INFORMATION PAPER

SPONSORING PARTY: BOARD

Title	Compliance Assessment of Landsnet
Objectives	1. Assessing Landsnet's compliance with the EECS Rules, evaluating disclosure in Iceland and suggesting a way forward 2. Identifying limitations on the scope of the AIB in relation to consumer claims

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1 SUMMARY OF THIS PAPER

This paper is the report of the Compliance Assessment Panel on its investigation of alleged double claiming of renewable electricity attributes in relation to EECS-GO exported from Iceland. It provides details of the specific EECS Rules examined, the Panel's interpretation of those regulations and the Panel's observations in respect of the Iceland domain. The Panel undertook to research the possible cause of the problem identified in order to understand the nature of the problem and to give a basis for its advice to the AIB Board such that it could make informed decisions.

2 MOTIVATION

An article[1] has been published in Germany suggesting potential double claiming of renewable benefits through the cancellation of Icelandic GOs in Germany while consumers in Iceland are also claiming 100% renewable sourced electricity. The article also alleges the AIB to be complicit in allowing the activity to go unchecked.

Therefore, at its meeting on 18 January 2023 the AIB Board agreed to initiate a Compliance Assessment Panel to analyse compliance with the EECS Rules by Landsnet.

The specific rules under analysis are N9.1.1, A2.1.2, C3.3.1 and E3.3.14

3 BACKGROUND

3.1 Identification of Relevant History and Stakeholders

Landsnet became a member of the AIB in 2015. It is the transmission system operator for Iceland.
The energy regulator in Iceland is the National Energy Agency – Orkustofnun (OS).
There are 10 electricity business licensees in Iceland.

3.1.1 Former Blocking of Icelandic GOs by VREG

In 2012 VREG ruled that under the Icelandic disclosure practice at the time resulted in double counting. The legal framework regarding disclosure entailed that electricity could still be considered as "electricity from renewable sources" in Iceland, even though the corresponding GOs were exported. This was a result of the methodology to calculate the Icelandic residual mix. Suppliers who did not cancel GOs for the energy they supplied, could refer to the residual mix and claim that the electricity they supplied stemmed from renewable sources nonetheless.

VREG decided not to allow the import of Icelandic GOs as of August 23, 2012. This decision was made to prevent double counting of electricity produced from renewable sources in Iceland. In the decision, there was already a condition that the decision could be amended as soon as the Icelandic regulatory framework would be changed so as to prevent double counting. A similar decision was published regarding GOs from Norway.

[1] Hanno Böck, *"Wie Island seinen Ökostrom doppelt verkauft"*, golem.de, November 29, 2022. See https://www.golem.de/news/erneuerbare-energien-wie-island-seinen-oekostrom-doppelt-verkauft-2211-169902.html.

Soon after the decision by VREG, the Icelandic Ministry for Industry and Innovation informed VREG that a new law was passed on September 13, 2012. This law meant that the law regarding disclosure in Iceland would be changed as of November 15, 2012. The change implied that suppliers in Iceland were obliged to prove the origin of supplied electricity either by means of GOs, or by using the new Icelandic residual mix, to be calculated by the Icelandic National Energy Agency (NEA or Orkustofnun). Because of this, VREG decided to cancel the decision of August 23, 2012, and to allow Icelandic GOs again starting from November 15, 2012.

3.2 Legal Framework for Disclosure in Iceland

Iceland is a member of EEA and has transposed a number of EU Directives into local law. EC2009/28 (REDI) was implemented as Regulation 757-2012 which nominates the National Energy Agency (Orkustofnun) as the competent body for disclosure. The Panel understands from the EFTA Secretariat that EU2018/2001 (REDII) has not been formally implemented in Iceland. However, Orkustofnun does publish a fuel mix disclosure document annually and this does take into account a European residual mix. The statement published on the Orkustofnun website for 2021 shows the Iceland production mix as 99.99% Renewable (RE) and the consumption fuel mix for declarations as fossil 63%, RE 13% and nuclear 24%. It is not clear how or if OS enforces the use of declarations by electricity suppliers.

3.3 Iceland as an Isolated System within EECS

Iceland and Cyprus are the only domains within EECS whose transmission system is not electrically interconnected with at least one other transmission system.
There have been various plans to have underwater HVDC links between Iceland and other parts of Europe (notably to the UK), but none have been constructed. In theory, battery ships could be used, but none are. Generator ships are used in coastal/island locations where there is insufficient local generation, but the (fossil) fuel is brought to the dockside generator ship.

