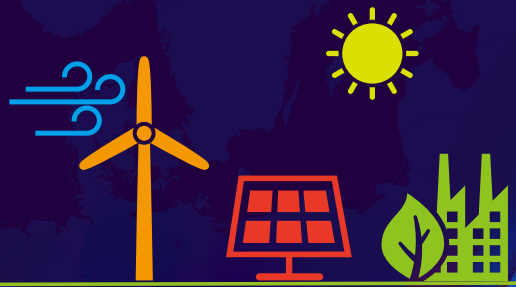
AIB

association of issuing bodies



ANNUAL REPORT 2024

Contents

Reports from Members, Applicants & Observers

Lukas Groebke (Pronovo, Switzerland),
Chair of the AIB Board until March 2025

"2024 was another year of remarkable progress and milestones for the Association of Issuing Bodies (AIB).
With a record-breaking number of Guarantees of Origin (GOs) issued and transferred, we have not only strengthened trust in the European tracking system but also reaffirmed our central role in facilitating consumer choice."

Foreword

For the first time in AIB's history, the volume of EECS GOs issued by our members exceeded the 1 000 TWh mark — reaching 1 084 TWh in total, a 10% increase compared to the previous year. Cross-border activity was also strong: international transfers of GOs via the AIB Hub rose by over 12% to 1 067 TWh, and the number of transactions handled increased by nearly 32% to almost 69 000. Even more importantly, GO cancellations — indicating actual use of certificates for electricity consumption disclosure — grew by 12% to 884 TWh. This confirms the growing interest in reliable and transparent energy consumption documentation.

At the same time, AIB made significant strides in system development. With tour members agreeing on the content of the new v81 message format, GOs will soon include even more relevant data — such as bidding zone identifiers, sustainability tags (e.g. RFNBO), emission-related information, energy storage details, and production period identifiers. This development enhances transparency and allows consumers, businesses, and authorities to select GOs that meet their specific needs more effectively.

Another key achievement in 2024 was the conclusion of the REGADISS project — an initiative commissioned by the European Commission to design a reliable framework for gas disclosure. The final report highlights that a trustworthy residual mix for gas can only be achieved under clearly defined conditions and with timely access to robust statistics.

In April 2025, we launched our new Hub. Next, we are preparing to roll out a dedicated Databricks platform for data processing and publication — enabling even greater efficiency and analytical capabilities.

The 2024 Annual Report reflects all these developments. It provides a comprehensive overview of the key figures plus valuable insights into the projects, processes and strategic decisions. As usual, we also give a specific overview of member activities shaping our collective future.

Thank you to all our members, partners, and stakeholders for their continued dedication, and we look forward to advancing together toward a more transparent and sustainable energy market.

Key figures

1 548 TWh

Total amount of electricity certificates transferred over AIB Hub

4 036

LinkedIn followers

115

Internal member meetings

39

AIB members

21
Electricity & Gas Issuing Bodies

12
Electricity Issuing Bodies

6
Gas Issuing Bodies

EECS Guarantees of Origin market activity in 2024 Statistical highlights and trends

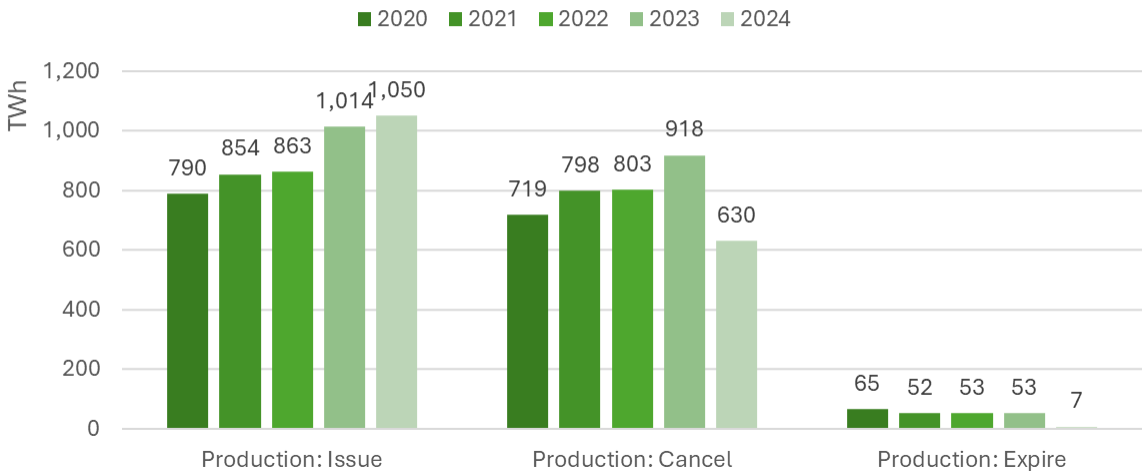
2024 was a great year for the Guarantees of Origin (GO) market within the AIB, marked by record-breaking volumes and a continued strengthening of intra-European market integration. While the first signs of cross-border activity in gas EECS GOs emerged, this year's report remains focused on electricity GOs. Gas EECS GO data will be included in next year's overview as the market gains traction. More detailed statistics can also be found on the AIB website.

Market volumes: growth across the board

The long-term trend of steady growth in GO activity continued in 2024. As illustrated in the first graph, which tracks issuance, cancellation, and expiry of electricity GOs based on the production year, volumes have increased consistently over the past five years. Production date statistics refer to the year when the certified electricity was produced.

In 2024, AIB members surpassed the symbolic milestone of 1,000 TWh of EECS electricity GOs issued across Europe, a clear testament to the expanding role of GOs in supporting transparency and consumer choice in renewable electricity markets.

Annual transactions in TWH (based on production date)



Final production date cancellation statistics are not yet fully available, as part of 2024 electricity production GOs can be cancelled later in 2025. GOs are often cancelled close to their expiry date.

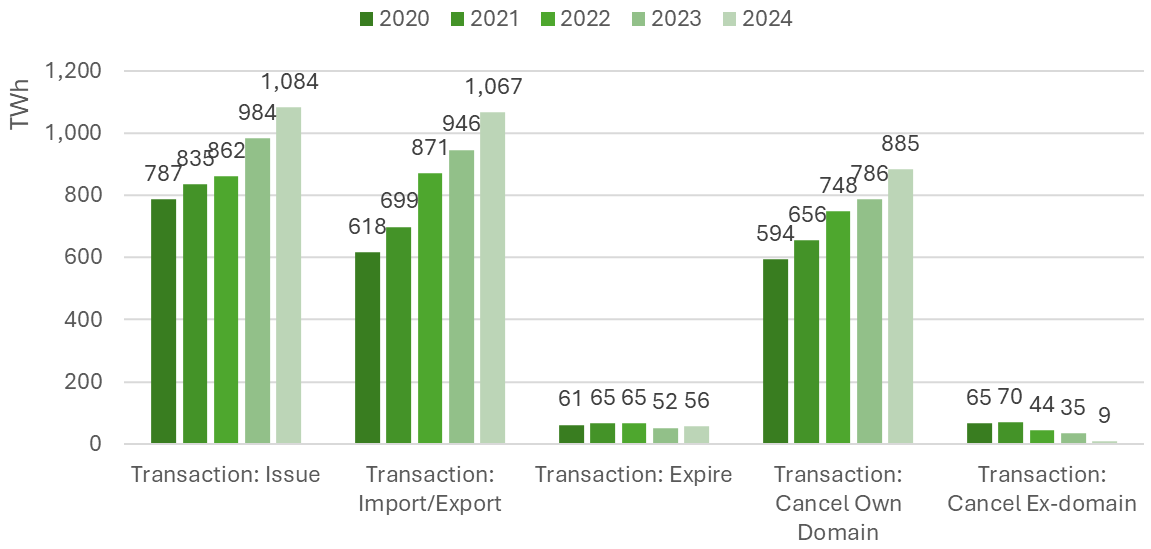
EECS guarantees of origin market activity in 2024
Statistical highlights and trends

Transaction activity: increasing maturity and integration

The second graph captures the number of GOs issued, cancelled, transferred between domains, or expired, using the transaction date (rather than production date) as reference. The upward momentum continues here too, with marked increases in the main categories – issuances, transfers and cancellations. Transaction date statistics refer to the year when the transaction took place.

Notably, ex-domain cancellations keep declining, a trend driven by the expanding membership of the AIB. As more countries adopt and implement the EECS standard, the need to rely on ex-domain cancellations – previously used to export GOs to non-EECS areas – has diminished.

Annual EECS transactions in THH (based on transaction date)



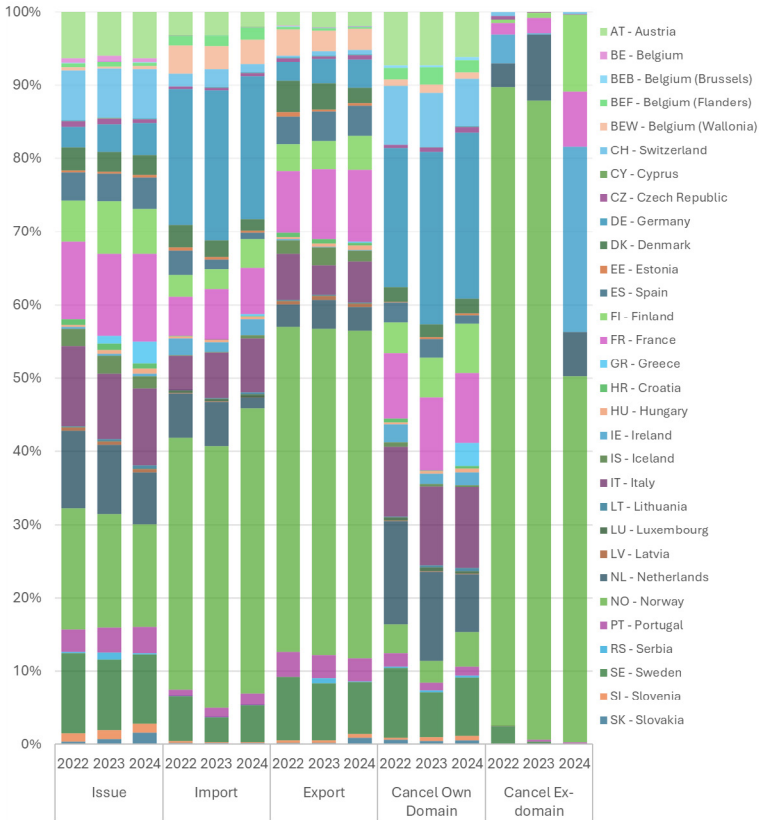
EECS guarantees of origin market activity in 2024
Statistical highlights and trends

Trade flows: who's buying, who's selling

The third graph paints a picture of domain-level dynamics. Norway, Sweden, and France continue to dominate as the largest net exporters, leveraging their abundant renewable generation.

In contrast, countries such as Germany, the Netherlands, Ireland, and Switzerland remain major net importers, highlighting a structural gap between domestic renewable production and consumer demand for renewable electricity attributes.

Annual transactions per domain (based on transaction date)



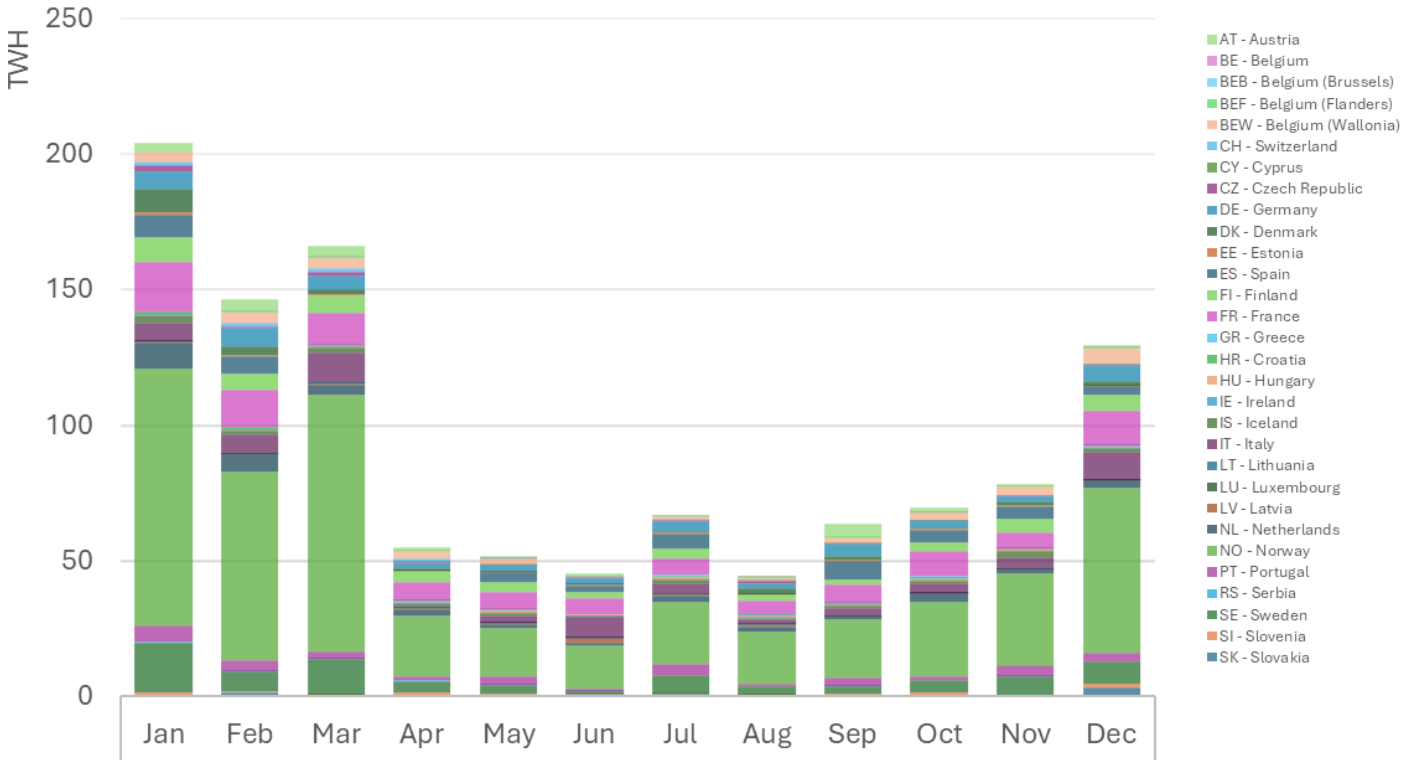
EECS guarantees of origin market activity in 2024
Statistical highlights and trends

Seasonal trends: the usual suspects

The final two graphs offer a month-by-month view of GO imports and exports by domain. A well-known seasonal pattern is evident: the peak trading period for ex-domain transfers occurs between December and March.

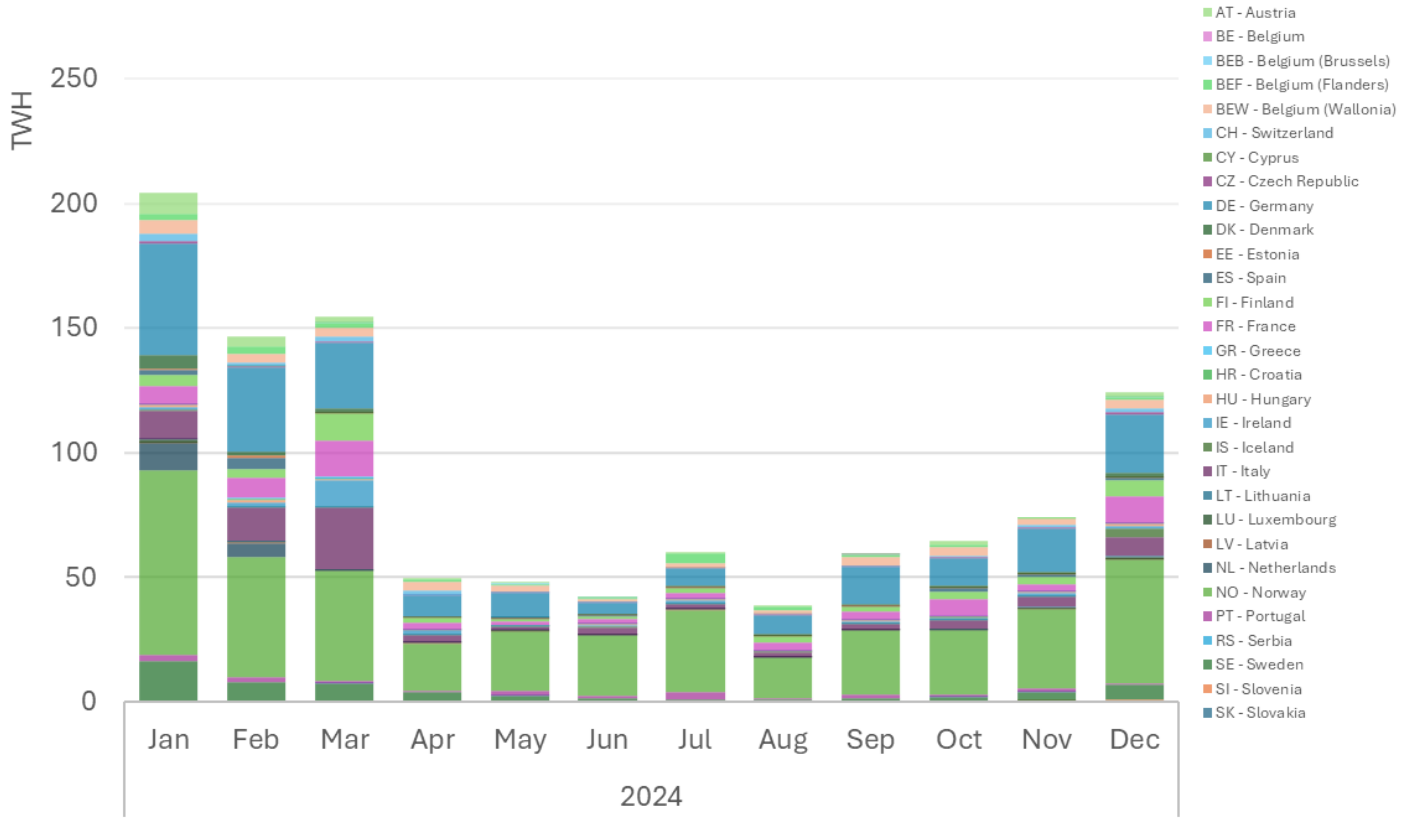
This reflects annual disclosure cycles and compliance deadlines in many member states, driving a surge in activity as market participants seek to align their procurement with regulatory and voluntary reporting obligations.

Monthly exports per domain (TWH)



EECS guarantees of origin market activity in 2024
Statistical highlights and trends

Monthly imports per domain (TWH)



2024 Achievements

By the end of 2024, AIB counted **39 members from 30 European countries,** covering the EU, EEA and **Energy Community.**

Membership overview

All are government-appointed Issuing Bodies, responsible for administering systems for Guarantees of Origin (GOs) for electricity and/or gas under the EECS framework.

Electricity

30 AIB members were active in the EECS Electricity Scheme, authorised to issue EECS GOs and transfer them via the AIB Hub. New progress in 2024 included:

- **New AIB members preparing for Electricity Scheme participation:**
  - **NEURC (Ukraine)**
  - **ERE (Albania)**
  - **SEDA (Bulgaria)**

- **New observers to the Electricity Scheme:**
  - **ERO (Kosovo)**
  - **MEMO (North Macedonia)**

Within the EU, only Malta, Poland, and Romania remain outside the EECS electricity system.

Poland has a functioning national GO system but is not yet connected to the AIB Hub. In 2023, Polish legislation was amended to allow for future membership, and cooperation between the Polish Energy Regulatory Office (URE) and registry operator TGe intensified in 2024. AIB engaged closely with both institutions and the Ministry of Climate and Environment. Market interest is strong, and steps towards alignment are ongoing, but there is no timeline for AIB membership.

Romania has shared a timeline aiming for full AIB membership by 2027 after fruitful talks with AIB in autumn 2024 in Bucharest. Regulatory development is foreseen for 2025–2026, covering electricity, renewable gases and thermal energy. No formal application has been submitted yet, but exchanges continue with the issuing body ANRE.

Malta remains the only EU member state without a functioning system for electricity GOs under the EECS framework. AIB is in contact with the national energy regulator, the Malta Resources Authority (MRA). However, given the country's small market size and limited issuing needs, no immediate steps towards AIB membership are expected. Dialogue remains open.

Among Energy Community countries, GO systems are under development. EMS Serbia continues as an active Electricity Scheme member. AIB remains in close contact with the secretariat of the Energy Community to assist them in advancing discussions with the European Commission on achieving mutual recognition of GOs from the contracting parties.

Gas

By the end of 2024, 9 AIB members were part of the EECS Gas Scheme:

- **Gasgrid (Finland)**
- **Enagas (Spain)**
- **Brugel (Belgium)**
- **E-Control (Austria)**
- **GSE (Italy)**
- **REN (Portugal)**
- **OTE (Czech Republic)**
- **Elering (Estonia)**
- **Conexus (Latvia)**

A key milestone was reached in September 2024, when the first gas GO transfers over the AIB Hub took place—between Spain, Austria and Czech Republic.

Further to this:

- **SPP Distribúcia (Slovakia)**
  joined AIB as a member and is preparing for Gas Scheme membership.
- **VEKA (Flanders)**
  was approved as observer to the Gas Scheme.

23 AIB members now hold a governmental mandate to issue GOs for gases, and interest in joining the Scheme continues to grow.

2024 Achievements

FULL MEMBERS

- Full member of the Electricity- and Gas Scheme Group
- Full member of the Electricity Scheme Group
- Full member of the Gas Scheme Group

APPLICANTS

- AIB member & Applicant to Electricity Scheme Group
- AIB member & Applicant to Gas Scheme Group

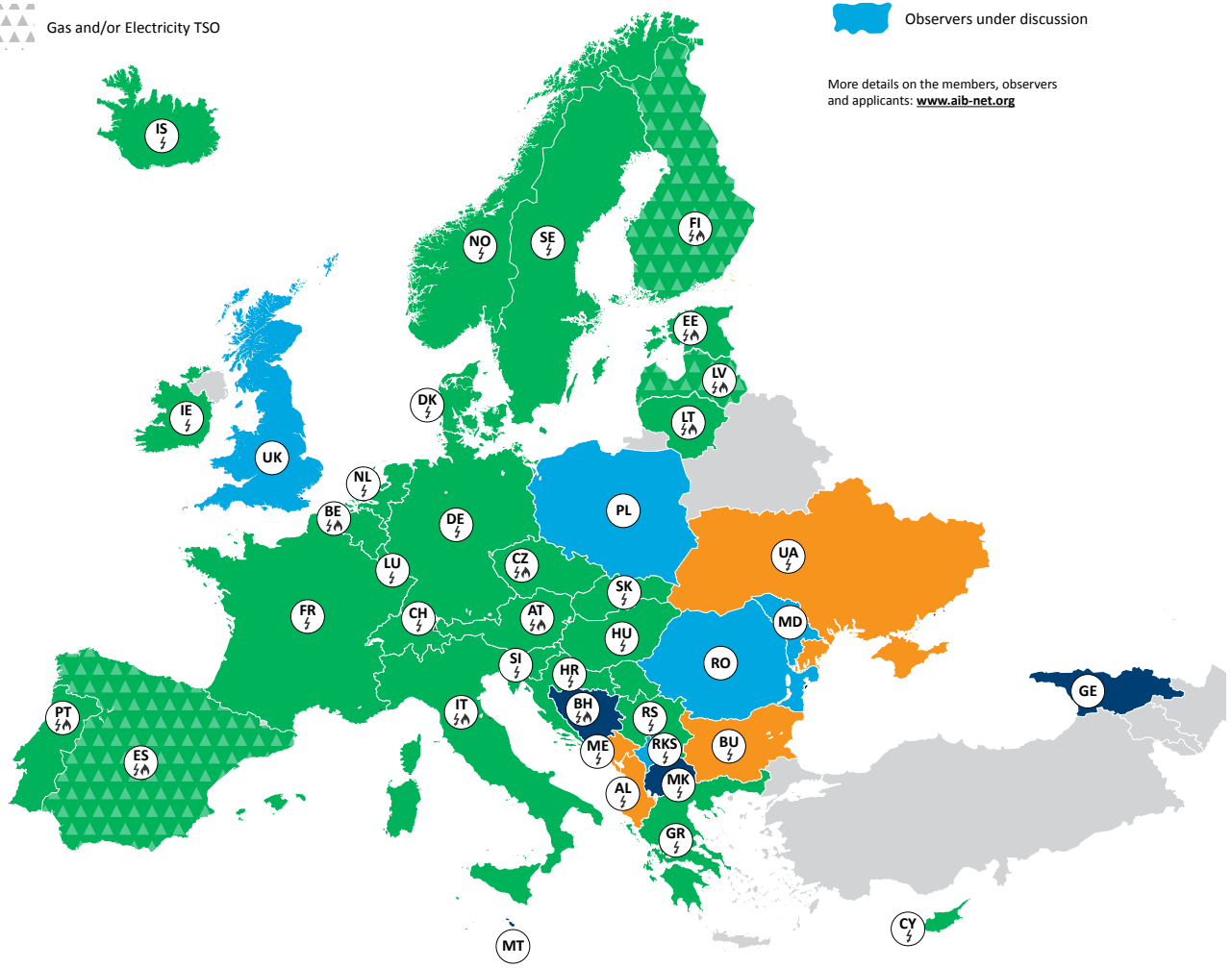
OBSERVERS

- Observer to the Electricity- and Gas Scheme Group
- Observer to the Electricity Scheme Group
- Observer to the Gas Scheme Group

Gas and/or Electricity TSO

Observers under discussion

More details on the members, observers and applicants: **www.aib-net.org**



2024 Achievements

Quality assurance

All current gas and electricity Scheme members have a governmental mandate and have successfully passed the necessary quality checks and compliance assessments with the EECS standard. This adherence to high standards underlines our dedication to ensuring the reliability of renewable gas claims, a responsibility we take very seriously at AIB.

