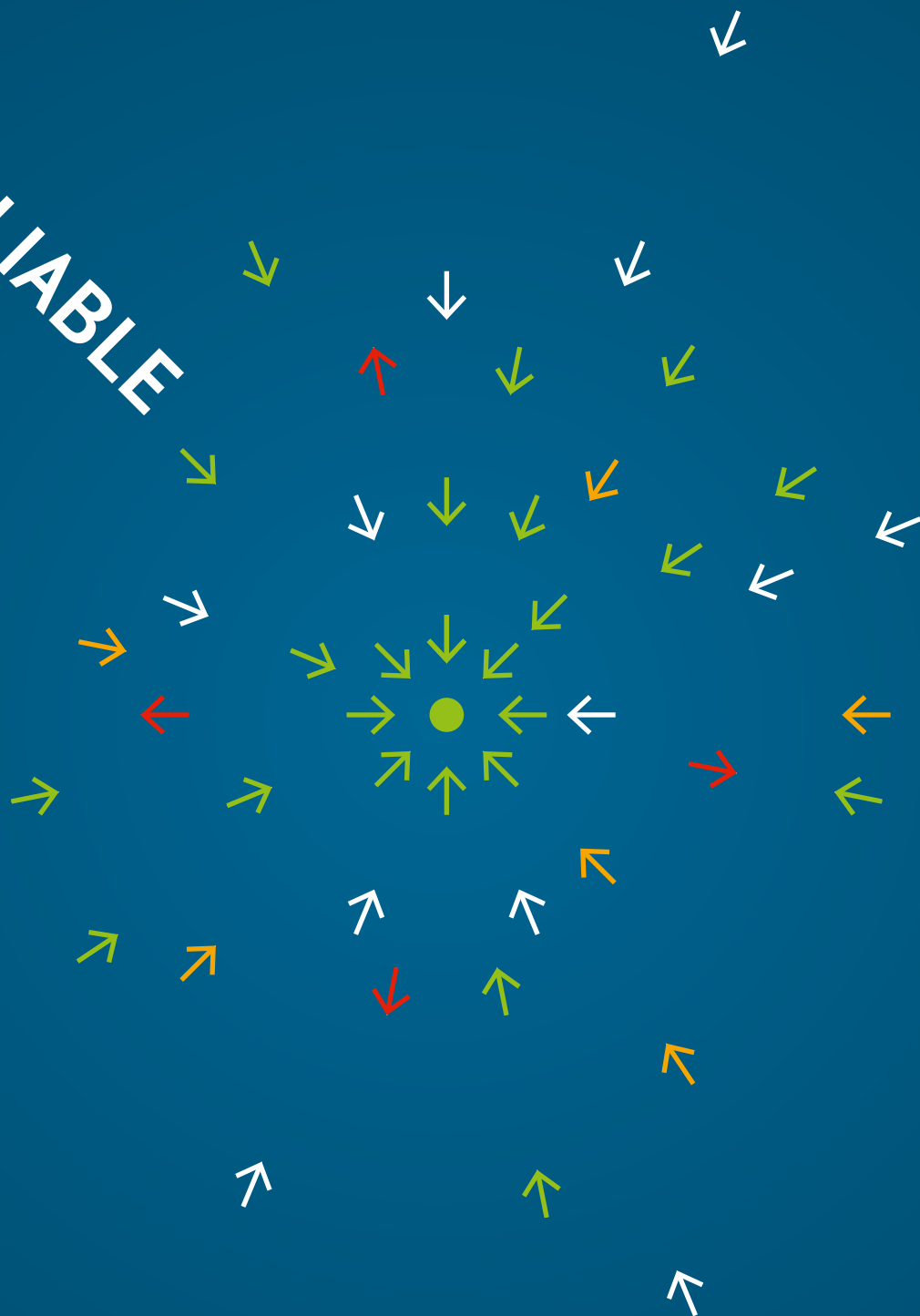
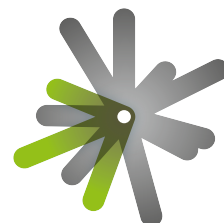


RELIABLE



ANNUAL REPORT
2017



RELIABLE

“AIB – guaranteeing the origin of European energy”

This is the Mission statement of the AIB, and it requires continuous quality assurance and improvement.

Policy instruments which support tracking of the source of energy, and disclosing this information to consumers, will play a key role in the transition towards a sustainable future. In order to facilitate the international exchange of energy certificates, the AIB operates a communications Hub, which connects the registries of all of its members.

The core activity of the AIB is the provision of a reliable Hub and traceable certificates, and the presence of an audit system within the AIB allows us to secure the correct national implementation of the EECS standard (including disclosure) by each member, and to ensure that our members do what they say they will do in their domain protocols. For several years now, the AIB has audited the activities of its members, using an audit team comprising one member-reviewer and one professional reviewer. Thanks to the group of professional reviewers, the know-how of each member is improved and maintained.

In addition to working with approved professional reviewers, there is also a technical audit of the member's registry system. And in 2017, we started the process of connecting the technical audit and the onsite audit of the member's procedures. More reliability has also been achieved by improving the monitoring of suspicious transfer behaviour, to identify and prevent potential VAT fraud.

This provides stability and increases reliability in the quality of the EECS standard.

CONTENTS

President's introduction	2
Chair's Statement	3
GO Activity for 2017	4
2017 Achievements	14
Officials	18
Working Group Internal Affairs	19
Working Group Systems	21
Working Group External Affairs	22
Budget / Actual expenditure and income	24
 Reports from members	
Austria	28
Belgium (Brussels)	30
Belgium (Flanders)	32
Belgium (Wallonia)	34
Belgium (Federal)	36
Croatia	38
Cyprus	40
Czech Republic	42
Denmark	44
Estonia	46
Finland	48
France	50
Germany	52
Iceland	54
Ireland and Northern Ireland	56
Italy	58
Luxembourg	60
The Netherlands	62
Norway	64
Slovenia	66
Spain	68
Sweden	70
Switzerland	72
 Reports from Observers	
Federation of Bosnia and Herzegovina	74
Greece Mainland and Grid Interconnected Islands	75
Lithuania	76
Serbia	77
United Kingdom	78
 Annex 1 Contacts	80
Annex 2 Audit Report	84
Annex 3 Financial statement	87
 Production and Graphics	88

PRESIDENT'S INTRODUCTION



AIB President
Dirk van Evercooren
of VREG, Flanders

Between anxiety and hope!

