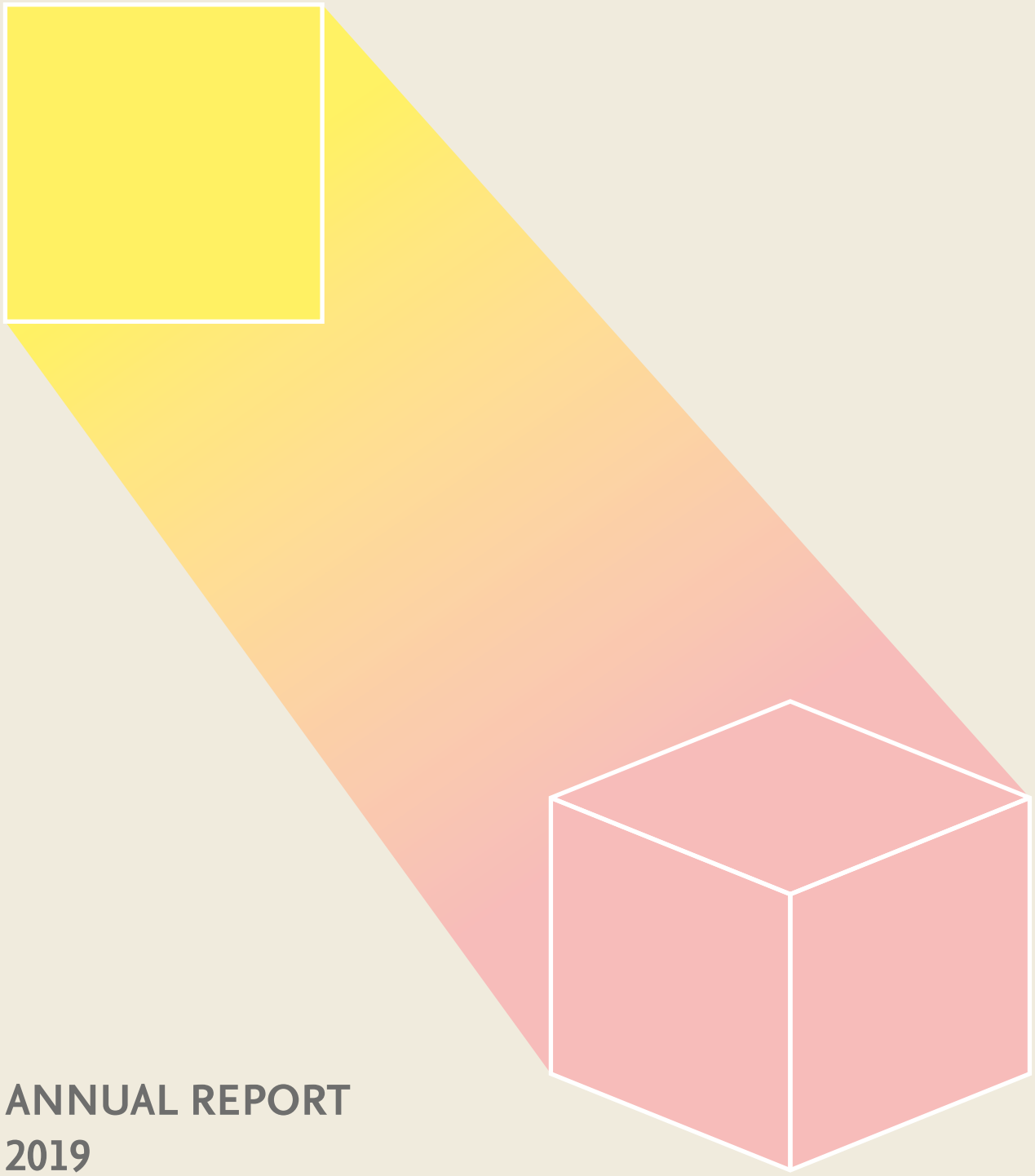
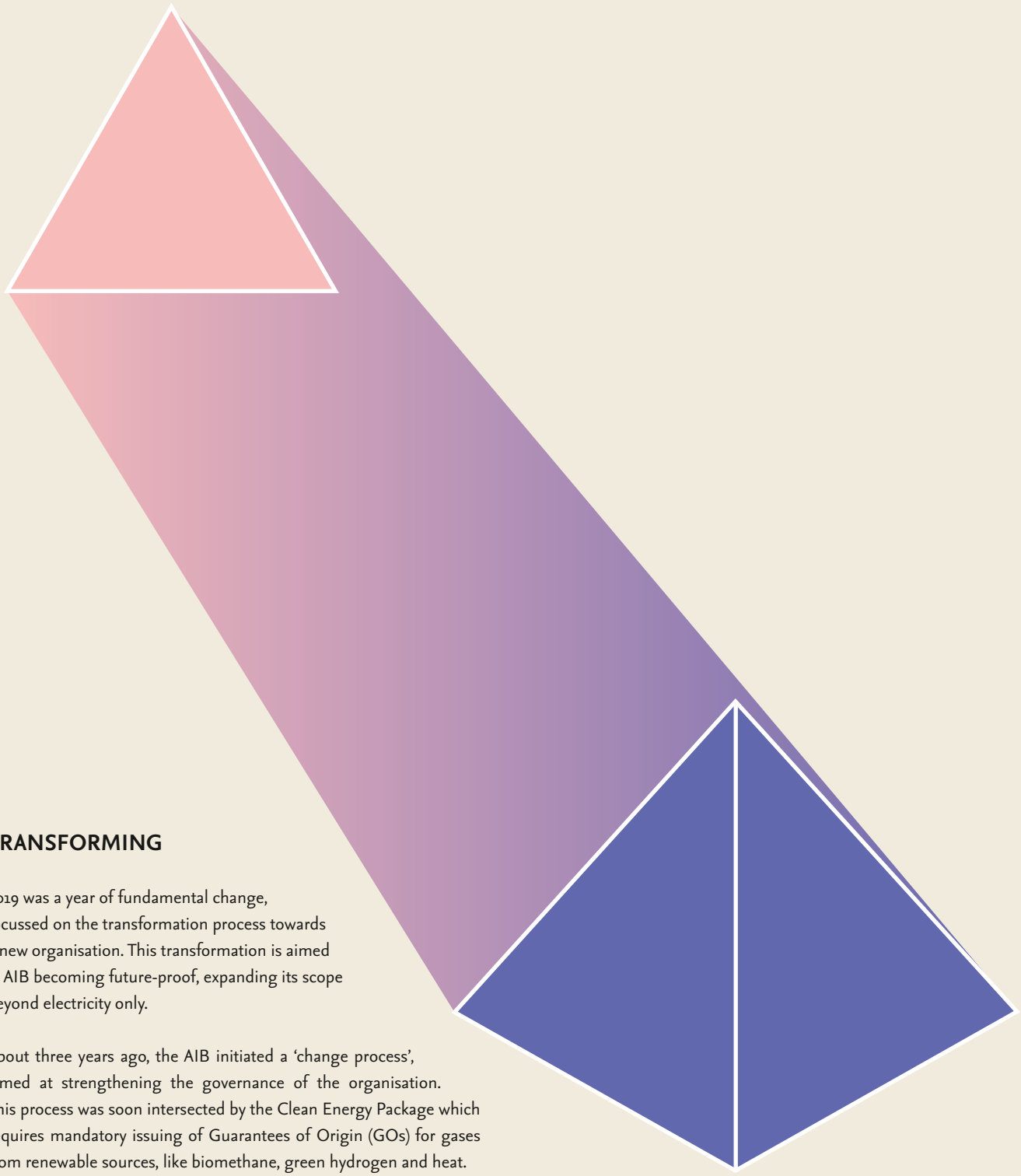
TRANSFORMING



ANNUAL REPORT 2019

AIB
association of issuing bodies



TRANSFORMING

2019 was a year of fundamental change, focussed on the transformation process towards a new organisation. This transformation is aimed at AIB becoming future-proof, expanding its scope beyond electricity only.

About three years ago, the AIB initiated a 'change process', aimed at strengthening the governance of the organisation. This process was soon intersected by the Clean Energy Package which requires mandatory issuing of Guarantees of Origin (GOs) for gases from renewable sources, like biomethane, green hydrogen and heat.

In 2019 AIB transformed, not because our current organisational structure is wrong or bad, but because a new way of working is needed in order to be ready to face the challenges that lay ahead.

The 'change process' will be implemented throughout the course of 2020, but we already feel that the organisation is already, more than ever, adequately positioned to take on new opportunities and to deal with the challenges that will arise in 2020 and the years beyond.

Contents

Foreword

Board Chair and President!

Chair of the Board
Angela Tschernutter
of E-Control, Austria

AIB President
Dirk van Evercooren
of VREG, Flanders

What defines a year? A year does not start on January 1st and end on December 31st.

Actually, it does, but the point is that hardly ever, things, events, projects … fit exactly into the rather arbitrary 365 day framework.

Take the AIB. Looking back on 2019, we could see it either as a year where not much happened, or as a year that in retrospect changed everything. Allow us to explain.

The foreword of the 2018 annual report was all about the Clean Energy Package and the new Renewables Directive. Formally, not much happened with that in 2019, but of course, the new legislation was very much influencing what occurred in 2019, if you knew where to look.

The 2017 annual report mentioned the change process that the AIB embarked on, and that process very much coloured the year 2019 too.

For us, 2019 was the year in which the AIB changed fundamentally, even if the formal decisions consolidating this change were only taken early in 2020. The General Meeting (GM) of the AIB voted unanimously to support a thorough revamping of the organisation on the 4th February 2020. This vote allows the Association to make decisions more quickly and more effectively. Until then, virtually all decisions had to be taken by the GM. This necessitated four GMs per year, and even then, this did not permit the AIB to be agile enough in some cases. An organisation operating in a dynamic environment like the European electricity market cannot be tied down by such arcane governance rules.

So about three years ago, the AIB initiated a 'change process', aimed at strengthening the governance of the organisation. This process was soon intersected by the Clean Energy Package which makes it mandatory to issue Guarantees of Origin (GOs) for gases from renewable sources, like biomethane and green hydrogen. The change process gained a new dimension: preparing the organisation to be able to open up to issuing bodies, not only of GOs for electricity, but also for heating and cooling and gases from renewable sources.

It was quite a challenge to reconcile the different goals, but we succeeded and on the 4th February approved, not only the overhauled Articles of Association (AoA), but a whole governance framework that allows the AIB to cope with current and forthcoming opportunities. These Articles of Association entered into force on the 15th February 2020.

On that date, the mandate of the President of the Association ended as well. Indeed, the former division of tasks between the Secretary General, the Chair of the Board and the President was not efficient. The Secretary General takes on all daily management. The Chair of the Board could be described as the 'internal-looking president', while the role of the President was externally oriented, focussing on representing the organisation and providing visibility and forging new alliances, as well as strengthening existing alliances. The new governance structure takes away this triangular division of tasks. The role of ambassador – which the AIB, like any organisation, would still benefit from – will get picked up by the Secretary General. However, in order for this new arrangement to work, the AIB secretariat will need to be reinforced, so that tasks can be delegated.

The role of AIB President has given me the opportunity to meet amazing and interesting people, present at impressive conferences and take meetings with high level influencers, spreading the word on GOs and the work of the AIB. The pleasure was all mine. You can only take this on if you 100% believe in what you are doing and saying. Dirk

As the Chair of the Board and in the name of the whole Association I would like to thank Dirk for the marvellous work he did for the AIB in his role as our President. He helped us in raising the visibility of the AIB, promoted us at many events, helped balance the controversial arguments of members, politics and stakeholders in a gentle and elegant way, towards a respected solution and made us profit from his excellent professional network, as well as guided the AIB through the new media channels. He was always very much respected by the AIB members. He will be missed in his role as our president, as our colleague and our friend. Angela

With the change process finished and the AoA approved, we feel that the organisation is now adequately positioned to take on these new opportunities and to deal with these challenges in 2020 and the years beyond.

The Clean Energy Package has created a very positive outcome where GOs are concerned. The instrument of the Guarantee of Origin, the cornerstone of our activity, has been reinforced and expanded. In order to thrive in that new legislative framework, the AIB consolidates its position as a trustworthy party that ensures that GOs can be trusted by energy consumers. "What AIB is facilitating, is the exchange of trust". Without trust, GOs have no purpose and trust can only grow when reliability is ensured. That means that the very core of the AIB is twofold: create trust and ensure efficiency. We create trust by enforcing the EECS rules and we ensure efficiency by operating the AIB Hub to exchange GOs internationally.

The EECS Rules now also cover a chapter on gas and hydrogen GOs. It was a big success for the AIB to implement the basic principles on gas and hydrogen in 2019. Further work needs to be done in 2020, in a newly formed gas unit dealing with gas specific issues and staffed with members already issuing gas and hydrogen GOs and interested members.

Energy consumers and GO-market participants trust that the AIB facilitates the European GO-market. AIB will do the utmost to ensure that the trust placed in the organisation is earned.

We are looking forward to the year 2020 which will be different to all other years in light of the new organisational model, the new roles, the new faces and a new spirit, coupled with the well advanced and appreciated elements of the AIB that are already known.

Angela Tschernutter,
Chair of the AIB Board

Dirk Van Evercooren,
(ex-) AIB President

GO Activity for 2019

Membership

At the end of 2019, AIB had a total of 27 members, representing 24 countries (the Belgian regions of Brussels, Flanders and Wallonia each have their own issuing body, as has Federal Belgium, which holds responsibility for offshore production).

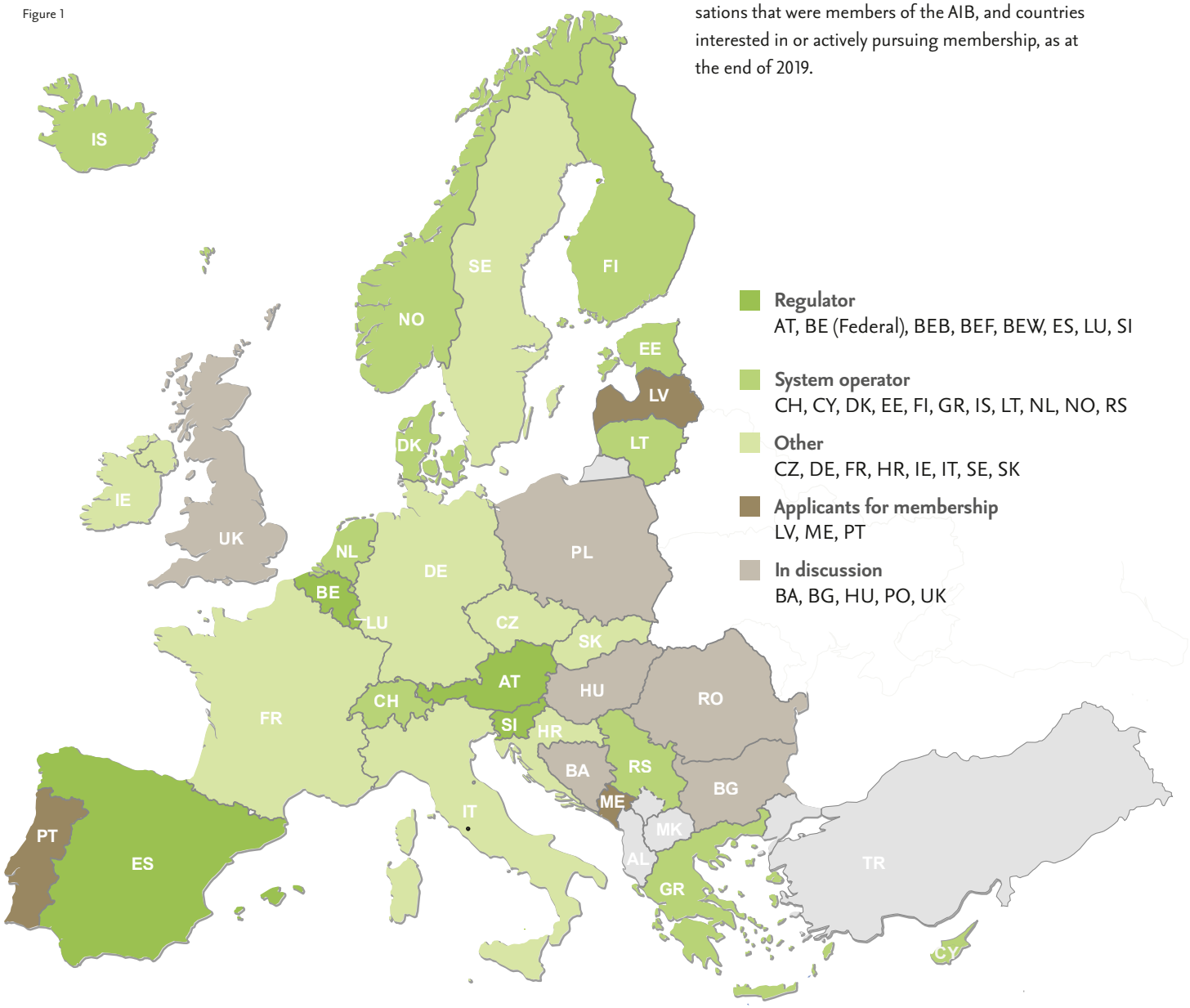
EMS of Serbia, DAPEEP of Greece and OKTE of Slovakia joined the Association in the summer of 2019.

The issuer of Guarantees of Origin (GOs) for Portugal (REN) and REGAGEN (Montenegro) commenced the membership application process.

Discussions progressed with interested parties in Bosnia (REERS), Federation of Bosnia and Herzegovina (RES Operator), Hungary (MEKH), Latvia (AST), Poland and the UK (Ofgem).

The following 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 2019.

Figure 1



Market Activity

Statistics are available for: GO activity by month; and GO activity relating to electricity produced in a month. This means that it is possible to analyse the quantity of GOs which are issued, transferred and cancelled or expired in a month; as well as those which were issued, cancelled or expired for the electricity produced in a month. This shows how many of each 'vintage' of GO are still available on the market and reviews seasonal GO activity.

Overview of activity

2019 was another good year! Market activity continues to increase with continued, strong growth in the quantity of GOs used by suppliers to prove the source of electricity. Transfers within the same country continue to rise as the use of GOs for disclosure purposes gains further support, and there has been continued increase in international transfers and even more so in cancellations.

By the end of 2019, 79% of GOs issued for electricity produced during 2018 and 49% of GOs issued for electricity produced in 2019 were reported as having been cancelled. 6% of GOs issued for electricity produced in 2018 have now expired, up from 3% the previous year.

Again, this demonstrates that there is minimal stock of GOs more than 12 months old, thanks to the requirement under the EU Renewable Energy Directive (2009/28/EC) for GOs to expire within 12 months of production. This has led to increased demand for new sources of supply and coincides well with the growth in member states looking to comply with the Directive in a cost-efficient way by joining the AIB and using the Hub.

The number of issued GOs for electricity produced during 2019 is close to the final figure now

The following graphs show:

1 the annual quantity of GOs issued, cancelled and expired for production during that year; and
2 those that have been issued, transferred within a country, transferred internationally, and expired and/or cancelled during that year.

Figure 2 a

Annual EECS transactions by production date (TWh)

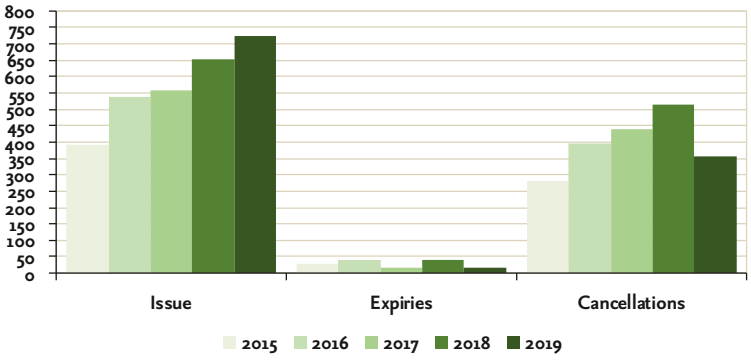
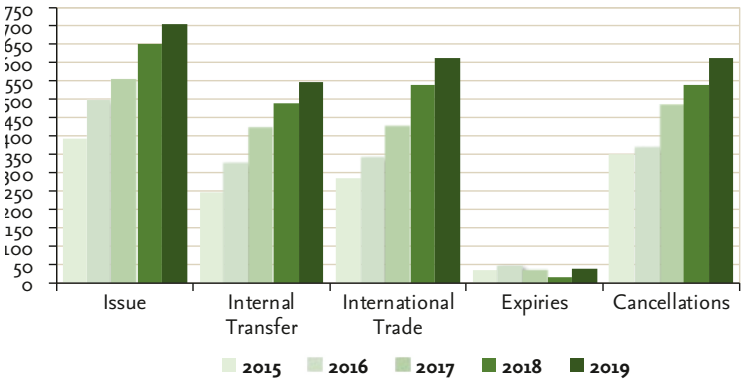


Figure 2 b

Annual EECS transactions by transaction date (TWh)



Source of GOs – technology / energy sources

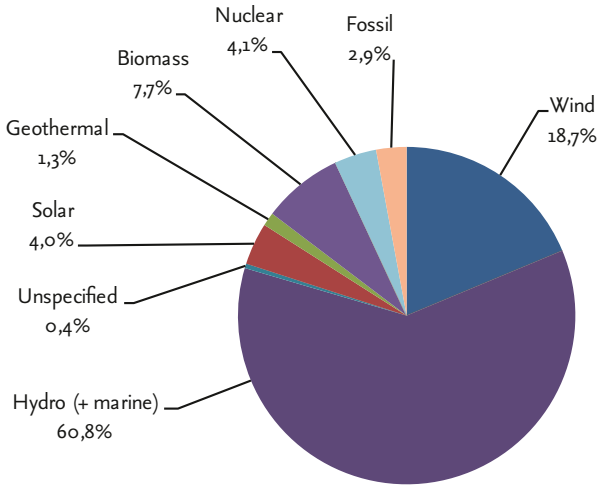
Hydropower continues to be the major source of electricity for which GOs are issued but has fallen from 61% to 54% since 2018. The proportion of GOs issued for fossil has risen by 5%, while those issued for wind and nuclear power have risen by 2%, and those issued for biomass remain roughly the same. Geothermal and solar are around the same. Unspecified energy source remains insubstantial.

Over the last year, the cancellation of GOs for hydropower remains about the same as in the previous year. Cancellation of GOs for wind and biomass have fallen by 1%, however solar PV has risen slightly. Geothermal, nuclear, fossil and unspecified energy have all risen slightly.

The following graphs show the annual quantity of GOs issued and cancelled for the production period.

Figure 3 a + b

EECS certificates issued per technology (2018)



EECS certificates issued per technology (2019)

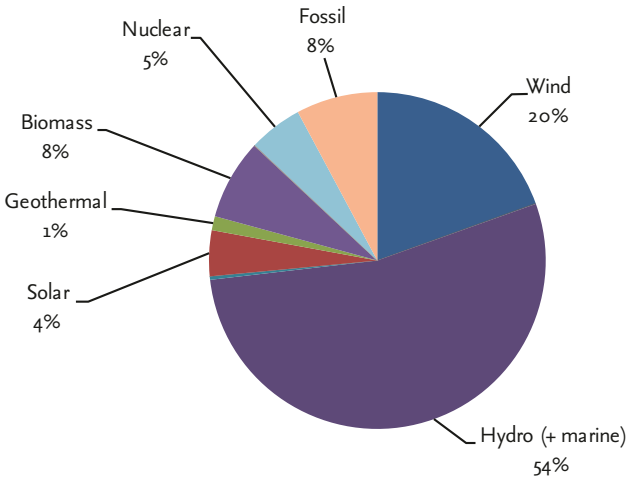
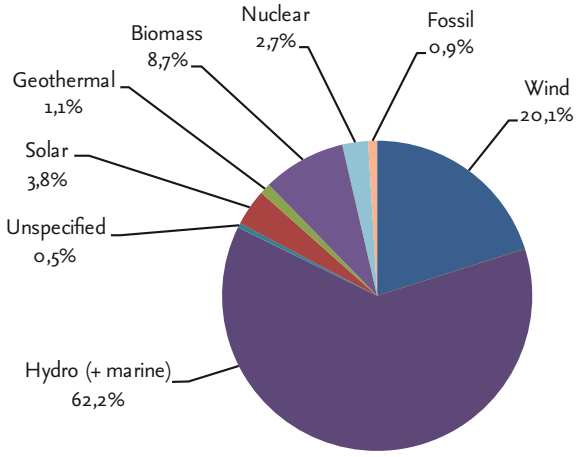
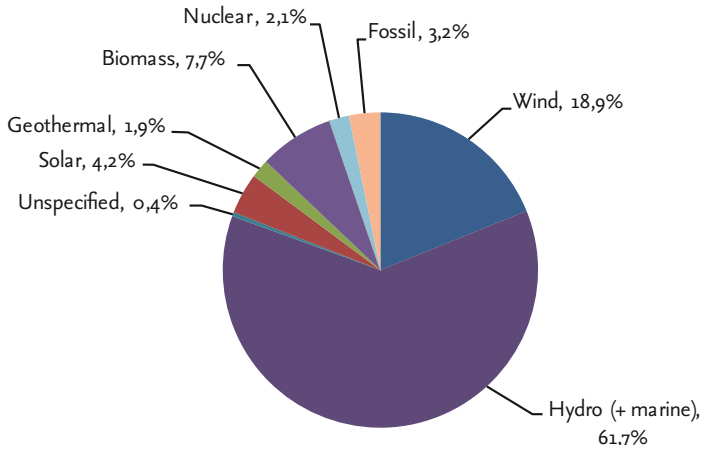


Figure 3 c + d

EECS certificates cancelled per technology (2018)



EECS certificates cancelled per technology (2019)



Source of GOs – country

Regarding national activity, the major producers of GOs are Norway followed by Spain, Italy and Switzerland; supplying 56% of all GOs issued. They are followed by the Netherlands, Sweden, France and Finland, which issued a further 30%.

