renewable electricity
(EU) 2023/1184[1]



L 157/20 EN Official Journal of the European Union 20.6.2023

COMMISSION DELEGATED REGULATION (EU) 2023/1185
of 10 February 2023
supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and by specifying a methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (1), and in particular Articles 25(2) and 28(5) thereof,

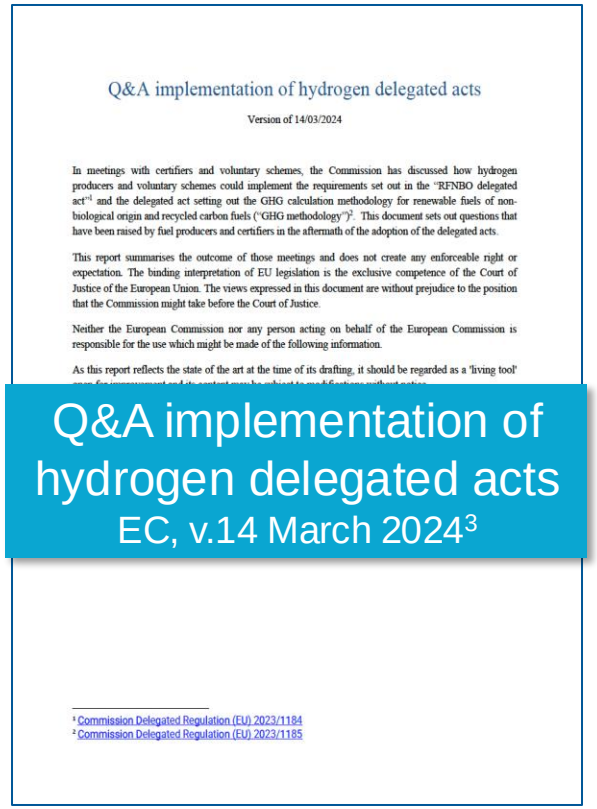
Whereas:

(1) Taking into account the need to substantially reduce greenhouse gas emissions in the transport sector and the possibility for each fuel to make significant greenhouse gas emissions savings by applying carbon capture and storage techniques, among other measures, and considering the greenhouse gas saving requirements set for other fuels in Directive (EU) 2018/2001, a minimum greenhouse gas emission saving threshold of 70 % should be set for

(5) The origin of carbon used for the production of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels is not relevant for determining emission savings of such fuels in the short term, as currently many carbon sources are available and can be captured while making progress on decarbonisation. In an economy on a trajectory towards climate neutrality by 2050, sources of carbon that can be captured should become scarce in the medium- to long-term, increasingly restricted to CO_2 emissions that are hardest to abate. In addition, the continued use of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels that contain carbon from non-sustainable fuel is not compatible with a trajectory towards climate neutrality by 2050 as it would entail the continued use of non-sustainable fuels and their related emissions. Therefore, capturing of emissions from non-sustainable fuels should not be considered as avoiding emissions indefinitely when determining the greenhouse gas emissions savings from the use of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels. Captured emissions from the combustion of non-sustainable fuels for the production of electricity should be considered avoided emissions up to 2035, as most should be abated by that date, while emissions from other uses of non-sustainable fuels should be considered avoided emissions up to 2040, as these emissions will remain longer. These dates will be subject to review in light of the implementation in the sectors covered by Directive 2003/87/EC of the European Parliament and of the Council (1) of the Union-wide

(1) OJ L 328, 21.12.2018, p. 82.
(2) Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

Delegated Regulation on GHG methodology
(EU) 2023/1185[2]



Q&A implementation of hydrogen delegated acts

Version of 14/03/2024

In meetings with certifiers and voluntary schemes, the Commission has discussed how hydrogen producers and voluntary schemes could implement the requirements set out in the "RFNBO delegated act"[1] and the delegated act setting out the GHG calculation methodology for renewable fuels of non-biological origin and recycled carbon fuels ("GHG methodology")[2]. This document sets out questions that have been raised by fuel producers and certifiers in the aftermath of the adoption of the delegated acts.

This report summarises the outcome of those meetings and does not create any enforceable right or expectation. The binding interpretation of EU legislation is the exclusive competence of the Court of Justice of the European Union. The views expressed in this document are without prejudice to the position that the Commission might take before the Court of Justice.

Neither the European Commission nor any person acting on behalf of the European Commission is responsible for the use which might be made of the following information.

