



ANNUAL
REPORT
2022



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Lukas Groebke (Pronovo, Switzerland),
Chair of the AIB Board

“I would like to say thank you for all of the contributions to strengthening our joint mission: “Guaranteeing the origin of European energy”.

Foreword

2022 was a very good year for AIB. In May, Oslo was the venue for the General Meeting where AIB members, new and old, finally reconnected during our first hybrid General Meeting in two years and it was a success. In total, 37 member representatives from 24 countries had three days of thought exchange and peer contact.

Mutual understanding is the key to continuing the harmonisation and creation of a unified and reliable European system of Guarantees of Origin under REDII and its successors, in order to guarantee the origin of European energy.

In general, member involvement is at a new high, with almost all members contributing actively; as Chair, on the board or in one of the several subgroups, finetuning our EECS Rules and executing our Hub and other strategic roadmaps. Indeed, in 2022 the futureproofing of European GO trade has kicked off with the building of a stand-alone Data Management module separate from the Hub. The redesign of the Hub is being tendered and specifications have been drafted with input from all members, as well as a new message mechanism that will be rolled out soon. All of this will allow AIB and the Issuing Bodies to accommodate the rise in transfers, currently at 10% annually but possibly exponentially higher if the new Renewables' Directive REDIII were to lower the face value of GOs from MWh.

The content of the Guarantee of Origin has also been updated in line with REDII and the draft revisions of the European EN16325 standard. The revision of this standard seems to last eternally, but this does not mean a standstill for Issuing Bodies who tirelessly continue their work of finetuning the EECS Rules within AIB, and of rolling out national systems for GOs for gases. Currently, no less than 16 AIB members have been appointed for gas GOs, with four new AIB members being gas-only Issuing Bodies: Conexus (LV),

Gasgrid (FI), Ambergrid (LT) and Enagas GTS (ES). All are preparing for membership of the AIB Gas Scheme Group and the first international transfers of gas GOs over the Hub are foreseen in 2023. AIB also continues its expansion into the South-Eastern part of Europe, with Ukraine becoming a formal Scheme Observer from January 2023 on. As we could meet in person again, the bonds further strengthened between individuals from Issuing Bodies from many countries.

As we want to continue our dialogue with stakeholders, in 2022 we have again brought together the Competent Authorities for Disclosure at the Disclosure Platform. We have successfully continued our cooperation in the REGATRACE and CertifHY projects. We clarified the framework for independent criteria schemes and labels and intensified our cooperation with other certification schemes. We set up a new Taskforce - EECS Products, which considers how EECS can efficiently facilitate extended demands and purposes of energy certification. Together with the RECS Certificate Foundation we have successfully organized the Open Markets Committee with nearly 100 attendees. And you could also find the members of the Secretariat speaking at many international events and conferences.

The world is in crisis on many fronts, but within AIB we continue our efforts of international cooperation and standardization, in a constructive and open atmosphere where everyone feels respected and heard.

Key figures



871 TWh

Number of transfers
over AIB Hub



2051

LinkedIn followers



35

Number of Members



3

Number of Observers

16

Electricity
Issuing Bodies

4

Gas-only
Issuing Bodies

15

Electricity & Gas
Issuing Bodies

GO transactions for 2022

Summary of activities in 2022.
More detailed statistics are available on the [AIB website](#).

Market activity

Guarantees of Origin (GO) Statistics are available for: GO activity by month; and GOs produced in a month. Therefore, GOs can be analysed on the quantity of GOs which are actually issued, transferred, and cancelled or expired in a month; as well as those which were issued, cancelled, or expired for the electricity produced in a month. These statistics show how many of each GO are still available on the market and provide a review of seasonal GO activity.

Overview of activity

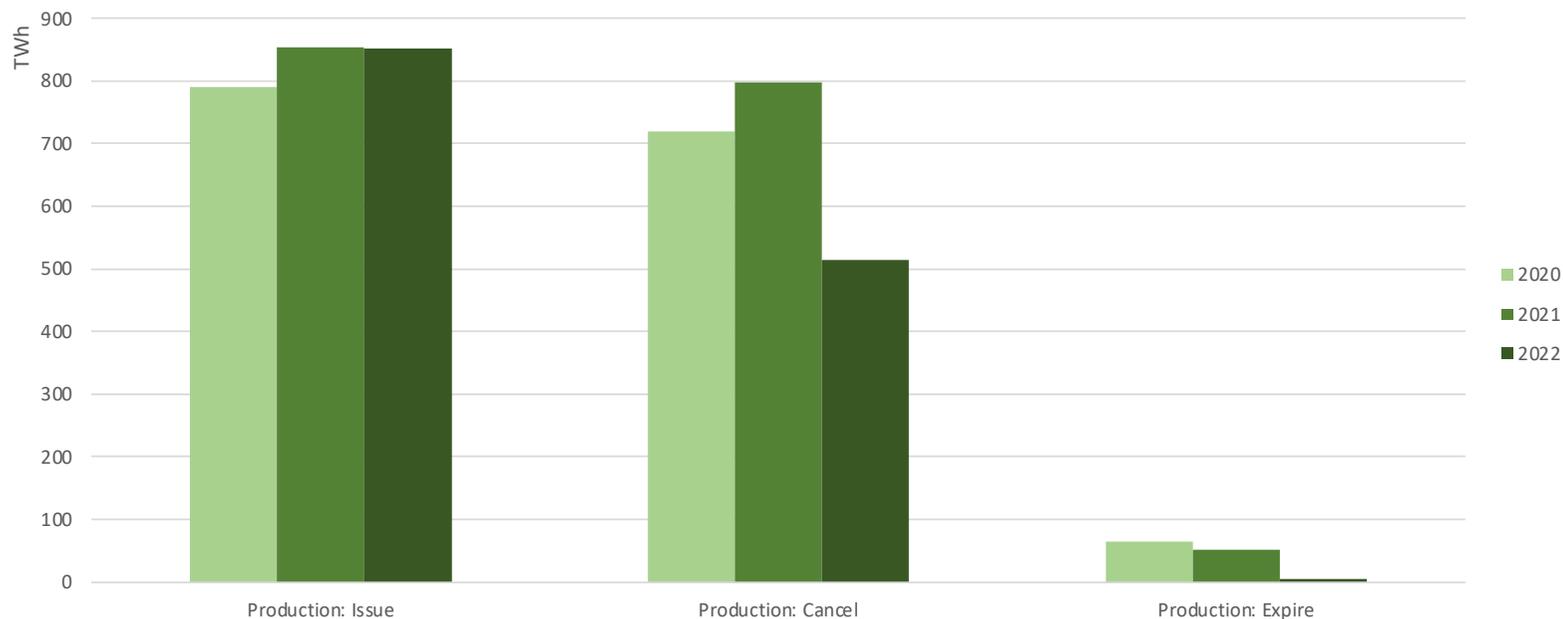
The number of issued GOs maintained similar levels from 2021 to 2022, there was a very slight drop in total number issued (approximately 3 million certificates, 0.36%). The number of issued GOs for electricity produced during 2022 should be close to the final figure, although inevitably there will be some late additions due to final settlements and resolution of errors and disputes.

The following graphs show:

The annual quantity of GOs issued, cancelled, and expired for production for the last three years

Annual EECS transactions in TWh (based on production date)

Quantity of GOs issued, cancelled, and expired for production for the last three years



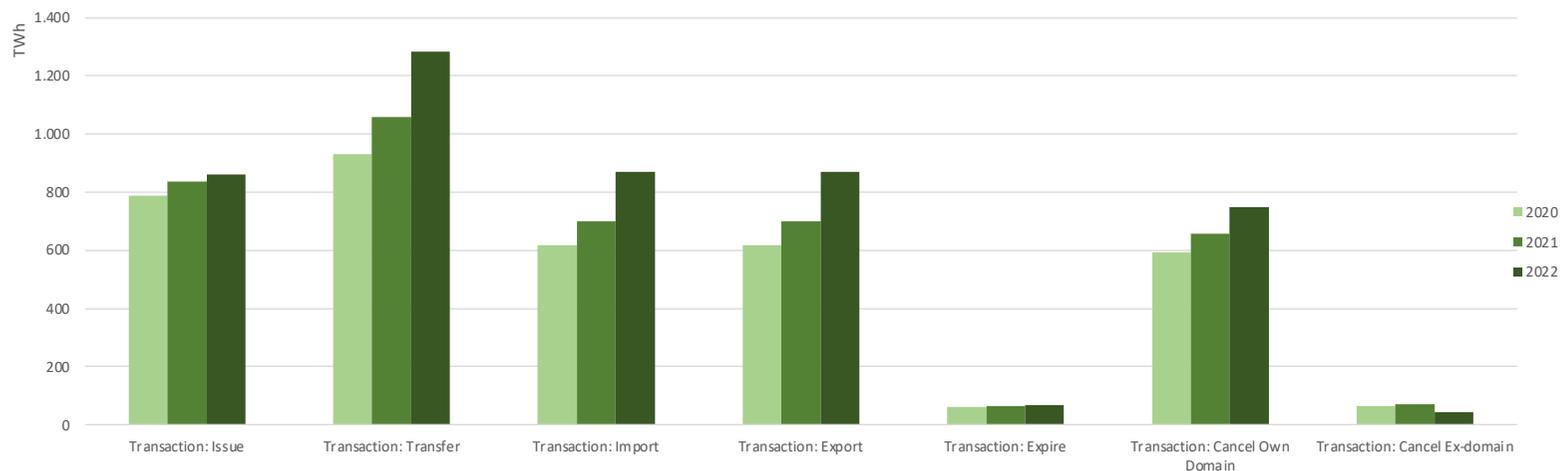
GO transactions for 2022

Final cancellation numbers for the GOs are not yet fully available so there appears to be a large drop in cancellations however due to the time of year in producing the report this number may not reflect the final reality. GOs are often cancelled closer to their expiry date, which explains why some of the GOs for 2022 production have yet to be cancelled – these will be cancelled later in 2023. In reviewing these graphs, please note that – in line with the provisions of the RES Directive 2009/28/EC and its successor 2018/2001/EC – GOs expire one year after the date of production.

The following graphs show:

The annual quantity of GOs that have been issued, transferred within a country, transferred internationally, and expired and/or cancelled during the same time period.

Annual EECS transactions in TWh (based on transaction date)

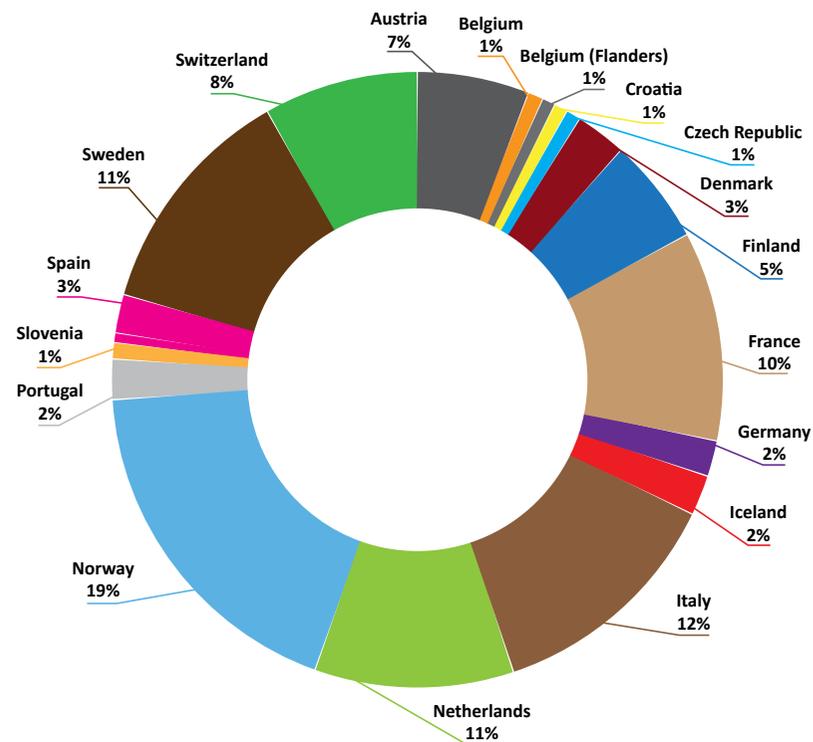


GO transactions for 2022

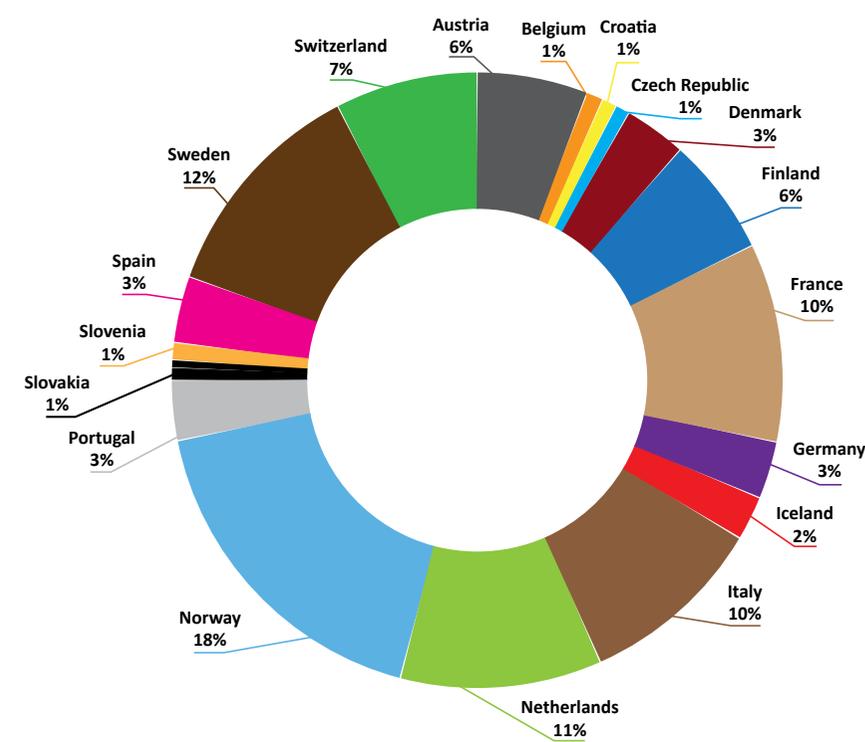
Regarding national activity, the major issuers of EECS GOs in 2022 were Norway followed by Sweden and the Netherlands; who account for 40% of all GOs issued. Next up are France, Italy, Switzerland, and Finland, which issued a further 33% of total GOs issued. Most domains remained steady compared to the previous year in terms of issuing.

EECS certificates issued per country for 2021 and 2022

EECS certificates issues per country (2021)



EECS certificates issues per country (2022)



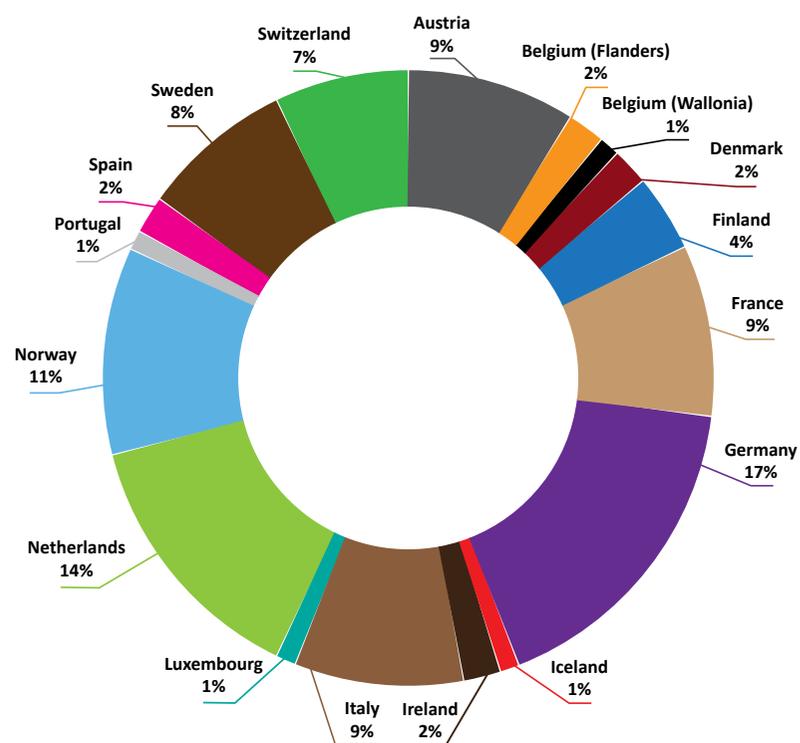
In 2021 and 2022 the following countries also issued GOs (each country contributed less than 1% of the overall total): Belgium (Wallonia), Belgium (Brussels), Cyprus, Estonia, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Serbia and Slovakia.

GO transactions for 2022

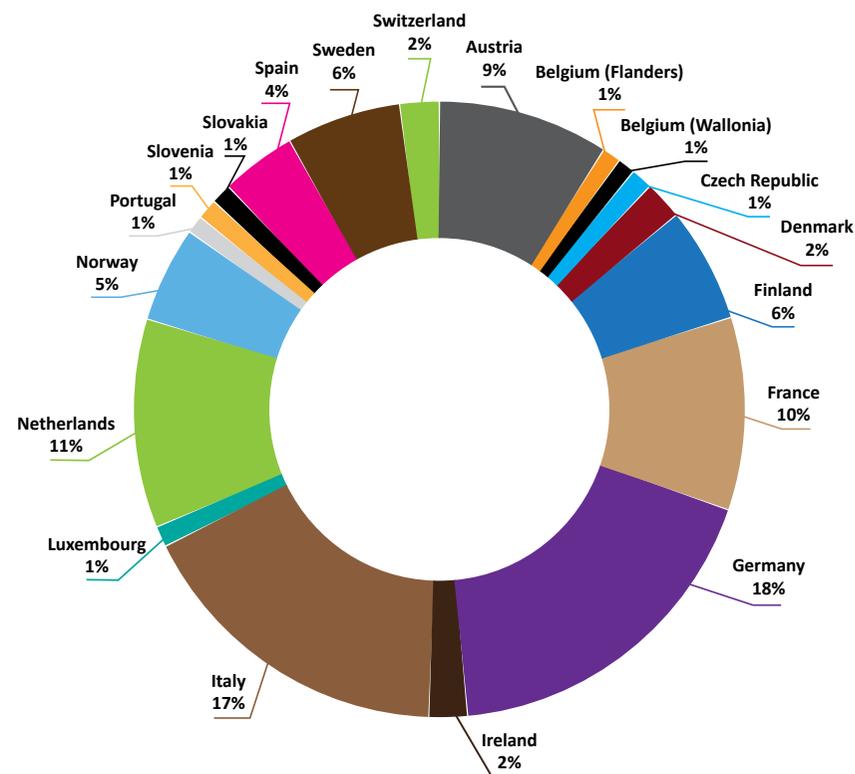
In 2022, Germany (18%), Italy (17%), the Netherlands (11%) and France (10%) were the top four consumers of GOs, cancelling 56% of the total cancelled GOs. They are followed by Austria, Finland, Sweden and Norway who cancelled a further 26% of the total. The following graphs show the annual quantity of GOs issued and cancelled for the years 2021 and 2022.