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 2024.

Strategy

In previous years a lot of strategy development has been completed including a strong vision for 2021-2025 and three strategic roadmaps. In 2024, the execution of this strategy was finalised. As a part of the Hub roadmap that leads to gradually rebuilding the AIB Hub, the data management processes of the AIB Hub are now a new platform and Unicorn Systems took over the maintenance. T

o increase the amount of information on European Guarantees of Origin, including after cross border transfer, the members implemented new data fields on the GO, with flexibility for further futureproofing in the continuously evolving legal landscape, called the v80 message schema. 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.

External cooperation

AIB continued its cooperation with **ERGaR** with a view to bringing together the certification of renewable gases. AIB members voted against a formal merger of both organisations, yet supported informal cooperation on subjects of common interest. Furthermore, AIB’s long standing cooperation with the **RECS** Energy Certificate Association continued, with regular joint management meetings and speaking slots by AIB members and officials at the REC Market Meeting in April. In 2024 AIB continued to foster cooperation with other standardisation organisations. We were involved in the revision process of EN16325 in CEN, of the ISO book & claim standard and held meetings with the organisations operating the Greenhouse Gas Protocol, i-REC and GRI reporting standards.

AIB is dedicated to collaborating with stakeholders by creating opportunities to collect expert opinions, which informs our vision and guides our policy recommendations. We also share our findings and suggestions with the public. In this respect, AIB representatives participated in the ENTSOG Prime Movers meetings. AIB representatives were speaking at several fora and conferences including the REC Market Meeting, RE-Source Sout-East Europe, RE-Source Poland, Green PPA Conference Romania, RE-Source 2024, Florence School of Regulation, and the European Hydrogen Week, to name but a few.

Disclosure Platform

The Disclosure Platform is an informal exchange forum for Issuing Bodies of Guarantees of Origin and Competent Authorities for the supervision of energy Disclosure by sup pliers 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 Guarantees of Origin 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.

2024 Achievements

Internal webinars

Internal webinars

The tradition of AIB's Tea Time Thursdays was continued in 2023 with the organisation of two webinars. These focus on a complex or newly evolving issues, such as ESRS requirements an. On average 34 participants joined from our AIB members and the webinars had positive reactions. The recordings are a popular learning resource with new member representatives.

REGATRACE

In 2024, AIB conducted the ReGaDISS-Reliable Gas Disclosure System project. This is a one-year project under a service contract to DG Ener of the European Commission, based on the terms of reference N° ENER/2023/MVP/0010. The goal is to provide Technical assistance to develop methodologies compliant with disclosure obligations on gases from renewable energy sources.

The project developed basics for a methodology for a residual mix for gases, in line with the gas disclosure obligation following art. 19.8 of the RED3 and Annex 1§5 of the recast Gas Directive.

CertifHY

In 2024 the CertifHy III project ended. CertifHy's application for recognition of the CertifHY NGC as Independent Criteria Scheme under EECS is still ongoing. The CertifHY project had the aim to facilitate the work of Issuing Bodies for hydrogen certificates in the EECS Gas Scheme.

AIB's work on revising EN16325

In 2024, AIB continued its active role as a liaison member in the CEN-CENELEC standardisation process. We ensured expert input to support the ongoing revision of the EN16325 standard for Guarantees of Origin (GOs), building on the principles and detailed practices of the EECS Rules.

The framework for GOs is defined by the Renewable Energy Directive 2018/2001 (EU), which mandates the issuance and cross-border transferability of GOs for electricity, gas (including hydrogen), and heating and cooling. EN16325 provides a harmonised foundation for this system, ensuring reliability across borders.

AIB's EECS Rules continue to serve as a flexible, high-quality reference for the operational aspects of the GO system, particularly as volumes and complexity increase. While the revised EN16325 was adopted by CEN in March 2025, the EECS framework remains essential for day-to-day governance and ongoing innovation.

Participation in Public Consultations

As an expert in the management of GO systems, AIB regularly contributes to policy and regulatory discussions where its practical experience adds value. In 2024, AIB participated in several public consultations to share practical insights and promote the role of GOs in emerging regulatory frameworks:

- 3 July 2024 – Response to ACER's consultation on voluntary templates for Power Purchase Agreements in the EU energy market.
- 22 May 2024 – Response to the EU consultation on Carbon Footprint Methodology for Batteries, highlighting the omission of GOs.
- 10 December 2024 – Response to the European Commission's Call for Evidence on Digital Product Passport rules for service providers.

All consultation responses are available on the AIB website.

AIB officials

The AIB board is responsible for the daily management of the Association, and meets monthly, usually alternating physical meetings with teleconferences. Also, the chairpersons meet on a regular basis to align on the work of their groups.

In 2024, there were no changes in the board. **Lukas Groebke** (Pronovo, Switzerland) remained Chair, and **Ilona Bruens** (VertiCer, Netherlands) continued as Treasurer. **Ann-Christin Austang** (Statnett, Norway) served as Vice President and **Vice Treasurer. Aigars Sīlis** (AST, Latvia) represented the Information Systems Unit. **Elke Mohrbach** (UBA, Germany) represented the Electricity Scheme Group (ESG). **River Tomera** (Elering, Estonia) continued as representative of the Gas Scheme Group.

The Information Systems Unit was chaired by **Katja Merkel** (UBA, Germany). The EECS Unit was chaired by **Maria Koulouvari** (DAPEEP, Greece). **Eva Nordlander** (Swedish Energy Agency) was the Chair of the Electricity Scheme Group, until 11 March 2024, when **Martina Gabriel** (OTE, Czech Republic) took over. **Carmen Rodriguez** (Enagas GTS, Spain) chaired the Gas Scheme Group.

AIB warmly thanks its member representatives, whose dedication and collaboration keep the Association moving forward and grounded in its shared purpose.

AIB Board (left to right).
River Tomera (Gas Scheme Group representative), **Aigars Silis** (Information Systems Unit representative), **Ann-Christin Austang** (vice-chair, vice treasurer), **Lukas Groebke** (chair), **Miguel Jeronimo** (Communications Unit representative), **Liesbeth Switten** (Secretary General), **Ilona Bruens** (Treasurer), **Elke Mohrbach** (Electricity Scheme Group representative).

AIB secretariat

The general meeting, board, units and scheme groups are supported by the secretariat; the secretary general of AIB is **Liesbeth Switten.**

Other staff members include:

- **Katrien Verwimp** as Chair of the Professional Reviewers Group and EECS Strategy coordinator. She supports the EECS Unit and both Scheme Groups in strategic and regulatory matters and represents AIB within CEN and other international platforms. She was project leader in the REGADISS project.

- **Martin Štandera** works as IT Application Officer. In 2024, he was a true lifesaver in his role as Product Owner of the AIB Hub project- bringing structure, clarity and coordination to a complex process. He also supports the Information Systems Unit and acts as SuperUser for the AIB Hub.

- **Bram van der Heijde** joined the team as EECS Quality officer, working closely with our members to support quality assurance, facilitate working groups, and contribute to the continued development of EECS, the European Energy Certificate System.

- **Giulia Nicolini** is our Executive Assistant and plays a central role in keeping AIB organised and on track- managing finance and HR processes, supporting governance, events and internal operations, and making sure that both people and paperwork are where they need to be, when they need to be.

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)
- 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 of reviewers.

AIB secretariat (left to right):
Martin Štandera (IT Application Officer), **Giulia Nicolini** (Executive Assistant), **Katrien Verwimp** (EECS Strategy Coordinator), **Liesbeth Switten** (BV-Secretary General), **Bram van der Heijde** (EECS Quality Officer).

Information Systems Unit

In 2024, the Information Systems Unit (ISU) drove one of AIB's most significant undertakings: the full-scale redevelopment of the AIB Hub. As the team responsible for designing, coordinating, and delivering the new platform, ISU dedicated the year to rebuilding the system that underpins cross-border GO transfers between member registries. Alongside their ongoing role in technical audits and system oversight, the unit's efforts were instrumental in preparing the new Hub for its launch in April 2025.

2024 was the crucial year for redeveloping the AIB Hub

The ISU advises AIB Scheme Groups and Units on the certificate transfer system, coordinates technical audits, and follows up on all related developments.

In 2024, ISU focused on redeveloping the AIB Hub – the IT platform that connects all national registries of our members for GO transfers. After migrating the data management processes to the new platform (DMe), the reconstruction of the transfer functionality continued in three implementation phases, under a contract with Unicorn Systems.

Phase one covered changing the core messaging functionality (GO transfers) and improving validations, which was completed and accepted in May 2024.

Phase two started in Q4 2024 and targeted other important functionalities such as transfer logging and reporting, master data management, registry and user management, sandbox and technical audit testing.

Phase three introduced system notifications, documents management and mTLS X509 certificate management, and was delivered in early 2025.

To ensure readiness and quality, ISU decided that all AIB members had to carry out mandatory testing of their registry readiness and connectivity before the new Hub went live. ISU also approved an updated version of Fact Sheet 18 to reflect new error codes and improve user guidance.

Then finally, on 14 April 2025, we successfully launched the new AIB Hub

Since 2012, the number of transfers has increased nearly 20 times, so we now have completely redesigned and rebuilt it:

- We moved from a monolithic Hub platform to a **modular architecture.**
- Our members can now start using a new message protocol and file format, which will make **transferring GOs more efficient and resilient.**
- The new Hub runs on the latest Java technology, ensuring **long-term sustainability and security.**

Katja Merkel
(UBA, Germany)

Information Systems Unit

All remaining transfers in the old Hub were finished during the cutover week; we migrated all necessary data to the new Hub and started the production environment.

32 AIB member registries successfully connected to the new Hub on the go-live day of 14 April 2025.

By the end of the first week, there were almost **23 000 account holders** registered by our issuing bodies, able to transfer GOs over the new Hub.

Over 2 000 transfers were successfully processed in the first 2 weeks!

Only one major bug was discovered since the go-live, which was resolved within one day without any additional impact. Another three minor bugs were reported that were resolved within the first week. This is a major difference with the go-live of the previous Hub in 2013, where we had over 50 issues that took weeks to resolve.

This transition required significant time and effort from all our members, from testing and coordination to adjusting their systems and processes.

In 2024, ISU supervised 22 technical audits

A major area of ISU work remains the supervision of technical audits of AIB member registries. In 2024, ISU approved no fewer than 22 technical audits. These included audits of Austria, Belgium (Brugel, VREG, SPW), France, Germany, Estonia, Finland (two audits), Hungary, Iceland, Ireland, Italy, Latvia (two audits), Lithuania, Luxembourg, Portugal, Serbia, Slovenia, Spain (two audits), and Switzerland (including an upgrade to message schema v80).

ISU also supported transparency around system changes and provided input into the General Meeting agenda, helping to ensure alignment between technical and strategic planning.

Two in-person ISU meetings were organised in 2024. These offered a valuable opportunity for focused technical exchange, mutual support, and building trust and a welcome complement to the regular online meetings.

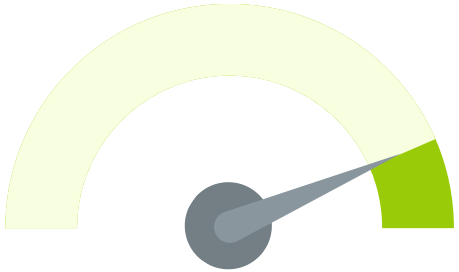
Thank you to Katja Merkel, Martin Štandera, Marcel den Besten and to all members

We warmly thank Katja Merkel (UBA) for her continued leadership as ISU Chair. The Unit's work in 2024 was skilfully coordinated by Martin Štandera, IT Application Officer, and Marcel den Besten, IT Contract Manager. Their efforts were essential in managing the complex processes around the new Hub.

ISU extends sincere thanks to all its members for their active involvement in testing, feedback, and development work throughout the year.

1 458 427.67 € budgeted

1 269 530.51 € spent



188 897.16 € saved

European Energy Certificate System (EECS) Unit

The EECS Unit is the AIB's organizational body, where, besides the General Meeting, all members of the association are represented with the main purpose of developing the non-energy-specific part of the European Energy Certificate System (the EECS Rules) in compliance with European regulations and the CEN standard.

Developing the EECS rules and enabling meaningful member contributions

During the transition phase towards a carbon-free and sustainable energy system, the association's main mission is to provide all members with sufficient time and space to contribute meaningfully. This involves inviting proposals, encouraging informed opinions, and shaping rule changes. Some of these modifications aim to align with evolving certificate regulations, while others help protect the integrity of attribute certificates in response to new market dynamics.

Key achievements in 2024

In 2024, this collective endeavor within the EECS Unit was mostly marked by unanimous decisions. In cases where unanimity was not possible, consensus was nonetheless reached. Progress was made in the following areas:

- **Content upgrades for GO data fields** such as storage, conversion, dissemination level, technology types, etc.
- **Update of AIB members' database** with information on disclosure, to include additional gaseous energy carriers and heating/cooling, and to expand the content to cover topics relevant to the increasingly integrated energy system (e.g., conversion, storage)
- **Finetuning of the conversion mechanism:** the content on post conversion GOs was defined, transparency on cancellation categories, and alignment of the cancellation rules with the CEN standard were brought forward for action
- **A simplified method to issue GOs** for small production devices
- **Kickoff of the reform of the cancellation statistics** collected from AIB members, aiming to include gaseous GOs and take conversion into account
- **Decision to upgrade the security of the information systems** that support EECS Registries
- **Business requirements were provided to ISU** for the upgraded version of AIB HUB

Strengthening system integrity and risk mitigation

The EECS Unit remained focused on identifying potential risks for double claims of renewable attributes and took the necessary steps to mitigate these risks. In this regard, EECSU maintained an open dialogue with the two Scheme Groups, ESG and GSG, in the fields of standardization of granular GOs and their interoperability with conventional GOs, as well as the interaction of GO registries with the Union Database.

Maria Koulouvari
(DAPEEP, Greece)

Supporting broader governance reform

Finally, the EECS Unit provided a space for members to democratically discuss and prepare the decision of the General Meeting to amend the Articles of Association. These changes are deemed necessary following the formal launch of the Gas Scheme Group and the start of EECS Gas GO transfers over the HUB.

Electricity Scheme Group

Ensure the quality level and keep up to date with the trends and evolutions.

Key numbers and milestones

- 30 scheme group members, 4 applicants and 5 observers, out of which 3 applicants and 4 observers new in 2024
- Nine audits, or domain protocol updates were approved: DAPEEP (Greece), HROTE (Croatia), EEX (France), VREG (Belgium, Flanders), Litgrid (Lithuania), OKTE (Slovakia), Brugel (Belgium, Brussels), REN (Portugal)
- Seven meetings, including one dedicated workshop on Granular Guarantees of Origin (GO)
- Two in-person working group sessions in Riga and Belgrade
- Numerous discussions held and decisions taken together
- 1 084 million certificates in 1 084 TWh were issued by our members

The Electricity Scheme Group (ESG) contributes to ensuring the **quality assurance** within AIB for electricity-related matters. The group focuses on approving the members' audits and reviews, which is also linked to recruiting and onboarding new members.

Likewise, the members of the ESG **discuss and fine-tune** parts of the **EECS Standard** regarding electricity GOs, like contribution to the new message scheme (V81) and updates of different AIB factsheets (solar technology and fuel codes).

Finally, AIB must also take a forward-looking approach, closely monitoring policy developments and the evolving energy tracking landscape and preparing timely and appropriate responses as needed. One example is the ongoing analytical work led by the ESG on whether and how to implement granular GOs. Furthermore, following the new CEN standard on aggregating small production devices, ESG members have started integrating their principles into the EECS rules, sharing insights and best practices from their respective Domains as they go.

ESG members are coming from different countries and from different types of organisations: regulatory bodies, market operators, state agencies, or TSOs. One of the strengths of the ESG is the space provided for discussion built on our culture of trust. On this basis, all members can raise their voices while seeking a joint position for the best way forward. In this sense, the members truly fulfil the meaning of cooperation: the act of working together to one end.

Martina Gabriel
(OTE, Czechia)

Gas Scheme Group

2024 was a crucial year for the Gas Scheme Group (GSG). We admitted no less than six new Gas Scheme members: Gasgrid (Finland), OTE (Czech Republic), GSE (Georgia), Brugel (Belgium), REN (Portugal) and Elering (Estonia), clocking off the number of GSG members at nine by the end of the year.

Currently, 23 out of 24 appointed issuing bodies for Guarantees of Origin (GO) in Europe are seated at AIB's discussion table as either members or observers of the Gas Scheme Group. And there is a lot to discuss!

The revision of the Renewable Energy Directive (RED III) in 2023 introduced a groundbreaking change to the certification of renewable gases with GOs. This change has significant implications for the industry and the way we track and certify renewable gases across the European Union.

The new Article 31a on the Union Database (UDB) is a game-changer, stating that GOs, once issued, must be transferred to the UDB and cannot be cancelled until the withdrawal of the corresponding gas consignment has been reported to the UDB.

Understanding the implications of this change on the GO system was one of the main focuses of the Gas Scheme Group in 2024. It was a year of fruitful discussions, where members shared their diverse interpretations of DG ENER's explanations, exchanged views, and defined common questions. These discussions were crucial in helping the group develop a cohesive understanding of the new requirements and how they would impact the certification process. Also, several new optional data fields were defined for EECS gas certificates, to provide transparency on gas origin to stakeholders. These will become available in the national GO registries in the near future, most likely in 2026.

Much remains to be clarified regarding the integration of the GO registries with the UDB, including how to ensure the compatibility of the processes established by the European Commission in the UDB with the obligations set by Article 19 of REDII, and how the rules applicable to gas GO registries need to be adapted. These rules, defined in various national regulations, need to be amended to accommodate this new processes. This will require close collaboration between national authorities, industry stakeholders, and the European Commission to ensure a smooth transition and effective implementation of the new requirements.

As 2025 unfolds with continued uncertainty regarding the UDB and as the deadline for transposing RED III approaches, the Gas Scheme Group finds comfort in the common understanding built through the discussions in 2024. On this shared basis, the group is committed to addressing the remaining uncertainties and supporting members in navigating the changes introduced by the new directive.

Carmen Rodríguez Valdés
(Enagás GTS, Spain)

By fostering open communication and collaboration, the Gas Scheme Group wants to make sure that the transition to the new certification system is as seamless as possible for all stakeholders involved.

In addition to the technical and regulatory challenges, the Gas Scheme Group is also focused on raising awareness about the importance of renewable gases and their role in achieving the European Union's climate and energy goals. By promoting the benefits of renewable gases and advocating for supportive policies, the group hopes to contribute to the broader effort of decarbonizing the energy sector and creating a sustainable future.

Overall, 2024 was a year of significant progress and collaboration for the Gas Scheme Group. The insights gained and the relationships strengthened during this period will be invaluable as the group continues to navigate the evolving landscape of renewable gas certification. With a strong foundation of shared understanding and a commitment to ongoing dialogue, the Gas Scheme Group is certain to meet the challenges and opportunities in 2025 and beyond.

Communication

Effective communication is more important than ever and AIB is stepping up!

Over the years, AIB has established itself as the European reference for energy attribute tracking certification schemes across all energy carriers. By implementing a reliable, transparent, and harmonized system, AIB has played a key role in the development of this market.

The year 2024 marked a turning point for the association, with the formal expansion into the gas sector. However, this rapid growth brought new challenges. Historically, AIB was mainly focused on technical solutions and compliance, and its communication reflected that. But the world has changed. The growing market, the rising regulatory complexity, and a shifting external environment made one thing clear: A more structured and strategic approach to communication was needed, and this topic quickly emerged as a key strategic priority.

This journey began in 2022, during the annual strategy meeting, when the topic was first raised. One year later, in 2023, communication was formally recognized as a strategic issue, and we set clear objectives: develop a communication strategy and bring in external help due to limited internal expertise in this area.

In May 2023, AIB held its first communication workshop to present and discuss the proposed strategy, which was later approved by the general meeting. At the same time, the association began a process of internally redefining the responsibilities related to communication. A transition period followed, during which AIB focused on strengthening its internal structure and professionalizing the secretariat. While this meant we had to set aside the final implementation of the communication strategy, it remained high on our agenda.

By late 2024, communication returned to the forefront, and we agreed on key decisions, including the hiring of a dedicated communications professional, on which we followed through at the beginning of 2025. Since then, AIB's communication has evolved significantly. Since the General Meeting has approved the communication strategy, some results are already visible:

- **Digital engagement has increased significantly:** our LinkedIn audience grew by 50 %, reaching 4 000 followers, and our newsletter now reaches more than 1 400 subscribers.

Miguel Jerónimo
(REN, Portugal)

- **We introduced a new visual identity,** including a refreshed logo and a modern institutional graphic style.
- **AIB built stronger external visibility,** taking a more prominent role in major international forums and events.

This marks the beginning of a new phase. The path ahead is long, but I strongly believe that we now have the right structure and commitment to move forward quickly and effectively.

On a personal note, as the board member responsible for communication, I'm incredibly proud of the journey we've taken so far. I'd like to sincerely thank all our members for their support throughout this transformation process, my fellow board colleagues and the secretariat for their commitment. Special thanks to everyone who has actively contributed to AIB's communication over the years.

Financial Year 2024

1. SUMMARY

As an independent organisation, AIB is proud to be primarily financed through membership and observer fees. To maintain our impartiality, we do not engage in partnerships or sponsorship contracts for our activities, except for occasional European projects. The bookkeeping process follows Belgium's financial reporting framework. The annual accounts, auditor's report, and budget vs. expenditure cover 1 January to 31 December 2024.

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 (2024) and the preceding period (2023). The total gain of 2024 available for appropriation is 534 090,83 € compared to 120 051,91 €. The annual accounts are filed with the National Bank of Belgium and are available in annex.

3. FINANCIAL AUDIT

The auditor concludes that the financial statements fairly represent the financial position as of 31 December 2024 and the year's financial performance, in accordance with Belgium's financial reporting framework.