As this report reflects the state of the art at the time of its drafting, it should be regarded as a 'living tool'

[1] Commission Delegated Regulation (EU) 2023/1184
[2] Commission Delegated Regulation (EU) 2023/1185

Q&A implementation of hydrogen delegated acts
EC, v.14 March 2024[3]

[1] (EU)2023/1184 delegated regulation on establishing a Union methodology setting out detailed rules for the production of RFNBOs
[2] (EU)2023/1185 delegated regulation on establishing a minimum threshold for GHG savings of recycled carbon fuels and by specifying a methodology for assessing GHG savings from RFNBOs and from recycled carbon fuels
[3] "Q&A Implementation of hydrogen delegated acts" v.14/03/2024, available at: https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en#approved-voluntary-schemes-and-national-certification-schemes. Note: This report summarises the outcome of stakeholder meetings and does not create any enforceable right or expectation.

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Principles to count electricity for RFNBO production as renewable

Renewability	The electricity must be produced exclusively from renewable sources excluding bioenergy: • Rules if electricity is sourced from direct connection between electricity and RFNBO installation • Rules to count electricity taken from the grid as fully renewable

To prevent increased electricity production from fossil sources the production of RFNBOs should…

Additionality	…Incentivise **additional deployment of renewable electricity capacity** for RFNBO production
Temporal correlation	**…Take place at times when renewable electricity is available** (i.e. when the RFNBO production supports the integration of renewable power generation into the electricity system and reduces the need for dispatching renewable electricity)
Geographical correlation	**…Take place in places where renewable electricity is available** (i.e. the electrolyser and the installation production renewable electricity should be located in the same or interconnected bidding zone)

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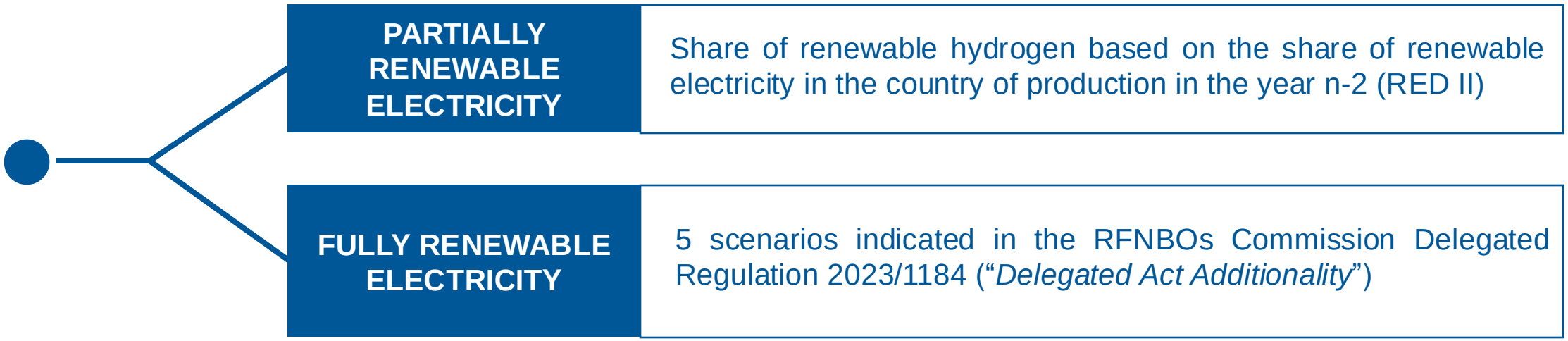
Options to source (fully) renewable electricity



50 MWh
FULLY RENWABLE ELECTRICITY

50 MWh of electricity form the grid with a 45% renewable share (**22.5 MWh**)

→ **ELECTROLYSER** →

72.5% of RFNBOs-H_2

Please note that achieving the minimum GHG threshold (70%) applies to the overall hydrogen output (see the GHG Methodology presentation for more info)

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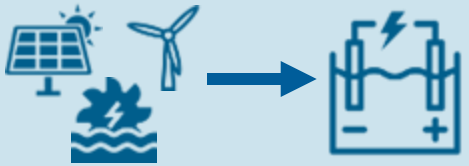
Depending on the connection, five possible scenarios can be envisioned

1. Direct connection



Grid connection

- 2. >90% RES
- 3. <18 gCO_2eq/MJ
- 4. Imbalance settlement period
- 5. Electricity from the grid with further requirements

Principles / Criteria (where applicable)

- Renewability
- Additionality +
- Temporal correlation
- Geographical correlation

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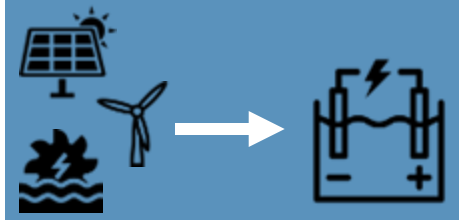
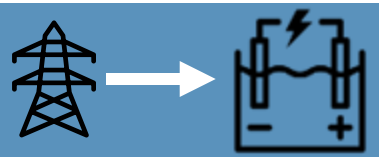
Options overview