EECS certificates cancelled per country for 2021 and 2022

EECS certificates cancelled per country (2021)



EECS certificates canceled per country (2022)

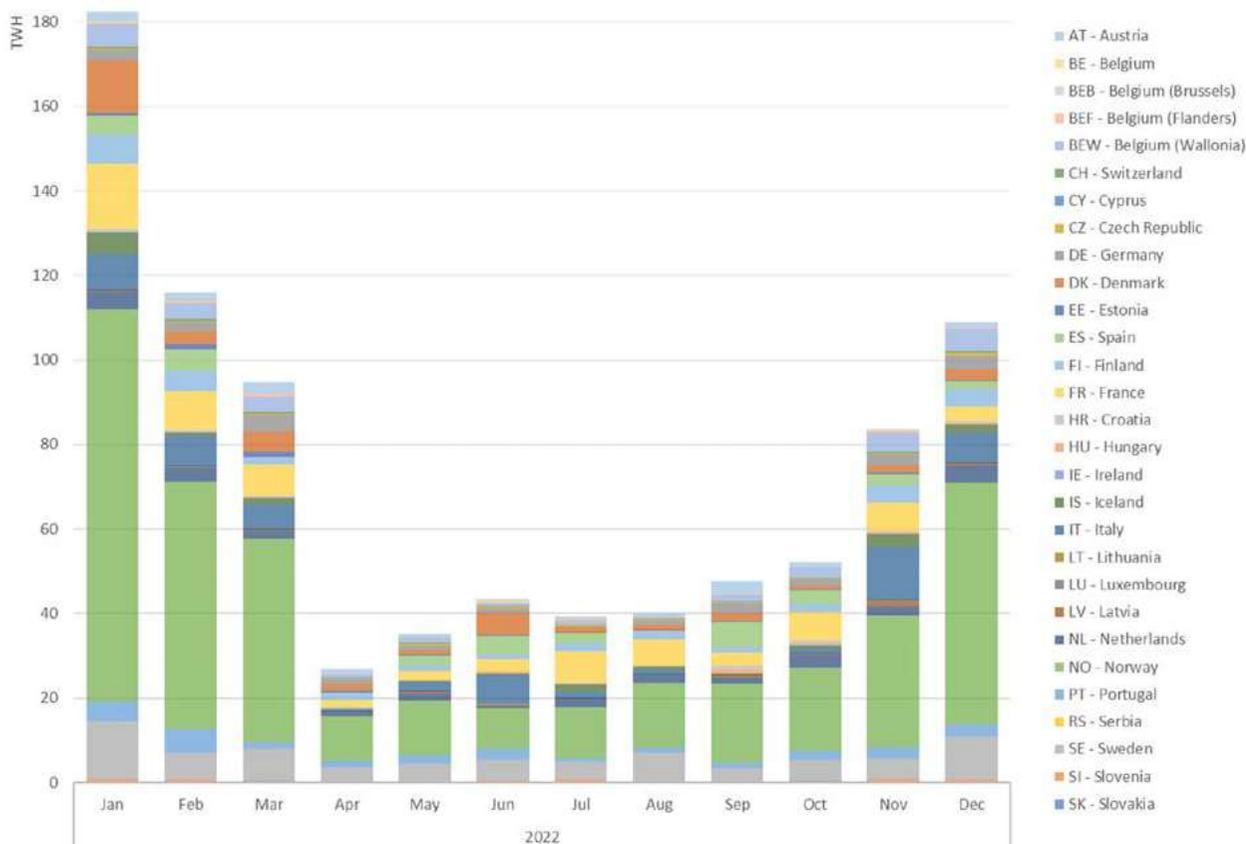


GO transactions for 2022

Export and import activity

Once again, Norway was the leading exporter in 2022, with Sweden, France and Italy following. There was little change compared to 2021 with Norway exporting nearly five times more than the second highest member, Sweden.

Monthly exports per domain (TWH)



Achievements

By the end of 2022, AIB had **35 members from 28 European countries**. All are Issuing Bodies appointed by their governments to administer a system for Guarantees of Origin (GOs) for sixteen of them were also appointed to do so for Gas.

Members

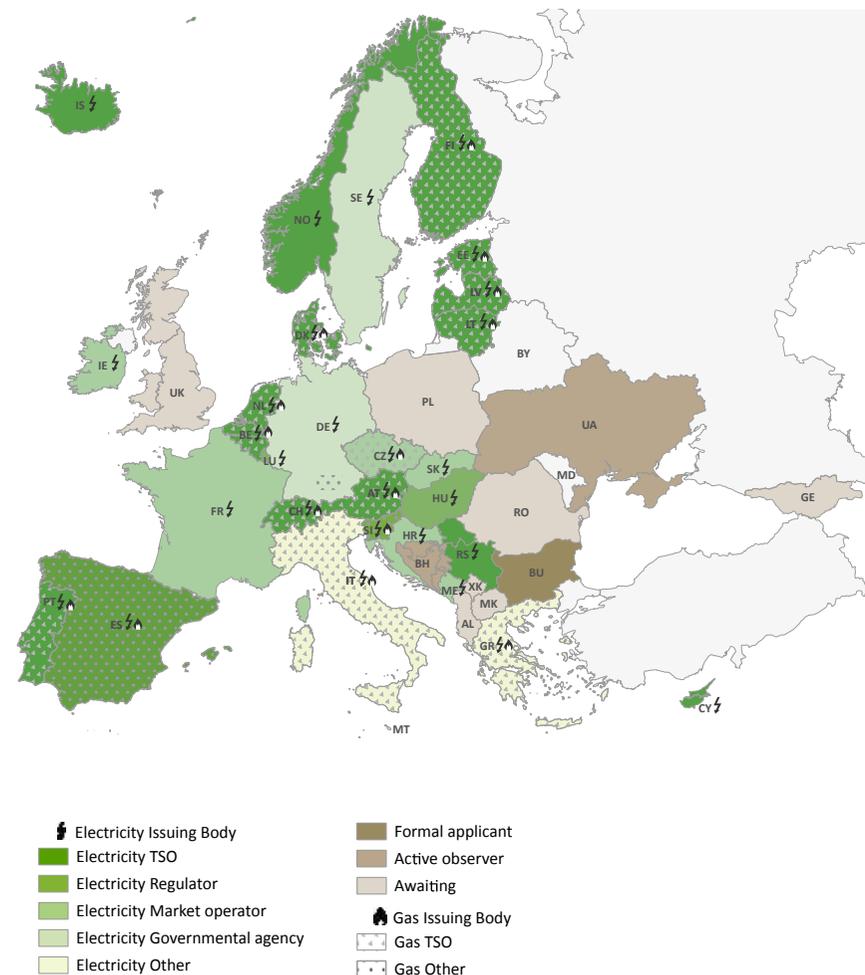
During 2022, AIB welcomed the first gas-only Issuing Bodies as members: Gasgrid **Finland**, Enagas **Spain**, Conexus **Latvia** and Ambergrid **Lithuania**. The next step for these organisations is to complete their application to the EECS Gas Scheme, allowing them to issue EECS GOs and transfer certificates over the AIB Hub.

In preparation for their membership, Issuing Bodies interested in joining can apply for “Scheme Observer Status” ([see more info](#)): in 2022 the State Energy Efficiency Agency (SAEE) of **Ukraine** was granted Observer status, entering into force on 1 January 2023. This means that within the EU, only Poland, Romania and Malta are not participating in the EECS system of GOs for electricity.

The geographic scope of AIB is limited to the EU, EFTA and Energy Community. **Serbia** is the first contracting party of the **Energy Community** who joined the AIB as a full Electricity Scheme member in 2019, followed by Montenegro in 2021 and more countries will follow, including Bosnia and Herzegovina, Ukraine and Georgia. AIB has signed a Memorandum of Understanding with the Secretariat of the Energy Community to assist with the setting up of national GO systems in this region.

Besides electricity certificates, AIB also facilitates the system for governing and transferring **certificates for gases**, including biomethane and hydrogen. This has been included in EECS since 2019 and was further finetuned this year. In 2023, the Gas Scheme will be consolidated with trades going through the Hub. Furthermore, the facilitation of so called “non-governmental certificates” is being revived in EECS in order to accommodate Issuing Bodies for energy certificates that are not (yet) qualifying as official Guarantees of Origin under the European Renewable Energy Directive; providing the ability to pioneer certificate products that may later be adopted in legislative frameworks.

AIB guides newcomers through the membership application and assigns them a SPOC (Single Point of Contact) to assist them with their onboarding in the association. This map identifies the countries of organisations that were members of the AIB, and countries interested in or actively pursuing membership, as at the end of 2022.



Achievements

Strategy

In previous years a lot of strategy development has been completed including a strong vision for 2021-2025 and three strategic roadmaps. In 2022 the execution of this strategy was in full force.

As a part of the “Hub Roadmap” that leads to gradually rebuilding the AIB Hub, a tender was held for the development of a separate platform for data management processes, that currently is a part of the AIB Hub. The tender was awarded to Solita who started the deployment of the new Data Management module. Members joined forces in preparing the layout of the rebuild of the rest of the AIB Hub, including a draft of its specifications.

To increase the amount of information on European Guarantees of Origin (GO), including after cross border transfer, the members aligned on the addition of new data fields, with flexibility for further futureproofing in the continuously evolving legal landscape. Therefore, the “v80 roadmap” was set in motion with the aim to update the content of transfer messages and, concluded its preparatory work to lay down a flexible schema for the data fields on the GO. By doing so, the GO system responds to ongoing evolutions and AIB members will be ready to implement the EN16325 when this comes into force. By the end of 2023 all members should have transitioned to operating the transfer messages in this new format.

Three subgroups, consisting of AIB members, worked on aspects of these roadmaps: revision of the Data Management module, a new message protocol and the v80 schema. These data-oriented processes had agreement from members regarding the strategy for energy certificate handling. As part of the conversion roadmap, decisions were made regarding the facilitation of import of all EECS Certificates to all Members of an EECS Scheme, upon confirmation of the technical adequacy of the importing EECS registry. This enables electricity Issuing Bodies to import and cancel gas GOs for proving the input to energy conversion and vice versa.

External cooperation

AIB continued its cooperation with **ERGaR** with a view to bringing together the certification of renewable gases. AIB strongly advocates bringing the two gas certification schemes together, as closely as possible. There are great benefits to cooperation and to merge the two schemes in the fight against climate change and on the path towards an integrated energy sector. “If you want to move fast, go alone, if you want to move far, go together!” (African proverb)

On one hand, a series of joint board meetings were held, as well as a workshop for ERGaR members on how the EECS Scheme and ERGaR Scheme could cooperate in one system. On the other hand, AIB and ERGaR worked closely together towards harmonisation in the REGATRACE project.

Furthermore, AIB’s long standing cooperation with the **RECS Energy Certificate Association** continued, with regular joint management meetings, speaking slots by AIB members and officials at the REC Market Meeting in April and the joint organisation of the Open Markets Committee in Brussels in November with nearly 100 attendees. Upon invitation of the Council of European Energy Regulators, **CEER**, in September 2022, AIB’s Secretary General gave a full day of training on GOs for energy experts from the governments and NRAs of Armenia, Azerbaijan, Georgia, the Republic of Moldova and Ukraine as part of the EU4Energy project.

Achievements

Disclosure Platform

The Disclosure Platform is an informal exchange forum for Issuing Bodies of GO and Competent Authorities for the supervision of energy Disclosure by suppliers in Europe.

Energy Disclosure is the flipside of the coin when talking about Guarantees of Origin. Consumers want to know the origin of their energy. Renewable energy is proven with GO and national Competent Authorities supervise such green energy claims for electricity (and hopefully soon for gases too). However, due to limited harmonisation in European legislation, not all national Competent Authorities for disclosure are also the Issuing Bodies for Guarantees of Origin. This was hindering earlier discussions on the topic within AIB and was the motivation for setting up this platform as part of AIB's new organisation structure (in which certification of other energy carriers is also accommodated).

Experience with electricity disclosure has brought to the surface some challenges and unresolved issues and disclosure of gas and hydrogen or heating/cooling remains uncharted territory so far. There is also a need for sharing experiences and knowledge between mature markets and markets where trust and interest towards disclosure are still under development.

Internal webinars

The tradition of AIB's Tea Time Thursdays was continued in 2022 with the organisation of six webinars. These focus on a complex or newly evolving issues, such as CBAM and its impact on GOs, corporate reporting under CDP and RE100, RFNBOs and VAT fraud with GOs. An expert introduces the topic and members can openly voice any questions. The meeting starts and ends with an informal chat among attendees. On average 34 participants joined from the 35 AIB members and the webinars had positive reactions.

REGATRACE

In 2022, AIB finalised its contributions in the REGATRACE project, which aims to contribute to a system for issuing and trading biomethane/renewable gases Guarantees of Origin (GO) and to the uptake of the biomethane market.

As a consortium partner, AIB led the work package on the integration of GOs between different energy carriers. Energy tracking throughout an integrated energy sector needs a harmonised approach in all involved countries, to facilitate a trusted and efficient origin tracking system.

AIB led the drafting of a REGATRACE Report with recommendations for harmonised rules on handling GOs in relation to energy carrier conversion. This will strengthen the European market for renewable gas certificates and support Issuing Bodies and Registry Operators for GOs. They establish a common understanding of the practical challenges and recommend pragmatic solutions. These can be brought up further in the ongoing development of rulesets.

The outcome of this study is the reason why AIB will facilitate, for all its members, the importing of GOs for all energy carriers. This enables efficient and reliable GO handling at conversion. Within the given EU regulatory framework the national implementation is up to members and their national frameworks, the study also analyses transitioning and alternative solutions.

In September, the second AIB-led REGATRACE report was finalised: "Design study on a coordinated process for handling Guarantees of Origin for energy conversion".

Achievements

At the final conference of the REGATRACE project on 16th November 2022, the chairman of AIB's Gas Scheme Group, Bram van der Heijde presented how the European Energy Certificate System (EECS) facilitates certificates for electricity and gases and the building blocks for further evolution considering various certification purposes. Matthieu Boisson elaborated on the way CertifHy designs a system for multipurpose certification for hydrogen, that prepares for recognition in EECS by AIB. Katrien Verwimp presented the results of the AIB-led REGATRACE studies regarding the integration of Guarantees of Origin for multiple energy carriers. These studies are available on <https://www.aib-net.org/news-events/aib-projects-and-other-news/regatrace> and on www.regatrace.eu.

This project receives funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under Grant Agreement no. 857796

CertifHY

AIB continued its participation in the CertifHy III project, with the aim to integrate CertifHy as an independent criteria scheme under the European Energy Certificate System (EECS), and to facilitate the work of Issuing Bodies for hydrogen certificates in the EECS Gas Scheme.

CertifHy III will implement a harmonized H2 GO scheme across Europe & beyond, build a market for H2 GO trade in close collaboration with market actors, and design a Certification Scheme for compliance with RED II renewable fuels for transport.

The Documents Section on the website www.certifyhy.eu shows the documentation about the CertifHy™ scheme including its updates agreed by the CertifHy Stakeholder Platform in 2022 with an aim to align with the provisions of the EECS Rules.

This project is supported by the Clean Hydrogen JU (which took over from the FCH 2 JU in November 2021).

AIB's work on revising EN16325

The framework for Guarantees of Origin (GO) is set by the Renewable Energy Directive 2018/2001(EU). The Directive establishes the main design aspects of the GO system: its purpose, the mandate on member states to arrange the issuance of GOs for electricity, gas (including hydrogen) and heating and cooling, and their cross-border transferability. To ensure a reliable set-up, which is essential for trusting imports, the CEN EN16325 standard harmonises principles and essential aspects of the building blocks of this GO system.

In order to make the cross-border transfers efficient when volumes become big, and also to ensure reliable transfers, further details need to be harmonised. The European Energy Certificate System (EECS®) operated by AIB facilitates harmonisation of the details while being adaptable to changing circumstances, in agreement between Issuing Bodies.

The EN16325 standard for GOs, developed in 2013, has been based on the EECS Rules. Its ongoing revision builds upon the updated EECS Rules, for the principles of certificate administration and scheme-specific rules for different energy carriers. The revision started in 2020, and by the end of 2022 in CEN-CENELEC, a text was brought to an enquiry process with a view to collect formal feedback from the national standardisation bodies in CEN-CENELEC. The revision process will continue in 2023.

In the meantime, the EECS Rules work as a standalone standard that engages the European GO Issuing Bodies in reliability and efficiency.

While the EECS Rules will require a finetuning update after finalising the EN16215 revision, embedding the full size of EECS into a CEN standard was never advisable. Indeed, time has proven that continuous developments are needed and that details are subject to dynamic change. AIB has a democratic decision-making structure for continuous quality management of services and for the various levels of documentation of EECS, as shown in the graph below. This way, AIB facilitates both efficient and reliable handling of GOs in line with their purpose as set out by legislation.

In addition, EECS facilitates a broader scale of energy certification than just GOs. This enables the development of solutions for upcoming needs in a harmonised way, while in constant dialogue with Issuing Bodies from all over Europe.

AIB Officials

The AIB Board is responsible for the day-to-day management of the Association, and meets monthly, usually alternating physical meetings with teleconferences.

In 2022, the composition of the board changed with the addition of **Miguel Jerónimo** (REN, Portugal) as representative for the Communication and Public Affairs Unit. **Aigars Sīlis** (AST, Latvia) took over as representative for the Information Systems Unit, replacing **Annie Desaulniers** (SPW, Wallonia). **Elke Mohrbach** (UBA, Germany) represented the Electricity Scheme Group. **Wouter Vanhoudt** (Hinicio) was the representative on the Board of the Gas Scheme Group.

On 1 August, **Lukas Groebke** (Pronovo, Switzerland) took over the Chair position from **Ivar Munch Clausen** (Statnett, Norway), leaving the position of Vice Chair and Vice Treasurer vacant. **Ilona Bruens** (CertiQ/VertiCer, Netherlands) remained in the treasurer position.

The Information Systems Unit was chaired by **Annie Desaulniers** (SPW Wallonie, Belgium) until 11 July, when she was succeeded by **Martin Štandera** (OTE, Czech Republic) and **Katja Merkel** (UBA, Germany) as co-chairs. The External Affairs Unit was chaired by **Milada Mehinovic** (Pronovo, Switzerland) and renamed into Communication and Public Affairs Unit. The EECS Unit and Electricity Scheme Group are chaired by **Maria Koulouvari** (DAPEEP, Greece) but **Eva Nordlander** (Swedish Energy Agency) took over the chair of the Electricity Scheme Group on 22 September. **Wouter Vanhoudt** (Hinicio) chaired the Gas Scheme Group until 21 September, when **Bram van der Heijde** (VREG, Flanders) took over.

A Task Force EECS Products has been established in autumn, which is chaired by **Ance Ansonė** (Conexus, Latvia) and which considers how EECS can efficiently facilitate extended demands and purposes of energy certification.

AIB is extremely grateful for the contributions of its member representatives, as they form the engine of the Association. We wholeheartedly thank all officials for their involvement.



AIB Board (from left to right)

Lukas Groebke (chair from August 2022, Pronovo, CH), **Ilona Bruens** (Treasurer, VertiCer, NL), **Elke Mohrbach** (ESG representative, UBA, DE), **Liesbeth Switten** (AIB Secretary General, BE), **Miguel Jeronimo** (CPAU representative, REN, PT), **Aigars Silis** (ISU representative, AST, LV).

AIB Secretariat

The General Meeting, Board, Units and Scheme Groups are supported by the Secretariat; The Secretary General of AIB is **Liesbeth Switten**.

The day to day work at AIB is handled by the Secretariat. Together with Liesbeth Switten it consists of:

- **Katrien Verwimp** as Chair of the Professional Reviewers' Group and Coordinator Sector Integration. She supports the EECS Unit and both Scheme Groups in strategic and regulatory matters and she represents AIB within CEN and other international platforms. She represents AIB in the REGATRACE and CertifHy projects.
- **Marika Timlin-de Vicente** (Grexel, Finland) in the Information Systems Unit, and she is also the SuperUser for the AIB Hub.
- **Andrea Effinger** supports the Secretariat in administrative matters, mostly within the Communication and Public Affairs Unit and the Chairs' Unit meetings.
- **Svenja Vloeberghs** provides general support to the Secretariat, amongst other things, in financial and administrative matters.

Audits and reviews to check member compliance with the EECS framework are conducted by member representatives, assisted by the following professional reviewers:

- Katrien Verwimp (Belgium) (Chair)
- Christos Toufexis (Cyprus)
- Diane Lescot (Observ'ER, France)
- Emma Kelly (Ireland)
- Pierre-Yves Cornelis (Belgium)
- Phil Moody (United Kingdom)
- Chris Pooley (United Kingdom)

Each of the professional reviewers has, during their career, worked with AIB or a member and has in-depth knowledge of EECS. Given the growth of the Association, the AIB is always looking for new professional reviewers to join the pool.