Germany, Spain, Norway and Sweden followed by Switzerland and the Netherlands are now the major consumers of GOs, cancelling 70% of all GOs between them; while Italy, Finland, Belgium and Austria collectively cancelled a further 20%.

The following graphs show the annual quantity of GOs issued for a production period; along with those that have been cancelled during that period.

Figure 4 a **EECS certificates issued per country (2019)**

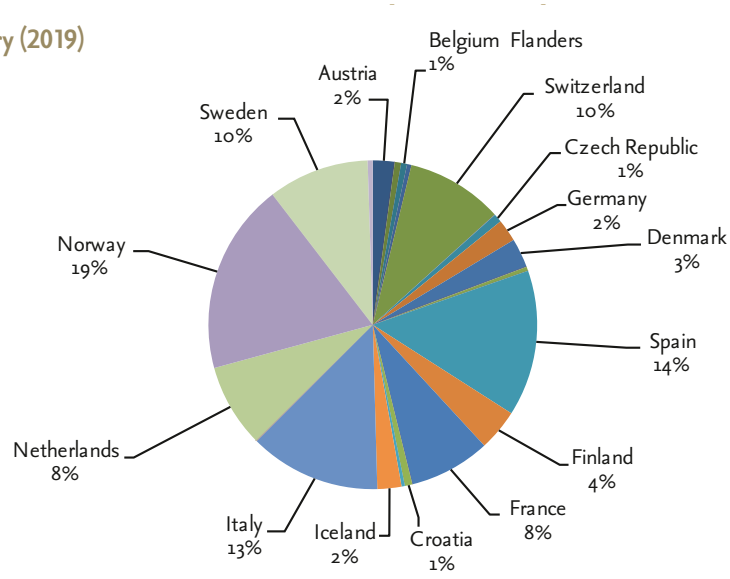
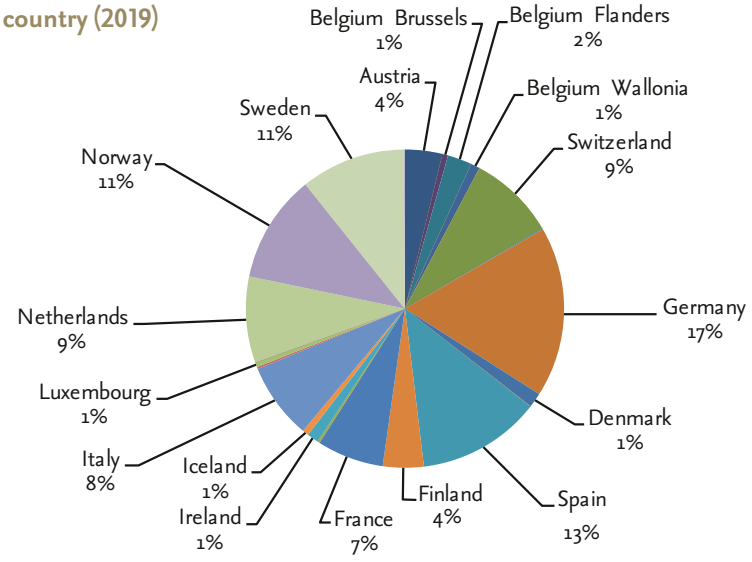


Figure 4 b **EECS certificates cancelled per country (2019)**



Annual activity

Activity has continued to increase, with most activities rising at the start of the year to a peak for cancellation in March and tailing off in the middle of the year.

The following graphs show for the last two years, the annual quantity of GOs issued for a production period and those that have been transferred within a country, traded internationally and/or cancelled during that period.

Figure 5 **EECS certificate activity 2018 (TWh)**

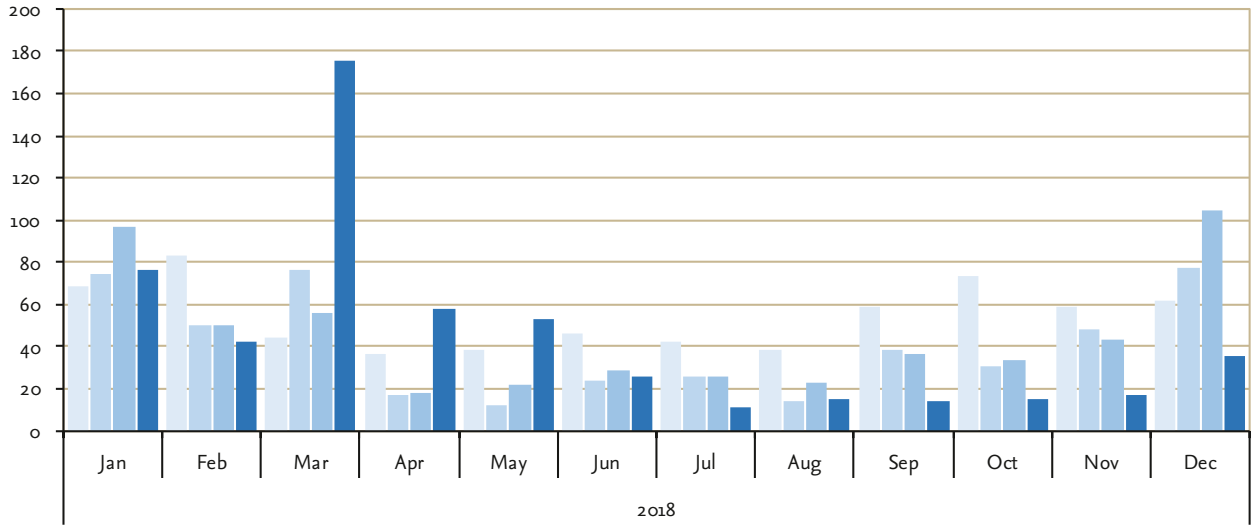
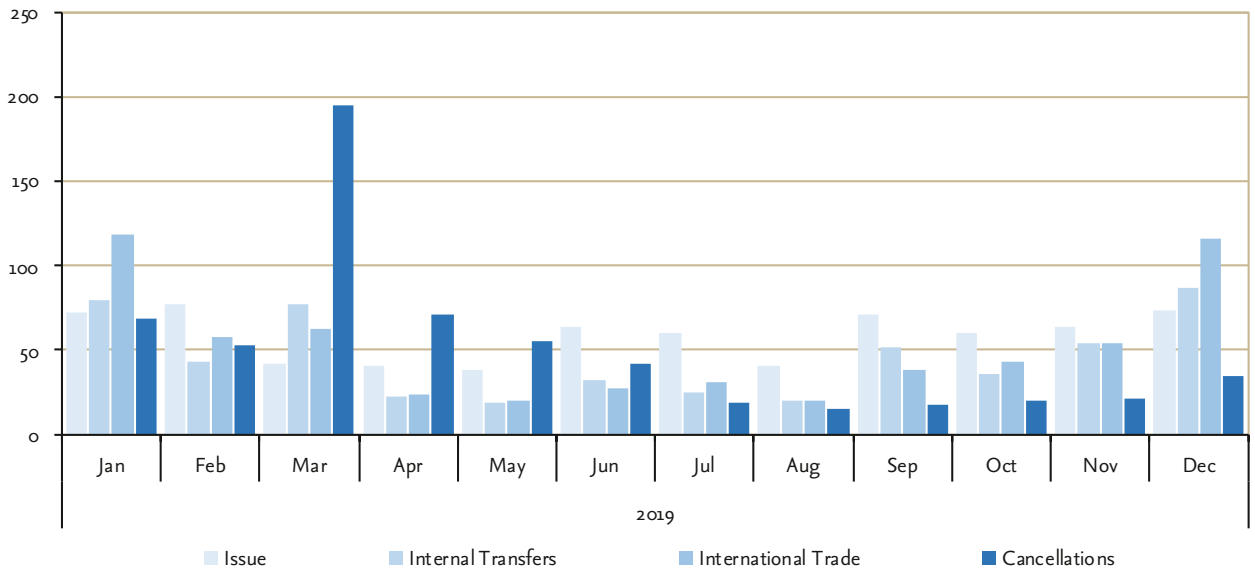


Figure 6 **EECS certificate activity 2019 (TWh)**



Cumulative activity - national

As the following graphs demonstrate the growth in issuing continues. The following graph shows the annual quantity of GOs issued for production in each of the last 5 years.

Norway is still the leading producer of GOs; providing the market with 133 TWh from Hydro in 2019, followed by Spain with 101 TWh. As the rest of the market keeps growing and developing, Norway's share of total certificates continues to decrease.

Again, hydropower predominates, but wind and biomass are growing

Figure 7 a

Issued per year of production (TWh)

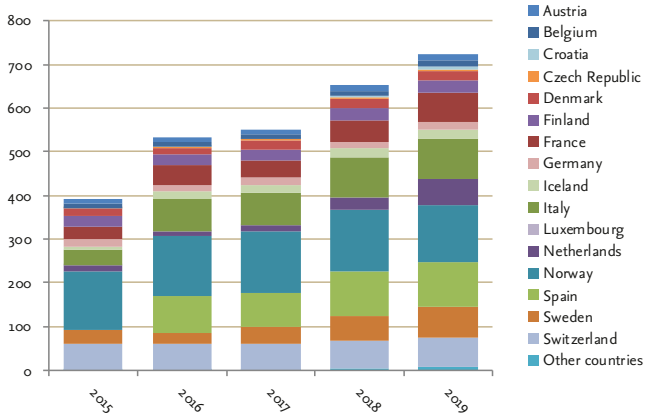
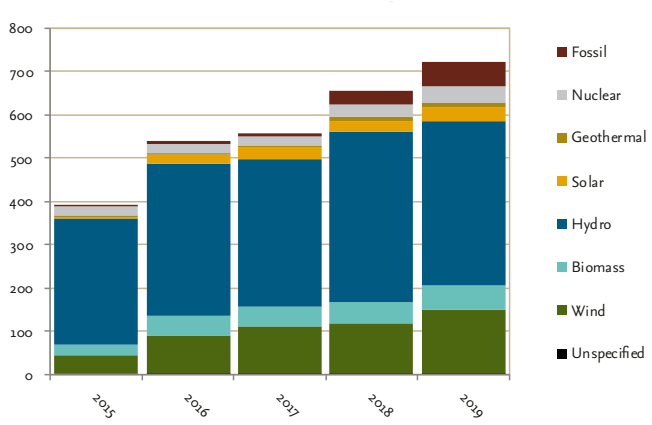


Figure 7 b

Issued per technology (TWh)



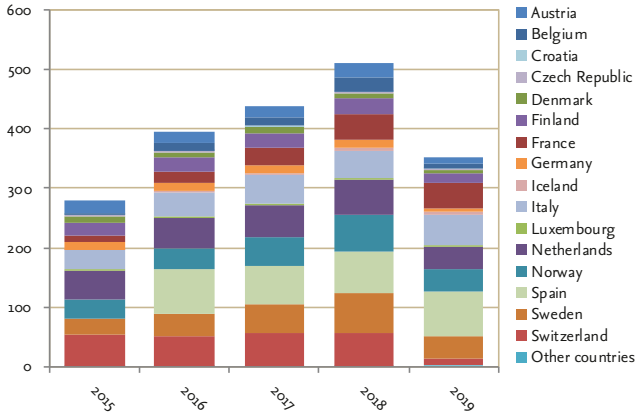
Cancellation continues to increase, reflecting strongly growing consumption in several countries during 2019. The following graphs show the annual quantity of GOs that have been cancelled for production during the last 5 years; along with the GOs that have been cancelled in each year for all production periods.

In reviewing these graphs, please note that – in line with the provisions of the RES Directive 2009/28/EC - GOs expire one year after the date of production.

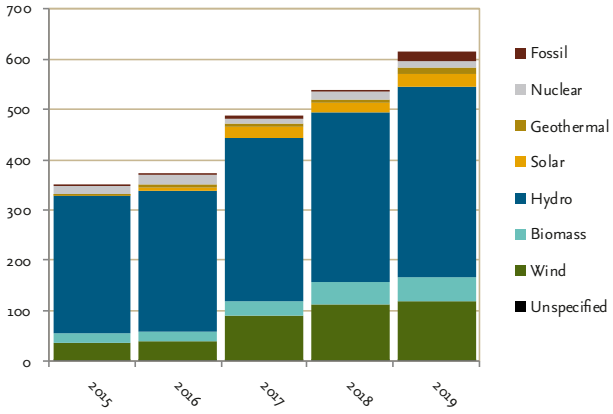
GOs are often cancelled close to expiration, which explains why some of the GOs for 2019 production are yet to be cancelled.

Figure 8 a + b

Cancelled per year of production (TWh)



Cancelled per technology (TWh)



The continued rise in cancellations has led to a demand of 614 TWh and the market continues to shorten.

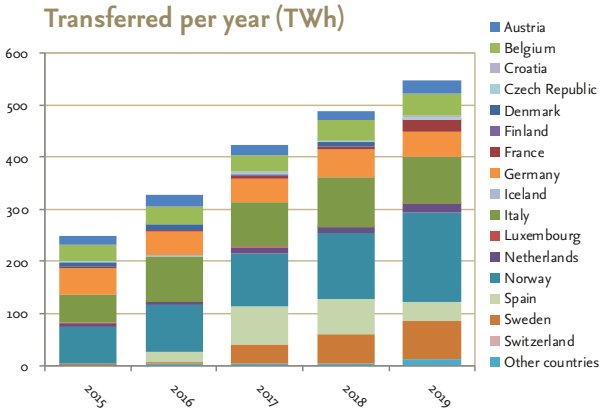
Market activity in Slovenia is now being reported, but that of non-member countries is not, and when this is added there will be a further rise in reported market demand.

Households, organisations and businesses all contribute to this impressive market growth, as do new forms of electricity consumers, such as the recent growth in motor vehicles and server farms; although the corporate sector is the main driver. Global reporting initiatives like CDP (Carbon Disclosure Project) and the Greenhouse Gas Protocol, as well as the CSR Directive, emphasise that renewable energy is an important part of a broad corporate sustainability agenda. The Guarantee of Origin is the primary European tool for tracking the purchase of renewable energy and this is being reinforced by the Renewable Energy Directive 2018/2001/EC, which comes into force in summer 2021.

IInternal use of GOs continues to rise, with Norway, Sweden, Spain, Germany and Italy making a marked contribution, as shown in the following graph:

Figure 9

Transferred per year (TWh)



Externally, the exporting countries are predominantly Nordic plus Italy, France and Belgium.

The contribution of individual importers continues to show the Nordic countries, Benelux and Germany as the major importers, followed by Austria and Netherlands.

The following graphs show the annual quantity of GOs traded internationally each year.

Figure 10 a **Exported per year (TWh)**

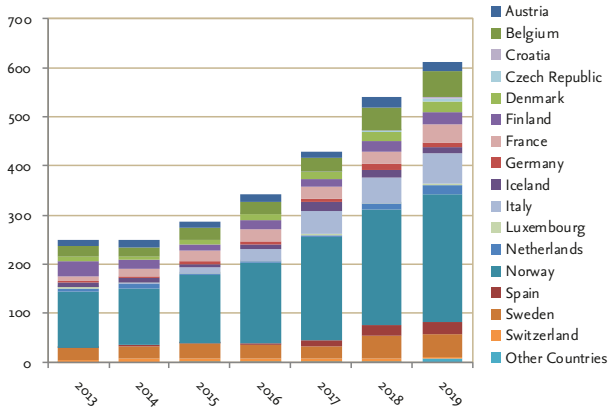
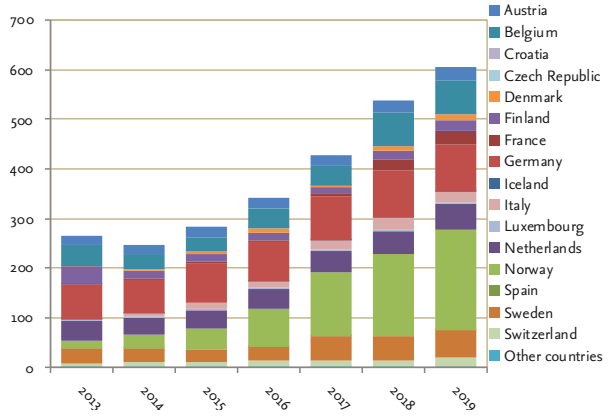
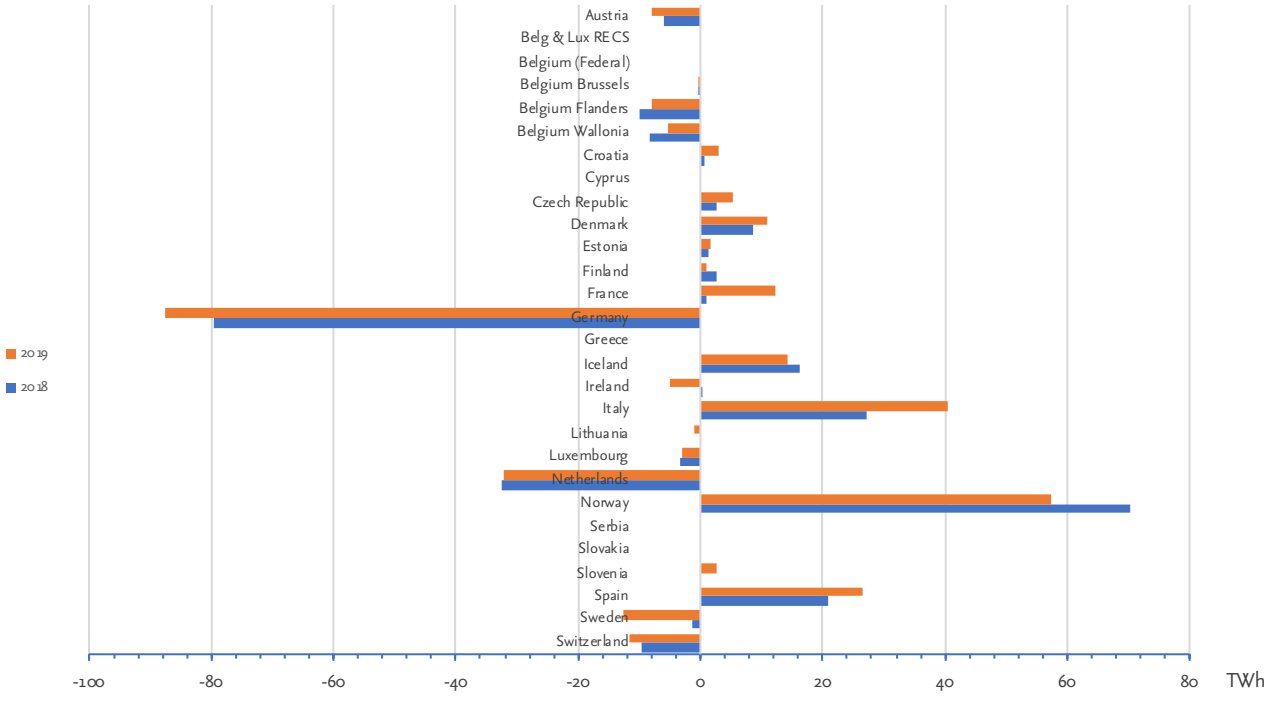


Figure 10 b **Imported per year (TWh)**



It is also worth looking at the nett position of each country, offsetting imports and exports. Here, we can see that the major importers are Germany, followed by Benelux; while the major exporters are Norway, followed by Italy and Spain.

Figure 11 **Nett Importers Nett Exporters**



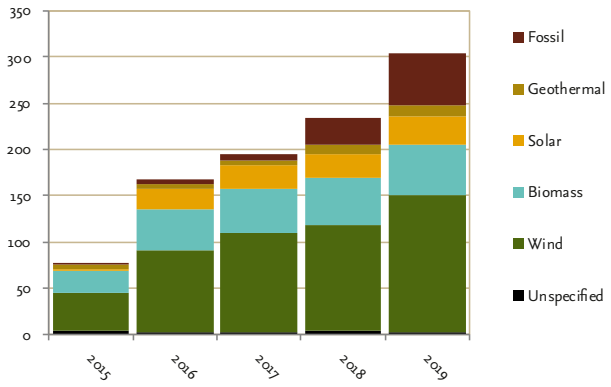
Cumulative activity – technology

From the perspective of technology, production and transfer of electricity; hydropower remains predominant followed by wind, biomass and solar.

The following graphs show the annual quantity of GOs issued for energy produced during a year, showing more detail of energy sources other than nuclear and hydro.

Figure 12

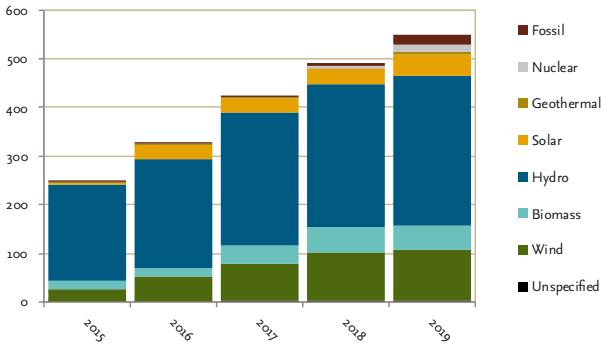
Issued per technology (TWh) (except nuclear and hydro)



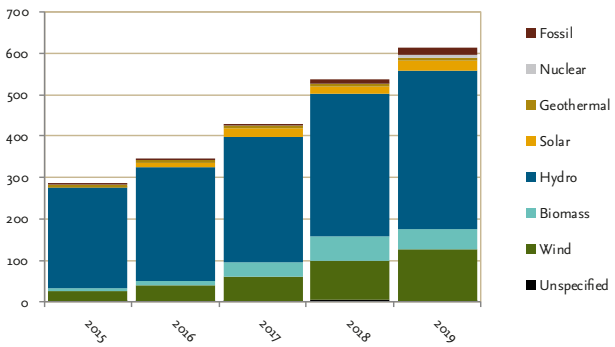
In addition, the following graphs show the volume of GOs by each energy source that have been transferred within a country and those that have been traded internationally.

Figure 13 a + b

Transferred per technology (TWh)



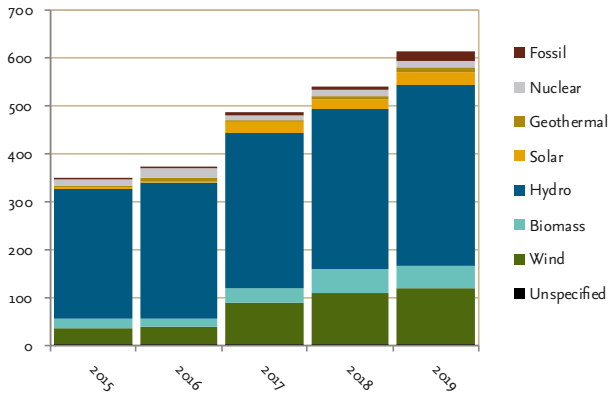
Imported per technology (TWh)



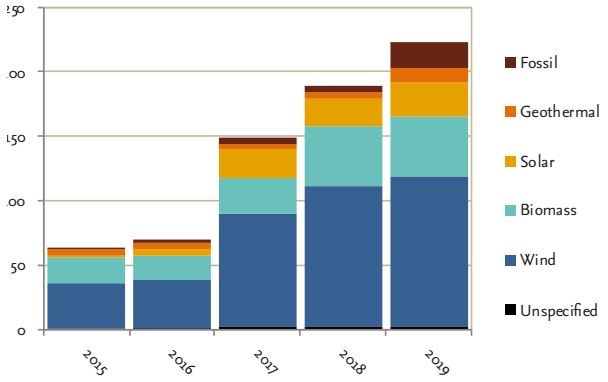
These graphs show the annual quantity of GOs cancelled during each year, broken down in more detail for energy sources other than nuclear and hydro.

Figure 14 a + b

Cancelled per technology (TWh)



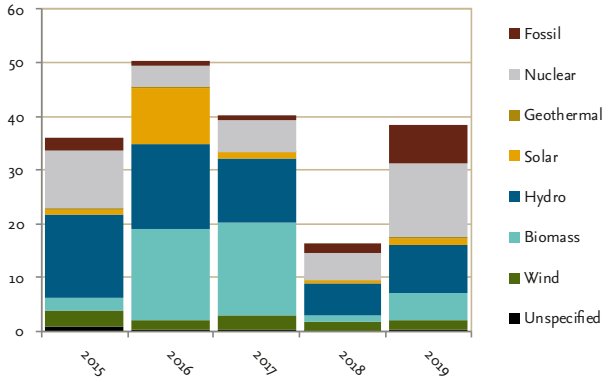
Cancelled per technology (TWh) (except nuclear and hydro)



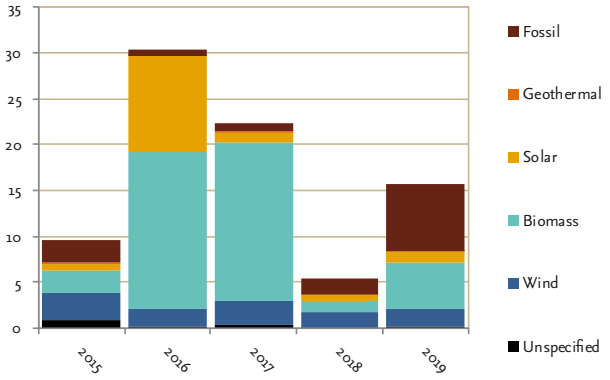
Also shown is the composition of the expired GOs required by Directive 2009/28/EC, which are increasingly fossil and biomass.

Figure 15 a + b

Expired per technology (TWh)



Expired per technology (TWh) (except nuclear and hydro)



2019 Achievements

It seems that we can say - "The last year has been busy" - pretty much every year. We stated it in the Annual Report in 2018 and we can repeat it for 2019 without any hesitation.