	1. Direct connection 	2. Grid connection 			
		(2) >90% RES	(3) <18 gCO_2eq/MJ	(4) Imbalance settlement period	(5) Electricity from the grid with further requirements
Additionality +	✓*	✗	✗	✗	✓
Temporal correlation	✗	✗	✓	✗	✓
Geographical correlation	✗	✗	✓	✗	✓
Renewable PPA	✗	✗	✓	✗	✓

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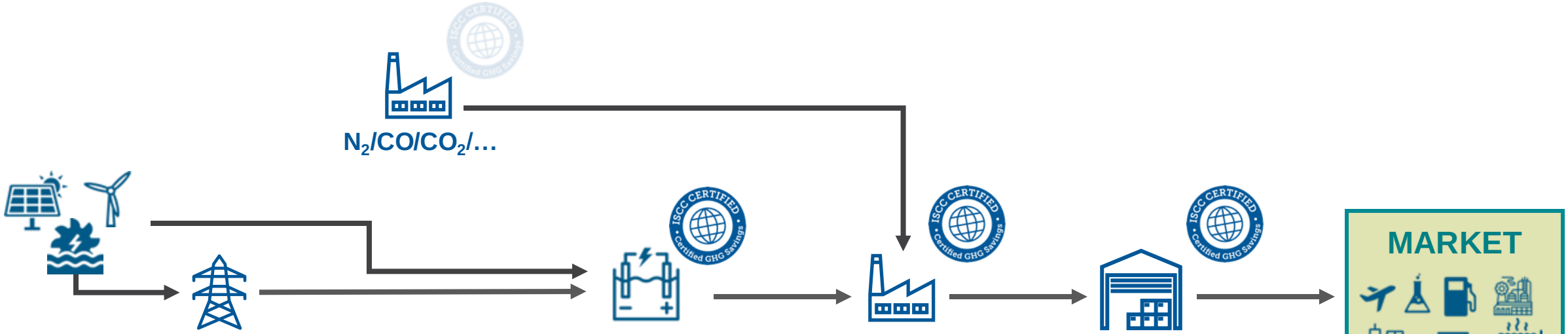
The supply chain shall be covered by certification – certification scopes reflect the operations of the economic operators



SCOPE	Renewable Electricity Unit	Point of Origin (+ Processing Unit, if applicable)	Electrolyzer (Processing Unit)	Processing Unit (+ Collecting Point, if applicable)	Trader w/o Storage
OUTPUT			Hydrogen (RFNBOs)	Methanol, Ammonia, … (RFNBOs)	Methanol, Ammonia, … (RFNBOs)

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GHG emissions shall be calculated as per:

$$E = e_i + e_p + e_{td} + e_u - e_{ccs}$$

Where:

E = total emissions from the use of the fuel in g CO_2/MJ

e_i = $e_{i\ elastic} + e_{i\ rigid} - e_{ex\text{-}use}$: supply of inputs

- $e_{i\ elastic}$ = emissions from elastic inputs
- $e_{i\ rigid}$ = emissions from rigid inputs
- $e_{ex\text{-}use}$ = emissions from inputs' existing use or fate