AIB Secretariat (top left to bottom right):
Liesbeth Switten (Secretary General), **Katrien Verwimp** (Strategy Coordinator-Energy Certificates), **Svenja Vloeberghs** (Executive Assistant), **Andrea Effinger** (Assistant), **Marika Timlin-de Vicente** (SuperUser).

Information Systems Unit

The Information Systems Unit (ISU), advises the AIB Scheme Groups and Units on the AIB certificate transfer system, recommends change requests, and follows up on decisions made in this framework.

The ISU's main task is to supervise and further develop the AIB Hub which facilitates transfers of certificates between AIB member registries and ensures the quality of the registries with regular technical auditing. In 2022, technical audits were approved for seven AIB registries. The technical audit template was also updated.

Furthermore, the ISU focused on three important topics in 2022:

- Preparation, implementation and testing of new GOs XML schema v80, including updating the AIB SD03 document known as "HubCom",
- Implementation and testing of a new data management environment connected to the AIB Hub,
- Discussing and improving a proposal for a potential new message protocol.

In the first half of 2022, Annie Desaulniers (SPW) held the role of Chair and Board representative for the ISU.

At the beginning of the second half she stepped down and Katja Merkel (UBA) and Martin Štändera (OTE) co-chaired the ISU together and Aigars Silis (AST) represented the Unit within the AIB Board. This split of tasks between several people increases the overall efficiency and broadens mutual cooperation within AIB.

The Unit organized one physical meeting and 15 teleconferences during 2022. The concept of monthly meetings was kept in order to follow up efficiently on topics.

In daily operations, the work of the Technical Support Users, Drahoslav Stejskal and Daniel Hubálek, and maintenance team from Unicorn Systems is much appreciated as their responsibilities to support AIB members are gradually increasing. The AIB Hub SuperUser role remains as a business specialist, supervisor and second line support. The SuperUser role is still held by the experienced Marika Timlin-de Vicente from Grexel Systems Ltd. Her work on the update of the XML schema to v80 was especially invaluable to AIB.

The challenges on the horizon are to renew the AIB Hub and to help AIB members implement the new XML schema v80 into their registries in order to accommodate certification of new energy carriers. Another priority is to discover the possibilities of the newly implemented data management environment and help the AIB members use and benefit from it. The ISU works hard on continuously improving the efficiency of its meetings and internal processes and procedures.



ISU (EECS system (AIB Hub) efficiency and enhancement as well as development of the AIB Hub), co-chaired by **Martin Štändera**, OTE Czech Republic and **Katja Merkel**, UBA Germany".

We would like to thank the active members of the Unit:

Annie Desaulniers (SPW),
Tommy O’Gorman (SEMO),
Ondrej Kulich (OKTE),
Siim Nettan (Elering),
Gunnar Läll (Elering),
Miguel Jerónimo (REN),
Kristian Hagen (Statnett),
Malcolm Keizerweerd (VertiCer), and
Kalvis Ertmanis (AST).

We want to acknowledge and thank all members who contributed to the work of the Unit in 2022 and welcome new members to join the Unit!

Communication and Public Affairs Unit

The **Communication and Public Affairs Unit (CPAU)** has a significant role in the organisation, as a promotor of AIB’s activities and facilitator of member onboarding and internal communication.

The CPAU members meet at least four times per year. Upon the suggestion of the Board, the Unit changed its name from External Affairs Unit to the Communication and Public Affairs Unit in order to strengthen and improve our internal communication with all Units, Scheme Groups, and members.

In 2022, work began on a communication strategy by launching a survey among AIB members. The aim of this survey was in one part to obtain an overview of member views and expectations on a communication strategy for AIB and on the other part to identify potential gaps and areas for improvement. The respondents also provided feedback on the role of CPAU, by determining what should be continued as tasks and focus on what could be improved. This survey will serve as input for the work in the year to come.

Via a “Single Point of Contact” (SPOC), the CPAU follows up requests and activities from new observers, applicants, and members within AIB for all scheme groups, especially in their first year of membership. This system allows them to speak to a single, dedicated person within the AIB. In addition, CPAU oversees the continuous update of information on the AIB website, both the public and member section. Our members were able to attend six internal webinars to deepen their knowledge and obtain useful information on various topics related to Guarantees of Origin (GO).

Communication with stakeholders is essential for the promotion of the organisation. In total five AIB newsletters have been published in 2022 and distributed to over 1,400 subscribers. In addition, we published documents and reports for our target audience in order to update them on AIB developments, latest news on AIB members and GO-related news.

In terms of social media, AIB had around 2000 followers on LinkedIn at the end of 2022, compared to 1500 at the end of 2021. LinkedIn updates, done every few weeks, generally receive 1200 to 3500 impressions with an average of around 30 likes.

AIB actively collaborates with other stakeholders in the energy sector and delivered speakers for events and training organised by CEER, I-REC, RECS Certificate Foundation, CEN, REGATRACE, CERTIFHy, RE-Source, CEBI, Commerg, ESAE, IMEX, BSAE, etc. as well as numerous presentations on energy certification for the European Commission.



CPAU (provision of information and recruitment of new EECS members), chaired by **Milada Mehinovic** of Pronovo Switzerland.

We would like to thank the active members of the Unit:

Dubravka Brkic (HROTE, Issuing Body of Croatia),
Friederike Domke (UBA, Issuing Body of Germany),
Branislav Banovic (COTEE- Montenegrin Electricity Market Operator),
Nikola Tosic (EMS, Issuing Body of Serbia)
Milada Mehinovic (Pronovo, Issuing Body of Switzerland) and
Andrea Effinger, AIB’s Assistant to the Secretariat.

For the first time CPAU elected a representative in the Board. Thanks to **Miguel Jeronimo** (REN, Issuing Body of Portugal) for taking an active role here.

We said goodbye to **Mieke Langie** (VREG, Issuing Body of Belgium, Flanders) and **Anca Visser** (CertiQ, Issuing Body of the Netherlands). We would like to thank them for their commitment in fulfilling the tasks within the CPAU.

EECS Unit

The AIB Unit for the European Energy Certificate Scheme (EECSU) consists of all members of AIB and is therefore as large as the General Meeting. The EECSU is a very central and important body within the AIB, since it is responsible for the ongoing development and implementation of the regulations on the generic (non-energy-specific) part of the European Energy Certificate System (the EECS Rules) that applies to all energy carriers.

The EECSU is also responsible for promoting and protecting the interests of the AIB and its members in the ongoing development of the CEN/CENELEC standard EN16325. During 2022, the EECSU convened six times, two of them in person. Many discussion tracks were initiated in the regular EECSU meetings and continued in subgroups where every member was encouraged to join. This way of action activates members' engagement and builds more trust of the outcome, which is then brought for discussion and decision at the EECSU.

The EECSU maintained an open dialogue with the Information System Unit (ISU), in order to facilitate the upgraded version of the inter-registry communication Hub. New data fields on GOs and new parameter values are designed to future proof the Hub, e.g.:

- carbon footprint quantification of the produced energy and a reference to the methodology used for this quantification,
- time stamp on start and end of the production period to allow time granularity in the future,
- new parameter values for cancellation purpose (disclosure, support, target) to protect from cross-purpose double-counting risk.

Furthermore, the EECS rules have been updated to facilitate energy carrier conversion. A new data field on the GOs was introduced which indicates whether another certificate is cancelled as proof of the attribute of the input energy, or if the attribute belongs to the primary energy source, used as input. In a similar way, rules were updated with regards to storage, with a data field introduced that indicates if the issued GOs are issued for energy released from storage devices. Further finetuning of the EECS rules for both energy carrier conversion and storage is foreseen as necessary, based on signals we have received from the market.

Finally, in 2022, the endorsement of other energy attribute certificate schemas, NGCs, that operate supplementary and not competitively to the EECS GOs were discussed. The criteria for recognition of an NGC scheme, the necessary control over quality assurance, the framework of membership structures, requirements and privileges for Issuing Bodies for GOs and NGCs all are under the scrutiny of members and will engage our time in the years to come.



EECS Unit (Internal regulation of the Association, and administration and development of the EECS standard), chaired by **Maria Koulouvari** of DAPEEP, Greece

Electricity Scheme Group

The Electricity Scheme Group (ESG) held six meetings during the year 2022, two of them were physical meetings, one in Oslo and one in Budapest. The member representatives were happy to see each other again after a long period of time having virtual meetings and noticed a different and very positive working atmosphere at meetings with a physical presence.

In September in Budapest, elections took place: Eva Nordlander has been appointed as the new Chair of the group and Elke Mohrbach was nominated as the Board Representative. The group thanked Maria Koulouvari for all the great work of chairing the Electricity Scheme Group during recent years. Under Eva's new leadership, the work of the Electricity Scheme Group continues.

The main focus of the group was the follow-up of audits and reviews of Members and their Domain Protocols, which is an important process for the continued quality assurance provided by the Association. The audit and adapted Domain Protocols of AST for Latvia, REN for Portugal, Finextra for Finland and TSO Cyprus for Cyprus were successfully conducted and approved. The group also welcomed MEKH as a new member in the Electricity Scheme Group for Hungary and congratulated MEKH on passing the review, enabling Hungarian Guarantees of Origin to be transferred over the AIB Hub from February 2022 and onwards.

The group delegates discussions of specific topics to subgroups. These subgroups meet between the ESG meetings with the aim of finding solutions for more complex issues that afterwards are presented to the ESG for a vote by the Scheme Group members. Encompassing the deliverables of some of these subgroups in 2022, the EECS rules for electricity were amended to a) accommodate an identifier for every Guarantee of Origin issued for electricity produced from High Efficiency Cogeneration of Heat and Power and b) put the basic framework, that will facilitate the optional recording of emission factors on EECS electricity Guarantees of Origin. Rules for handling GOs in relation to the release of electricity from an energy storage device were included.

The Disclosure platform, which was established in 2021 to create the possibility for informal discussions on disclosure and to promote harmonization of disclosure practices, continued to convene in 2022. A meeting of the Disclosure platform was held in June where both GO Issuing Bodies and Competent Bodies for the supervision of electricity Disclosure were invited. The main topics discussed at the platform meeting were the calculation of the residual mix and the presentation of disclosure practices and challenges in two of the member domains.



ESG (ongoing development and implementation of the regulations surrounding the electricity-specific part of the EECS Rules), chaired by **Eva Nordlander**, Energimyndigheten, Sweden
Until September 2022 the ESG was chaired by Maria Koulouvari, DAPEEP, Greece

Gas Scheme Group

In the course of 2022, the **Gas Scheme Group** convened eight times, three times physically and five times via teleconference. The group members are currently representatives from existing AIB members and a number of observers. Currently, 18 AIB members have been appointed as Issuing Bodies in their respective domains, among whom four are gas-only Issuing Bodies.

These were the highlights of the last year:

- We welcomed observers from gas-only Issuing Bodies in Finland, Latvia, Lithuania and Spain;
- A taskforce regarding EECS Products (chaired by Ance Ansone) was initiated to discuss the interaction between GOs and other gas certification systems, such as the Union Database; and
- The first two Gas Scheme membership applications were filed.

In addition to the regular Gas Scheme Group meetings, a number of subgroups were called together to discuss specific topics in more detail, such as the definition of Nett Gas production and the inspection requirements for gas production devices. This approach contributes to active involvement of the group members, as well as lively discussions. Given the novelty of gas GO issuance for most domains, the core activity of the GSG consisted in exchanging information on the latest developments regarding renewable gases and the implementation of gas GO schemes in the various observing domains. This so-called tour de table is essential in providing a forum to quickly learn from each other's best practices and hurdles.

Furthermore, the development of the EECS Rules for gas (chapter O of the EECS Rules since 2019) is a continuous process. By finetuning these rules, the members of the GSG try to provide solutions to the most common challenges we identify. In addition, we try to align the EECS Rules with the current draft of CEN-EN 16325, insofar as this is deemed useful. Conversely, the GSG actively engages in the CEN revision process by providing input in the shape of jointly formulated expert opinions.

Additionally, the GSG contributed to the REGATRACE and CertifHy projects. We are actively developing the criteria under which Independent Criteria Schemes (ICSs) and Issuing Bodies for Non-Governmental Certificates (NGCs), such as CertifHy and its scheme for hydrogen GOs, can be accommodated under the wings of AIB. Finally, the GSG strives to further position the EECS Gas Scheme outside AIB. This is achieved through participation in conferences on renewable gas, by presenting the merits of the AIB GSG at stakeholder events. The GSG is represented in ENTSOG's Prime Mover's group for Gas GOs. In 2022, the joint board meetings between AIB and ERGaR to establish further cooperation were continued.

Since September 2022, the GSG has been chaired by Bram van der Heijde (VREG). More recently, River Tomera (Elering) was appointed as Board Representative for the GSG. On behalf of the whole GSG, we would like to take this opportunity to thank Wouter Vanhoudt for his tremendous contribution to further establishing AIB's youngest group, both as Chair and as Board representative in previous years.



Gas Scheme Group (Development and implementation of the regulations surrounding the gas-specific section of the EECS Rules), chaired by **Bram van der Heijde of VREG**, Belgium, Flanders. Prior to September 2022 the GSG was chaired by Wouter Vanhoudt (Hinicio).

Financial Year 2022

1. SUMMARY

The entire bookkeeping process has been done according to the financial reporting framework applicable in Belgium. The annual accounts, the report of the auditor and the budget versus expenditure consolidates the book of accounts for the period of January to 31 December 2022. The position at KBC Bank relates to the amount of cash held in the bank at the end of the financial year.

2. ANNUAL ACCOUNTS

The annual accounts contain the balance sheet after appropriation, the income statement, the appropriation account and the explanatory disclosure. The annual accounts provide a comparison between the current period (2022) and the preceding period (2021). The total gain of 2022 available for appropriation is €501,787.82.

The annual accounts are filed with the National Bank of Belgium and are available [online](#).

3. FINANCIAL AUDIT

The conclusion of the auditor is that based on their review, nothing has come to their attention that causes them to believe that the financial statements do not present fairly, in all material respects, the financial position on 31 December 2022, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

4. KBC BANK

On 31 December 2022, the bank balance was €1,171,124.08. Part of this balance is reserved for projects, specifically €76,851.19 for the REGATRACE project and €66,085.63 for the CertifHy project and therefore should not be considered available cash. Please also note that the outstanding invoices at the end of the financial year (€121,860.72) and the outstanding purchases (€132,263.47) are not taken into account in this bank balance. At the end of 2021, the bank balance was €803,340.09.

As a rule of thumb, AIB strives to hold at least 50% of the total turnover of the current financial year as a bank reserve. Reserves are or will be used to cover the current and or future investments.

5. BUDGET VERSUS EXPENDITURE 2022

Important note: because the depreciations and other corrections are not calculated in this detailed overview of all costs, specified per Unit, the 'budget versus expenditure' deviates from the amounts that are stated in the annual accounts. The 'budget versus expenditure' shows (i) the forecasted budget, (ii), the actual income and (iii) the actual costs.

5.1 General overview

5.1.1 General overview including Projects

	Budget 2022	Costs/Income 2022	Balance 2022
Costs	-€1,701,330.00	-€1,363,839.58	€337,490.42
General	-€528,750.00	-€381,017.25	€147,732.75
CPAU	-€71,200.00	-€51,952.99	€19,247.01
EECSU	-€319,500.00	-€234,797.83	€84,702.17
ISU	-€297,000.00	-€242,693.85	€54,306.15
Projects	-€484,880.00	-€453,377.66	€31,502.34
Income	€1,447,820.78	€1,444,833.95	-€2,986.83
Total	-€253,509.22	€80,994.37	€334,503.59

5.1.2 General overview excluding Projects

	Budget 2022	Costs/Income 2022	Balance 2022
Costs	-€1,216,450.00	-€910,461.92	€305,988.08
General	-€528,750.00	-€381,017.25	€147,732.75
CPAU	-€71,200.00	-€51,952.99	€19,247.01
EECSU	-€319,500.00	-€234,797.83	€84,702.17
ISU	-€297,000.00	-€242,693.85	€54,306.15
Income	€1,327,500.00	€1,398,883.95	€71,383.95
Total	€111,050.00	€488,422.03	€377,372.03

5.2 Detailed overview Projects

	Budget 2022	Costs/Income 2022	Balance 2022
Costs	-€484,880.00	-€453,377.66	€31,502.34
CertifHy	-€82,000.00	-€41,975.71	€40,024.29
Futureproofing of the HUB	-€292,500.00	-€289,376.17	€3,123.83
REGATRACE	-€39,900.00	-€34,889.79	€5,010.21
Version 80	-€70,480.00	-€87,136.00	-€16,656.00
Income	€120,320.78	€45,950.00	-€74,370.78
CertifHy	€53,210.00	€45,950.00	-€7,260.00
REGATRACE	€67,110.78	€0.00	-€67,110.78
Total	-€364,559.22	-€407,427.66	-€42,868.44

5.3 Detailed Income

	Budget 2022	Costs/Income 2022	Balance 2022
Membership fees	€1,292,000.00	€1,354,950.00	€62,950.00
Electricity Large	€1,071,000.00	€1,142,400.00	€71,400.00
Electricity Medium	€166,000.00	€132,800.00	-€33,200.00
Electricity Small	€49,500.00	€49,500.00	€0.00
Gas Large	€0.00	€0.00	€0.00
Gas Medium	€0.00	€0.00	€0.00
Gas Small	€0.00	€19,250.00	€19,250.00
Observer Fee Electricity	€0.00	€5,500.00	€5,500.00
Observer Fee Gas	€5,500.00	€5,500.00	€0.00
Recoverable costs	€35,500.00	€43,933.95	€8,433.95
Insurance members	€35,500.00	€41,420.73	€5,920.73
Other	€0.00	€2,513.22	€2,513.22
Projects	€120,320.78	€45,950.00	-€74,370.78
Projects - CertifHy	€53,210.00	€45,950.00	-€7,260.00
Projects - REGATRACE	€67,110.78	€0.00	-€67,110.78
Total	€1,447,820.78	€1,444,833.95	-€2,986.83

5.4 Detailed costs per Unit

5.4.1 General

	Budget 2022	Costs 2022	Balance 2022
Costs General	-€528,750.00	-€381,017.25	€147,732.75
Accounting	-€6,500.00	-€5,660.90	€839.10
AIB Meetings	-€20,000.00	-€6,221.93	€13,778.07
Bank Charges	-€4,000.00	-€4,502.26	-€502.26
Financial Audit	-€6,000.00	-€1,000.00	€5,000.00
Financial Support	-€15,000.00	-€12,765.76	€2,234.24
Insurance AIB	-€2,900.00	-€2,741.25	€158.75
Insurance Members	-€35,500.00	-€41,420.73	-€5,920.73
IT	-€5,500.00	-€6,270.40	-€770.40
Legal & Expert Advice	-€30,000.00	-€21,786.82	€8,213.18
Membership	-€550.00	-€900.00	-€350.00
Offices	-€17,800.00	-€17,322.36	€477.64
Secretary General	-€240,000.00	-€207,602.80	€32,397.20
Strategy	-€12,500.00	-€2,122.90	€10,377.10
Sundries	-€3,000.00	-€1,687.64	€1,312.36
Support and Advice General	-€87,000.00	-€34,846.19	€52,153.81
Tenders	-€22,500.00	-€4,243.99	€18,256.01
Travel & Accommodation	-€20,000.00	-€9,921.32	€10,078.68
Total	-€528,750.00	-€381,017.25	€147,732.75

5.4.2 Communications & Public Affairs Unit

	Budget 2022	Costs 2022	Balance 2022
Costs CPAU	-€71,200.00	-€51,952.99	€19,247.01
Annual Report	-€3,500.00	-€4,570.00	-€1,070.00
Events and Webinars	-€10,000.00	-€11,593.15	-€1,593.15
Graphic Design	-€2,200.00	-€1,030.00	€1,170.00
Greening up AIB	-€500.00	€0.00	€500.00
Printing and Postage	-€1,500.00	-€3,261.00	-€1,761.00
Proofreading	-€1,500.00	-€673.75	€826.25
Support and Advice CPAU	-€22,000.00	-€12,748.42	€9,251.58
Trademark	-€10,000.00	-€3,362.51	€6,637.49
Website - Hosting & Maintenance	-€13,000.00	-€14,452.91	-€1,452.91
Website - Software Enhancements	-€5,000.00	€0.00	€5,000.00
Website - Training	-€2,000.00	-€261.25	€1,738.75
Total	-€71,200.00	-€51,952.99	€19,247.01

5.4.3 EECS Unit

	Budget 2022	Costs 2022	Balance 2022
Costs EECSU	-€319,500.00	-€234,797.83	€84,702.17
DP Reviews, Audits & Applications Electricity	-€102,300.00	-€47,084.72	€55,215.28
DP Reviews, Audits & Applications Gas	-€48,400.00	€0.00	€48,400.00
Professional Reviewers Group	-€13,600.00	-€21,077.71	-€7,477.71
Residual Mix Calculation	-€26,500.00	-€26,500.00	€0.00
Support and Advice EECSU	-€128,700.00	-€140,135.40	-€11,435.40
Total	-€319,500.00	-€234,797.83	€84,702.17

5.4.4 Information Systems Unit

	Budget 2022	Costs 2022	Balance 2022
Costs	-€297,000.00	-€242,693.85	€54,306.15
Contract management	-€18,000.00	-€12,249.74	€5,750.26
Hosting and support	-€85,000.00	-€65,827.15	€19,172.85
SC - Contractual Budget Change Request (monthly sprints)	-€50,000.00	-€30,498.00	€19,502.00
SC - Contractual Major libraries/technical update	-€18,000.00	-€18,300.00	-€300.00
Secretary	-€18,000.00	-€23,346.96	-€5,346.96
Statistics	-€12,000.00	-€8,610.00	€3,390.00
Super User operational	-€24,000.00	-€17,265.00	€6,735.00
Super User Technical audit	-€24,000.00	-€13,833.75	€10,166.25
Technical support user	-€48,000.00	-€52,763.25	-€4,763.25
Total	-€297,000.00	-€242,693.85	€54,306.15

Audit Report

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ASSOCIATION
OF ISSUING BODIES IVZW
For the attention of the board of directors
Visverkopersstraat 13
1000 BRUSSELS

INDEPENDENT PRACTITIONER'S REVIEW REPORT ISRE 2400 TO THE BOARD OF DIRECTORS OF ASSOCIATION OF ISSUING BODIES IVZW FOR THE YEAR ENDED ON 31 DECEMBER 2022

We have reviewed the accompanying financial statements of the Association of Issuing Bodies IVZW for the year ended 31 December 2022. This balance sheet and income statement shows a balance sheet total of € 1.807.643,58 and a profit of the financial year of € 501.787,82.