Looking back on 2017 (including some impressions from early 2018), I can sum up my feelings as a mix of a bit of concern and a lot of hope.

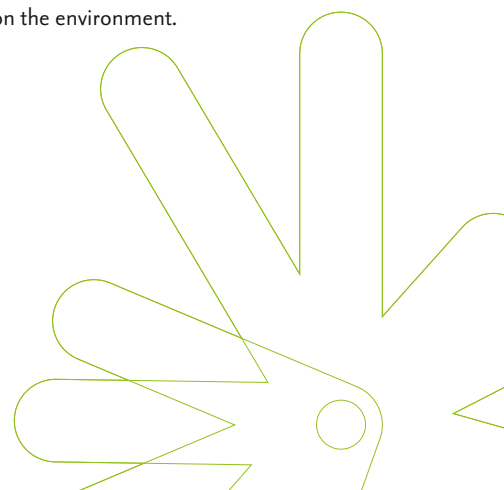
In 2017, it became very clear that AIB's vision for the Guarantee of Origin (GO) as an instrument in the European energy policy is widely shared among stakeholders at European and national level. And this is one of the reasons why the feeling of hope is much bigger than the anxiety when looking back on 2017.

Another prosperous reason is the ever growing acceptance of GOs among consumers in more and more countries, proven by the rapidly growing cancellation statistics of GOs in the EECS domain. Especially corporate consumers are driving the market, and gone are the days when corporate consumers began to feel uncomfortable when asked about their use of GOs by e.g. a consumer organisation or an environmental NGO. Consumers now understand the system and make choices based upon the very rich information on the content of the GO. They now see there is no such thing as 'the GO', as it is a highly diversified and heterogeneous instrument: the value a consumer attributes to a GO varies greatly depending on where it comes from geographically, which technology (hydro, wind, solar, biomass,...) it represents and how old the production device is. So saying that 'the GO market is in oversupply' is wrong for at least more reasons. The market for GOs from e.g. recently build wind farms is completely different from that for GOs from decades-old hydro; and this is reflected in the prices. Moreover, the growing demand has in general terms caught up with supply, making prices for all GOs rise substantially, but due to the already mentioned preferences expressed by consumers, in a very differentiated way.

On the downside, my anxiety is caused by the continuing negotiations on the Clean Energy Package (CEP). During 2017, the viewpoints of both the Council and the European Parliament were established. It is difficult to keep an overview of the decision making process regarding the CEP now that the 'trilogue' has started, but in the different text proposals and amendments that have reached the Association of Issuing Bodies there were several elements that raise concerns. While political issues are outside of our scope as a representative body at an operational level, the AIB has a duty to its members and to related stakeholders to provide a balanced view of the potential impact of proposals, if they were implemented. The operational consequences of a political decision need to be fully considered and it would be dereliction of duty for the competent bodies collectively to leave these negotiators in the dark. This is why we must share our vision and our thoughts with the decision makers and join the societal debate on the topics we are dealing with.

Meanwhile, the AIB continues its work for an ever more reliable, efficient and transparent GO and disclosure system. That is why we chose 'Reliable' as this year's cover: in 2017 we have improved the way we audit our members even further, to ensure that our claim of providing a robust and reliable EECS GO system remains credible.

So allow me to express my hope for the coming years. First and foremost to see an outcome of the Clean Energy Package that offers Europe's energy consumers a reinforced and robust instrument, a GO-system that allows the consumers to take up their part in the energy transition towards a low-carbon society. Secondly, to see consumers, both households and corporates, continue the uptake of GOs as a part of their energy strategy, so they can be held accountable for the impact of their choice of contract on the environment.



CHAIR'S STATEMENT



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

In 2017, the AIB focused on internal as well as external excellence.

Internally, the core element for the high quality within the AIB, the member compliance with the EECS rules, has become even more professional. A reviewers group consisting of professional auditors has been installed and meets regularly to discuss the member audits, which are performed on a three-yearly basis. Each member audit is executed by a professional reviewer together with a member reviewer, and the details and evaluation reports are discussed and shared amongst all members. This allows all members to gain an insight into the handling of different national database systems for Guarantees of Origin and their characteristics, as well as the national rules on disclosure.

An internal revision process of AIB's organisation was launched in 2016 and continued into 2017. With the help of external consultants, the AIB aims to be highly professional and efficient in its decision-making processes and the working procedures amongst member representatives with different interests and expectations. Currently, the members are contributing through internal working groups that are led by experienced people, and the members are energetic and enthusiastic in their contributions. The Board member representatives changed in 2017; two Board members have been replaced. In the name of the Board, I would like to thank the outgoing members for the magnificent work they have done for the AIB and the legacy they have left and welcome the two new, motivated and very experienced Board members.

By the end of 2017, the AIB had 23 members representing 19 countries. The Association will continue its extensive work and dialogues with all potential new countries that are considering establishing a high-quality system for Guarantees of Origin and adopting the AIB's standard, the European Energy Certificate System (EECS).

Externally, The AIB is further seeking to enhance its good reputation at a European level. This includes representation in relevant stakeholder conferences and European decision platforms. A predominant piece of work was the

ongoing process of the revision of the RES Directive 2009/28/EC, where the AIB has been lobbying for a strong, transparent and trustworthy system for Guarantees of Origin and disclosure in Europe.

The AIB offers a well-functioning Hub based on modern technology, from which all members benefit. A programme of activities to ensure compliance with the GDPR regulation is in preparation and will be fully implemented during 2018, as required. Blockchain technology has been presented to the AIB as an interesting possibility for future trade of GOs. The AIB is open to all potential improvements to the system, as long as they are in the interest of its members.

The AIB published the residual mix for 2016 for disclosure purposes on the website. Many countries use this mix to display on the suppliers' disclosure statements.

2017 was an interesting and successful year for the AIB. 2018 will be a promising year where the AIB already has agreed on a motivated and interesting working programme. The final version of RED-II is expected to be agreed by the Parliament and the Council and will potentially lead to modification of the EECS standard. The existing AIB website will be replaced by a new, modern and user-friendly website in 2018. New Members are knocking on our door, and we hope to gain their trust in connecting their high-quality national systems via the AIB Hub. The AIB and its members are looking forward to taking on all of these new challenges and adventures with enthusiasm, thanks to a great team of individuals from the AIB member countries and observers who work largely on a voluntary basis. Members work at a European level and join forces to put in considerable and continued effort to promote the AIB, and to further develop EECS.