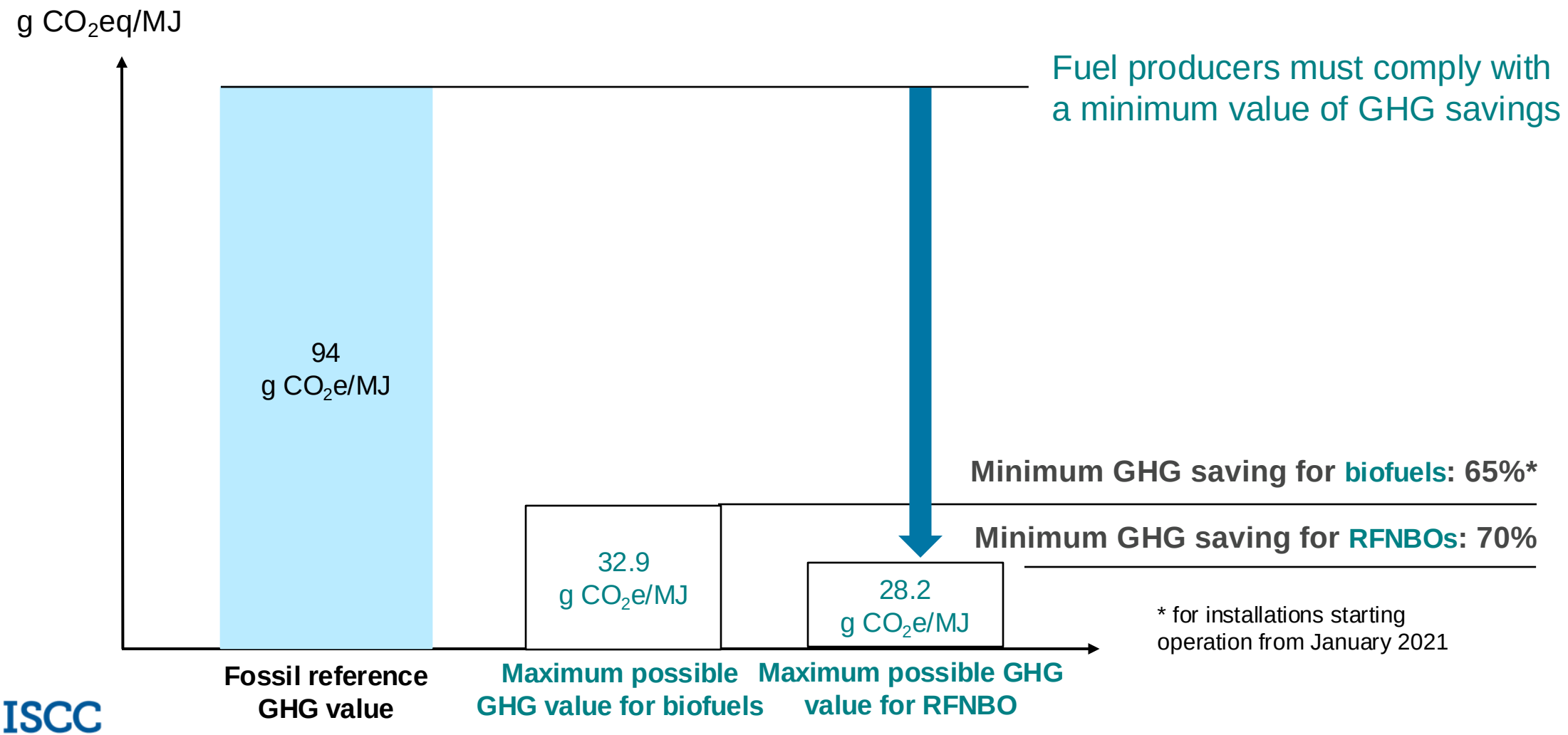
e_p = emissions from processing

e_{td} = emissions from transport and distribution

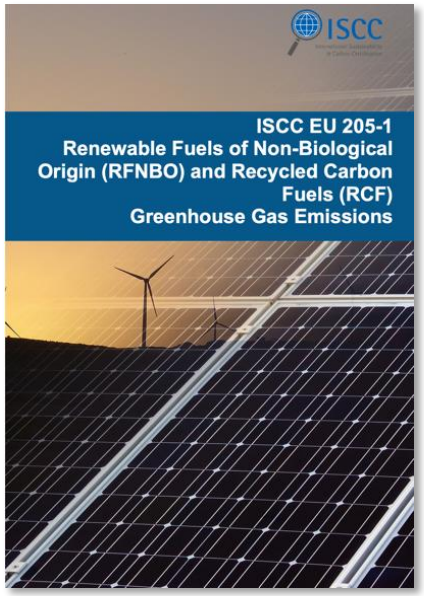
e_u = emissions from combusting the fuel

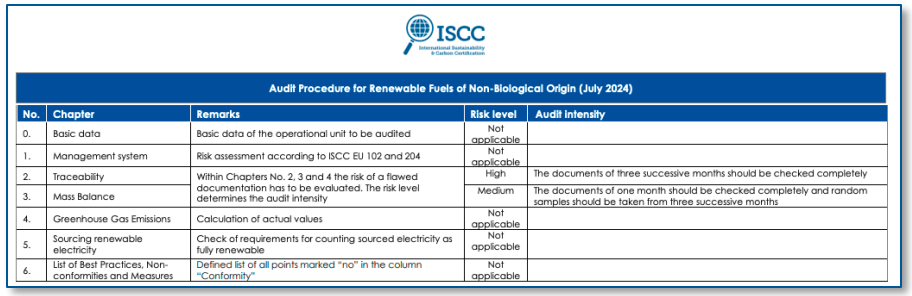
e_{ccs} = emission savings from carbon capture and geological storage