Management's Responsibility for the Financial Statements

The management is responsible for the preparation and fair presentation of these financial statements in accordance with the financial reporting framework applicable in Belgium, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Practitioner's Responsibility for the Financial Statements

Our responsibility is to express a conclusion on the accompanying financial statements. We conducted our review in accordance with the International Standard on Review Engagements ("ISRE") 2400, Engagements to Review Historical Financial Statements. ISRE 2400 requires us to conclude whether anything has come to our attention that causes us to believe that the financial statements, taken as a whole, are not prepared in all material respects in accordance with the applicable financial reporting framework. This Standard also requires us to comply with relevant ethical requirements.

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A review of financial statements in accordance with ISRE 2400 is a limited assurance engagement. The practitioner performs procedures, primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures, and evaluates the evidence obtained.

The procedures performed in a review are substantially less than those performed in an audit conducted in accordance with International Standards on Auditing. Accordingly, we do not express an audit opinion on these financial statements.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that these financial statements do not present fairly, in all material respects, the financial position of the Association of Issuing Bodies IVZW as at 31 December 2022, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

Hasselt (Belgium), 5 April 2023

Moore Audit BV,
represented by:

Jimmy Depré,
Certified auditor





Name of the company E-Control
Area of operation Austria
Rudolfplatz 13a 1010 Wien Austria www.e-control.at



The coordinated work of nominated gas Issuing Bodies is of high relevance for us.

Area of operation, information on the market, member of the AIB

Austria.
Member of the AIB since 2001.

Profile of the organisation

Austrian Energy Regulator.
Competent Authority for electricity Guarantees of Origin for all types of resources.
Competent Authority for gas and hydrogen Guarantees of Origin.
Competent Authority for electricity and gas source Disclosure in Austria.

Activities within the AIB

Member of EECSU, ESG and GSG: Angela Tschernutter, Viola Neubauer

News and perspectives regarding the national IB and the national framework for energy tracking certificates

E-Control's day-to-day business includes dealing with around 221,000 plants that generate energy (mainly electricity plants) from renewable and fossil sources. All of them lead to issuance of GOs in the Austrian GO registry. In 2021, the extension of the registry to gas GOs started. The first gas GOs were issued for the production year 2022. With the implementation of the Renewable Expansion Law 2021 and the revision of the Gas Act, E-Control became the national Issuing Body for gas GOs and Competent Body for gas source disclosure in Austria.

In 2022, the display of electricity source disclosure statements changed to a primary and secondary display. The primary display on electricity bills includes the technology, the country of origin of the GOs and the percentage of bundled electricity and GOs. The secondary disclosure statement on suppliers' websites includes the full information of technologies of GOs and environmental aspects.

For the production year 2022, gas disclosure is an obligatory element on annual gas bills. In 2022, the audit of the Austrian system and the inclusion of the gas scheme started. The DP is being extended to gas and describes both systems for electricity and gas in detail. It is planned to conclude the audit in 2023 with the connection to the AIB hub.

Benefits of AIB membership

The coordinated work on a European level enables a lot of efficiency for us and all members. Especially the implementation of a gas scheme in AIB, the coordinated work of electricity and gas sector representatives and experts, the strong involvement of AIB in CEN-EN 16325 and different projects is of high value.

AIB unites decision makers, Issuing Bodies and organisations responsible for energy source disclosure within the Association. The mutual learning factor and the enjoyment of working with highly qualified people from different nationalities greatly contribute to positive outcomes.

"The coordinated work of nominated gas Issuing Bodies is of high relevance for us. In this changing environment with voluntary schemes and legally regulated schemes, the trust in gas GOs needs to be established, also referred to, the reputation of the well-developed electricity GOs. We aim to put a lot of effort into the establishment of a reliable gas system and the conversion of energy as being one of the first countries seeking Hub connection for gas in 2023." (Dr. Harald Proidl, Head of Renewables and Energy Efficiency Department).

Links to relevant sections of our website

www.e-control.at | www.stromnachweis.at | www.gasnachweis.at
Statistics: www.e-control.at/stromnachweis/eecs-registry/statistics-international

Scope of national participation in EECS

Number of registered scheme participants	64
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Registered production devices and total capacity installed	
Number of production devices	217,319
Total capacity installed (MW)	53,223

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
PV	212,157	19,241
Hydro	3,552	16,860
Wind	745	3,869
Others	865	13,252

Certified EECS production as compared to national RES production (GWh)	
EECS RES production	49,173
National RES production	49,173

A must for the future and the promotion of renewable electricity consumption.

Name of the company
BRUGEL

Area of operation
Brussels, Belgium



Avenue des Arts 46
1000 Brussels
www.brugel.brussels

Area of operation, information on the market, member of the AIB

The Brussels Region is a relatively small market, with 61 account holders, about 100000 GOs issued annually, almost 3 million cancelled GOs and a little over 8 million transfers in 2022.

BRUGEL has been an AIB member since 2008. In 2020, BRUGEL joined the newly formed Gas Scheme Group as an observer and plans to join as a full member in 2023.

Profile of the organisation

BRUGEL is the Brussels Regulatory Authority for electricity, gas and water price control.

Regarding renewable energy, BRUGEL's mission revolves around three main areas:

- production incentives,
- integration of renewable energy into the grid and the market,
- information on the origin of green electricity.

Activities within the AIB

- Representatives at the General Meeting, EECSU, ESG, GSG: Laura Rebreau, Régis Lambert
- Representative at the ISU: Attila Acs, Laura Rebreau

News and perspectives regarding the national IB and the national framework for energy tracking certificates

BRUGEL was appointed in 2022 as GO Issuing Body for gas produced from renewable sources and heating and cooling of renewable origin. The plans are to join the AIB Gas Scheme Group in 2023 and have a fully functioning registry by the end of the year.

As new demands for GOs have been introduced, BRUGEL worked with the regional DSO to adapt our IT systems to issue GOs automatically. As a result, the number of installations has significantly increased, and the RES production for which we issued GOs has risen by almost 30% compared to previous years.

Benefits of AIB membership

Thanks to its AIB membership, BRUGEL can respect the European legislation regarding electricity source disclosure efficiently and inform Brussels consumers on the origin of the electricity they consume. The AIB is also an excellent platform for exchanging information, ideas and good practices.

“Being part of the AIB allows us to actively follow the work on extending Guarantees of Origin to other energy carriers, such as biogas, hydrogen and heat and cooling. A must for the future and the promotion of renewable electricity consumption.”

Régis Lambert, Deputy Director)

Links to relevant sections of our website

<https://app.powerbi.com/view>

Scope of national participation in EECS

Number of registered scheme participants	61
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Registered production devices and total capacity installed

Number of production devices	3,453
Total capacity installed (MW)	89.17

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Incineration of municipal waste	1	51
Solar	249	35.46
HEC cogeneration	78	2.71

Certified EECS production as compared to national RES production (GWh)

EECS RES production	143.613
Regional RES production	261.001



Name of the company
**VREG – Flemish Regulator for the
Electricity and Gas Market**

Area of operation
Flanders, Belgium



Koning Albert II-laan 7
1210 Sint-Joost-ten-Node
Belgium
www.vreg.be

Together we can build a reliable and robust gas GO system right from the start.

Area of operation, information on the market, member of the AIB

Regulator for the Electricity and Gas Market and for District Heating and Cooling systems in the Flemish Region, Belgium

- Ca. 5.9 million EECS GOs (Electricity) issued
- Ca. 4,700 GOs for Gas (non-EECS) issued
- 202 account holders
- Member of AIB, Electricity Scheme (2006)

Profile of the organisation

- Electricity and Gas Regulator
- Issuing Body for
 - Electricity from RES (EECS) and HEC (National GOs)
 - Gas from RES (National GOs)
- Competent Body for electricity disclosure and for providing disclosure information
- [Annual Report 2022](#)

Activities within the AIB

- Pieterjan Renier: GM
- Bram van der Heijde: EECS Unit, GSG (Chair), ESG, TF EECS Product, GM (back-up)
- Karolien Verhaegen: ISU

News and perspectives regarding the national IB and the national framework for energy tracking certificates

We have reformatted our website regarding information on GO and disclosure. Our [Fuel Mix Dashboard](#) interactively shows the share of renewables per supplier and per electricity product. Other GO statistics are found through the relevant links below. All statistics can be filtered on country of origin, technology and energy source.

The Flemish comparison tool for electricity and gas contracts, “[V-test®](#)” now shows whether electricity contracts offer green electricity, or green and local energy (when GOs are only sourced from Belgium or the Flemish Region).

Benefits of AIB membership

Being a member of AIB is a question of trust in the GO system, reliability and efficiency. Reliability checks and audits that AIB performs on all connected Domains leads to important savings in terms of resources for its members. This is true for established processes in the Electricity Scheme, but also for new developments, says Bram van der Heijde, member representative in AIB for VREG and GSG Chair:

“Being involved in the Gas Scheme Groups means that we can learn from the experiences of other gas Issuing Bodies. We all have many questions regarding the implementation of gas GOs. The interaction with transport fuel tracking systems and other energy carriers pose complex challenges. But together we can build a reliable and robust gas GO system right from the start.”

Links to relevant sections of our website

- [GO trade statistics \(prices and volumes\)](#)
- [Prospective buyers and sellers of GOs](#)
- [Issuance of GOs in the Flemish Region](#)
- [Expiry of GOs in the Flemish Region](#)
- [Interactive map with the share of green electricity supplied per municipality](#)
- [Fuel mix dashboard](#)



Scope of national participation in EECS

Number of registered scheme participants	202
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Registered production devices and total capacity installed

Number of production devices	694,616
Total capacity installed (MW)	13,349

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Anaerobic digestion (unspecified)	2	4
Solar Photovoltaic	692,774	6,287
Wind Onshore	543	2,471
Hydro-electric head installations	15	4
CHP: CCGT with heat recovery	8	645
Back-pressure steam turbine CHP (open cycle)	14	216
Back-pressure steam turbine non-CHP (closed cycle)	6	912
Back-pressure steam turbine CHP (closed cycle)	18	345
Gas turbine with heat recovery, CHP	36	817
Internal combustion engine, non-CHP	36	105
Internal combustion engine, CHP	1,091	1,540
Stirling engine CHP	6	0
Fuel cell CHP	65	0
Organic Rankine Cycle CHP	1	3
Unspecified thermal production installation	1	0

Certified EECS production as compared to national RES production (GWh)

EECS RES production	5,917
National RES production	*

* RES production statistics for Flanders are published by the Flemish Energy and Climate Agency. Currently, the most recent figure available is for 2021 (see <https://www.vlaanderen.be/statistiek-vlaanderen/energie/hernieuwbare-energie>). The Flemish RES production for 2022 is not yet known at this moment.

Name of the company Service Public de Wallonie
Area of operation Wallonia, Belgium
Rue des Brigades d'Irlande 1 5100 Namur Belgium https://energie.wallonie.be



Benefits of AIB membership include working on promoting green energy production by improving the trade of Guarantees of Origin at an international level and exchanging good practices at European level.

Area of operation, information on the market, member of the AIB

Belgium (Wallonia)
Member of the AIB since 2019

Profile of the organisation

Walloon Administration, Department of Energy
Competent Authority for the issuing of renewables (EECS GO), CHP electricity and Gas Guarantees of Origin, Operator of the Green Certificate database in Wallonia.

Activities within the AIB

Representatives at the General Meeting, EECS Unit; ESG Unit:
Bora Topal and Annie Desaulniers
ISU representative: Annie Desaulniers
GSG representative: Emile Jeanmart

News and perspectives regarding the national IB and the national framework for energy tracking certificates

To improve the Greencheck in 2023, each cancellation will be for a maximum of one calendar month and only one product of the electric energy supplier.

A new methodology to support renewable energy plants was approved by the Walloon government in November 2022. This methodology is based on the Actualised Average Production Cost. Pending validation of State Support from the European Commission, it should enter into force in 2024.

The Green Certificates support scheme for small Photovoltaic plants is declining as most of them have reached the time limit of 10 or 15 years of support. This will show in the table for Regional RES production.

Benefits of AIB membership

Benefits of AIB membership include working on promoting green energy production by improving the trade of Guarantees of Origin at an international level and exchanging good practices at European level.

Scope of national participation in EECS

Number of registered scheme participants	1,837
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Registered production devices and total capacity installed

Number of production devices	3,204
Total capacity installed (MW)	1,994

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	15	35
HEC Biomass	61	170
Wind	159	1,126
Hydro	60	113
Solar	2,756	416
HEC Natural Gas	153	134
Total	3,204	1,994

Certified EECS production as compared to national RES production (GWh)

EECS RES production	3,873
National RES production	4,421



— CREG —

The primary benefit of AIB membership is to facilitate the export of Belgian offshore wind GOs across Europe.

Name of the company CREG
Area of operation Belgium (Federal) 
Nijverheidsstraat 26 1040 Brussels Belgium www.creg.be

Area of operation, information on the market, member of the AIB
CREG is entrusted with the task of issuing Guarantees of Origin for renewable electricity produced in the Belgian sea area and managing the corresponding registry. The CREG registry has been fully operational since 2015 and is comprised of all offshore wind producers in Belgium. Disclosure and the residual mix calculation are not within CREG's legal remit.

Profile of the organisation
CREG is the Regulator of the Belgian electricity and gas markets since 1999. It is an independent body answerable to the federal parliament. It is an Issuing Body for renewable electricity Guarantees of Origin.

Activities within the AIB
During 2022, CREG was represented in the AIB General Meetings by Philip Godderis. The Electricity Scheme Group and the Gas Scheme Group are followed by Yves Poncelet.

News and perspectives regarding the national IB and the national framework for energy tracking certificates
A new offshore wind area, the Princess Elizabeth Zone, is being prepared for tendering and the concomitant extension of the Modular Offshore Grid is being planned. A Hydrogen Act is in the making, which would entrust CREG with new regulatory tasks.

Benefits of AIB membership
For CREG, the primary benefit of AIB membership is to facilitate the export of Belgian offshore wind GOs across Europe. AIB's harmonized standard ensures a high level of reliability. The Association is also an ideal platform for continuously sharing experience and exchanging best practices.



Scope of national participation in EECS

Number of registered scheme participants	10
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Registered production devices and total capacity installed	
Number of production devices	9
Total capacity installed (MW)	2,266

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
Offshore wind	9	2,266

Certified EECS production as compared to national RES production (GWh)	
EECS RES production	5,017
National RES production	8,467

Name of the company
**HROTE (Hrvatski Operator Tržišta
Energije d.o.o.)**

Area of operation
Croatia



Ulica grada Vukovara 284
10 000 Zagreb
Croatia
<http://www.hrote.hr>



Some projects are of great help to HROTE, likewise the CEN standard for GOs and issuing GOs for other energy carriers.

Area of operation, information on the market, member of the AIB

In the Registry there are two kinds of statistics: (i) for the general EECS GO registry and (ii) for EECS GOs issued and transferred in accordance with auctions of GOs from the Feed-In support scheme. Within the table there are (i) statistics from the Registry.

For 2022, the percentage of electricity from eligible producers in the incentive scheme that was sold through the auctions as EECS GOs was 40%, i.e. there were 1,494,833 Guarantees of Origin issued. AIB member since 2014.

Profile of the organisation

In accordance with the Regulation, HROTE performs the role of the Competent Body (in accordance with the RED) and is the Issuing Body for the Domain. HROTE also calculates the residual electricity mix for Croatia. However, the Croatian Energy Regulatory Agency supervises the disclosure calculation.

Activities within the AIB

Dubravka Brkić contributes to CPAU and ISU tasks as a member.
Ida Žužić contributes to ESG tasks as a member.
Boris Dokmanović contributes to GSG tasks as a member.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

According to the Law on Renewable Energy Sources there are new support schemes in place and one such scheme is the market premium. Eligible producers within this scheme are able to enter the Registry and open an account in order to be a market participant in the GO system.

Due to very high prices in the electricity market, many eligible producers decided to exit the support scheme and enter the Registry (selling the electricity on the market, not within support scheme). That being said, about 50% of the installed capacity exited the support scheme.

That means that more GO issuance and transfers could be expected in the Registry. However, HROTE remains a medium AIB member.

In March 2023 a new Regulation on GOs was passed, including other energy carriers and the import of nuclear GOs needed for disclosure in Croatia.

Benefits of AIB membership

Some projects are of great help to HROTE in order to implement some provisions from RED II, likewise the CEN standard for GOs and issuing GOs for other energy carriers.

Links to relevant sections of our website

<https://www.hrote.hr/registry>

<https://uuapp.plus4u.net/uu-webkit-maing02/3bb927f049e54f68985f6db8ff9f8c20/>

Scope of national participation in EECS

Number of registered scheme participants	24
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Registered production devices and total capacity installed

Number of production devices	46
Total capacity installed (MW)	2,411.094

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro PP	21	2,132.594
Wind PP	12	260.55
Biomass PP	13	17.95

Certified EECS production as compared to national RES production (GWh)

EECS RES production	5,017
National RES production	8,467



Name of the company
**Transmission System Operator -
Cyprus (TSOC)**

Area of operation
Cyprus



Evangelistrias 68
2057 Strovolos
Cyprus
www.tsoc.org.cy

GO trading through the Hub will facilitate our efforts to increase public awareness on the benefits of declaring the origin of electricity production.

