

RHO



Information Session

13th Nov 2025

(Ref:457-25P1540)

TODAY'S AGENDA



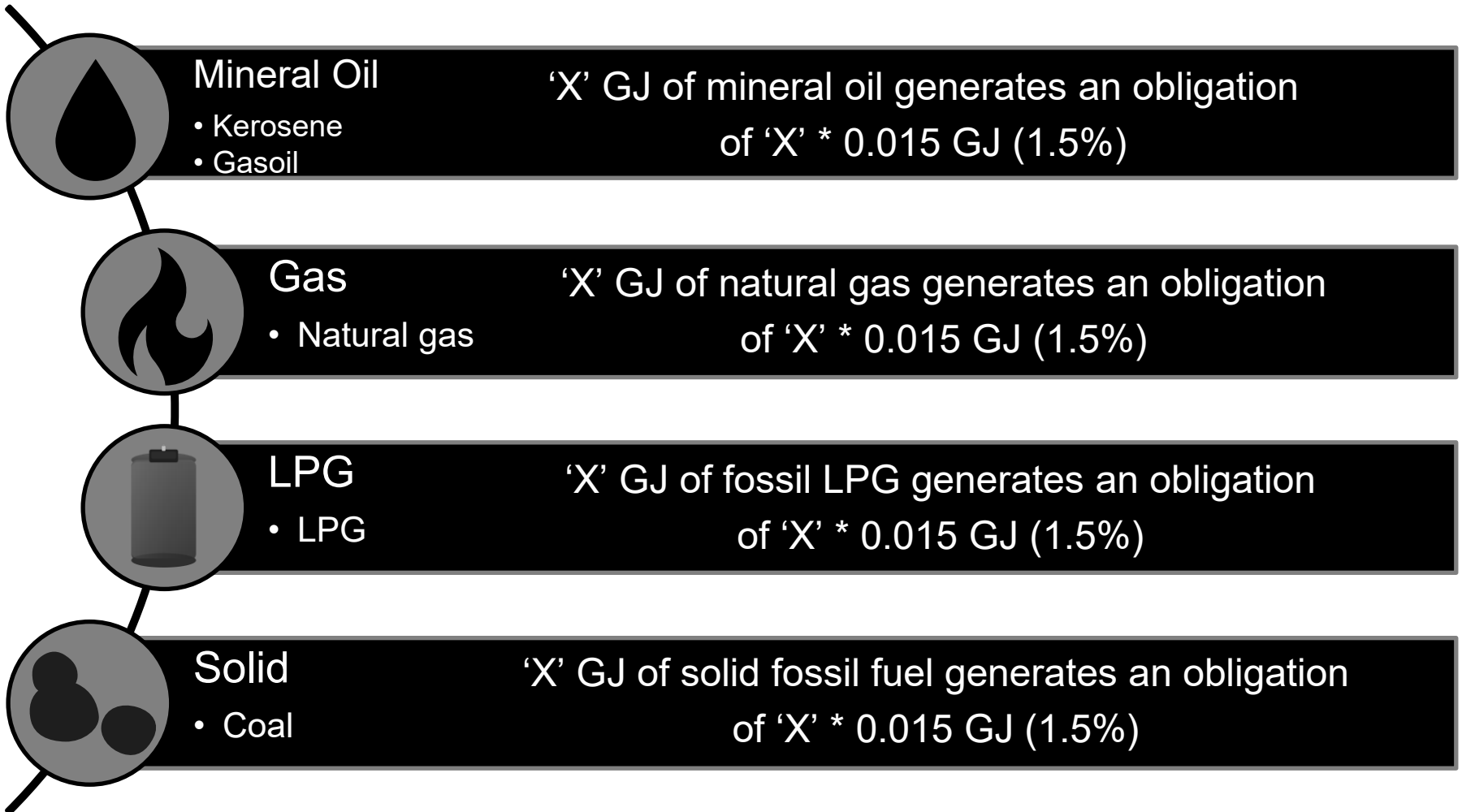
- Obligation
- RHO Certificates
- Data
- RHO portal
- Sustainability
- Verification

Take questions at the end, and can use chat to record questions during the presentation.