Minimum GHG savings for RFNBOs are 70%



ISCC is fully ready to certify RFNBOs under the ISCC EU scheme – guidance documentation and procedures are in place





ISCC

Audit Procedure for Renewable Fuels of Non-Biological Origin (July 2024)				
No.	**Chapter**	**Remarks**	**Risk level**	**Audit intensity**
0.	Basic data	Basic data of the operational unit to be audited	Not applicable	
1.	Management system	Risk assessment according to ISCC EU 102 and 204	Not applicable	
2.	Traceability	Within Chapters No. 2, 3 and 4 the risk of a flawed documentation has to be evaluated. The risk level determines the audit intensity	High	The documents of three successive months should be checked completely
3.	Mass Balance		Medium	The documents of one month should be checked completely and random samples should be taken from three successive months
4.	Greenhouse Gas Emissions	Calculation of actual values	Not applicable	
5.	Sourcing renewable electricity	Check of requirements for counting sourced electricity as fully renewable	Not applicable	
6.	List of Best Practices, Non-conformities and Measures	Defined list of all points marked "no" in the column "Conformity"	Not applicable	

- **Documentation in place to support and guide across requirements**:
  - Tailored ISCC EU RFNBOs System documents
  - Tailored Audit Procedures
  - Traceability documents (e.g. PoS)
  - Upcoming Q&A on RFNBOs certification on our website
- **Other ISCC EU System Documents** (e.g. on traceability and Chain-of-Custody) **apply**

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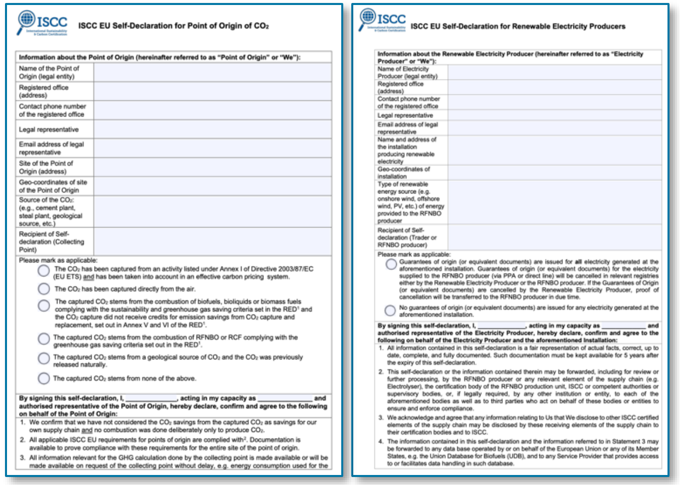
Traceability documents - Overview