Area of operation, member of the AIB

Cyprus.
TSOC has been a member of AIB since September 2014.

Profile of the organisation

TSOC was established in 2004 as an independent legal entity for public benefit. It operates, maintains, and develops Cyprus' electricity transmission system, maintaining security of supply, integrating renewable energy sources and issues connection conditions for new power producers. It has also been appointed as the Market Operator of the Cyprus Electricity Market.

TSOC is the Issuing Body, appointed by the Cyprus Regulating Authority (CERA), for Guarantees of Origin both for RES and High Efficiency CHP installations in Cyprus.

Activities within the AIB

TSOC was represented in the AIB General Meetings and EECS Unit and ESG meetings by Michalis Syrimis and Demetra Cleanthous.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

The new Cyprus EECS GO registry went live in September 2016 and the first Cyprus EECS RES GOs were issued for the production period July 2016, as decided by the AIB General Meeting in Oslo in June. National GOs stopped being issued with the start of the operation of the EECS GO Registry.

Connection of the Cyprus EECS GO Registry to the AIB Hub was completed on the 12th of June 2019.

During 2022, the first imports and exports of GOs, through the AIB hub, occurred.

Disclosure has been implemented in Cyprus since 2016 with the publication of the Residual Mix for the year 2015. TSOC performs the Residual Mix and Suppliers Mix calculations applying Regulatory Decision 1279/2015 which follows the issuance-based method. Contribution of energy sources to the overall fuel mix and greenhouse gases emission data has been published on consumers' bills since July 1, 2016.

Benefits of AIB membership

TSOC membership facilitates the sharing of knowledge and experience with other AIB members, and hence the communication and implementation of more efficient and widely accepted ways to harmonise with EU law regarding efficient and transparent market systems. It particularly assists TSOC in learning from the experiences of other Issuing Bodies and implementing best practices, aiming also at standardising local practices and rules. The use of the AIB Hub will mark the beginning of GO trading between Cyprus and other approved users. GO trading through the Hub will facilitate our efforts to increase public awareness on the benefits of declaring the origin of electricity production.

Scope of national participation in EECS

Number of registered scheme participants	19
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Registered production devices and total capacity installed	
Number of production devices	29
Total capacity installed (MW)	223

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	6	157
PV	23	66

Certified EECS production as compared to national RES production (GWh)	
EECS RES production	267.2
National RES production	0



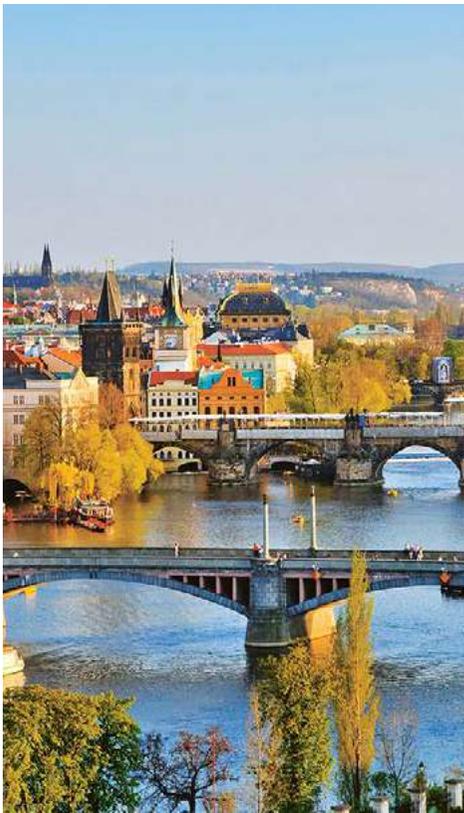


Name of the company
OTE, a.s.

Area of operation
Czech Republic



Sokolovska 192/79
Prague, 186 00
Czech Republic
<http://www.ote-cr.cz>



Due to the amendment to the Czech energy legislation, OTE becomes an Issuing Body for electricity, bio-methane, heat and hydrogen GOs (injected into the Czech distribution systems) as of January 2023.

Area of operation, information on the market, member of the AIB

6,4 million electricity GOs issued. Member of the AIB since 2013.

Profile of the organisation

OTE, a.s., is a joint stock company established in 2001, and it is the holder of the license for the Market Operator activities. Therefore OTE organizes the day-ahead and intraday electricity markets and the intraday gas market. Also amongst the services offered by OTE are: continuous data processing and exchange required for the accounting and settlement of the imbalance between the contractual and actual volumes of electricity and gas supplied.

OTE is responsible for payments of a green bonus, feed-in tariff and auction bonus for producers. OTE is also the Czech national administrator of the Union Registry which serves to guarantee accurate accounting for all allowances issued under the EU Emissions Trading System (EU ETS).

OTE is the appointed Issuing Body for electricity, biomethane, heat and hydrogen GOs for the Czech Republic.

For more information, please see the [OTE Annual Reports](#).

Activities within the AIB

OTE was represented in the AIB General Meetings by Martin Štandera who is also the ISU co-chair. Alena Vojteková represents OTE in the ESG and EECSU.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Due to the amendment to the Czech energy legislation, OTE becomes an Issuing Body for electricity, biomethane, heat and hydrogen GOs (injected into the Czech distribution systems) as of January 2023. For this purpose, OTE is building a new information system which goes live in May 2023.

Benefits of AIB membership

“It’s hard to imagine OTE could fully and responsibly fulfil its obligations as a GO Issuing Body without AIB membership. We highly appreciate the possibilities to cooperate with the AIB Secretariat and other AIB members”, states Martin Štandera, Head of Guarantees of Origin and Clean Mobility at OTE.

Scope of national participation in EECS

Number of registered scheme participants	1,518
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Registered production devices and total capacity installed

Number of production devices	2,692
Total capacity installed (MW)	4,557

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	181	322
Solar	785	1,259
Thermal	818	1,462
Hydro-electric head installations	908	1,514

Certified EECS production as compared to national RES production (GWh)

EECS RES production	6,398
National RES production	7,971

ENERGINET

Name of the company
Energinet Systemansvar A/S
(short: Energinet)

Area of operation
Denmark



Tonne Kjærvej 65
7000 Fredericia
Denmark
www.energinet.dk

AIB membership provides access to a ‘community’ of knowledge.

Area of operation, information on the market, member of the AIB

Member of AIB since 2002. Full member of Electricity Scheme. Observer of Gas Scheme

Profile of the organisation

Energinet is:

- the TSO for electricity and gas.
- the Issuing Body for Guarantees of Origin for renewable electricity and biomethane.
- the Disclosure Body for electricity.

Link to annual report on website: Strategy and Achievements (energinet.dk)

Activities within the AIB

Energinet has, during the year 2022, participated in the work of AIB through the EECS Unit and the Scheme Groups for electricity as well as a new observer role in the Gas Scheme Group. Energinet has also actively joined the Information System Unit.

During 2022, new faces have now been onboarded with Kristoffer Mitens primarily facing EECS Unit, the Electricity Scheme Group and ISU and Jeppe Bjerg and Dorte G. Kristiansen facing the Gas Scheme Group.

Upscaling the number of involved resources in the work under AIB is reflecting Energinet’s ambition to coordinate the work on Guarantees of Origin across electricity, biomethane and potential new areas on hydrogen etc., better in the future.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

No changes to basic market conditions in 2022, but initial considerations on national legislative level on GOs for renewable hydrogen. Roles and responsibilities are not yet clarified.

There was internal work on the electricity registry on upgrading to the new Grexel (G-rx) platform (in operation from March 2023). This means that Energinet now use same IT system to operate both electricity and gas Guarantees of Origin but in two separate domains/registries.

Benefits of AIB membership

Energinet benefits from the AIB cooperation by exchanging experience and knowledge in a growing market of GOs for both electricity, gas and also in finding solutions for other energy carriers.

“AIB membership provides access to a ‘community’ of knowledge, best practices and sparring which is valuable in the daily work on national level, but also in developing the market in a secure, efficient, and uniform way.” This is key to allow end-users engagement in the free choice and promotion of renewable energy.

Links to relevant sections of our website

- Electricity statistics: G-REX (grexel.com) (see Reports for DOMAIN = Denmark)
- Biomethane statistics: Statistics (energinet.dk)

Scope of national participation in EECS

Number of registered scheme participants	36
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Registered production devices and total capacity installed	
Number of production devices	4,389
Total capacity installed (MW)	13,306

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
Wind/Onshore	3,627	4,827
Wind/Offshore	30	2,290
Solar	610	2,066
Thermal	117	4,118
Other	5	6

Certified EECS production as compared to national RES production (GWh)	
EECS RES production	25,838
National RES production	28,360



Name of the company
Elering AS

Area of operation
Estonia



Kadaka tee 42
12915 Tallinn
Estonia
www.elering.ee



GOs help to involve end users to contribute to climate change mitigation.

Area of operation, information on the market, member of the AIB

In Estonia we are issuing approximately 2.5 million GOs a year.
A member of AIB since 2014.

Profile of the organisation

Electricity and Gas Transmission Systems Operator; GO issuing and Disclosure Body for renewable electricity, biomethane, hydrogen, heating and cooling; national agency for subsidies; operator of metering data hubs and operator of transport sector physical delivery offsetting platform.

Activities within the AIB

River Tomera is the Gas Scheme Group representative on the Board and Elering's representative at the General Meeting. Anne Mändmets is Elering's representative in the Electricity Scheme Group and in the EECS Unit, Kadri-Liis Rehtla in the Gas Scheme Group and Siim Nettan in the Information Systems Unit.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Elering is continuously improving the existing Estonian Renewable Energy Information System and aims to allow cross-border transfers of gas GOs through AIB. Elering has been operating and further developing the transport sector physical delivery offsetting platform to aid sector decarbonisation since 2021 and since 2022, a consumer portal to Estonian consumers. As the appointed GO Issuing Body, Elering will integrate hydrogen, and also heating and cooling into the Renewable Energy Information System.

Benefits of AIB membership

"We see that a GO allows the consumption of renewable energy with zero emissions and provides an opportunity to track progress towards climate neutrality. GOs help to involve end users to contribute to climate change mitigation." River Tomera (Head of the Renewable Energy Department).

Links to relevant sections of our website

- <https://elering.ee/en/guarantees-origin>
- <https://elering.ee/en/biomethane>

Scope of national participation in EECS

Number of registered scheme participants	521
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Registered production devices and total capacity installed

Number of production devices	4,634
Total capacity installed (MW)	2,140.3

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	28	309
Hydro	19	6.3
Biogas	3	2
Biomass	20	1,015
Solar	4,552	265
Fossil fuels	12	543

Certified EECS production as compared to national RES production (GWh)

EECS RES production	2,380
National RES production	2,622

Name of the company
Finextra Oy

Area of operation
Finland



Läkkisepäntie 21
00620 Helsinki
Finland
www.fingrid.fi



Rapidly growing renewable energy generation is a major opportunity for Finland, and clean energy enables the development of different industrial sectors.

Area of operation, information on the market, member of the AIB

The area of operation is Finland where the capacity of registered power plants is over 17,700 MW (of which, nearly 2,800 MW is nuclear). Wind power capacity is increasing rapidly and during 2022, it also became possible to register and issue GOs for nuclear power. On a yearly level, GOs were issued for approximately 34.6 TWh (RES). Also, nuclear GOs were issued for approximately 18 TWh. Finextra has been a AIB member since 2015.

Profile of the organisation

Finextra Oy is a wholly owned subsidiary of Fingrid Oyj, which is the Finnish Electricity Transmission System Operator (TSO).

Fingrid Oy, which is the appointed Competent Issuing Body for electricity GOs according to the Finnish legislation, has assigned this duty to its totally owned subsidiary Finextra Oy. Please see Fingrid's annual report for further details on the company.

Activities within the AIB

Kaija Niskala is a member of the EECS Unit and Electricity Scheme Group. Kirsi Salmivaara is a member of the Information Systems Unit.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

We aim to develop our registry cost-effectively to meet customers' and our own expectations and requirements. We carry out annual customer satisfaction surveys and in 2022 the NPS (Net Promoter Score) of our GO customers was 82.

During 2022 we launched an API from our registry to customers. Naturally we also implemented all required changes arising from the new legislation on GOs for energy (which was valid from 01.01.2022 onwards) for example, the possibility to issue GOs for nuclear power.

Benefits of AIB membership

The main benefit of being a member of AIB is that it enables reliable transfers of GOs across Europe and thus enables business possibilities for our customers. The Guarantee of Origin system is reliable to ensure the renewable value of electricity. Rapidly growing renewable energy generation is a major opportunity for Finland, and clean energy enables the development of different industrial sectors.

Links to relevant sections of our website

- [Guarantees of origin \(GO\) for Electricity- Fingrid](#)
- [Data of Guarantees of Origin for Electricity- Fingrid](#)

Scope of national participation in EECS

Number of registered scheme participants	62
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Registered production devices and total capacity installed

Number of production devices	905
Total capacity installed (MW)	17,706

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	167	3,236
Wind	639	6,094
Solar	9	9
Nuclear	2	2,794
Thermal (excluding nuclear)	88	5,573

Certified EECS production as compared to national RES production (GWh)

EECS RES production	34,636
National RES production	37,343



Name of the company
Gasgrid Finland Oy

Area of operation
Finland



Keilaranta 19 D
02150 Espoo
Finland
<https://gasgrid.fi/en/>



Gasgrid Finland launched a GO system for gas and hydrogen in 2022, which was a big step towards actively developing the reliability of the gas disclosure system, services, and the green gas market.

Area of operation, information on the market, member of the AIB

Finland (Gas and Hydrogen)

Gasgrid Finland has been a member of the AIB as of May 2022 and is a GSG observer aiming for full membership in 2023. The national implementation of RED II was completed in December 2021 and the new register of gas and hydrogen was introduced on 1 April 2022. The obligation to verify the origin of gas and hydrogen with a GO started on 1 July 2022.

In Finland, the biogas production was approximately 1 TWh in 2021. Five biogas plants are connected to the grid and there are also several dozen off-grid plants.

Profile of the organisation

Gasgrid Finland is a Transmission System Operator (TSO) with system responsibility and offers safe, cost-effective and reliable transmission of gases on the journey towards a carbon-neutral society. Gasgrid Finland is the Competent Authority for gas and hydrogen GOs. Its role, defined by legislation, is to be responsible for the operation of the gas and hydrogen GO system in Finland. Publications, such as annual reports, can be found [here](#).

Activities within the AIB

Heli Haapea is the representative at the General Meetings, EECS Unit and Gas Scheme Group.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Gasgrid Finland launched a GO system for gas and hydrogen in 2022, which was a big step towards actively developing the reliability of the gas disclosure system, services, and the green gas market in a customer-oriented manner, as well as promoting the carbon-neutral energy and raw material system of the future.

Gasgrid Finland is working towards full membership of AIB and connection to the AIB Hub to facilitate the trade of GOs with other AIB member states.

Benefits of AIB membership

“As a member of the AIB, Gasgrid Finland has the opportunity to develop a sustainable energy system and facilitate the transition towards a carbon-neutral society by enabling international exchange of Guarantees of Origin together with other members, also the AIB membership gives access to the AIB platform which allows transfers of certificates”, says Mika Myötyri, Head of Market and Customers.

Links to relevant sections of our website

<https://gasgrid.fi/en/our-services/guarantees-of-origin/>



Name of the company
European Energy Exchange (EEX)

Area of operation
France



5 Boulevard Montmartre
75002 Paris
France
www.eex.com



EEX will extend its scope as Issuing Body for GOs for non-renewable power sources in 2023 as France is preparing to enlarge the issuance of GOs to all power sources.

Area of operation, information on the market, member of the AIB

France, 100 million GOs issued, 130 Account Holders.

EEX has been operating as the Issuing Body for Electricity GOs since May 2013 under appointment by the French Ministry of Energy and has been organizing since September 2019, the auctions for French subsidized GOs on behalf of the French State.

Profile of the organisation

Market Operator, Issuing Body for electricity GOs, Competent Body for disclosure scheme.

Activities within the AIB

The General Meeting is attended by Aude Filippi, Director for Business Development for Gas and Sustainability Markets at EEX and Blaise Farrokhi, Business Developer. Moreover, Aude and Blaise are members of the EECS Unit, ISU, CPAU, and ESG. Saul Pedraza, Head of Data Analytics at EEX, is a member of the Task Force VAT Fraud Prevention.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

EEX will extend its scope as Issuing Body for GOs for non-renewable power sources in 2023 as France is preparing to enlarge the issuance of GOs to all power sources. EEX will also have increased responsibilities when it comes to controlling disclosure rules for suppliers. EEX is now the main registry for the de-livery of the first European power GO cleared multilateral spot market, launched by EPEX Spot at the end of 2022.

A first step towards full disclosure is reached by allowing power GOs from non-renewable sources. Moreover, a new framework will open the door to new mechanisms on the French auctions. On one hand, operators of subsidised renewable production devices will have preferential access to the GOs coming from their own installations. This should help the development of Power Purchase Agreement (PPA) projects on a larger scale in France. On the other hand, municipalities will also benefit from preferential access to GOs from installations located within their territory.

Benefits of AIB membership

EEX has faith in the GO mechanism to provide reliable information to electricity consumers and promote transparency of the energy markets and participate in the energy transition towards more renewable power consumption. Thanks to the AIB, EEX has been able to allow all of its market participants to easily import and export GOs throughout Europe. We are confident in the reliability of the EECS standard as it relies on clear and secured processes regularly audited by the AIB members themselves.

Scope of national participation in EECS

Number of registered scheme participants	130
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Registered production devices and total capacity installed	
Number of production devices	14,322
Total capacity installed (MW)	52,449

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	2,074	23,916
Wind	1,751	17,429
Solar	9,632	9,419
Thermal	865	1,685

Certified EECS production as compared to national RES production (GWh)	
EECS RES production	92,365
National RES production	113,990



Discussing European developments from different perspectives with **the aim of harmonisation** inspires UBA.

Name of the company
German Environment Agency (UBA)

Area of operation
Germany 

P.O. Box 1406
06813 Dessau-Roßlau
Germany
www.hknr.de
www.umweltbundesamt.de



Area of operation, information on the market, member of the AIB

Full Member of AIB since 2016. Account Holders: 3,973. GOs issued 2022: 24,859,738

Profile of the organisation

UBA is the German scientific environment authority which deals with a wide and varied range of environmental subjects. Among its numerous tasks, UBA is the Competent Authority, operating the German registry and issuing GOs. In addition, UBA has regulatory competence regarding the indepth provisions of GOs, the registry and the fees which are detailed in the GO Implementing Ordinance and Fee Ordinance. The Register of Guarantees of Origin is legally and technically supervised by the Federal Ministry of Economic Affairs and Climate Action. With regards to disclosure, UBA has limited inspection tasks. The Bundesnetzagentur (BNetzA) is the German Competent Authority for disclosure.

Activities

- Friederike Domke – active in the CPAU
- Christian Herforth – active in the EECSU, ESG and GSG, CEN/CLC/JTC14/WG5/PT Electricity
- Katja Merkel – Chair of ISU
- Elke Mohrbach – active on the AIB Board since November 2020, active in the ESG and Disclosure Platform

News and perspectives regarding the national IB

UBA is constructively involved in the development of the AIB and in the harmonisation of the European regulations in relation to GOs. Disclosing of the countries of origin of the GOs is a new legal duty that will become mandatory in Germany with the disclosure statement for supply of 2022. UBA is also preparing itself for tasks arising from the further implementation of Article 19 RED II with regard to renewable Gas/ Hydrogen, heating and cooling GOs. Changes in the disclosure regulations widens UBAs responsibilities in this regard.

What are the benefits to the company of being part of the AIB?

Discussing European developments from different perspectives with the aim of harmonisation inspires UBA. Using the AIB Network often helps to clarify many questions quickly and easily. The knowledge available in AIB, particularly in the area of the final development of the new registries is a big gain for all members.