4. KBC BANK

On 31 December 2024, the bank balance was 1 145 375,11 €. At the end of 2023, the bank balance wa 1 081 310,63 €. 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 2024

5.1 Overview including projects

	Budget 2024	Current Costs/Income	Current Balance
Costs	**-2 476 373,65 €**	**-1 598 592,31 €**	**877 781,34 €**
General	-760 700,00 €	-530 659,14 €	-230 040,86 €
EECSU	-406 340,00 €	-306 716,85 €	99 623,15 €
ISU	-562 325,65 €	-471 744,17 €	90 581,48 €
External Projects	-150 000,00 €	-149 276,90 €	723,10 €
Internal Projects	-597 008,00 €	-140 195,25 €	456 812,75 €
Income	**2 088 300,00 €**	**2 048 667,41 €**	**-39 632,59 €**
Total	**-388 073,65 €**	**450 075,10 €**	**838 148,75 €**

5.2 Overview excluding projects

	Budget 2024	Current Costs/Income	Current Balance
Costs	**-1 729 365,65 €**	**1 309 120,16 €**	**420 245,49 €**
General	-760 700,00 €	-530 659,14 €	230 040,86 €
EECSU	-406 340,00 €	-306 716,85 €	99 623,15 €
ISU	-562 325,65 €	-471 744,17 €	90 581,48 €
Income	**2 088 300,00 €**	**2 048 667,41 €**	**-39 632,59 €**
Total	**358 934,35 €**	**739 547,25 €**	**380 612,90 €**

Audit Report

MOORE

Moore Audit

Esplanade 1 box 96
1020 Brussel

T +32 2 743 40 20

www.moore.be

ASSOCIATION
OF ISSUING BODIES IVZW
For the attention of the board of directors
Koloniënstraat 11
1000 BRUSSELS

INDEPENDENT PRACTITIONER'S REVIEW REPORT ISRE 2400 TO THE BOARD OF DIRECTORS OF **ASSOCIATION OF ISSUING BODIES IVZW** FOR THE YEAR ENDED 31 DECEMBER 2024

We have reviewed the accompanying financial statements of the Association of Issuing Bodies IVZW for the year ended 31 December 2024. This balance sheet and income statement shows a balance sheet total of € 2.330.941,06 and a profit of the financial year of € 534.090,83.

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.

Docusign Envelope ID: 5CB29B89-487E-49C6-95DC-95EC2BE77A41

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 2024, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

Hasselt (Belgium), 7 April 2025

Moore Audit BV,
represented by:

Jimmy Depré,
Certified auditor

Attachment: Annual accounts as of 31 December 2024

MOORE

Reflection by the Secretary General

Before this report transitions into the contributions of our members and observers, I take the opportunity to reflect on my first mandate as Secretary General.

When I took up this role in 2020, the Association was navigating complex governance challenges, compounded by the pandemic. A key task was to roll out a new association model that is better aligned with the needs of an expanding and increasingly diverse membership. Since then, AIB has evolved considerably.

Key developments over these years include:

- A structured and professional secretariat, with clearly defined roles and responsibilities.
- A diverse and largely remote team that maintains strong engagement and delivers consistent quality, despite the challenges of balancing varied member expectations.
- A physical office, improved financial processes, and well-documented procedures which strengthens transparency and ensures operational continuity.

Membership growth has been remarkable: from 29 to 39 members, alongside the establishment of the Gas Scheme Group, which now has nine full members. The onboarding and integration of new members have been a priority, and I am proud of the collaborative efforts with our reviewers and Single Point of Contact (SPOC) in this regard.

AIB's culture, open, inclusive, and based on trust, has remained central. It underpins our work on standardisation and co-creation, and has empowered us to further consolidate the EECS framework, despite the complex and often sensitive nature of this work. In this respect, I am also happy that continuity within the chairs and board has been achieved, despite key persons leaving from time to time.

Over the past year, we:

- **Introduced** strategic roadmaps for conversion and version 81, keeping AIB at the forefront of developments in energy certification.
- **Concluded** our participation in key projects such as FastGO, REGATRACE, and REGADISS.

Liesbeth Switten
BV-Secretary General

- **Progressed** significantly on our IT infrastructure with the launch of the new AIB Hub, improving efficiency, security, and capacity for data management and fraud checks.
- **Improved** outreach and visibility, notably through increased LinkedIn engagement and active participation in sector events and forums.
- **Completed** the Iceland compliance assessment, a complex process that strengthened both our internal capacity and our external partnerships.

Representing AIB in international discussions has been both a responsibility and a privilege. I remain committed to ensuring that AIB continues to adapt to new regulatory frameworks and remains a reliable partner in the evolving field of energy certification. This next section presents the annual input from our Scheme Members, Applicants, and Observers. Their reports show how the GO system evolves in their respective national systems and how AIB plays a part in that progress.

“Joining AIB has increased interest in GOs, with more market participants requesting GO issuance and engaging in the system.”

Area of operation:
Albania

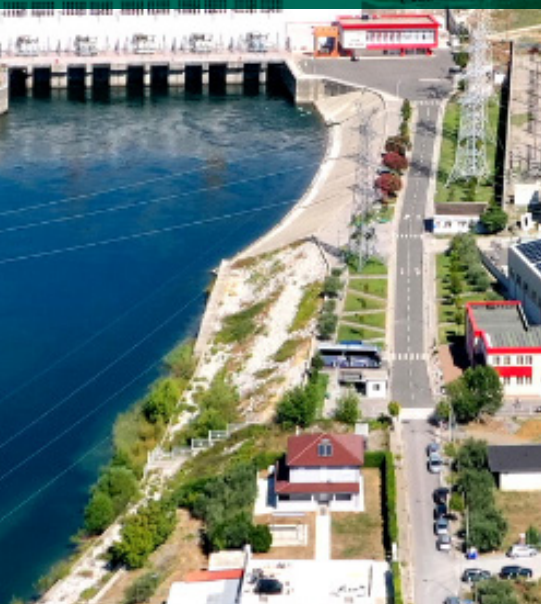
AIB Member and Applicant to the Electricity Scheme Group

Representatives to AIB:
Elton Radheshi
(representative to the General Meeting)

Gledis Kalemi
(representative to ESG and EECSU)

Shpetim Bajrami
(representative to ISU)

Erato Sinani
(representative to CPAU)



What makes your market unique?

The Albanian market is partially liberalised. Consumers connected at medium and high voltage levels buy electricity on the liberalized market, while households and low-voltage non-household consumers are served by the universal service supplier.

What should other AIB members know about your activities?

ERE is Albania’s independent energy regulator, responsible for overseeing the electricity and natural gas sectors.

What’s the biggest development or key figure from this year?

In 2024, Albania and Kosovo successfully implemented market coupling, making a major step towards regional integration. The Albanian Power Exchange (ALPEX) also launched its intraday market. Another important milestone was the approval of a new regulation covering issuance, transfer, disclosure and cancellation of Guarantees of Origins for renewable electricity.

What’s your national approach to Guarantees of Origin and energy disclosure?

Albania has transposed the EU Renewable Energy Directive (RED) into national law, which provides the legal basis for GOs. A new regulation on the Issuing, transferring, disclosure and cancellation of GOs for renewable electricity has been in force since late 2024. A key challenge ahead is developing a liquid and transparent GO market.

Website:
www.ere.gov.al

Contact: **Enti Rregullator i Energjisë**
Bulevardi Bajram Curri - Rruga Viktor Eftimiu - 1023 Tirana, Albania

Area of operation:
Austria

AIB Member of the Electricity and Gas Scheme Group

Representative to AIB
Angela Tschernutter
(Representative for the EECSU, ESG, GSG and General Meeting)

E-CONTROL
Energy for our future.

"The connection to the AIB Hub for electricity and gas enables secure and efficient trade of GOs. We appreciate AIB's professional coordinated work."

What makes your market unique?

E-Control is the Issuing Body for electricity and gas Guarantees of Origin (GOs) in Austria and responsible for the annual monitoring of the electricity and gas disclosure statements of suppliers. E-Control hosts the Austrian GO registry. All topics related to GOs are centralised within E-Control.

What should other AIB members know about your activities?

In Austria, we have a full disclosure obligation and the obligation to register all production plants in the GO registry. Currently, we have approximately 520,000 production plants registered, mainly electricity power plants of renewable and fossil sources, but also gas power plants (biomethane, fossil gas and hydrogen). All of them contribute to Issuing GOs in the Austrian GO registry.

What's the biggest development or key figure from this year?

We have implemented the option to issue gas GOs including sustainability information which has been successfully adopted and widely used by market participants.

What's your national approach to Guarantees of Origin and energy disclosure?

In an evolving landscape of both voluntary and regulated schemes, Guarantees of Origin (GOs) are gaining new roles – not only for energy disclosure, but also for target fulfilment and proof of sustainability (PoS). As these functions grow more complex, close coordination among appointed gas Issuing Bodies becomes increasingly important. That's why we value our participation in the AIB – a unique platform that enables this essential collaboration.

Website:
www.e-control.at

Scope of regional participation in EECS

Number of registered scheme participants	**92**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**492 642**	**9 090**
Electricity - wind	**921**	**4 645**
Electricity - hydro	**3 924**	**17 192**
Electricity - biomass	**637**	**1 950**
Electricity - other	**791**	**15 025**
Gas - biomethane	**14**	**29**
Gas - hydrogen from RES	**2**	**10**
Gas - other	**1**	**n/a**

Contact: **Econtrol**
Rudolfsplatz 13a - 1010 Vienna - Austria

brugel

LE REGULATEUR BRUXELLOIS POUR L'ENERGIE
DE BRUSSELSE REGULATOR VOOR ENERGIE

"The AIB is an excellent platform for exchanging information and good practices, which has been extremely helpful in BRUGEL's journey to full membership in the Gas Group."

Area of operation:
Belgium (Brussels)

AIB Member of the Electricity and Gas Scheme Group

Representatives to AIB
Laura Rebreanu, Bekay Chihi (Representatives to the General Meeting, EECSU, ESG, GSG)

Attila Acs, Laura Rebreanu (Representative to the ISU)

What makes your market unique?

Brussels Region is a relatively small market, with 75 active account holders, about 140 000 GOs issued in 2024, almost 3 million cancelled GOs and about 4 million transfers in 2024. Most of the production comes from household PV installations with an average capacity of 5 kW.

What should other AIB members know about your activities?

BRUGEL is the Brussels regulatory authority for electricity, gas and water price control. BRUGEL issues strategic proposals and recommendations, enforces consumer protections and verifies energy disclosure accuracy.

Regarding renewable energy, BRUGEL's mission revolves around four main areas: production incentives, integration of renewable energy into the grid and the market,information on the origin of green electricity,promotion of energy sharing and energy communities.

What's the biggest development or key figure from this year?

In 2024, BRUGEL achieved a key milestone by becoming the first Belgian Issuing Body to gain full membership in the Gas Scheme Group. Having actively participated as an observer since the group's inception, this marks an important step in BRUGEL's role as the Issuing Body for gas and hydrogen since 2022.

What's your national approach to Guarantees of Origin and energy disclosure?

BRUGEL is the legally appointed GO Issuing Body for electricity, gas (including hydrogen) and thermal energy for the Brussels Region. As such, BRUGEL is also responsible for enforcing the disclosure process. BRUGEL approves the green fuel mix based solely on GOs submitted by suppliers and ensures their compliance with their supply contracts. The results of this process are publicly available on Greencheck, an online tool allowing consumers to check their consumption based on their EAN number (https://brugel.brussels/outils/greencheck-1).

Website:
www.brugel.brussels

Contact: **Brugel**
Avenue des Arts 46 - 1000 Brussels - Belgium

Scope of regional participation in EECS

Number of registered scheme participants	**75**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**1 669**	**84 079**
Electricity - wind	**0**	**0**
Electricity - hydro	**0**	**0**
Electricity - biomass	**1**	**51 000**
Electricity - other	**86**	**2 733**

Websites: BRUGEL's Renewable Energy Annual Report for 2023 is available on our website
French: https://brugel.brussels/publication/document/rapports/2024/fr/
Dutch: https://brugel.brussels/publication/document/verslagen/2024/nl/Jaarverslag-2023-Verslag-Hernieuwbare-Energie.pdf

Area of operation:
Belgium (Flanders)

Member of the AIB Electricity Scheme Group

Representatives to AIB:
Pieterjan Renier
(Formal member representative to the general meeting)

Kirsten Van der Stappen
(Formal member representative to the general meeting, Representative to ESG, EECSU and ISU)

Karolien Verhaegen
(Representative to ESG, EECSU and ISU)

"AIB membership has supported the continued development of the Electricity GO market in Flanders."

What makes your market unique?

Flanders has an established GO market for electricity.

What should other AIB members know about your activities?

Vlaamse Nutsregulator (VREG in 2024) acts as market maker for the Flemish market.

What's the biggest development or key figure from this year?

Approximately 2.9 Mio GOs for electricity were issued and 9.4 million GOs for electricity were traded within the Flemish region.

What's your national approach to Guarantees of Origin and energy disclosure?

We keep a close eye on the developments in the Flemish electricity market and propose legislative changes where needed. This proactive approach ensures that the Flemish GO market remains well-functioning and robust.

Website
https://www.vlaamsenutsregulator.be/nl/garanties-van-oorsprong

Scope of regional participation in EECS

Number of registered scheme participants	**246**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**34 764**	**3 549**
Electricity - wind	**530**	**2 479**
Electricity - hydro	**10**	**4**
Electricity - biomass	**16**	**180**
Electricity - other	**118**	**204**
Gas - biomethane	**4**	**24**
Gas - hydrogen from RES	**/**	**/**
Gas - other	**/**	**/**

Contact: **Vlaamse Nutsregulator**
Koning Albert II-laan 7 - 1210 Sint-Joost-Ten-Node - Belgium

Area of operation:
Belgium (Flanders)

Observer to the Electricity Scheme Group and Observer to the Gas Scheme Group

Representatives to AIB:
Elise Verstraelen (Project Lead Guarantees of Origin)

Sam Tessens (Expert - Gas)

Charlotte Beerten (Expert - Electricity)

VLAAMS ENERGIE- & KLIMAATAGENTSCHAP

What should other AIB members know about your activities?

VEKA's mission is to prepare, stimulate, coordinate, implement, monitor, and evaluate policy initiatives in the field of energy and greenhouse gas emissions. By that we contribute to the transition towards a climate-neutral and sustainable society in Flanders. Our goal is to ensure that policy instruments are used in a cost-efficient and high-quality manner, while considering the social and economic impact.

What's the biggest development or key figure from this year?

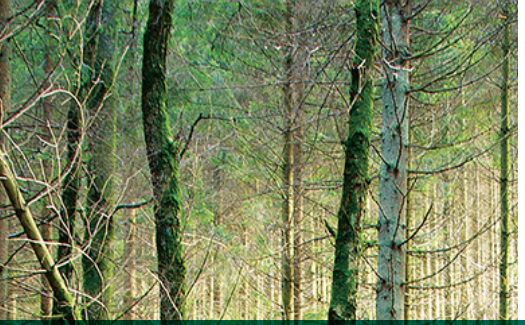
VEKA is a newcomer in the world of GOs. We are still learning about policy instruments and legislation around GOs. One of our most significant developments was being able to take on a role as an observer within AIB.

What's your national approach to Guarantees of Origin and energy disclosure?

Guarantees of origin are mainly a competence of the regions (except for off-shore renewables).

Website:
https://www.vlaanderen.be/bouwen-wonen-en-energie/groene-energie/garantie-van-oorsprong

Contact: **VEKA - Vlaams Energie- en Klimaatagentschap (Energy & Climate Agency of Flanders)**
Havenlaan 88 - 1000 Brussel - Belgium
https://apps.energiesparen.be/contact



Area of operation:
Belgium (Wallonia)

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Bora Topal (GM, ESG, GSG, EECSU up to 31/03/2025)

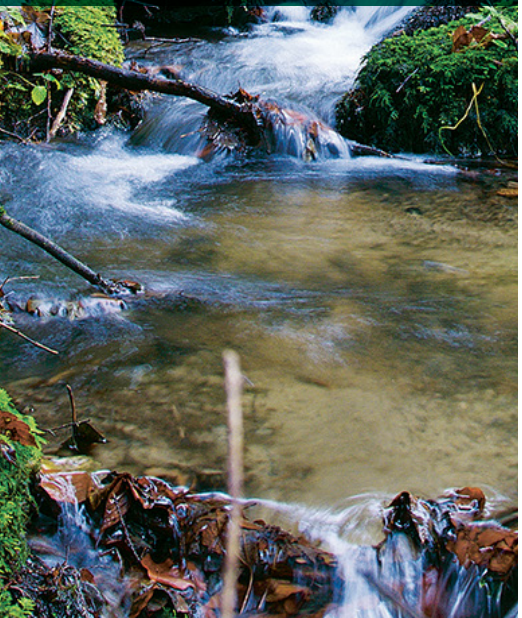
Mélanie Hoogewijs (ESG, EECSU, GM)

Inès Gancedo Tarano (GM, GSG, EECSU, ESG)

Emile Jeanmart (GSG)

Annie Desaulniers (ISU)

Raphaël Rigoni (ISU)



Wallonie énergie SPW

"AIB does a great job at facilitating the exchange of good practices and improving European collaboration."

What makes your market unique?

Wallonia has a small market, located in the south of Belgium and the heart of Europe. The region combines urban development and agricultural landscapes, offering significant potential for biogas production using manure, agro-industrial residues, or crops. There are many industrial parks with potential for photovoltaic, additionally we have several small hydropower plants and great potential space for onshore wind farms.

What should other AIB members know about your activities?

The Walloon Administration Department of Energy is the Competent Authority for issuing renewable energy Guarantees of Origin (GO) for electricity and gas. It also operates the so-called "Green Certificate" database in Wallonia. It is a support mechanism for the production of electricity from renewable energy sources and high-efficiency cogeneration. The green gas is supported through additional green certificates granted to cogeneration units.

What's the biggest development or key figure from this year?

Wallonia had 4,5 million of GO for electricity issued in 2024.

What's your national approach to Guarantees of Origin and energy disclosure?

The Walloon Administration is responsible for issuing GOs, while the Commission Wallonne pour l'Energie is responsible for regulating and overseeing the energy disclosure and Greencheck. The Greencheck tool allows the end-consumer to verify that the electricity supplied by their supplier is 100% green.

Website:
https://energie.wallonie.be/fr/marche-des-garanties-d-origine.html?IDC=9824

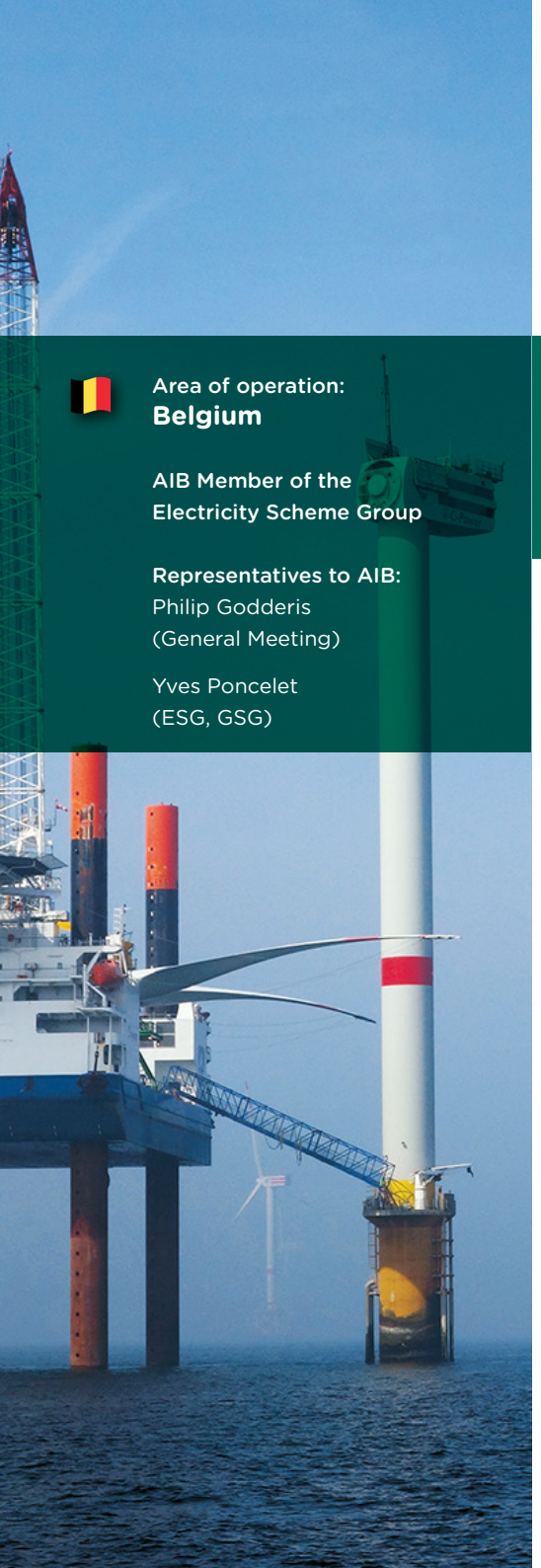
Contact: **SPW (Service Public de Wallonie)**
Rue des Brigades d'Irlande 1 - B-5100 Jambes - Belgium
contact.lgo@spw.wallonie.be

Scope of regional participation in EECS

Number of registered scheme participants	**2180**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**3 487**	**609**
Electricity - wind	**201**	**1 292**
Electricity - hydro	**55**	**81**
Electricity - biomass	**97**	**285**
Electricity - other	**155**	**128**



Area of operation:
Belgium

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Philip Godderis
(General Meeting)

Yves Poncelet
(ESG, GSG)

— CREG —

> "Our AIB membership has once again proven to be a powerful tool for exchanging experience and learning best practices."

What makes your market unique?

The Belgian market for Guarantees of Origin (GO) is divided into three regions and one offshore zone, which the federal authorities regulate. In the offshore zone GOs are issued to wind producers and exported for use in other domains.

What should other AIB members know about your activities?

CREG is entrusted with the task of Issuing GOs 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.

What's the biggest development or key figure from this year?

Wind capacity has been stable for the last few years and, as a result, electricity production and GO issuance mainly fluctuate with wind variation. The tendering of new wind zones was being prepared in 2024.

What's your national approach to Guarantees of Origin and energy disclosure?

In Belgium, GOs and energy disclosure fall under regional authority. A unified national approach mainly serves reporting purposes, such as calculating the overall residual mix.

Website:
https://www.creg.be/en/publications-available-english

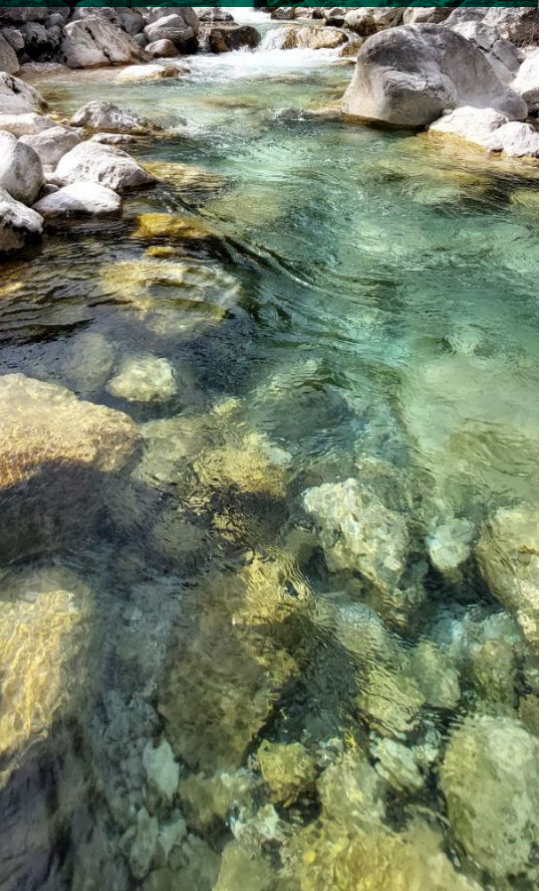
Scope of regional participation in EECS

Number of registered scheme participants	**9**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	-	-
Electricity - wind	**10**	**2 266**
Electricity - hydro	-	-
Electricity - biomass	-	-

Contact: **CREG**
Nijverheidsstraat 26-38 - 1040 Brussels -
info@creg.be



Area of operation:
Bosnia and Herzegovina

Observer to the Electricity Scheme Group

Representatives to AIB:
Almir Muhamedbegović (ESG)

Saša Čolić (Alternate to ESG)

OPERATOR ZA OBNOVLJIVE IZVORE ENERGIJE I EFIKASNU/UČINKOVITU KOGENERACIJU | OIEiEK

"Being an observer within the AIB shows you the right direction where your energy certification system should go."

What makes your market unique?

Bosnia and Herzegovina is still waiting to establish its own power exchange. The national electricity market has not been coupled with neighbouring markets, which is still a big challenge. Consequently, the national market for Guarantees of Origin (GO) is not active yet.

What should other AIB members know about your activities?

Operator za OIEiEK aggregates surcharges from electricity consumers and uses it for payment to eligible producers. Operator za OIEiEK is an authorized Body for issuing, transferring and cancelling GOs and an authorized government Body responsible for organizing FIP and FIT auctions.

What's the biggest development or key figure from this year?