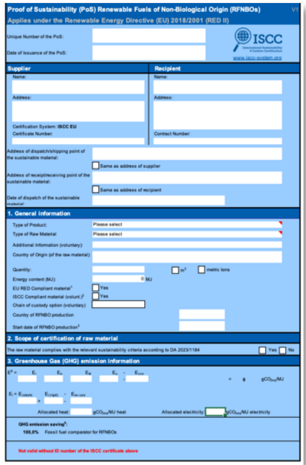
Self-Declaration


ISCC EU Self-Declaration for Point of Origin of CO_2

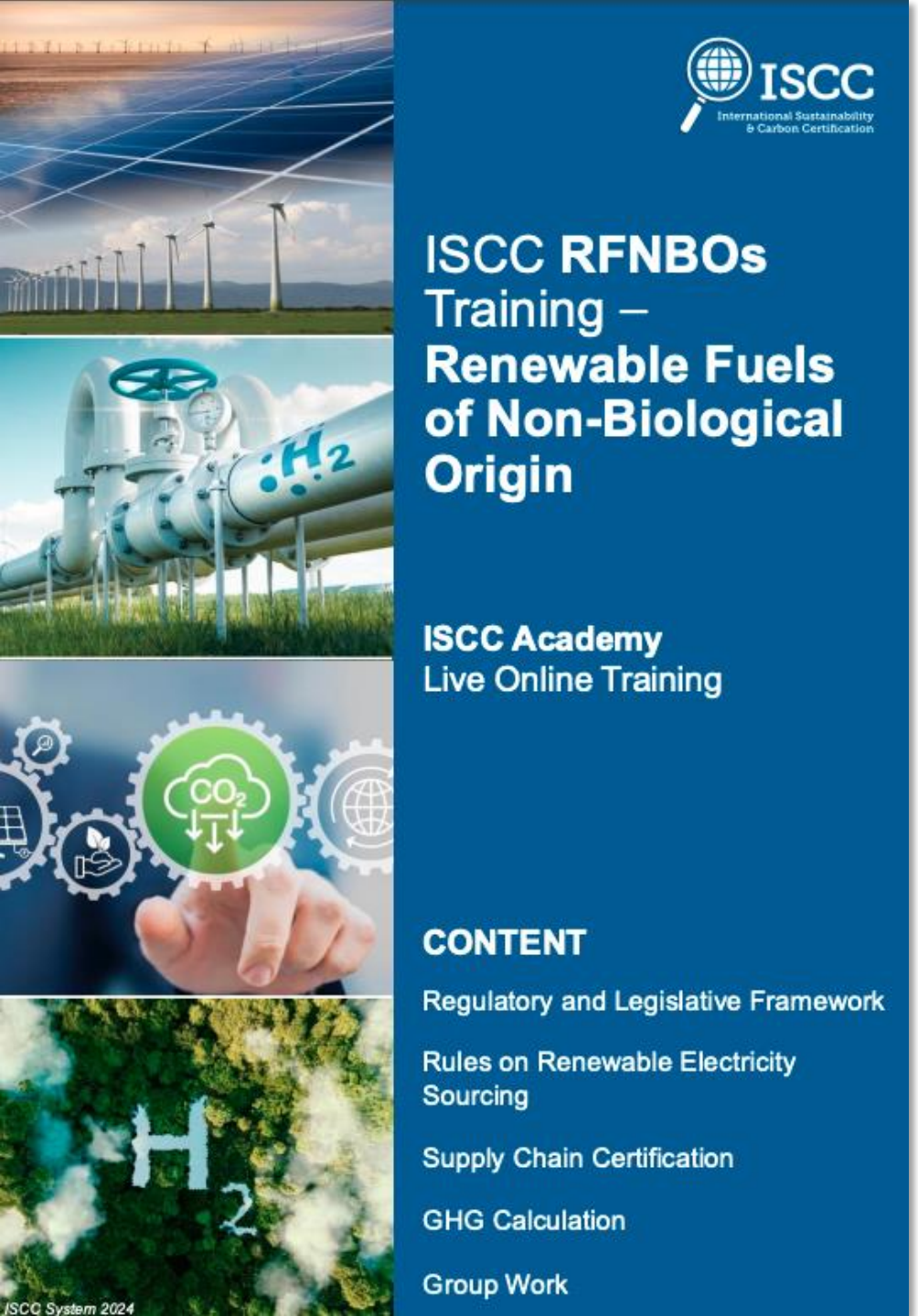
ISCC EU Self-Declaration for Renewable Electricity Producers

- Must be provided by **non-certified RE plants or CO_2 PoO**
- Info on electricity and CO_2 sourcing
- **Information content and layout mandatory**

Proof of Sustainability (PoS)


Proof of Sustainability (PoS) Renewable Fuels of Non-Biological Origin (RFNBOs)

- Guarantees **traceability** along the whole supply chain under ISCC
- Every batch of sustainable material must be accompanied by a traceability document, either **SD or PoS**
- Final producer unit needs to fill out the **PoS**
- **Information content mandatory, layout voluntary**



ISCC RFNBOs Training

- ISCC has already succesfully delivered **four ISCC RFNBOs Trainings**
- **ISCC RFNBOs Training is mandatory** (participation + test) for auditors wishing to audit RFNBOs economic operators*
- A total of **+120 auditors** are now in the position to **conduct audits in the ISCC EU RFNBOs space**
- Next training scheduled on **13 November 2025**

*Please note: The successful participation in the three-day course ISCC EU Training is a mandatory requirement for all auditors before they can conduct audits under ISCC.

ISCC Technical Stakeholder Committee on RFNBOs

- ISCC has already sucesfully organized **one RFNBOs Event and two Technical Stakeholder Meetings on RFNBOs**, with more than 10 external speakers
- Overall, **880+ individuals** participated to those events
- Invited speakers **from policy-makers, company associations, economic operators**
- Topics presented and discussed:
  - Regulatory framework developments
  - Experience from pilot audits & official audits

ISCC registration and certification process – certificate validity is 12 months

Step 1
Company registers with ISCC as System User

- A **certification contract** between system user and certification body is required

Step 2
Company prepares for the audit

- **ISCC Audit Procedures** can be used for audit preparation

Step 3
CB conducts the audit

- The auditor **verifies compliance** with ISCC requirements

Step 4
CB issues the certificate

- **ISCC publishes the certificate** and the Summary Audit Report on the ISCC website