OBLIGATION

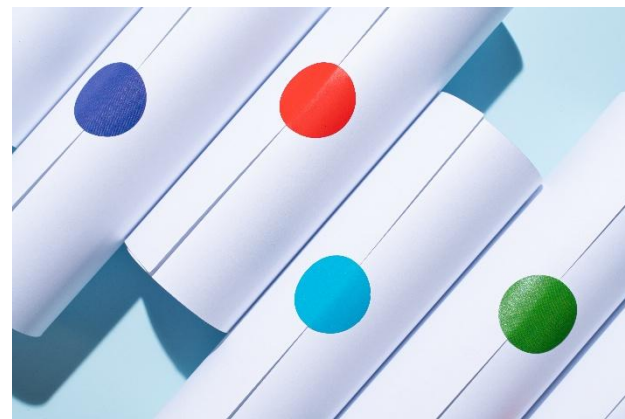
- Based on the amount of fossil energy supplied to produce HEAT
- Any form of heat, e.g. process heat in an industrial facility or space heat in a residential setting
- Fossil fuels: natural gas, coal, kerosene, LPG, etc
- Proposed threshold for fuel suppliers of 400 GWh (1,440 TJ, 40 million litres of gasoil).
- Fuel suppliers with liability for payment of excise duty or other Government levies on the supply of fossil fuels for heat generation
 - Mineral oil & LPG – NORA Levy liable
 - Gas – gas supplier licensed (domestic and/or business)
 - Solid

OBLIGATIONS



RHO CERTIFICATES

- The obligation is 'discharged' by surrendering RHO Certificates
- Bioliquid Certs, e.g.:
 - HVO
 - Biogasoil
 - Biokerosene
- BioLPG Certs
- Biogas Certs, e.g.:
 - Biomethane (gaseous or liquid)
 - H₂
- Biomass Certs, e.g.:
 - Woodchips



RHO CERTIFICATES

- Bioliquid Certificates: 1 liquid Cert =  1 GJ
- Sustainable liquid fuels
 - Satisfy the sustainability and GHG emissions savings criteria

Fuel Type	Year facility producing bioliquid began operating	GHG saving required compared to fossil fuel comparator	Maximum GHG emissions gCO _{2eq} /MJ fuel	Maximum GHG emissions gCO _{2eq} /MJ heat ($\eta_h=85\%$)
Bioliquids  HVO  Bio kero  Bio gasoil	before 6/10/2015	50%	34	40
	6/10/2015 to 31/12/2020	60%	27	32
	from 1/1/2021	65%	24	28

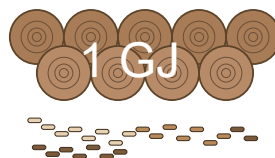
RHO CERTIFICATES

- Gaseous Certificates: 1 gas Cert =  or 1.5 gas Certs =  **Indigenous**
- Sustainable gaseous biomass fuels
 - Satisfy the sustainability and GHG emissions savings criteria

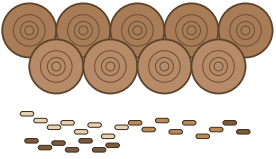
Fuel Type	Year installation producing heat began consuming gaseous biomass fuels	GHG saving required compared to fossil fuel comparator	Maximum GHG emissions gCO _{2eq} /MJ fuel	Maximum GHG emissions gCO _{2eq} /MJ heat ($\eta_h=85\%$)
Gaseous biomass fuels  	before 1/1/2021	80% after 15 years in operation, or from 1 Jan '26	13.6	16
	1/1/2021 to 20/11/2023	1-15 years – 70% >15 years – 80%	20.4 13.6	24 16
	from 20/11/2023	80%	13.6	16