What did we do?

1 Following an overhaul in 2018, we further refined the AIB website
2 We continued reviewing Domain Protocols (DPs) of new members and members whose practices have changed, and auditing the operations of existing members to ensure the reliability of the information provided based on the EECS rules
3 We recruited and supported applicants and new members
4 With the assistance of Unicorn Systems, we enhanced the Central Processing Hub to support cost efficient and reliable GO transfers across Europe
5 The working group on fraud prevention worked to improve our ability to detect and prevent VAT fraud
6 We continued our efforts to prepare for the implications on GOs of the "Clean Energy for all Europeans" legislative package and won the tender for the FaStGO project, which will advise member states on facing the challenges of implementing the Renewable Energy Directive 2018/2001/EC, and in particular the revision of CEN/CENELEC standard EN16325 on GOs
7 We reported statistical information on issuing, transferring and end-of-life of GOs for each energy source within each member country, including analysis of cancellations in one country for use in another's
8 For the fifth time in a row, we were granted the role of co-organiser of an official event at the European Union Sustainable Energy Week by the European Commission
9 We further progressed our project to reorganise the AIB, to ensure that the organisation is equipped for future challenges, such as the extension of the instrument of the GO to biomethane and hydrogen from renewable sources (which necessitates new rules to deal with the conversion of energy)
10 Together with RECS International, we organised the annual Open Markets Committee to continue our dialogue with market participants, and
11 We provided support in the calculation of the European residual mix.

Refining the Website

Now that we have moved to the Drupal Content Management System (CMS), we have refined the functionality on the website according to members' needs.

DP reviews and audits

In order to guarantee the quality of the auditing activities, the professional reviewers (those who offer their services as individuals rather than as members) via the Professional Reviewers Group (PRG), continued working on developing improvements to review and audit practices. Some technical elements in the audit of members was further improved.

During 2019, audits were approved for:

- E-Control (Austria)
- Landsnet (Iceland)
- SEMO (Ireland)
- Energimyndigheten (Sweden).

In addition, the Domain Protocols of Powernext (France) and AGEN-RS (Slovenia) were reviewed and approved.

Recruitment of new members

At the end of 2019, the AIB had 27 members in 24 countries (Belgium has four competent bodies representing the three regions of Belgium and Federal Belgium).

The status of some AIB observers changed during 2019: DAPEEP (Greece), OKTE (Slovakia) and EMS (Serbia) all became members of the AIB and of the Electricity Scheme, their Domain Protocols were reviewed and approved.

REN (Portugal) and REGAGEN (Montenegro) applied for membership.

There are a few countries that have had official observer status for a longer time, having shown interest in joining or having started the process of joining the AIB:

- Ofgem (Regulator) from the UK
- Operator for Renewable Energy Sources and Efficient Cogeneration (Market Operator) from Bosnia and Herzegovina
- Augstsprieguma tīkls from Latvia and
- the Turkish Regulator.

The AIB Central Processing Hub

The European Energy Certificate System (EECS) ensures reliable and efficient cross-border exchange of GOs, thereby strengthening and increasing the market. To further facilitate the international exchange of energy certificates, the AIB operates a communications Hub.

Unicorn Systems operate the central registry Hub application for the AIB, using the Unicorn Open Energy Platform, which has delivered several other European ICT Integration Solutions in the Energy Domain and is hosted, operated and maintained in the Unicorn Energy Cloud.

Work started in 2019 to expand the scope of the Hub to automate the collection of statistical information on member activity in issuing, transferring and cancelling GOs.

Fraud prevention

There is an ever-present risk of VAT carousel fraud; exploiting VAT-exempt intra-community deliveries to steal funds from member states, which is only mitigated by vigilance on the part of the AIB and continued encouragement of member states to adopt reverse charging of VAT. Large sectors of the industry are impacted and prosecuting is not easy. The EU has taken numerous measures to fight against this type of fraud.

We continue to promote the Know-your-Customer (KyC) process for helping registries identify potentially fraudulent applications and monitor trade through the Hub for unusual activity. To improve these matters, in 2020, we will participate in the Europol EMPACT project to enhance fraud detection and prevention.

The AIB audits its individual members, including a technical audit, providing the opportunity to identify risks and share best practices recommendations amongst members. This issue is on the General Meeting agenda on a regular basis.

Registry users have a duty to be careful and vigilant in this respect, as negligence by users is the main cause of fraud. When involved in transactions, market parties should be careful and cautious.

Preparation for the Implementation of the EU's "Clean Energy for all Europeans Package"

This is a package of measures to further pursue the clean energy transition that is changing European energy markets. The Commission wants the EU to not only adapt to the transition, but to lead it, so it has committed to cut CO2 emissions by at least 40% by 2030, while modernising the EU's economy and delivering on jobs and growth for all European citizens. The proposals have three main goals: putting energy efficiency first, achieving global leadership in renewable energies, and providing a fair deal for consumers.

The negotiations of this legislative package covering energy efficiency, renewable energy, the design of the electricity market, security of electricity supply and governance rules for the Energy Union, were finalised at the end of 2018 and include changes to the Directives, which drive much of the work of the AIB: the Renewables Directive, the Internal Markets Directive and the Energy Efficiency Directive.

The vision that the AIB shared in its Reflection Paper of 2015, encouraged the Commission to make provision for:

- Using GOs to disclose to consumers the source of all consumed electricity, regardless of the energy source and technology employed, according to a set of common rules; and
- Using GOs to provide consumers with evidence of the carbon emissions associated with the production of their electricity was not fully embraced, the Clean Energy Package (CEP) can only be recognised as significantly strengthening and expanding the instrument of the GO.

We continue our work to seek appropriate transposition of the CEP in national legislation by providing technical advice based on our unique knowledge of the certification of energy from renewable sources and on fuel mix disclosure information.

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FaStGO

The AIB commenced work on the FaStGO project, which will provide expert advice to the European Commission DG ENER, based on the terms of Reference N° ENER/C1/2019-517: "Technical support for RES policy development and implementation. Establishing technical requirements and facilitating the standardisation process for guarantees of origin on basis of Dir (EU) 2018/2001." The project will:

- Map current, existing standardisation frameworks
- Specify the technical requirements for the extended coverage of GOs
- Identify IT system specifications and the requirements for the associated infrastructure for cross-border exchange of GOs for all energy carriers
- Propose systems for EU-based market supervision statistics
- Identify methodologies for enhanced prevention of financial fraud
- Consult stakeholders

The project will run for one year and commenced in late 2019.

The AIB also participated in REGATRACE (REnewable GAs TRAde Centre in Europe), a H2020 project which aims to create an efficient system for issuing and trading biomethane/renewable gases GOs. This will strongly contribute to the uptake of the common European biomethane market.

The AIB is leading a work package on the integration of guarantees of origin for multiple energy carriers.

Regatrace

The REGATRACE project started on the 1st of June 2019 and will continue for three years.

AIB has the lead on the work package for the integration of guarantees of origin from different renewable gas technologies, with electric and hydrogen guarantee of origin systems. GO handling for energy carrier conversion has a specific focus.

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

Statistical information to report issuing, transfer and end-of-life of GOs for each energy source within each member country

Since 2001, AIB has been providing statistical information to stakeholders. This data provides details of the numbers of GOs (for each energy source) that have been issued, transferred nationally and internationally, cancelled and expired, by each member, during each month. It also analyses this activity according to the month in which the related electricity was produced. After making data available on the cancellation of GOs for use in countries, other than that in which they are cancelled – so called "ex-domain cancellations" (EDCs), we set out to move to a more automated data collection process.

In 2019, we continued to work to replace the predominantly manual data collection and manipulation with an automated data collection via a database, and subsequently the selection of software providing improved analysis. This project involves work for each member to convert their own systems and continues into 2020.

Pursueing the AIB Stakeholder Strategy

The AIB is an organisation with a unique position and expertise that cannot be found elsewhere. But unless we are willing to share and highlight that expertise, no one will recognise us as a truly unique, centre of knowledge. What good is it to develop expertise if nobody knows what you do? Staying under the radar would be a threat to the continuation of our work… So, the AIB needs to be more visible, more outgoing, in order to sustain its activities. This is one of the goals of the AIB Stakeholder Strategy (SHS).

Establishing a presence for the AIB online, was one way of achieving visibility. As we are an organisation with a technical focus, the social media channels that fit best with our activities are LinkedIn, Twitter and SlideShare. A Twitter account (@AIBSEC) and LinkedIn Company page were set up as the backbone of our online presence. Since 2018, a consistent effort is being made to update the LinkedIn page every weekday and the Twitter account is updated at least weekly.

As a result, the activities of the AIB now attract more online attention; a goal for the organisation's exposure.

Another way of establishing visibility and receiving public recognition from the European Commission is to participate in the EU Sustainable Energy Week, where we co-organised an official policy event in 2019.

Co-organised an event at the European Union Sustainable Energy Week

Our proposal to co-organise a high-level policy event during the European Commission's EU Sustainable Energy Week (EUSEW) was selected as one of the official policy events, organised with direct support from the European Commission. The fact that the AIB was selected for the fifth time in a row – and this year was asked to take the lead - confirms that the AIB is recognised as a respected voice in the European policy process.

We were asked by the European Commission to co-organise with ETE (Energy Technologies Europe), as they also proposed an event focussing on renewable gases. Constructive discussions with ETE and their partners, including Hydrogen Europe and Eurogas, lead to a final program with the title "Empowering industries to decarbonise with renewable gases".

Read the full debrief in our AIB Newsletter n° 31 featuring an article about the event or get the full event via the recording (search for the title - "Empowering industries to decarbonise with renewable gases"- of this event on Youtube).

Progressed the project to reorganise the AIB, to ensure we are equipped for future challenges

The AIB and its environment are developing rapidly, which led the organisation to reconsider the way in which we could be organised better to cope with these changes and to be able to seize opportunities.

The project seeks:

1) To reaffirm the AIB's license to operate by responding to its growing operational responsibilities; and
2) To optimise the way the AIB works, to add value to its members and the market.

It is time for the AIB to look to the future and assess how we can work together in the most efficient and effective way.

As a volunteer organisation, the AIB depends upon member resources, and its growth in a rapidly changing environment means that more Domain Protocols, more audits, more incidents, more changes and testing. As in many international associations, in-kind contributions and willingness to take on official roles have decreased, and the responsibilities of providing the Hub service to market-parties needs to be professionally addressed. As the market becomes ever more international, an increasing share of GO trade depends on the availability and quality of the AIB Hub's performance. The natural monopoly of the AIB and the lack of a viable alternative means that the AIB must do everything in its power to ensure business continuity. Decision-making should be improved and made more efficient, so that the organisation can react more rapidly to the many challenges that are presented by market developments, but mostly by legislative requirements as set out in the Clean Energy Package.

As our visibility has increased significantly, the outside world has higher expectations for our organisation and therefore more influence on our agenda. The AIB relies on determined people to do its work, with oversight from different stakeholders, and needs professional advice. The result is more work to be done, with less resources to do it.

The Change project started in 2017 with an assessment of member attitudes and needs, for use in a structured walkthrough of the issues associated with reorganisation and with professional assistance from experts; this continued in 2019.

A two-way approach was taken:

- A structural approach to re-engineer internal cooperation, making decision-making more agile. This requires us to redesign the relationship between our mission, vision and values and our annual planning and control cycle.
- A practical approach to prepare for growing operational responsibilities, involving recurring, well-defined (and time-consuming) tasks like web services, DP reviews, application management, procurement, etc.

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The change project has turned out to be a long, but inclusive process – perhaps longer than we had expected, or indeed hoped! Care was taken to involve all members and to look for a firm foundation that a large majority of members could support. The AIB has a rather diverse membership, resulting in very different views of where we should go to next. It took all of 2018 and 2019 and is now close to completion: it will continue into 2020, creating a widely shared vision of the principles that need to underpin the change process.

Open Markets Committee

The AIB is an organisation that plays a crucial role as a facilitator of the European GO-markets, but our members are not market participants, even though what they do is vital for the companies in the energy sector. This is why we are happy to work together with RECS International, the representative association of the GO-market participants and GO-users at an industrial scale, to organise the yearly Open Markets Committee (OMC). The OMC is an important annual event where AIB and its members – the competent bodies for GOs across Europe - can exchange information and view-points with GO market participants and both groups can develop a better understanding of each other's needs and wishes.

Both issuing bodies and market players operate in a very dynamic environment:

- Legal: frameworks impacted fundamentally by the Clean Energy Package;
- Technological: opportunities, but also challenges, can be brought about by emerging technologies such as blockchain;
- Economical: the GO market is growing very strongly, driven by the attention towards the need for sustainability strategies involving corporate sourcing of electricity from renewable sources as advocated by organisations such as the RE100, WBCSD, CDP and the likes.

In 2019, topics included the state of play of the anti-fraud measures, an update on the project to improve the collection of statistical information, the developments in national GO markets, for example the auctions taking place in some AIB member countries, and details on the implementation of article 19 of the new Renewables Directive, RED II.

The AIB recognises the valuable contributions and active participation in the discussions by the RECS International members and experts.

This joint meeting will be held again in November 2020.

Residual Mix Calculation

European residual mixes for years 2009 to 2014 were calculated by the RE-DISS Project Phases I and II (Reliable Disclosure Systems for Europe), until its termination in September 2015. The AIB took over the calculation in 2016 as it considers a reliable residual mix calculation coordinated at a European level, to be crucial in its mission to guarantee the origin of European energy and continues to do so. The 2019 report is available on the AIB website: https://www.aib-net.org/facts/european-residual-mix.

Officials

The decision-making body of the AIB is the General Meeting which meets quarterly at various locations throughout Europe. Meetings tend to be held over a three-day period to enable decisions to be made at working and executive level. There is always a social event associated with meetings, usually a dinner, which gives members the opportunity for more informal discussions.

In 2019, the President of the Association was Dirk van Evercooren (who is also a Director of the VREG, the electricity and gas regulator of the Flanders region of Belgium). He was initially appointed to the role in May 2014 and had been reappointed annually since then. [Note that this role is now divided between the Board Chair and the Secretary General and that the AIB has said a fond farewell to Dirk, thanking him for his valuable contributions.]

The Management Board is responsible for the day-to-day management of the Association, and usually meets monthly, alternating physical meetings (normally associated with General Meeting) with teleconferences. The cycle of meetings is organised to ensure that budgetary plans are approved at the General Meeting in December. Angela Tschernutter (E-Control, Austria) has been a member of the Board since 2012. She has chaired it since 2016 and will continue to do so in 2020.

The other Board members were:
- Lukas Groebke (Pronovo, Switzerland), who joined the Board in 2009 and has been Treasurer since 2011;
- Ivar Munch Clausen (Statnett, Norway), who joined the Board in September 2017 and is also Vice-Chair and Vice-Treasurer;
- Lian Krijger (CertiQ, Netherlands) who joined the Board in March 2017 and was replaced by Max Laven (also of CertiQ, Netherlands) in September 2019;
- Martin Standera (OTE, Czech Republic), who joined the Board in December 2016; and
- Johan Malinen (Energimyndigheten, Sweden), who joined the Board in November 2018.

The General Meeting is chaired by Angela Tschernutter, the Board Chair, except for once a year when the financial accounts and auditor's report are approved; up to the end of 2019, this meeting was chaired by the President, Dirk van Evercooren.

The Working Groups include:
- **Working Group Internal Affairs**, chaired by Katrien Verwimp (VREG, Belgium);
- **Working Group External Affairs**, chaired by Dubravka Brkić (HROTE, Croatia);
- **Working Group Systems**, chaired by Annie Desaulniers (CWaPE/SPW, Belgium (Wallonia)).

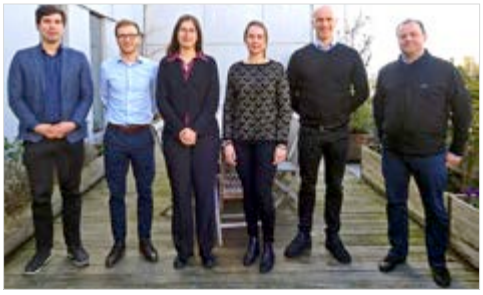
Furthermore, during 2019, the 'Project Team Change' (PT Change) was chaired by Liesbeth Switten (AIB Secretariat, Belgium). Elke Mohrbach (UBA, Germany), Ivar Munch Clausen (Statnett, Norway), and Max Laven (CertiQ, The Netherlands) were highly motivated, active members.

The General Meeting, Board and Working Groups are supported by the Secretariat; the Secretary General being Phil Moody (United Kingdom) – who also supports Working Group Internal Affairs – and is assisted by:
- Andrea Effinger (Germany) in Working Group External Affairs, the Working Group Chair's meeting, and the Open Market Committee;
- Marika Timlin (Grexel, Finland) in Working Group Systems, and who is also the SuperUser for the AIB Hub. Marika returned from maternity leave in August 2019, Joel Kauppi stood in for her as the SuperUser, while Marko Lehtovaara stood in for her as secretary of Working Group Systems; and
- Liesbeth Switten (Belgium), providing legal and regulatory advice to Working Group Internal Affairs – note that Liesbeth is a part-time employee of a member (VREG, Flanders).

Reviews of Domain Protocols, setting out how each member implements the EECS Rules, are conducted by members, assisted by the professional reviewers:
- Liesbeth Switten and Katrien Verwimp (also employees of VREG, Flanders)
- Remco van Stein Callenfels (CertiQ, Netherlands)
- Diane Lescot (Observ'ER, France)
- Markus Klimscheffskij (Gaia Consulting, Finland) and
- Emma Kelly (Ireland).

Each of the professional reviewers has worked with a member, either currently or in the past, and has in-depth knowledge of EECS.

Working Group Systems



Working Group Systems (interfaces between computer systems)

Chaired by Annie Desaulniers of Service Public de Wallonie, Belgium-Wallonia.

Working Group Systems (WGS) updates the AIB General Meeting on the AIB certificate transfer system, recommends change requests, and follows up on decisions made within this framework. The main objective of WGS is to supervise and further develop the AIB Hub (facilitating transfers of certificates between AIB members' registries) and to ensure the quality of the registries with regular auditing.

In 2019, the AIB Hub facilitated activities which increased significantly compared to previous years. The total volume of certificates transferred in 2019 was 632 564 111, which represents a 15,2% increase from 2018 (548 965 337 certificates transferred). The total number of successful transfers (a transfer can include multiple certificates) executed in 2019 was 31 028 which represented a 39,2% increase compared to previous years (22 287 successful transfers). The number of failed or refused transfers increased slightly, from 1 205 in 2018 to 1 350 in 2019. Nevertheless, the percentage of failed transfers (from total transfers) reduced from 5,13% in 2018 to 4,17% in 2019.

A new AIB member, Cyprus (Issuing Body TSOC) successfully connected its' registry to the AIB Hub in June 2019 and the Belgium Brussels member (Brugel) launched a new registry in the spring. By the end of 2019, there were 24 member registries connected to the AIB Hub.

The support of mailbox transfers stopped as of June 2019 and since then, all registries use a faster and more reliable webservice connection to the AIB Hub. The fraud detection tool was reconfigured, based on the recommendations of the Tax Authorities, without any negative impact on the performance of the AIB Hub.

The analysis and development of the AIB Hub statistics gathering tool took place in 2019. Based on the decision of the AIB General Meeting and to provide enough time to AIB members to adapt their registries accordingly, the usage of the statistics gathering tool will only be mandatory from 1st July 2020. The goal of this tool is to ensure a universal format (XML) for statistics gathering from all the connected registries and to broaden the scope of the collected statistics.

Regarding the management of the AIB Hub, two tenders were launched in 2019. The first of these tenders was the renewal of the SuperUser contract. The SuperUser role is to manage the AIB Hub and to centralize requests from registries to improve or fix problems related to AIB Hub functionalities. The tender was awarded to Grexel Systems Ltd. The second tender covered the hosting, housing and maintenance services of the AIB Hub. This tender was awarded to Unicorn Systems at the end of the year, with a transition period planned for March and April 2020.

To reduce costs, facilitate maintenance and load balancing, the AIB Hub was moved from Unicorn Cloud to Azure Cloud hosted by Microsoft in 2019.

The quality of transfers and certificates increased by, first, introducing valid Technology and Fuel code combinations in the AIB Fact Sheet 05 (FS05: Types of Energy Inputs and Technologies) and then, implementing a new control in the AIB Hub to validate the said codes in the incoming transfers.

In the past, the AIB Hub could have been viewed as a postal service, receiving and delivering letters. But further development of the AIB Hub has expanded its functionalities. Today, it has quality control features, account holder management, an anomaly and fraud detection tool, a statistics gathering tool, plus fast and reliable transfer management.

The Working Group organized three 'in person' meetings and thirteen teleconferences during 2019. WGS also provided assistance with the preparation of organizational changes to the AIB.

Upcoming challenges and short-term goals will increase the automation of test and audit procedures, further develop the AIB Hub in accommodating new energy carriers (stems from the RED II directive coming into force), and improve statistics gathering and reporting. WGS will also have to adapt its' way of working to fit the new organization as the Information Systems Unit will provide assistance to the other AIB Units.

The AIB Hub SuperUser Marika Timlin-de Vicente from Grexel Systems Ltd. returned from parental leave in July 2019. Her colleague, Joel Kauppi fulfilled the role, alone, in the first half of 2019 until her return. She then helped WGS as group secretary, following up on actions and taking minutes of meetings.

Annie Desaulniers returned to the WGS Chair position in the beginning of 2019. Martin Štandera fulfils the role of a WGS Vice-Chair and as AIB Board liaison.

Finally, WGS would like to acknowledge and thank all ofthose who contributed to the work of the group in 2019 and welcome new members to join to the group!

Working Group External Affairs

Working Group External Affairs
(provision of information)
Chaired by
Dubravka Brikc
of HROTE, Croatia

Working Group External Affairs (WGEA) has a significant role in the organisation as a promotor of AIB's activities. It is responsible for all types of publications such as the website, press information, newsletters and annual reports.

Communication with stakeholders is essential for the promotion of the organisation. The President of the AIB, Dirk Van Evercooren supports not only WGEA as a key player in social media issues, but also the entire association with his dedication as AIB's ambassador. He was in constant contact with stakeholders at an EU-level, represented AIB at an endless amount of events, did interviews and took the lead in creating a successful Open Market Committee with a great bunch of speakers.

As part of an active and dedicated field of organisations, companies, politicians and energy market analysts, we are grateful for increased collaboration through events in the energy community like the REC Market Meeting and RE-Source. GOs are finally far better known and appreciated than in previous years.

WGEA continues to support the recruitment of new AIB/EECS members. In comparison to 2018, we are proud to announce that applicants became members and new observers joined. The AIB grew in 2019 to 27 members, now including Serbia, Slovakia and Greece. Latvia, Montenegro and Portugal became observers. Montenegro and Portugal are now working on their applications for membership.

Social media has become a vital method of communication in business in recent years. We are proud to see more and more followers (e.g. LinkedIn), especially those who are truly engaged in supporting the AIB's vision.

This means a lot for the organisation's recognition. In 2019, AIB set up an account on Slideshare to further spread our mission and knowledge in a collaborative way.

In March 2019, the AIB website went live with a new structure, both in design and in navigation, and our data was migrated to a more suitable Content Management System (CMS). In the confidential Members' Area, the CMS provides an interactive website for members, which we are still enhancing and gaining a deeper understanding of the advantages and benefits for each user.

Also our second main publication outlet – the press information and newsletters, received new software, format and frequency. From October 2019, the AIB newsletters are published every second month, sent directly via email to almost 600 subscribers.

At the end of the year the Working Group faced a few major changes:

Dubravka Brkic (HROTE, IB from Croatia) resigned as the chair of WGEA; we are glad that she will continue to contribute as member of this Working Group.

Dirk van Evercooren's contributions in his role as AIB's President are highly appreciated by WGEA. With implementing the organisational change of AIB (February 2020), the AIB no longer requires the formal role of president to represent the organisation. Having benefited in many ways, as Dirk took an active role within WGEA, we would like to thank Dirk for his efforts in fulfilling WGEA's responsibilities, in making the AIB better known and for spreading the word on the advantages and opportunities that GOs bring to energy customers throughout Europe.

We thank the active members of the Working Group:
- Milada Mehinovic (Pronovo, Issuing Body of Switzerland),
- Max Laven (CertiQ, Issuing Body of the Netherlands),
- and the AIB's assistant to the Secretariat and co-chair of WGEA, Andrea Effinger.

Working Group Internal Affairs

Working Group Internal Affairs
(internal regulation of the Association, and administration and development of the EECS standard), chaired by Katrien Verwimp of VREG, Belgium, Flanders
March 2018 – December 2019

In 2019, members of the Working Group Internal Affairs (WGIA) jointly prepared five significant changes to the EECS Rules, which were approved by the AIB General Meeting. Together, they implemented the essentials of the Renewable Energy Directive 2018-2001 art. 19 into the operations of the European GO system.

Following this Directive, AIB sped up acting on its long existing intention to facilitate certification for multiple energy carriers. While the European Energy Certificate System (EECS) had always been designed as a generic energy certification system, in 2019, AIB set up a gas group, as a subgroup of WGIA. This gas group prepared the EECS Gas Scheme as a chapter O of the EECS Rules. In order to facilitate sector coupling, Energy Carrier Conversion rules were incorporated into EECS. These assist national implementers of REDII art.19 with a guide on the essentials to achieve a harmonised approach.

On another topic, in 2019, Working Group Internal Affairs tightened the connection with the Disclosure Competent Bodies, who are strategically important for the management of reliable GO systems in Europe, by organising a joint workshop in Copenhagen and strengthening the rules on the avoidance of double disclosure for electricity.

Furthermore, a rule was amended that enables issuing bodies to own Guarantees of Origin for the purpose of organising auctions to sell them.