Further, the Secretary General and the secretariat as well as the professionals working for the AIB have done an excellent job. I would like to express my thanks to them, to all chairs of working groups and task forces and to all members and observers who have contributed to a successful year 2017 for the AIB. All of their efforts contribute to making the AIB what it is today.

GO ACTIVITY FOR 2017

Membership

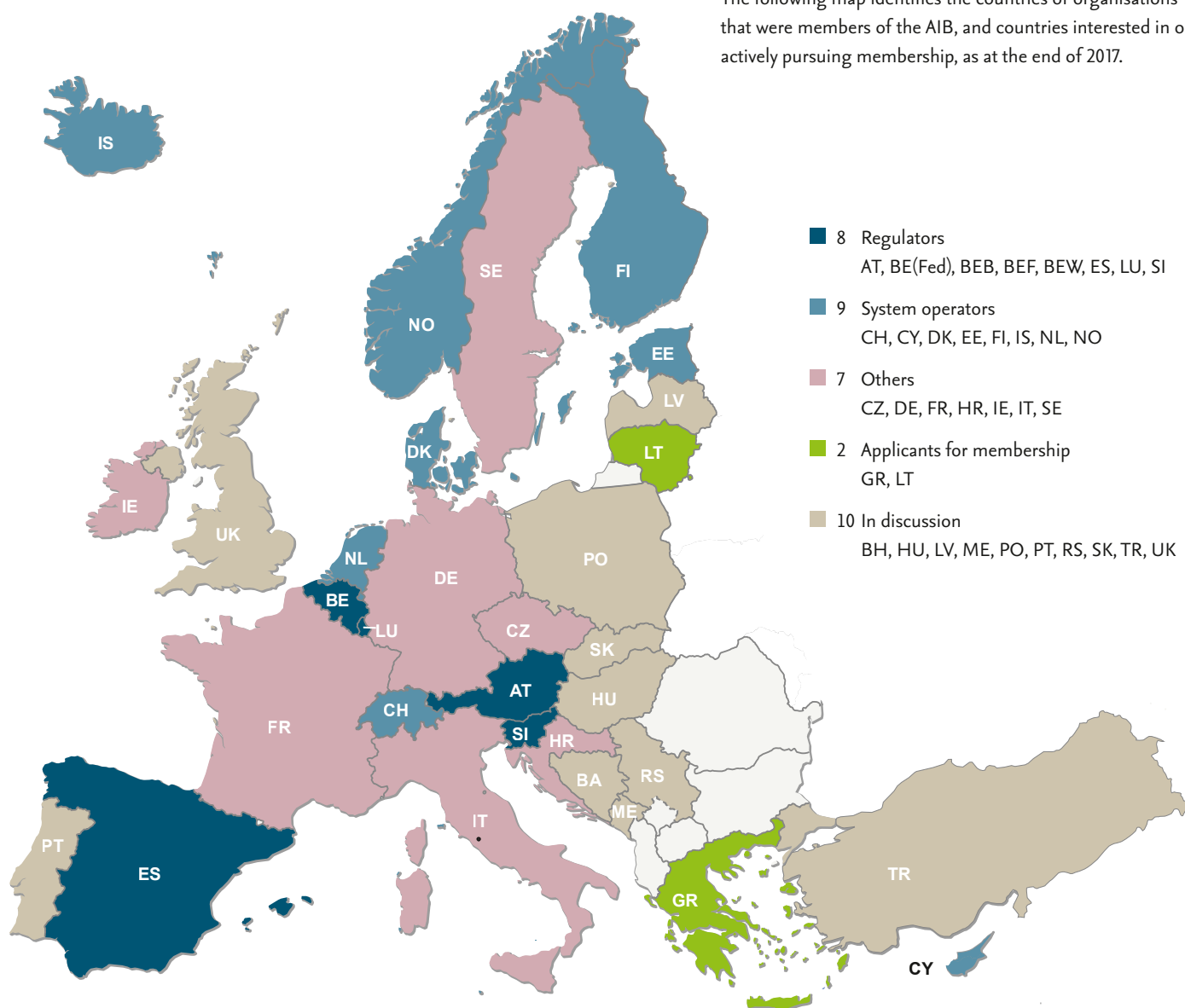
At the end of 2017, AIB had a total of 23 members, representing 20 countries (the Belgian regions of Brussels, Flanders and Wallonia each have their own issuing body, as has Federal Belgium, which has responsibility for offshore production).

There were no new member countries during 2017, although Energimyndigheten (the Energy Agency) of Sweden replaced Grexel.

The issuers of guarantees of origin (GOs) for Greece (LAGIE) and Lithuania (Litgrid) continued the membership application process.

Discussions progressed with interested parties in Bosnia (REERS), Federation of Bosnia and Herzegovina (RES Operator), Hungary (MEKH), Latvia (AST), Montenegro (ERA), Poland, Portugal (DGEG), Serbia (EMS), Slovakia (URSO) 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 2017.



Market Activity

New features of the statistics

Statistics are available for: guarantee of origin (GO) activity in a month; and GO activity relating to electricity produced in a month. So 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 makes it possible to see how many of each 'vintage' of the GO are still available on the market; and to review seasonal GO activity.

Overview of activity

Market activity continues to increase, with continued strong growth in the quantity of GOs used by suppliers to prove the source of electricity – 2017 was a bumper year! 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; with more and more GOs finding a value.

By the end of 2017, 74% of GOs issued for electricity produced during 2016 and 55% of GOs issued for electricity produced in 2017 were reported as having been cancelled. 7% of GOs issued for electricity produced in 2016 have now expired, the same as the previous year.