3.3.1 Opinion of the Compliance Assessment Panel

It is rational to use location-based allocation within an isolated system as a first approximation to full tracking. Fuel mix disclosure can be achieved in this way based on a national average. Location-based allocation can be informal if the generation mix is static or of largely similar sources. In Iceland, 99.9% of electricity generation is from renewable sources, so the need for a formal disclosure process based on a transferable certificate is lower.

Although not explicitly stated in the EECS Rules, EECS is a ‘book and claim’ methodology of attribute tracking. It is used because it is not possible to track electron paths by tagging. It measures inputs and outputs from a network system which is valid given that the electrons cannot be tagged. The physical electron path is taken as a notional path which means that an input at any point on a network can relate to an output at any point on that same network.

Whilst Iceland is de-facto an isolated electricity system, it is de-jure part of the free movement of goods and services area within Europe. However, EU2018/2001 Article 19 includes references to a

requirement that a third country (which would include Iceland as it is not an EU Member State) must be physically connected to the system of at least one Member State. Legal opinion should be sought to establish if this requirement applies to GO as Iceland would be the only AIB domain impacted by this.

4 SUBSTANTIATING THE ALLEGED PROBLEM

Iceland produced 19.6TWh of electricity in 2021, 70% of which is from hydro, 30% from geothermal with very small amounts of wind and fossil sources[2]. Production and supply are dominated by the state-owned supplier, which until 2023, was also the majority (64.73%) shareholder of Landsnet, the transmission system operator. This supplier accounts for about 70% of Icelandic production.

Consumption in Iceland is dominated (65% in 2019[3]) by aluminium smelting. There are three operational smelters in Iceland whose products together represent approximately 38% of national exports by value. There are also nine datacentres which are also substantial consumers of power (5%). All of the datacentres and aluminium smelters researched use consumption of 100% renewable energy in their marketing material.

Official consumption data has not been published for the years since 2019. As an approximation, applying 70% to the annual total 19.6TWh gives 13.7TWh as the combined consumption of the aluminium smelters and datacentres in 2021.

AIB reported data as provided by members for 2021[4] shows 20.2TWh[5] equivalent GO were issued in Iceland with 14.8TWh equivalent exported and 3.6TWh equivalent cancelled locally. Only 0.15TWh equivalent were imported GO. 13.9TWh equivalent was exported in 2020. Exports and cancellations are reported on a transaction timing basis so 2021 exports include2020 production. The similarity of export volumes reported in both 2020 and 2021 suggests the potential difference caused by the reporting basis is not significant in the overall picture.

On initial inspection, assuming the 13.7TWh consumption by the smelters and datacentres was proven using all 3.6TWh of the cancelled GO means that 10.1TWh, if proven, was done using some other method than GO. Additionally, if approximately 14TWh or more of GO were exported, then only around 5TWh equivalent remained within Iceland and clearly insufficient to prove the marketing claims of the smelters and datacentres.

[2] Source: Orkustofnun disclosure statement for 2021.
[3] Source: Orkustofnun Electricity consumption in Iceland 2019
[4] Source: AIB 202211 AIB Statistics
[5] The difference between this value and the 19.6TWh reported by Orkustofnun has not been investigated by the Panel but may be due to measurement timing differences.

4.1 Opinion of the Compliance Assessment Panel

Whilst the published data available to the Panel was from different sources and for different time periods and may contain some inconsistencies, it concluded that on the balance of evidence obtained there was a prima-facie case to investigate.

Further investigation should be undertaken regarding the requirements of the Greenhouse Gas Protocol (GHGP) on consumer carbon reporting using location-based allocation where market-based solutions are implemented through legislation.

5 INVOLVED PARTIES

The Panel adopted a position of improving understanding at this stage by obtaining evidence and viewpoint. Therefore, it did not cross-examine or challenge.

5.1 Landsnet

Representatives of Landsnet met by videoconference with the Panel on 21 March 2023.

Landsnet described itself as the administrator of GO in Iceland. It viewed itself as powerless to deal with the issue of a potential double counting of attributes due to location-based scope 2 reporting of some consumers as it has no remit at the consumer level. They see the Regulator, Orkustofnun, as responsible for monitoring and enforcement and suggested that it should be Orkustofnun or a Consumer Agency. It has asked AIB for help in the matter but has yet to receive any. It is aware of a certification[6] being used by one of the aluminium companies (Nordural), but is unsure how it operates. There was also discussion of a draft report on GO in Iceland by the government. This draft is known to have existed in November 2022, but as yet it has not been published.