Scope of national participation in EECs

Number of registered scheme participants	3,973
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Registered production devices and total capacity installed

Number of production devices	3,453
Total capacity installed (MW)	27,919.161

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind - onshore	2,479	8,921.875
Wind - offshore	6	1,453.000
Solar	529	3,471.524
Hydro	311	4,976.440
Biogas - other biogas	7	14.660
Biogas - landfill	17	31.573
Biogas - sewage	2	0.462
Liquid renewable fuels	1	28.500
Solid renewable fuels	57	1,427.838
Unspecified renewable energy	44	7,593.290

Certified EECs production as compared to national RES production (GWh)

EECS RES production	24,859.738
National RES production	252,900



Once the connection to the AIB Hub is established, DAPEEP expects that the value of the EECS GOs issued for renewable electricity in Greece will be enhanced.

Name of the company
DAPEEP S.A.

Area of operation
Greece



72, Kastoros street
Pireus, 18545
Greece
www.dapeep.gr

Area of operation, information on the market, member of the AIB

Greece/Hellenic Domain
AIB member since 2019

Profile of the organisation

DAPEEP is a state-owned company; its main responsibilities being:

- Aggregator for supported RES and CHP production devices in the electricity market.
- Administration of the Account that facilitates the support to RES and CHP producers.
- Competent Authority for State Aid schemes for climate, energy and environment.
- Auctioneer of the CO₂ Emissions Allowances.
- Authorised Issuing Body for Guarantees of Origin for all energy carriers.
- Competent Body for Disclosure.
- Auctioneer of GOs issued for electricity produced by production devices operating under a support scheme.

Activities within the AIB

DAPEEP is represented in AIB by Maria Koulouvari, who has chaired the EECS Unit since 2020 and George Antonopoulos.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Being responsible for the development and the operation of the GO Registration Database for all energy carriers in the Hellenic domain, DAPEEP is currently developing a new EN16325 compliant GO Information System which enables the issuance of EECS GOs and the connection to the AIB HUB, and also offers high end services by using more automatized procedures, thus minimizing operational errors.

Being appointed as Auctioneer of GOs issued for electricity produced by production devices operating under a support scheme, DAPEEP is developing an auction platform, aiming to perform the first auction by the end of 2023.

Benefits of AIB membership

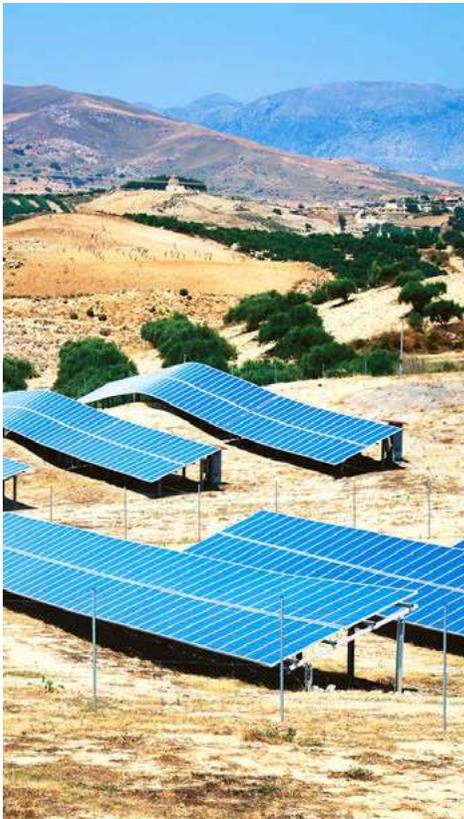
DAPEEP has already gained a lot of expertise by being part of a growing team of highly skilled experts in various fields, working together towards a reliable European GO market, and plans to gain even more as its responsibilities as Issuing Body expanded to all energy carriers as of 2022.

Once the connection to the AIB Hub is established, DAPEEP expects that the value of the EECS GOs issued for renewable electricity in Greece will be enhanced, contributing to a higher integration of RES in the Greek electricity market, assisting the country's efforts for the transition towards a low-carbon economy.

National RES production

23,153.13

EECS GOs are planned to start being issued in the new GO Information System in the second half of 2023.





After joining the EECS Scheme, Hungarian GOs are traded on an international market.

Name of the company
Hungarian Energy and Public Utility Regulatory Authority (MEKH)

Area of operation
Hungary



Bajcsy-Zsilinszky út 52
1054 Budapest
Hungary
<http://www.mekh.hu/home>

Area of operation, information on the market, member of the AIB

MEKH is the Regulatory Body of the energy and public utility market, supervising sectors of strategic importance. MEKH's responsibility covers licensing, supervision, price regulation and tariff preparatory tasks, in the fields of electricity, natural gas, district heating as well as in water utility supply, and pricing of public waste management services. As the official statistical body, MEKH also performs standard national energy statistics related tasks and complies with the data reporting obligations of various national and international bodies and organisations.

Profile of the organisation

National Regulatory Authority.

Activities within the AIB

Akos Hamburger represents MEKH within the GM, EECS Unit, ESG.
MEKH contributes to the residual mix calculations by sending data to AIB every year.
In September 2022, MEKH hosted the ESG, GSG and EECSU meetings in Budapest. It was a great pleasure to provide the venue for the discussions.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

MEKH has been a member of the EECS Scheme since 1 February 2022.
Auctioning of GOs started in June 2022 on the platform of HUPX Hungarian Power Exchange. First, the Hungarian TSO (MAVIR) as support scheme operator sold GOs that refer to electricity benefited from the National feed-in-tariff ('KÁT') scheme.
From September 2022, a monthly, multi-seller auctioning was introduced. This was the first auction in the whole of Europe where GOs from multiple countries were offered.
Further information on the auctions can be accessed on the website of HUPX.

Benefits of AIB membership

After joining the EECS Scheme, Hungarian GOs are traded on an international market. This became a good opportunity for Hungarian market participants to utilize the benefits of a common GO market.

As a member of the AIB, MEKH also has the opportunity to get information on other members' experiences and to contribute in shaping the European level framework of energy tracking certificates. We plan to follow the newest topics of debate in the field, such as gas/H2 GOs, storage, granularity. It is a great inspiration and motivation to contribute to developing GOs to be an effective tool for the transformation of a more sustainable energy system in Europe.

Scope of national participation in EECS

Number of registered scheme participants	91
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Registered production devices and total capacity installed

Number of production devices	2,817
Total capacity installed (MW)	3,704

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind/Onshore	31	306
Wind	3	4.1
Thermal/Steam turbine with condensation turbine (closed cycle)/CHP	1	27.3
Thermal/Steam turbine with condensation turbine (closed cycle)	3	684
Thermal/Internal combustion engine	5	3.014
Thermal	38	321.104
Solar/Photovoltaic/Classic silicon	149	172.453
Solar/Photovoltaic	2,568	2,107.05
Solar	1	19.95
Hydropower	16	57.3
Hydro-electric head installations/Run-of-river head installation	2	1,908

Certified EECS production as compared to national RES production (GWh)

EECS RES production	4,909.238
National RES production	7,113.000



Name of the company
Landsnet

Area of operation
Iceland



Gylfaflöt 9
Reykjavík 112
Iceland
<https://landsnet.is>



The robustness of the AIB Hub and the trust that is placed upon it, is one of the key components in affirming the reliability of GOs.

Area of operation, information on the market, member of the AIB

Iceland has no power interconnections with other countries. Landsnet is the only TSO and Issuing Body for Iceland. There are eight account holders, of which, there are six producers that issued over 19 million GOs.

Profile of the organisation

Landsnet hf is the Icelandic Transmission System Operator (TSO) which was established on the basis of the 2003 Electricity Act.

Landsnet's role is to operate Iceland's electricity transmission system and administer its system operations. Landsnet operates under a concession arrangement. Landsnet's activities are subject to regulation by the National Energy Authority (Orkustofnun).

Landsnet owns, operates and maintains all transmissions lines in Iceland. The Icelandic electricity system's highest operating voltage is 220 kV, and the aging 132 kV lines are being replaced to reduce losses and keep up with the ever-increasing demand for quality of power and quantity of energy.

Activities within the AIB

Svandís Hlín Karlsdóttir and Ragnar Sigurbjörnsson have contributed to the AIB on behalf of Landsnet since 2016.

Benefits of AIB membership

The robustness of the AIB Hub and the trust that is placed upon it, is one of the key components in affirming the reliability of GOs. This allows for safe and open trade with member states. For those reasons, along with the generous staff and associates of AIB that are sharing their expertise and best practices, it is a great benefit being a part of the AIB.

Scope of national participation in EECS

Number of registered scheme participants	8
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Registered production devices and total capacity installed

Number of production devices	65
Total capacity installed (MW)	2,856.78

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	52	2,101.08
Thermal	12	753.7
Wind/Onshore	1	1.8

Certified EECS production as compared to national RES production (GWh)

EECS RES production	19,482.67
National RES production	19,627.85

Name of the company
SEMO
(Single Electricity Market Operator)

Area of operation
Ireland and Northern Ireland



EirGrid plc, The Oval, 160 Shelbourne Road, Ballsbridge
Dublin 4
Ireland
www.sem-o.com



AIB membership assures SEMO that the high standard of GO transactions taking place among members is met. It enables SEMO to adopt a reliable and efficient approach to GO transactions in Ireland and Europe through adherence to the EECS Rules.

Area of operation, information on the market, member of the AIB

SEMO operates in Ireland and Northern Ireland and has been an AIB Member since 2015. The domain has 67 Account Holders and issues approximately 2 million GOs annually.

Profile of the organisation

SEMO facilitates the operation and administration of the Single Electricity Market (SEM), the all-island wholesale electricity market operating in Ireland and Northern Ireland.

SEMO is a contractual joint venture between EirGrid plc. (the Transmission System Operator for Ireland) and SONI Limited (the System Operator for Northern Ireland).

SEMO is licensed and regulated by the Commission for the Regulation of Utilities (CRU) in Ireland and the Utility Regulator (UR) in Northern Ireland.

SEMO is the Issuing Body for GOs in Ireland to generators of electricity from renewable sources. SEMO is responsible for operating the registry for issuance, transfer and cancellation of GOs.

SEMO is the competent body for Fuel Mix Disclosure (FMD) for Ireland and Northern Ireland, on behalf of the CRU and UR.

SEMO conducts the verification mechanism for the regulation of green source products in the electricity retail market in Ireland on behalf of the CRU.

Activities within the AIB

SEMO was represented in the AIB by Nigel Thomson and Cian Clarke and will be represented by Amber Raut and Ronan Byrne in General Meetings, Electricity Scheme Group and the EECS Unit.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

As further renewable generation comes out of renewable support schemes, interest in the GO scheme is growing in Ireland, with a 17% increase in registered scheme participants in 2022.

GOs issued for renewable sources in other EU countries and imported into the Irish registry are accepted for FMD in Ireland, provided they have not already been cancelled or used in FMD. The volume of GOs imported into the SEM increased by 45% in 2022.

Benefits of AIB membership

AIB membership assures SEMO that the high standard of GO transactions taking place among members is met. It enables SEMO to adopt a reliable and efficient approach to GO transactions in Ireland and Europe through adherence to the EECS Rules. As an Issuing Body that promotes transparency, our AIB membership highlights this ethos further through the harmonised and transparent approach adopted by the AIB.

Scope of national participation in EECS

Number of registered scheme participants	67
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Registered production devices and total capacity installed

Number of production devices	115
Total capacity installed (MW)	966.59

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	75	733.70
Hydropower	40	232.89

Certified EECS production as compared to national RES production (GWh)

EECS RES production	1,932.6
National RES production	12,881.7

Joining the association ensures the reliability and the efficiency in the transactions of GOs with the other AIB member states through the AIB Hub.

Name of the company
Gestore dei Servizi Energetici - GSE S.p.A.

Area of operation
Italy



Viale Maresciallo Pilsudski 92
00197 Rome
Italy
www.gse.it

Area of operation, information on the market, member of the AIB

Italy- GSE has been a member of the AIB since 2011.
GOs issued: 78 MLN GOs (data updated on 1st March 2023)
Approximate no. of account holders: 3,400

Profile of the organisation

GSE is a public company, which promotes and supports renewable energy sources in Italy.
GSE is also in charge of promoting energy efficiency, RES for heating and cooling and biofuels for transport. The sole shareholder of GSE is the Ministry of Economy and Finance, which exercises its rights according to the strategic guidelines indicated by the Ministry for the Environment and Energy Security and according to the regulatory provisions by the Authority.
GSE is the Issuing Body for GOs of all sectors (electricity, gas, heating and cooling, hydrogen) and is the competent body for the Fuel Mix Disclosure scheme.

Activities within the AIB

The engagement of GSE in AIB activities encompasses all of the working groups:
General Meeting: Emanuele Del Buono
EECS, ESG: Floriana Furno; Gianmarco Piamonti
GSG: Floriana Furno

News and perspectives regarding the national IB and the national framework for energy tracking certificates

According to the REDII, GSE is implementing GOs in new sectors such as: Gas, Heating and Cooling and Hydrogen.
From a technical point of view, from 2023, GSE is developing a new Platform for all GO transactions.

Benefits of AIB membership

“Being part of the AIB means being a part of European network that works towards a common goal ensuring the respect of the requirements of the EU directives. Joining the association ensures the reliability and the efficiency in the transactions of GOs with the other AIB member states through the AIB Hub.

Moreover, participating actively in the meetings and working groups organised by AIB, is a valuable opportunity to share knowledge, best practices, point of views and experiences with members from other countries especially with regard to the new sectors foreseen by the Directive (EU) 2018/2001” according to Floriana Furno, member of EECS Unit.

Scope of national participation in EECS

Number of registered scheme participants	3,417
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Registered production devices and total capacity installed

Number of production devices	5,494
Total capacity installed (MW)	37,952

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	576	10,428
Geothermal	34	922
Hydro	1,029	18,118
Solar	3,742	6,074
Thermoelectric	113	2,410

Certified EECS production as compared to national RES production (GWh)

EECS RES production	78,223
National RES production	98,433

Data updated on 1th March 2023 for Production 2022 (partial data because the year 2022 is closed at 31th March 2023)



Name of the company
AS Augstsprieguma tīkls (AST)

Area of operation
Latvia



86 Darzciema str
Rīga, LV-1073
Latvia
<https://www.ast.lv/en>



The biggest benefit of being a member of the AIB is the access to European-level experts in the field of GOs.

Area of operation, information on the market, member of the AIB

The area of operation is Latvia. In 2022, there was consumption of 7,1 TWh and production of 4.8 TWh, of which 3,6 TWh are from RES. In the Domain, 215 organisations and 225 production devices are registered, which is a slight increase compared to 2021.

AST was appointed by law as the official Issuing Body for EECS Guarantees of Origin for electricity commencing 1st December 2020.

Profile of the organisation

AS Augstsprieguma tīkls (AST) is an independent Transmission System Operator in the Republic of Latvia, engaged in providing electrical power transmission network services and the ensuring the balancing and stability within the transmission network.

Activities within the AIB

AST is represented on the AIB Board by Aigars Sīlis. Kalvis Ertmanis, in cooperation with Aigars Sīlis, participates in the General Meeting, Electricity Scheme Group, EECS Unit and Information System Unit.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

In January 2023 AST was the first Issuing Body in the Baltic States to start using the new version of Grexel registry – G-Rex.

Benefits of AIB membership

“The biggest benefit of being a member of the AIB is the access to European-level experts in the field of GOs, the support of the AIB Secretariat in situations where it is necessary to find solutions to challenges arising from regional specificities, as well as the opportunity to receive feedback from GO market participants across Europe, to ensure the European-level appropriate GO system in Latvia.” Aigars Sīlis, Head of Data Analysis Group.

Links to relevant sections of our website

Statistics of national production are available here:

<https://www.ast.lv/lv/electricity-market-review?year=2022&month=13>

Statistics of national GO activity are available here:

<https://grex.grexel.com/en/public/reports/transactionstatistics>

And here: <https://www.ast.lv/en/content/guarantees-origin>

Scope of national participation in EECS

Number of registered scheme participants	215
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Registered production devices and total capacity installed

Number of production devices	225
Total capacity installed (MW)	2,712.9733

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro-electric head installations (T030000)	75	1,577.7173
Thermal- T050000	108	1,016.0610
Wind/Onshore- T020001	42	119.1950

Certified EECS production as compared to national RES production (GWh)*

EECS RES production	3,016.719
National RES production	3,628.217

83% (As in 24.02. - some not yet requested amount from 2022 production still can be issued)



Name of the company
Conexus Baltic Grid AS (Conexus)

Area of operation
Latvia



Stigu iela 14
Riga, 1084
Latvia
<https://www.conexus.lv/en>



There is also interest to have gas GOs for off-grid produced and consumed gas, therefore national regulation is under development for this.

Area of operation, information on the market, member of the AIB

Latvia, Gas GO system set to be in place starting 1st July 2023, AIB member since 2022, currently a Gas Scheme applicant. No gas GOs issued yet.

AST was appointed by law as the official Issuing Body for EECS Guarantees of Origin for electricity commencing 1st December 2020.

Profile of the organisation

Conexus is a unified natural gas transmission and storage system operator in Latvia; GO Issuing Body for biogas, biomethane or synthesis gas starting 1st July 2023.

Activities within the AIB

Janis Eisaks with Ance Ansone are the representatives in the General Meeting, Gas Scheme Group, EECS Unit as well as the Communication and Public Affairs Unit. From 2023 Ance Ansone is the chairperson of AIB’s task force EECS products.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Conexus is actively developing a gas Guarantees of Origin (GO) system, including GO registry implementation and domain protocol development. This is important for Latvia’s renewable gas market, as several out of about 50 biogas producers are interested in exporting biomethane. National regulations are also being developed for off-grid gas production. Conexus aims to implement a reliable gas GO system during 2023.

Benefits of AIB membership

“AIB has experienced, competent and responsive members from all over Europe, ready to actively support and share their experience to work together towards a harmonised, reliable and free circulation of proofs of origin according to common and high standards. It is a reliable and uniting platform to exchange information, ideas and good practices.”

Name of the company
Litgrid AB

Area of operation
Lithuania



Karlo Gustavo Emilio Manerheimo g. 8
05131Vilnius
Lithuania
www.litgrid.eu

Participation within the AIB hub ensures secure and efficient transactions between producers and suppliers.

Area of operation, information on the market, member of the AIB

Lithuanian domain.

Member of the AIB since 2018 (import only). Full electricity scheme membership from 1 January 2021.

The number of registered scheme participants in 2022 grew to 109, while the total EECS production in 2022 is 1027,058 GWh.

Profile of the organisation

Litgrid, the electricity Transmission System Operator of Lithuania, maintains the stable operation of the national power system, controls electricity flows and enables competition in an open, domestic electricity market. Litgrid has also been appointed as the Lithuanian Issuing Body for electricity Guarantees of Origin (GOs).

Activities within the AIB

Litgrid AB is represented in the ESG, EECS unit and General Meetings by Ricardas Ternovojus.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

The registry has been updated to a newer version.

Benefits of AIB membership

Litgrid AB, as Issuing Body, is responsible for providing a platform and the administration of Guarantees of Origin. Participation within the AIB hub ensures secure and efficient transactions between producers and suppliers.

Scope of national participation in EECS

Number of registered scheme participants	109
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Registered production devices and total capacity installed

Number of production devices	138
Total capacity installed (MW)	745.6699

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
wind	59	532.586
hydro	56	123.396
biogas/biomass	20	87.101
solar	3	2.5869

Certified EECS production as compared to national RES production (GWh)*

EECS RES production	1,027.058
National RES production	2,544.705



Participation within the AIB hub ensures secure and efficient transactions between producers and suppliers.

Name of the company
AB Amber Grid

Area of operation
Lithuania



Laisvės ave. 10
04215 Vilnius
Lithuania
<https://www.ambergrid.lt/en>

Area of operation, information on the market, member of the AIB

Lithuania's renewable gas GO registry.

There is no biomethane production in Lithuania yet. The first biomethane producer is expected to operate in the coming months.

From November 2022 the import of GOs with Proof of Sustainability began. All imported GOs are consumed within the transport sector.

AB Amber Grid has been an AIB Gas Scheme Observer since 2022.

