Assessment report

Organisation wishing to be accredited	Energy Track & TRACE ENERGINET DATAHUB Tonne Kjærsvej 65 DK - 7000 Fredericia Denmark
Role	GC Issuer
Standard to comply with	EnergyTag Granular Certificate Scheme standard – version 2 (5 March 2024)
Granular Certificate scheme configuration	Configuration 1
Assessor	Enunda B.V. Bergstraat 5 2290 Vorselaar Belgium
Date	11 April 2025
First assessor Erwin Cornelis	**Second assessor** Katrien Verwimp
Assessment Outcome	Compliant with minor deviations

Assessment history

Iteration	Document received on	Assessed documents	First assessor	Second assessor	Feedback issued on
1	19 Dec 2022	Scheme protocol- Configuration 2 – assessed towards EnergyTag Standard v1	Katrien Verwimp	Phil Moody	20 Feb 2022
		Assessment updated from verify compliance with version 2 of EnergyTag GC Scheme standard	Shubham Sinha	Katrien Verwimp	22 Mar 2024
2	27 Sep 2024	Scheme protocol (revised to Configuration 3 under EnergyTag standard v2)	Erwin Cornelis	Katrien Verwimp	29 Oct 2024
3	4 Dec 2024	Scheme protocol (updated)	Erwin Cornelis	Katrien Verwimp	9 Dec 2024
4	20 Dec 2024	Scheme protocol (updated)	Erwin Cornelis	Katrien Verwimp	21 Jan 2025
5	23 Jan 2025	Scheme protocol (updated)	Erwin Cornelis	Katrien Verwimp	28 Jan 2025
6	26 Feb 2025	Scheme protocol (updated)	Erwin Cornelis	Katrien Verwimp	3 Mar 2025
7	26 Mar 2025	Scheme protocol (updated)	Erwin Cornelis	Katrien Verwimp	11 Apr 2025

Conclusions of the assessment

Overview of the assessment results

The assessment of in total 226 criteria of the EnergyTag Granular Certification Scheme Standard – version 2 concluded in following overall result:

Final assessment	**Number of criteria**
Yes	91
Yes / Standard change	0
NA	115*
Minor Deviation	1
Minor Deviation / Standard change	1
To review in next assessment	18
No	0

* Criteria assessed as 'NA / Not applicable' related to requirements of configuration #2 and configuration #3 schemes, delegation of responsibilities, requirements related to applications for GCs that are not derived from an existing EAC Registry, and storage of energy, which is not implemented in this scheme.

General assessors' advice regarding compliance with the EnergyTag standard

To consider the GC Scheme Protocol of Energy Track and Trace (ETT) as **compliant with the EnergyTag Standard** with **acceptance of the minor deviations** listed below.

Minor Deviations, considered acceptable

The Assessors panel propose to accept following minor incompliances as minor deviations.

Minor deviation 1	
Chapter	3. GC Attributes
Criterion	1.3.6

	GCs shall state the date when the Production Device became operational.
Deviation	The data field is included as an attribute of the GC but is not populated currently as the data is not yet provided by the DataHub from which ETT is retrieving Production Device related information.
Motivation for accepting this deviation	ETT relies on the same DataHub for issuing EACs, which guarantees that there are sufficient validation checks to prevent the issuance of GCs before the date that the Production Device became operational.

Minor deviation 2	
Chapter	3. GC Attributes
Criterion	1.3.11 GCs shall state the name of the Production Device.
Deviation	This attribute is not added to the GCs issued by ETT.
Motivation for accepting this deviation	The production device is adaquately identified by an identification number. Lacking a descriptive name does not undermine any reliability of the system. The Assessor panel proposes to discuss in the next update of the standard to delete this requirement, see Suggested standard updates.

Key Issues for the next assessment

The assessment identified following issues that require special attention when reassessing the implementation of this GC Scheme in practice.

Issue 1	
Chapter	1. Roles 12. Eligibility of Energy
Criterion	1.30 A GC registry operator shall record the characteristics of the Production Devices for which that GC Issuer is responsible and shall ensure that this is consistent with the data on the underlying EAC Registry where relevant, shall record the Accounts and the Certificates held in them, and […].