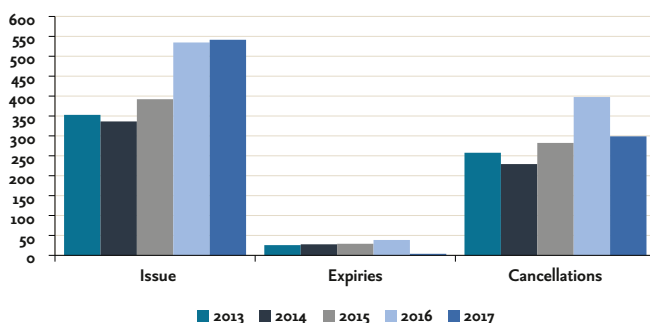
This again demonstrates that increasing numbers of competent bodies are expiring GOs, and that there are minimal stocks of GOs more than 12 months old thanks to the requirement under the EU Renewable Energy Directive (2009/28/EC) for GOs to expire within 12 months of production of the associated energy. This has led to increased demand for new sources of supply; and coincides well with the growth in member states seeking to comply with the Directive in a cost-efficient way by joining the AIB and/or using the Hub.

The number of issued GOs for electricity produced during 2017 will be finalised during the next few months, and we anticipate a slightly higher final number of GOs issued for this production year than that reported in this article – historic trends suggest that an increase of about 5% is still possible over and above these figures (which were collected in April 2018).

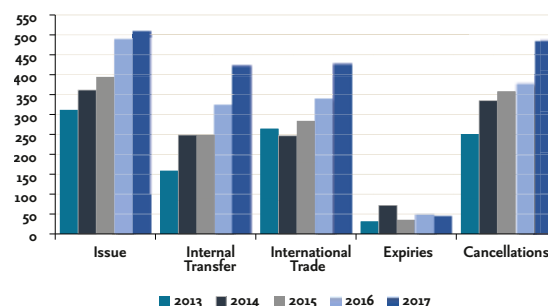
The following graphs show:

- 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.

graph 1 Annual EECS transactions by production date (TWh)



graph 2 Annual EECS transactions by transaction date (TWh)



Source of GOs - technology / energy sources

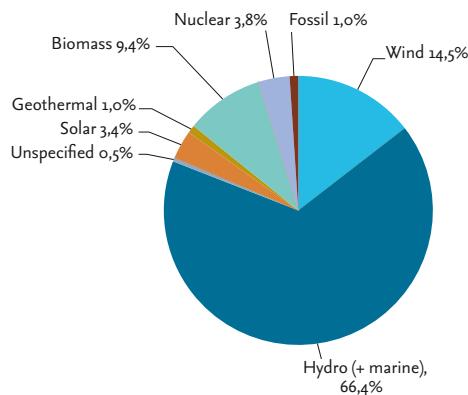
Hydropower continues to be the major source of electricity for which GOs are issued, and is slightly down compared to 2016, from 72% to 67%. The proportion of GOs for nuclear power issued has fallen again, this time from 4.4% to 3.8%, but it has risen for biomass (from 5.4% to 9.4%), while wind, geothermal and fossil are around the same. However, it has risen for solar (1.4% to 3.4%). Unspecified energy source accounts for 0.5%, about the same as last year.

Over the last year, the cancellation of hydro has fallen from 76% in 2016 to 67% in 2017, while nuclear has fallen from 4.9% to 2.4% and geothermal has fallen from 1.4% to 0.8%. At the same time, cancellation of GOs for wind has risen from 10.3% to 18.2%, solar PV has risen from 1.4% to 4.6% and fossil has risen from 0.4% to 1.0%. Geothermal, biomass and fossil are about the same. 0.3% of unspecified GOs have been cancelled.

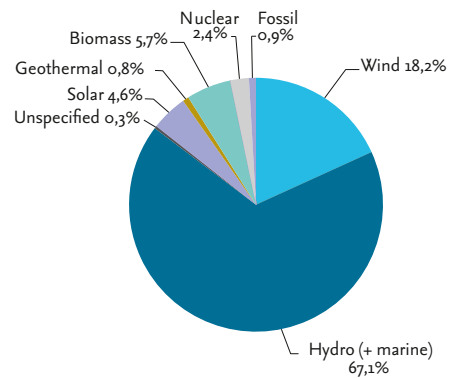
The following graphs show the annual quantity of GOs issued for a production period; along with those that have been cancelled during that period.

graphs 3 + 4

EECS certificates issued per technology (2017)



EECS certificates cancelled per technology (2017)



Source of GOs – country

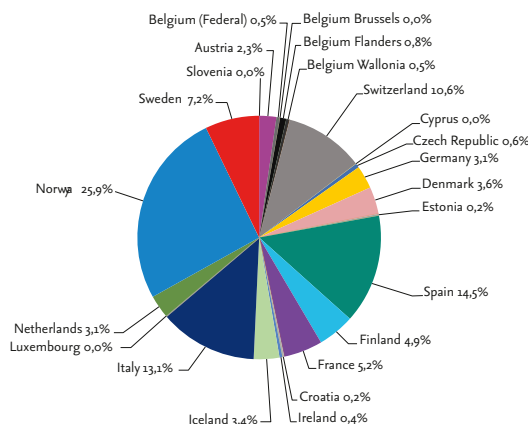
Regarding national activity, Norway, followed by Spain, Switzerland and Italy, remain by far the major suppliers of GOs, supplying 64% of all GOs issued. They are followed by Finland, Sweden and France, which issued a further 17%.

Germany, Switzerland, Spain and the Netherlands are now the major consumers of GOs, cancelling 55% of all GOs between them; while Norway, Sweden, Italy, Finland, Belgium and Austria collectively cancelled a further 37%.

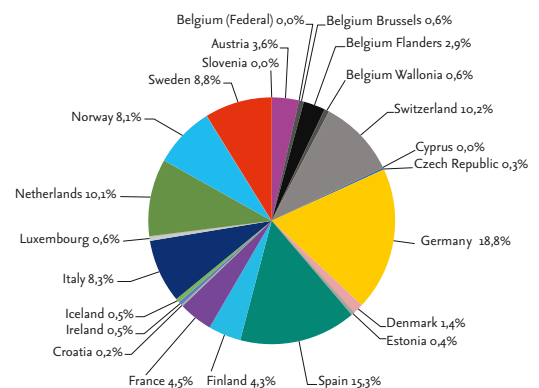
The following graphs show the annual quantity of GOs issued for a production period; along with those that have been cancelled during that period.

graphs 5 + 6

EECS certificates issued per country (2017)



EECS certificates cancelled per country (2017)