Links to relevant section of our website

www.ambergrid.lt

Profile of the organisation

AB Amber Grid is a gas TSO and since 2019 has been the designated Issuing Body for issuing renewable gas GOs in Lithuania.

Annual reports can be found at the following link www.ambergrid.lt

Activities within the AIB

Mindaugas Protas is the representative from Amber Grid involved in the AIB Gas Scheme Group activities.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

AB Amber Grid is working on a new IT solution for administering the GO registry. The new system will allow customers self service and enable connection to the AIB hub in the future.

Lithuania's laws allow the use of GOs with Proof of Sustainability for national target counting in the transport sector.

In the coming years there are plans to also integrate hydrogen GOs into the current system.

Benefits of AIB membership

Building a trustworthy European GO system is key for sustainable renewable gas market development and with a rapidly growing biomethane market and changing regulatory framework it is important to have a platform that allows national Issuing Bodies to cooperate and exchange information. Being a part of this Association provides valuable knowledge and information for such developing biomethane markets such as Lithuania's.

Mindaugas Protas, Renewable energy project manager

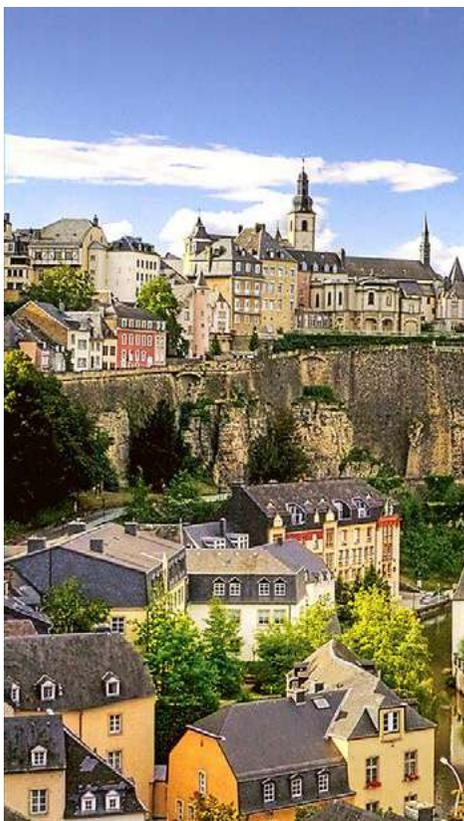


Name of the company
**Institut Luxembourgeois
de Régulation (ILR)**

Area of operation
Luxembourg



17, rue du Fossé
1536 Luxembourg
www.ilr.lu



In order to facilitate monitoring and to improve the reliability of the electricity disclosure system, and especially of its green attributes, ILR decided to join the AIB in 2009.

Area of operation, information on the market, member of the AIB

Luxembourg

The Luxembourg GO registry has been operational since 1 January 2010.

Member of the AIB since 2010

Profile of the organisation

The Institut Luxembourgeois de Régulation (ILR) is an independent authority in charge of the regulation of electricity and natural gas markets, as well as of telecommunications, railways, airport taxes, postal services, radio spectrum and networks' information system security. ILR is the national Issuing Body for renewable electricity Guarantees of Origin (RES GOs) and for CHP GOs and it is also responsible for Disclosure.

ILR is appointed by the [grand-ducal Regulation of the 4th November 2022](#) as Issuing Body for gas, heating and cooling GOs.

Activities within the AIB

Pamela Boeri and Claude Hornick participate in the EECSU, ESG, and GSG.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

More information for account holders is available on [ILR GO Registry](#) website and [ILR](#) website.

In 2022, almost 3.5 million GOs (3.5 TWh) were cancelled in the registry, representing 60% of the total electricity consumed in Luxembourg.

Benefits of AIB membership

Cancellations of EECS certificates represent an easy and straightforward tool for electricity suppliers to prove the renewable origin of their electricity supply.

In 2018, ILR began issuing GOs for electricity produced from renewable energy sources (RES) from production devices currently receiving production support in Luxembourg. Those GOs are periodically auctioned on the [ILR auctioning platform](#).

Auction revenues are used to decrease the cost of the RES public support scheme. The auctions are open to any account holder within an EECS registry.

Scope of national participation in EECS

Number of registered scheme participants	7
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Registered production devices and total capacity installed

Number of production devices	54
Total capacity installed (MW)	271

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Photovoltaic	29	31
Wind	17	160
Hydro	3	28
Biomass	5	52

Certified EECS production as compared to national RES production (GWh)

EECS RES production	701
National RES production	1006



COTEE learn about best practices in the renewable energy sector and to establish partnerships with other European countries.

Name of the company
Montenegrin electricity market operator (COTEE)

Area of operation
Montenegro



Bulevar Svetog Petra Cetinjskog 130
81000 Podgorica
Montenegro
www.cotee.me

Area of operation, information on the market, member of the AIB

The Market Operator is a legal energy entity, responsible for organising and managing the electricity market and renewable energy sources feed in tariff in Montenegro and administering the system for issuing Guarantees of Origin for renewable energy. We issue approximately 500000 GOs annually and have 27 account holders. We are a member of AIB since 2021.

Profile of the organisation

Electricity Market Operator. Issuing Body for renewable electricity Guarantees of Origin.

Activities within the AIB

Formal member representative at the General Meeting: Dusan Vucic; Alternate: Branislav Banovic
Representative in the Electricity Scheme Group and in the EECS Unit: Danilo Si-movic; Alternate: Branislav Banovic
Representative in the Information Systems Unit: Ana Zarkovic;
Representative in the CPAU: Branislav Banovic; Alternate: Danilo Simovic

News and perspectives regarding the national IB and the national framework for energy tracking certificates

From December 2021, COTEE has been a member of the regional system of GOs supported by the Energy Community.

Benefits of AIB membership

“Membership of AIB can help Montenegro to comply with European regulations related to renewable energy. AIB certification is required for renewable energy producers that want to participate in the European Energy Market, so being a member of AIB can help Montenegro to ensure that its renewable energy producers are compliant with these regulations.

AIB membership can provide COTEE with networking opportunities with other renewable energy producers and stakeholders in Europe. This can help COTEE learn about best practices in the renewable energy sector and to establish partnerships with other European countries.

And after COTEE becomes a full scheme member it will be granted access to the European Energy Market: As a member of AIB, Montenegro producers can participate in the European Energy Market and trade renewable energy certificates with other European countries. This can provide opportunities for them to increase their revenue by exporting renewable energy certificates to other countries.

Scope of national participation in EECS

Number of registered scheme participants	27
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Registered production devices and total capacity installed	
Number of production devices	39
Total capacity installed (MW)	170.759

Registered production devices and total capacity installed per technology		
Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	32	48.4275
Wind	2	120.1
Solar	5	2.2315

Certified EECS production as compared to national RES production (GWh)*	
EECS RES production	we are still not connected to the hub
National RES production	2,326.014037



Name of the company
VertiCer B.V.

Area of operation
Netherlands



Lange Amerikaweg 67
7332 BP Apeldoorn
Netherlands
verticer.eu/en



VertiCer believes that harmonising the GO system is essential to support unambiguous claims about the origin of energy.

Area of operation, information on the market, member of the AIB

Netherlands
Member of the AIB since 2001 (until end of 2022: CertiQ, see below)
GOs issued in 2022:

- renewable: ± 40 million
- non-renewable: ± 57 million

Profile of the organisation

Subsidiary of the TSOs for electricity and gas.
Issuing Body for GOs for electricity, gas (incl. hydrogen) and heating and cooling.

Activities within the AIB

Ilona Bruens: Board Treasurer
Remco van Stein Callenfels: EECSU, ESG

News and perspectives regarding the national IB and the national framework for energy tracking certificates

On 1 January 2023, VertiCer was formed from the merger of CertiQ (former Issuing Body for GOs for electricity and thermal energy) with Vertogas (former Issuing Body for GOs for gas (incl. hydrogen)). Together, we aim to:

- harmonise GO issuing for all types of energy;
- better service the market;
- use our collective voice to continuously improve the GO system as a whole.

Benefits of AIB membership

VertiCer, much like AIB, believes that harmonising the GO system is essential to support unambiguous claims about the origin of energy. Our merger enables VertiCer to service the GO markets for electricity, gas and heating and cooling. We hope that our example may inspire even closer coordination on a European scale especially of the respective GO systems for electricity and gas.

Scope of national participation in EECS

Number of registered scheme participants	265
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Registered production devices and total capacity installed

Number of production devices	36,107
Total capacity installed (MW)	43,819

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	269	5,320.6
Water	20	38
Solar	33,347	9,408.9
Wind	1,692	8,861.2
Non-renewable	779	20,190.4

Certified EECS production as compared to national RES production (GWh)

EECS RES production	39,626.539
National RES production	*

* See annual publications of Statistics Netherlands at www.cbs.nl

Name of the company
Statnett SF

Area of operation
Norway



Nydalen Allé 33, PB 4904 Nydalen
0423 Oslo
Norway
www.statnett.no



AIB is a cornerstone for the GO system in Europe and is essential to unite the Issuing Bodies and support the energy transition through a trustworthy tracking system for renewable energy.

Area of operation, information on the market, member of the AIB

Norway

Statnett has been a member of the AIB since 2001.

Statnett has issued RECS certificates since 2001 and became a member of the AIB on the 1st of January 2002. Statnett issued certificates have been compliant with the EECS standard since 2011.

Profile of the organisation

TSO (Transmission System Operator)

Issuing Body of EECS GOs for Electricity.

Activities within the AIB

Ivar Munch Claussen- Board Chair, (left Statnett, August 2022)

Kristian Rost Hagen- Member of the Information Systems Unit

News and perspectives regarding the national IB and the national framework for energy tracking certificates

The new NECS registry has now been fully operational for more than two years and we are experiencing high and continuously increasing activity. We are focusing on continuous development and improved functionality, as well as preparing for upcoming changes with the introduction of the new V80-format.

Benefits of AIB membership

Being part of the AIB provides the benefit of building a European network with colleagues working within the same field, looking towards the future by setting common rules and guidelines. By having a common, functional and secure hub for transferring Guarantees of Origins, certificates can change owners in a safe and efficient manner. In addition, the collaboration with other members provides synergies and input on how to run and develop NECS, the Norwegian registry.

AIB is a cornerstone for the GO system in Europe and is essential to unite the Issuing Bodies and support the energy transition through a trustworthy tracking system for renewable energy.

Scope of national participation in EECS

Number of registered scheme participants	129
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Registered production devices and total capacity installed

Number of production devices	1,464
Total capacity installed (MW)	38,325

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Solar / Unspecified / Unspecified	2	0
Solar / Photovoltaic / Unspecified	2	1
Solar / Photovoltaic / Classic silicon	1	1
Wind / Unspecified / Unspecified	3	223
Wind / Unspecified / Onshore	59	4,445
Hydro-electric head installations / Unspecified / Unspecified	1,143	30,741
Hydro-electric head installations / Run-of-river head installation / Unspecified	215	2018
Hydro-electric head installations / Storage head installation / Unspecified	33	838
Thermal / Unspecified / Unspecified	5	54
Thermal / Gas turbine with heat recovery / Unspecified	1	4

Certified EECS production as compared to national RES production (GWh)

EECS RES production	141,541
National RES production	n/a



Name of the company
REN - Rede Eléctrica Nacional, S.A

Area of operation
Portugal



Avenida dos Estados Unidos, 55
1749-061 Lisboa
Portugal
www.ren.pt



AIB is the gateway to the European GO market for renewable energy producers in Portugal.

Area of operation, information on the market, member of the AIB

Portugal (Mainland)

Profile of the organisation

REN is the Authorised Issuing Body and Registry Operator for Guarantees of Origin for cogeneration, heating and cooling energy, electricity from renewable sources and renewable and low-carbon gases. The work unit entrusted with the issuing is called EEGO-“Entidade Emissora de Garantias de Origem”, the Issuing Body for Guarantees of Origin. REN also operates as a Production Auditor.

Activities within the AIB

In AIB, REN is represented by:

Isabel Fernandes – General Meetings;
Miguel Jerónimo – ISU, CPAU, GSG, ESG, EECS and Board Rep-resentative (CPAU);
João Silva – Alternate member of ISU, CPAU, GSG, ESG and EECS.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

The year 2022 had a very significant drop in the volume of GOs issued, following the extreme drought that occurred in Portugal and in most European countries. Despite this reduction in issuance, the total volume of GO operations maintained its upward trend, with a significant increase in all other operations, with the barrier of 100 million being exceeded for the first time.

The year was also characterised by the considerable increase in the price of the GOs in the market and the resulting increase in revenues from GO auctions. In 2022, eight auctions were held and 21.5M GOs were sold, generating a total revenue of €61.7M for domestic consumers.

In 2022, work also began on the issue of GOs for the generation of renewable and low-carbon gases and a proposal for the revision of the EEGO Manual of Procedures has been submitted for public consultation.

Benefits of AIB membership

“AIB is the gateway to the European GO market for renewable energy producers in Portugal.” Miguel Jerónimo- EEGO representative and Board member

We believe AIB’s greatest asset to be the technical knowledge of the people who are part of the Association. EEGO’s presence in AIB is crucial for the development of its operations and for sharing knowledge.

Scope of national participation in EECS

Number of registered scheme participants	372
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Registered production devices and total capacity installed

Number of production devices	738
Total capacity installed (MW)	16,767

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Solar	154	1,380
Wind	265	5,666
Hydro	153	8,281
Thermal (including CHP)	166	1,441

Certified EECS production as compared to national RES production (GWh)

EECS RES production	24,862
National RES production	25,179 (TSO data)



Being part of AIB will boost our GO market which will bring more traders but also more producers.

Name of the company
**Joint stock company,
Elektromreža Srbije, Belgrade**

Area of operation
Republic of Serbia



Kneza Miloša 11
11 000 Belgrade
Serbia
www.ems.rs

Area of operation, information on the market, member of the AIB

Domain: Serbia
Member of the AIB since 2019.

Profile of the organisation

EMS JSC Belgrade is the Transmission System Operator (TSO) established in 2005. The company is owned by the state and it operates and maintains the transmission system network in Serbia. The Serbian transmission system network operates on 110, 220 and 400 kV voltage levels.

The key business goal is safe and reliable electricity transmission, efficient control of the transmission system interconnected with power systems of other countries, optimal and sustainable development of the transmission system to meet the needs of users and society as a whole, ensuring the functioning and development of the electricity market in the Republic of Serbia and its integration into the regional and pan-European electricity market.

According to primary and secondary legislation for the certificate scheme in Serbia, EMS JSC Belgrade is recognized as the Issuing Body for Guarantees of Origin from renewable sources, registry operator, measurement body for the production devices connected to the transmission grid, and responsible party for calculating the Serbian national residual mix.

Activities within the AIB

Representatives of EMS JSC Belgrade regularly attend General Meetings of the AIB as well as EECS and Electricity Scheme Group meetings.

GM: Jovana Drašković
ESG and EECS Unit: Jovana Drašković

News and perspectives regarding the national IB and the national framework for energy tracking certificates

In March 2022, the first audit after AIB Hub connection was started. This audit was successfully finished in January 2023. At the ESG meeting held in January 2023, AIB members approved a new Domain Protocol for Serbia. In 2023, JSC EMS Belgrade will continue with the adoption of the new Domain Protocol throughout the JSC EMS authorities.

Also, when the secondary legislation of the Law on Renewable Energy Sources is done, JSC EMS Belgrade will start issuing HEC GOs together with GOs from renewable sources.

In 2022, work also began on the issue of GOs for the generation of renewable and low-carbon gases and a proposal for the revision of the EEGO Manual of Procedures has been submitted for public consultation.

Benefits of AIB membership

The main benefit is that there are more potential participants who are willing to participate in GO trading. We have received many questions from parties about export and import of GOs. This was not the case when we only had national GOs and when we were not part of AIB. In general, being part of AIB will boost our GO market which will bring more traders but also more producers.

Links to relevant sections of our website

General info: <https://ems.rs/en/guarantee-of-origin-2/>

Account Holder list and list of Production Devices:
<https://ems.rs/en/account-holder-list-and-list-of-production-devices/>

Scope of national participation in EECS

Number of registered scheme participants	15
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Registered production devices and total capacity installed

Number of production devices	17
Total capacity installed (MW)	2,197.331

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	12	2,196.33
Solar	5	1.001

Certified EECS production as compared to national RES production (GWh)

EECS RES production	7,752.64
National RES production	10,573.82





Name of the company
OKTE, a.s.

Area of operation
Slovakia



Mlynské nivy 48
82109 Bratislava
Slovakia
<https://www.okte.sk/sk/>



To be a member of the AIB has accelerated the development of the GO awareness in Slovakia.

Area of operation, information on the market, member of the AIB

OKTE, a.s is the short-term electricity Market Operator. From 2020, as a full member of the AIB, OKTE is the Issuing Body for Guarantees of Origin. In 2022 there were 48 Account Holders and 29 Production Devices in the registry. The amount of GOs issued was 4,309 GWh.

Profile of the organisation

OKTE, a.s. is authorized by law to perform the activities of the short-term electricity Market Operator in the Slovak Republic.

From 2011, the portfolio of services offered by the company has been gradually extended. Currently, OKTE, a.s. is an important player in Slovak electricity market responsible for:

- Organisation and settlement of the short-term cross-border electricity market
- Collection and administration of metering data
- Imbalance and balancing energy settlement
- Central invoicing
- Administration and settlement of the support scheme for electricity from RES and CHP including feed-in-tariff and feed-in-premium
- Administration, transfers and market organisation for GOs for electricity from RES and CHP

Activities within the AIB

OKTE, a.s. is represented at the AIB General Meetings, ESG, ISU and EECS Unit by Ondrej Kulich.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

In 2022 OKTE began the process of updating the registry for the new v80 scheme. After the amendment of the RES law, OKTE undertook to overhaul its registry system to prepare for the introduction for the possibility to issue a broad range of the Guarantees of Origin including Nuclear GOs and GOs for own consumption within the Production Device. OKTE is also updating its contracts and operational order to create an opportunity for Traders and Brokers to join the registry. been submitted for public consultation.

Benefits of AIB membership

AIB membership means that account holders can efficiently trade GOs with all AIB members through the AIB Hub. It also gives OKTE the opportunity to collaborate with other competent bodies across Europe, participate in the broader discussions on GOs and contribute to the maintenance and development of the EECS rules. "To be a member of the AIB has accelerated the development of the GO awareness in Slovakia and the account holders are satisfied with the ease of use of the registry" states Ondrej Kulich, Specialist for Guarantees of Origin at OKTE.

Scope of national participation in EECS

Number of registered scheme participants	48
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Registered production devices and total capacity installed

Number of production devices	2,584
Total capacity installed (MW)	3,158

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	1	163
Hydro	275	2,447
Solar PV devices > 10kW	1,505	543
Solar PV devices < 10 kW	803	5

Certified EECS production as compared to national RES production (GWh)

EECS RES production	4,309
National RES production	0



The Energy Agency ensures that all the necessary conditions are in place for market participants to benefit from the electricity market.

Name of the company
Agencija za energijo

Area of operation
Slovenia



Strossmayerjeva ulica 30
2000 Maribor
Slovenia
www.agen-rs.si

Area of operation, information on the market, member of the AIB

Area of operation: Slovenia
Energy Agency, Member of AIB since 2004.
No. of Registered Account Holders in 2022: 1,392

Profile of the organisation

The Energy Agency is the national Regulatory Authority for electricity, gas and district heating in Slovenia and the Slovenian Issuing Body of GOs for renewable electricity, non-renewable electricity and electricity from high efficiency CHP.

It is also the Competent Authority for issuing renewable, non-renewable and CHP production declarations that are required for production devices, in order to be eligible for receiving GOs for their electricity production and to enter the Slovenian support scheme.

In addition to this, the Energy Agency is the Slovenian Competent Authority for the disclosure scheme.

[Annual reports on the energy sector in Slovenia](#)
[Energy Agency reports \(in Slovene\)](#)

Activities within the AIB

Dejan Tasic – Representative at GM, EECS Unit and ESG (Replacing Blaž Bratina)

News and perspectives regarding the national IB and the national framework for energy tracking certificates

The Energy Agency intends to remain an AIB member to offer the producers and traders the possibility to internationally trade all certificates used in Slovenia. It will also closely cooperate with the Slovenian stakeholders, including the Ministry responsible for energy, which is responsible for national GO legislation.