RHO CERTIFICATES

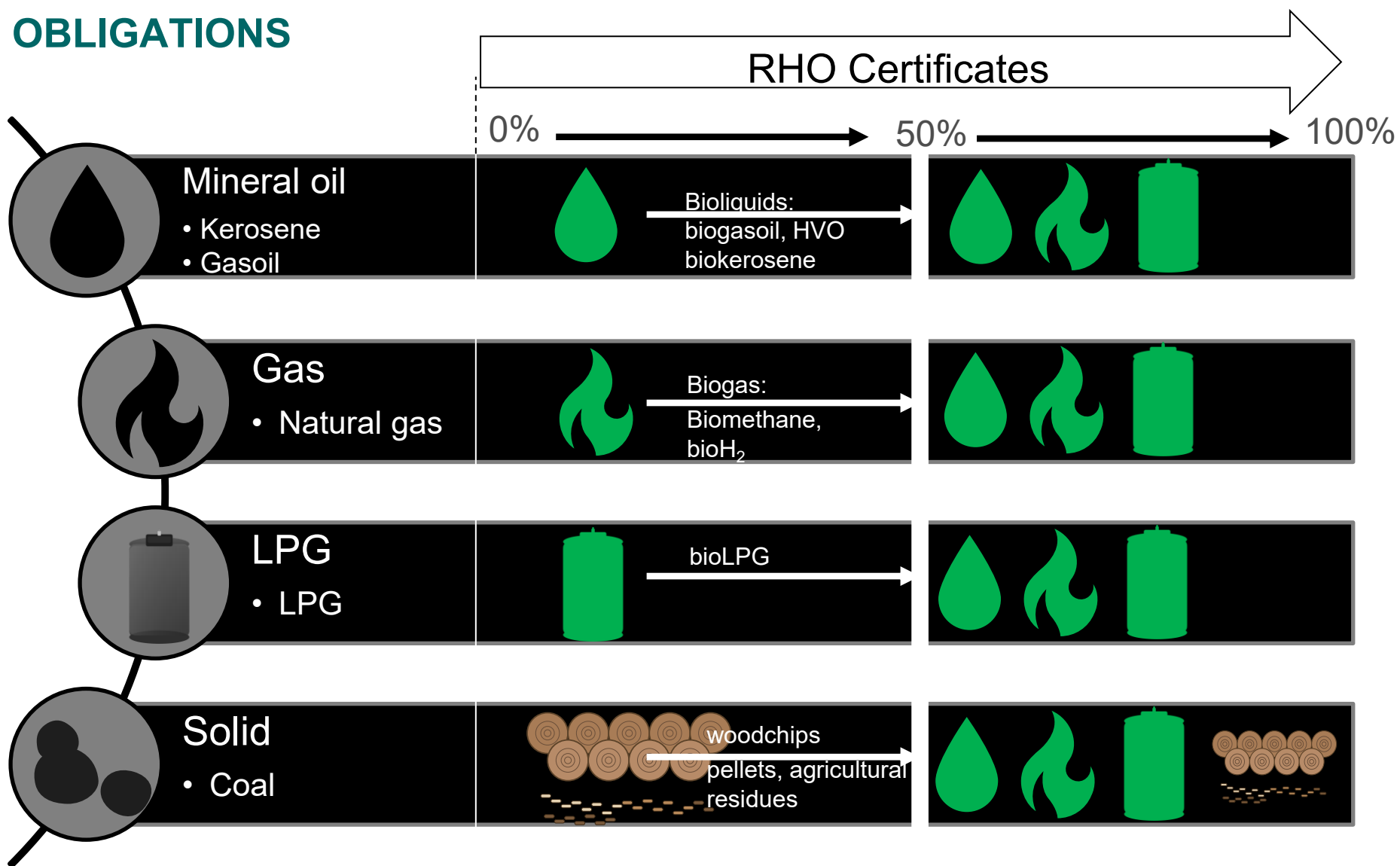
- Solid Certificates: 1 solid Cert =
- Sustainable solid fuels



- Satisfy the sustainability and GHG emissions savings criteria

Fuel Type	Year installation producing heat began consuming gaseous biomass fuels (> 10 MW)	GHG saving required compared to fossil fuel comparator	Maximum GHG emissions gCO _{2eq} /MJ fuel	Maximum GHG emissions gCO _{2eq} /MJ heat (η _h =85%)
Biomass fuels  Woodchips, pellets, agricultural residues	before 1/1/2021	80% after 15 years in operation, or from Jan '26 or Jan '30	13.6	16
	1/1/2021 to 20/11/2023	Until '30 = 70% 80% thereafter	20.4 13.6	24 16
	from 20/11/2023	80%	13.6	16

OBLIGATIONS



RHO CERTS

- Can carry over all Certs not discharged against annual obligation, but
 - Certs only remain valid for the two years thereafter, and
 - Discharge limit on Certs from previous period is 15%
- Buy-out per GJ shortfall
- Not interchangeable with RTFO Certs
- Only Certs on your account can be discharged – there is a transfer deadline in March

DIFFERENCES WITH RTFO

- Lots of similarities with RTFO, but NO:
 - advance obligation
 - high ILUC-risk allowed (no palm oil)
 - RFNBO target
 - determinations – all renewable fuels proven to be sustainable receive Certs
 - ? about crop cap

DATA FLOW – MINERAL OIL



- Liquid & LPG
- Renewable substitutes (biodiesel, HVO, bioethanol, etc)
- Online Levy Application (OLA) system – DCEE owned

