

An initiative funded by the Clean Hydrogen Partnership





CertifHyTM - Implementing an EU-wide certification system for clean Hydrogen

Stakeholder Platform Plenary Session 28/04/2022, 10:00-16:30

Presentation of the new CertifHy[™] GO scheme documents

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- **1 Objectives and Timeline**
- 2 Relevant adjustments made

Agenda

- **3** Feedback received
- 4 Next steps
- 5 Voting: CertifHy documents





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Objectives and Timeline



Short-term priority: Become recognized by the Association of Issuing Bodies (AIB)

Mid-term priority:

Become a Voluntary Scheme under the Renewable Energy Directive recast (RED II) recognized by the European Commission



Rationale:

- CertifHy aims to be compliant with EECS in order to
 - be harmonized with national H_2 GO systems (where being developed) allowing for exchanges with national H_2 GO systems through the AIB "Hub", and
 - be available in EU Member States without national H_2 GO system, and/or
 - be used by Member States not intending to establish a full national H_2 GO system from scratch

Approach:

- To become recognized by AIB, the existing CertifHy documents from phase 2 (2019) need to be adjusted according to the requirements of AIB's European Energy Certificate System (EECS)
- WG1 has adjusted the CertifHy documents accordingly over the past six months, consulted with the other Working Groups and adopted them for endorsement by the CertifHy Stakeholder Platform.
- Once endorsed, CertifHy will submit the documents to AIB as part of the application for recognition as an Non-Governmental Certificate scheme (NGC) / Independent Criteria Scheme (ICS)
- As part of the approval procedure, AIB may demand further adjustments to the CertifHy documents in oder to ensure compliance with EECS → another endorsement may become necessary later in 2022



Rationale:

- CertifHy aims to become a Voluntary Scheme under RED II in order to
 - certify RFNBOs (renewable fuels of non-biological origin) for compliance with RED II requirements/ criteria

Approach:

- Building on the existing CertifHy scheme adjusted to EECS, WG1 works on developing a complementary CertifHy RED II scheme ("Voluntary Scheme") that would be operational in parallel to the existing CertifHy scheme
- WG1 is screening the requirements related to Voluntary Schemes defined in RED II and by the European Commission in the 'Voluntary Schemes Assessment Protocol'
- The CertifHy Voluntary Scheme design will be optimised to seek synergies with the existing CertifHy scheme by sharing as much resources and functions (procedures, audits, IT infrastructure, etc.) as possible



Short-term priority: NGC scheme within AIB Mid-term priority: voluntary scheme for RED II

 \rightarrow Two-monthly WG1 meetings

e						2021						2022					
Phas				Activity		10	11	12	1	2	3	4 5	6		8 9	10	11 12
	Governance						K				*	7					*
	WG1 meetings																
	CertifHy NGC scheme																
	Update of CertifHy Scheme - in close cooperation with A		ooperation with	AIB / including updates of CertifHy labels (threshold + benchmark	()										We a	re	
-	Consultation in WG1														here	۱	
٥ ۷	Stakeholder platform consultation (WG 2 - 5 + SC)												nere	í I			
۲ ر	Endorsment by SP																
tift	Submission for recogn	ition as EECS NG	iC scheme														
Cer	CertifHy Voluntary Scheme																
	Analysis of existing EU Voluntary Schemes																
	Analysis of Delegated Acts																
	Development of VS first draft																
	Consultations with WG1																
	Stakeholder platform consultation																



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Relevant adjustments made



CertifHy.eu website: Scheme Document & Subsidiary Documents



Available at https://www.certifhy.eu/certifhy-documents/





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- 1. Adjustments to be compliant with EECS (AIB) in order to be harmonized with national GO systems (where being developed), and in order to be available in EU Member States without national H₂ GO system:
 - a. Definitions of terms
 - b. General EECS provisions
 - c. EECS gas scheme provisions
 - d. Technology and fuel codes (Annex)
- \rightarrow Covered in the adjustments to the existing CertifHy scheme documents
- 2. Issues open from CertifHy 2
- \rightarrow Covered in the adjustments to the existing CertifHy scheme documents
- 3. Carbon Footprint Calculation methodology on the basis of CertifHy 2 results → Covered in the new CertifHy Carbon Footprint Calculation document
- Additional H₂ production processes and configurations currently discussed in WG2
 → Covered in the new CertifHy Carbon Footprint Calculation document where WG2 has already achieved consensus



Definition of Terms: "GO" vs "Certificate"

- The term "GO" can only be used if the certificate is issued by a governmental scheme. Accordingly, CertifHy, if accepted by AIB, will be treated as an NGC/ ICS.
- The CertifHy adjustments therefore replace the term "GO" by "Certificate".