Other topics were on the agenda for discussion with the aim to be concluded throughout the course of 2020.

In line with the WGIA terms of reference, the AIB organisational change project prepared the groundwork for transforming Working Group Internal Affairs into the "EECS Unit" in 2020, with separate Scheme Groups for electricity and gas, of which the respective members will be able to make independent decisions related to energy carrier specific topics.

Budget / Expenditure

2019 is the first year that the complete bookkeeping has been processed according to the financial reporting framework applicable in Belgium.

Note that the financial statement together with the independent review report at the end of this annual report consolidates the books of account for the period 1st January to 31st December 2019, and includes all accruals.

Further, the position at KBC Bank relates to the amount of cash actually held in the bank at the beginning and end of the year.

Finally, the position against Budget relates to the expenditure against the budget for that year, recognising that some invoices are raised, received or paid the next year, while others relate to the previous year.

Position at KBC Bank

AIB changed banks in 2019. We moved from Jyske Bank in Denmark to KBC Bank in Belgium as where the registered offices have always been. By the end of June 2019 the Jyske Bank account was closed and the balance was transferred to KBC Bank.

AIB strives to hold € 500 000 as a bank reserve and is saving to have this amount as a financial buffer. At the end of 2019 the balance is € 441 204 however € 80 509 is allocated to the Regatrace-project, therefore the bank reserve is € 360 695 end 2018 it was € 295 058.

Position against Budget

The approved budget for the working year 2019 of € 920 372 minus the costs until the end of the year including accruals is – € 72.853.

Annual costs	Budget	Actual	Variance
Administration	383 635,00 €	422 306,11 €	– 38 671,11 €
Working Group Systems	304 933,36 €	262 242,76 €	42 690,60 €
Working Group Internal Affairs	125 460,00 €	200 874,77 €	– 75 414,77 €
Working Group External Affairs	106 344,60 €	106 344,60 €	106 344,60 €
2019 total expenditure	**920 372,96 €**	**993 226,50 €**	**– 72 853,54 €**

The total income for 2019 is € 1 076 234 when we deduct the expenditures of € 993 226 there is a surplus of € 83 008 this will be added to the bank reserve.

Annual costs	Actual	Costs	Result
Membership fees	1 031 500,00 €	941 234,60 €	90 265,40 €
Other income (recoverable)	44 734,87 €	47 822,25 €	– 3 087,38 €
Financial income	644,99 €	4 169,65 €	– 3 524,66 €
2019 total income	**1 076 234,87 €**	**993 226,50 €**	**83 008,37 €**

Income

Income was € 16 069 more than the allocated budget, due to Croatia, Czech Republic, Ireland, Lithuania, Luxembourg and Estonia transferring more than had been expected, while Slovakia had joined unexpectedly.

Expenditure

In total, expenditure was € 72 853 more than the allocated budget.

Within **General Administration**, costs were € 38 671 more than expected:

- The cost of the **Secretariat** was € 25 228 more than expected, due to the increased workload for the Secretary General.
- **Banking** costs were (€ 1 569) more than expected, although these will reduce now that banking facilities are moved to a new bank in Belgium. In 2019 there were extra costs for closing the Danish bank account.
- **Corporate advice** was (€ 19 083) more than expected – the change process intensified until the principles were agreed in June, prior to agreement of the final detail in February 2020.
- **Residual Mix calculation** was € 11 115 less than expected.
- **Expenses** were € 3 904 more than anticipated, and can be attributed thus:
  - There was lower than expected expenditure on **meetings and travel** (€ 6 967)
  - There was also higher than expected costs on **insurance, teleconferencing and sundries** (€ 6 738).
  - **Audits and VAT and financial management** were (€ 4 134) more than expected due to moving financial administration to Brussels, and the associated setting-up costs.

Within **Working Group Systems**, spent € 42 690 less than its allocated budget.

Systems changes were less than anticipated (€ 30 916), **contract management** and **hub retender** was less than expected (€ 17 417) and hosting and support were also less than expected (€ 3 171).

This **Hub SuperUser / WGS Secretarial** costs also overran due to increased input into technical audits (€ 8 815).

Working Group Internal Affairs costs were in total € 75 414 more than expected.

The Regatrace-project was not foreseen in the budget – however the costs of € 19 806 are already recovered because of a prepayment of the subvention.

The **legal and regulatory support** for WGIA matters (€ 33 862), this was € 13 702 over budget due to increased need for internal legal advice and also for external legal advice on VAT fraud prevention.

However, **technical support** overran (€ 9 587) due to topics requiring more work than expected included the issue of Italy issuing RES GOs for fossil, addressing the unexpected influx of potential fraudsters into the system, and addressing the eligibility of onsite demand for RES GOs and **professional auditors and reviewers** continue to be used a little bit more than anticipated (€ 4 670).

Working Group External Affairs spent € 1 458 less than its allocated budget.

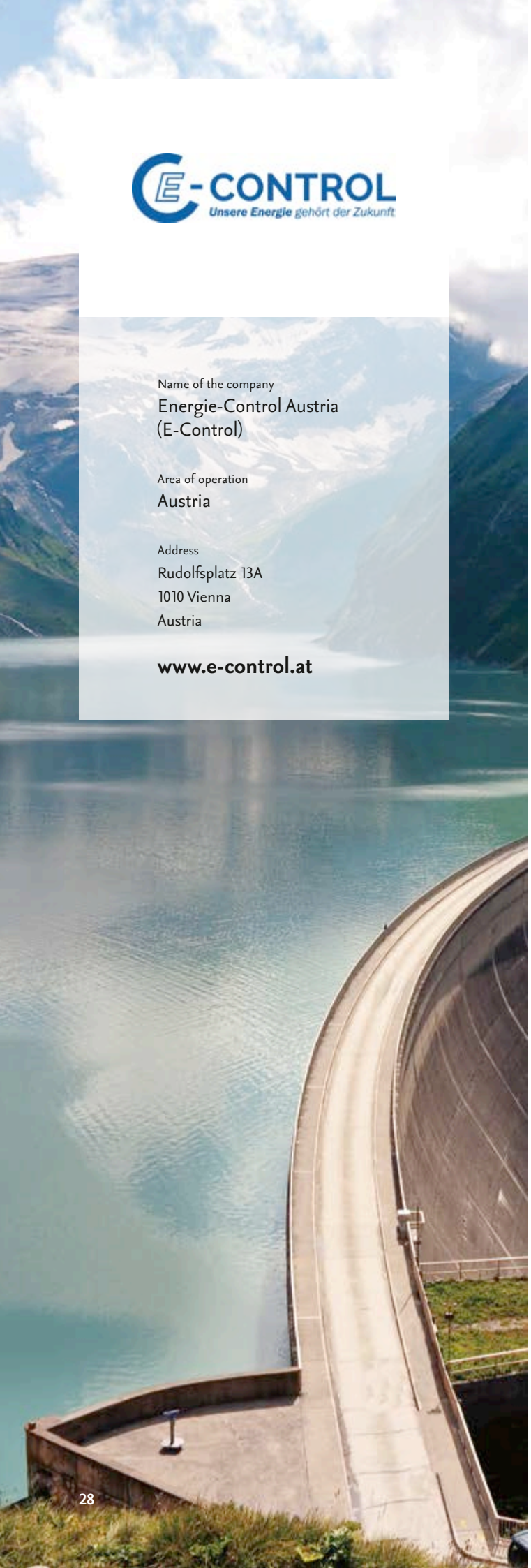
Item	Budget 2019	Total costs	Result (Y)
General Secretariat	191 117,00 €	216 345,06 €	–25 228,06 €
Financial & Bank charges	2 600,00 €	4 169,65 €	– 1 569,65 €
Corporate and legal advice	85 258,00 €	104 341,65 €	–19 083,65 €
Residual Mix Calculation	25 000,00 €	13 885,00 €	11 115,00 €
Expenses	79 660,00 €	83 564,75 €	– 3 904,75 €
Cost centre General	**383 635,00 €**	**422 306,11 €**	**–38 671,11 €**
System changes	101 717,44 €	70 800,74 €	30 916,70 €
Hub re-tender	45 000,00 €	32 470,00 €	12 530,00 €
Contract management	9 240,00 €	4 352,19 €	4 887,81 €
Hosting and support	68 335,92 €	65 164,70 €	3 171,22 €
WGS Secretary / superuser	80 640,00 €	89 455,13 €	– 8 815,13 €
Cost centre WG Systems	**304 933,36 €**	**262 242,76 €**	**42 690,60 €**
Technical support	57 600,00 €	67 187,82 €	– 9 587,82 €
Legal and regulatory support	20 160,00 €	33 862,13 €	–13 702,13 €
DP reviews and audits	40 500,00 €	45 170,98 €	– 4 670,98 €
CEN (EN16325) - Standardisation	7 200,00 €	34 847,08 €	–27 647,08 €
Regatrace	0,00 €	19 806,76 €	–19 806,76 €
Cost centre WG Internal Affairs	**125 460,00 €**	**200 874,77 €**	**–75 414,77 €**
Technical support	34 233,60 €	45 645,01 €	–11 411,41 €
Annual report	6 895,00 €	4 637,89 €	2 257,11 €
News letter	2 360,00 €	0,00 €	2 360,00 €
Website	57 466,00 €	49 946,98 €	7 519,02 €
Greening up the AIB	390,00 €	0,00 €	390,00 €
Trade mark	5 000,00 €	7 572,98 €	– 2 572,98 €
Cost centre WG External Affairs	**106 344,60 €**	**107 802,86 €**	**– 1 458,26 €**
Total	**920 372,96 €**	**993 226,50 €**	**–72 853,54 €**

Reports from members/ from observers

The following pages give details of each of the members of the AIB and summarise the major events of 2019 and the expectations of 2020 for members and their countries.

OKTE of Slovakia, EMS of Serbia and DAPEEP of Greece joined the AIB during 2019, and applications for membership were received from the Latvian transmission system operator (Augstsprieguma tīkls AS), the Portuguese national transmission systems operator, (REN - Redes Energéticas Nacionais), and the Montenegrin energy regulatory agency (REGAGEN).

The scope of national participation in EECS shows the degree to which EECS is implemented in that country, according to the best available statistics.



REPORT FROM MEMBER

Name of the company
Energie-Control Austria (E-Control)

Area of operation
Austria

Address
Rudolfsplatz 13A
1010 Vienna
Austria

www.e-control.at

Profile of the organisation

E-Control is the Austrian Energy Regulator.

Role

Competent Authority for electricity guarantees of origin (GOs) for all types of resources. Competent Authority for gas and hydrogen guarantees of origin. Competent authority for electricity and gas source disclosure in Austria.

Member of the AIB

E-Control joined the AIB in the summer of 2001. Since 2008, Angela Tschernutter has been an active member of the AIB as Vice Chair of the Board and from December 2016 onwards, Chair of the Board of AIB.

Activities within the AIB

Angela Tschernutter: Board Chair since December 2016, previously Board Vice Chair and Member of Working Group Internal Affairs. She was also partner and work package leader in the RE-DISS projects and is involved in the Concerted Action RES Projects and several other European projects and groups dealing with GOs and disclosure.

News and perspectives regarding the national IB

E-Control's day-to-day business includes dealing with approximately 98 000 plants that generate electricity from renewable and fossil sources. All plants are issued GOs from the Austrian disclosure database via highly automated processes. Austria implemented a full disclosure system as of 2015. Suppliers disclose 100% of the electricity delivered to final customers with GOs from all types of sources (in practice, RES GOs and fossil GOs are used). All suppliers have implemented this full disclosure requirement, resulting in full transparency for consumers in Austria. Based on this supply-side obligation, it can be assumed that almost 100% of the Austrian electricity production is registered in the Austrian database.

The processes and database are continuously being improved. In 2019 the extension of a gas GO system was launched. A gas disclosure by-law was published in September 2019 and has been in force since 01.01.2020. The registry is currently being updated to allow for the registration of gas plants, the issuing of gas GOs and cancellation for disclosure purposes.

News and perspectives regarding the national framework for electricity and gas

The amendments of the RES Directive and the Electricity Directive will result in adaptations to the national law, which are foreseen for 2020 and will broaden the scope of electricity GOs and source disclosure to gas GOs and source disclosure. The Gaskennzeichnungsverordnung (Gas disclosure Ordinance) BGBl. II Nr. 275/2019 was published in

September 2019 and came into force on 01.01.2020. In 2020, suppliers can voluntarily disclose the sources of gas with GOs to their customers, unless the total Austrian production and injection into the grid of biogas reaches more than 30 m³ (in that case, disclosure becomes obligatory for all suppliers). With the revision of the Gas Act in 2020 this gap will be bridged.

Benefits to the company of AIB membership

The AIB is a major player in the international market for trading guarantees of origin and certificates issued for fossil and nuclear plants and in the future, potentially for gas plants. E-Control supports the AIB in the discussions on becoming a central platform for international trades of GOs, including gas GOs. As Austria currently implements the national gas GO and disclosure system, it would be interested in working in parallel on an AIB platform for trading gas GOs throughout Europe. We are convinced that at a certain point, all existing and new members will profit from a good and solid development of the gas system and the know-how from experienced countries who have already implemented their gas systems. Furthermore, it is expected that the CEN-EN 16325 standard will include regulations on gas, therefore a close working relationship between members of the AIB and members of the CEN-EN 16325 is required.

The AIB unites decision takers, issuing bodies and organisations responsible for energy source disclosure within the association. E-Control enjoys being the chair of the Board of AIB and working as part of an excellent network of professionals. It allows us to participate in the development and improvement of the EECS standard which is based on European legislation and national laws. The mutual learning and the enjoyment of working with highly qualified people from different nationalities greatly contributes to positive outcomes. The re-organisation of the AIB offers a lot of new possibilities for members. New roles and groups have been developed: a new decision taking model will be put in place to reflect the changing situation of having many different members on board and a new spirit will drive the organisation towards a highly professional and efficient Association.

Being part of the AIB and working with a high-quality standard for trading GOs internationally on a well-functioning hub is the core benefit for us. The gathering of the specialists in that field and the bundling of know-how are facilitating transparency in the market for final customers. E-Control enjoys being a part of the AIB and leading the board with enthusiastic people and great ideas. The interesting discussions on new ideas and perspectives, the constant developments of the high-quality hub and the standard and the positive working atmosphere are the core drivers for E-Controls engagement. A central hub which connects national GO systems for electricity and in the future also gas, is leading to a robust and trustworthy market. Dr. Harald Proidl, Head of Renewables and Energy Efficiency Department

"Being part of the AIB and working with a high-quality standard for trading GOs internationally on a well-functioning hub is the core benefit for us."

Scope of national participation in EECS

Number of registered scheme participants	56

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
96 893	22 460

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
PV	92 816	1 263
Hydro	3 425	17 832
Wind	652	3 365

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

EECS RES production	National RES production
38 421	41 774

brugel

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

Name of the company
BRUGEL

Area of operation
Belgium (Brussels)

Address
Avenue des Arts 46
1000 Brussels
Belgium

www.brugel.brussels

REPORT FROM MEMBER

Profile of the organisation

BRUGEL, the Brussels Energy Regulator, regulates and monitors the regional energy market. BRUGEL ensures that the distribution network is effective, accessible and reliable for consumers and producers.

Role

One of BRUGEL's missions is to manage the markets for green certificates and guarantees of origin. This means that BRUGEL is responsible for the calculation and issuing of green certificates and guarantees of origin. It is also responsible for the management of transactions, the certification of installations, as well as the control and the follow-up of the installations already established in the Brussels-Capital Region.

For disclosure, BRUGEL has developed and operates an online tool, Greencheck (https://greencheck.brugel.be). It allows Brussels end-consumers to check the green percentage declared by their electricity supplier for their specific consumption point. It also shows if the electricity supplier has declared the required number of GOs to cover the client's consumption and allows the client to identify the type of green energy provided and its geographical origin.

Member of the AIB

BRUGEL has been a member of the AIB since 2008.

Activities within the AIB

- Representatives at the General Meeting and Working Group Internal Affairs: Régis Lambert and Laura Rebreanu
- Representative at Working Group Systems: Attila Acs

News and perspectives regarding the national IB

During 2019, BRUGEL has focused on further developing and improving its database, managing the production devices and the market for green certificates. The handling of guarantees of origin has been implemented as planned and it is now fully functional. Reinforced security and new functionalities were implemented, greatly facilitating the issuing and management of both green certificates and guarantees of origin. As the renewable market develops, so do the activities and responsibilities of BRUGEL. Therefore, in order to ensure the highest level of service, BRUGEL plans to increase the size of the Renewable Energy team by hiring new collaborators by the end of 2019/2020, including one person exclusively in charge of the follow-up and management of guarantees of origin.

> "Being a part of the AIB allows us to offer to our suppliers an easier way to fulfil their obligations regarding disclosure of their electricity sources and to create a more transparent electricity market.""

News and perspectives regarding the national framework for electricity

BRUGEL has been involved in the REDII implementation process on the regional legal framework and will continue this work throughout 2020. In this setting, BRUGEL works on collective self-consumption and renewable energy communities and plans to look at the possible interactions with the guarantees of origin system.

The support system, based on green certificates, is designed in such a way as to ensure its stability while offering generous incentives in order to develop renewable production in Brussels. Photovoltaic panels benefit from a multiplier factor, which has to be adjusted yearly in order to maintain a return on investment of seven years for the owners. BRUGEL recommended that the factors be revised downward for 2019 and 2020 and will work with the regional government to implement the changes as smoothly as possible during 2020.

Proving that the support system reaches its objectives, 971 new photovoltaic installations were installed in 2019, which represents a 35% increase compared to 2018 (627 installations). About 90% of these installations are small (≤ 10 kW), which shows that the system remains interesting for small private owners.

Benefits to the company of AIB membership

The AIB greatly facilitates the exchange of GOs amongst market players, while ensuring high-quality common standards through its checks and audits of all members and Domains. Thanks to its membership, BRUGEL can respect, in a very efficient way, the European legislation regarding electricity source disclosure and can inform Brussels consumers on the origin of the electricity they consume. This, in turn, allows them to make informed decisions on their choice of supplier and the type of electricity they want to consume, which we hope will increase the demand for green energy.

The AIB also unites a variety of organisations from numerous European countries and it is a great platform to exchange information, ideas and good practices.

Scope of national participation in EECS

Number of registered scheme participants	39

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1	51

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Municipal waste incineration	1	51

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

EECS RES production	Regional RES production
117,57	195,67

Name of the company
VREG

Area of operation
Belgium (Flanders)

Address
Koning Albert II-laan 20, bus 19
1000 Brussels
Belgium

www.vreg.be

REPORT FROM MEMBER

Profile of the organisation
Electricity, gas and district heating regulator

Role
Competent Authority and Issuing Body for guarantees of origin, competent body for disclosure scheme and providing disclosure information.

Member of the AIB
Member of the AIB since 2006.

Activities within the AIB
– Pieterjan Renier: vote
– Katrien Verwimp: Chairperson WGIA
– Karolien Verhaegen: Registry Operation
– Dirk Van Evercooren: President
– Bram van der Heyde: WGIA (gas topics)

News and perspectives regarding the national IB
Flanders has developed a legislative GO scheme for gas and heating and cooling from renewable energy sources, based on the fundamentals provided by the electricity GO scheme. VREG has been assigned as issuing body for these new GOs and started the implementation of this legislation in 2019, but this will carry on into 2020.

News and perspectives regarding the national framework for electricity
The VREG online Greencheck has been upgraded to allow each individual consumer to check, for 12 months in the past, the energy source and the country of origin mentioned on the GOs cancelled by the electricity supplier for this specific commercial product. This greencheck incorporates reporting of consumption by grid operators and completes the volume check on the suppliers' cancellation of the amount of green electricity supply agreed up on.
https://www.vreg.be/nl/controleren-hoe-groen-uw-stroom-groencheck

In addition, the VREG online Origin Comparator provides a consumer-friendly overview of the origin of the supplied energy of all products and of all electricity suppliers. Information on origin provides relevant orientation for customers at the point of choosing their electricity supplier. https://www.vreg.be/nl/herkomst-stroom

> “ For VREG, AIB membership is first and foremost a question of efficiency.”

Benefits to the company of AIB membership

Energy consumers need to be able to trust GOs. The assurance brought by the reliability checks and audits that AIB does on all connected Domains, provides an important saving of resources for the national issuing bodies. Being able to transfer GOs over a single connection to the AIB Hub is also much more efficient than having to set up bilateral connections. For VREG, AIB membership is first and foremost a question of efficiency.

Additional information

Quality assurance is crucial. AIB needs to do the utmost to ensure that consumers can trust the information carried by Guarantees of Origin. That, combined with the efficiency of the Hub, needs to be the ‘Unique Selling Proposition’ of the organisation.

Scope of national participation in EECS

Number of registered scheme participants	82 *

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
430 570	5 220

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biogas	156	149
Biomass	43	627
Hydropower	14	6
Wind	305	1 256
Solar PV devices > 10kW	7 240	1 296
Solar PV devices < 10 kW (non-EECS)	422 812	1 886

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

EECS RES production	National RES production
6 435	2018: 8 525 **

* Due to a change in the certification database, participants need to specify if they want to use the AIB Hub for trading. This results in a big decline of the figure, because in previous years all members were taken into account.

** Data not yet available for 2019

Wallonie énergie SPW

Name of the company
Service Public de Wallonie

Area of operation
Belgium (Wallonia)

Address
Rue des Brigades d'Irlande 1
5100 Namur
Wallonia, Belgium

https://energie.wallonie.be

REPORT FROM MEMBER

Profile of the organisation

Walloon Administration, Department of Energy.

Role

Competent authority for renewables (EECS GO), CHP electricity and Gas Guarantees of Origin, Operator of the Green Certificate database in Wallonia.

Member of the AIB

Member of the AIB since 2019.
On May 1st 2019, the responsibility regarding Guarantees of Origin was transferred from the energy market regulator, CWaPE.

Activities within the AIB

- Representatives to the General Meeting: Muriel Hoogstoel & Annie Desaulniers
- Working Group Systems Chair: Annie Desaulniers

News and perspectives regarding the national IB

- In early 2019, CWaPE implemented the necessary changes to the registry to accommodate biomethane which will benefit from indirect support through biomethane GOs

News and perspectives regarding the national framework for electricity

In 2020, a new support scheme for the injection of biomethane will be implemented, allowing for the granting of Guarantees of Origin to biomethane producers, which may be purchased by electricity producers eligible for the Walloon Green Certificate scheme.
As many green energy production facilities are reaching the end of their grant periods, a new support scheme called 'prolongation' will be put in place with the aim of granting producers the aid required to keep their facilities in operation.

> "In May 2019, the Walloon Administration succeeded the energy market regulator as member of the AIB."

Benefits to the company of AIB membership

To work on promoting green energy production by improving the trade of Guarantees of Origin at an international level and exchanging good practices at a European level.

Additional information

In May 2019, the Walloon Administration succeeded the energy market regulator as member of the AIB. This move was part of a more general transfer of responsibilities concerning green energy promotion, aimed at ensuring the independence of the regulator by transferring all administrative tasks to the Walloon Administration. However the regulator retains responsibility for controlling the Fuel Mix.

Scope of national participation in EECS

Number of registered scheme participants	1 374

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
2 075	1 625

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass (total)	55	298
among which bio-CHP	42	172
Wind	131	946
Hydro	66	119
Solar	1 823	262
Total	2 075	1 625

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

EECS RES production	Regional RES production
3 076	4 860

—CREG—

Name of the company
CREG

Area of operation
Belgium (Federal)

Address
Nijverheidsstraat 26
Brussels
Belgium

www.creg.be

REPORT FROM MEMBER

Profile of the organisation

CREG is the regulator of the Belgian electricity and gas markets since 1999. It is an independent body, answerable to the Federal Parliament.

Role

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

Member of the AIB

Member of the AIB since 2015.

Activities within the AIB

During 2019, CREG was represented in the AIB General Meetings and Working Group Internal Affairs by Philip Godderis.

News and perspectives regarding the national IB

With the sixth wind park that came on-line in 2019, 370 MW was added to the total offshore capacity, which now amounts to 1,556 MW. Further expansion is planned in 2020. The connection of the CREG registry to the AIB hub resulted in the switch to web service. A technical audit confirmed the robustness of the registry.

> " 285 km² of new zones for renewable production offshore will be tendered via a procedure the legal basis of which was established in the Electricity Act. "

News and perspectives regarding the national framework for electricity

The regulatory framework regarding Guarantees of Origin is stable. Approximately 285 km² of new zones for renewable production offshore will be tendered via a procedure the legal basis of which was established in the Electricity Act. Also in 2019, the Modular Offshore Grid was brought into service.

Benefits to the company of AIB membership

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

Scope of national participation in EECS

Number of registered scheme participants	7

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
6	1 556,4

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Offshore Wind	6	1 556,4

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

EECS RES production	Regional RES production
4 092,275	4 092,275

Name of the company
HROTE
(HRVATSKI OPERATOR
TRŽIŠTA ENERGIJE d.o.o.)

Area of operation
Croatia

Address
Ulica grada Vukovara 284
10 000 Zagreb
Croatia

www.hrote.hr

"On 28 August 1895 electricity generated at this location was transmitted to the city of Šibenik, where six power transformers supplied a large number of street lamps. This early system of power generation, transmission and distribution was one of the first complete multiphase alternating current systems in the world and it remained in operation until World War I."

REPORT FROM MEMBER

Profile of the organisation

HROTE was established in 2005 as the state-owned company, which performs the activities necessary to organise the electricity and gas market as a public service under the supervision of the Croatian Energy Regulatory Agency. HROTE controls the system of financial incentives for renewable energy sources and high efficient cogeneration under the supervision of the Ministry.

Role

The Regulation establishing the system of Guarantees of Origin of electricity was passed in July 2013.
The Regulation determines the rules of electricity Guarantees of Origin for the purpose of certification of electricity produced by plants in the Republic of Croatia, in accordance with the Energy Act.
In accordance with the Regulation, HROTE performs the role of the Competent Body (in accordance with the RED) and the Issuing Body for the Domain.