		Gasoline		Kerosene	Gas oil		Diesel		Fuel Oils
		Unblended petrogasoline	Unblended bioethanol	Kero.	Gas oil 1,000 ppm sulphur	Bio-diesel for use as gas oil	Unblended petrodiesel	lended dies 6 Bio-diesel element	HFO
	Litres								
A	Opening stock in beneficial ownership (Output from FORM 4)	1,261,916	1,606,077	2,672,686	7,984,731	0	5,403,413	0	4,785,721
B	Imports (Output from FORM 6)	10,214,544	0	11,577,412	0	0	12,790,016	0	3,680,141
C	Purchases from listed parties (Output from FORM 2A)	0	0	0	0	0	0	0	0
D	Levy paid purchases from listed parties (Output from FORM 2B)	0	0	0	0	0	0	0	0
E	Exports (Output from FORM 7)	0	0	0	0	0	0	0	80,177
F	Biofuels produced								
G	Transformation		0	-4,051,625	851,989		-851,989		
H	Own consumption				0				0
I	Closing stock in beneficial ownership (Output from FORM 5)	2,757,248	1,288,317	3,245,443	673,721	0	3,964,238	0	4,615,415
J	Sales (calculated)	8,719,212	317,760	6,953,030	8,162,999	0	13,377,202	0	3,770,270
K	Total sales (observed)	8,707,975	317,760	6,963,090	8,137,207		13,386,308		3,787,602
L	Statistical difference (calculated)	11,237	0	10,060	25,792	0	9,106	0	17,332
M	Sales to listed parties (Output from FORM 3A)	4,637,305	168,214	1,958,883	1,571,725	0	6,071,871	0	0
N	Levy paid sales to listed parties (Output from FORM 3B)	0	0	0	0	0	0	0	0
O	Marine bunkers				1,566,591				2,083,193
P	Aviation fuels								
Q	Total levy liability in litres (calculated)	4,070,670	149,546	5,004,207	4,998,891		7,314,437	0	1,704,409
R	Total levy liability in € (calculated)	81,413.40	2,990.92	100,084.14	99,977.82		146,288.74	0.00	34,088.18

DATA FLOWS – MINERAL OIL



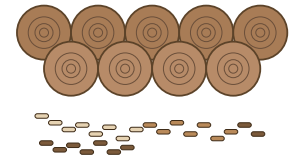
- Kerosene
 - All heating kerosene in RHO
 - Jet kerosene in RTFO and ReFuelEU Aviation
- Gasoil (fossil & renewable) – preliminary
 - Excluded:
 - Domestic navigation & international marine bunkers
 - Gasoil for power generation
 - Included:
 - All remaining gasoil (fossil & renewable) for RHO
- Consequence, may discontinue 80:20 allocation and no RTFO Certs for HVO/biodiesel supplied to NRMM
- RTFO Certs only for biofuel supplied to domestic navigation and international marine

DATA FLOWS – NATURAL GAS



- Fossil & renewable (liquid & gaseous)
- Some renewable gas suppliers already report via OLA for RTFO
- All natural gas via OLA? Would integrate with existing process for administering the NORA Levy – an RHO Levy will be payable (Head 20 - €0.001 per litre of renewable heating fuel, c. €0.10 per MWh. Est. total RHO Levy = c. €75k)
- Discussing data verification / access with GNI
- Report monthly data on quantities supplied for heat.
- Will know quantities supplied for transport and large scale power generation.
- Assume remainder is for heat.
- CHP being examined

DATA FLOWS – SOLID FUELS



- Fossil & renewable
- Do not have an existing data gathering/reporting system
- Appreciate engagement with solid (fossil & renewable) fuel suppliers