5.1.1 Opinion of the Compliance Assessment Panel

The Panel understands that Regulation 757-2012 nominates Orkustofnun as the competent body and so legislative responsibility for monitoring and enforcement rests with it. However, its remit may only extend to electricity companies. The Panel was sympathetic to the situation in which Landsnet has found itself in that correcting the alleged double counting may be outside of its legal scope. However, the opinion of the Panel is that the EECS Rules place a responsibility to ensure the quality of EECS Products as unique representations of the attributes EECS certificates convey (see **Error! R eference source not found.**).

The Panel carried out initial research to understand the reported certification of the aluminium plant (see **Error! Reference source not found.**).

The Panel understands there to be some opposition within Iceland to the use of GO in favour of location-based allocation. It is possible that the draft report referred to may contain information on future policy on this matter that Landsnet is not allowed to discuss. This may also explain the limited

[6] See section 7 below

participation of both Landsnet and Orkustofnun in this assessment process. The likely content of the report should be investigated with the Icelandic Ministry of the Environment, Energy and Climate.

5.2 National Energy Agency (Orkustofnun)

The National Energy Agency (Orkustofnun) is the energy regulator of Iceland.

Orkustofnun was invited to meet with the Panel. Following an initial response, it was not possible to find a mutually available meeting time. Subsequent email communication from the Panel has been without response. The Panel has no power to enforce such a meeting. Information published by Orkustofnun has been gathered from its website.

5.3 'Supplier 1'

The dominant producer/supplier in Iceland, 'Supplier 1' is an account holder on the Landsnet registry. It supplies all the electricity consumed by the Rio Tinto and Alcoa aluminium smelters and a third of the electricity consumed by the Nordural smelter. It also supplies at least four of the datacentres.

'Supplier 1' promotes GO on its website

> *"Guarantees of Origin (GOs) is a trusted system certifying the origin of electricity from renewable energy sources in Europe. Its ultimate purpose is to increase renewable energy generation and reduce greenhouse gas emissions – regardless of location. As Iceland is an isolated system with no nuclear or coal production, all GOs revenues will go to a 100% renewable system. This not only helps improve the efficiency of this system but it also makes additional renewable energy available to international energy-intensive companies located here."*

and

> *"Climate change is a global challenge affecting us all. That's why ['Supplier 1'] is 100% committed to developing sustainable solutions that make a positive impact. It's why the revenues from our Guarantees of Origin only go into 100% renewable energy systems. And it's why we consider 100% of the global ecosystem in everything we do."*

As a representative of the Icelandic electricity market, it may have been useful to hear its view on the use of GO, but the Panel (and AIB) has no vires to speak directly to an account holder, although the standard terms enables such communication by the relevant member (Landsnet). The Panel took the view that direct engagement with the Icelandic market participants is outside the remit of its investigation and would be more appropriate subsequent to an AIB Board decision on progression of the matter.

5.3.1 Opinion of the Compliance Assessment Panel

It is not clear from 'Supplier 1''s website that in selling GO to third parties the electricity it supplies is no longer 100% renewable.

5.4 'Supplier 2'

'Supplier 2' is an electricity producer and supplier subsidiary of Reykjavik Energy. It has three power stations, two geothermal and one hydro. It is also active in GOs. Providing them to all but heavy industrial consumers free of charge. Like 'Supplier 1', it promotes itself as 100% renewable which is of course correct for its power production. It's website is quite transparent about the sales of GO and the consequences for 'residual mix' supply:

"Without guarantee of origin the electricity is considered to come from the joint energy pool of Europe. Which is the reason why energy sources that are not used in Iceland (like nuclear energy) appear on local energy bills."

6 COMPLIANCE WITH EECS RULES ANALYSIS

6.1 EECS Rule A2.1.2

This requirement in the EECS Rules states:

'The arrangements for Issuing EECS Certificates should be such as to eliminate the possibility of EECS Certificates being Issued in respect of the same unit of Output and attributes for which other transferrable Certificates (other than EECS Certificates of a different type where specifically permitted by the EECS Rules) have been or will be issued for the same Purpose.'