Member of the AIB

HROTE became an AIB member with conditional status in May 2014. Since then all terms of the disclosure rules have been fulfilled and the unconditional status of the membership was approved in November 2014.

Activities within the AIB

- Dubravka Brkić contributes in WGEA as chair.
- Ida Žužić contributes in WGIA as a member.
- Morana Lončar contributes in WGIA as a member.

News and perspectives regarding the national IB

The Rules on use of the Guarantees of Origin Registry detail the running of the Registry (of electricity Guarantees of Origin) for the purpose of certification of electricity produced by plants in the Domain, in accordance with the Electricity Market Act. The Rules are under the supervision of HROTE.
The Registry is an electronic registry based on database technology providing the option of international GOs transfer: http://www.hrote.hr/registry
During 2019, HROTE issued guarantees of origin for electricity to eligible producers in the incentive system, (sold through the EKO balance group to the electricity market) which were then sold on the market through auctions, i.e. through CROPEX IT auction platform trading platforms. Following the conclusion of the auction and successful sale of the guarantees of origin, the collected funds were transferred to the incentive system fund, while the sold guarantees of origin were transferred from the HROTE account in the Croatian registry, to the accounts of the auction participants who successfully bought them.

For 2019, the percentage or portion of electricity from eligible producers in the incentive scheme that was sold was 30% or 899,199 guarantees of origin.

News and perspectives regarding the national framework for electricity

Via the Law on Renewable Energy Sources and High-Efficiency Cogeneration, a Decree on the Promotion of Electricity Production from Renewable Energy Sources and High-Efficiency Cogeneration was adopted.

This details the manner and conditions for implementing new incentive models: by awarding market premiums or paying the guaranteed purchase price, setting maximum benchmarks, maximum guaranteed purchase prices, contracting procedures, setting quotas for incentives, primary energy sources, installed power, etc. In addition, the Regulation also highlights a way to obtain preferential producer status for both the model of granting market premium and the model of paying the guaranteed purchase price.

Pursuant to Article 22 of the Regulation, the Electricity Market Operator (HROTE) should set and publish annually on its website, the maximum benchmarks from the market incentive system and the maximum guaranteed purchase prices for groups of generating plants as defined in Article 4 of the Regulation.

By adopting a proportion of the remaining by-laws, from the Act, quotas are set for groups of plants whose production will be stimulated and the conditions for tendering were announced, for the said forms of incentives. HROTE will call for tenders and make public the maximum benchmarks (prices), for groups of plants to be encouraged to apply. Project holders who tender at a competitive bid for a guaranteed price or market premium will be eligible to enter into a Purchase Agreement.

Benefits to the company of AIB membership

Working meetings and communication within the AIB is important due to the progress of the new Renewable Directive and reporting to national authority institutions responsible for guarantees of origin and disclosure.

Additional information

The Croatian domain is a “small registry” regarding the number of account holders and registered plants, and as such, it was a good experience to start with the implementation of the Guarantees of Origin System from the beginning. At the end of 2019 there were five producers with 18 power plants, six electricity suppliers and one trader registered in Croatian domain.

Although the Croatian Register remains a “small member”, in 2019 it issued 4,63 TWh which is a significant increase compared to 2018, when 2,62 TWh were issued.

> “ Working meetings and communication within the AIB is important due to the progress of the new Renewable Directive ...”

Scope of national participation in EECS

Number of registered scheme participants	12

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
18	1 969,74

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydropower	15	1 949,59
Wind	2	17,15
Termal	1	3

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

EECS RES production	National RES production
5 258,41	13 799,89

Name of the company
Transmission System Operator – Cyprus (TSOC)

Area of operation
Cyprus

Address
Evangelistrias 68
2057 Strovolos
Cyprus

www.tsoc.org.cy

REPORT FROM MEMBER

Profile of the organisation

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

Role

TSOC is responsible for issuing, transferring, cancelling and revoking Guarantees of Origin both for RES and High Efficiency CHP installations in Cyprus.

Member of the AIB

TSOC has been a member of AIB since September 2014.

Activities within the AIB

TSOC is represented in the AIB General Meetings and WGIA by Michalis Syrimis.

News and perspectives regarding the national IB

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

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

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

News and perspectives regarding the national framework for electricity

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

Benefits to the company of AIB membership

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

Scope of national participation in EECS

Number of registered scheme participants	6

Registered production devices and total capacity installed

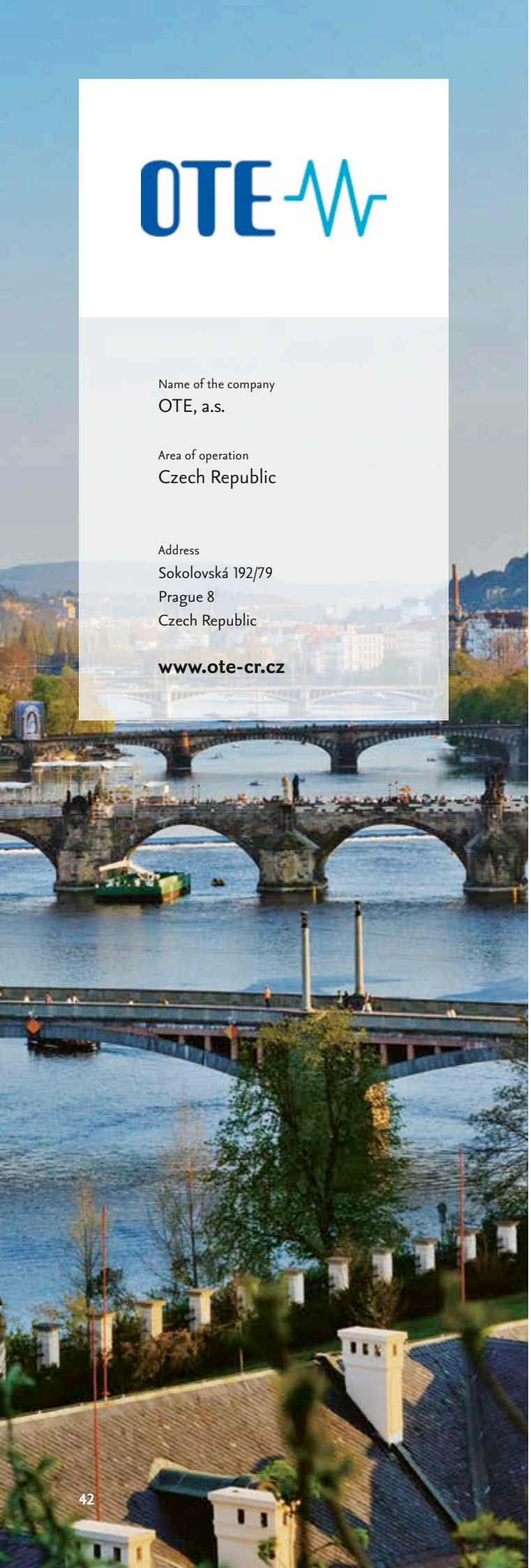
Number of production devices	Total capacity installed (MW)
6	157

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	6	157

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

EECS RES production	National RES production
236,6	493,7



Name of the company
OTE, a.s.

Area of operation
Czech Republic

Address
Sokolovská 192/79
Prague 8
Czech Republic

www.ote-cr.cz

REPORT FROM MEMBER

Profile of the organisation

OTE, a.s., the Czech electricity and gas market operator, is a joint stock company, established in 2001. OTE provides comprehensive services to individual electricity and gas market players. OTE commenced facilitating trading in the day-ahead electricity market in 2002 and later, the intra-day and block electricity markets. OTE has been the market operator of the gas market since 2010, including the operation of the day-ahead gas market and the intra-day gas market. Among the services offered by OTE to players in the Czech electricity and gas markets are: continuous data processing and exchange, required for the accounting and settlement of the imbalance between the contractual and actual volumes of electricity and gas supplied and received, as well as the administrative procedures associated with change of supplier.

OTE is responsible for payments of a green bonus and feed-in tariff for electricity produced from renewable energy sources, secondary sources and combined heat and power. OTE is also the Czech national administrator of the Union Registry which serves to guarantee accurate accounting for all allowances issued under the EU Emissions Trading System (EU ETS). OTE is the holder of the license for market operator activities, which includes activities in the electricity and gas markets in the Czech Republic.

Role

OTE is a RES and high efficiency CHP GOs Issuing Body for the Czech Republic.

Member of the AIB

Member of the AIB since 2013.

Activities within the AIB

OTE is represented in the AIB General Meetings by Martin Štandera who is WGS vice-chair and since December 2017 also an AIB Board Member.

News and perspectives regarding the national IB

In the area of supported energy sources and guarantees of origin, we focused on further development of processes leading to an increase in the quality of services provided to producers.

> “ Year-on-year, growth in the number of issued guarantees of origin and their international transfers are also evidence that this service is attractive for market participants.”

News and perspectives regarding the national framework for electricity

Successful completion of registration of supply and delivery points in the OTE information system, which was carried out in close cooperation with distribution system operators, is of great importance for the electricity market. It is a fulfilment of the vision with which the market operator OTE was established in 2001 and represents another step towards the development of cooperation in the energy sector.

An important milestone in the integration of the electricity markets was reached on 19 November 2019, when the market operator, in cooperation with the transmission system operator, successfully joined the so-called second wave of implementation within the European interconnection of intra-day electricity markets. Within the first days of the interconnection, positive results of this successful initiative emerged. In the area of market integration, other challenges and opportunities lie ahead. We are working hard to significantly integrate the national day-ahead markets of the Czech Republic, Slovakia, Hungary and Romania (the so-called 4M MC) and other European markets, in the framework of Multi-Regional Coupling with a view to completing several years of implementation of the united day-ahead electricity market across the continent.

Benefits to the company of AIB membership

Long-term international cooperation of OTE does not concern electricity and gas trade only, but also the administration of the issuance of guarantees of origin. We are honoured that we can bring market participants proven, transparent and internationally harmonized solutions in the area of electricity certification. Year-on-year, growth in the number of issued guarantees of origin and their international transfers are also evidence that this service is attractive for market participants.

Scope of national participation in EECS

Number of registered scheme participants	884

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 784	3 770

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	167	397
Solar	494	949
Thermal	662	958
Hydro	461	1 466

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

EECS RES production	National RES production
5 895	8 393

ENERGINET

Name of the company
Energinet

Area of operation
Denmark

Address
Tonne Kjærsvej 65
7000 Fredericia
Denmark

www.energinet.dk

REPORT FROM MEMBER

Profile of the organisation
TSO

Role
Energinet.dk is the Danish issuing body, issuing under EECS:
- guarantees of origin for renewable source electricity (since 2004),
- guarantees of origin for highly efficient cogeneration (since 2010).

Member of the AIB
Energinet has been member of the AIB since 2002.

Activities within the AIB
Energinet is currently represented in the AIB GM's by Carl Morten Baggesen Hilger, taking part in Workgroup Internal Affairs.

News and perspectives regarding the national IB
In the beginning of 2019, Denmark introduces hourly settlement, mobilising more flexible consumption based on hourly energy price signals. Yet energy suppliers can still brand their products towards final customers using GO™'s though the GO™'s are disclosed at a late aggregated monthly level. Further, plans for 15 minutes settlement are in progress with Energinet's daughter company Energinet DataHub A/S.

> "Price transparency and auctions in the certificate market, declaring the origin of electrical production, is still important to provide a trusted information supply chain targeting the final customer's free choice of energy."

News and perspectives regarding the national framework for electricity

Energinet plans to introduce a new CO_2-Signal – by the hour – to provide individuals not only the price per hour – going forward but also a CO_2 value. This may affect final customers' decisions, and possibly be key for driving a change in behaviour, as the empowerment of individuals is crucial in greening the energy system. Agile behavioural changes will be a function of CO_2 to some and a function of price to others.

Benefits to the company of AIB membership

Being an AIB-member, sharing best practices, and taking part in developing the European AIB-Hub for a controlled exchange of certificates ensures that Energinet meets the requirements of the EU directives in a secure and efficient way. "Price transparency and auctions in the certificate market, declaring the origin of electrical production, is still important to provide a trusted information supply chain targeting the final customer's free choice of energy", says Carl Morten Baggesen Hilger, Energinet.

Scope of national participation in EECS

Number of registered scheme participants	22

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
115 102	9 569

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	77	2 229
Biogas	199	139
Wind	6 953	6 107
Hydro	40	7
Solar	107 833	1 086

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

EECS RES production	National RES production
20 460	21 538

elering
GENERATING OPPORTUNITIES

Name of the company
Elering AS

Area of operation
Estonia

Address
Kadaka tee 42
12915 Tallinn
Estonia

www.elering.ee

REPORT FROM MEMBER

Profile of the organisation

Electricity and Gas Transmission System Operator

Role

Elering is an independent electricity and gas transmission system operator with the primary task of connecting the producers, various network operators and consumers who form the system as a unified whole, ensuring a high-quality energy supply to Estonian consumers. The mission of Elering is to keep the lights on and homes heated in Estonia.

Member of the AIB

Elering AS first became an observer of the AIB in 2011 and was accepted as a full member in September 2014.

Activities within the AIB

River Tomera has been a member of the WGIA since the autumn of 2015, with Liis Kilk being the alternate member.

News and perspectives regarding the national IB

The national support scheme is now an integral part of the Renewable Energy Information System managed by Elering. At present, it incorporates both the registry of guarantees of origin and production subsidies. Based on the feedback by market participants and in order to meet the requirements set by the AIB Hub, Elering AS continues to develop and improve the system and is currently working on integrating the possibility for end-customers to view the origin of the electricity supplied to them, via the same database.

News and perspectives regarding the national framework for electricity

The production support scheme, which received state aid permission by the European Commission in 2017, is ending and a new scheme starting from 2020 will tie the support scheme to the national objective of generating electricity from renewable sources. The necessary amount of renewable electricity required to reach that target will then be purchased via public reverse auctions arranged by the government. By the time this report is published, Elering will have already held the first auction in March 2020.

> "Being a part of the AIB enables us to participate in the further development and promotion of the harmonised and transparent EECS rules to ensure a reliable Europe-wide GO market."

Benefits to the company of AIB membership

"Elering AS has been appointed to administer the system for guarantees of origin (for both electricity and biomethane production) and alongside the physical electricity and gas networks, Elering helps develop the energy sector's IT infrastructure. Being a part of the AIB enables us to participate in the further development and promotion of the harmonised and transparent EECS rules to ensure a reliable Europe-wide GO market. AIB membership also provides a means to share experiences and best practices, to enhance our system and to meet the demand of the market even better."

River Tomera, Head of Renewable Energy Unit

Scope of national participation in EECS

Number of registered scheme participants	111

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
160	1 863,7

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	27	315
Hydro	18	6,2
Biogas	7	6
Biomass	22	1 489
Solar	82	30
Natural gas	4	17,5

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

EECS RES production	National RES production
1 641	1 970

FINGRID Finextra

Name of the company
Finextra Oy

Area of operation
Finland

Address
Läkkisepäntie 21
Helsinki

www.fingrid.fi

REPORT FROM MEMBER

Profile of the organisation

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

Role

Fingrid Oyj, which is the appointed Competent Issuing Body for electricity GOs according to Finnish legislation, has assigned this duty to its totally owned subsidiary Finextra Oy.

Member of the AIB

Finextra Oy has been a member of the AIB since 2015.

Activities within the AIB

Kaija Niskala has been a member of the Working Group Internal Affairs since 2015.

News and perspectives regarding the national IB

Our goal is to maintain high customer satisfaction in Finextra's GO Service. We develop our registry cost-effectively, as needed, in order to meet customers' expectations and requirements.

> "Finland wishes to be at the forefront of battling climate change and aims to achieve carbon neutrality by 2035. Fingrid is also working towards this goal. "

News and perspectives regarding the national framework for electricity

The regulatory framework regarding GOs is stable. National implementation of RED II has started.

Fingrid has established a fully owned subsidiary Fingrid Datahub Oy, which will take care of the operational tasks of the centralised information exchange system. Datahub will speed up, simplify and improve processes for every market party in electricity information exchange. The centralized solution provides all parties with equal and simultaneous access to the information

Benefits to the company of AIB membership

The main benefit of being the member of AIB is that it enables reliable transfers of GOs across Europe.

Scope of national participation in EECS

Number of registered scheme participants	36

Registered production devices and total capacity installed

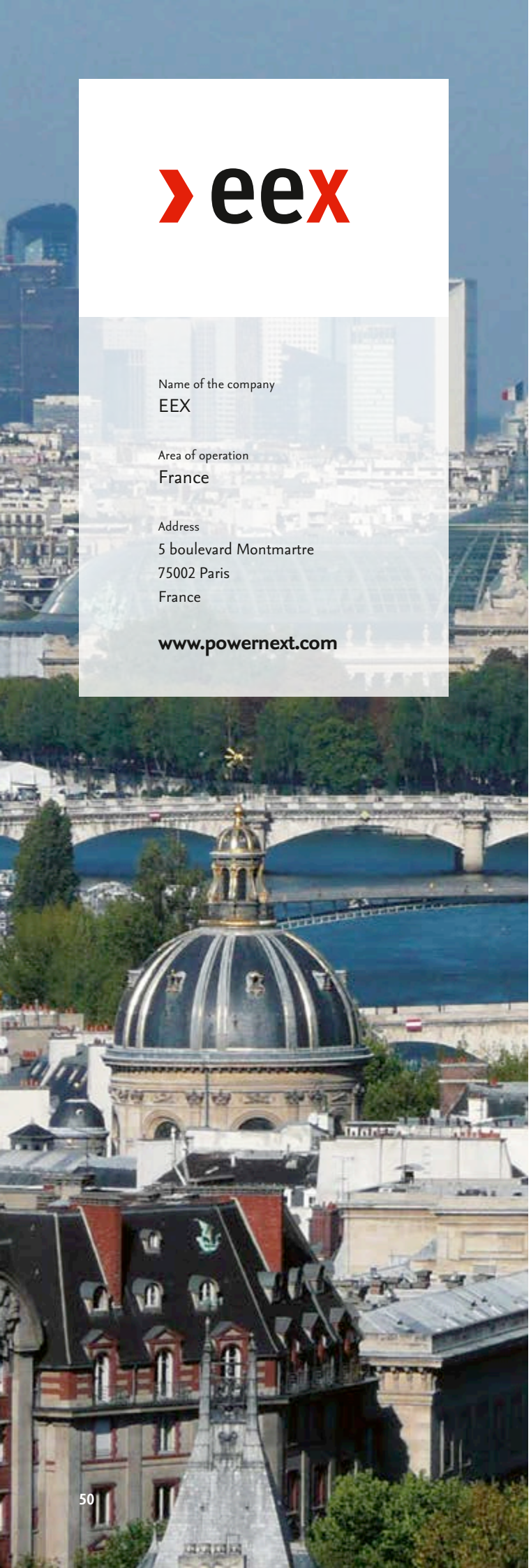
Number of production devices	Total capacity installed (MW)
638	10 906

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	163	3 208
Wind	381	2 209
Solar	8	4
Thermal	86	5 485

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

EECS RES production	National RES production
28 400	30 400



Name of the company
EEX

Area of operation
France

Address
5 boulevard Montmartre
75002 Paris
France

www.powernext.com

REPORT FROM MEMBER

Profile of the organisation

The European Energy Exchange is the leading energy exchange in Europe which develops, operates and connects secure, liquid and transparent markets for energy and related products. As part of EEX Group, a group of companies serving international commodity markets, EEX offers contracts on Power, Natural Gas and Emission Allowances as well as Freight and Agricultural Products. EEX also provides registry services for White Certificates, Capacity Certificates and Guarantees of Origin on behalf of the French State, as well as Auctions for Guarantees of Origin. EEX is part of Deutsche Börse Group.

Role

EEX has been reappointed as the French national registry for Guarantees of Origin as of 1st January 2019 by a decree issued on 24th August 2018 by the French Ministry for an Ecological and Solidary Transition. In addition, the mandate of EEX has been extended to include the organization of auctions for Guarantees of Origin, launched in September 2019.

Member of the AIB

Member of the AIB since July 2013.

Activities within the AIB

The follow-up of AIB activities and representation of EEX in the general meeting is ensured by Aude Filippi, who is the Director for Gas & Registries at EEX and Mathieu Morvan, who is the Head of Registry Services. Moreover, Mathieu Morvan and Mohammed Mohammedi are members of the Working Group internal Affairs.

News and perspectives regarding the national framework for electricity

The French legislation on Guarantees of Origin was updated in 2017 and 2018 by introducing an auction mechanism for GOs issued from production devices receiving subsidies. The algorithm, specifically designed for the French auctions, shows how EEX has developed a solid expertise in providing tailor-made solutions to bring the GOs system forward. Those GOs are issued by the French State and then auctioned. With the new system in place, almost all renewable electricity can now be tracked.

Moreover, from January 2021, the cancellation rules for GOs will change in France: the power consumption month and the GO production month will need to coincide.

> "The algorithm, specifically designed for the French auctions, shows how EEX has developed a solid expertise in providing tailor-made solutions to bring the GOs system forward."

Benefits to the company of AIB membership

EEX has faith in the European Guarantees of Origin mechanism providing reliable information to consumers on electricity. We are particularly proud of being reappointed as the national registry for Guarantees of Origin in France. As such, we promote transparency in energy markets and we participate in the energy transition towards more renewable power consumption. By promoting market-based mechanisms for green electricity, the auction system is going in the same direction.

We decided to join the AIB the first time when EEX was designated as the operator for the national registry for GOs, in 2013. Within a very tight schedule and, thanks to the AIB, EEX has been able to allow all of its market participants to easily import and export Guarantees of Origin throughout Europe. EEX also wanted French GOs to become compliant with the EECS standard developed and promoted by the AIB. We are confident in the reliability of such a standard as it relies on clear and secured processes regularly audited by the AIB members themselves. Today as a member of the AIB, EEX is pleased to contribute to constantly improving the GO system, and therefore reinforcing consumers' confidence in renewable energy.

Scope of national participation in EECS

Number of registered scheme participants	88

Registered production devices and total capacity installed

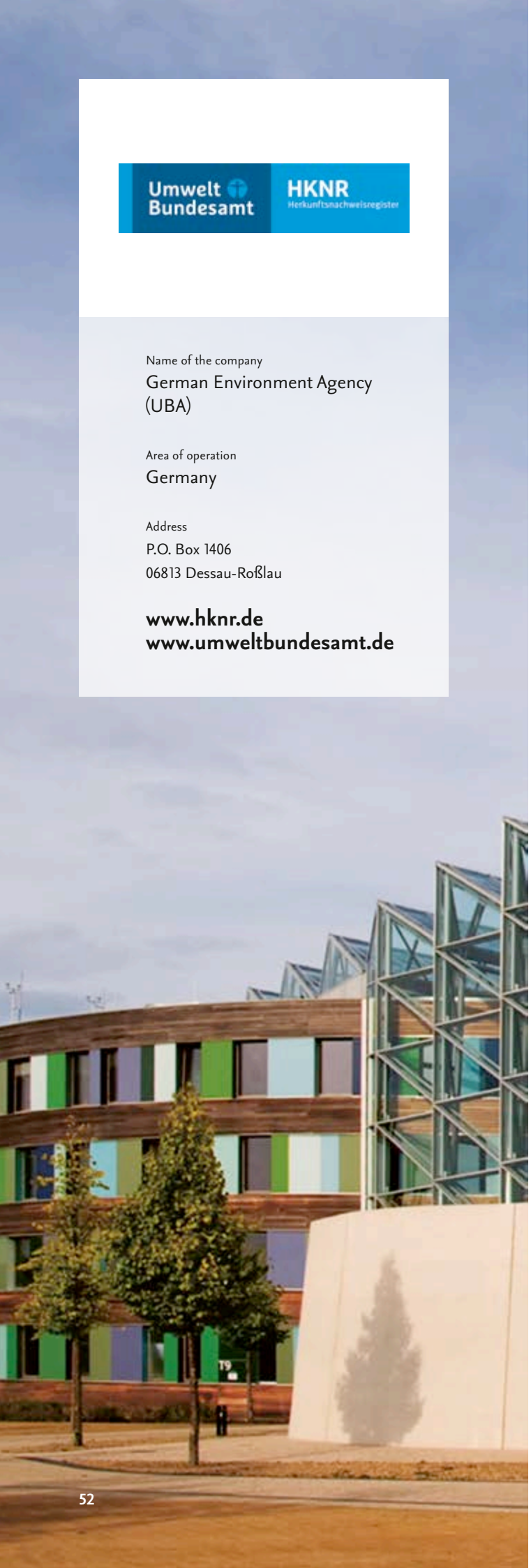
Number of production devices	Total capacity installed (MW)
9 930	43 895

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	1 919	23 950
Wind	1 506	14 539
Solar	5 902	3 320
Thermal	603	2 086

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

EECS RES production	National RES production
56 516	110 067



Name of the company
German Environment Agency (UBA)

Area of operation
Germany

Address
P.O. Box 1406
06813 Dessau-Roßlau

www.hknr.de
www.umweltbundesamt.de

REPORT FROM MEMBER

Profile of the organisation

UBA is the German scientific environment authority which deals with a wide and varied range of environmental subjects. Among its numerous tasks, UBA is the competent body operating the German registry and issuing GOs. In addition to this, UBA has regulatory power regarding the in depth provisions of GOs, the registry and the fees, detailed in the GO Implementing Ordinance. The Register of Guarantees of Origin is legally and technically supervised by the Federal Ministry of Economic Affairs and Energy.

Role

UBA is the competent authority and issuing body for Guarantees of Origin in accordance with the EU Directive 2009/28/EC. The responsible work unit is called "Register of Guarantees of Origin for Electricity from Renewable Energy sources" (German abbreviation: "HKNR").