The interest of eligible producers, suppliers and industrial electricity consumers for GOs in the Federation of Bosnia and Herzegovina is growing. By the end of 2024, 25 power plants with a total installed capacity of 1,04 GW, have been registered in our GO registry. During 2024, we have issued a total amount of 302 819 MWh of GOs.

What's your national approach to Guarantees of Origin and energy disclosure?

The GO system within Bosnia and Herzegovina has been defined by new RES Law (Chapter V). The Energy Regulatory Commission serves as the national body for disclosure. The rule book on the methodology of determining of origin of electricity, calculation and publication of structure of remaining electricity in the Federation of Bosnia and Herzegovina defines principles and basic elements of energy disclosure including determination of residual electricity structure.

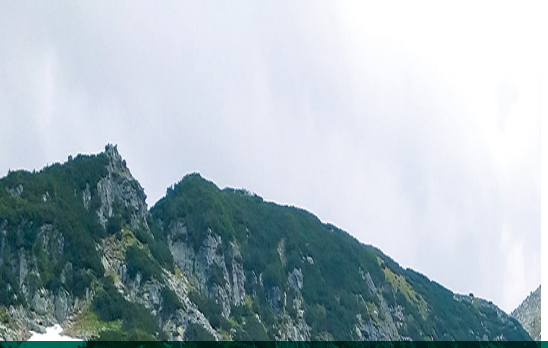
Website:
www.oieiek.ba

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**15**	**32,7**
Electricity - wind	**3**	**134,6**
Electricity - hydro	**7**	**872,6**

Contact: **Operator za OIEiEK**
Adema Buća 34 - 88 000 Mostar - Bosnia and Herzegovina -
kontakt@oieiek.ba



Area of operation:
Bulgaria

AIB Member and Applicant to the Electricity Scheme Group

Representatives to AIB:
Ivaylo Aleksiev
(CEO of SEDA)

Nikola Tasnkov
(Secretary General to SEDA)

Ivan Pelov
(Head of Control and Information Directorate)

"Partnering with AIB boosts SEDA's prestige and enables adopting best GO practices. The AIB Hub ensures secure GO exchange and access for new partners."

What makes your market unique?

The Bulgarian electricity market is being fully liberalized and has been integrated with the European markets since November 2019. Residential customers can choose between regulated fixed prices or negotiated free-market prices. EWRC doesn't control free market prices.

What should other AIB members know about your activities?

SEDA aims to connect to the AIB Hub and trade with the other AIB member states in the future. Our trading mechanism for Guarantees of Origin (GO) has started operating on the Independent Bulgarian Energy Exchange in April 2025.

What's the biggest development or key figure from this year?

One of the biggest milestones this year was the launch of the GO segment on the IBEX market platform. Looking ahead, SEDA plans to join both the ESG and the AIB Hub in 2025. These developments represent a significant step towards fully integrating Bulgaria's GO system into the broader European framework.

What's your national approach to Guarantees of Origin and energy disclosure?

SEDA is the Issuin Body for GOs for electricity in Bulgaria and the administrator of the country's GO registry. Its functions are defined by the Renewable Energy Sources Act and the Energy Efficiency Act. SEDA is responsible for implementing state policies on energy efficiency and promoting renewable energy production and consumption.

Website:
https://portal.seea.government.bg/bg/Guarantees/IssuedGuaranteeRegister

Scope of regional participation in EECS

Number of registered scheme participants	**6 775**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**11 005**	**3 703,876748**
Electricity - wind	**179**	**695,235**
Electricity - hydro	**249**	**2 292,449**
Electricity - biomass	**28**	**52,643**

Contact: **Sustainable Energy Development Agency**
11 Serdika str - Sofia - Bulgaria
tsankov@seea.government.bg

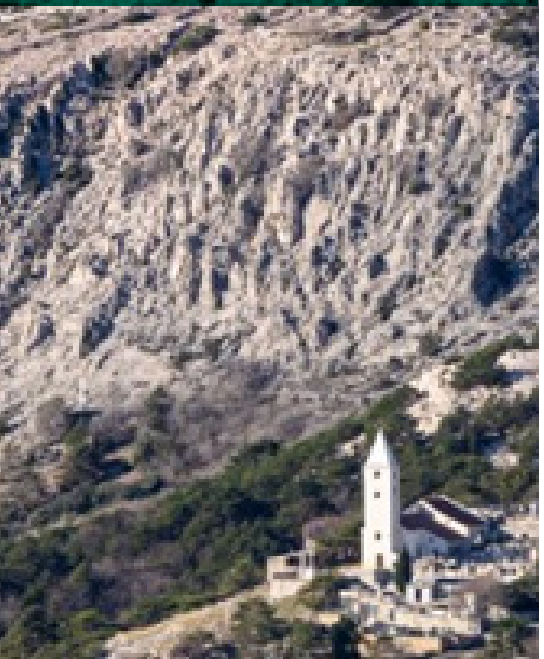
Area of operation:
Croatia

AIB Member of the Electricity and Gas Scheme

Representatives to AIB:
Ida Zuzic,
(member of the Electricity Scheme Group)

Boris Dokmanovic,
(member of the Gas Scheme Group)

Dubravka Brkic,
(member of the Information Systems Unit)



HROTE HRVATSKI OPERATOR TRŽIŠTA ENERGIJE d.o.o.
CROATIAN ENERGY MARKET OPERATOR Ltd

"Working meetings and communication within AIB is important for further developing the Croatian market with GOs. AIB's support is indispensable."

What makes your market unique?

The Croatian market is a relatively small market, but features a young fleet of power plants, including significant hydro potential, making it an attractive opportunity for other market participants.

What should other AIB members know about your activities?

HROTE is the Issuing Body for electricity GOs.

What's the biggest development or key figure from this year?

CROATIAN ENERGY MARKET OPERATOR d.o.o. published the Amendments to the Rules on the Use of the Register of Guarantees of Origin of Electricity, which entered into force on 1 January 2025.

In accordance with the new provisions of the amended Rules, each user of the Registry is obliged to provide HROTE with a means of securing payment for the stated purpose. In this way, HROTE has even greater control over fraud in the Registry.

What's your national approach to Guarantees of Origin and energy disclosure?

A residual mix is a logical consequence of implementing energy attribute tracking as it ensures that the attributes represented by GOs are not double disclosed to other consumers through an implicit mix. In other words, without a residual mix, renewable electricity sold with GOs would be double counted because the same electricity would be disclosed to consumers buying "regular" electricity. If not all consumption is tracked using GOs, a residual mix is needed to make the GO a reliable tracking instrument.

HROTE uses the calculation method called: issuance-based method. We also have national GOs. However, the goal set for the future is certainly full consumption disclosure like Austria and Switzerland.

Website:
www.hrote.hr/en

Contact: **Croatian Energy Market Operator ltd**
Ulica grada Vukovara 284 - 10 000 Zagreb - Croatia

Scope of national participation in EECS

Number of registered scheme participants	**34**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**12**	**45,408**
Electricity - wind	**18**	**596,75**
Electricity - hydro	**27**	**2 148,05**
Electricity - biomass	**8**	**11,197**

ΔΣΜΚ
Διαχειριστής Συστήματος Μεταφοράς Κύπρου
Transmission System Operator - Cyprus

“AIB empowers us to harmonise with EU law regarding efficient and transparent market systems.”

Area of operation:
Cyprus

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Dr. Michalis Syrimis (Member Representative)

Zena Scotti Nicolaou (Alternate Member representative)

Yiannis Papakyriakou (Alternate Member Representative)

What makes your market unique?

Cyprus has an isolated electrical system, with relatively high renewable energy (RES) penetration (24.5% of Gross Electricity Consumption in 2024).

What should other AIB members know about your activities?

TSO Cyprus was established in 2004 as an independent legal entity for public benefit. The new Electricity Market Regulation Law of 2021 (N.130(I)/2021) came into force in October 2021 and delineates further TSO Cyprus’s role as the Transmission System Operator of Cyprus and the Market Operator of the Cyprus Electricity Market.

The Cyprus Energy Regulatory Authority (CERA), the competent authority, appointed TSO Cyprus as the Issuing Body for Guarantees of Origin (GO) both for RES and for High Efficiency CHP installations in Cyprus.

What’s the biggest development or key figure from this year?

The total number of registered installations in the GO Registry almost doubled in 2024, making the total number 166. Out of these, 43 are EECS registered. The size of the plants ranges from 100 kW solar plants to an 82MW wind park. The total installed capacity is 434 MW.

What’s your national approach to Guarantees of Origin and energy disclosure?

Cyprus strives to certify RES electricity to the highest possible degree, to provide transparent disclosure to the electricity consumers.

Website:
Supplier Energy disclosure results:
https://tsoc.org.cy/electricity-market/supplier-energy-mix-disclosure-2/

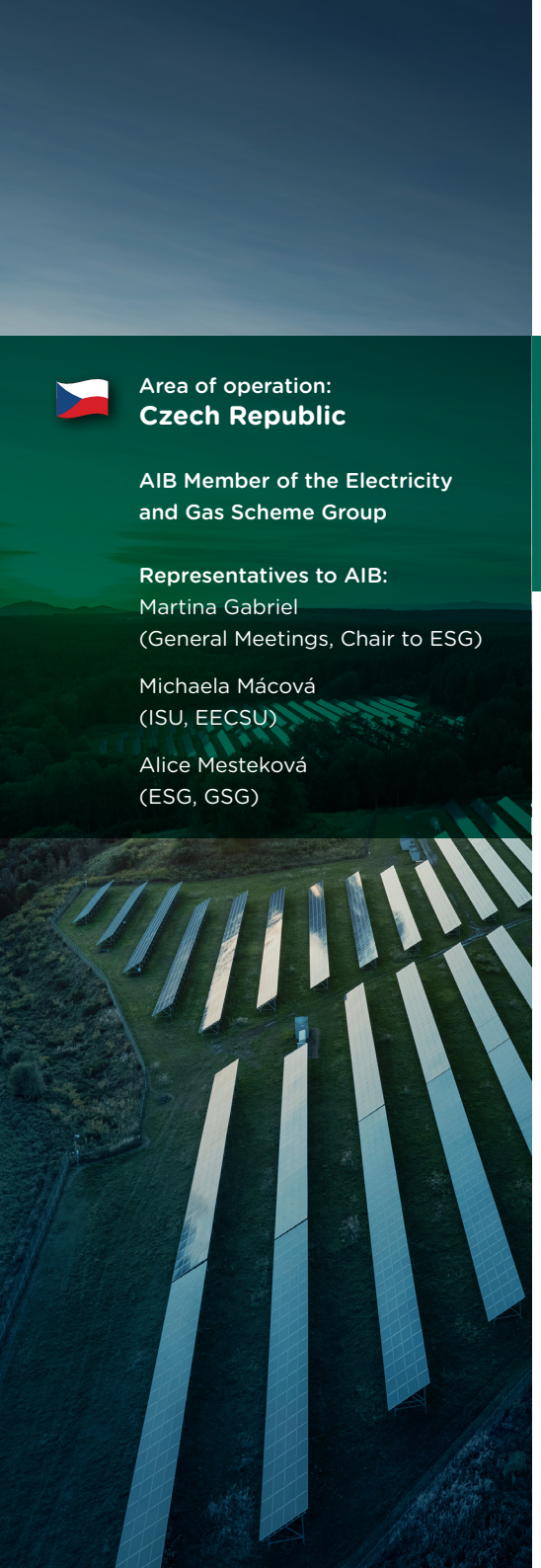
Scope of national participation in EECS

Number of registered scheme participants	**41**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**34**	**87,7**
Electricity - wind	**6**	**157,5**
Electricity - biogas	**3**	**1,5**

Contact: **Transmission System Operator - Cyprus**
Evangelistrias CY-2057 - Strovolos Nicosia - Cyprus



Area of operation:
Czech Republic

AIB Member of the Electricity and Gas Scheme Group

Representatives to AIB:
Martina Gabriel
(General Meetings, Chair to ESG)

Michaela Mácová
(ISU, EECSU)

Alice Mesteková
(ESG, GSG)

"We value our long-term cooperation with AIB, because it enables efficient GO trading and valuable knowledge exchange which then improves our services for account holders."

What makes your market unique?

OTE issues EECS Guarantees of Origin (GO) for gas and electricity, including nuclear. Developing biomethane has only recently picked up, with circa ten production devices (PD) on the grid and more expected by 2030. GOs for biomethane require compliance with sustainability criteria via certification under a voluntary scheme.

What should other AIB members know about your activities?

OTE a.s. was established as a joint stock company in 2001, serves as the licensed Czech Market Operator, and joined AIB in 2013. It organises day-ahead and intraday electricity and gas markets and ensures data processing for settling imbalances between contractual and actual volumes. It administers subsidies to energy producers and manages the union registry under the EU Emission Trading System (ETS). Today, OTE is the appointed Issuing Body for electricity, biomethane, heat and hydrogen GOs.

What's the biggest development or key figure from this year?

In 2024, Czechia issued 5.8 million electricity GOs and 58,000 gas GOs, of which 35,000 meet EECS eligibility criteria. A key milestone occurred on May 29, 2024, when OTE became a member of the Gas Scheme Group (GSG). This membership enables Czechia to import and export biomethane GOs, expanding international trade possibilities.

What's your national approach to Guarantees of Origin and energy disclosure?

The system is in line with the EU Renewable Energy Directive (RED). The energy suppliers must inform end customers about the mix of the energy they provide. It also means that if suppliers are not using the residual mix shares, they can base any different share of the green claims only on cancelled GOs. The aim is to ensure transparency and to promote the use of renewable energy by allowing consumers to choose greener energy sources.

Website:
www.ote-cr.cz/en/gos_and_allowances/guarantees-of-origin/

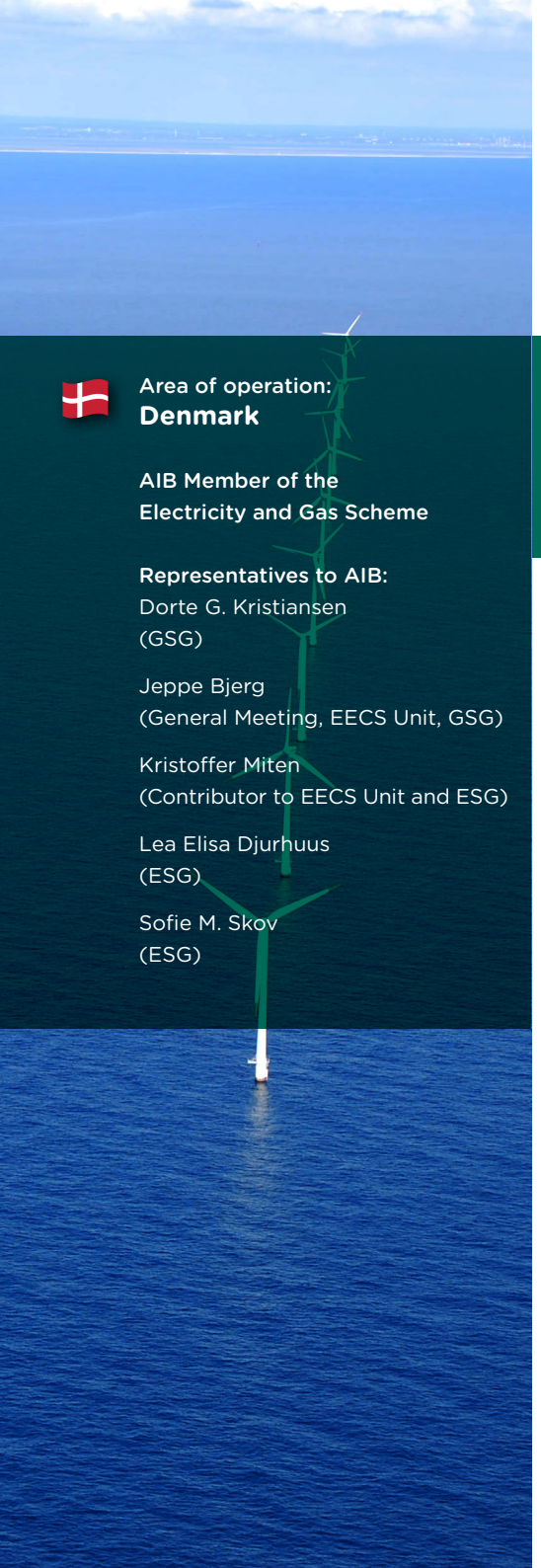
Contact: **OTE, a.s.**
Sokolovská 192/79 - 186 00 Praha 8 Karlín - Czech Republic

Scope of national participation in EECS

Number of registered scheme participants	**2 920**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**2 454**	**2 440,30**
Electricity - wind	**85**	**353,70**
Electricity - hydro	**649**	**2 269,10**
Electricity - biomass	**690**	**11 843,80**
Electricity - other	**2**	**4 318,00**
Gas - biomethane	**9**	**19,78**
Gas - hydrogen from RES	**0**	**0**
Gas - other	**0**	**0**



Area of operation:
Denmark

AIB Member of the Electricity and Gas Scheme

Representatives to AIB:
Dorte G. Kristiansen
(GSG)

Jeppe Bjerg
(General Meeting, EECS Unit, GSG)

Kristoffer Miten
(Contributor to EECS Unit and ESG)

Lea Elisa Djurhuus
(ESG)

Sofie M. Skov
(ESG)

ENERGINET

"We participate in specific groups focused on GOs from smaller plants. We see an advantage in a common European approach with uniform frameworks."

What makes your market unique?

The Danish market for GOs is unique due to its maturity and growth in both number and interest. By the end of 2024, the Danish electricity register system had 47 account holders, with approx. 29.4 mil. issued EECS electricity GOs covering around 4 600 production devices.

What should other AIB members know about your activities?

Energinet is a full member of the AIB Electricity Scheme, an observer to the AIB Gas Scheme and member of ERGaR. Jeppe Bjerg serves as the official EECS representative and participates in the General Meeting. Sofie M. Skov joined the Electricity Scheme Group in 2024, while Kristoffer Miten contributes on an ad hoc basis to EECS Unit and is partially involved in the Electricity Scheme Group. Dorte G. Kristiansen and Jeppe Bjerg represent Energinet in the Gas Scheme Group.

What's the biggest development or key figure from this year?

In 2024, the number of issued electricity GOs increased by 11% compared to 2023. New and larger plants, including Vesterhav Nord and Syd wind farms, were added to the register. On the demand side, cancellations increased by over 25%, reflecting a growing interest in declaring energy consumption as renewable. This trend is expected to continue due to increased reporting requirements and a general focus on climate impact.

What's your national approach to Guarantees of Origin and energy disclosure?

Energinet is the Transmission System Operator and Issuing Body of GOs for renewable electricity, gas, and hydrogen. The EECS standards is implemented in Denmark for GOs for electricity. In Denmark, only EECS GOs issued by AIB-members in the European Union (incl. Norway and Iceland) are recognized for electricity disclosure purposes. Ex-domain cancellations are not an option in Energinet's electricity GO system, for Danish disclosure purpose GOs must be cancelled in the Danish registry.

Contact: **Energinet Systemansvar A/S**
Tonne Kjærsvej 65 - DK - 7000 Fredericia - Denmark

Scope of national participation in EECS

Number of registered scheme participants	**N/A**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**777**	**2 726**
Electricity - wind	**3 740**	**7 577**
Electricity - hydro	**4**	**5**
Electricity - biomass	**129**	**4 175**
Electricity - other	**0**	**0**

Websites:
Electricity statistics: https://grex.grexel.com/en/public/home
(see Reports for Domain=Denmark)
Biomethane statistics: https://en.energinet.dk/gas/biomethane/statistics/
Annual report: https://en.energinet.dk/about-our-reports/reports/annual-magazine-2024/

Area of operation:
Estonia

AIB Member of the Electricity and Gas Scheme

Representatives to AIB:
River Tomera
(Member of the Board, General Meeting)

Anne Mändmets
(ESG & EECS Unit)

Kadri-Liis Rehtla-Rell
(GSG)

Siim Nettan
(ISU)

elering
CONNECTING ENERGIES

“AIB guarantees compliance of GOs with the Renewable Energy Directive (RED) and enables to electronically transfer GOs. AIB is also a valuable platform for knowledge sharing.”

What makes your market unique?

Elering has developed a platform where end-consumers who own a metering point can view the origin of their consumed electricity. Estonian biomethane Guarantees of Origin (GO) include a sustainability component and is the single biomethane consumption tracking instrument in Estonia.

What should other AIB members know about your activities?

Elering is a state-owned Estonian company that plays multiple key roles. Elering also serves as the competent Body for GOs across all energy carriers and manages the national platform for transport sector quota certificates, enabling collective compliance with national obligations. In addition, Elering acts as the national agency for energy subsidies.

What’s the biggest development or key figure from this year?

One of the biggest milestones in 2024 was Elering being accepted as a Gas Scheme Group member. Furthermore, in 2024 the share of renewable electricity in the production mix increased from 53% in 2023 to 63%. Additionally, biomethane production increased from 210,617 MWh in 2023 to 275,282 MWh in 2024 showing a 31% increase. Estonia’s biomethane production was equal to 7% of all gas consumption from the Estonian grid in 2024. Building on this major shift to renewable energy, we are expecting the certified hydrogen production to pick up in 2025.

What’s your national approach to Guarantees of Origin and energy disclosure?

Elering acts as the competent for Issuing and disclosing GOs across all energy carriers in Estonia. It manages the national GO registry and the end-consumer dashboard. Estonian biomethane Guarantee of Origin (GO) includes a sustainability component and is the single biomethane consumption tracking instrument in Estonia. Elering is developing a granular tracking method based on GOs to match real-time consumption with local green energy, enabling 24/7 green electricity use.

Website:
www.elering.ee/paritolutunnistused

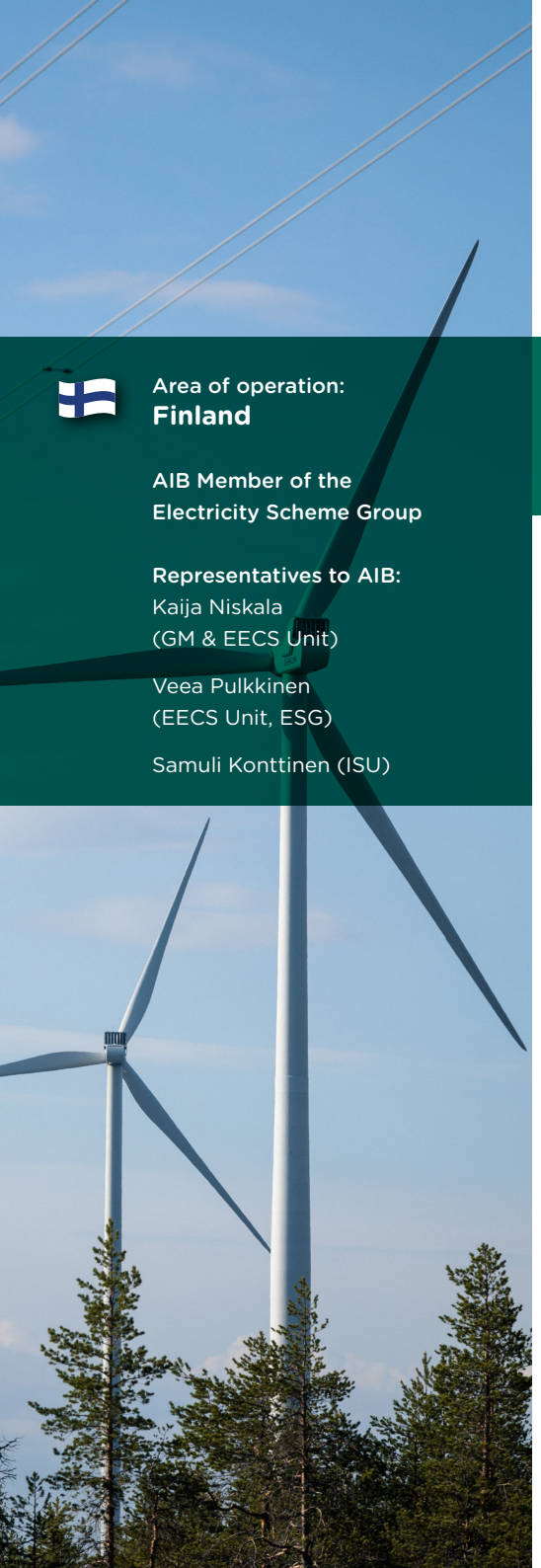
Contact: **Elering AS**
Kadaka tee 42 - Tallinn - Estonia

Scope of national participation in EECS

Number of registered scheme participants	**970**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**6 484**	**651**
Electricity - wind	**42**	**692**
Electricity - hydro	**19**	**6**
Electricity - biomass	**20**	**397**
Electricity - other	**3**	**2**



FINGRID
Finextra

Area of operation:
Finland

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Kaija Niskala
(GM & EECS Unit)

Veea Pulkkinen
(EECS Unit, ESG)

Samuli Konttinen (ISU)

"AIB membership has significantly expanded our Account Holders' business opportunities through the Hub and facilitating European GO market."