'The arrangements for Cancelling EECS Certificates should ensure that EECS Certificates in respect of the relevant Output are used as the sole proof of the qualities of the associated Output according to the relevant Product Rules and that no form of Disclosure is used in relation to Output to which such an EECS Certificate relates other than in connection with the cancellation of that EECS Certificate.'

6.1.1 Interpretation by the Compliance Assessment Panel

The first part of A2.1.2 is limited to transferable certificates and so does not include location-based allocation. The second part suggests all AIB members have a responsibility to not permit cancellation of a certificate where there is doubt about sole proof of the attributes to which it relates.

6.1.2 Opinion of the Compliance Assessment Panel

It should be noted that section A is not binding on members. However, the objectives set out in section A are given operational regulatory force through other sections.

6.2 EECS Rule C3.3.1

This requirement in the EECS Rules states:

'An EECS GO shall only be Issued in respect of Output which has not been and is not being otherwise Disclosed, including by the Issue of any other Certificate of any variety (save to the extent permitted under Section C8) except, in the case of an EECS GO derived from, and incorporating, the relevant electronic data from one or more National Scheme Certificates, where such National Certificate(s) has/have been withdrawn or cancelled in order for it/them to be replaced by that EECS

GO and the Certificate according to the National Certification Scheme has not been and is not being used for Disclosure prior to Withdrawal or Cancellation.'

The EECS Rules definition of Disclosure is:

'Provision of information to a final customer on the share or quantity of the energy supplied to them as having specific Attributes'

6.2.1 Interpretation by the Compliance Assessment Panel

The definition of Disclosure follows that in the EU Internal Electricity Market Directives and is about statements made to final consumers. Therefore, it does not include voluntary claims made by those consumers as part of their sustainability reporting e.g. under the Greenhouse Gas Protocol, even though this activity may be termed "voluntary disclosure".

C3.3.1 allows for Disclosure (that is statements made to final customers) using an alternative methodology to transferable certificates as it states "including by the issue of any other Certificate". It also places a duty of care on the issuing body to ensure that a GO is only issued when it is satisfied that no other form of disclosure is being used. This is specifically aimed at avoiding double counting by introducing a second (certificate-based) tracking of the same output.

6.2.2 Opinion of the Compliance Assessment Panel

There can be no breach resulting from disclosure by the consumers as consumer claims are not legislative disclosure.
As noted in 3.3 above, the energy regulator issues a standard fuel mix statement that uses a European residual mix. However, it is not clear that Orkustofnun has a legal obligation to monitor its use. If the (residual) fuel mix is not being conveyed to final consumers, or the supplier has a formal agreement with a consumer that effectively uses location-based allocation bundled with the physical supply of electricity, then if that supplier is aware of the GO being issued (or indeed as the producer requested them to be issued), then the supplier is double counting.

It could be argued that an informal Disclosure may be taking place in Iceland using location-based allocation. If this is so, and the issuing body is aware of the practice, then for a GO to be issued for the same output would constitute a failure of the duty of care and so a breach of C3.3.1 by the issuing body.

The wording of C3.3.1 is inappropriate for a legislative certificate system. Alternative tracking methodologies should be secondary to a legislative system. C3.3.1 may have been written for voluntary RECS and was not fully examined when GO was introduced.

6.3 EECS Rule E3.3.14

This requirement in the EECS Rules states:

'Where the Product Rules for an EECS Product contain a Legislative Disclosure Scheme, Scheme Members shall, to the extent reasonably practicable, put in place appropriate mechanisms to ensure that EECS GOs in respect of the relevant Output are used as the sole proof of the qualities of

the associated Output according to the relevant Product Rules and that no form of Disclosure is used in relation to Output to which such an EECS GO relates other than in connection with the cancellation of that EECS GO.'

6.3.1 Interpretation by the Compliance Assessment Panel

This rule gives regulatory effect to A2.1.2 and places an obligation on all members to ensure sole proof (see 5.1.1 above) and requires mutual exclusivity with other tracking/allocation methods (uniqueness). It also requires an issuing body to implement appropriate mechanisms to ensure uniqueness. This means that if the issuing body has cause for doubt, it cannot remain passive, but must instead actively engage to address the issue.

Implicitly, E3.3.14 includes the second part of A2.1.2 in that if an issuing body has doubt over the uniqueness of ownership of the attributes represented by a GO that is being presented for cancellation, that issuing body can refuse to recognise the cancellation. However, it must be considered that in a book and claim system the owner of the GO is the legal owner of the attribute and so refusal to recognise a cancellation in this context would be incorrect.