	12.5 GCs should be Issued for any primary energy source, with any restrictions being left to the Producer, consumer or regulatory framework.
Implementation by GC issuer	In the current setup of the GC scheme of ETT, only wind farms and solar parks are eligible energy sources. ETT indicates in its Scheme Protocol that this could change in the future, depending on market conditions. ETT clarified that this future change in market conditions concern the potential inclusion of residential PV and smaller PV installations in the GC scheme.
Description of Issue	Production units can only register with ETT if they are also registered with the GO scheme in the same Domain. It needs to be verified if residential PVs and smaller PV installations are registered in line with the requirements of the EnergyTag standard, if the ETT GC scheme would cover this type of Production Devices.
Lead questions for the next assessment	• Does the ETT GC scheme cover residential PV and smaller PV installations in the GC scheme? • If so, are they registered in line with the requirements of the EnergyTag standard? • If not, are there any plans for extending the scope of GC issuance in the future and what measures are being planned to accommodate this?

Issue 2	
Chapter	2. GC System Configurations 3. GC Attributes
Criterion	1.2.13 IF Configuration #1, GCs may be Transferred multiple times during their lifetime, as long as they have not Expired or been Cancelled. 1.3.1. GCs shall be immutable from Issuance to Cancellation - that is, once a GC has been Issued, then the data recorded on it is never removed or modified. This data remains intact until the point of Cancellation.
Implementation by GC issuer	ETT Denmark issues Production Certificates, which are unchangeable but can be split in slices. Multiple technologies are used to secure the users privacy and

	verification of the slicing (pedersen commitments), logging of events (certificate transactions), ensuring tamper-evidence, within the whole system (merkle trees) and tracking the ownership and support privacy (HDkeys and wallets). All these technologies combined create the registry software, that finally publishes transactions on an event log or a public blockchain for verification. Section 8.1 of the Scheme Protocol explains these technologies more into detail.
Description of Issue	The explanation, provided by section 8.1 of the Scheme Protocol, suffices as long as the certificates stay in a single registry, which we understand they currently do. In future, the certificates may be in multiple registries, operated by other GC Issuers who implement the same GC Scheme Protocol in their domain. It is not fully clear how the cross-registry transfer system works and how this mechanism prevents detectability of double counting errors, should they occur. The assessors suggest updating the Scheme Protocol at the time of the 1 year-after periodic reassessment with any explanations on the cross-registry transfer mechanism.
Lead questions for the next assessment	● Is Energy Track and Trace implemented in other domains than Denmark? ● How are GCs transferred from one registry to another? ● How is the immutability of the GCs from Issuance to Cancellation guaranteed? ● How is double counting prevented?

Issue 3	
Chapter	7. GC Validation period 11. Linkage with support schemes
Criterion	7.4 In Domains where a residual mix is calculated, expired GCs may be included in the Residual Mix, when this inclusion is in line with the beneficiary allocation of the associated EAC. 11.1 If GCs can be used to receive public support, the document or mechanism which is uniquely used for disclosure of the origin of the consumed energy shall be identified. 11.2

	If the support (Certificate) systems are associated with an individual Consumption Point, care should be taken to avoid Double Counting if a separate Certificate system allows for the disclosure of the energy source to consumers (i.e. cross-purpose double-counting avoidance).
Implementation by GC issuer	The ETT Scheme in Denmark is designed so that Granular Certificates replace Guarantees of Origin (and are transferred to GOs in case the GCs expire). Yet, at the time of drafting this protocol, GCs are not implemented in Danish legislation as Renewable Energy Directive III is not yet transposed. This transposition is expected in May 2025.
Description of Issue	It is unclear how GCs will enter the Residual Mix in case they expire. In case GCs can be used to receive public support, the document or mechanism which is uniquely used for disclosure of the origin of the consumed energy shall be identified. In addition, when GCs will be used for RFNBO compliance confirmation at hydrogen production, explanations are needed to enable assessing compliance with criterion 11.2.
Lead questions for the next assessment	1) What is the fate of expired GCs in practice? ● e.g. To what extent are they transformed into EACs (GOs) and to what extent are they added to the Residual Mix? 2) To what extent can GCs be used to receive public support? ● If so, which document or mechanism is used? ● Are GCs used for RFNBO compliance confirmation at hydrogen production, and if so, is double counting prevented?