RHO PORTAL

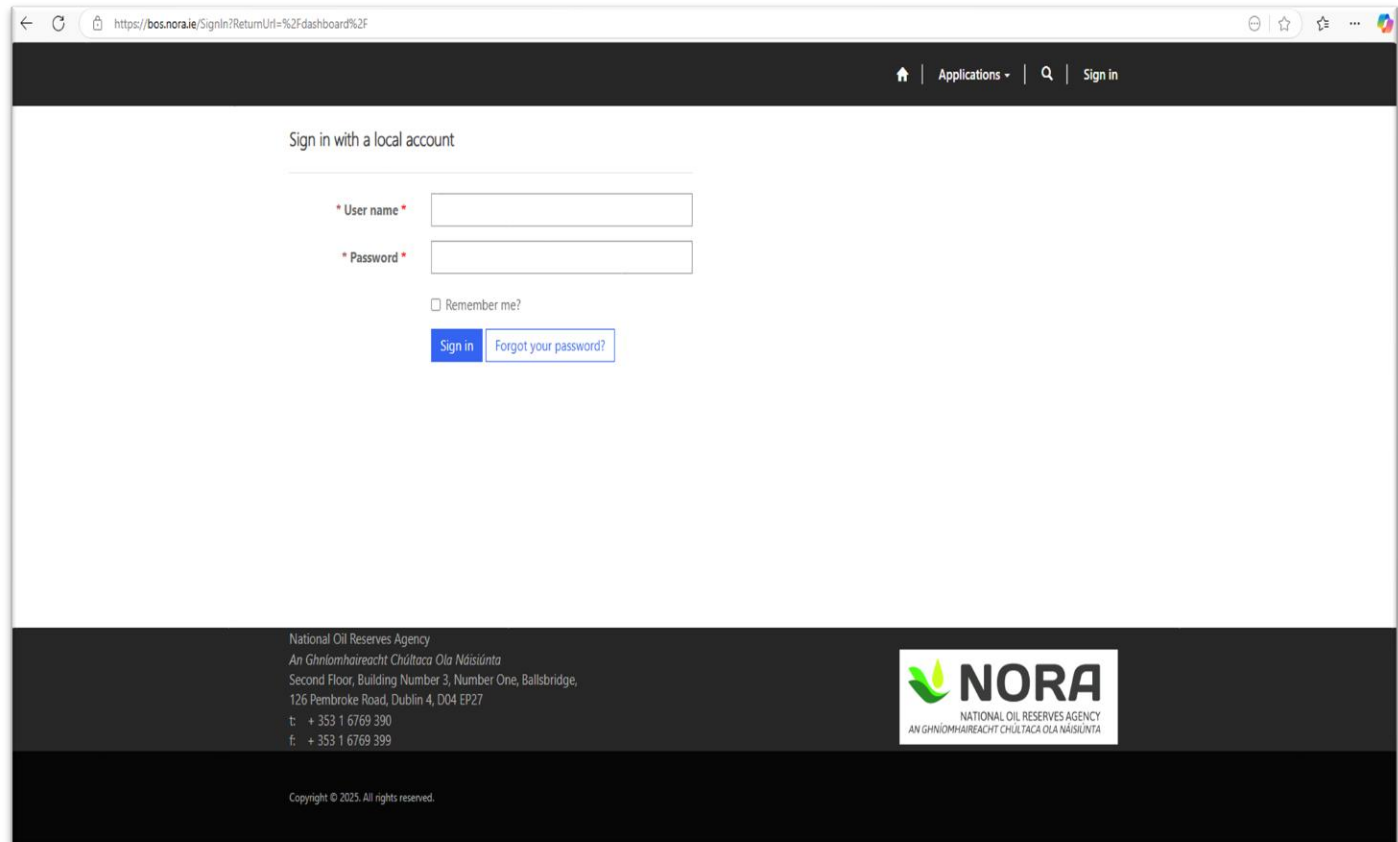
- Under development



- Given the similarities between RTFO and RHO, will base it on RTFO Portal

THE RTFO PORTAL

- <https://bos.nora.ie/>
- One account per company
- Managed via a single primary contact



The screenshot shows a web browser window with the URL <https://bos.nora.ie/SignIn?ReturnUrl=%2Fdashboard%2F>. The page has a dark header with navigation links: Home, Applications, Search, and Sign in. The main content area is titled "Sign in with a local account" and contains a login form with fields for "User name" and "Password", a "Remember me" checkbox, and "Sign in" and "Forgot your password?" buttons. The footer includes contact information for the National Oil Reserves Agency (NORA) in Irish and English, the NORA logo, and a copyright notice for 2025.

Sign in with a local account

* User name *

* Password *

☐ Remember me?

[Sign in](#) [Forgot your password?](#)

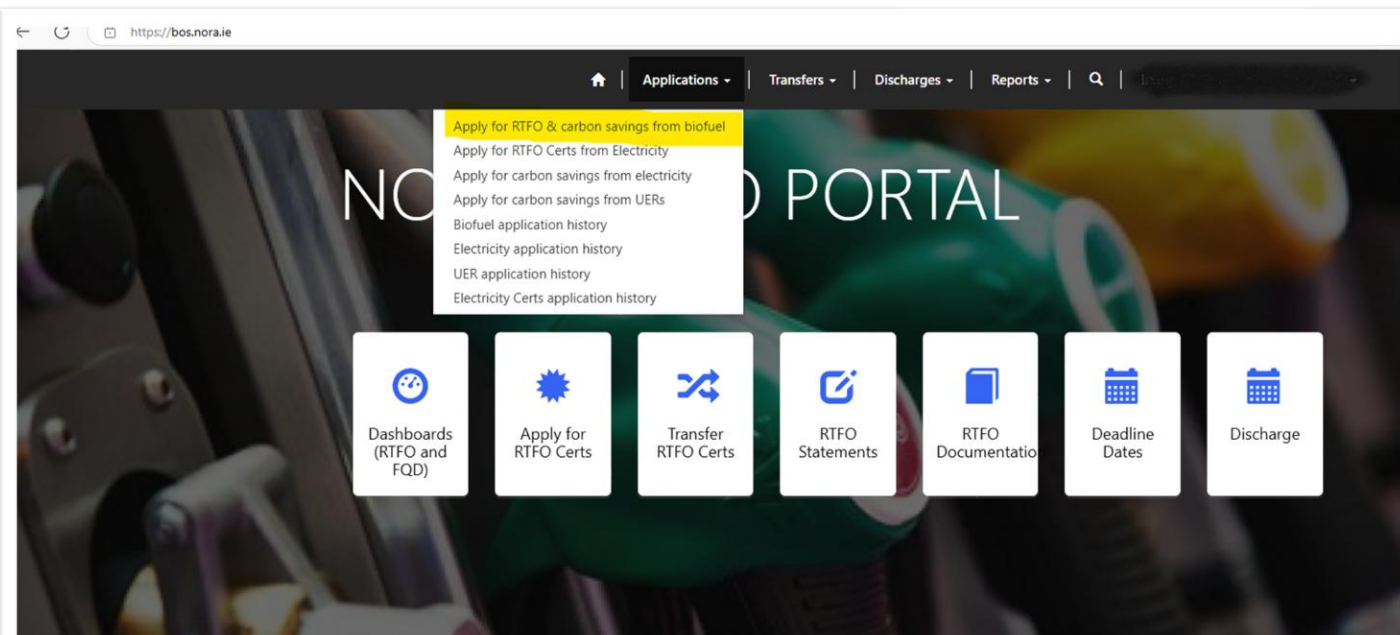
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An Ghníomhaireacht Chultaca Ola Náisiúnta
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 **NORA**
NATIONAL OIL RESERVES AGENCY
AN GHNÍOMHAIREACHT CHULTACA OLA NÁISIÚNTA