6.3.2 Opinion of the Compliance Assessment Panel

Implementing *appropriate mechanisms* should as a minimum include suspending issuing and a referral of the matter to the competent body for resolution. From the discussion with Landsnet it is not evident that such appropriate mechanisms have been implemented.

E3.3.14 should be enhanced to explicitly reflect part 2 of A2.1.2 such that it is clear to all issuing bodies.

E3.3.14 requires cleaning as it refers to general EECS Products, but also specifically EECS GO and Disclosure as the purpose.

6.4 EECS Rule N9.1.1

This requirement in the EECS Rules states:

'In order to comply with EECS Rules sections C3.3.1 and E3.3.14, at least the following requirements are fulfilled in the Domain, for the energy medium of the related Output:

(a) Disclosure of the origin of electricity must be mandatory for all suppliers of electricity, but may also apply to other type of actors depending on member state legislation;

(b) A competent national authority for Disclosure exists and is independent of energy companies. This body is responsible for supervision of the following elements as provided for by the corresponding provisions of the national legal framework:

(i) Disclosure figures as determined by legislation of the Member State, and the methodology to be used by energy companies;

(ii) That the disclosure information provided to consumers with the bill or with other billing material is supervised by a competent authority;

(iii) That the total quantity of disclosed volumes, according to tracking mechanisms supported by legislation, such as cancelled Guarantees of Origin, matches total supplied volumes by energy companies;

(iv) (If there is a practice to use a residual mix in that Domain,) residual mix calculation and figures, as well as the usage of those figures in Disclosure by suppliers; and

(v) (If there is no practice to use the residual mix in that Domain,) calculation and, figures of an alternative implicit mix (e.g. production mix which excludes renewable attributes) are used by suppliers for Disclosure, which prevents attributes represented by Gos from being double counted implicitly; and

(c) Where a GO system is in place for a specific energy source, there is an obligation to cancel Guarantees of Origin (or to use other tracking mechanisms supported by the legislation) when claiming the related attributes of that energy source for Disclosure.'

6.4.1 Interpretation by the Compliance Assessment Panel

N9.1.1 sets out the basic essentials for an operational domain. However, some of the requirements may be outside the legal remit of the AIB member to deliver.

6.4.2 Opinion of the Compliance Assessment Panel

6.4.2.1 N9.1.1 (a)

As Iceland has transposed EC2009/28 into its legal system under Regulation 757-2012, it is assumed that this requirement is satisfied.

6.4.2.2 N9.1.1 (b) initial part

Regulation 757-2012 names Orkustofnun as the competent body which is independent of the market players and so this requirement is satisfied.

6.4.2.3 N9.1.1 (b)i

In publishing the national production mix and the supplier disclosure mix this requirement is satisfied.

6.4.2.4 N9.1.1 (b)ii and (b)iii

It is not clear from the Panel's investigations that the conveying of the disclosure mix to consumers is monitored. It was suggested by Landsnet that it is not enforced. The Panel therefore has doubts that these requirements are satisfied.

6.4.2.5 N9.1.1 (b)iv and (b)v

Whilst a residual mix standard declaration is issued by Orkustofnun, the suggestion from Landsnet is that suppliers do not use it in practice or that it is simply disregarded by consumers.

6.4.2.6 N9.1.1 (c)

GO are available for 99.9% of production in Iceland (100% of renewable sources). Transposition of EC2009/28 means there is an obligation in law to cancel GO. However, simple comparison of the volume of GO remaining in Iceland net of imports and exports indicates that the law may not be fully observed, or perhaps is not followed through to consumer claims.

6.5 Standard Terms and Conditions

The Panel reviewed the standard terms and conditions(STC) for Iceland held by the AIB[7], which appears to be based on a template set of terms suggested by the AIB. The main purpose of the standard terms and conditions is to contractually bind a market participant to the Domain Protocol and the EECS Rules in as much as they apply to a market participant. There is no explicit obligation expressed in the STC concerning double counting within issue requests.

6.5.1 Opinion of the Compliance Assessment Panel

The standard text regarding errors (section 7 of the STC) may give some protection for errors discovered post-issuing, but it is the opinion of the Panel that the question concerns whether the energy was eligible for issuing. Landsnet gave no indication that it had considered withdrawal of certificates.

The Panel recommends inserting text into the template STC to make an explicit contractual undertaking by a market participant that energy for which it makes issuing requests has not been used for the same purpose within another allocation/tracking methodology.