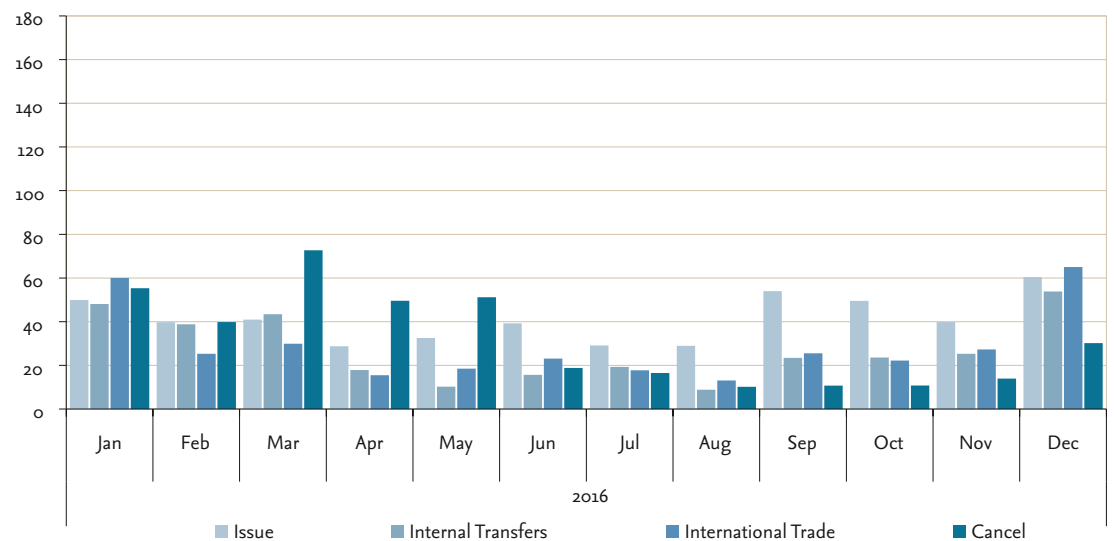
Annual activity

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

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

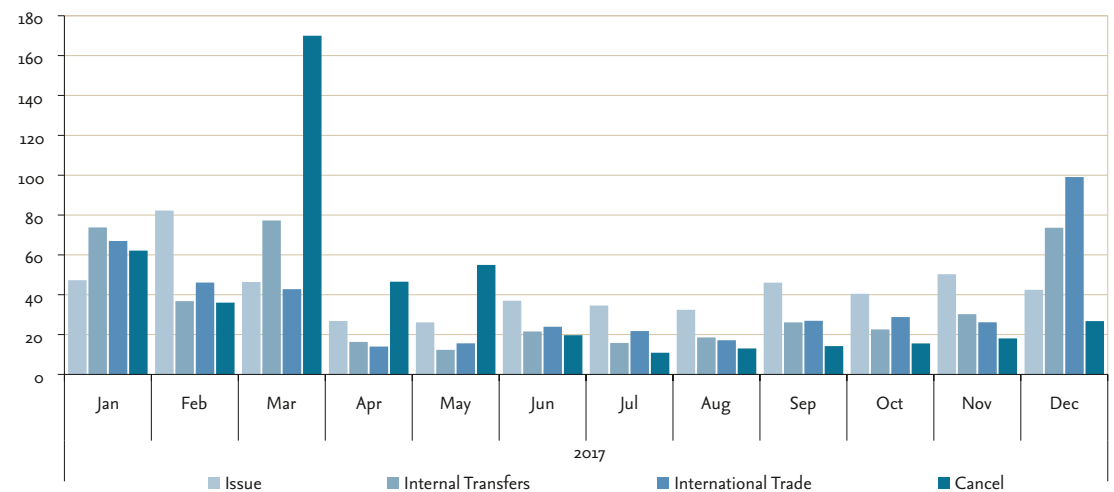
graph 7

EECS certificate activity 2016 (TWh)



graph 8

EECS certificate activity 2017 (TWh)



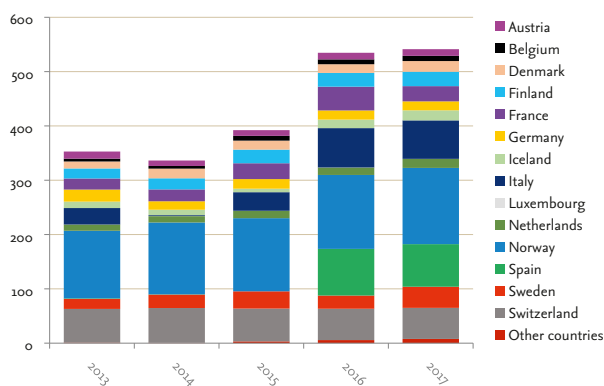
Cumulative activity - national

As the following graphs demonstrate, the growth in issuing continues (note that the issuance of GOs for the remaining 2017 production continues into 2018; and that historically a further 5% is possible over and above these statistics (which were collected in April 2018), meaning the eventual total might be as high as 570 TWh). The following graph shows the annual quantity of GOs issued for production in each of the last 5 years.

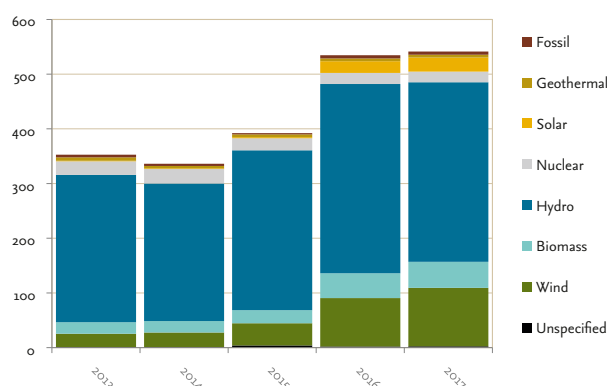
Norway is still the leading country supplying Guarantees of Origin; providing the market with approximately 140 TWh of Guarantees of Origin from Hydro in 2017. As the rest of the market keeps growing and developing, Norway's share of the total supply continues to decrease.

graph 9 + 10

Issued per year of production (TWh)



Issued per technology (TWh)

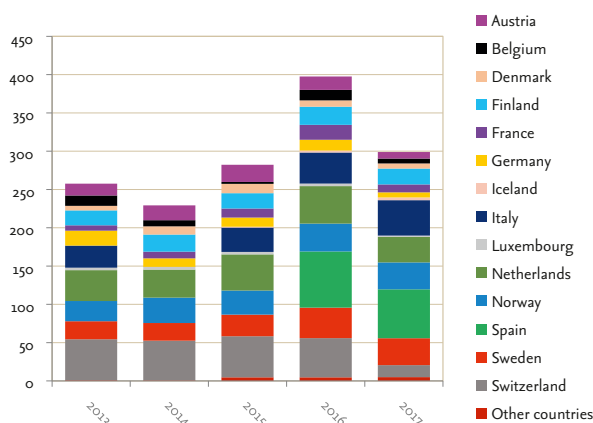


Cancellation continues to grow, reflecting strongly growing consumption in a number of countries during 2017. The following graphs show the annual quantity of GOs that have been cancelled for production during each of the last 5 years; along with the GOs that have been cancelled in each year for all production periods.