What makes your market unique?

Finland's energy market is characterized for its rapidly growing wind power capacity and high level of digitalization. The market is unique due to its advanced integration of renewable energy sources.

What should other AIB members know about your activities?

Finextra Oy, a subsidiary of Fingrid Oyj, is the appointed Issuing Body for electricity GOs in Finland. This year, we are proud to celebrate the 10th anniversary of our GO registry. Over the past decade, our registry has grown and evolved, becoming a cornerstone of our commitment to transparency and sustainability in Finland's energy market. We are proud of the progress we have made and the trust we have built with our customers.

What's the biggest development or key figure from this year?

In 2024, Finland reached several major milestones in its energy sector. The share of renewable electricity production climbed to 56%, reflecting Finland's strong commitment to sustainable energy. Wind power production stood out with a remarkable 37% increase compared to the previous year, highlighting Finland's ongoing efforts to expand its renewable energy capacity. Besides renewable electricity also nuclear electricity has opportunity to certify production with GOs. Nuclear energy contributed 39% to Finnish electricity production.

What's your national approach to Guarantees of Origin and energy disclosure?

Finland's regulatory framework supports renewable energy integration and transparency. Three Issuing Bodies administrate GOs in Finland: Fingrid Oyj/Finextra Oy for electricity, Gasgrid Finland Oy for gas and the Energy Authority for heating and cooling. Finnish legislation ensures that energy source disclosure is accurate and transparent, helping prevent double counting and guaranteeing that consumers receive reliable information about the origin of their energy.

Websites:
Guarantees of origin (GO) for Electricity - Fingrid
Data of Guarantees of Origin for Electricity - Fingrid

Contact: **Fingrid Finextra Oy**
Läkkisepäntie 21 - 00620 Helsinki - Finland
go@finextra.fi

Scope of regional participation in EECS

Number of registered scheme participants	**84**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**29**	**186**
Electricity - wind	**404**	**8 702**
Electricity - hydro	**169**	**3 288**
Electricity - biomass	**77**	**4 709**
Electricity - other	**3**	**4 394**

Area of operation:
Finland

AIB Member of the Gas Scheme Group

Representative to AIB:
Heli Haapea
(General Meetings, EECS Unit and GSG)

GASGRID

> "AIB membership has improved our ability to manage GOs, enabling seamless transfers of renewable energy certificates and boosting our efficiency and reach."

What makes your market unique?

Gasgrid, as the TSO, ensures the reliable and efficient transmission of clean gases. Key priorities include integrating renewable energy sources and developing hydrogen infrastructure. Its multi-gas platform plays a crucial role in supporting Finland's goal of achieving carbon neutrality by 2035.

What should other AIB members know about your activities?

Gasgrid serves as the Issuing for gas and hydrogen GOs in Finland. It plays a crucial role as the transmission system operator responsible for the gas and hydrogen infrastructure. We have been authorized to issue GOs, ensuring the reliability and compatibility of renewable energy certificates. Our key initiatives include the development of a comprehensive hydrogen infrastructure and active participation in European energy cooperation to promote a clean gas market.

What's the biggest development or key figure from this year?

The most significant development this year is Gasgrid's acceptance into the AIB Gas Scheme Group, allowing us to electronically issue and transfer EECS GOs. This milestone boosts our ability to support the clean energy transition and strengthens our position in the European renewable energy market.

What's your national approach to Guarantees of Origin and energy disclosure?

Finland's approach to GOs is built on strong regulatory measures to ensure transparency and reliability. Gasgrid Finland, the authorized Issuing , manages the GO register for gas and hydrogen. The system aims to strengthen the reliability of the gas disclosure system, develop customer–focused services, and support the growth of the green gas market. It also reflects Finland's broader commitment to promoting a carbon-neutral energy and raw material system for the future.

Website:
www.gasgrid.fi/en/

Contact: **Gasgrid Finland Oy**
Keilaranta 13-19 B - 02150 Espoo - Finland
customerservice@gasgrid.fi

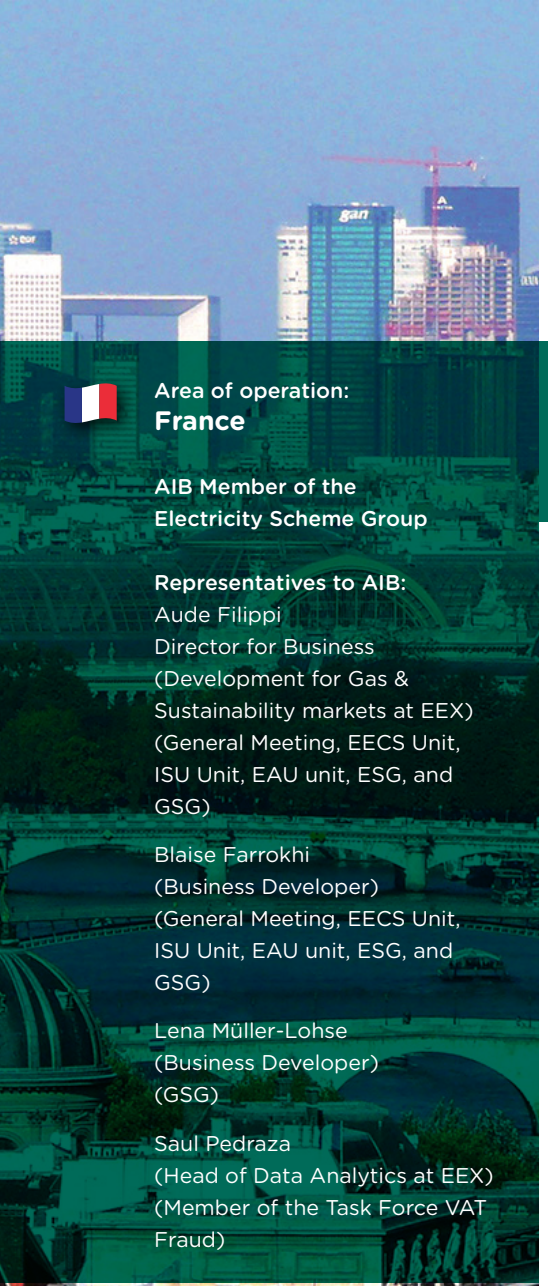
Scope of regional participation in EECS

Number of registered scheme participants	**147**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Gas - biomethane	**18**	**63**
Gas - hydrogen from RES	**1**	*
Gas - other	**0**	-

* Cannot be published because there is only one PD.



Area of operation:
France

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Aude Filippi
Director for Business (Development for Gas & Sustainability markets at EEX)
(General Meeting, EECS Unit, ISU Unit, EAU unit, ESG, and GSG)

Blaise Farrokhi
(Business Developer)
(General Meeting, EECS Unit, ISU Unit, EAU unit, ESG, and GSG)

Lena Müller-Lohse
(Business Developer)
(GSG)

Saul Pedraza
(Head of Data Analytics at EEX)
(Member of the Task Force VAT Fraud)

eex

"Thanks to AIB, EEX has been able to allow all its market participants to easily import and export GOs throughout Europe."

What makes your market unique?

The French energy market for Guarantees of Origin (GO) stands out with its monthly matching rules, dedicated monthly auctions, and the option for full disclosure.

What should other AIB members know about your activities?

Gasgrid serves as the Issuing Body for gas GOs in Finland. It plays a crucial role as the EEX has been the Issuing for electricity GO since May 2013 under appointment by the French Ministry for an Ecological and Solidary Transition. Since September 2019, the Ministry has additionally mandated EEX to organise auctions for French-subsidized GOs on behalf of the French State. Since October 2023, EEX is now also the French Issuing Body for biogas GO.

What's the biggest development or key figure from this year?

EEX has been re-appointed by the French Ministry of Ecological Transition, Energy, Climate and Risk Prevention to continue providing registry and auctioning services for power GOs for another five years, starting from 4 October 2024. Moreover, EEX has launched quarterly auctions for biogas GOs on behalf of the French Ministry of Energy on 4 December 2024. Through these auctions, France sells GOs produced by selected biogas facilities that benefit from a state support mechanism.

What's your national approach to Guarantees of Origin and energy disclosure?

EEX has faith in the European GO mechanism to provide reliable information on electricity to consumers. We are particularly proud of having been reappointed as the national registry for GOs in France. As such, we promote a transparent energy market and advance the energy transition towards more renewable energy consumption by promoting market-based mechanisms for green electricity, such as our new auction system.

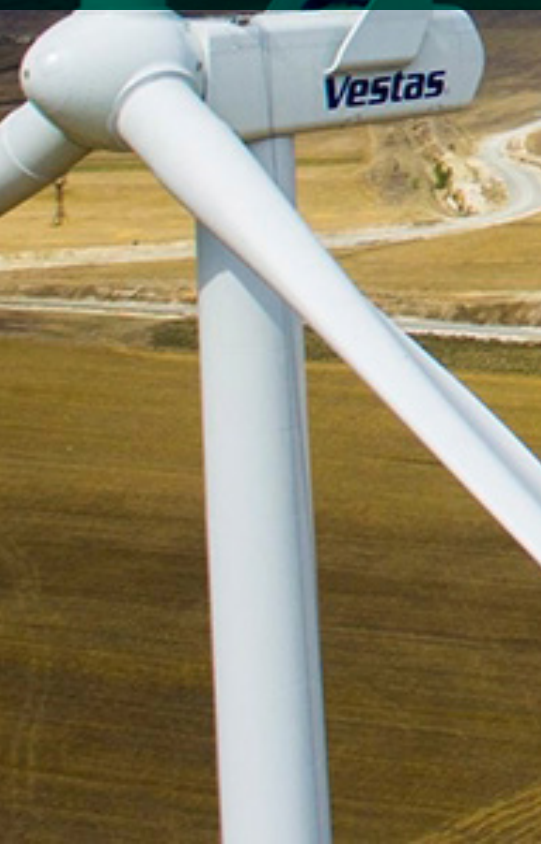
Website:
www.eex.com/en/markets/energy-certificates

Contact: **European Energy Exchange AG (EEX)**
5 Boulevard Montmartre - 75002 Paris - France
go-power@powernext.com - go-gaz@powernext.com

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**18 653**	**15 356,94**
Electricity - wind	**2 200**	**23 646,11**
Electricity - hydro	**2 221**	**23 984,55**
Electricity - biomass	**924**	**2 199,10**
Electricity - other	**22**	**61 913,26**



Area of operation:
Georgia

Observer to the Electricity Scheme Group

Representatives to AIB:
Zviad Gachechiladze

Nusta Osiashvili

Onise Chichinadze

GSE
Georgian State Electrosystem

“Being a member in AIB provides access to best practices, regulatory frameworks, and a structured approach.”

What makes your market unique?

Georgia’s energy market is unique due to its huge hydropower resources, energy transit role between Europe and Asia, and evolving regulatory framework.

What should other AIB members know about your activities?

Georgia has successfully developed its residual mix calculation by AIB and EU standards, strengthening its Guarantees of Origin (GO) system. Our focus is now on ensuring accurate energy disclosure, enhancing market transparency, and facilitating the cross-border trade of renewable energy certificates to support regional integration.

What’s the biggest development or key figure from this year?

One of the most significant developments this year in Georgia’s GO system has been the increasing account holder activity, which reflects a growing engagement in renewable energy certification.

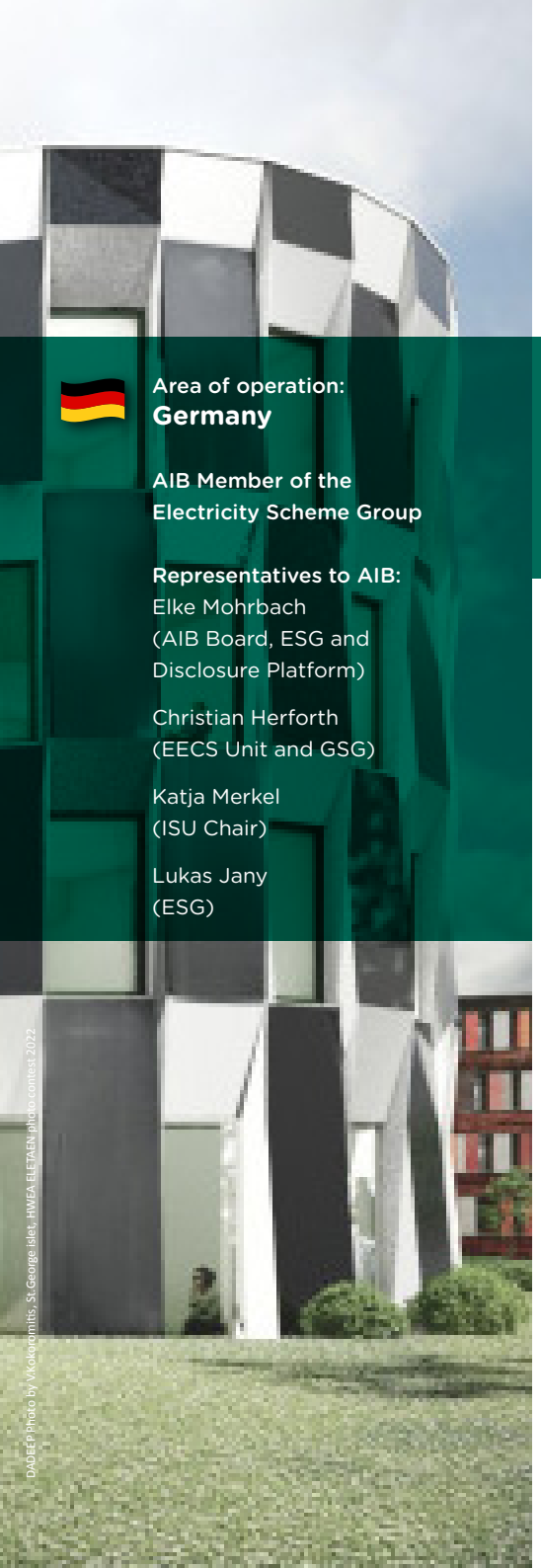
What’s your national approach to Guarantees of Origin and energy disclosure?

We have implemented significant changes in our issuance processes and further developed our residual mix calculation methodology to enhance accuracy, transparency, and efficiency. These improvements aim to streamline operations, ensure compliance with evolving regulations, and strengthen market integrity.

By refining data integration, calculation methods, and verification procedures, we enhance reliability in energy tracking and reporting. These efforts contribute to a more robust, transparent, and efficient GO system, supporting sustainability goals and fostering confidence among market participants.

Website:
https://www.gse.com.ge/home

Contact: **JSC Georgian State Electrosystem**
2 Nikoloz Baratashvili St - Tbilisi - Georgia



DADEP Photo by Vkokkinomitis, St George Islet, HWEA ELETAEN photo contest 2022

Area of operation:
Germany

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Elke Mohrbach
(AIB Board, ESG and Disclosure Platform)

Christian Herforth
(EECS Unit and GSG)

Katja Merkel
(ISU Chair)

Lukas Jany
(ESG)

Umwelt Bundesamt | HKNR Herkunftsnachweisregister

"Teaming up with other AIB members has shown me we're all facing similar challenges in meeting European requirements. Sharing those experiences and insights has been genuinely valuable." - Lukas Jany

What makes your market unique?

Operating in Germany, we've issued 47 million EECS electricity GOs and imported 208 million which makes us the leading importer in Europe's renewable GO market. Since joining AIB as a full member in 2016, we've welcomed 5,834 account holders into our system and continue to expand our role in the energy transition.

What should other AIB members know about your activities?

UBA is a subordinate authority within the German Environment Ministry. As a scientific environment agency we do research, provide policy advice and inform the public and tasks to execute the law. including operating the German GO-register. We have regulatory competence regarding the GO registry and fees. Professional supervision is within the Federal Ministry for Economic Affairs and Climate Action. Our disclosure tasks are limited since the Bundesnetzagentur (BNetzA) is the competent authority.

What's the biggest development or key figure from this year?

UBA is the competent authority for the gas and cooling/heating registry as of May 1, 2024, when the GWKHV ordinance comes into force. We are going to intensify our work to implement Article 19 of the Renewable Energy Directive (RED) II in regard to renewable gas and heating and cooling GOs. This is very challenging due to the complex and diverse landscape of our gas certificate system. With the interface to the „Marktstammdatenregister", the central master data registry of production devices and stakeholders in the energy sector, we further modernize and de-bureaucratize our GO registry.

What's your national approach to Guarantees of Origin and energy disclosure?

Electricity suppliers in Germany must disclose both the location-based and market-based energy mix of the electricity they deliver. They use contract-based-tracking to verify conventional sources, and GOs for the renewable share. I addition, they must report the share of subsidised renewable electricity, which is uniformly allocated across all electricity consumers. While legal frameworks for the gas and heating and cooling registries are already in place, disclosure requirements for these energy types are still pending.

Website:
https://www.hknr.de/Uba

Contact: **German Environment Agency (UBA)**
P.O. Box 1406 - 06813 Dessau-Roßlau - Germany
hknr@uba.de

Scope of regional participation in EECS

Number of registered scheme participants	**5 834**

Registered EECS production devices and total capacity installed per energy carrier and type

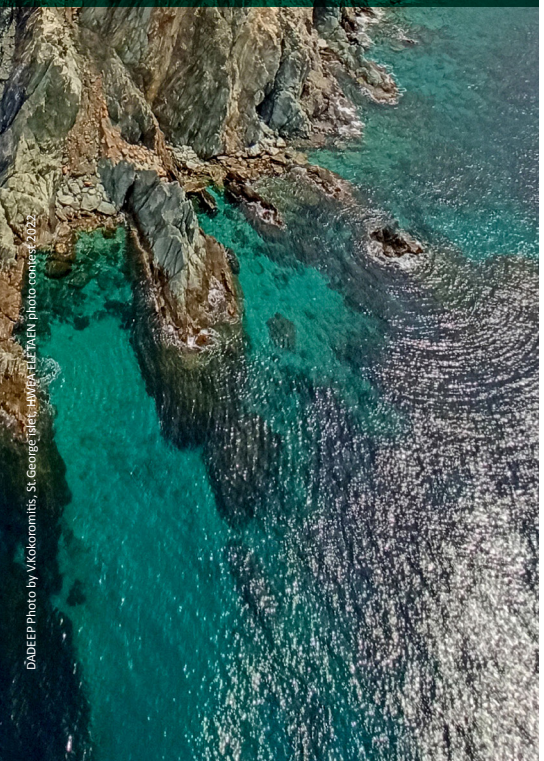
Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**4 083**	**18 214,8**
Electricity - wind	**15**	**3 823,95**
Electricity - hydro	**322**	**4 977,819**
Electricity - biomass	**1 490**	**9 348,99245**
Electricity - other	**11**	**17,379**
Gas - biomethane	**7**	**13,781**
Gas - hydrogen from RES	**1**	**0,16**
Gas - other	**2**	**41,712**

Area of operation:
Greece

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Maria Koulouvari (Representative to the General Meeting, EESC Unit, ESG and chair of the EECS Unit)

Giorgos Antonopoulos (Representative to ISU)



ΔΑΠΕΕΠ Photo by V.Kokoromitis, St. George islet, HAPEA-ΕΛΕΤΑΕΝ photo contest 2022

"AIB provides DAPEEP with insight into a flourishing certificate market, while it empowers members to strengthen the role of GO as the cornerstone of the energy attribute tracking in Europe."

What makes your market unique?

The Greek electricity market is uniquely positioned within the integrated European Electricity Market due to its geographical position in the border line of European Union, as a result of which Greece maintains interconnections with electricity systems of neighboring countries, facilitating exchange beyond EU borders.

What should other AIB members know about your activities?

DAPEEP operates the feed-in tariff and feed-in premium support schemes for renewable energy (RES) and high-efficiency cogeneration (CHP) stations, representing these installations as an aggregator in the electricity market.

Supervised by the Ministry for Environment and Energy and the Regulatory Authority for Energy, Water and Waste, DAPEEP acts as the competent authority for state aid schemes in the electricity sector, issues Guarantees of Origin (GOs) for electricity with authorisation to expand to gas (hydrogen included) and oversees disclosure obligations.

What's the biggest development or key figure from this year?

DAPEEP launched the auctions for GOs issued for financially supported RES electricity.

What's your national approach to Guarantees of Origin and energy disclosure?

Greece's approach to Guarantees of Origin (GOs) and energy disclosure aligns with EU regulations, with DAPEEP Issuing GOs to certify renewable electricity production. Suppliers use these certificates to disclose energy sources to consumers, ensuring transparency in the market.

Website:
www.dapeep.gr

Contact: **DAPEEP**
Kastoros 72 - Pireaus 185 45 - Greece

Scope of regional participation in EECS

Number of registered scheme participants	**147**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**21 606**	**6 832**
Electricity - wind	**405**	**4 829**
Electricity - hydro	**157**	**3 392**
Electricity - biomass	**131**	**132**
Electricity - other	**38**	**462**

MEKH
Hungarian Energy and Public Utility Regulatory Authority

"Joining AIB has significantly increased our international trade with GOs."

Area of operation:
Hungary

Observer to the Electricity Scheme Group

Representatives to AIB:
Péter Luzsányi
(General Meeting, EECS Unit)

Dr. Nikoletta Nagy
(General Meeting, EECS Unit, GSG)

Dr. Péter Varga
(ESG, Communications)

Dr. Miklós Budai
(ESG)

Diána Árki
(GSG)

Amelita Kovács
(Communications, Statistics, Data Management)

László Tamás Szűcs
(ISU)

Bálint Nyilas
(ISU, Technical contact)

Vesa Hyrskylahti
(GREXEL for AIB Hub)

Marika Timlin-de Vicente
(GREXEL for Statistics)

What makes your market unique?

As part of Hungary's energy market liberalization, the national transmission system operator (TSO) MAVIR established the Hungarian Power Exchange (HUPX Ltd.) in 2010. HUPX now operates the country's spot power market and holds a leading position in Central Europe.

What should other AIB members know about your activities?

According to Section 12(1) of Act LXXXVI of 2007 on electricity, to verify the quantity of electricity produced from renewable sources or from high-efficiency cogeneration plants a supplier must produce and disclose a Guarantee of Origin (GO) to the final customer. Gov. decree 420/2024 contains a more detailed regulation regarding GOs.' with the following: 'Government Regulation 420/2024 contains more detailed rules regarding to GOs.

What's the biggest development or key figure from this year?

The basis of Hungarian regulations is Act LXXXVI of 2007 on Electricity (VET) and the related implementing regulations, including Government Regulation 420/2024 (XII. 23.). These rules make it possible to issue GOs for energy produced by both nuclear reactors and small household devices.

What's your national approach to Guarantees of Origin and energy disclosure?

Electricity disclosure in Hungary is regulated by Min. Decree 6/2008. (VI. 18.), which defines the data services required for managing, operating, and using the electricity system. There are three mechanisms that shall be used for electricity disclosure: cancellation of EECS GOs; ex-domain cancellation of non-EECS GOs from foreign countries; residual mix. The consumption period covered by an EECS GO must fall within 18 months of the electricity's production.