7 OTHER STANDARDS

7.1 Aluminium Stewardship Initiative (ASI)

The Aluminium Stewardship Initiative is an industry specific global standards and certification organisation established to promote sustainability in the production and processing of aluminium. It was formally established in 2012 and is registered in Australia.

Principle 5 of the Performance Standard concerns GHG emissions and sets a limit for CO2e emissions per tonne of cast aluminium. Exactly what evidence is used to prove the emissions related to the electricity consumed has not been established by the Panel as this was considered beyond its remit. Certification is of the performance of the plant/process and is not a transferable certificate. However, the ASI also has a Chain of Custody Standard which conveys the production performance with the material as it is converted into downstream products and/or recycled.

All three aluminium smelting companies in Iceland: Alcoa, Rio Tinto, and Nordural (Century), are certified members of the Aluminium Stewardship Initiative.

7.1.1 Opinion of the Compliance Assessment Panel

Further investigation of the monitoring and evidence requirement of electricity consumed for the performance standard should be undertaken to establish why GO is not being used.

The AIB might wish to engage generally with voluntary consumer reporting standards organisations to establish best practice in consumer sustainability reporting such that it is consistent with Disclosure legislation.

[7] AIB-2019-DPIS-20190801 Standard Terms and Conditions

8 CASE STUDIES

The following case studies have been included to provide an illustration of operational practice rather than to infer specific cases to demonstrate potential double counting.

8.1 Alcoa

Alcoa Fjarðaál is an aluminium smelter located on the remote east coast of Iceland at Reyðarfjörður. The smelter was constructed in close co-operation with the Icelandic government and a major producer-supplier, the dominant electricity generator/supplier in Iceland. As part of a 40 year supply contract signed in 2003, the supplier built the 690MW Fljótsdalsstöð hydropower station. It accounts for about a third of that supplier's annual generation and nearly 25% of the country's total production.

The supplier and Alcoa have a joint project, the East Island Sustainability Initiative[8], set up to monitor the environmental, economic and social impact of the generation and smelting activities. Although the origin of the electricity used in the production of aluminium is unlikely to be within the scope of the initiative, it further demonstrates the closeness of the two operations. Like all three Icelandic aluminium smelters Alcoa markets its product as being produced using 100% renewable sources. Such a close relationship between a specific power station and a consumer site is unusual. However, for very high intensity, high volume electricity consumption such as is the case for aluminium smelting, an almost 1:1 relationship is quite common. Aluminium smelters cannot withstand short notice power outages of more than 30-40 minutes without incurring very significant cost from product and equipment write-off due to solidification in the electrolysis baths ('pots'). This reinforces the criticality of the power station/smelter relationship.

In 2020 Fljótsdalsstöð generated 4.87TWh[9] and the smelter consumed 4.85TWh. In 2021 production fell such that consumption was around 4.6[10]TWh. This suggests very little energy generated by the power station is not consumed by the smelter. Both the power station and the smelter, approximately 60km apart, are connected to the Icelandic transmission system. A double 220kV dedicated circuit exists between the two sites. The power station is also connected at a lower voltage to the rest of Iceland's transmission system. Alcoa Fjarðaál is the largest single consumer site in the country representing 24% of national annual consumption.

Imports from Iceland to the Germany and Flanders EECS registries of 2021 production showed GO representing 1.87TWh from Fljótsdalsstöð. At 100% load factor the power station, an unreal maximum annual generation would be approximately 6TWh. Subtracting the 4.6TWh consumed by the smelter leaves a maximum of 1.4TWh for export.

[8] See www.sjalfbaerni.is
[9] Source: Orkustofnun Data Repository 2022 Latest data only covers 2020 generation.
[10] Source: Alcoa Environmental Report

8.1.1 Notes on the Alcoa Case Study

Clearly, in an unconstrained transmission system, it cannot be concluded that all the generation from a single generation source must be assigned to a specific consumer. It is not known what transmission constraints might exist on east-west power flows within the Landsnet system, although independent assessment reports no significant permanent constraints in Iceland[11].
This power/smelting project was a nationally significant development which has a high sustainability profile. At nearly a quarter of electricity in Iceland, both the supplier and Landsnet must be aware of its significance to the GO market.