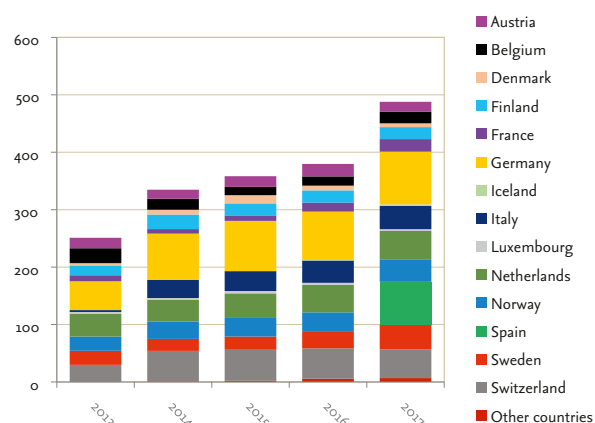
GOs are often cancelled late in their life, which explains why about half of the GOs for 2017 production have yet to be cancelled. Also, the GOs for all years that were cancelled during 2013 may have been due to energy suppliers using up old stocks of GOs before they expired as required by the RES Directive.

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

graphs 11 + 12 Cancelled per year of production (TWh)



Cancelled per year of transaction (TWh)



The continued rise in cancellations has led to demand of more than 488 TWh, over 10% of all European energy demand and 35% of all European RES electricity. The market continues to shorten.

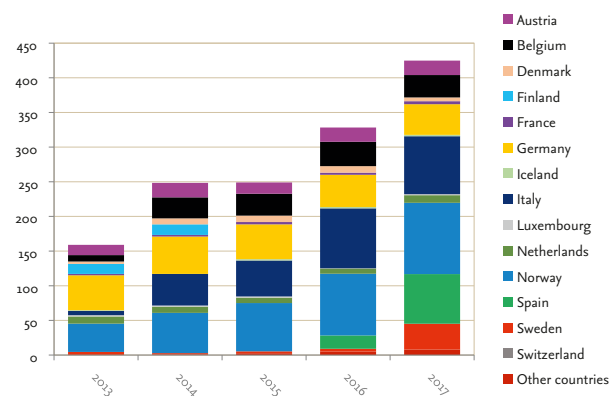
Internal use of GOs continues to rise, with Sweden, Spain, Norway, Germany and Italy making a marked contribution, as shown in the following graph:

Furthermore, market activity in Slovenia and non-member countries are not reported. When this is eventually added, we will see 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 it is clear that 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 documenting the purchase of renewable energy.

graph 13

Transferred per year (TWh)



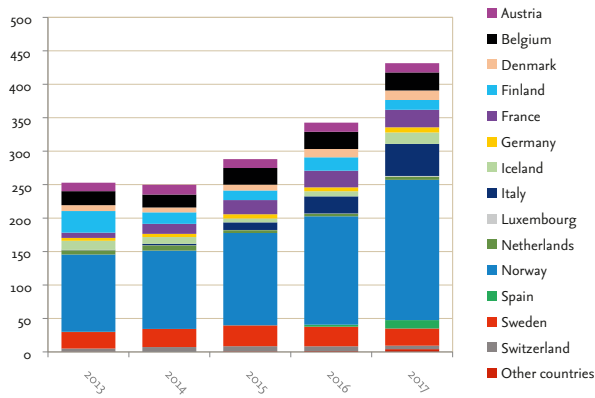
Externally, the exporting countries are predominantly Nordic plus Italy, France and Belgium.

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

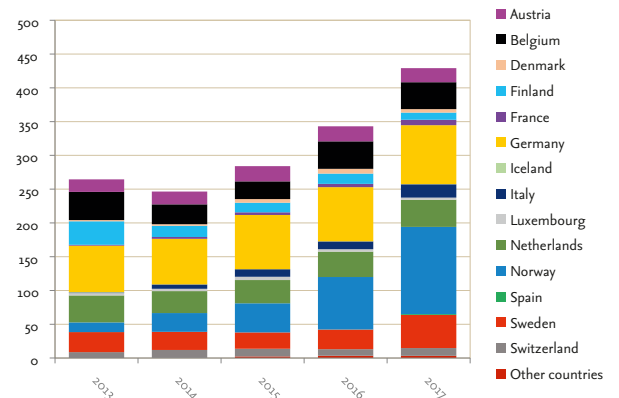
The following graphs show the annual quantity of GOs traded internationally during a period.

graphs 14 + 15

Exported per year (TWh)



Imported per year (TWh)



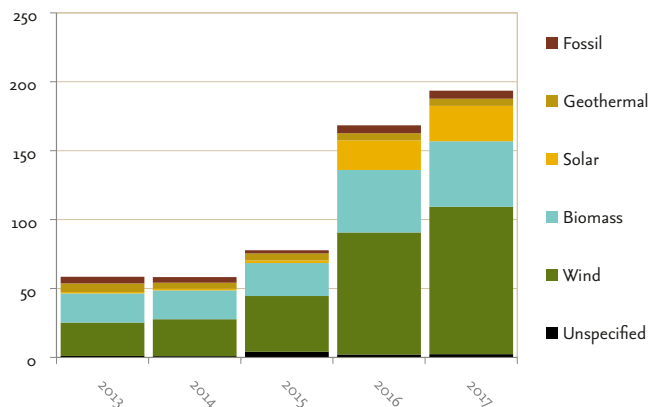
Cumulative activity – technology

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

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

graph 16

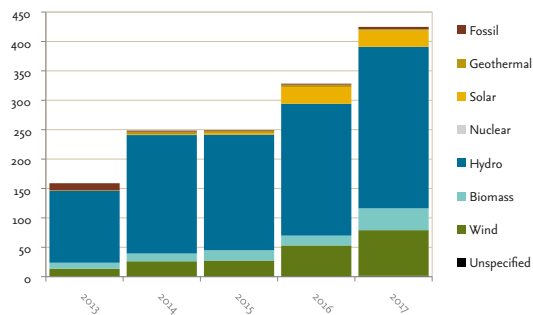
Issued per technology (TWh) (except nuclear and hydro)