Website:
https://mekh.hu/guarantees-of-origin-1

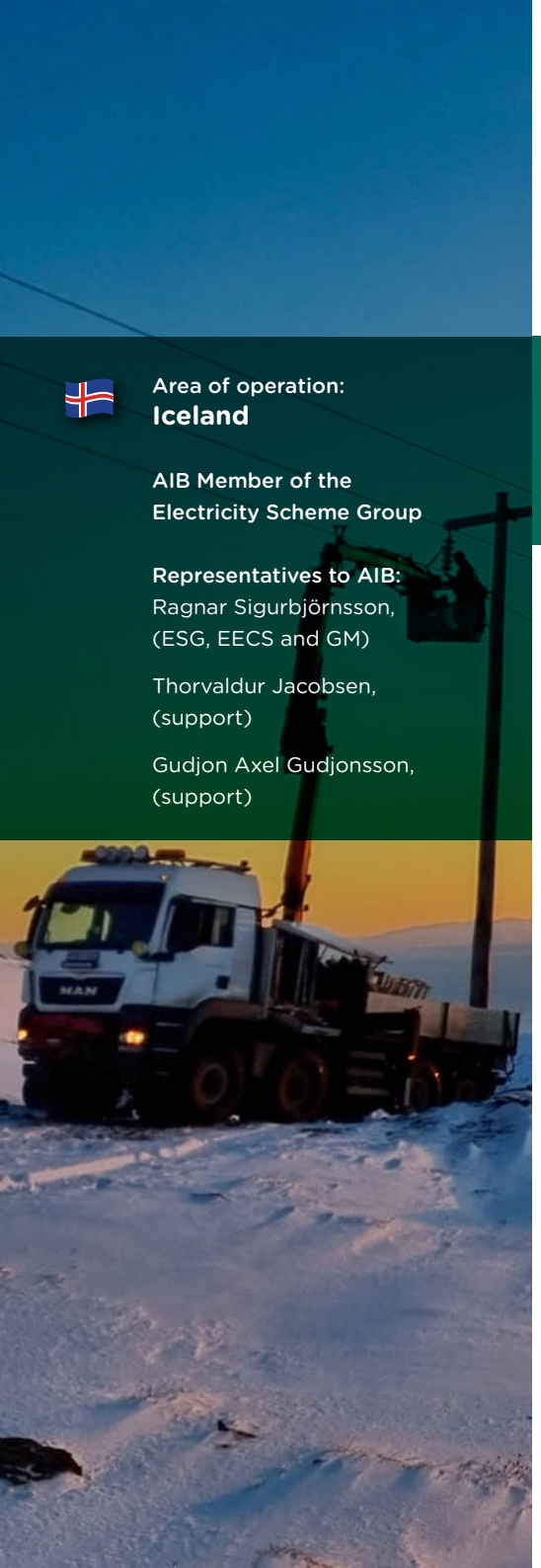
Contact: **Hungarian Energy and Public Utility Regulatory Authority (MEKH)**
1054 Budapes - Bajcsy-Zsilinszky út 52 - Hungary
ugyfelszolgalat@mekh.hu

Scope of regional participation in EECS

Number of registered scheme participants	**3 042**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**2 942**	**3 700,81**
Electricity - wind	**38**	**390,6**
Electricity - hydro	**14**	**53,27**
Electricity - biomass	**10**	**1 192,1**
Electricity - other	**38**	**43,18**



Area of operation:
Iceland

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Ragnar Sigurbjörnsson, (ESG, EECS and GM)

Thorvaldur Jacobsen, (support)

Gudjon Axel Gudjonsson, (support)

LANDSNET

"AIB membership has enhanced the reliability of our GO, aligned Iceland with EU regulations, increased transparency, and ensured continued access to GO markets."

What makes your market unique?

Iceland's electricity market is 100% renewable, with no external grid links. It is dominated by industrial consumers, with rising demand for Guarantees of Origin and energy digitalization. Key challenges include grid stability, tech integration, and adapting to evolving EU regulations.

What should other AIB members know about your activities?

Landsnet is strengthening compliance with AIB standards and is working with regulators to align Iceland's GO system with evolving EU rules. Efforts are underway to enhance disclosure rules and improve digital certification. The implementation of RED II is being prioritized, and Landsnet is actively preparing for future regulatory changes to ensure transparency and maintain Iceland's strong position in the renewable energy market.

What's the biggest development or key figure from this year?

In 2024, Rio Tinto's ISAL aluminium smelter became the first major Icelandic industrial consumer to cancel Guarantees of Origin for its entire energy consumption. This milestone reinforces the growing role of GOs in corporate sustainability and strengthens Iceland's position in transparent energy certification.

What's your national approach to Guarantees of Origin and energy disclosure?

Iceland's GO system ensures transparency, aligning with EU and AIB rules. As an isolated grid, all electricity is 100% renewable, making GOs essential for tracking consumption. Efforts are underway to enhance digitalization, streamline certification, and improve market accessibility. Key challenges include adapting to future and evolving EU requirements, ensuring accurate residual mix calculations, and integrating potential hourly GOs. Landsnet remains focused on regulatory compliance and strengthening Iceland's renewable energy credibility.

Website:
https://landsnet.is/gjaldskra/upprunaabyrgdir/

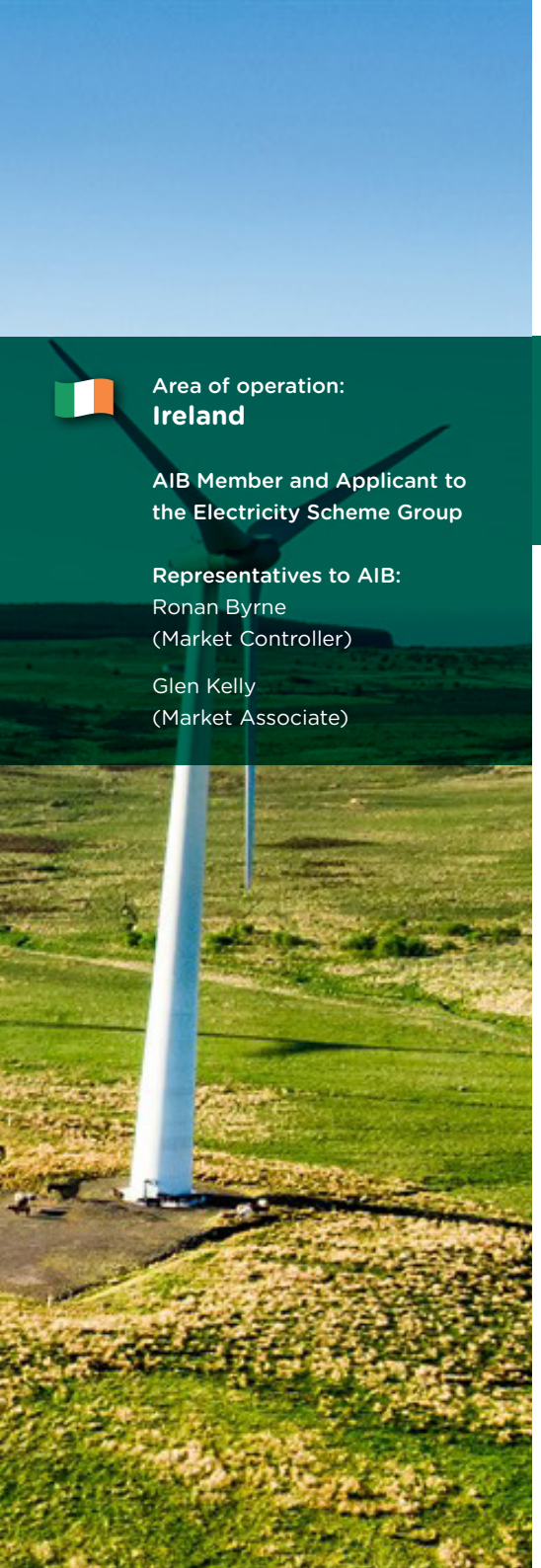
Contact: **Landsnet**
Gylfaflöt 9 - 112 Reykjavík - Iceland

Scope of regional participation in EECS

Number of registered scheme participants	**12**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	-	-
Electricity - wind	**2**	**3,6**
Electricity - hydro	**67**	**2 113**
Electricity - biomass	-	-
Electricity - other	**12**	**753,9**



Area of operation:
Ireland

AIB Member and Applicant to the Electricity Scheme Group

Representatives to AIB:
Ronan Byrne
(Market Controller)

Glen Kelly
(Market Associate)

"AIB membership enables SEMO to adopt a reliable and efficient approach to GO transactions, ensuring alignment with EECS rules and improving reliability across Ireland and Europe."

What makes your market unique?

The Single Electricity Market (SEM) is 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).

What should other AIB members know about your activities?

SEMO is the Issuing Body for Guarantees of Origin (GOs) in Ireland for electricity generators using renewable sources. We operate the registry for the issuance, transfer, and cancellation of GOs. SEMO also acts as the competent Body for Fuel Mix Disclosure (FMD) across the island of Ireland on behalf of the Commission for Regulation of Utilities (CRU, regulator in the Republic of Ireland) and the Utility Regulator (UR, regulator in Northern Ireland) Additionally, we manage the Green Source Product Verification (GSPV) mechanism, which regulates green electricity products in the retail market on behalf of the CRU.

What's the biggest development or key figure from this year?

SEMO has seen growing interest in GOs in Ireland as more renewable generators exit support schemes. In 2024, the number of registered GO scheme participants rose by 12.5%, and registered production devices increased by 24%. Imported GOs from renewable sources from other EU countries also continue to play a key role in FMD in Ireland, so long as they have not been cancelled or used in FMD elsewhere. In 2024, the volume of imported GOs rose sharply, with a whopping 93.5% increase compared to the previous year.

What's your national approach to Guarantees of Origin and energy disclosure?

In Ireland, the GO scheme is available only to producers or suppliers who hold a license to generate or supply electricity from the CRU. Trader accounts cannot be opened in our registry. GOs are issued monthly for renewable production from wind, solar, and hydro sources. In Ireland, all licensed electricity suppliers must disclose their fuel mix on customer bills. SEMO calculates each supplier's fuel mix and environmental impacts (CO_2 emissions), both individually and on an All-Island level.

Website:
www.sem-o.com

Contact: **Single Electricity Market Operator (SEMO)**
EirGrid plc - The Oval - 160 Shelbourne Road - Ballsbridge Dublin D04 FW28 - Ireland
guaranteesoforigin@sem-o.com

Scope of regional participation in EECS

Number of registered scheme participants	**89**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**23**	**637,730**
Electricity - wind	**111**	**1 570,069**
Electricity - hydro	**41**	**233,742**
Electricity - biomass	-	-
Electricity - other	-	-

Area of operation:
Italy

AIB Member of the Electricity Scheme Group and Gas Scheme Group

Representatives to AIB:
Floriana Furno and Gianmarco Piamonti:
(General meeting, EECS, ESG)

Floriana Furno:
(GSG)

Marta Grassilli:
(ISU)

"Thanks to the support of AIB, we were able to implement the new system for gas GOs and obtain full membership in August 2024."

What makes your market unique?

The Italian market manages one of the largest Guarantees of Origin (GO) volumes in Europe. In addition to electricity GOs, we introduced gas GOs, with thermal and hydrogen GOs on the horizon. GO-Issuing is recognized for both auctions and producers.

What should other AIB members know about your activities?

GSE is a public energy services company, promoting 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.

What's the biggest development or key figure from this year?

In 2024, GSE became a full member of the gas scheme and issued its first gas GOs. Another milestone: a new Italian decree now allows final consumers to cancel GOs directly in the Italian registry, a major move towards empowering consumers to certify and claim their renewable energy use.

What's your national approach to Guarantees of Origin and energy disclosure?

With the Legislative Decree No.199 of November 2021, Italy transposed the EU Directive 2018/2001 into national law. In this context, GSE is extending the scope of GOs to new sectors like gas, heating and cooling, and hydrogen. In 2023, GSE launched a new platform, "Certigy", in partnership with Unicorn Systems, designed to integrate all energy carriers. GSE has also updated its fuel mix calculation method, now aligning with AIB's "Issuance Based Method" for better consistency and transparency in disclosure.

Website:
https://uuapp.plus4u.net/uu-webkit-maing02b2590aa7399f4726a99ff12b32d9805e/transactions

Contact: **Gestore Servizi Energetici - GSE S.p.A.**
Viale Maresciallo Pilsudski 92 - 00197 Roma RM - Italy

Scope of regional participation in EECS

Number of registered scheme participants	**9 237**

Registered EECS production devices and total capacity installed per energy carrier and type *

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**5 482**	**9 653,545**
Electricity - wind	**780**	**11 723,54**
Electricity - hydro	**1 208**	**18 527,809**
Electricity - biomass	**124**	**2 678,6**
Electricity - other	**28**	-

Area of operation:
Kosovo

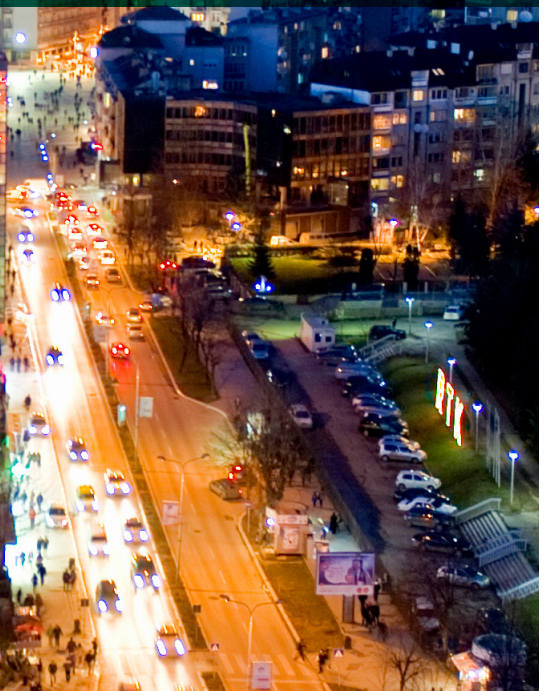
AIB Member of the Gas Scheme Group

Representatives to AIB:
Ymer Fejzullahu
(Scheme Observer)

Petrit Pepaj
(Alternate Scheme Observer)

Hysnije Rexhaj (ESG)

Petrit Krasniqi
(Alternate for ESG)



What makes your market unique?

A major part of renewable energy source (RES) generators in our market operates under a support scheme, primarily through feed-in tariffs. As a result, we currently do not expect any generators to claim or benefit from Guarantees of Origin (GOs).

What should other AIB members know about your activities?

???

What's the biggest development or key figure from this year?

In 2024, Kosovo joined AIB as an Observer to the Electricity Scheme.

What's your national approach to Guarantees of Origin and energy disclosure?

In 2024, the Energy Regulatory Office (ERO) signed an agreement with Grexel. ERO is also in the process of aligning secondary legislation with primary legislation.

Website:
www.ero-ks.org/zrre/en/home

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**8**	**14**
Electricity - wind	**3**	**137,16**
Electricity - hydro	**24**	**128,47**
Electricity - biomass	**1**	**1,2**
Electricity - other	-	-

Contact: **Energy Regulatory Office of Kosova (ERO)**
Str. Bekim Fehmiu (Ex-Fazita Building) - 2nd Floor - Pristina 10000 - Republic of Kosova
info@ero-ks.org

Area of operation:
Latvia

AIB Member and Applicant of the Electricity Scheme Group

Representatives to AIB:
Aigars Sīlis
(Head of Market Surveillance and Data Analysis Group of AST and AIB Board member)

Asnāte Kalniņa
(Business Data and Process Project Manager)

> **"The alignment with AIB standards has boosted stakeholder confidence in the system, both domestically and internationally."**

What makes your market unique?

Latvia's electricity market features a high share of renewable energy, mainly hydro, and a strong, centralized registry for Guarantees of Origin (GOs). Among consumers and producers, interest in energy tracking is growing rapidly, while system improvements continue to ensure compliance and transparency.

What should other AIB members know about your activities?

AST continues to be an active and engaged member within AIB, contributing to the development and standardization of information systems and electricity certification processes.

What's the biggest development or key figure from this year?

In 2024, Latvia issued 5 million MWh of GOs, covering 85% of the grid's total electricity (5,905,517 MWh). Despite a 6% decrease from the previous year, mainly due to a 3% drop in production, interest in renewable energy is growing, with 47 new account holders and 40 new power plants. 90% of Latvian GOs (4,500,373 MWh) were exported, primarily to Scandinavia. According to Aigars Sīlis, Head of Market Surveillance and Data Analysis at AST, this shows the strong demand for Latvia's green energy.

What's your national approach to Guarantees of Origin and energy disclosure?

Latvia's GO system is aligned with the EECS standard and regulated by national legislation that defines AST as the Issuing Body for GOs. The focus in recent years has been on transparency, user-friendliness, and alignment with EU directives. Going forward, regulation will focus on expanding access to GOs and supporting innovative use cases.

Contact: **AS Augstsprieguma tīkls (AST)**
86 Darzciema str Riga - LV-1073 Latv - LATVIA ia
go@ast.lv

Scope of regional participation in EECS

Number of registered scheme participants	**276**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**68**	**175 785,15**
Electricity - wind	**31**	**119,195**
Electricity - hydro	**82**	**1 579,6223**
Electricity - biomass	**77**	**135,205**
Electricity - other	**25**	**875,076**

Websites:
Statistics on national production:
https://www.ast.lv/en/electricity-market-review?year=2024&month=13
Statistics on national GO activity:
https://grex.grexel.com/en/public/reports/transactionstatistics
https://www.ast.lv/en/content/guarantees-origin

Area of operation:
Latvia

AIB Member of the Gas Scheme Group

Representatives to AIB:
Ance Ansone and Jānis Eisaks (General Meeting, GSG and EECS Unit)

conexus BALTIC GRID

> "AIB provides strong guidance and support in navigating future challenges in energy tracking, e.g. addressing Union Database-related questions."

What makes your market unique?

Latvia is unique in having one unified gas market, integrating gas transmission operators in Finland, Latvia, and Estonia. It includes a common entry-exit tariff area and, with Estonia, a shared balancing zone, which is a great benefit to market participants.

What should other AIB members know about your activities?

Conexus is the government-appointed Issuing Body for biogas, biomethane, and synthesis gas since July 1, 2023, and a full member of the AIB Gas Scheme Group since December 2023. The registry's first activities kicked-off in late 2024, and the system has been gradually expanding ever since with a growing number of account holders and transactions.

What's the biggest development or key figure from this year?

2024 was a milestone year as the first account holders and production devices were registered in the Conexus GO registry, provided by Grexel. Additionally, we issued our first EECS GOs. Looking ahead, we anticipate the biomethane market to grow in Latvia and across all AIB countries.

What's your national approach to Guarantees of Origin and energy disclosure?

Currently, our policy makers are discussing the national energy disclosure regulation.

Website:
www.conexus.lv/en

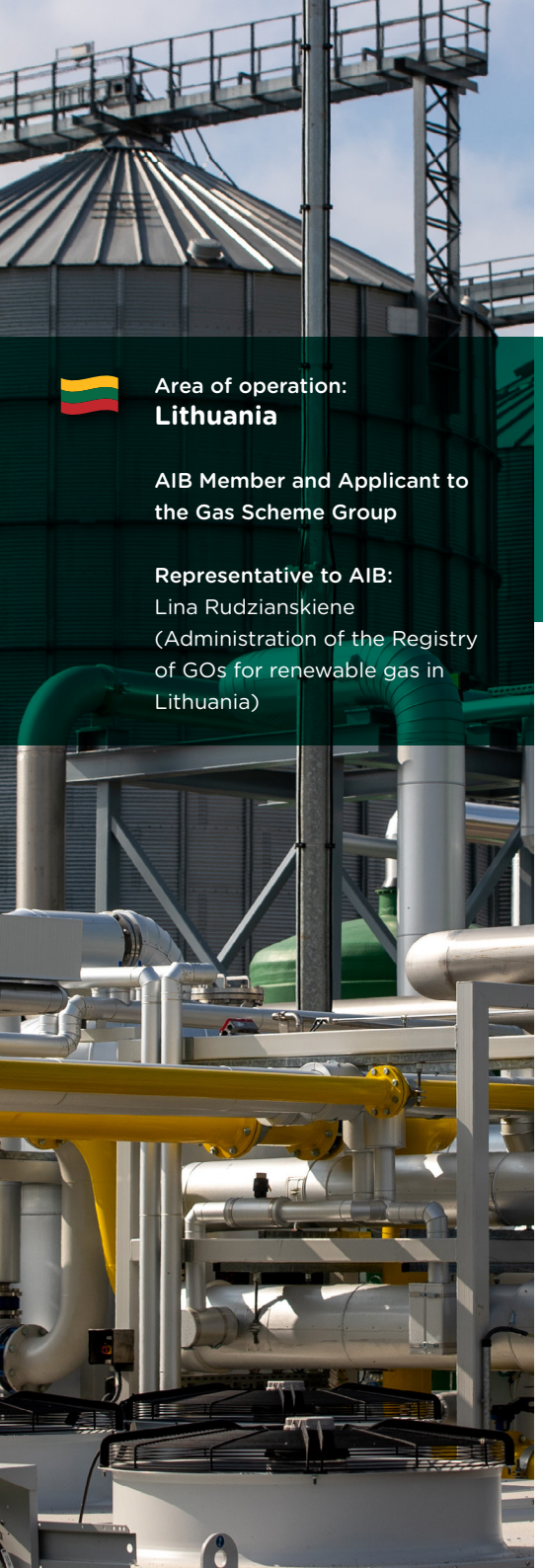
Scope of regional participation in EECS

Number of registered scheme participants	**10**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Gas - biomethane	**4**	**28,64**
Gas - hydrogen from RES	-	-
Gas - other	-	-

Contact: **Conexus Baltic Grid**
Stigu iela 14 - Riga - 1084 Latvia



Amber Grid

“AIB is a valuable network to share know-how and enable secure and transparent cross-border transfers of GOs between its members.”

Area of operation:
Lithuania

AIB Member and Applicant to the Gas Scheme Group

Representative to AIB:
Lina Rudzianskiene (Administration of the Registry of GOs for renewable gas in Lithuania)

What makes your market unique?

Lithuania’s biomethane sector is growing steadily with new biogas plants contributing to Lithuania’s energy independence and sustainability. Supportive regulations have simplified connecting biogas facilities to the national gas grid and thus increasing biomethane injection volumes. The renewable gas GO market is also expanding, and Lithuania aims to reach at least 1 400 GWh of biomethane production by 2030.

What should other AIB members know about your activities?

AB Amber Grid is the gas transmission system operator (TSO) in Lithuania. It also has been appointed as THE (!) Issuing Body for GOs from renewable gas in Lithuania.

What’s the biggest development or key figure from this year?

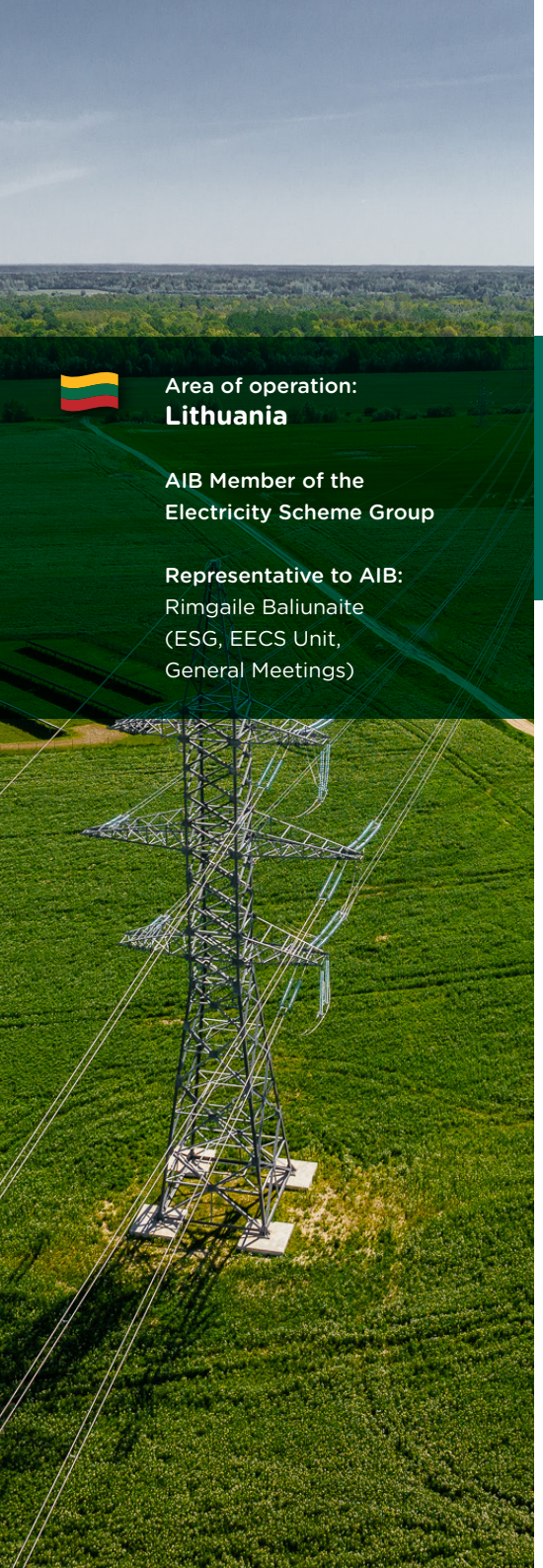
In 2024, we issued almost 130 GWh of GOs for biomethane produced in Lithuania, nearly three times more than in 2023.