8.2 Nordural

Nordural, owned by Century Aluminium, is a smelter and processing facility in Grundartangi on the west coast of Iceland. In 2021 it consumed 4.7TWh[12] and so representing nearly a quarter of Icelandic consumption. It promotes its Natur-Al product as having one of the lowest carbon footprints in the aluminium industry, part of which it attributes to using entirely renewable electricity. It has made its electricity purchasing transparent, publishing details on its website of the four supply contracts currently held.

Provider	TWh per year	Proportion of Provider's Annual Production
Reykjavik Energy (OR) and HS Orka	2.557	58%
Reykjavik Energy (OR)	0.416	
Landsvirkjun	1.506	12%
Landsvirkjun	0.212	

The data in the table should only be used as an indicator of the impact of the supply contracts on the residual amount of energy the provider has that could be eligible for GO.

9 FINDINGS OF THE PANEL

9.1 Disclosure

The legal definition, and that within the EECS Rules, refers to statements made by electricity suppliers to their client consumers. These statements are about the fuel mix of the supplier and can be considered as wholesale level disclosure. In some countries there are regulatory requirements for particular tariffs or products to be specifically disclosed to the relevant consumers. This can be considered retail level disclosure as it relates to what was actually sold to that consumer. Marketing materials and voluntary sustainability reports published by consumers fall outside the legislative definition of disclosure. Best practice would be to align all levels of disclosure based on the high quality systems behind a GO.

[11] Source: Askja Energy
[12] Source: Nordual Corporate Sustainability Report 2021

9.2 Is Location-Based Allocation Used in Iceland?

It is understandable that location-based allocation might be used in an isolated system such as Iceland. However, as there is a legislative structure for the use of GO, this should be primary over other allocation methodologies. It is clearly not legitimate to mix methodologies as this almost certainly leads to double counting. Practices using the term "energy of renewable origin" are misleading if that energy is not combined with the legal proof of origin.

The volume of GO issued and cancelled within Iceland suggests some other method of origination is being used in Iceland to provide evidence for the consumer claims. The Panel has not been able to verify what is being used as that is outside of its (and AIB's) remit. Responsibility for the statements regarding certification of sustainability made by the aluminium smelters rests with the Aluminium Stewardship Initiative.

The Panel has not been able to establish whether appropriate legal disclosure consistent with the residual mix declaration made by Orkustofnun has been carried out by the electricity suppliers. The suggestion from Landsnet is that it may not be. Similarly, the Panel has not been able to establish if legal disclosure information has been provided, but disregarded by consumers in Iceland.

The opinion of the Panel is that the case of the aluminium smelters is significant in that each represents a high proportion of their electricity suppliers' business. Therefore, the suppliers must be aware of the attribute aspect of the supply agreements, whether explicitly stated or implied. The Panel considers that this constitutes a form of disclosure consistent with the other methods contemplated by C3.3.1.

9.3 What Can be Done Within the EECS Rules?

Given the high significance of the consumption by the three aluminium smelters in the context of both national consumption and as customers of the electricity supply companies, it would be difficult to accept an argument that those electricity companies are not aware of the 100% renewable energy claims being made by the consumers. Similarly, it is reasonable to expect Landsnet to be aware of these claims and their impact on the energy potentially eligible for GO to be issued.

If there is known use of location-based allocation as a form of disclosure, even if it is not explicitly done, then Rule C3.3.1 requires an issuing body not to issue a GO for the energy involved. The key criterion is whether the issuing body should be aware of the use of location-based allocation with sufficient doubt to require additional evidence of uniqueness when dealing with an issuing request.

Evidence suggests the practice has existed for more than just 2021, the principal study period of the analysis undertaken by the Panel. It therefore considers that the issuing body should have been aware of the problem for sufficient time to act. Rule E3.3.14 requires that the issuing body does what is 'reasonably practical'. In the opinion of the Panel, implementing reasonably practical appropriate mechanisms should as a minimum include suspending issuing for the producer concerned and a referral of the matter to the competent body for resolution. There is no indication from the statistics,

or directly from Landsnet, that it has suspended issuing in relation to this matter. The Panel has not been able to substantiate what, if any, referral to the competent body (Orkustofnun) has been made.

9.4 Did Landsnet Act According to the EECS Rules?

Landsnet told the Panel that it did not feel empowered to address the problem although recognised the claims made by the consumers did not appear correct given the exported GOs. According to legislation, it is not Landsnet's responsibility to ensure correct practice across all market participants and consumers. However, the EECS Rules place a requirement on members to maintain the quality and integrity of EECS Products.