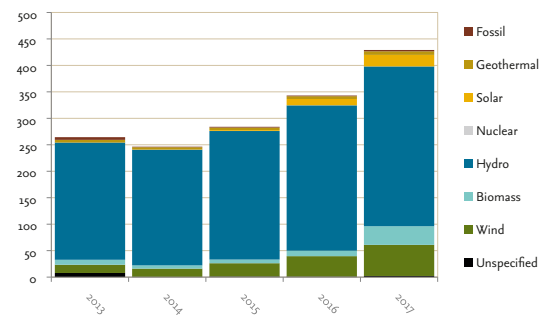
In addition, the following graphs show the volume of GOs by each energy source that have been transferred within a country, and those that have been traded internationally.

graphs 17 + 18

Transferred per technology (TWh)



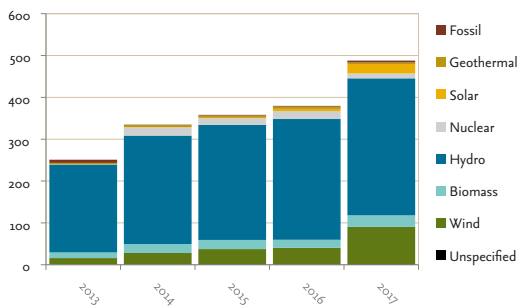
Imported per technology (TWh)



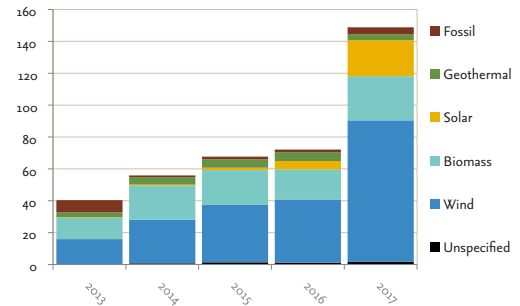
These graphs show the annual quantity of GOs cancelled during each year, analysing these in more details for energy sources other than nuclear and hydro.

graphs 19 + 20

Cancelled per technology (TWh)



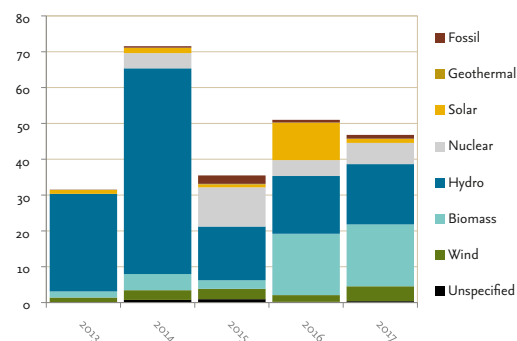
Cancelled per technology (TWh) (except nuclear and hydro)



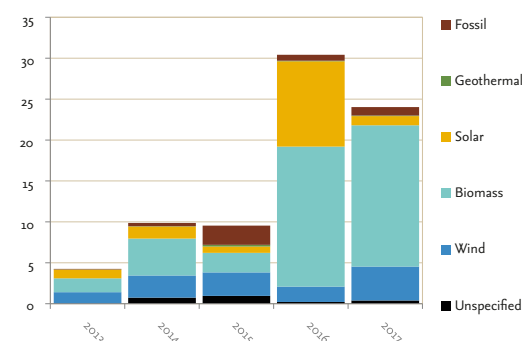
We can also see the composition of the expired GOs required by Directive 2009/28/EC, which are increasingly for biomass.

graphs 21 + 22

Expired per technology (TWh)



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



EECS market penetration

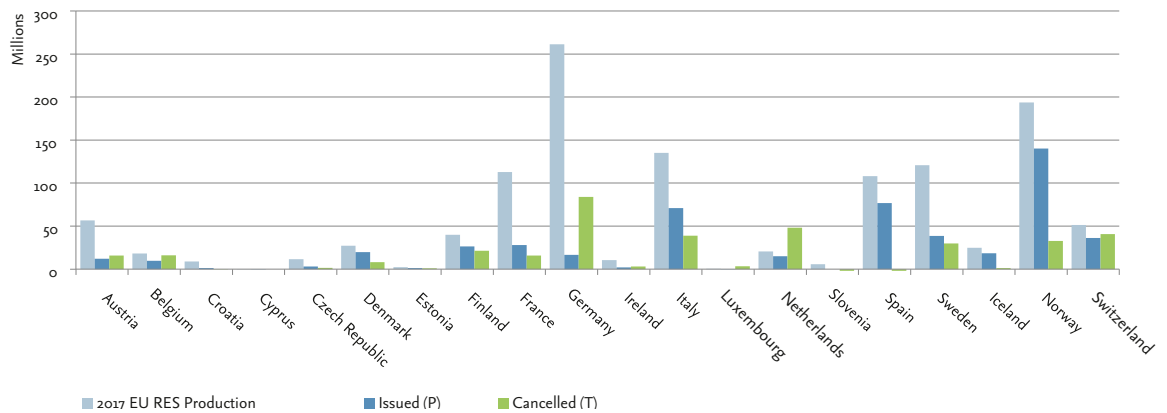
It is interesting to compare renewable electricity production in member countries with the number of EECS GOs issued.