- The Energy Agency will follow developments in the field of European energy legislation and will take over all responsibilities given to it by the national implementation of this legislation.
- In accordance with the Decree on support for electricity generated from renewable energy sources and high-efficiency cogeneration of heat and electricity, the Energy Agency performed one tendering procedure for the selection of new entrants to the national support scheme in 2022.

Benefits of AIB membership

- The Energy Agency ensures that all the necessary conditions are in place for market participants to benefit from the electricity market which allows a competitive, secure and environmentally sustainable electricity market for all market participants, including all customers, traders and suppliers. Suppliers can offer electricity produced in an environmentally friendly way to their customers, while traders can internationally exchange the attributes of such electricity.
- The customers can select between various electricity products, the origin of which is guaranteed by reliable instruments – EECS Guarantees of Origin.
- Membership of the AIB provides us with an opportunity to actively participate in the creation of new European standards for certifying electricity and other energies.

Scope of national participation in EECS

Number of registered scheme participants	5
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Registered production devices and total capacity installed

Number of production devices	1,661
Total capacity installed (MW)	2,894.1

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	214	1,077.9
Solar	1,333	140.6
Wind	2	3.2
Biogas	14	11.8
Biomass	4	1.2
CHP	89	35.4
Fossil	4	928
Nuclear	1	696
Total	1,661	2,894.1

Certified EECS production as compared to national RES production (GWh)

EECS RES production	2906.1
National RES production	3761.3

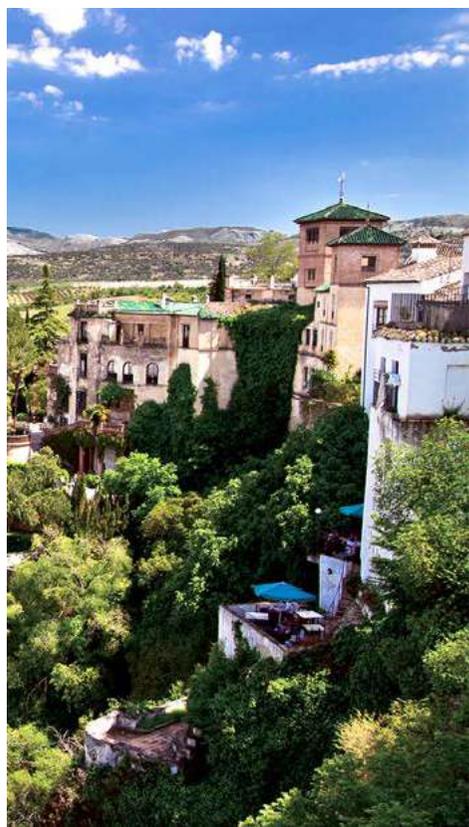


Name of the company
CNMC

Area of operation
Spain



Alcala, 47
Madrid 28014
Spain
www.cnmc.es



More than 65,000 account holders.

Area of operation, information on the market, member of the AIB

Spain.

More than 65,000 account holders.

AIB Member since 2016.

Profile of the organisation

CNMC is the Spanish Regulator for the energy sector, as well as telecoms, audio-visual media, transport and postal sectors, and the Spanish competition authority, Issuing Body for electricity GOs and Competent Body for the disclosure scheme in electricity.

<https://www.cnmc.es/en/sobre-la-cnmc/plan-estrategico>

<https://www.cnmc.es/en/sobre-la-cnmc/plan-de-actuacion>

Activities within the AIB

CNMC participates in AIB meetings and is usually represented by Jose Miguel Unson.

CNMC is also part of Regulator's Associations such as CEER, MEDREG and ARIAE.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

There is a new update of disclosure legislation from February 2021 that entered into force in 2022.

Benefits of AIB membership

"Another benefit is to enhance the management system for exports and imports of Guarantees of Origin, using the AIB platform or Hub". (Former CNMC Director General for Energy)

Scope of national participation in EECS

Number of registered scheme participants	66,973
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Registered production devices and total capacity installed

Number of production devices	66,579
Total capacity installed (MW)	75,250

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
CHP	944	5,502
Solar PV	61,859	17,140
Solar CSP	51	2,299
Wind	1,623	29,227
Small Hydro(<50 MW)	1,102	2,145
Biomass	238	1,024
Urban Solid Waste	9	200
Big Hydro >50 MW)	753	17,713
Total	66,579	75,250

Certified EECS production as compared to national RES production (GWh)

EECS RES production	33,771
National RES production	112,112

Name of the company
Enagas GTS

Area of operation
Spain (gas)



Paseo de los Olmos
28005 Madrid
Spain
<https://www.gdogas.es/en/public-portal/home>

EECS rules and AIB processes are robust and transparent ensuring the rigorousness required for the certification business

Area of operation, information on the market, member of the AIB

Spain
Member of AIB and observer of the Gas Scheme Group since 2022.

Profile of the organisation

Technical Manager of the Spanish gas system.
Issuing Body for Guarantees of Origin for renewable gases, including hydrogen, and Competent Body for disclosure scheme.
Link to GTS' annual report (2022 not available yet):
<https://www.enagas.es/en/press-room/publications/spanish-gas-system-report/>

Activities within the AIB

Representatives at the General Meeting and GSG:
Carmen Rodríguez Valdés, Ana Sánchez Levoso

News and perspectives regarding the national IB and the national framework for energy tracking certificates

Enagas GTS was appointed Issuing Body for gas in Spain in May 2022 by a Royal Decree, establishing the national framework for Guarantees of Origin for renewable gases applicable to biogas and renewable hydrogen.

The detailed procedures ruling the Registry were defined during 2022, with the Management Procedure being approved by the end of October.
The Registry came to life in Q1 2023.

Benefits of AIB membership

“Starting out new to the GO business, AIB membership gives us access to the knowledge acquired by other Issuing Bodies over the years. This is very valuable for establishing a new Registry because we can share experience and best practices. In addition, EECS rules and AIB processes are robust and transparent ensuring the rigorousness required for the certification business. For us being able to exchange GOs through the AIB Hub is practical and cost-effective as we will reach multiple counterparties with a single connection. We are really proud to join AIB and are convinced it is going to represent a positive step forward towards the penetration of renewable gases in Europe”. Susana de Pablo (Enagas GTS General Manager).

Links to relevant sections of our website

www.gdogas.es
<https://www.enagas.es/en/technical-management-system/general-information/guarantees-origin/>



Name of the company
The Swedish Energy Agency

Area of operation
Sweden



Gredbyvägen 10
632 21 Eskilstuna
Sweden
www.energimyndigheten.se/en/

The Swedish Energy Agency is leading society's transition to a sustainable energy system.

Area of operation, information on the market, member of the AIB

Sweden
EECS GOs issued 2022: approximately 95 million
EECS Account Holders: 560 Account holders
Member of the AIB since June 2017

Profile of the organisation

Government agency
Competent Body and Issuing Body for Guarantees of Origin (GOs) for electricity.

Activities within the AIB

Eva Nordlander: GM representative, member of the EECS unit, ESG and GSG
Nina Emanuelsson: Member of the ISU
Johan Forsman: GM representative, member of the GSG
Ulrika Bergström: Member of the ISU (2022)

News and perspectives regarding the national IB and the national framework for energy tracking certificates

As an appointed advisory body, Energimyndigheten has been involved in the ongoing legal modifications derived from the REDII implementation. The Swedish government has proposed changes to the Act (2010: 601) on Guarantees of Origin for electricity to also cover GOs for other energy carriers such as heating, cooling and gas. The proposed changes have been passed in the Swedish parliament and will come into effect when the Swedish government decides this.

Sweden will implement a new certificate registry in 2023. During this time Energimyndigheten will also revise the scheme for electricity regarding Guarantees of Origins.

Starting from July 1st 2022, Guarantees of Origin from third countries are no longer recognised in Sweden unless there is an agreement between the third country and the EU regarding mutual recognition of Guarantees of Origin. The result of this change is that it is not possible to transfer Guarantees of Origin to the Swedish registry that have been issued in Serbia or Switzerland after June 30th 2022.

Benefits of AIB membership

AIB, and the AIB Hub, provide for an efficient and reliable transfer of Guarantees of Origin between members. The establishment of contacts within other EU member states facing the same challenges is an important part of our membership. This helps to develop good practices and gain experience from lessons learned by other scheme members. AIB also helps in detecting potential fraud.

Links to relevant sections of our website

<https://www.energimyndigheten.se/en/sustainability/eecs-and-how-to-apply/>
<https://cesar.energimyndigheten.se/Lists/PublicPages/Statistics.aspx>

Scope of national participation in EECS

Number of registered scheme participants	561
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Registered production devices and total capacity installed

Number of production devices	2,532
Total capacity installed (MW)	27,731.8

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydropower	341	12,178
Thermal (excl. Nuclear)	12	982
Wind onshore	2,171	11,788
Wind offshore	4	163
Solar power	2	1.7
Nuclear	2	2,620

Certified EECS production as compared to national RES production (GWh)

EECS RES production	94,731
National RES production	119,000



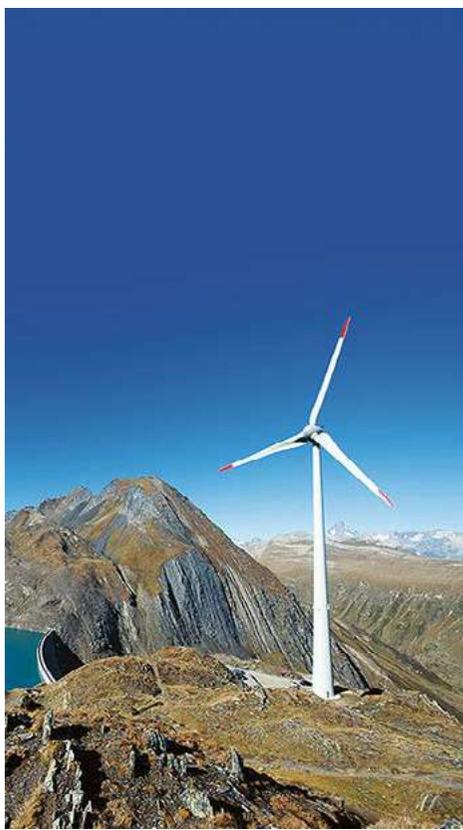


Name of the company
Pronovo AG

Area of operation
Switzerland



Dammstrasse 3
5070 Frick
Switzerland
www.pronovo.ch



The goal is, to have one fully integrated GO registry for all energy carriers in Switzerland.

Area of operation, information on the market, member of the AIB

Switzerland has been an AIB member since 2002. The registry, operated by Pronovo, currently has 2,891 active users and 164,470 registered production devices with a total installed capacity of 24,155 MW. In 2022, Guarantees of Origin (GOs) were issued for 52 TWh of produced renewable and non-renewable electricity.

Profile of the organisation

Pronovo is a 100% subsidiary company of Swissgrid, which is the Transmission System Operator (TSO) of Switzerland. Pronovo is responsible for the issuing of Guarantees of Origin and the financial support of renewable energy production in Switzerland.

Activities within the AIB

Lukas Groebke: Board (Chair), GSG
Andrea Miksch: ESG, EECSU
Milada Mehinovic: CPAU (Chair)
Sabrina Philipp: ISU

News and perspectives regarding the national IB and the national framework for energy tracking certificates

As of 2023, the Swiss confederation has introduced new support programs for the production of renewable electricity. One is related to investment support and auctions for large scale photovoltaic plants with an installed capacity of more than 150kW. And the other is regarding operating cost support for biomass plants as a replacement of the current feed in tariff system.

Pronovo is currently in the implementation phase of a project to replace its actual GO registry. The new system, which is based on the G-REX product provided by Grexel, is planned to be operational by the end of 2023.

In addition, Pronovo has been mandated to be the Issuing Body for liquid and gaseous energy carriers as of 2025. The GO system for renewable fuels and combustibles will be based on the same product, which was procured for the GO registry for electricity. The goal is, to have one fully integrated GO registry for all energy carriers in Switzerland.

Benefits of AIB membership

The AIB's extension of the EECS Scheme to other energy sources and their cooperation with ErGaR is the success factor for a Pan-European harmonisation of standards and infrastructure for Guarantees of Origin for all energy sources.

With the implementation of an integrated GO System in Switzerland, Pronovo will benefit from the AIB's EECS Scheme extension and will be able to issue and provide GOs which are compatible for trading in the European market.

Links to relevant sections of our website

<https://pronovo.ch/de/services/berichte/>

Scope of national participation in EECS

Number of registered scheme participants	2,891
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Registered production devices and total capacity installed

Number of production devices	156,056
Total capacity installed (MW)	24,004

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomasse	448	521
Hydro	1,480	16,153
Solar	153,824	3,585
Wind onshore	68	89
Nuclear	4	3,014
Crude oil	17	11
Natural gas	183	278
Waste	32	353

Certified EECS production as compared to national RES production (GWh)

EECS RES production	32,948
EECS non-RES production	24,285
National production	57,233



Name of the company
Operator za OIEiEK

Area of operation
**Federation of Bosnia
& Herzegovina**



Adema Buća 34
88 000 Mostar
Bosnia and Herzegovina
www.operatoroieiek.ba



Being an Observer within the AIB is great chance to exchange practical knowledge from the best sources.

Area of operation, information on the market, member of the AIB

Federation of Bosnia and Herzegovina. Officially an Observer since 2021

Profile of the organisation

Operator za OIEiEK was established by the government of the Federation of Bosnia and Herzegovina as the institution responsible for the implementation of the system for incentivised production of renewable energy (electricity). Operator za OIEiEK is an authorised Issuing Body for the issuing, transferring and cancelling of renewable electricity Guarantees of Origin and is the administrator of the GO Registry.

Operator za OIEiEK aggregates surcharges from electricity consumers and uses it for payments to eligible producers.

Activities within the AIB

Almir Muhamedbegović, is the representative of the Operator za OIEiEK and participates in AIB meetings and contributes to the Electricity Scheme Group.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

In spite of the fact that a proposal of a new RES Law was approved by the House of Representatives in July 2022, in May 2023 the Federal Government of Bosnia and Herzegovina withdrew it and sent the modified version of the RES Law to the Parliamentary Houses (voting to happen by the end of June 2023.)

The RES Law proposal reads that the Federal Ministry of Energy will be appointed as disclosure body.

Operator za OIEiEK has still not signed a contract with Grexel regarding the use of the software for the regional Energy Community's (EC) GO system. According to an agreement between Bosnia and Herzegovina and the Secretariat of the EC this contract should be signed during the first half of year 2023.

Benefits of AIB membership

Being an Observer within the AIB is great chance to exchange practical knowledge from the best sources regarding the implementation of EECs across Europe by having a standardised solution.



Name of the company
Sustainable Energy Development Agency

Area of operation
Bulgaria



Serdika
Sofia, 1000
Bulgaria
<https://www.seea.government.bg/bg/>

The partnership with AIB increases the international prestige of SEDA.

Area of operation, information on the market, member of the AIB

Bulgaria, Approximate number of GOs issued: 7 million.
The Domain is an observer in the AIB since 2021.

Profile of the organisation

SEDA, is the sole issuer of internationally transferable Guarantees of Origin (GOs) for electricity in Bulgaria. SEDA is also the administrator of the GO Registry in the country. SEDA's functions are defined by Energy from Renewable Energy Sources Act and The Energy Efficiency Act.

SEDA is responsible for the implementation of the state policy on increasing energy efficiency, as well as for promoting the production and consumption of electricity, heat and cooling energy from renewable sources.

Data is available at:

<https://portal.seea.government.bg/bg/Guarantees/IssuedGuaranteeRegister>

Activities within the AIB

SEDA is following all AIB projects and initiatives.

News and perspectives regarding the national IB and the national framework for energy tracking certificates

SEDA is active participant in the discussions and plan drafting regarding introducing GOs for hydrogen.

SEDA aims to connect to the AIB Hub and trade with the other AIB member states. Bulgaria is making consistent efforts to liberalize the electricity market.

Benefits of AIB membership

The partnership with AIB increases the international prestige of SEDA and gives us the opportunity to study and apply the best practices related to the issuance and transfer of GOs. The AIB HUB is a reliable tool for the secure exchange of GOs, which would provide national producers with access to new partners.

Links to relevant sections of our website

Data is available at:

<https://portal.seea.government.bg/bg/Guarantees/IssuedGuaranteeRegister>





Name of the company
Hinicio

Area of operation
Europe



WeWork Botanic
Boulevard Saint-Lazare 4-10
1210 Brussels
Belgium
www.hinicio.com

Hinicio is closely following the development of schemes in Europe within the scope of the CertifHy project and can be contacted by appointed and not yet appointed Issuing Bodies for questions related to H2 GOs.

Area of operation, member of the AIB

Hinicio is the project coordinator of the CertifHy project which operates a NGC scheme (<https://www.certifhy.eu>) and an Issuing Body for hydrogen which will apply for recognition as an ICS in 2023.
Observer of AIB since 2020.

Profile of the organisation

Hinicio is the leader and coordinator of the CertifHy 3 project, funded by the Fuel Cell and Hydrogen Joint Undertaking (FCH 2 JU). One of the main objectives of CertifHy Phase 3 will be to establish harmonized Guarantees of Origin schemes for hydrogen across Europe. Hinicio have joined the AIB Gas Scheme Group as an observer.

CertifHy and AIB will use the preliminary research of CertifHy to facilitate the update of the EECS Rules for renewable gases, including hydrogen.

The CertifHy scheme will also be updated so that it becomes compliant with the RED II, the CEN EN16325 standard and the EECS rules, to facilitate cross border transfers.

Activities within the AIB

Wouter Vanhoudt – Chair (until August 2022) and member, Gas Scheme Group
Matthieu Boisson – Member, Gas Scheme Group

News and perspectives regarding the national IB and national framework for energy tracking certificates

Hydrogen GO schemes are yet to be implemented by Member States. Hinicio is closely following the development of schemes in Europe within the scope of the CertifHy project and can be contacted by appointed and not yet appointed Issuing Bodies for questions related to H2 GOs.

Benefits of AIB membership

H2 GOs are still at their infancy and must take advantage of the lessons learned by the electricity GO market over the years. Being part of the AIB and contributing to the development of the EECS Gas Rules will foster the implementation of an efficient and harmonized GO market for hydrogen in Europe.



Sustainability Statement

As an international organisation working towards the energy transition, AIB wants to live by example.

AIB takes responsibility for its own activities and seeks to make its own structures and organisation both environmentally and socially friendly. Specifically, via communications (e.g. website and emails) and the meetings it holds across Europe. AIB wants to go the extra mile.

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Since 2012, the AIB wanted to have a sustainable impact, and take further responsibility of its operations through the following steps:

- Powering its computers using renewable energy; and having the website certified by [Wattimpact](#).
- Many years of physical meetings gave an overview of CO₂ emissions due to travel from all over Europe. During Covid times, even without physical meetings, we decided to continue to support communities, protect biodiversity and improve prosperity via certified climate action projects. Back to in person meetings again, from Spring 2022, a total of 50 tCO₂ was compensated by [Atmosfair](#). This is a rough estimate of the CO₂ emitted due to travelling in the year 2022.
- From 2021, AIB no longer prints the Annual Report and only publishes it online. The EECS Rules® brochures were printed on the most environmentally friendly paper (FSC paper, 100% post-consumer recycled) in cooperation with the printing company [Lokay](#), which has committed itself to be a sustainable printer.
- When physical meetings are taking place, we seek venues (e.g. hotels) with environmental management certification, and preferably those that engage in other activities relating to improving energy efficiency, reducing environmental impact and supporting social responsibility. One aspect of this, is to give preference to regional food with a good choice of vegetarian and vegan options. Furthermore, the Expense Rules have been changed so that AIB staff are advised to purchase flight tickets from sellers who offer the option of renewable aviation fuel for their trip.

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Association of Issuing Bodies ivzw

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