Issue 4	
Chapter	9. Fraud prevention and detection
Criterion	9.6 GCs Issuers should implement effective monitoring of Registry activities aimed at detecting suspicious activities and MTIC patterns in particular (e.g. sudden increases of trading volumes, carousel schemes etc.). 9.7

	GC Issuers should establish efficient cooperation with authorities in charge of preventing MTIC fraud, especially tax authorities and Legal Enforcement Agencies (LEAs). 9.9 (European Union only) GCs should be considered “electricity Certificates”, enabling Member States to apply for the derogation introduced by the EU in 2013 that allows the application of reversal liability to VAT on specific goods or services considered “at risk”. Using this derogation, the responsibility of paying VAT is no longer with the supplier of the goods or services (the collector), but with the person acquiring the goods or services (the final consumer). This means that the missing trader cannot act as collector anymore. The implementation of this derogation by Member States should be encouraged. 9.10 Money Laundering: Due diligence should be carried out by GC Issuers and should help prevent companies with suspicious profiles from joining the market. 9.11 Cooperation with authorities in charge of money laundering prevention should be ensured when suspicious companies/operations are identified. This requires procedures to declare suspicious entities/activities to competent authorities in charge of AML / CFT. 9.12 Transparency should be increased by creating robust price benchmarks, standardised products and freely accessible supply/demand information, 9.13 Regulatory frameworks that prohibit/sanction market manipulation and insider trading and which establish accepted market practises should be implemented, 9.14 Regulatory bodies in charge of collecting the necessary information, monitoring and investigating potential cases of market abuse should be established, and 9.15 The above can and should be achieved by including energy Certificates (i.e. GCs/EACs) as part of existing regulatory frameworks (energy or financial regulations).
Implementation by GC issuer	The Scheme Protocol does not state if and how this recommendation is met.

Description of Issue	Compliance with the above listed criteria could not be assessed. Yet, the Assessor panel deemed this lack of information in the Scheme Protocol as having lower priority in this early phase of the development of the GC Scheme by ETT.
Lead questions for the next assessment	• Are effective monitoring of Registry activities aimed at detecting suspicious activities and MTIC patterns in place? • Is there an efficient cooperation with authorities in charge of preventing MTIC fraud? • Is reversal liability to VAT correctly applied eliminating the risk of VAT fraud? • Is Due Diligence carried out to prevent companies with suspicious profiles from joining the market? • How does ETT cooperate with authorities in charge of money laundering prevention? • Is price benchmarks, standardised products and freely accessible supply/demand information in place? • Are regulatory frameworks implemented to prohibit/sanction market manipulation and insider trading? • Are regulatory bodies in charge of collecting the necessary information, monitoring and investigating potential cases of market abuse established? • Are, energy Certificates (i.e. GCs/EACs) included as part of existing regulatory frameworks (energy or financial regulations), and if so, how?

Issue 5	
Chapter	10. Market design
Criterion	10.1 As with the majority of contracts for buying clean energy through standard EACs, the purchase of GCs is voluntary. As such, the GC market shall comply with wider contract law in its chosen jurisdiction and with the regulations of the overarching EAC Scheme.
Implementation by GC issuer	At the time of drafting this protocol, GCs are not implemented in Danish legislation as Renewable Energy Directive III is not yet transposed. This transposition is expected in May 2025.

Description of Issue	It needs to be assessed if the GC market complies with the Danish law and with the regulations of the overarching EAC scheme once Renewable Energy Directive III is transposed to Danish law.
Lead questions for the next assessment	• Are there Danish laws implementing GC scheme? • If so, how do GCs interact with EACs (GOs)? To what extent do GCs replace and/or interact with monthly EACs?

Issue 6	
Chapter	12. Eligibility of Energy
Criterion	12.3 For interconnected GC Schemes, a high-level definition of net eligible energy production for GC Issuance shall be harmonised.
Implementation by GC issuer	The current ETT GC scheme in Denmark is currently not yet interconnected with another country; yet it is the intention to do so in future.
Description of Issue	Will the other countries, implementing this ETT Scheme, also link their GC Scheme to the currently implemented EAC (GO) Scheme, which could guarantee the harmonisation of the energy production that is eligible for GC issuance?
Lead questions for the next assessment	• Is the GC scheme of ETT interconnected with GC schemes of other countries? • If so, how is the eligibility of energy production in the different countries harmonised?

Suggested standard updates

The assessment has resulted in following suggestions to update the EnergyTag Granular Scheme Standard.

Suggested standard change 1	
Chapter	3. GC Attributes
Criterion	3.11 GCs shall state the name of the Production Device.

Suggested change	To delete this requirement.
Motivation	This is a superfluous attribute next to the identifier of the Production Device, another attribute of the GC. Moreover, not every domain allocates a name to a Production Device and, hence, this attribute can be populated in every domain.

Attachments

- Scheme Protocol ETT dated April 11th, 2025
- Assessment Checklist dated April 11th, 2025