2.1 Uniqueness

No more than one CertifHy Guarantee of Origin (GO)Certificate or any other transferable certificate with a purpose of disclosure of sustainability attributes shall be Issued and subsequently Cancelled in respect of the same unit of Hydrogen Output in order to avoid any potential double counting. A GOCertificate shall only be Issued in respect of Hydrogen Output which has not been and is not being otherwise Disclosed.

Duplication of the same GOCertificate shall be avoided over its whole life cycle.

The attributes of an amount of <u>hydrogenHydrogen</u> can only be claimed through cancellation of the corresponding <u>GOCertificate</u>.



Definition of Terms

- Well-to-gate Carbon Footprint of a product
- Terms used were not fully consistent within CertifHy documents, and not consistent with ISO 14067 "Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification"

Well-to-gate Carbon	Partial·carbon·footprint·of·a·product·considering·all·the·	p
Footprint of a	processes · in · the · product · system · from · extraction · of · raw ·	
product¤	materials-to-the-point-where-the-product-is-made-available-	
	for transport and supply to users excluding the GHG	
	emissions from capital goods.	
	<u>Also·simply·referred·to·as·Carbon·Footprint</u> ¤	



Definition of Terms; specification of the term

- Core Energy Input
- New concept needed to determine the renewable share of Hydrogen Output (see CertifHy Carbon Footprint Calculation document)

CertifHy [™] Scheme document	Core-Energy-Input [¤]	Energy-Input-used-to-generate-the-hydrogen-molecules- composing-the-Hydrogen. [¤]					
CertifHy™ Criteria document	Core Energy Input Core Energy Input in hydrogen molecules.	cludes•all•energy•Input•that•is•required•to•generate•the• •This•includes•the•following:•¶					
	 → For·material·inputs·that·enter·into·the·molecular·structure·of·the·hydrog this·is·the·lower·heating·value·of·the·material·inputs.·¶ → For·energy·inputs·that·are·needed·according·to·the·hydrogen·production· reaction·this·is·energy·content·of·the·energy·inputs; ·for·material·energy· inputs·this·is·the·lower·heating·value.¶ → Core·Energy·Input·is·actual·energy·Input, ·not·the·theoretical·input·accord 						



Definition of Terms

- Consumption Declaration
- Adjustment to new definitions of terms and clarification

Consumption∙ Declaration¤	A·declaration·with·respect·to·of·the·Core·Energy·Inputs·of· arequired·to·produce·Hydrogen·Output·in·the·Production· DeviceBatches·for·which·Issuing·of·Certificates·is· requested.¤	a
	requested.¤	



References to EECS Rules

- The general intention of CertifHy to remain compliant with EECS is expressed in the CertifHy scheme document. In general, CertifHy documents need to be adjusted to changes to EECS Rules.
- However, where EECS Rules are referenced explicitly in CertifHy documents, changes made within EECS Rules apply automatically to CertifHy. This means, no changes within the CertifHy documents are needed.

<u>CertifHy will make sure to remain compliant with the EECS rules by adjusting the</u> <u>CertifHy scheme documents to changes of EECS.</u>

2.8 Rectification

The Rules and criteria to be met with respect to the obligations of an Account Holder in respect of the errors or inaccuracies of a CertifHy Certificate are defined within the latest EECS Rules.

2.9 Disputes

Disputes in relation to the AIB will be dealt with in accordance with the latest EECS Rules.



Adjustments to data fields in CertifHy Certificates

- Adjustments according to EECS
- Adjustments based on new definitions of terms

 $A \cdot \underline{GOCertificate} \cdot shall \cdot contain \cdot the \cdot following \cdot information: \P$

PART-1: Factual information [¤]	Comments	1
 → Account • number[¤] 	¤	p
 → Identity of the Production Device¶ 	Ø	p
o→Production·device·identifier¶		
o→Name¶		
o→Location·country¶		
o→Location·city·¶		
<u>o</u> →Postal·code¶		
o→Commissioning·date¶		
$\circ \rightarrow$ Installed · production · capacity [¤]		

PART-1:-Factual-information [¤]	Comments¤	¢
• \rightarrow GHG·balance:¶	g·CO2 _{eq} ·	X
o → GHG·emissions·intensityWell-to-gate·Carbon·Footprint·	/MJ _{H2} ¤	