The Bundesnetzagentur (BNetzA) is the German competent body for disclosure. UBA has very limited inspection tasks: UBA matches the supply data, received from the BNetzA for "other renewable energies", with the cancelled GOs of the supplier. The results are then sent back to BNetzA for further use.

Member of the AIB

UBA has been a member of the AIB since 2016. From 2013 to 2016, UBA was a Hub user without full membership.

Activities within the AIB

- Katja Merkel – Member of WGS
- Elke Mohrbach – Member of WGIA, Member of Change Team
- Christian Herforth – Member of WGIA, Member of Task Force Fraud Protection
- Friederike Domke – Member of WGIA

News and perspectives regarding the national IB

The UBA maintains two registries, the "Register of Guarantees of Origin" (HKNR) and the "Register of Guarantees of Regional Origin" (RNR). Acceptance of the guarantee of regional origin is developing very slowly but the numbers of participants are consistently increasing gradually. Apart from this, we have made various technical improvements to the HKNR register software. UBA is currently working on the implementation of the new directives 2018/2001 and 2019/944 and we contribute as German representatives in the revision of the CEN-Standard 16235.

> "The case was resolved in a satisfactory way for all involved parties."

News and perspectives regarding the national framework for electricity

In 2019, 244 293 GWh of electricity was produced from renewables in Germany, which is 42% of the total electricity consumption. The regulations of EU-Directive 2018/2001 regarding the issuing of gas and hydrogen GOs have not yet been implemented in Germany. The Federal Ministry of Economics is working on an amendment to the Renewable Energy Sources Act in which, amongst other things, the requirements of the new directive will be implemented.

Benefits to the company of AIB membership

Permanent discussions and sharing of knowledge between members ensure ongoing development of the system across Europe and the national system. The AIB is able to react quickly and cooperatively in order to solve problems. This was proven recently in the context of GOs that were not acceptable to any member. The case was resolved in a satisfactory way for all involved parties. Katja Merkel

Additional information

UBA has made significant contributions throughout the change process of AIB. From our point of view, the internal change of the association and its structures is absolutely necessary to future-proof, but it does demand a lot of patience. We are looking forward to seeing how the results of this process will impact the future activities and development of AIB.

Scope of national participation in EECS

Number of registered scheme participants	1 697

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
634	13 148,3

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind - onshore	212	549,3
Solar	71	77,5
Hydro	237	4 921,7
Biogas - other	2	0,8
Biogas - landfill	34	32,8
Biogas - sewage	2	0,5
Solid renewable fuels	39	1 114,5
unspecified renewable energy	37	6 451,4

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

EECS RES production	National RES production
15 580,801	244 293

Name of the company
DAPEEP S.A.

Area of operation
Greece

Address
72, Kastoros street
Pireus 18545
Greece

www.lagie.gr

REPORT FROM MEMBER

Profile of the organisation

DAPEEP operates the RES and HECHP support scheme, enters into Power Purchase Agreements (PPAs) and acts as the competent operator of the Special Account that provides financing to this support scheme. DAPEEP participates in the electricity market as the aggregator for RES and HECHP stations and is nominated as the Last Resort Aggregator for the stations that are obligated to participate in the electricity market. The company is also the competent body for administrating state aid schemes in the energy and the environmental sector and acts as the Auctioneer of the Hellenic State for the Greenhouse Gas Emission Allowances. DAPEEP is an authorised Issuing Body for electricity Guarantees of Origin and the competent body for disclosure.

Role

DAPEEP is the Issuing Body for renewable electricity Guarantees of Origin (GOs) in the Domain of Interconnected System in Greece, by virtue of Law 3468/2006.

Since January 2018, DAPEEP was also appointed as the competent body for electricity disclosure and was assigned the responsibility of auditing the electricity suppliers regarding the proper use of GOs in proving the origin of electricity to consumers.

Member of the AIB

DAPEEP S.A. is a member of AIB since December 2019.

Activities within the AIB

Maria Koulouvari represents DAPEEP in AIB activities by holding the chair of WGIA since December 2019.

> "The AIB's significant contribution to GO standardisation and cross border trade through the electronic Hub, promotes the reliable, transparent, efficient and cost-effective operation of GO systems in Europe. "

News and perspectives regarding the national framework for electricity

In June 2018, the company was renamed to "Operator for RES and Guarantees of Origin" (distinctive title DAPEEP S.A.) and its corporate business focuses on renewable electricity.

The activity of the Power Exchange has been assigned to a new Company. According to the planned schedule, the Greek electricity market will be coupled with the European internal market by July 2020.

Benefits to the company of AIB membership

The AIB's significant contribution to GO standardisation and cross border trade through the electronic Hub, promotes the reliable, transparent, efficient and cost-effective operation of GO systems in Europe.

Being an AIB member facilitates the international trade of GOs issued for renewable electricity in Greece, enhancing their value and contributing to the cost-efficient higher integration of RES stations in the Greek electricity market.

Moreover, being a part of AIB means being a part of a network that works towards a common goal, harvesting the benefits of sharing experiences, best practices and addressing issues of common relevance for the improvement of the European GO scheme.

Scope of national participation in EECS

DAPEEP became member of AIB as of December 2019. There are no EECS participants in the registry at the moment.

National RES production (GWh)
15 660,8

LANDSNET

Name of the company
Landsnet hf

Area of operation
Iceland

Address
Gylfaflöt
Reykjavik 112
Iceland

www.landsnet.is

Report from member

Profile of the organisation

Landsnet hf is the Icelandic Transmission System Operator (TSO) which was established on the basis of the 2003 Electricity Act. Landsnet's role is to operate Iceland's electricity transmission system and administer its system operations. Landsnet operates under a concession arrangement. Landsnet´s activities are subject to regulation by the National Energy Authority (Orkustofnun).

Landsnet owns operates and maintains all transmissions lines in Iceland. The Icelandic electricity system's highest operating voltage is 220 kV and will gradually replace most of the the aging 132 kV lines. As preparation for the future, a portion of the grid is made up of 400 kV capable lines that are currently being operated at 220 kV.

Role

Landsnet is the competent authority for the issuance of GOs, renewable electricity guarantees of origin in Iceland as stipulated in the Act on Guarantees of Origin, No. 30/2008.

Member of the AIB

Landsnet has been an observer of the AIB since late 2009 and applied for membership in September 2011.

Activities within the AIB

Landsnet is represented in the AIB by Svandís Hlín Karlsdóttir and Ragnar Sigurbjörnsson, who contributes to the AIB by participating in the AIB General meetings.

News and perspectives regarding the national IB

Request to IB based issuing has been replaced with a customer managed issuing. The customer now has instant access to their production and issuing values through the IB controlled database.

> "To ensure a free and open market in Iceland, the access to the AIB-Hub is vital ..."

Benefits to the company of AIB membership

The membership gives us the opportunity to easily interact with other member states of the AIB both at the General Meetings and through discussions at other venues organised by the AIB. The sharing of knowledge, experiences and best practices is of great value to us.

To ensure a free and open market in Iceland, the access to the AIB-Hub is vital where energy producers can have a credible and robust platform to transfer GOs to other member states.

Scope of national participation in EECS

Number of registered scheme participants	6

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
51	2 838,4

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	41	2 076,6
Geothermal	9	760
Wind-onshore	1	1,8

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

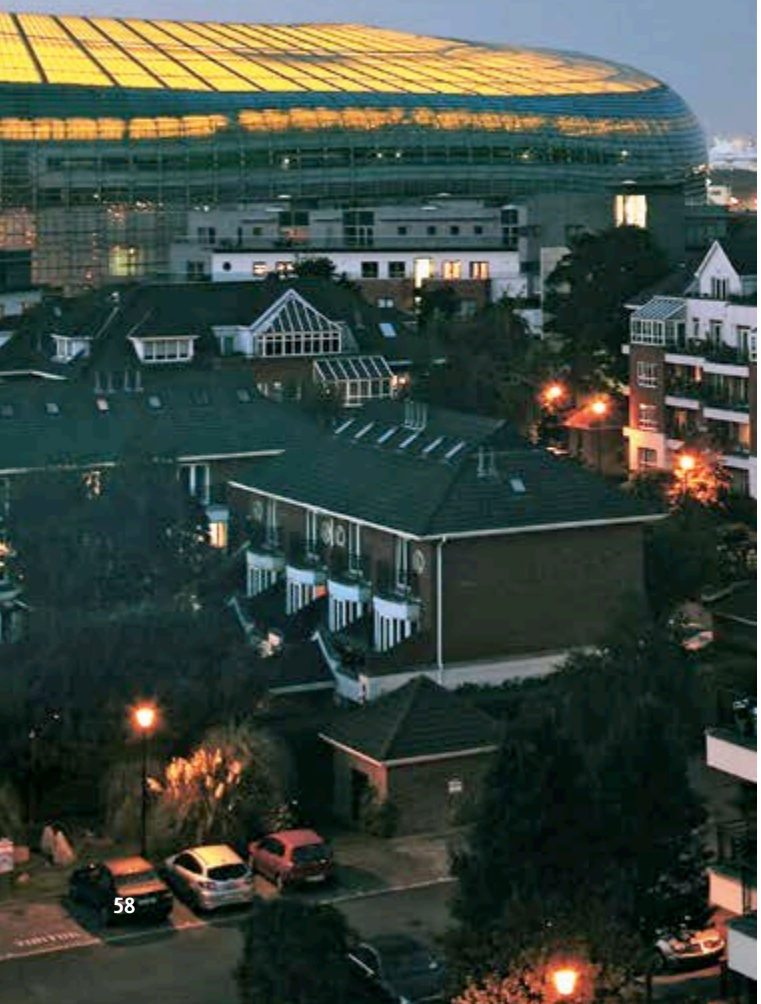
EECS RES production	National RES production
18 830,8	19 003,3

Name of the company
SEMO (Single Electricity Market Operator)

Area of operation
Ireland and Northern Ireland

Address
EirGrid plc , The Oval
160 Shelbourne Road
Ballsbridge, Dublin 4
Ireland

www.sem-o.com



REPORT FROM MEMBER

Profile of the organisation

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

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

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

Role

SEMO is the Issuing Body for Guarantees of Origin (GO) to generators of electricity from renewable sources in Ireland, in accordance with the Supervisory Framework established by the CRU. In this role, SEMO is responsible for the operation of the registry for issuance, transfer and cancellation of GOs.

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

SEMO also conducts the verification mechanism for the regulation of green source products in the electricity retail market on behalf of the CRU, in accordance with decision paper CER/15/2015.

Member of the AIB

Member of the AIB since 19th May 2015.

Activities within the AIB

– Laura Plunkett – Member of the Working Group Internal Affairs

News and perspectives regarding the national IB

SEMO continues to see strong interest in GOs in Ireland with increases in both registered scheme participants (up 25%) and in the EECS RES production.

GOs issued for renewable sources in other countries and imported to the Irish registry continue to be accepted for FMD in Ireland, provided they have not already been cancelled or used in FMD. The volume of GOs being imported to the SEM continues to grow with a doubling of volumes in 2019.

SEMO has continued a strong interest in corporate renewable sourced energy and green source products.

> "The AIB continues to play an invaluable role in the development and secure operation of Guarantees of Origin trading in Europe."

that cancellations submitted by suppliers would be accepted if the name of the beneficiary was specified on the cancellation statement. (Previously cancellations could be completed by, and for, suppliers only.)

For the second year in a row, no Irish GOs were cancelled for use in fuel mix disclosure in the UK excluding NI (known as ex-domain cancellation). However, Irish suppliers continued to import GOs from the UK to meet their demand.

News and perspectives regarding the national framework for electricity

The Supervisory Framework for the Administration of Guarantees of Origin (CER/11/824) remained unchanged in 2019.

The GO scheme in Ireland continues to be open to licenced suppliers and generators only. Applications from market parties interested in trader accounts are currently not accepted.

The annual All-Island (Ireland and Northern Ireland) Fuel Mix methodology, used in 2019 for calendar year 2018, remained unchanged from previous years.

In 2019, the green source product verification mechanism was carried out for the 2018 period to ensure that suppliers selling green source products had sufficient green attributes (GOs or contract based tracked supported renewable energy) to cover their sale.

Benefits to the company of AIB membership

The AIB continues to play an invaluable role in the development and secure operation of Guarantees of Origin trading in Europe. The Association continues to support Issuing Bodies (and Disclosure competent bodies) to collaborate in identifying best practice and sharing knowledge and experience for the betterment of all AIB member organisations.

Connection to the AIB hub continues to be a significant factor in efficient and secure administration of GOs for SEMO and the growth of GO trading as interest and demand for the trading in GOs continues to increase. Nigel Thomson, Market Operations

Scope of national participation in EECS

Number of registered scheme participants	50

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
106	877,20

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	66	644,87
Hydro	40	232,33

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

EECS RES production	National RES production
2 265,252	11 316,499

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

Area of operation
Italy

Address
Viale Maresciallo Pilsudki 92
Rome
Italy

www.gse.it

REPORT FROM MEMBER

Profile of the organisation

GSE is a public company which promotes and supports renewable energy sources in Italy.
GSE is also in charge of promoting energy efficiency, RES for heating and cooling and biofuels for transport. The sole shareholder of GSE is the Ministry of Economy and Finance, which exercises its rights according to the strategic guidelines indicated by the Ministry of Economic Development and according to the regulatory provisions by the Authority.

Role

GSE is the Issuing Body for Guarantees of Origin, Competent Authority for the disclosure scheme and is responsible for granting supports for renewable electricity production, energy efficiency and thermal energy in Italy.

Member of the AIB

GSE is a member of the AIB since 2001.
GSE was one of the founding members of the AIB from its beginning in 2001, and the CEO of GSE, Pier Luigi Parcu, became the first President of the Association.

Activities within the AIB

The engagement of GSE in AIB activities encompasses all the working groups:

- General Meeting: Emanuele Del Buono
- WGIA: Floriana Furno; Gianmarco Piamonti

News and perspectives regarding the national IB

The most important tasks completed during 2019 are related to improving the reliability of our software platform. In particular, we have achieved this goal by moving from a synchronous pattern to an asynchronous one and have changed the system to use the TLS 1.2 protocol in order to improve security overall.

> "Being a part of the AIB means being a part of a European network that works towards a common goal ensuring respect of the requirements of the EU directives."

News and perspectives regarding the national framework for electricity

On 4th July 2019, the Ministry of Economic Development published the Ministerial Decree that foresees the possibility for consumers, involved in PPAs, to cancel GOs in the country of consumption when they claim the greenness of the energy.

This Decree aims at promoting renewable power plants through a revised set of incentives. In particular, RES power plants may benefit from:

- An all-inclusive tariff (capacity up to 250 kW); or
- Feed-in tariff (capacity in excess of 250 kW and capacity up to 250 kW for power plants which do not opt for the All-Inclusive Tariff).
- Premium for photovoltaic systems installed on buildings that have required the removal of eternit or asbestos;
- Premium for electricity consumed on-site, under specific conditions.

Acces to incentives are granted either via the registry procedure or tender procedures.

Benefits to the company of AIB membership

"Being a part of the AIB means being a part of a European network that works towards a common goal ensuring respect of the requirements of the EU directives. Joining the association ensures the reliability and the efficiency in the transactions of GOs with the other AIB member states through the AIB Hub.
The participation in the General Meetings and Working Groups is also an ideal opportunity for sharing experiences and best practices with members from other countries" according to Floriana Furno, member of EECS Unit.

Scope of national participation in EECS

Number of registered scheme participants	2 515

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
4 093	36 309

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	471	8860
Geothermal	34	912
Hydro	930	18 919
Solar	2 564	3 939
Thermoelectric	94	3679

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

EECS RES production	National RES production
67 362	Data 2019: 112 893

Litgrid

Name of the company
LITGRID AB

Area of operation
Lithuania

Address
Virsuliskiu sk. 99B
LT-05131 Vilnius
Lithuania

www.litgrid.eu

REPORT FROM MEMBER

Profile of the organisation

Litgrid is the electricity Transmission System Operator.

Role

Litgrid is the certified Transmission System Operator, which manages the electricity flows in Lithuania, maintains stable operation of the national electricity system and enables competition in an open, domestic electricity market. Litgrid is responsible for the implementation in Lithuania, of a project of national importance, the synchronisation of electricity systems of Baltic countries and Continental Europe. Litgrid has also been appointed as the Lithuanian issuing body for the electricity guarantees of origin (GOs).

Member of the AIB

Member of the AIB since 2018.

Activities within the AIB

No active participation in AIB activities, Darius Zagorskis participates in the General Meetings.

News and perspectives regarding the national IB

Litgrid joined the AIB with provisional import only scheme participation. In order to meet the expectations of market participants and the requirements of AIB, Litgrid actively participated in preparation of legislative changes that can ensure GO export possibility and full scheme AIB participation. In 2019 the AIB audit of the national domain protocol started. Litgrid expects in 2020, after adoption of legislative changes, to approve the updated domain protocol and to apply to the AIB for the full scheme, not only import, AIB membership.

Currently, producers receiving support are not eligible for GOs, but the prepared legislative changes will enable all producers, except for those receiving a fixed tariff, to be eligible for GOs. These changes may significantly increase the number of production devices in the national registry and the amount of issued GOs.

The challenge for Litgrid is to recognise GOs in Lithuania, as market participants manually import a much larger and steadily growing number of GOs from non-AIB Member States rather than automatically through AIB hub.

> "Being a member of the AIB and to be connected to the AIB Hub is required to meet expectations of market players in a cost-efficient, secure and convenient way ensuring free transfer of GOs. "

News and perspectives regarding the national framework for electricity

National implementation of RED II has begun. Legislative changes to strengthen suppliers' disclosure and control have been drafted and are under discussion in parliamentary committees. Adoption of the changes can ensure the transition from import only scheme to full scheme AIB membership of Litgrid.

In order to meet the national objective of generating electricity from renewable sources, a new support scheme as started in 2019. The government sets quotas for electricity from renewable sources and the national regulator organises technology neutral auctions, setting a maximum premium to the market price in advance.

Benefits to the company of AIB membership

Participation in the AIB enables and expands free movement of GOs in Lithuania and can help to create a more competitive and open domestic electricity market. Being a member of the AIB and to be connected to the AIB Hub is required to meet expectations of market players in a cost-efficient, secure and convenient way ensuring free transfer of GOs. Being a new member and acting in a changing legal environment, participating in AIB also helps us gain experience from other members and develop good practices.

Scope of national participation in EECS

Number of registered scheme participants	19

Registered production devices and total capacity installed

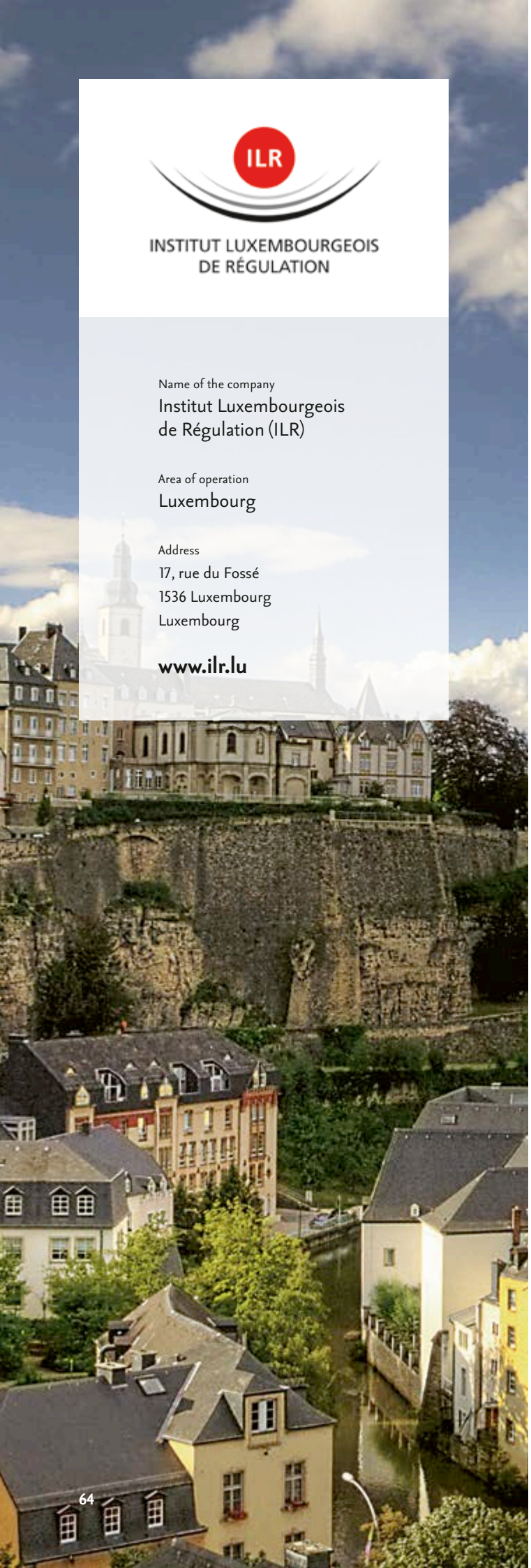
Number of production devices	Total capacity installed (MW)
5	119

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	1	101
Wind	3	13
Biomass	1	5

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

EECS RES production	National RES production
292,4	2 317,4



INSTITUT LUXEMBOURGEOIS
DE RÉGULATION

Name of the company
Institut Luxembourgeois
de Régulation (ILR)

Area of operation
Luxembourg

Address
17, rue du Fossé
1536 Luxembourg
Luxembourg

www.ilr.lu

REPORT FROM MEMBER

Profile of the organisation

The Institut Luxembourgeois de Régulation (ILR) is an independent authority in charge of regulation of electricity and natural gas markets, as well as of telecommunications, railways, airport taxes, postal services, and radio spectrum. Aside from this, ILR is also designated as the national competent authority for issuing guarantees of origin for electricity generated from renewable energy sources.

Role

ILR is the national issuing body for renewable electricity guarantees of origin (RES GOs) and for CHP GOs and it is also responsible for disclosure.

Member of the AIB

The Luxembourg registry has been operational since 1 January 2010.

Activities within the AIB

Pamela Boeri and Claude Hornick participate in WGIA.

News and perspectives regarding the national IB

In accordance with article 3, paragraph 4 of the Luxembourg grand-ducal regulation of 1st August 2014 relating to the production of electricity from renewable energy sources, ILR issues Guarantees of Origin to certify the share of electricity produced from renewable energy sources in accordance with Article 19 of Directive (EU)2018/2001.

More information for account holders is available on the following websites: http://cmo.grexel.com, which allows access to public details of the registry; and on https://web.ilr.lu/FR/Professionnels/Electricite/Acteurs/Energie-renouvelable-et-Cogeneration-a-haut-rendement/Garanties-dorigine/Pages/default.aspx, which describes GOs and their use within Luxembourg.

According to Article 3 of the grand-ducal regulation of 22nd June 2016 relating to the production of electricity from high efficient cogeneration, implementing Directive 2012/27/UE, ILR shall issue CHP GOs upon request of an electricity producer using CHP technology.

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

News and perspectives regarding the national framework for electricity

In July 2010, disclosure regulations entered into force and defined a unique form of electricity labels to be used by all suppliers in their disclosure information on the final bill for the end consumer.

Cancellations of EECS certificates represent an easy and straight-forward tool for electricity suppliers to prove the renewable origin of their electricity supply. In 2019, more than 3 million GOs (3 TWh) were cancelled in the registry, representing almost half of the total electricity consumed in Luxembourg.

Benefits to the company of AIB membership

In order to facilitate monitoring and to improve the reliability of the electricity disclosure system, and especially of its green attributes, the ILR decided to join the AIB in 2009 and made a platform available for registration of production devices and handling of certificates.

Generators can value their renewable generation attributes and suppliers can improve the reliability and credibility of their electricity products. "Today, 100% of the electricity supplied to low voltage consumers is disclosed as being generated from renewable energy sources, mainly through GO cancellations" says Claude Hornick.

Following the approval of the new Domain Protocol of Luxembourg at the Edinburgh General Meeting of 6th June 2018, ILR started, in the second half of 2018, issuing GOs for electricity produced from renewable energy sources from production devices currently receiving production support in Luxembourg. Those GOs are being periodically auctioned on the ILR auctioning platform: https://goauction.ilr.lu/.

Auction revenues are used to decrease the cost of the public support scheme.

The auctions are open to any account holder within an EECS registry. More information on the ILR website: https://goauction.ilr.lu/.

Scope of national participation in EECS

Number of registered scheme participants	8

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
25	161,93

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Photovoltaic	9	2,43
Wind	12	114,25
Hydro	3	28,25
Municipal Waste	1	17,00

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

EECS RES production	National RES production
471	767

certiQ

Name of the company
CertiQ B.V.

Area of operation
The Netherlands

Address
Utrechtseweg 310
6800 AS Arnhem
Netherlands

www.certiq.nl

REPORT FROM MEMBER

Profile of the organisation

CertiQ B.V. is a 100% subsidiary of TenneT TSO.

Role

CertiQ, a full subsidiary of TenneT TSO, is the issuing body for guarantees of origin (GOs) in The Netherlands. TenneT is mandated by the Minister of Economic Affairs and Climate Policy to perform this task. CertiQ's mandate encompasses GOs for both renewable and non-renewable electricity, for electricity from high-efficient cogeneration and for renewable heat.

CertiQ works closely together with, inter alia:

- The Ministry of Economic Affairs and Climate Policy, which is responsible for national policymaking on matters related to energy, including GOs.
- The Netherlands Enterprise Agency, which is, as an agency of the Ministry, responsible for executing the support schemes for the production of renewable electricity and heat.
- The Authority for Consumers and Markets, which as regulator is responsible for the correct functioning of the Dutch electricity market.

Member of the AIB

Member of the AIB since 2001.