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PORTAL HOMEPAGE

- Multifunctional platform
- Apply and transfer Certs
- View statements and reports



National Oil Reserves Agency
An Ghníomhaireacht Chultaca Ola Náisiúnta
Second Floor, Building Number 3, Number One, Ballsbridge,
126 Pembroke Road, Dublin 4, D04 EP27
t: + 353 1 6769 390
f: + 353 1 6769 399



APPLICATION SUBMISSION

- Applications submitted quarterly
- Each month uploaded separately
- Sustainability Statements
- Independent Verification Reports

https://bos.nora.ie/CertificateApplication/

Home > Certificate Application

Certificate Application

1. Select application month and year

Month *

Year *

2. Enter the name of the independent verifier

Name of Verifier

3. Upload RTFO sustainability statement

Upload the RTFO sustainability statement. This file must be in CSV (MS-DOS) (*.csv) format.
The statement should be named using the following convention: Company Name - SS - yyyyymm.csv

No file chosen *

SUSTAINABILITY STATEMENT

General Information										Sustainability				GHG Savings					Indicative Compliance			
Internal Ref	Admin Co. No.	Fuel type	Quantity of fuel	Feedstock	Production process	Country of origin	Place of purchase	Support provided	Type of support	VS 1	VS 2	VS 3	Land use 1 Jan 2008	Carbon intensity	Type of GHG data	Soil carbon	Bonus degraded land	Plant in operation date	RED GHG	RED Biodiversity	RED C-stock	RED compliant (indicative)
AA-1	01	HVO Av	300,000	Wheat	NGCHP	POL	DEU	No	-	ISCC	-	-	CROPNP	76	FullChain	Yes	No	Before 2015	No	Yes	Yes	No
BB-1	02	HVO Aviation	200,000	UCO	-	IRL	IRL	No	-	ISCC	-	-	W/NAR	14	-	n/a	n/a	Between 2015 and 2021	Yes	Yes	Yes	Yes
CC-1	03	HVO Aviation	150,000	WMANU	-	IRL	IRL	No	-	REDCER	-	-	W/NAR	16	FullChain	n/a	n/a	Between 2015 and 2021	Yes	Yes	Yes	Yes
DD-1	04	CHVO Aviation	100,000	TALL1	-	GBR	IRL	No	-	RSBRED	-	-	W/NAR	15	FullChain	n/a	n/a	After 2021	Yes	Yes	Yes	Yes
EE-1	05		175,000	PALM	MetCap	MYS	NLD	No	-	ISCC	-	-	FST10	52	-	n/a	n/a	After 2021	No	Yes	Yes	No

Fuel types: Ethanol (EtOH), Methyl Ester (ME) (biodiesel), Biomethane (G591)

Feedstocks: Used Cooking Oil (UCO), wet manure (WMANU), Category 1 tallow (TALL1), Palm oil (PALM)

Production process: Natural gas in a CHP plant (NGCHP), process with methane capture at oil mill (MetCap)

Country of origin/place of purchase: Poland (POL), Ireland (IRL), Great Britain (GBR), Malaysia (MYS), Germany (DEU), Netherlands (NLD)