ISCC International Sustainability & Carbon Certification

15 YEARS OF EXPERIENCE IN THE CERTIFICATION OF SUSTAINABLE FUELS AND PRODUCTS

ISCC IS WORKING IN DEVELOPING CERTIFICATION APPROACHES FOR NEW MARKETS AND FRAMEWORKS (e.g. IMO)

ISCC OFFERS CERTIFICATION SCHEMES USED BY ALL RELEVANT PLAYERS IN MANY DIFFERENT MARKETS

MANY COMPANIES BENEFITED FROM PILOT AUDITS TO CHECK CERTIFICATION ELIGIBILITY

RFNBOs ARE NOW CERTIFIABLE UNDER THE ISCC EU SCHEME

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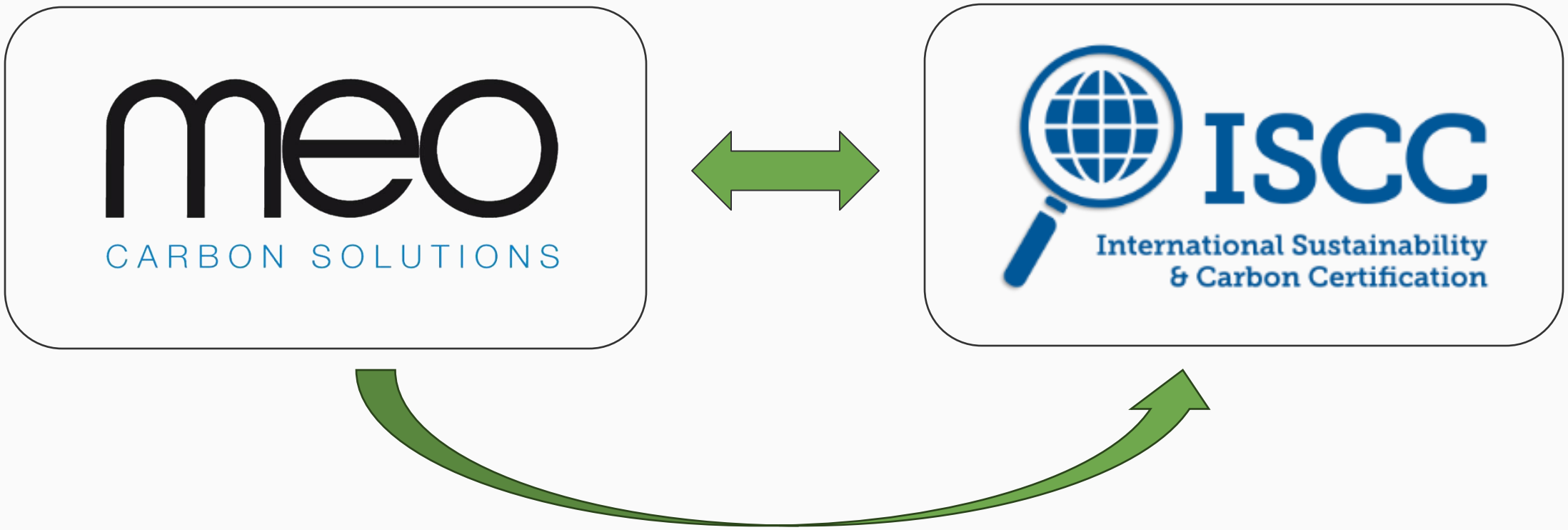
ISCC
International Sustainability & Carbon Certification

03

Projects and pilot audits under Meo Carbon Solutions

Meo Carbon Solutions is closely linked to ISCC



GRAS
Global Risk Assessment Services

4C

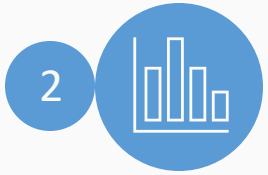
ClimatePal

meo
CARBON SOLUTIONS

MCS solutions for pilot projects

Support on ISCC Certification

- Certification concept development
- Workshop tailored to company's supply chain, covering all requirements for ISCC certification



GHG Calculator development or review

- Assessment of the supply chain with regards to EU regulations
- Data request template and data collection
- Development of GHG calculator

Pilot Audit

- Preparation of audit procedure & document checklist
- Support during a pilot audit by a 3rd party certification body
- Gap analysis report