At the time of issuing a specific batch of GOs, Landsnet may not have known whether they would be cancelled locally or exported. Whilst this might support Landsnet's actions in the context of a single issuing event, the fact that such issuing events have been occurred many times over what appears to be several years without remedial action, suggests that Landsnet has not implemented an appropriate mechanism to establish correct practice by one or more market participants.

9.5 What is the Impact of EU2018/2001 (REDII)?

EU2018/2001 Article 19 includes references to a requirement that a third country must be physically connected to the system of at least one Member State. It is not clear if this requirement applies to Iceland, being an EEA country rather than a Member State. Iceland would be the only AIB domain impacted by this. If physical connection is required, then Icelandic GOs may lose the right to recognition in EU Member States. However, it is understood that EEA countries may not be regarded as third countries within Art 19.

10 CONCLUSION

It must be stressed that the Panel has not been able to obtain a full dataset, either from Landsnet or the AIB Hub, to establish exactly which production devices are being issued with GO which are then exported. The total volume of exports means that at least 6TWh must originate from the country's dominant market participant. Whilst not conclusive evidence, the case studies show the very close relationship between the aluminium smelters and their electricity supply, and that these very few consumers are nationally highly significant in terms of electricity consumption and the national economy.

10.1 Advice to the Members on the Legal Status of GO from Iceland

The Panel recommends obtaining clarity on the legal right to recognition of GO from Iceland by EU Member States following implementation of EU2018/2001.

10.2 Advice to the Board Regarding Landsnet

In the Panel's opinion, the electricity supply arrangements to the aluminium smelters in Iceland include a form of disclosure by the electricity supply companies. The EECS Rules place a duty on each

member to ensure the veracity and uniqueness of EECS Certificates which may have been compromised through the activities in Iceland.
In legal terms, the attribute rights conveyed by the GO are owned by the owners of GO and so those rights do not remain in Iceland for local claims when the GO has been exported. In this respect the Panel concludes that Landsnet has not met its duties under the EECS Rules. Having established a degree of doubt over the uniqueness of claims which themselves are outside the scope of the EECS Rules, the Panel proposes the suspension of GO exports from Iceland pending clarity being established through the implementation of appropriate mechanisms as required under E3.3.14. This implementation of appropriate mechanisms should be done under a Rectification Order and should be done with support from AIB to also identify what form those mechanisms should take.

10.3 Advice to the Board on Strengthening EECS Rules

10.3.1 Compliance Assessment Panels

The ability of a Compliance Assessment Panel to conduct its investigation can be limited without full and constructive co-operation from the member being assessed. The Panel has no direct power to oblige members to participate and no scope to gain the participation of others. As the member will normally be the main source of information on which to base the assessment, there is a significant risk that the assessment may be compromised. Being on a fixed timeframe (without obtaining permission of the General Secretary to extend), there is opportunity for delay with a view to timing-out the assessment. It is therefore recommended to amend the timing of Compliance Assessment Panels to formalise how they might be extended such that this becomes transparent to members.

10.3.2 EECS Rule C3.3.1

The wording of C3.3.1 should be revised to make legislative schemes primary.

10.3.3 EECS Rule E3.3.14

E3.3.14 should be enhanced to explicitly reflect part 2 of A2.1.2 such that it is clear to all issuing bodies that the objectives of section A are given regulatory force. It may be helpful to give examples of what might be ‘appropriate mechanisms’ such as suspension of issuing for that account holder until doubts have been resolved.

E3.3.14 could be reviewed to be general as it currently refers specifically to EECS GO and Disclosure as the purpose.

10.3.4 Template Standard Terms and Conditions

The template Standard Terms and Conditions should be enhanced to make an explicit contractual undertaking by a market participant that energy for which it makes issuing requests has not been used for the same purpose within another allocation/tracking methodology. The present EECS Rules correctly place an onus on members to ensure uniqueness in EECS Certificates and this should be extended to also be on market participants requesting certificate issue.

10.3.5 AIB Hub

The current version of the AIB Hub appears to be limited in its ad-hoc data query capacity. Consideration should be given to providing such capacity e.g. in the framework of a data strategy.

10.3.6 Greenhouse Gas Protocol

Further investigation should be undertaken regarding the requirements of the Greenhouse Gas Protocol (GHGP) on consumer carbon reporting using location-based allocation where market-based solutions are implemented through legislation. This would establish whether similar situations to that identified in Iceland could be replicated elsewhere.