Voluntary scheme: International Sustainability & Carbon Certification (ISCC), REDcert-EU (REDCER), Roundtable on Sustainable Biomaterials (RSB) EU RED (RSBEU)

Land use: Cropland non-protected (CROPNP), Waste/non-agricultural residue (W/NAR), Forest 10% - 30% (FST10)

Type of GHG data: Actual value for the entire fuel chain (FullChain), default (-)

GHG EMISSIONS SAVINGS

- Biofuel – sustainable fuel used for transport purposes
- Bioliquid – sustainable fuel used for heating or electricity generation
- HVO / biodiesel / etc can be either a biofuel or bioliquid – depends on end-use
- GHG emissions savings threshold for biofuels and bioliquids:
 - 50% savings for installations in operation < Oct 2015,
 - 60% savings for installations in operation > Oct 2015 < December 2020,
 - 65% savings for installations in operation > December 2020
- Biomass fuels (solid & gaseous): 70% - 80%

GHG EMISSIONS SAVINGS

- However:
 - Fossil fuel comparator for biofuels = 94 gCO_{2eq}/MJ,
 - Fossil fuel comparator for bioliquids used for heat = 80 gCO_{2eq}/MJ
- Thus, GHG emission savings threshold for biofuels = 47 to 33 gCO_{2eq}/MJ
- GHG emission savings threshold for bioliquids = 40 to 28 gCO_{2eq}/MJ
- Some HVO / biodiesel could be counted towards RTFO but not towards the RHO

Plant in operation	Before Oct '15	> Oct '15 < Jan '21	> Jan '21
	gCO _{2eq} /MJ		
Biofuel	47	38	33
Bioliquid	40	32	28

GHG EMISSIONS SAVINGS

- Some biomethane could be counted towards RTFO but not towards the RHO
- Example:
 - Biomethane produced in AD plant that came in to operation in 2024
 - RTFO GHG emissions savings threshold = $33 \text{ gCO}_{2\text{eq}}/\text{MJ}$ fuel (65% of $94 \text{ gCO}_{2\text{eq}}/\text{MJ}$)
 - RHO GHG emissions savings threshold = $16 \text{ gCO}_{2\text{eq}}/\text{MJ}$ heat (80% of $80 \text{ gCO}_{2\text{eq}}/\text{MJ}$)
 - To achieve $16 \text{ gCO}_{2\text{eq}}/\text{MJ}$ heat, biomethane $\approx 13.6 \text{ gCO}_{2\text{eq}}/\text{MJ}$
- RED III GHG emissions savings applies to AD plants $> \approx 2 \text{ MW}$, but may be applied to lower capacity plants



SUSTAINABILITY

- Generally covered by certification by voluntary scheme



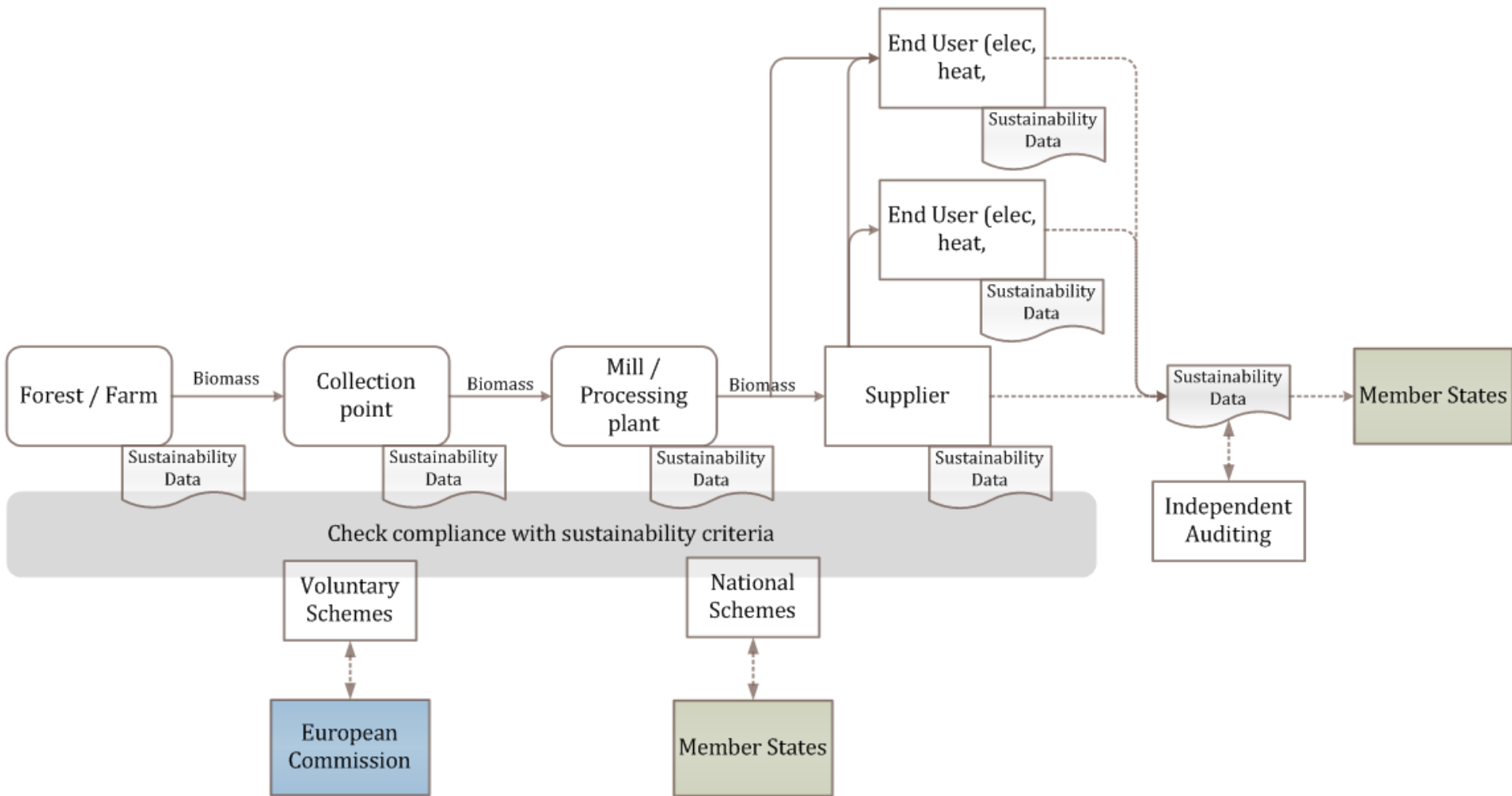
May not be made from raw materials obtained from land with **a high carbon stock**, e.g. forests or undrained peatland