Activities within the AIB

- Max Laven, Policy Advisor, member of the AIB Board and Working Group External Affairs
- Remco van Stein Callenfels, Assistant Controller, member of Working Group Internal Affairs
- Jeroen Hanskamp, Product Owner, member of Working Group Systems

News and perspectives regarding the national IB

In 2019, we carried out regular changes to our registry (MyCertiQ), to keep the application running and to meet regulatory requirements while focussing on the needs of our customers and the overall efficiency of the application.

Our key focus in 2019 was Full Disclosure. The mandatory certification of grey electricity is set to 1 January 2020, but we are proud that all preparations to our registry were achieved one year ahead of schedule. As a result of Full Disclosure, all electricity supplied (approximately 120TWh/year) should be corroborated with a 'Certificate of Origin' for non-renewable electricity or a 'Guarantee of Origin' for renewable electricity. Hence, our transaction volume will double compared to 2019. This is why our tariff structure has been revised: tariffs for the issuing, cancellation and import were reduced substantially.
Over the next few years, CertiQ will make significant investments in the technical and functional quality of our E-certification system

to improve its efficiency and user-friendliness. In 2019, there was continued investment in improving and expanding our IT systems. We focussed specifically on enhancing our system's efficiency, an important priority in our IT roadmap and strategic plan for 2018-2023. Most notably, we made a start with rebuilding the MyCertiQ frontend and backend, focussing on a safe, secure, user-friendly and easy to maintain IT system.

News and perspectives regarding the national framework for electricity

2019, was an eventful year for CertiQ, in which we welcomed and successfully built upon fast-moving regulatory and market developments.

We worked hard to ensure a smooth implementation of Full Disclosure – the obligation that all electricity supplied in the Netherlands, both grey and green, must be certified – which will help provide clarity and insight to businesses and consumers on exactly where their electricity comes from. We witnessed a steep increase in the volume of certified non-renewable electricity: CertiQ issued grey certificates for the equivalent of 38,5TWh in 2019, up from only 8,9TWh in the previous year.

Part of our ambition to realise Full Disclosure is providing certification of renewable electricity produced by the thousands of Dutch households through their rooftop solar panels. In 2018, we made inroads into this 'decentral green' sector of the market and in 2019 we built upon this through a pilot project. Together, with various stakeholders, we developed a platform that enabled 'prosumers' to certify their solar electricity production. The project was concluded successfully in Q3 2019. Further implementation, however, has been put on hold due to legislative restrictions. In 2020 we will take the next step in the certification of 'decentral green', focussing on a simple registration process for 'prosumers'.

Benefits to the company of AIB membership

Amidst market developments and regulatory changes, the AIB is about to conclude its own 'change process'. CertiQ welcomes this new AIB structure: we see a future-proof and more agile AIB as a precondition to remain relevant and the go-to organisation in Europe when it comes to certification on energy.

Increasing numbers of consumers and business throughout Europe want to know the origin of the electricity, heat and hydrogen they consume. It is of vital importance to maintain a high-quality and reliable GO system with EECS-rules that encompass all energy carriers. Furthermore, it is crucial that as many EU member states as possible become AIB-members. After all, AIB-membership and adherence to the EECS-rules are the best guarantee that consumers and businesses can rely on the origin of the energy that they consume.

"AIB-membership and adherence to the EECS-rules are the best guarantee that consumers and businesses can rely on the origin of the energy that they consume."

Scope of national participation in EECS

Number of registered scheme participants	196

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
23 171	29 643

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	253	5 382
Hydro	15	36
Solar	21 141	3 282
Wind	1 260	4 411
Non-renewable	502	16 532

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

EECS RES production	National RES production
19 200	19 700

Statnett

Name of the company
Statnett SF

Area of operation
Norway

Address
Nydalen Allé 33 /
PB 4904 Nydalen
0423 Oslo
Norway

www.statnett.no

REPORT FROM MEMBER

Profile of the organisation
TSO (Transmission System Operator)

Role
Statnett is the transmission system operator of the Norwegian energy system. This includes operating approximately 11,000 km of high-voltage power lines and 150 stations throughout Norway. The operations are monitored by one national control centre and two regional centres, which keep the Norwegian power system in balance. Statnett is also responsible for the interconnectors to Sweden, Finland, Russia, Denmark and the Netherlands. In addition, interconnectors to Germany and the UK will be operational by 2020 and 2021 respectively, according to plans.

Statnett is a state enterprise, established under the act relating to state-owned enterprises and owned by the Norwegian state through the Ministry of Petroleum and Energy.

Statnett is responsible for the Norwegian certificate registry NECS and is the issuing body of guarantees of origin and elcertificates (a technology neutral, market-based support scheme for renewable energy sources).

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

Activities within the AIB
- Ivar Munch Clausen, Member of the Board
- Kristian Røst Hagen, Member of Working Group Systems

News and perspectives regarding the national IB
Statnett is a considerable contributor of guarantees of origin to the European market, with approximately 20 percent of the total share of issued Guarantees of Origin.

Statnett is developing a new registry, the new registry is expected to go live late 2020. The new solution will be user friendly, flexible and have reliable performance. The solution will provide a comprehensive API solution, allowing account holders to perform most actions in their own back-end systems.

The solution is being developed by a Czech company, Unicorn Systems.

The new solution will allow for more automatized operations and integration with other systems. This will ensure data quality and reduce the risk of operational errors.

"Statnett's new registry is expected to go live late 2020. The new solution will be user friendly, flexible and have reliable performance ... "

News and perspectives regarding the national framework for electricity

To ensure future power supply and good environmental solutions, Statnett has and will have a strong focus on improving the transmission grid in the years to come. More than 500 km of 420 kV grid have been finalized in the last couple of years, while several projects are still under construction. For example, the transmission capacity of the northern part of Norway, along with the western part, are being strengthened.

Benefits to the company of AIB membership

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

New NECS registry

The development of the new IT solution for NECS has been the most time-consuming task in 2019 and will continue into most of 2020. The NECS team at Statnett is excited by what is being developed in the new solution. We have on several occasions invited account holders to demonstrations and tests and have received positive and important feedback.

The new system is built around a flexible approach – allowing the user to define search criteria and report results. An important feature in the new solution is allowing the users to save searches. This way they will be able to work more efficiently by retrieving information in one single click.

An important feature in the new system is the API, the machine to machine interface. It is based on modern principles and will allow companies to integrate the handling of GOs into their back-office solution.

Our ambition with the new NECS is to build the next generation registry with user friendliness, flexibility and performance that we expect from a modern IT solution.

Scope of national participation in EECS

Number of registered scheme participants	94

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 345	36 142,10

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Solar	3	1,03
Thermal	6	54,75
Hydro Electric	1 293	33 417,34
Wind power	43	2 665,98

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

EECS RES production	National RES production
129 161 GWh (Production date)	*
133 028 GWh (Issuing date)	

* National RES production of 2019 is not available before printing

Name of the company
Joint stock company Elektromreža Srbije, Belgrade

Area of operation
Serbia

Address
Kneza Miloša 11
11 000 Belgrade
Serbia

www.ems.rs

REPORT FROM MEMBER

Profile of the organisation

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

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

Role

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

Member of the AIB

Member of the AIB since 2019.

Activities within the AIB

Representatives of EMS JSC Belgrade regularly attend General Meetings of the AIB as well as WGIA working group meetings.

News and perspectives regarding the national IB

In September 2019, EMS JSC became a full member of the AIB. Membership of the Association provides that Guarantees of Origin that were issued for electricity produced from RES in Serbia are accepted and recognized by other AIB members for trading and disclosure.

> "... that it enables us to actively gather knowledge of the EECS certificate schemes in compliance with the quality standards set up by the AIB ..."

News and perspectives regarding the national framework for electricity

The legal framework for the certification scheme in Serbia is based on the provisions laid down in the Energy Law and by-law legislation for Guarantees of Origin in 2017. During 2019, EMS brought a new Domain protocol to Serbia, approved by the AIB. All the technical requirements and legal frameworks have been implemented following the EECS rules and best practice recommendations from the AIB.

Benefits to the company of AIB membership

The main benefits for EMS JSC Belgrade being part of the AIB are that it enables us to actively gather knowledge of the EECS certificate schemes in compliance with the quality standards set up by the AIB and to develop competent market opportunities for all EECS Scheme participants.

Being part of the AIB allows EMS JSC Belgrade to develop and exchange new ideas and gather experience from other AIB members and observers.

Scope of national participation in EECS

Number of registered scheme participants	5

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
8	1 562,26

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	7	1561,83
Solar	1	0,43

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

EECS RES production	National RES production
* 592	9 479

* since EMS obtained full AIB membership

Name of the company
OKTE, a.s.

Area of operation
Slovakia

Address
Mlynské nivy 48
821 09 Bratislava

www.okte.sk

Report from member

Profile of the organisation

The Short-term electricity Market Operator - OKTE, a.s. (hereinafter referred to as the "OKTE, a.s.") began activities from the 1st January 2011. OKTE, a.s. was established as a subsidiary of the Transmission System Operator (Slovenská elektrizačná prenosová sústava, a.s.) which is the owner of 100% of the shares. Within the electricity market in the Slovak Republic, OKTE, a.s. is classified by the Energy Act as the entity that is subject to regulation by the Regulatory Office for Network Industries (RONI), and is authorized to conduct activities as the Short-term electricity Market Operator in the Slovak Republic.

OKTE, a.s. actively cooperates while executingits activities, with several national state institutions (the Ministry of Economy of the Slovak Republic, the Regulatory Office for Network Industries), with the Transmission System Operator in the Slovak Republic, with distribution systems operators as well as other market participants.

In terms of international cooperation, from the 22nd November 2011, OKTE, a.s. has been a member of the international association of exchanges and market organizers EUROPEX. EUROPEX links exchanges and market organizers from the European Union which provide trading in electricity, gas or emission quotas. Within the membership in EUROPEX, OKTE, a.s. together with its other members, of energy exchanges and market organizers in the European Union, strives to increase economic competition by the establishment of price transparency, deals with issues covering the establishment of a single European market and communicates and cooperates with the institutions within the European Network of Transmission System Operators for Electricity and Gas (ENTSO-E, ENTSO-G) and with the Agency for Cooperation of Energy Regulators (ACER), etc.

Role

OKTE, a.s. is the Issuing Body for Guarantees of Origin in Slovakia. It also benefits from the synergies of being appointed as the Competent Authority for the disclosure scheme and by fullfilling the role of administrator for the Feed-in Tarrif and Feed-in Premium scheme for Renewable and High-Efficieny co-generation.

Member of the AIB

OKTE became a member of the AIB in September 2019.

News and perspectives regarding the national IB

The formal application to join AIB was submitted in October 2018. OKTE, a.s. became a member of the AIB organization in September 2019. OKTE, a.s. has been mandated as the Competent Authority for Guarantees of Origin in the Slovak Republic. Its role was defined by national legislation in the Act No. 309/2009 Coll., as amended by

> "AIB membership enables the overall reduction of the administrative burden for RES producers to suppliers and brings higher transparency to national GO trading by integrating it on a European scale."

Act No. 309/2018 Coll. on the support for renewable energy sources and high efficiency combined heat and power generation (Act RES), to take over the responsibility for the organisation and management of the system of Guarantees of Origin in the Slovak Republic from the national regulatory authority.

News and perspectives regarding the national framework for electricity

Compared to the existing regulation, it is proposed that all activities related to guarantees of origin currently carried out by the Regulatory Office for Network Industries are to be executed by the Short-term electricity Market Operator (OKTE, a.s.) as of 2020. This is due to OKTE's experience within the electricity market which can be utilised in developing a market for guarantees of origin.

In accordance with EU Directive 2009/28/EC, the security mechanism is established to ensure that guarantees of origin are issued, transferred and cancelled electronically and that they are accurate, reliable and fraud-proof. In accordance with the above-mentioned Directive, the guarantees of origin issued by other Member States are also recognised. The Directive also provides for the possibility to refuse to recognize a guarantee of origin in case of reasonable doubts about its accuracy, reliability or credibility. In such cases, the Ministry of the Economy will inform the European Commission about these reasons. The evidence, transfer and cancellation of guarantees of origin is supervised by the Regulatory Office for Network Industries.

Following these changes in guarantees of origin administration the transitional provisions, effective as from 1 January 2020, ensure their validity in the proposed system in which guarantees of origin are issued by the Short-term Electricity Market Operator. Furthermore, provisions stipulate that proceedings started under the current regulations are to be executed according to existing rules.
Additionally, the definition of energy mix in electricity supply was amended stipulating that the RES share is calculated using issued guarantees of origin only.

Scope of national participation in EECS

OKTE became the issuing body from 1st of January 2020, so there was no export, import or issue of any certificates.

Agencija za energijo

Name of the company
Agencija za energijo

Area of operation
Slovenia

Address
Strossmayerjeva ulica 30
Maribor
Slovenia

www.agen-rs.si

REPORT FROM MEMBER

Profile of the organisation
National Regulatory Authority

Role
The Energy Agency is the national regulatory authority for electricity and gas in Slovenia and the Slovenian Issuing Body of GOs for renewable electricity and electricity from high-efficiency CHP. It is also the competent authority for issuing renewable and CHP production declarations that are needed by the production devices to be eligible for GOs for their electricity production and to enter the Slovenian support scheme. In addition to this, the Energy Agency is the Slovenian competent authority for disclosure.

Member of the AIB
Member of the AIB since 2004.

Activities within the AIB
- Andrej Špec – member of WGIA
- Tomaž Lah – member of WGS
- Blaž Bratina – participating in the General Meetings

News and perspectives regarding the national IB
The Energy Agency will follow the development in the field of European energy legislation and will take over all responsibilities given to it by the national implementation of this legislation. This may include the introduction of new certificate schemes. The Agency intends to remain an AIB member, to offer the producers and traders the possibility to internationally trade with certificates issued in Slovenia. It will also closely cooperate with the Slovenian stakeholders, including the ministry responsible for energy, which is responsible for national GO legislation.

News and perspectives regarding the national framework for electricity
In accordance with the new Decree on support for electricity generated from renewable energy sources and high-efficiency cogeneration of heat and electricity, the Energy Agency in 2019 performed one tendering procedure for the selection of new entrants to the national support system. The procedure started by publishing an invitation for submission of applications for the new entrants. After the deadline for submission, the Agency selected the new entrants of the candidates on the basis of the allowed increase in funds for support and the price offered for the production of electricity. In 2019, 19 new entrants were selected from 33 candidates.

> "... customers can select between various electricity products, the origin of which is guaranteed by reliable instruments – EECS Guarantees of Origin."

Benefits to the company of AIB membership

The Energy Agency is, as the National Regulatory Authority, responsible for promoting a competitive, secure and environmentally sustainable electricity market for all market participants, including all customers, traders and suppliers. Being an AIB member puts us in the position to ensure all the necessary conditions for market participants are implemented so they can benefit from the electricity market. Suppliers are able to offer their customers electricity that has been produced in an environmentally friendly way, while traders can internationally exchange attributes of such electricity. The most important outcome of these facts is that customers can select between various electricity products, the origin of which is guaranteed by reliable instruments – EECS Guarantees of Origin.

Membership of the AIB also gives us the opportunity to meet colleagues from other countries and to actively participate in the creation of new standards for certifying electricity and other energies regarding their source and production method.

Scope of national participation in EECS

Number of registered scheme participants	6

Registered production devices and total capacity installed

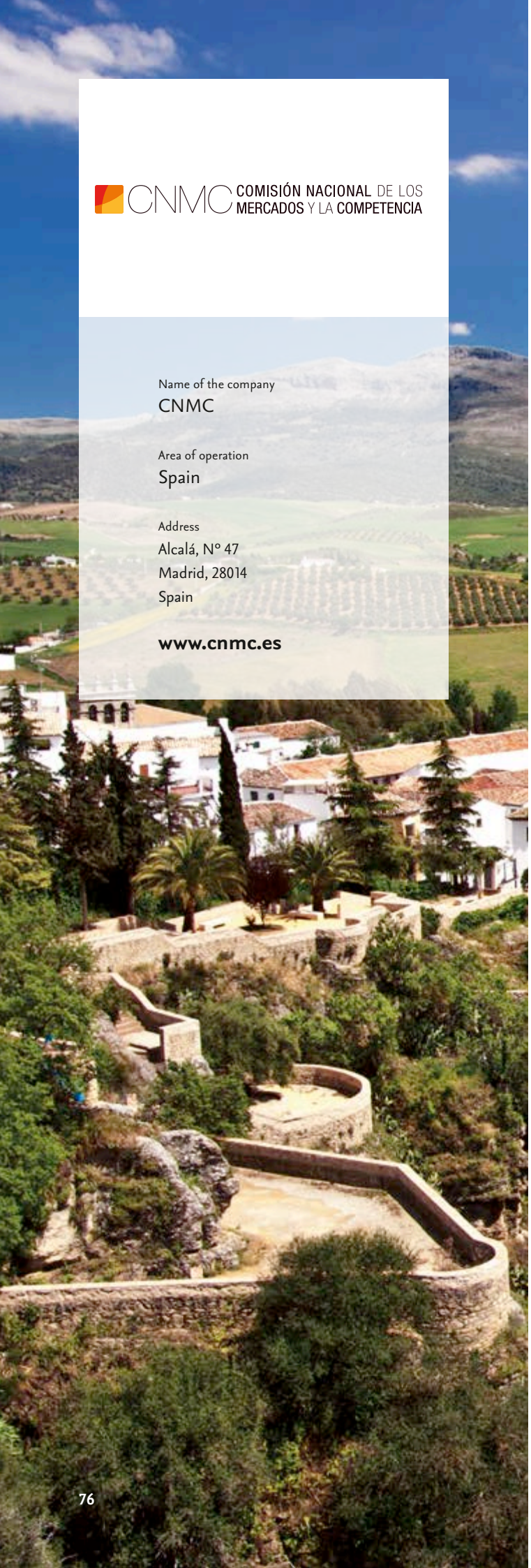
Number of production devices	Total capacity installed (MW)
1 259	1 190

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	199	1 071
Solar	1 045	108
Biogas	11	10
Biomass	4	1

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

EECS RES production	National RES production
4 021	5 186



CNMC COMISIÓN NACIONAL DE LOS MERCADOS Y LA COMPETENCIA

Name of the company
CNMC

Area of operation
Spain

Address
Alcalá, Nº 47
Madrid, 28014
Spain

www.cnmc.es

REPORT FROM MEMBER

Profile of the organisation

The CNMC is the Spanish regulator for the energy sector, in addition to telecommunications, audio-visual media, transport and postal sectors, and is also the Spanish competition authority.

Role

(By law): Competent Authority for electricity guarantees of origin, disclosure of electricity, production device inspection and competent authority for support schemes clearance and payment.

Member of the AIB

Member of the AIB since March 2016.

Activities within the AIB

- The CNMC participates in AIB meetings and is usually represented by Jose Miguel Unsion.
- The CNMC also participates in CEER, MEDREG (Mediterranean Regulators) and ARIAE (Ibero-American Regulators)

News and perspectives regarding the national IB

Since January 2019 CNMC has new responsibilities for electricity and gas tariffs, as well as issues related to grid access for new generation plants.

> "... to enhance the management system for exports and imports of guarantees of origin ..."

News and perspectives regarding the national framework for electricity

New legislation regarding self generation implemented April 2019.

Benefits to the company of AIB membership

"Another benefit is to enhance the management system for exports and imports of guarantees of origin, using the AIB platform or hub."
CNMC Director General for Energy

Additional information

In 2019, the number of guarantees of origin exported from Spain reached 27 000 GWh, in line with upward trends seen by these transactions.

Scope of national participation in EECS

Number of registered scheme participants*	66 364

* There are no "Scheme participants". All production devices eligible (66 001) and all Spanish supplier companies (363) can participate in the system

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
66 001	59 869

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
CHP	1 005	5 651
Solar PV	61 448	7 189
Solar CSP	51	2 299
Wind	1 420	23 956
Small Hydro < 50 MW	1 093	2 094
Biomass	221	758
Urban Solid Waste	10	208
Big Hydro > 50 MW	753	17 713

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

EECS RES production	National RES production
26 928	94 437

Energimyndigheten

Name of the company
Energimyndigheten

Area of operation
Sweden

Address
Gredbyvägen 10
Eskilstuna
Sweden

www.energimyndigheten.se

REPORT FROM MEMBER

Profile of the organisation
Government agency

Role
Competent body and Issuing Body for guarantees of origin (GOs) for electricity

Member of the AIB
Member of the AIB since June 2017.

Activities within the AIB
Fanny Norén, member of WGIA
Jessica Eriksson, member of WGS
Johan Malinen, member of the Board and WGIA

News and perspectives regarding the national IB
The work for Energimyndigheten during 2019 has been characterised by the upcoming implementation of the RED II. GO schemes for additional energy carriers such as gas and heating are under development. The scheme for electricity GO will also undergo a revision and modernisation throughout the course of 2020/2021.

Almost all electricity producing devices in Sweden are registered for either EECS GOs or national GOs (SEGOs). These make up 99 % of the generating capacity in the country.

News and perspectives regarding the national framework for electricity
Sweden has a joint support scheme together with Norway, the Electricity Certificate Scheme, which is a market-based support scheme that builds on a quota obligation for all consumers of energy. The goal is to promote the expansion of renewable electricity production. In June 2017, the parliament decided to raise the target by 18 TWh of new production by 2030, and to prolong the scheme until 2045. The first goal of the support scheme was met in May 2019, almost seven months in advance. The additional goal of 18 TWh is foreseen to be reached in the course of 2020. Thus, the second goal is expected to be met approximately ten years in advance.

"Almost all electricity producing devices in Sweden are registered for either EECS GOs or national GOs (SEGOs). These make up 99 % of the generating capacity in the country."

The interest in solar power increases every year. Most of the new PV installations are relatively small and installed on private houses. Approximately 3 000 new solar power production devices are registered in the GO system every year, however most of them only apply for national non-exportable GOs. Also, the expansion of wind power continues, with several large wind parks being committed to last year, with more to come. Most wind parks are built on shore.

As of today (January 2020), approximately 2 200 production devices out of a total of 18 500 receive EECS GOs every month.

Benefits to the company of AIB membership

AIB, and the AIB hub, provide for an efficient and secure exchange of guarantees of origin between the members. The establishment of contacts with other EU member states facing the same challenges as we do is also an important part of our membership. This helps us to develop good practices and gain experience from lessons learned by others.

Scope of national participation in EECS

Number of registered scheme participants	481

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
2 337	20 000

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Thermal (excl. Nuclear)	12	971
Wind onshore	1 945	6 465
Wind offshore	51	163
Hydropower	327	11 000
Nuclear	1	1 450

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

EECS RES production	National RES production
70 800	98 000

Name of the company
Pronovo AG

Area of operation
Switzerland

Address
Dammstrasse 3
CH-5070 Frick
Switzerland

www.pronovo.ch

REPORT FROM MEMBER

Profile of the organisation

Pronovo is a 100% subsidiary company of Swissgrid, which is the Transmission System Operator (TSO) of Switzerland. Pronovo was newly established in 2018 and is the successor of the former Swissgrid renewable energy and GO division. Pronovo is responsible for the financial support of renewable energy production and the issuing of Guarantees of Origin in Switzerland.

Role

Pronovo is the sole competent Issuing Body for Guarantees of Origin in Switzerland. Pronovo has been mandated with this task by law and is accredited by the Swiss Accreditation Service (SAS). The Swiss Federal Office of Energy is the official authority for the supervision of issuing Guarantees of Origin for electricity, as well as for the supervision of electricity disclosure in Switzerland. The legal basis is in article 63 of the Federal Energy Act as well as in the Energy Ordinance, the Energy Support Ordinance and the Ordinance on Guarantees of Origin and Electricity Disclosure.

Member of the AIB

Switzerland has been an AIB member since 2002.

Activities within the AIB

- Lukas Groebke: Treasurer and Member of the Board
- Milada Mehinovic: Member of the Working Group External Affairs
- Fabian Möller: TF Fraud Protection

News and perspectives regarding the national IB

With the enforcement of the revised Federal Energy Act, Swissgrid was obliged to establish a 100% affiliated company (Pronovo) as of the 1st January 2018. According to this obligation, all responsibilities regarding the support of renewable energy and the issuing of Guarantees of Origin in Switzerland had to be transferred to Pronovo, in order to unbundle the operation of the high voltage transmission grid and the renewable energy business with regard to the new energy strategy. As a result of this, Pronovo has been directly mandated by law with these tasks since 2018.

News and perspectives regarding the national framework for electricity

On 1st January 2018 new energy legislation, part of the "Energy Strategy 2050" came into force. One objective of the energy strategy is to increase the power production from new renewable technologies gradually to 11.4 TWh per year until 2035 and to phase out nuclear power on a long term basis. The focus is on small hydro power, biomass, photovoltaic and wind power.

> "The membership of Switzerland in the AIB serves as a symbol and good example for a fruitful and reliable cooperation even under difficult political circumstances. "

New incentives such as direct marketing, investment support for all sizes of PV plants and other improvements have been added to the current support system. In addition, due to very low market prices, a new financial support scheme for already existing large-scale hydro power plants has been temporarily established. This program is limited to 5 years.

On the 20th December 2019 the first of five Swiss nuclear power plants was finally shut down.

As an improvement to the disclosure system, a Guarantee of Origin obligation for imported electricity has been introduced. Since 2018, with this measure, any electricity supply in Switzerland has to be disclosed based on Guarantees of Origin only, regardless of whether it refers to domestic or foreign production. This full disclosure will lead to 100% transparency to end consumers.

Benefits to the company of AIB membership

"Switzerland is geographically located in the heart of Europe and is technologically connected by 41 cross border power lines to the surrounding countries. Therefore, Switzerland is deeply embedded in the European power transmission system. A stable grid and a high security of power supply are one of the most important services for all nations.