What’s your national approach to Guarantees of Origin and energy disclosure?

EECS GOs are a primary method for proving that the specific quantity of consumed gas is sourced from renewable energy sources. It provides transparency and ensures that energy claims are verifiable. This is an important pillar to transition to a sustainable energy system. Together with Proofs of Sustainability (PoS) certificates, GOs can be used to account for national transport targets.

Website:
https://ambergrid.lt/en/green-gas/guarantees-of-origin/626

Contact: **AB Amber Grid**
Laisves pr. 10 - Vilnius - Lithuania



Litgrid

“Being a member of AIB ensures secure, efficient producer-supplier transactions and fruitful discussion with other Issuing Bodies on GO trends, challenges and improvements.”

Area of operation:
Lithuania

AIB Member of the Electricity Scheme Group

Representative to AIB:
Rimgaile Baliunaite
(ESG, EECS Unit, General Meetings)

What makes your market unique?

The Lithuanian electricity market is increasingly focused on renewables, with most domestic production coming from renewable energy sources (RES). Emerging hybrid generation units that combine renewables with energy storage are introducing new challenges for the administration of Guarantees of Origin (GOs).

What should other AIB members know about your activities?

Litgrid AB, Lithuania’s transmission system operator, also acts as the national Issuing Body. We manage the GO system by providing the platform, overseeing its administration, and ensuring a transparent and reliable tracking process.

What’s the biggest development or key figure from this year?

In 2024, the number of RES producers applying for GOs rose by 78% compared to 2023 which shows the rapid growth in the renewable energy sector. Currently, onshore wind power accounts for more than half of all GOs issued.

What’s your national approach to Guarantees of Origin and energy disclosure?

Ongoing discussions are addressing whether GOs should be issued for electricity generated by prosumers that exceeds their own consumption and is transferred to the grid.

Website:
https://www.litgrid.eu/index.php/services/certification-of-origin/the-guarantee-of-origin-administration/582

Scope of regional participation in EECS

Number of registered scheme participants	**241**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**137**	**383 391,691**
Electricity - wind	**173**	**1 769,68**
Electricity - hydro	**73**	**1 025,84**
Electricity - biomass	**28**	**143,441**
Electricity - other	-	-

Contact: **Litgrid AB**
Karlas Gustavas Emilis Manerheimas str. 8 - LT-05131 Vilnius - Lithuania
go@litgrid.eu

INSTITUT LUXEMBOURGEOIS
DE RÉGULATION

> "AIB membership has helped us monitor and improve the reliability of the electricity disclosure system, especially regarding its green attributes."

Area of operation:
Luxembourg

AIB Member of the
Electricity Scheme Group

Representatives to AIB:
Pamela Boeri

Claude Hornick

What makes your market unique?

In Luxembourg, 94% of domestic energy comes from renewable sources. However, this only covers 20% of the country's electricity consumption, meaning around 80% of electricity currently needs to be imported. To meet demand, Luxembourg relies on high levels of renewable generation and strong interconnection with neighbouring countries. Rolling out smart meters on a large scale also enables producers to provide better and more transparent information to consumers.

What should other AIB members know about your activities?

In the second half of 2018, ILR began Issuing GOs for electricity produced from renewable energy sources (RES) by production devices that currently receive production support in Luxembourg. ILR periodically auctions these GOs on its auction platform: https://goauction.ilr.lu/. The revenues from these auctions help reduce the cost of the RES public support scheme. The auctions are open to any account holder within an EECS registry. For more details, visit the ILR website: https://goauction.ilr.lu/

What's the biggest development or key figure from this year?

In 2024, renewable GOs certified over 60% of national electricity consumption's origin. You can find key electricity and gas statistics at https://www.ilr.lu/publications/.
Sector of Activity : « Électricité » ; Publication type : "Rapports et études"
Title: "Rapport de l'Institut Luxembourgeois de Régulation sur ses activités et sur l'exécution de ses missions dans les secteurs de l'électricité et du gaz naturel."

What's your national approach to Guarantees of Origin and energy disclosure?

The ILR regulation ILR/E22/26, dated 20 October 2022, sets the methodology and process for electricity disclosure, including the determination of the composition and the environmental impact of supplied electricity: https://legilux.public.lu/eli/etat/leg/rilr/2022/10/20/a532/jo.
We base our disclosure solely on cancelled GOs. For volumes of electricity supplied without cancelled GOs, we attribute the residual mix, with no renewable part included.

Website:
www.ilr.lu/secteurs-activites/energie/electricite/energie-renouvelable-partage/garanties-origine/

Contact: **Institut Luxembourgeois de Régulation (ILR)**
17, rue du Fossé - L-2922 Luxembourg
stroumagas@ilr.lu

Scope of regional participation in EECS

Number of registered scheme participants	**10**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**29**	**32,31**
Electricity - wind	**21**	**206,11**
Electricity - hydro	**2**	**21,25**
Electricity - biomass	**6**	**87,5**
Electricity - other	**0**	**0**

Area of operation:
Montenegro

AIB Member and Applicant to the Electricity Scheme Group

Representatives to AIB:
Dusan Vucic (General Meeting, EECSU)

Branislav Banovic (Communications, Alternate to General Meeting & ESG)

Danilo Simovic (ESG, Alternate to EECSU & Communications)

Ana Zarkovic (ISU)

"Being a member of AIB had a strong impact on COTEE, as we are currently implementing the EECS rules into national legislation."

What makes your market unique?
Montenegro is a small market but with a large potential for renewable energy.

What should other AIB members know about your activities?
COTEE is unique as it serves as Montenegro's market operator, issuer, and trader all at the same time.

What's the biggest development or key figure from this year?
COTEE has launched an electronic registry for Guarantees of Origin (GO), which is set up and serviced by Grexel.

What's your national approach to Guarantees of Origin and energy disclosure?
From 2021 on, we have been working on implementing AIB standards into our national legislation. Until now, we have issued GOs according to the national legislation that is compliant with the rules of the Energy Community Area (EnC GOs). As we are becoming a full AIB member to issue EECS GOs in the future, COTEE is currently implementing the EECS rules into our national legislation.

Website:
www.cotee.me

Contact: **COTEE - Montenegrin electricity market operator**
Bulevar Svetog Petra Cetinjskog 130 - Podgorica - Montenegro
office@cotee.me

Area of operation:
Netherlands

AIB Member of the Electricity Scheme Group and Observer to the Gas Scheme Group

Representatives to AIB:
Anna Venema
(ESG, GSG)

Ilona Bruens
(General Meeting)

Remco van Stein Callenfels
(EECS Unit chair, alternate to General Meeting, ESG & GSG)

Jerney Lubbers
(ISU)

Natasja Godschalk-Kramer
(ISU)

vertiCer

"Being a Member of AIB helps us in expressing a common voice towards policy makers and thus contributes to the ongoing improvement of GO legislation."

What makes your market unique?

The (widespread) use of Guarantees of Origin (GO) is mandatory in the Netherlands for electricity, in full consumption disclosure – and for gas, towards the obligation imposed by article 25 of the RED. It will be interesting to see if and how the latter will be affected by the Union Database.

What should other AIB members know about your activities?

The Dutch registries for gas and for heating and cooling are the oldest in Europe. VertiCer also was among the first Issuing Bodies to issue a GO for hydrogen. We are working hard to merge all our GO activities into one registry. This will increase our efficiency, while also making sure that our customers will only have one interface to work with.

What's the biggest development or key figure from this year?

In 2024, VertiCer applied to become a member of the AIB Gas Scheme. Just as we are merging our registries, we believe that all procedures regarding GOs should ideally be harmonised to the greatest possible extent. This reduces the administrative burden and makes it easier for market actors to comply with the rules.

What's your national approach to Guarantees of Origin and energy disclosure?

The Netherlands applies a system of full consumption disclosure in respect of electricity. Gas disclosure is not as sophisticated yet, but this may change when the Directive (EU) 2024/1788 will require member states to implement a framework for gas disclosure.

Website:
www.verticer.eu

Contact: **Verticer**
Concourslaan 17 - 9727 KC Groningen - the Netherlands

Scope of regional participation in EECS

Number of registered scheme participants	**251**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**35 218**	**14 654**
Electricity - wind	**1 702**	**11 812**
Electricity - hydro	**23**	**38**
Electricity - biomass	**254**	**5 655**
Electricity - non-RES	**399**	**13 065**

Website statistics Netherlands:
https://www.cbs.nl/en-gb/

Hernieuwbare energie in Nederland 2023:
https://www.cbs.nl/nl-nl/longread/rapportages/2024/hernieuwbare-energie-in-nederland-2023

MEMO
NATIONAL ELECTRICITY MARKET OPERATOR

"Our observer status with the AIB Electricity Scheme has opened the door to active participation in AIB working groups and meetings, allowing us to closely follow best practices."

Area of operation:
North Macedonia

Observer to the Electricity Scheme Group

Representatives to AIB:
Zoran Gjorgjievski (GM)

Denko Rafajlovski (ESG)

Mitko Ognenoski (Alternate for GM and ESG)

What makes your market unique?

Officially launching in May 2025, the Macedonian market for Guarantees of Origin (GO) will be a new and promising addition to the regional energy landscape. As an emerging market, it brings fresh opportunities for green energy certification backed by some of the most favourable natural conditions in the region.

What should other AIB members know about your activities?

MEMO is in the final stages of establishing its registry for national GOs, with its full market launch planned it launched based on the lower statement. The system is being developed closely aligned with AIB standards.

What's the biggest development or key figure from this year?

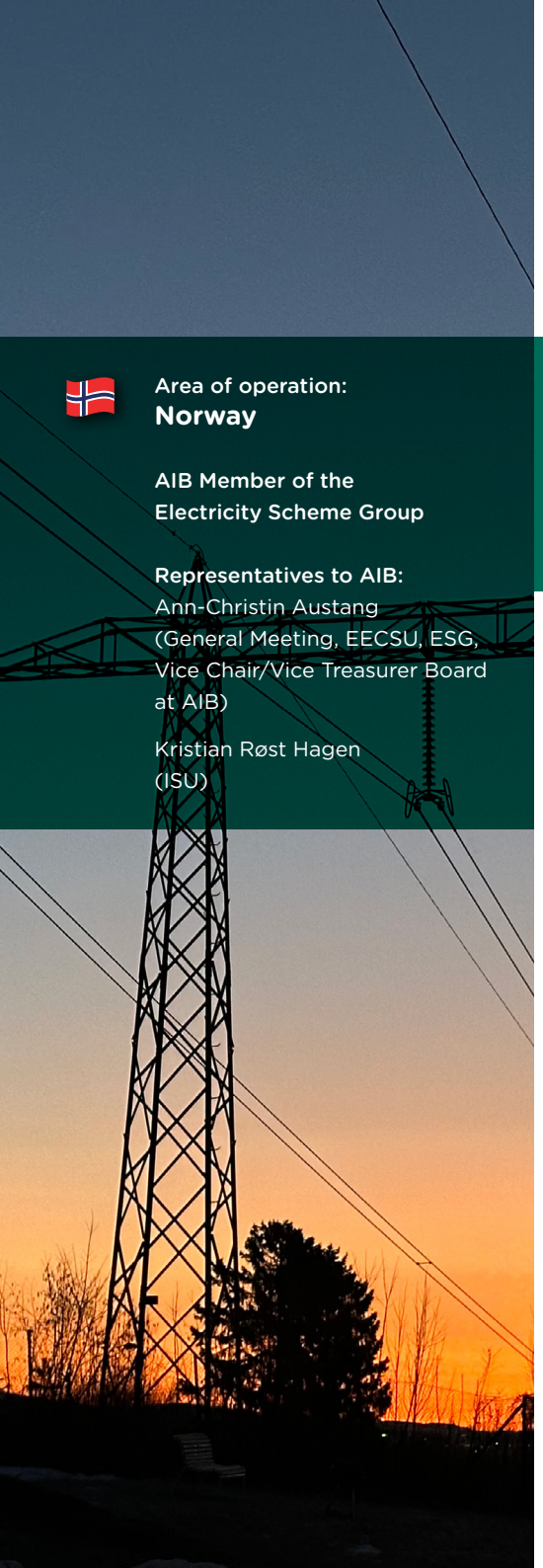
We successfully established the national registry for issuing GOs. In that way, we have adopted national rules for issuing, transferring, and cancellation of national GOs. We are expecting our first national GOs to be issued in the second quarter of 2025.

What's your national approach to Guarantees of Origin and energy disclosure?

Our national approach for GOs is defined in our national Energy Law, Governmental Decree, and Rules for administering GOs.

Website:
https://www.memo.mk/?page_id=252491

Contact: **National Electricity Market Operator - MEMO Ltd**
str. Maksim Gorki number 12 - Skopje - North Macedonia
go@memo.mk



Area of operation:
Norway

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Ann-Christin Austang (General Meeting, EECSU, ESG, Vice Chair/Vice Treasurer Board at AIB)

Kristian Røst Hagen (ISU)

Statnett

> "As a full member of AIB, having access to the AIB Hub lets us transfer GOs securely and efficiently. AIB supports us in developing our systems faster and working more smoothly with other registries."

What makes your market unique?

Key characteristics of the Norwegian GO market include that it accounts for 97% of the annual national electricity production. 2024 was a record-breaking year of electricity production in Norway, with a total of 157.7 TWh, most of it from hydropower, and of which Statnett issued 152.8 TWh of EECS GOs.

What should other AIB members know about your activities?

Statnett adopted the EECS standard in 2011. Since then, our Norwegian Energy Certificate Registry (NECS), built on the Certigy platform, has earned a reputation for its advanced technology and user friendliness. As a result, we have become a trusted partner for market players in the RES GO market. Today, 168 account holders are registered in Statnett's system!

What's the biggest development or key figure from this year?

During 2024, a total of 1225.8 TWh in EECS GOs have shifted hands within our registry, proving that the quality of the Norwegian registry gives added value to the account holders and the market.

What's your national approach to Guarantees of Origin and energy disclosure?

The Norwegian Water Resource and Energy Directorate (NVE) oversees the national energy disclosure. For further information, visit https://www.nve.no/energy-supply/electricity-disclosure/.

Website:
https://necs.statnett.no/

Scope of regional participation in EECS

Number of registered scheme participants	**168**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**73**	**55**
Electricity - wind	**65**	**5 343**
Electricity - hydro	**1 475**	**34 021**
Electricity - biomass	**6**	**58**
Electricity - non-RES	-	-

Contact: **Statnett SF**
Nydalen allé 33 - 0484 Oslo - Norway

Area of operation:
Portugal

AIB Member of the Electricity Scheme Group and Gas Scheme Group

Representatives to AIB:
Isabel Fernandes (General Meeting)

Miguel Jerónimo (AIB Board Member, General Meeting and EECS Unit)

Joana Pereira (GSG)

Catarina Silva (ESG)

Thomas Rijo (ISU)

Entidade Emissora de Garantias de Origem

"AIB played a key role in successfully implementing the Portugal's gas GO registry, by helping us to navigate the complex challenges in this sector."

What makes your market unique?

Portugal has one of the highest shares of renewable electricity in Europe, with an impressive 87.4% of total electricity consumption in 2024 second only to Denmark. This makes the Guarantees of Origin (GO) system crucial for certifying green energy and a key revenue source for local producers.

What should other AIB members know about your activities?

REN is Portugal's authorized Issuing and registry operator for GOs for all energy carriers, including cogeneration (the combined production of heat and power/electricity), heating an cooling energy, renewable electricity, and renewable and low-carbon gases. The dedicated unit, EEGO (Entidade Emissora de Garantias de Origem), also acts as production auditor and collaborates in the Portuguese GO auctions. EEGO started in March 2020 for the electricity and in 2024 for the gas sector. EEGO activity has shown significant growth rates, increasing by 20% in 2024.

What's the biggest development or key figure from this year?

2024 marked a milesytone for EEGO, as we expanded into the gas sector with two significant breakthroughs. In July 2024, we launched our gas GO system, initially covering only gases injected into the grid. In December later that year, EEGO secured AIB membership for the gas sector under the Gas Scheme Group, contributing to the development of an integrated European gas GO market.

What's your national approach to Guarantees of Origin and energy disclosure?

We are currently transposing the Renewable Energy Directive (RED) III into national legislation, which could bring significant changes and accelerate the energy transition with more ambitious targets. While we don't expect substantial impact on the GO system, this could bring out great changes, particularly in the gas sector. Simultaneously, we are updating our disclosure regulation to align with these changes and expand them to the gas sector eventually. We want to ensure that GOs continue to be an effective tool for certifying green energy consumption.

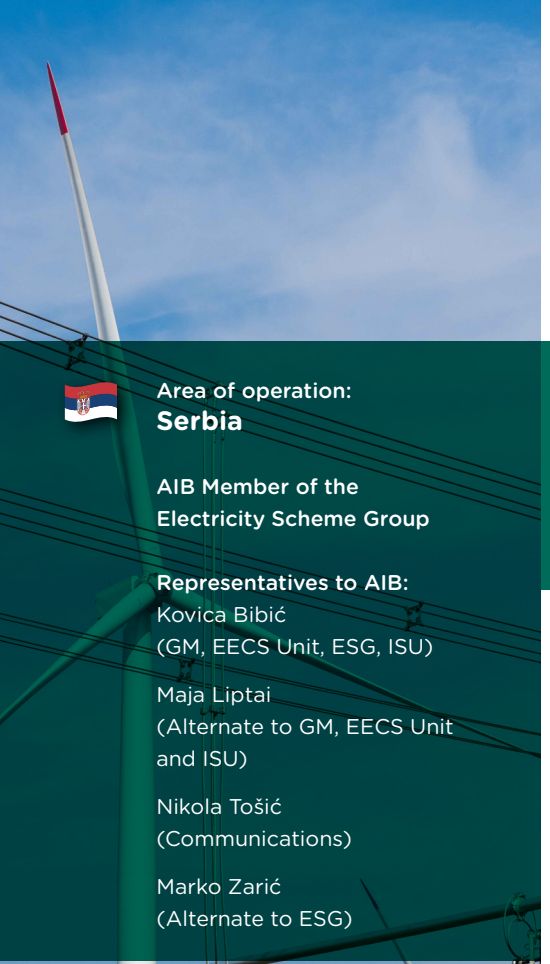
Website:
https://eego.ren.pt

Contact: **REN**
Av. dos Estados Unidos da América 55 - 1749-061 Lisboa - Portugal

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**507**	**3 206**
Electricity - wind	**296**	**6 245**
Electricity - hydro	**153**	**8 283**
Electricity - biomass	**68**	**758**
Electricity - non-RES	**96**	**674**



Area of operation:
Serbia

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Kovica Bibić
(GM, EECS Unit, ESG, ISU)

Maja Liptai
(Alternate to GM, EECS Unit and ISU)

Nikola Tošić
(Communications)

Marko Zarić
(Alternate to ESG)

EMC

"Being a member has increased the interest among other market participants in importing GOs made in Serbia."

What makes your market unique?

Even though being a full member of AIB, JSC EMS currently exports Guarantees of Origin (GO) exclusively to Switzerland. With a strong hydropower base and growing renewable energy sources, compliance with EU standards is key to expanding cross-border trade and market competitiveness.

What should other AIB members know about your activities?

EMS JSC Belgrade, Serbia's Transmission System Operator (TSO), was established in 2005 and is fully state-owned. The company is responsible for operating and maintaining the national transmission network, which spans voltage levels of 110, 220, and 400 kV. EMS plays a key role in ensuring safe and reliable electricity transmission while efficiently managing a system interconnected with neighbouring power grids.

What's the biggest development or key figure from this year?

This year, discussions began on amending the Energy Efficiency Law to pave the way for the future implementation of GOs for high-efficiency cogeneration (HEC). This marks an important step toward expanding the scope of certified energy production in our national framework.

What's your national approach to Guarantees of Origin and energy disclosure?

On September 27, 2019, EMS AD Belgrade became a full member of the European Association of Issuing Bodies (AIB). This made Serbia the first country that is not an EU Member State, but a member of the Energy Community, to become a full member of AIB. Since joining the AIB in September 2019 according to the Regulations, third countries are considered only those states or regulatory areas whose attribute structure is not included in the calculation of the European attribute mix.

Website:
https://ems.rs/en/guarantee-of-origin-2/

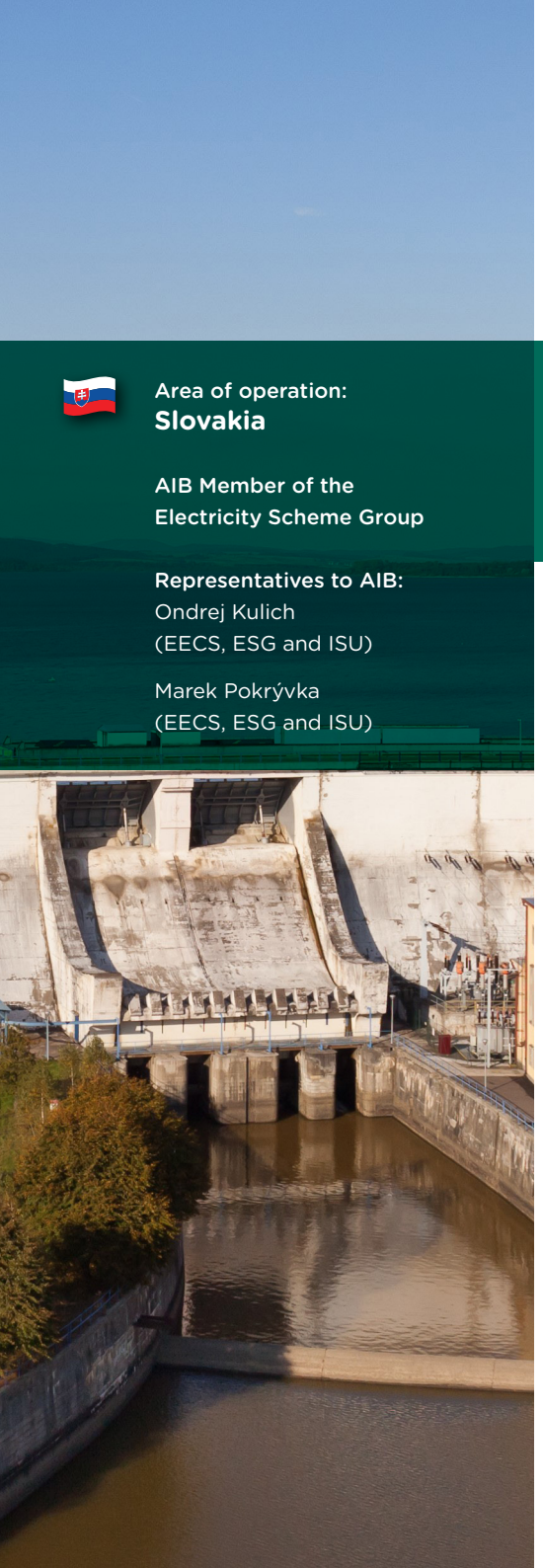
Contact: **JSC Elektromreža Srbije a.d. Beograd**
Kneza Miloša 11 - Beograd - Serbia

Scope of regional participation in EECS

Number of registered scheme participants	**55**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**7**	**9,05**
Electricity - wind	-	-
Electricity - hydro	**34**	**2 221,18**
Electricity - biomass	-	-
Electricity - non-RES	-	-



Area of operation:
Slovakia

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Ondrej Kulich
(EECS, ESG and ISU)

Marek Pokrývka
(EECS, ESG and ISU)

"Our AIB membership helped us, especially with the expertise of AIB colleagues in disclosure and discussions about small PDs."

What makes your market unique?

Our market is heavily influenced by its high share of nuclear production in its energy mix. Another important mention is our auctions on Guarantees of Origin (GO) issued on production devices (PD) that are part of a support scheme, which we conduct every three months.

What should other AIB members know about your activities?

During 2024, we revamped the energy mix statistics on our website. We also implemented solutions to issue GOs for heating and cooling. In total, we held six auctions of GOs, most of which were successful in finding buyers for the whole number of certificates offered.

What's the biggest development or key figure from this year?

Throughout 2024, the number of account holders in our registry has nearly doubled. On top of that, the amount of solar production saw a huge spike in registered devices, which is almost four times bigger than the previous year. Installations with a capacity from 100 to 500 kW make up most of the registered solar PDs. Since we started to issue nuclear GOs in 2023, the amount has been steadily rising, and last year they accounted for almost two-thirds of all issued GOs.