Biodiversity: may not be made from raw materials obtained from land with a high biodiversity value

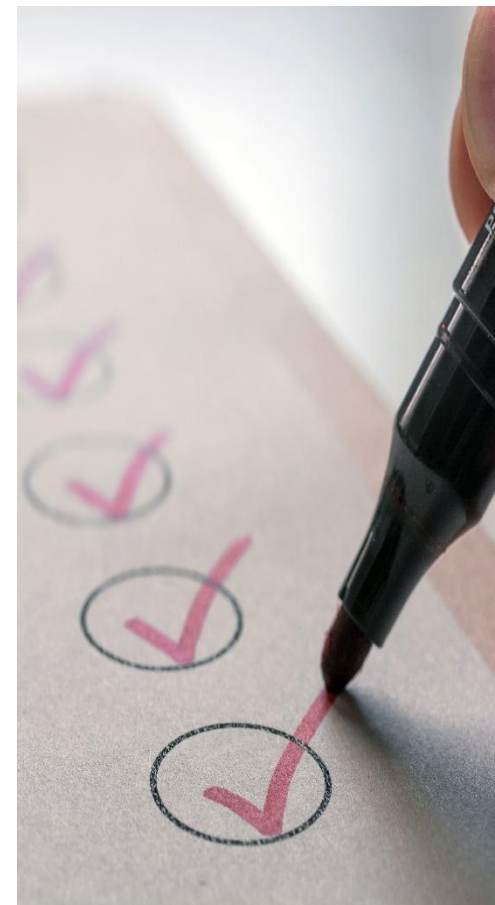
- Also for solid biomass
 - Harvested in countries with laws for nature protection
 - LULUCF
 - Consistent with MS's integrated national energy and climate plans

VERIFICATION



VERIFICATION

- Reliance on Voluntary Schemes (VSs)
- Help to ensure that biofuels, bioliquids, biomass fuels, RFNBOs, and recycled RCFs are sustainably produced by verifying that they comply with the [EU sustainability criteria](#), and the relevant methodologies for RFNBOs and RCFs
- Approved by the European Commission (currently 18) ([link](#))
- VSs are approved for different feedstock, fuel type and geographical coverage combinations
- Under RTFO, biofuel (and RFNBOs/RCFs) must be VS certified to be awarded Certs.



VERIFICATION

- It is a requirement of the RTFO that an Independent Verification Report (IVR) is submitted with quarterly applications for RTFO Certs.
- The independent verifier:
 - Independent person verifies data submitted to NORA for RTFO Certs
 - Verifies data in accordance with ISAE 3000
 - Prepares IVR (for submission by account holder as part of application for RTFO Certs)

NEXT UP



-- Thank you for your attention --