Adjustments of Technology and fuel codes

Adjustments according to EECS

Level 1¤		Level 2	1	Level 3¤		-Level 4	¤	<u>Full-code</u> ¤	Ø		
Code¤	Description¤	Code¤	Description¤	Code¤ Description¤		Description ^m Code ^m D		Code ull· code¤	Describtion¤		¤
a <u>00</u> 0	Unspecified¤	a <u>00</u> 0	Unspecified¤	a <u>00</u> 0	Unspecified¤	<u>00</u> ¤	<u>Unspecified</u> ^a	F00000000	¤		
4 <u>01</u> ¤	Renewable¤	¤ <u>00</u> 0≺	Unspecified¤	0 <u>00</u> ¤	Unspecified¤	<u>00</u> ¤	<u>Unspecified</u> ⁿ	F0100000¤	¤		
		4 <u>01</u> ¤	Solid¤	a <u>00</u> 0	Unspecified¤	00¤	Unspecified ^a	F01010000¤	¤		
				4 <u>01</u> ¤	Municipal·waste¤	F0101	Biogenic [¤]	<u>F01010101</u> ¤	¤		
						<u>01000</u>					
				1000		<u>1</u> ¤					
				<u>202</u> ¤	Industrial • and •	F0101	Biogenic [¤]	<u>F01010201</u> ¤	¤		
					commercial·waste¤	<u>02000</u>					
				101-021		<u>1</u> ¤					
				3 <u>03</u> ¤	Wood¤	<u>00</u> ¤	<u>Unspecified</u> ^a	F01010300¤	¤		
				4 ¤	Animal-Fats¤	01F01	Forestry-products ^a	<u>F01010301</u> ¤	¤		
						01040					
						θ¤					
				<u>5</u> ¤	Biomass-from-	02F01	Forestry-by-products-&-waste	F01010302¤	¤		
					agriculture¤	01050					



Issues open from CertifHy 2

Inclusion of "materiality" and "level of assurance"

The threshold for data materiality has been defined taking into account that information is material if the outcome of the assessment could be changed by omitting, misstating or misreporting that information. Accordingly, CertifHy defines the threshold for materiality of energy inputs as a total of 5% based on the amount of energy sold or, for non-energy inputs, based on total GHG emissions.

The·level·of·assurance·to·be·applied·in·CertifHy·audits·is·set·as·reasonable· assurance.¶



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Feedback received



Purity and pressure

Feedback:

- "The elimination of the 99.9% purity and 3 MPa pressure requirements from the definition of H₂ represent a step forward. However, these two requirements remain fixed at the production perimeter and offer no guarantee that GOs for H₂ produced under these specifications can be disclosed as energy for use under other specifications, hence potentially fragmenting the future market for GOs."

Rationale for suggested CertifHy documents:

- Purity and pressure levels were unanimously endorsed by the Stakeholder Platform in March 2019

CertifHy[™] Scheme document

Hydrogen¤	HydrogenAn·Energy·Carrier·consisting·of·dihydrogen· molecules·(H2)·having·a·defined·purity·and·pressure.·¶	α
	¤	

CertifHy[™] Criteria document

The ·system · boundary · shall · include · all · the · production · stages · needed · to · reach · a · <u>hydrogen Hydrogen</u> · purity · of · at · least · 99.9% vol · and · a · gauge · pressure · of · at · least · 3° MPa.



ISO 14067 vs RED II

Feedback:

- "This is not in line with ISO 14044 & 14067: the GHG impact of the CAPEX should not be excluded for RES parks since it is an important part of the emissions for these technologies and thus cannot be considered for the application of a cut-off criteria"
- "The rules for sustainability of RED should be applied (we notice these were removed)"

Rationale for suggested CertifHy documents :

- At this stage, CAPEX emissions are excluded because there is no established framework for including CAPEX emissions consistently. In principle, CAPEX would have to be included according to ISO 14067, but can be excluded under certain conditions.
- Focus here is on adjusting the CertifHy documents to comply with EECS, which does not require such a change
- RED II requirements are applicable to RFNBOs used in transport, *not* to GOs
- RED II requirements are not necessarily compliant with ISO 14067



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4						
4						
Next steps						



Voluntary Scheme: What is needed





Voluntary Scheme: What needs to be developed





	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dez
Draft Documents: Governance, System Basics, Requirements for CB & Auditors										
Draft Documents: Sustainability Requirements, GHG Emissions, Mass Balance Calculation Methodology										
Draft Documents: Audit Requirements & Risk Management, Audit Procedures										
WG Meetings										
Stakeholder platform consultation										



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Voting: CertifHy documents



CertifHy scheme documents as a package

- Only Platform members have voting rights
- Only one vote per organisation





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WG1 Coordinator





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Back-Up



Current Phase 3: from GO ...



Dut of scope	
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Construction material (e.g. steel)



Application consumer disclosure Labelling Legal background RED II Art 19 Mode of Book & claim delivery **Issuing Bodies** Organizatio by Government n mandate CertifHy GO Applied Scheme (in scheme process) GoO Document Guarantee of type Origin End Consumer disclosure: i.e. Value CSR/ Marketing

Labelling:



CertiHy H₂/RFNBO scope