No ISCC certificate is issued from a pilot audit

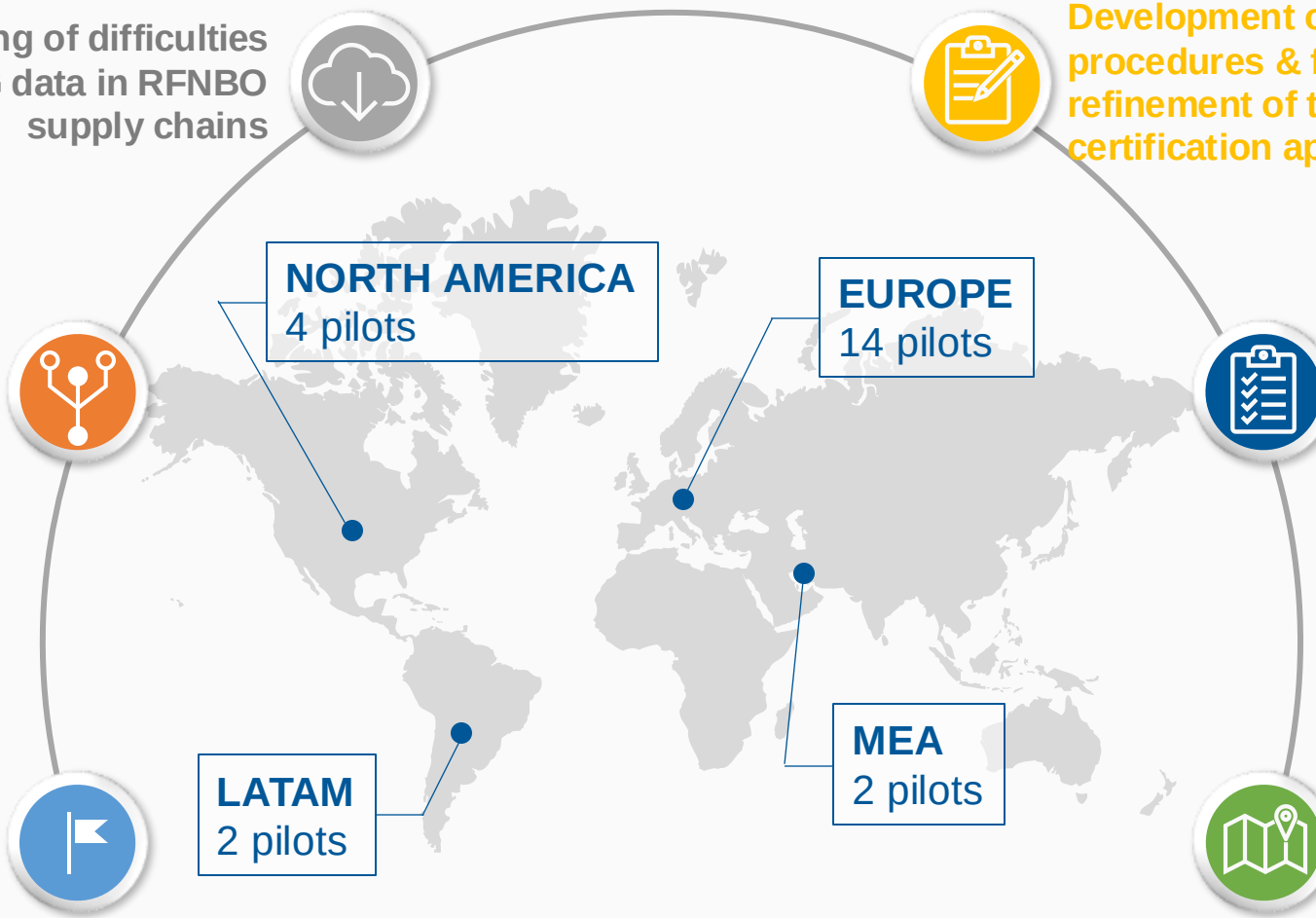
meo CARBON SOLUTIONS

Numerous pilot audits/projects in the RFNBOs & RCFs space have been succesfully conducted

Better understanding of difficulties on providing GHG data in RFNBO supply chains

Development of audit procedures & further refinement of the ISCC EU certification approach

Understanding electricity market in different countries (e.g.: GoOs, bidding zones)



Benefits for partner company:

- Deep understanding of the requirements
- Checklists for audit preparation
- Clarification on GHG questions

Improvement data request for ISCC traceability documents

Next: definition of bidding zones outside of the EU Member States

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Pilots serve as a knowledge transfer to ISCC, supporting the build up of a robust ISCC EU RFNBOs certification system

- Improvement of renewable electricity self-declaration and direct testing of audit procedures
- **Development of audit procedures and scope for hydrogen used as an intermediate**
- Understanding of the electricity market in different countries (GoOs in each MS, bidding zones outside of MSs, redispatch)
- Development of minimum requirements for PPAs
- Better understanding of system users challenges on providing required information in RFNBO supply chains (e.g. GHG calculation)
- Next: Definition of bidding zones outside of Member States

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Thank you!

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