The cross-border power market is increasing in both, volume and importance. Therefore, the membership of Switzerland in the AIB is gaining even more importance. It serves as a symbol and good example of a fruitful and reliable cooperation even under difficult political circumstances. Our participation in the AIB is therefore one our main goals now and in the future." Lukas Groebke, Head of Technology & Projects, Pronovo

Scope of national participation in EECS

Number of registered scheme participants	2 846

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
90 114	22 779

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	399	483
Hydro	1 433	16 029
Solar	87 994	2 131
Wind onshore	61	74
Nuclear	5	3 388
Crude oil	3	0,1
Natural gas	187	321
Waste	32	353

Certified EECS production as compared to national production (GWh)

EECS RES production	EECS non-RES production	National production
40 185	26 686	69 353

Name of the company
Operator za OIEiEK
(RESEC Operator)

Area of operation
Federation of Bosnia
and Herzegovina

Address
Adema Buća 34
88000 Mostar
Bosnia and Herzegovina

www.operatoroieiek.ba

Report from Observer

Profile of the organisation

In 2013, the Operator za OIEiEK was established by the Government of Federation of Bosnia and Herzegovina as the institution responsible for the implementation of an operative system for incentivised production of electricity from renewable energy sources. Licenced by the Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina and supervised by Federal Ministry of Energy, Mining and Industry, the Operator za OIEiEK aggregates surcharges from electricity consumers and uses it for subsidies payments to RES electricity producers.

Role

Among the responsibilities defined by primary and secondary legislation, the RESEC Operator is an authorised body for issuing, transferring and cancelling of renewable electricity Guarantees of Origin. According to the rule book on issuing Guarantees of Origin, approved by Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina in December 2015, the Operator za OIEiEK is an administrator of the GO Registry.

Member of the AIB

An active observer since March 2016.

Activities within the AIB

Almir Muhamedbegović, as a representative of the Operator za OIEiEK, participates in the Working Group Internal Affairs meetings, General Meetings and also contributes to Sounding Board's efforts in reshaping AIB.

News and perspectives regarding the national IB

The Operator za OIEiEK introduced an internal Act named "Guidance on Automatic transfer and cancellation of Guarantees of Origin for electricity produced by privileged producers". This Act came into effect in January 2019 and GOs for electricity generated by RES from the incentivised producers (feed-in tariff), have been issued and immediately cancelled upon issuance. These GOs have not been used for further trade or transfer.

News and perspectives regarding the national framework for electricity

In 2020, the Operator za OIEiEK will submit a draft of the Methodology for the determination of the RES electricity structure and the structure of the total electricity residual mix in Federation of Bosnia and Herzegovina to the Federal Regulatory Energy Agency for approval. Since legislation in the Federation of Bosnia and Herzegovina is not a defining Fuel Mix Disclosure obligation, consultations with the Federal Regulatory Energy Agency are still necessary.

Report from Observer

Profile of the organisation

AST is the Latvian Electricity Transmission System Operator.

Role

AS Augstsprieguma tikls (AST) is an independent Transmission System Operator in the Republic of Latvia, engaged in providing electrical power transmission network services and ensuring the balancing and stability within the transmission network. Currently an observer of AIB; AST is expected to assume the role of issuing body for electricity guarantees of origin (GOs) in Latvia by December 2020.

Member of the AIB

Application to be submitted during 2020.

Activities within the AIB

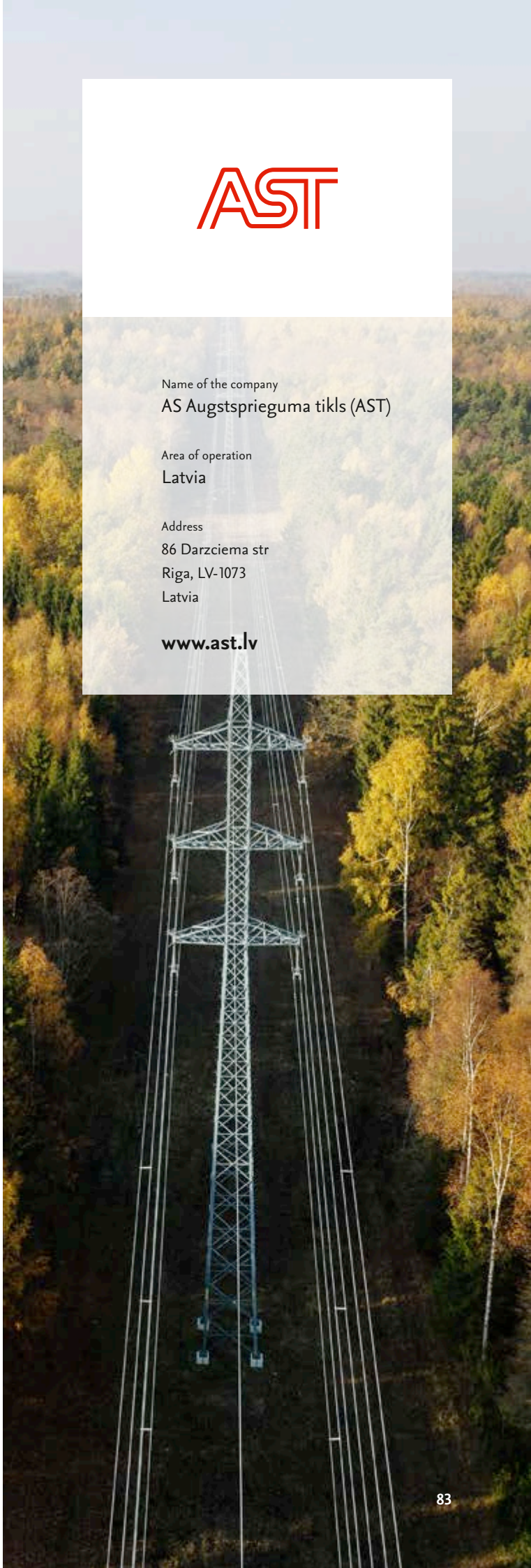
AST is currently an observer in the AIB. Work is ongoing on the application to join AIB as full member and on creating the domain protocol for Latvia.

News and perspectives regarding the national IB

According to the Latvia Electricity Market Law, AST is set to operate the National Registry for GOs in Latvia from December 1st and will be responsible for the issuance, transfer and cancellation of GOs in Latvia. During 2020, AST should successfully launch the registry and connect to the AIB Hub. AST is striving to meet the requirements set by the AIB Hub to enable the free movement of GOs and accomplish free Latvian EECS GO trade in 2020.

Benefits to the company of AIB membership

Being a part of the AIB will give us a connection, through the AIBHub, for future Account Holders to reliably and efficiently trade with the other AIB member states. The support and know-how obtainable within the AIB is crucial for the implementation, improvement and development of successful framework for GOs.



Name of the company
AS Augstsprieguma tikls (AST)

Area of operation
Latvia

Address
86 Darzciema str
Riga, LV-1073
Latvia

www.ast.lv

Crna Gora
Regulatorna agencija
za energetiku

Name of the company
Energy Regulatory Agency

Area of operation
Montenegro

Address
Bulevar Svetog Petra Cetinjskog 96
81000 Podgorica
Montenegro

http://regagen.co.me

Report from Observer

Profile of the organisation
The Energy Regulatory Agency

Role
The competent authority for renewable electricity Guarantees of Origin (GOs) in Montenegro.

Member of the AIB
So far, Montenegro has obtained observer status and the process of becoming an AIB member has already started.

Activities within the AIB
As an observer, no representative is actively involved as yet.

News and perspectives regarding the national IB
So far, GOs in Montenegro have been issued under the national legislation which is mainly in line with EU regulations and EECS but they are still not yet recognized as such. Preparation for Energy Law amendments have started and it is expected to have the legislation fully in line with EECS in due course. At the same time, it is expected that the national Issuing Body will switch from the Energy Regulatory Agency to the Market Operator.

News and perspectives regarding the national framework for electricity
The Energy Law amendment process is still ongoing so it is difficult to mention anything in advance.

Benefits to the company of AIB membership
"During 2019, Montenegro recorded, for the first time, an impressive two months of carbon-free electricity production. Moreover, for ten days during this period Montenegrin power demand was entirely covered by domestic renewables only. AIB gives us an opportunity for better valorization of renewable energy sources."
Branislav Prelevic, President of the Board of Energy Regulatory Agency Montenegro

Additional information
In 2019, Montenegro obtained an active observer status and began a range of intensive activities to fulfil all preconditions for AIB membership.

Report from Observer

Profile of the organisation
Electricity Transmission System Operator

Role
In January 2019, REN was appointed the single Authorised Issuing Body and Registry Operator for electricity GOs. The work unit entrusted with the issuing is called EEGO, the Issuing Body for Guarantees of Origin. In accordance with the Portuguese legislation, REN also operates as a Production Auditor.

Member of the AIB
Observer and membership applicant.

Activities within the AIB
In the AIB, REN is represented by Isabel Fernandes, Miguel Jerónimoand, Pedro Rodrigues.

News and perspectives regarding the national IB
2019 was a defining year for the implementation of the Guarantees of Origin System in Portugal. After the assignment of EEGO's responsibilities to REN, effective from the beginning of the year, 2019 was marked by the execution of preparatory works for the beginning of the activities namely; the setting up of the work team, the preparation of a Procedures Manual (subject to public consultation and approval by competent authorities), and the development of an electronic platform to support the activity. The formal application to join the AIB was also submitted.

EEGO started its activity in March 2020, once all relevant legal requirements were met. In June 2020, REN was formally accepted as a member of the AIB. EECS GOs will be issued by REN as from July 2020 and imports and exports will be possible from August 2020.

News and perspectives regarding the national framework for electricity
From a regulatory point of view, 2019 was essentially marked by article 238 of Decree Law no. 71/2018 of 31 December coming into force, which assigns EEGO's responsibilities to REN.

Directive no. 16/2018 of 13 December 2018, published by the Portuguese Energy Services Regulatory Authority (ERSE), has also come into force, this sets the terms and conditions for electricity labelling, as well as the rules for the disclosure.

In 2020, new legislation is expected to emerge to establish the legal basis for creating a guarantees of origin system for the gas sector.

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

Area of operation
Portugal

Address
Avenida dos Estados Unidos, 55
1749-061 Lisboa
Portugal

www.ren.pt

Audit Report

Member of PKF

ASSOCIATIONS OF ISSUING BODIES IVZW

Annual accounts for the year ended 31 December 2019

Limited review

Member of PKF

INDEPENDENT PRACTITIONER'S REVIEW REPORT TO THE BOARD OF DIRECTORS OF THE ASSOCIATION OF ISSUING BODIES IVZW FOR THE YEAR ENDED 31 DECEMBER 2019

We have reviewed the accompanying financial statements of the Association of Issuing Bodies IVZW for the year ended 31 December 2019.

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

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 (Revised), *Engagements to Review Historical Financial Statements*. ISRE 2400 (Revised) 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.

A review of financial statements in accordance with ISRE 2400 (Revised) 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.

VMB

Member of PKF

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 2019, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

Brussels (Belgium), 2 June 2020

PKF-VMB Bedrijfsrevisoren CVBA
Represented by
Ingrid Vosch
Registered Auditor

PKF-VMB Bedrijfsrevisoren BVCVBA
Koning Albert I- laan 64, 1780 Wemmel T +32 (0)2 460 09 60 F +32 (0)2 403 08 90
BTW BE 0472 277 063 KBC Bank BE09 4165 0764 6157 BIC KREDBEBB www.pkf-vmb.be

201				1	EUR		
NAT.	Date of deposit	Nr.	P.	U.	D.		A-npo 1.1

ANNUAL ACCOUNTS IN EUROS (2 decimals)

NAME: *ASSOCIATION OF ISSUING BODIES*

Legal form: *International non-profit organization*

Address: *Koning Albert II-laan* Nr.: *20* Box: *19*

Postal code: *1000* Municipality: *Brussels*

Country: *Belgium*

Register of Legal persons – commercial court: *Brussels, Dutch-speaking*

Website*:

Company number *BE 0864.645.330*

DATE *18 / 10 / 2017* of deposit of the memorandum of association OR of the most recent document mentioning the date of publication of the memorandum of association and of the act amending the articles of association

ANNUAL ACCOUNTS approved by the general meeting** of *19 / 06 / 2020*

regarding the period from *01 / 01 / 2019* to *31 / 12 / 2019*

Preceding period from *01 / 01 / 2018* to *31 / 12 / 2018*

The amounts for the preceding period **are** / ~~are not~~*** identical to the ones previously published.

COMPLETE LIST with name, surnames, profession, address (street, number, postal code and municipality) and position within the association or foundation, of the DIRECTORS AND AUDITORS and, if appropriate, of the representative of the foreign association in Belgium

Angela TSCHERNUTTER *Schubertgasse 19 box 11, 1090 Vienna, Austria*	*Chairman of the board of directors* *23/05/2014 -*
Lukas GROEBKE *Haptstrasse 125, 4102 Binningen, Switzerland*	*Director* *24/04/2009 -*
Dirk VAN EVERCOOREN *Meusegemstraat 89, 1861 Wolvertem, Belgium*	*Director* *04/12/2015 -*
Ivar MUNCH CLAUSEN *Jorgen Lovlandsgate 23 box C, 0569 Oslo, Norway*	*Director* *21/09/2017 -*
Martin STANDERA *Famfullikova 1137 box 6, Praag, Czech Republic*	*Director* *01/12/2017 -*

Are attached to these annual accounts:

Total number of pages deposited: *8* Numbers of sections of the standard form not deposited because they serve no useful purpose: *5.1.3, 5.2.1, 5.2.2, 5.2.3, 5.3, 5.4, 5.5, 5.6, 5.7, 6, 7, 8*

Angela TSCHERNUTTER
(name and position)

Signature
(name and position)

Tschernutter

* Optional information.

** By the board of directors in case of a foundation / by a general executive body in case of an international non-profit organisation.

*** Strike out what is not applicable.

OCR9002

Nr.	*BE 0864.645.330*	A-npo 1.2

AUDITING OR ADJUSTMENT MISSION

Optional information:

- if the annual accounts were audited or corrected by an external accountant or by a company auditor who is not the statutory auditor, mention name, surnames, profession and address of each external accountant or company auditor and his membership number with his institute, as well as the nature of his assignment:

  A. Bookkeeping of the association or foundation,
  B. Preparing the annual accounts,
  C. Auditing the annual accounts and/or
  D. Correcting the annual accounts.

- If the tasks mentioned under A. or B. are executed by certified accountants or certified bookkeepers - tax specialists, you can mention hereafter: name, surnames, profession, address of each certified accountant or certified bookkeeper - tax specialist and the nature of his hereafter: name, surnames, profession, address of each certified accountant or certified bookkeeper - tax specialist and the nature of his.

Name, surnames, profession and address	Membership number	Nature of the assignment (A, B, C and/or D)
PKF-VMB BEDRIJFSREVISOREN CVBA *Nr.: BE 0472.277.063* *Koning Albert I-laan 64, 1780 Wemmel, Belgium* *Represented by:* *Ingrid VOSCH* *Koning Albert I-laan 64, 1780 Wemmel, Belgium*	*B00419* *A01985*	*C*

BALANCE SHEET AFTER APPROPRIATION

	Discl.	Codes	Period	Preceding period
ASSETS				
FIXED ASSETS		20/28	*83.653,36*	*1,00*
Formation expenses		20	.....	.....
Intangible fixed assets	5.1.1	21	*83.653,36*	.....
Tangible fixed assets	5.1.2	22/27	.....	*1,00*
Land and buildings		22	.....	.....
Owned by the association or the foundation in full property		22/91	.....	.....
Other		22/92	.....	.....
Plant, machinery and equipment		23	.....	*1,00*
Owned by the association or the foundation in full property		231	.....	*1,00*
Other		232	.....	.....
Furniture and vehicles		24	.....	.....
Owned by the association or the foundation in full property		241	.....	.....
Other		242	.....	.....
Leasing and similar rights		25	.....	.....
Other tangible fixed assets		26	.....	.....
Owned by the association or the foundation in full property		261	.....	.....
Other		262	.....	.....
Assets under construction and advance payments		27	.....	.....
Financial fixed assets	5.1.3/ 5.2.1	28	.....	.....
CURRENT ASSETS		29/58	*486.432,88*	*359.487,00*
Amounts receivable after more than one year		29	.....	.....
Trade debtors		290	.....	.....
Other amounts receivable		291	.....	.....
of which non interest-bearing amounts receivable or with an abnormally low interest rate		2915	.....	.....
Stocks and contracts in progress		3	.....	.....
Stocks		30/36	.....	.....
Contracts in progress		37	.....	.....
Amounts receivable within one year		40/41	*40.518,96*	*64.429,00*
Trade debtors		40	*8.523,58*	*43.703,00*
Other amounts receivable		41	*31.995,38*	*20.726,00*
of which non interest-bearing amounts receivable or with an abnormally low interest rate		415	.....	.....
Current investments	5.2.1	50/53	.....	.....
Cash at bank and in hand		54/58	*441.204,75*	*295.058,00*
Deferred charges and accrued income		490/1	*4.709,17*	.....
TOTAL ASSETS		20/58	*570.086,24*	*359.488,00*

Nr.	BE 0864.645.330	A-npo 2.2

	Discl.	Codes	Period	Preceding period
EQUITY AND LIABILITIES				
EQUITY (+)/(-)		10/15	*398.977,80*	*268.194,00*
Association or foundation Funds (+)/(-)		10	.....	.....
Opening equity (+)/(-)		100	.....	.....
Permanent financing		101	.....	.....
Revaluation surpluses		12	.....	.....
Allocated funds	5.3	13	.....	.....
Accumulated positive (negative) income (+)/(-)		14	*398.977,80*	*268.194,00*
Investment grants		15	.....	.....
PROVISIONS	5.3	16	.....	.....
Provisions for liabilities and charges		160/5	.....	.....
Provisions for grants and legacies to reimburse and gifts with a recovery right		168	.....	.....
AMOUNTS PAYABLE		17/49	*171.108,44*	*91.294,00*
Amounts payable after more than one year	5.4	17	.....	.....
Financial debts		170/4	.....	.....
Credit institutions, leasing and other similar obligations		172/3	.....	.....
Other loans		174/0	.....	.....
Trade debts		175	.....	.....
Advances received on contracts in progress		176	.....	.....
Other amounts payable		179	.....	.....
Interest-bearing		1790	.....	.....
Non interest-bearing or with an abnormally low interest rate		1791	.....	.....
Cash Deposit		1792	.....	.....
Amounts payable within one year	5.4	42/48	*84.230,32*	*91.294,00*
Current portion of amounts payable after more than one year falling due within one year		42	.....	.....
Financial debts		43	.....	.....
Credit institutions		430/8	.....	.....
Other loans		439	.....	.....
Trade debts		44	*84.230,32*	*91.294,00*
Suppliers		440/4	*84.230,32*	*91.294,00*
Bills of exchange payable		441	.....	.....
Advances received on contracts in progress		46	.....	.....
Taxes, remuneration and social security		45	.....	.....
Taxes		450/3	.....	.....
Remuneration and social security		454/9	.....	.....
Miscellaneous amounts payable		48	.....	.....
Debentures and matured coupons, grants to repay and cash deposit		480/8	.....	.....
Miscellaneous interest-bearing amounts payable		4890	.....	.....
Miscellaneous non interest-bearing amounts payable or with an abnormally low interest rate		4891	.....	.....
Accruals and deferred income		492/3	*86.878,12*	.....
TOTAL LIABILITIES		10/49	*570.086,24*	*359.488,00*

Nr.	*BE 0864.645.330*	A-npo 3

INCOME STATEMENT

	Discl.	Codes	Period	Preceding period
Operating income and charges				
Gross operating margin .....(+)/(-)		9900	*148.016,00*	*76.165,00*
Operating income*		70/74	.....	.....
Turnover*		70	.....	.....
Contributions, gifts, legacies and grants* .....(+)/(-)		73	.....	.....
Raw materials, consumables, services and other goods* .....(+)/(-)		60/61	.....	.....
Remuneration, social security costs and pensions .....(+)/(-)	5.5	62	.....	.....
Depreciation of and other amounts written off formation expenses, intangible and tangible fixed assets		630	*12.432,54*	*90.915,00*
Amounts written off stocks, contracts in progress and trade debtors: Appropriations (write-backs) .....(+)/(-)		631/4	.....	.....
Provisions for liabilities and charges: Appropriations (uses and write-backs) .....(+)/(-)		635/8	.....	.....
Other operating charges		640/8	*1.275,00*	.....
Operating charges carried to assets as restructuring costs(-)		649	.....	.....
Positive (negative) operating income .....(+)/(-)		9901	*134.308,46*	*-14.750,00*
Financial income	5.5	75	*644,99*	.....
Financial charges .....(+)/(-)	5.5	65	*4.169,65*	.....
Positive (negative) income on ordinary activities .....(+)/(-)		9902	*130.783,80*	*-14.750,00*
Extraordinary income		76	.....	.....
Extraordinary charges .....(+)/(-)		66	.....	.....
Positive (negative) income of the period .....(+)/(-)		9904	*130.783,80*	*-14.750,00*

* Optional information.

Nr.	*BE 0864.645.330*	A-npo 4

APPROPRIATION ACCOUNT

	Codes	Period	Preceding period
Positive (negative) income to be appropriated .....(+)/(-)	9906	*398.977,80*	*268.194,00*
Positive (negative) income of the period available for appropriation .....(+)/(-)	9905	*130.783,80*	*-14.750,00*
Positive (negative) income of previous accounting year brought forward .....(+)/(-)	14P	*268.194,00*	*282.944,00*
Withdrawals from capital and reserves	791/2	.....	.....
from the association or foundation funds	791	.....	.....
from allocated funds	792	.....	.....
Appropriations to allocated funds	692	.....	.....
Positive (negative) income to be carried forward .....(+)/(-)	(14)	*398.977,80*	*268.194,00*

EXPLANATORY DISCLOSURES

STATEMENT OF FIXED ASSETS

	Codes	Period	Preceding period
INTANGIBLE FIXED ASSETS			
Acquisition value at the end of the period	8059P	*xxxxxxxxxxxxxx*	.....
Movements during the period			
Acquisitions, including produced fixed assets	8029	*96.085,90*	
Sales and disposals	8039	.....	
Transfers from one heading to another (+)/(-)	8049	.....	
Acquisition value at the end of the period	8059	*96.085,90*	
Depreciations and amounts written down at the end of the period	8129P	*xxxxxxxxxxxxxx*	.....
Movements during the period			
Recorded	8079	*12.432,54*	
Written back	8089	.....	
Acquisitions from third parties	8099	.....	
Cancelled owing to sales and disposals	8109	.....	
Transferred from one heading to another (+)/(-)	8119	.....	
Depreciations and amounts written down at the end of the period	8129	*12.432,54*	
NET BOOK VALUE AT THE END OF THE PERIOD	(21)	*83.653,36*	

Nr.	BE 0864.645.330	A-npo 5.1.2

	Codes	Period	Preceding period
TANGIBLE FIXED ASSETS			
Acquisition value at the end of the period	8199P	xxxxxxxxxxxxxxx	1,00
Movements during the period			
Acquisitions, including produced fixed assets	8169		
Sales and disposals	8179	1,00	
Transfers from one heading to another (+)/(-)	8189		
Acquisition value at the end of the period	8199		
Revaluation surpluses at the end of the period	8259P	xxxxxxxxxxxxxxx	
Movements during the period			
Recorded	8219		
Acquisitions from third parties	8229		
Cancelled	8239		
Transferred from one heading to another (+)/(-)	8249		
Revaluation surpluses at the end of the period	8259		
Depreciations and amounts written down at the end of the period	8329P	xxxxxxxxxxxxxxx	
Movements during the period			
Recorded	8279		
Written back	8289		
Acquisitions from third parties	8299		
Cancelled owing to sales and disposals	8309		
Transferred from one heading to another (+)/(-)	8319		
Depreciations and amounts written down at the end of the period	8329		
NET BOOK VALUE AT THE END OF THE PERIOD	(22/27)		
OF WHICH			
Owned by the association or the foundation in full property	8349		

Production and Graphics

Design: Loep ontwerp, Arnhem, NL
Layout: Andrea Jaschinski, Berlin, DE
Print: Druckerei Lokay e.K., Reinheim, DE

This report has been printed on environmentally friendly 100% postconsumer-recycled paper, printed with vegetable oil-based ink, alcohol-free. The printer, Lokay, was rewarded as 'Eco-printer of the year' in 2010 (a German award) and is EMAS-certificated (as one of very few printing companies).

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Electricity disclosure is highly relevant for electricity produced from renewable energy sources. Facilitating the European electricity market, AIB is part of the transition to a more sustainable world.

The AIB takes responsibility for its own organisation, and seeks to make its own structures and organisation environmentally and socially friendly. The main areas where AIB is able to improve its own sustainability are communication (website, emails) and the meetings which it holds across Europe.

Since 2012, AIB took several steps to improve its sustainable impact, and will take further responsibility of its operations by means of the following steps:

- Continuing to power its servers and computers using preferably renewable energy; and to benefit from the services of Wattimpact.

- Printing its Annual Reports on the most environmentally friendly paper (FSC paper, 100% recycled), in cooperation with the printing company Lokay that has committed itself to be a sustainable printer.

- Carbon offset all travel of attendees to AIB meetings, including the four General Meetings per year, physical Working Group meetings and the annual Strategy Meeting. In 2019, a total of 100t CO_2 was compensated by SouthPole. The amount of 100t is double that of a rough estimate of the CO_2 emitted due to travelling.

- Holding its quarterly General Meetings:
  Seek venues (hotels) with environmental management certification and preferably those which engage in other activities relating to improving energy efficiency, reducing environmental impact and supporting social responsibility. One manner of achieving this is to primarily favour regional food with substantial vegetarian options.

Association of Issuing Bodies ivzw

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