What's your national approach to Guarantees of Origin and energy disclosure?

The most significant recent change in Slovakia's approach to GO is the shift of GO market oversight to the Regulatory Office for Network Industries (RONI) in August 2024. Previously, this role was held by the Slovak Trade Inspection. This transition marks an important step toward aligning regulatory oversight with energy sector expertise.

Website:
https://okte.sk/en/guarantees-of-origin/

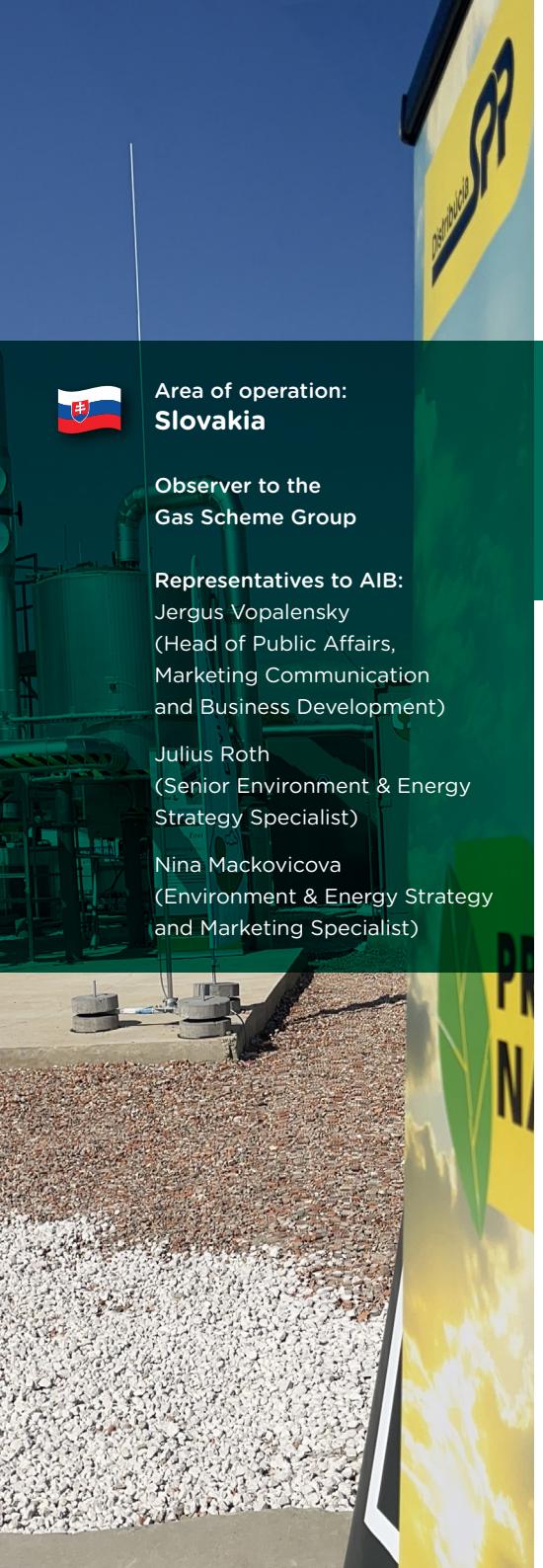
Scope of regional participation in EECS

Number of registered scheme participants	**126**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**83**	**39**
Electricity - wind	**2**	**3**
Electricity - hydro	**51**	**1 654**
Electricity - biomass	**4**	**169**
Electricity - other	**2**	**2 475**

Contact: **OKTE, a.s.**
Mlynské nivy 48 - 821 09 Bratislava - Slovakia



Area of operation:
Slovakia

Observer to the Gas Scheme Group

Representatives to AIB:
Jergus Vopalensky
(Head of Public Affairs, Marketing Communication and Business Development)

Julius Roth
(Senior Environment & Energy Strategy Specialist)

Nina Mackovicova
(Environment & Energy Strategy and Marketing Specialist)

"AIB's strong reputation boosts our appeal to registry users. Additonally, we're looking forward to future cooperations via the planned AIB Hub connection."

What makes your market unique?

Slovakia has a well-developed gas infrastructure with a growing interest in renewable gases. The Slovakian SK GAS standard for Guarantees of Origin (GO) has been in place since June 2023, while EECS implementation for gas is still pending. We have kicked-off biomethane injection earlier with one plant connected; we are expecting that number to grow to ten by 2026.

What should other AIB members know about your activities?

SPP - distribúcia is responsible for the distribution of 98% of the gas consumed in Slovakia and the officially appointed Issuing Body for GOs for renewable gases.

What's the biggest development or key figure from this year?

Another important achievement was the successful connection of the second bio-methane plant to our gas distribution network, supporting the growth of renewable gas production and injection in Slovakia (April 2025)

What's your national approach to Guarantees of Origin and energy disclosure?

In Slovakia, GOs for renewable gases are issued under the national SK GAS standard, with SPP- distribúcia as the appointed Issuing Body. The scheme is regulated by national legislation, ensuring traceability and transparency. EECS implementation for gas is not yet in place but is planned to follow our recent accession to the AIB Gas Scheme Group. Key challenges include aligning our national systems with both European frameworks and the EN 16325 standard. We keep expanding the renewable gas market and help it grow through ongoing support and development.

Website:
www.spp-distribucia.sk/dodavatelia/register-obnovitelnych-plynov/

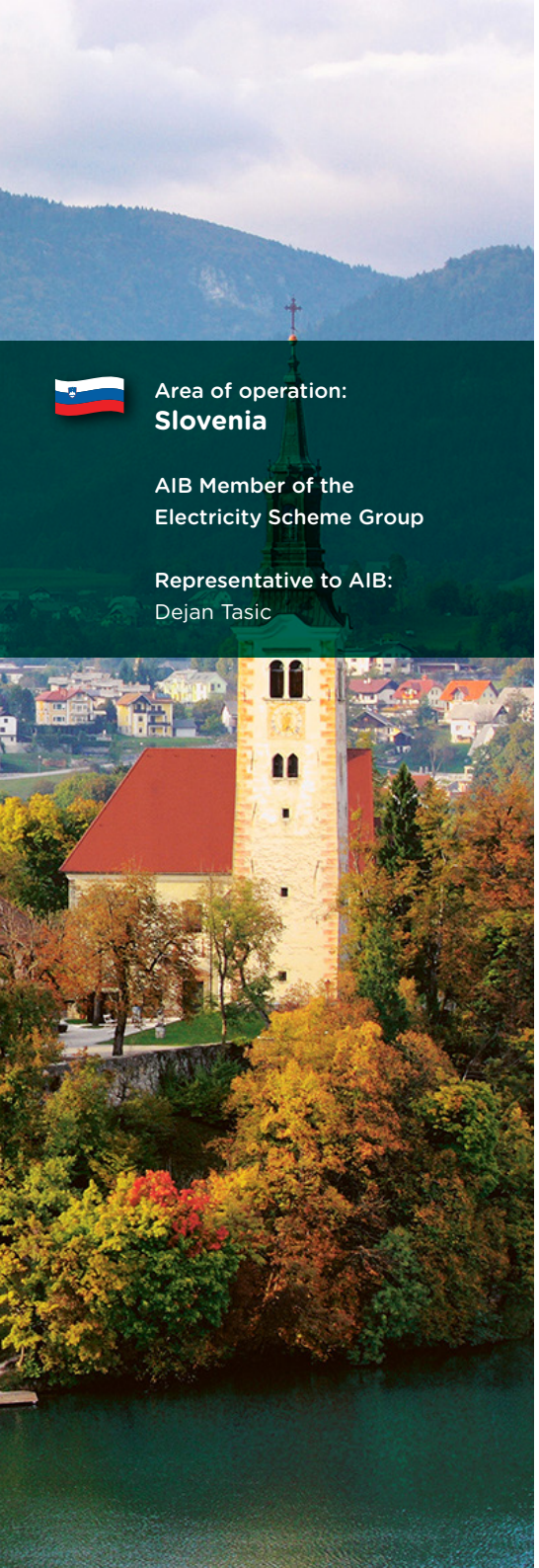
Scope of regional participation in EECS

Number of registered scheme participants	-

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Gas - biomethane	**1**	**7,5**
Gas - hydrogen from RES	-	-
Gas - other	-	-

Contact: **SPP - distribúcia, a.s.**
Plátennícka 19013/2 - 821 09 Bratislava 26 - Slovak Republic
distribucia@spp-distribucia.sk



Area of operation:
Slovenia

AIB Member of the
Electricity Scheme Group

Representative to AIB:
Dejan Tasic

Agencija za energijo

"Being an AIB member gives us the opportunity to having an active role in creating new European standards for certifying electricity and other energies."

What should other AIB members know about your activities?

The Energy Agency ensures the necessary conditions for a competitive, secure and environmentally sustainable market which ensures all market participants including customers, traders and suppliers, to benefit from the electricity market. Customers can select between various electricity products, the origin of which is guaranteed by reliable instruments – EECS GOs.

What's the biggest development or key figure from this year?

In 2024, transactions of imports and exports of EECS GOs have surpassed 8,3 TWh.

What's your national approach to Guarantees of Origin and energy disclosure?

The National Regulatory Authority is responsible for electricity, gas and district heating and also serves as the issuing Body for GOs for renewable electricity, non-renewable electricity and electricity from high-efficiency combined heat and power (CHP). In addition, we are the Competent Authority for issuing Declarations for the Production Devices for - renewable, non-renewable, and CHP – which are required to enter the support schemes. We are also the Competent Authority for the disclosure.

There have been no major legislation changes recently. Our framework aligns with the European energy legislation and has implemented the Act on the Promotion of the Use of Renewable Energy Sources and other energy acts.

Website:
https://www.agen-rs.si/web/en

Scope of regional participation in EECS

Number of registered scheme participants	**5**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**938**	**92,337**
Electricity - wind	**1**	**0,91**
Electricity - hydro	**159**	**1 068,357**
Electricity - biomass	**0**	**0**
Electricity - biogas	**7**	**6,927**
CHP	**86**	**22,639**
Fossil	**4**	**928**
Nuclear	**1**	**696**

Contact: **Energy Agency of the Republic of Slovenia (AGEN-RS)**
Strossmayerjeva 30 - 2000 Maribor - Slovenia
info@agen-rs.si

CNMC COMISIÓN NACIONAL DE LOS MERCADOS Y LA COMPETENCIA

> “Our AIB membership allows us to trade GOs across Europe and profit from sharing experiences with other members.”

Area of operation:
Spain

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Jose Miguel Unsion Rodriguez (General Meeting, ESG, EECS Unit, ISU)

Jose Antonio Castro Fernandez (Alternate to General Meeting, ESG, EECS Unit)

Mateo Gine Munarriz (Alternate to General Meeting, ESG, EECS Unit, ISU)

Francisco Javier Martinez Fernandez (Alternate to ISU)

What makes your market unique?

What makes the Spanish market unique is that, under national legislation, the Guarantees of Origin (GO) system is the only legally recognized method for disclosing renewable energy attributes. This is complemented by an official electricity disclosure scheme, ensuring a consistent and transparent approach to energy origin information.

What should other AIB members know about your activities?

CNMC is the Issuing and competent authority for disclosure and serves as the national regulatory authority. We have competences on drafting legislation.

What’s the biggest development or key figure from this year?

In 2024, Spain took a major step by starting to cancel renewable electricity GOs for the purpose of converting them into renewable gas GOs. This marks the first time this mechanism has been applied in the Spanish market.

What’s your national approach to Guarantees of Origin and energy disclosure?

Spain has managed the electricity GO system and energy disclosure since 2007, covering renewable electricity and high-efficiency cogeneration (CHP). A new regulatory framework for disclosure aligned with the RE-DISS project methodology has been in place since 2022. In 2025, we will begin Issuing GOs for batteries that are part of hybrid generation systems in combination with renewable energy units. In addition, we will continue Issuing and cancelling renewable electricity GOs for their conversion into renewable hydrogen GOs.

Website:
https://gdo.cnmc.es/

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**62 585**	**29 544**
Electricity - wind	**1 709**	**31 216**
Electricity - hydro	**1 852**	**19 860**
Electricity - biomass	**244**	**1 223**
Electricity - other	**901**	**5 334**

Contact: **Comisión Nacional de los Mercados y la Competencia**
C. Alcalá, 47 - Centro - 28014 Madrid - Spain

Area of operation:
Spain

AIB Member of the Gas Scheme Group

Representatives to AIB:
Cecilia Perez Mazuela:
(ISU representative)

Carmen Rodríguez Valdés:
(EECSU & GSG representative)

What makes your market unique?

When Issuing hydrogen Guarantees of Origin (GO), Enagás GTS checks their compliance with Delegated Regulation 1184/2023. When hydrogen production follows a conversion process using electricity from the grid, RFNBO compliance checks are carried out by assessing the information included in the electricity GOs cancelled for conversion. This procedure enriches the information included in the hydrogen GO and makes sure to avoid double claims for the electricity consumed.

What should other AIB members know about your activities?

Enagás GTS has proposed a virtual bio-LNG model for LNG terminals, allowing biomethane to be injected into the transport network to be considered virtual bio-LNG without certifying "virtual liquefaction". The Spanish GO registry's proposal for a model where the GO registry plays the role of the national database integrates with the Union Database (UDB), streamlining data flows, minimizing errors, and simplifying processes for Economic Operators.

What's the biggest development or key figure from this year?

In 2024, Enagás GTS achieved two key milestones. First, a new regulation was established, defining the inclusion of sustainability information in the Guarantees of Origin (GO). This regulation ensures transparency and promotes sustainable practices within the gas market. Second, in March 2024, Enagás GTS successfully connected to the AIB Hub, strengthening data exchange and collaboration with other AIB members. These milestones mark significant progress in our commitment to sustainability and international cooperation.

What's your national approach to Guarantees of Origin and energy disclosure?

Currently, there is no regulation defining gas disclosure. However, in Enagás GTS' system, we calculate the renewable shares for each gas supplier who is an account holder. This information is made public upon the supplier's request, ensuring transparency and promoting sustainable practices within the market. This approach allows suppliers to show their commitment to renewable energy and provides consumers with valuable information about the sustainability of their gas supply.

Website:
www.gdogas.es

Contact: **Enagas GTS S.A.U.**
P.º de los Olmos 19 - 28005 Madrid - Spain

"AIB membership boosts Enagás GTS's credibility, fosters international collaboration, and ensures compliance with European renewable gas standards."

Scope of regional participation in EECS

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Gas - biomethane	**7**	**58,7**
Gas - hydrogen from RES	**3**	**23,8**
Gas - other	**24**	**160,2**

Area of operation:
Sweden

AIB Member of the Electricity Scheme Group

Representatives to AIB:
Claudia Schnitter
(EECSU & alternate all other groups)

Johan Forsman
(GSG & alternate all other groups)

Lina Lindegren
(ESG & alternate all other groups)

Nina Emanuelsson
(ISU alternate)

Petra Lindblom Haddad
(General Meeting & alternate all other groups)

Stefan Brolin
(ISU & alternate all other groups)

Swedish Energy Agency

"The collaboration with other AIB members facing the same challenges is valuable in strengthening the EECS framework and efficient transfers of GOs."

What makes your market unique?

Guarantees of origin (GO) are widely used in the Swedish electricity market. They are issued for almost all of Sweden's electricity production, 95,9 %. A major part of Sweden's electricity consumption (87,6 % in 2023) is tracked using GOs.

What should other AIB members know about your activities?

After adjustments in our domain protocol (DP), dissemination level is now used to distinguish which GOs have been issued for electricity delivered to the grid. We will continue working on updates of the DP in the upcoming implementation of the Renewable Energy Directive (RED) II/III and resulting changes concerning GOs for electricity and gas.

We are also adapting Sweden's GO-registry to handle GOs for gas, heating and cooling and the changes for electricity-GOs that come with RED II/III.

What's the biggest development or key figure from this year?

Sweden's electricity export for 2024 was 33,4 TWh, which is a new record and an increase by almost 5 TWh compared to the year before.

In 2024 the Swedish government assigned SEA to revise and update the secondary legislation concerning GOs, to align with RED II/III. SEA is continuing this ongoing work in 2025.

What's your national approach to Guarantees of Origin and energy disclosure?

In Sweden we currently issue two types of electricity GOs: national GOs which can only be used for disclosure in Sweden, and EECS GOs which can be exported to other domains. Our disclosure legislation requires electricity suppliers to disclose the origin of the electricity they sell to final customers, either by cancelling GOs or by using the residual mix. Presently, we use a Nordic residual mix. However, this is under revision to be changed into a national residual mix for Sweden.

Website:
www.energimyndigheten.se/en/

Contact: **Swedish Energy Agency**
Gredbyvägen 10 - Post Box 310 - 631 04 Eskilstuna - Sweden
registrator@energimyndigheten.se

Scope of regional participation in EECS

Number of registered scheme participants	**695**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**20**	**111**
Electricity - wind	**2 013**	**14 454**
Electricity - hydro	**339**	**12 499**
Electricity - biomass	**13**	**592**
Electricity - other	-	-

Area of operation:
Switzerland

AIB Member of the Electricity Scheme Group and Applicant to the Gas Scheme

Representatives to AIB:
Andrea Miksch
(EECSU, ESG)

Milada Mehinovic
(GSG)

Sabrina Philipp
(ISU)

pronovo

“The ongoing expansion and harmonization of the EECS standard are strategicly very important, especially regarding the new GOs for fuels and combustibles.”

What makes your market unique?

Since 2009, the Swiss electricity market has been partly liberalised. All production devices with the capacity above 30 kVA need to be registered in the GO system. Since 2018, any electricity supply in Switzerland must be disclosed using GOs only.

What should other AIB members know about your activities?

As of 2025, Pronovo has been mandated to be the Issuing for renewable liquid and gaseous energy carriers. The goal is to have one fully integrated GO system for Switzerland. As a result, Pronovo has extended its representation to the AIB Gas Scheme Group to support the extension of the EECS standard to other energy sources and apply for the ful Gas Membership in 2025.

What’s the biggest development or key figure from this year?

In 2024, almost 63,000 new photovoltaic production devices received a national subsidy. The GO system operated by Pronovo has a total of about 267,000 registered production devices (renewable and non-renewable) with a total installed capacity of 27,783 MW. In 2024, GOs were issued for 73.4 TWh of produced renewable and non-renewable electricity.

What’s your national approach to Guarantees of Origin and energy disclosure?

The national framework foresees a tracking system for all energy carriers. Switzerland introduced the full disclosure for electricity in 2018. After a transition period of three years, we have fully implemented the electricity disclosure since 2021. The national energy strategy aims to cover Switzerland’s electricity consumption entirely with renewable energy by 2050.

Websites:
www.energimyndigheten.se/en/
Reportings: https://pronovo.ch/de/services/berichte/
General info on GOs: https://pronovo.ch/de/herkunftsnachweise/

Contact: **Pronovo AG**
Dammstrasse 3 - 5070 Frick - Switzerland
info@pronovo.ch

Scope of regional participation in EECS

Number of registered scheme participants	**3 093**

Registered EECS production devices and total capacity installed per energy carrier and type

Energy carrier and type	Number of production devices	Total capacity installed per technology (MW)
Electricity - solar	**264 748**	**6 477**
Electricity - wind	**71**	**100**
Electricity - hydro	**1 507**	**17 202**
Electricity - biomass	**443**	**357**
Electricity - other	**240**	**3 647**

“Joining the reputable organization AIB has accelerated the development of Ukraine’s GO system and market by giving us access to shared best practices and expert knowledge from across Europe.”

Area of operation:
Ukraine

AIB Member and Applicant to the Electricity Scheme Group

Representatives to AIB:
Ruslan Slobodian and
Olena Golembivska
(GM representatives)

Serhii Forostianyi and
Kateryna Tychko
(ESG, EECS, ISU
representatives)

Ihor Horovykh and
Taisiia Zaika
(CPA representatives)

What makes your market unique?

Ukraine has great potential for rapid renewable energy growth. By focusing on sustainable, decentralised energy systems Ukraine is building greater resilience against aggressive attacks on its energy infrastructure and is developing its energy sector, considering its ambitious goals and international obligations on green transition and decarbonization.

What should other AIB members know about your activities?

NEURC is Ukraine’s national energy regulator, established in 1994. Despite martial law and unprecedented challenges, Ukraine and NEURC remain focused on keeping the energy system stable, ensure a secure supply, and speed up Ukraine’s integration with the EU energy market. We accomplish this by implementing EU rules and advancing market coupling. We became an AIB-member in 2024 and are applying to the Electricity Scheme Group. The review to join ESG is currently underway.

What’s the biggest development or key figure from this year?

After adopting the primary and secondary legislation on green transformation, NEURC has launched the G-REX Registry in August 2024. As of May 2025, we have issued more than 8 million RES GOs. Currently, certificates are actively being transferred and cancelled within the domain of Ukraine. Trading platforms for RES GOs operated by the Market Operator and the Ukrainian Energy Exchange are in place, with free market prices.

What’s your national approach to Guarantees of Origin and energy disclosure?

Ukraine recently completed its first disclosure cancellations – by both energy suppliers and a first final consumer, who cancelled 935 MWh of GOs. From June, suppliers will begin regular disclosure using GOs. The NEURC’s goal is to achieve mutual recognition of RES certificates across Europe and to connect the Ukrainian registry to the AIB Hub.

Website:
www.nerc.gov.ua

Contact: **National Energy and Utilities Regulatory Commission (NEURC)**
Simii Brodskykh Str. 19 - Kyiv 3057 - tel.: +38(044) 277 30 47
box@nerc.gov.ua

CertifHy

“Involvement with AIB allows CertifHy to engage in meaningful exchange with national stakeholders about key topics, paving the way for scheme harmony.”

Area of operation:
Currently operational in Germany, with potential availability in eligible EU/EEA countries.
See the full list on CertifHy’s website https://www.certifhy.eu/ngc-certification/

Observer to the Gas Scheme Group

Representatives to AIB:
Emma Andersson (GSG)

Matthieu Boisson (GSG)

What makes your market unique?

CertifHy NGC provides a harmonized certification framework for low-carbon and renewable hydrogen in countries that do not yet have a functioning for hydrogen Guarantees of Origin (GO). It fills a gap in Europe’s hydrogen ecosystem, supporting the growth of a single market as regulatory implementation advances.

What should other AIB members know about your activities?

CertifHy supports the production, procurement, and use of low-carbon and renewable hydrogen and e-fuels across sectors such as industry and transport. It operates two certification schemes, the CertifHy NGC Scheme and the CertifHy EU RFNBO Voluntary Scheme, to ensure transparency and alignment with EU requirements on origin and sustainability. Each scheme has its own distinct purpose, scope, and approach.

What’s the biggest development or key figure from this year?

CertifHy made significant strides in its efforts to achieve membership with the AIB last year. In January, the AIB Gas Scheme Group voted in support of recognizing the CertifHy NGC Scheme as an Independent Criteria Scheme. This milestone followed months of exchange with the AIB Review Team, which is ongoing as we finalize our Domain Protocol. This achievement underscores CertifHy’s commitment to cooperating with Issuing Bodies across Europe, and we look forward to further developing these partnerships in 2025!

Website:
www.certifhy.eu/our-mission-and-vision

Contact: **CertifHy**
Boulevard Saint-Lazare 4 - 1210 Saint-Josse-ten-Noode - Belgium

Sustainability Statement

As an international organisation dedicated to the energy transition, AIB strives to lead by example.

We take responsibility for our activities, aiming to make our structures and operations environmentally and socially friendly, including our communications and meetings across Europe. Since 2012, AIB has committed to sustainability and enhanced its impact through the following steps:

- Flights - Sustainable aviation fuel is used whenever possible.
- Other Travel- Public transport is mandatory for all other travel.
- Carbon Offsetting- All travel (by plane, train, car) from the Secretariat, reviewers, and members to AIB meetings, onsite audits, and conferences is carbon offset using atmosfair services.
- Printing Publications - We limit printing to the absolute minimum, and when we do - basically only for the EECS Rules - we use an environmentally dedicated printing company.
- For physical meetings, we choose venues with environmental management certification, prioritizing those that improve energy efficiency, reduce environmental impact, and support social responsibility. We also prefer regional food with ample vegetarian and vegan options.

Association of Issuing Bodies ivzw

The AIB is a non-profit-making international association

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