Based on the latest available twelve months of ENTSOe statistical data (i.e. for the period January 2016 to December 2017) regarding the production of electricity, the following graphs compare electricity produced in 2017 with EECS GOs issued for this period. They show

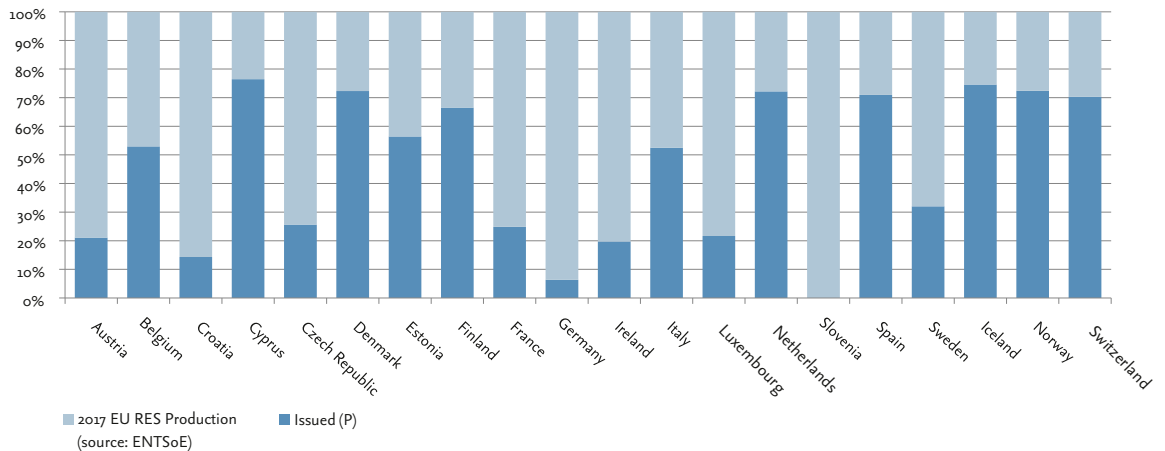
the annual RES production and the quantity of EECS GOs issued for a production period in each member country.

These show that Cyprus, Denmark, Finland, Norway, the Netherlands, Spain, Iceland and Switzerland predominantly use EECS GOs to provide evidence of the source of energy to consumers; and there are gains in a number of other countries.

graph 23 EECS market penetration (Millions)



graph 24 EECS market penetration (%)

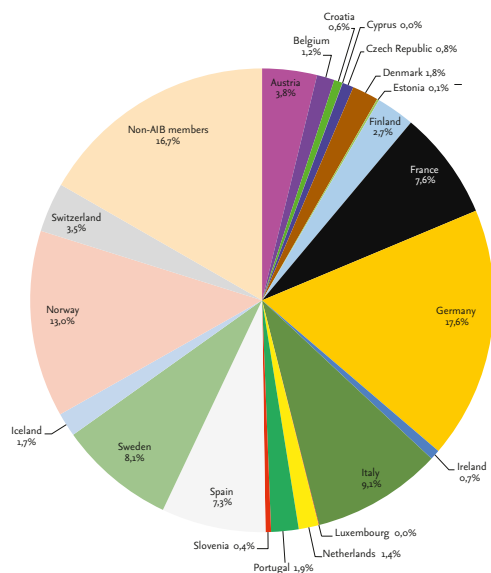


The following graphs also relate to 2017 production and show clearly that AIB members cover regions, which were responsible for the production of 77% of European electricity, 33% of which was from renewable sources. Hence, the electricity for which GOs are not issued is either:

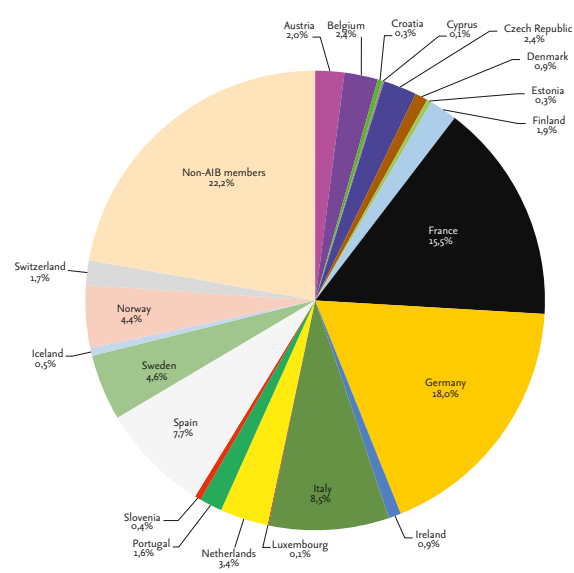
- 1 produced by a country which is not yet a member of AIB; or
- 2 produced by a member of AIB which does not yet support EECS for all forms of GOs, or which does not yet support EECS for some production (e.g. only for external trade); or
- 3 not certified, due to lack of demand; or
- 4 not certifiable, as it has received support and this electricity is included in the mix supplied to consumers.

graphs 25 + 26

European 2016 RES-E electricity production by source



European 2016 electricity production by source



2017 ACHIEVEMENTS

The last year has been busy. During 2017 we have:

- 1 Continued our ongoing programmes of reviewing the domain protocols (DPs) of new members and those whose practices have changed, and auditing the operations of existing members
- 2 Continued to recruit and support applicants and new members
- 3 Continued to enhance the new Central Processing Hub with the assistance of Unicorn Systems to support GO transfers across Europe
- 4 Continued to represent the views of members of the AIB regarding the implications of the package “Clean Energy for all Europeans”
- 5 Continued the project considering the use of GOs to convey information about CO₂ and radiation waste emissions
- 6 Implemented the new website content management system, prior to a fundamental rethink in 2018
- 7 Continued to provide statistical information to report issuing, transfer and end-of-life of GOs for each energy source within each member country, including analysing cancellations in one country for use in others
- 8 Hosted an event at the European Union Sustainable Energy Week
- 9 Progressed the project to reorganise the AIB, to ensure we are equipped for future challenges
- 10 Held the annual Open Markets Committee, and
- 11 Continued to support residual mix calculation.

DP reviews and audits

The professional reviewers – those who offered their services as individuals rather than as members – are now organised into a formal group, which is developing improvements to review and audit practices.

During 2017, domain protocols were reviewed and approved for:

- AGEN-RS (Slovenia)
- Grexel (Sweden)
- Energimyndigheten (Sweden)
- VREG (Flanders)

Audits were conducted for:

- AGEN-RS (Slovenia)
- Grexel (Sweden)
- CNMC (Spain)
- FinExtra (Finland)
- Elering (Estonia)
- UBA (Germany)
- Ireland (SEMO).

Recruitment of new members

At the end of 2017, the AIB had 23 members in 20 countries (Belgium has four competent bodies representing the three regions of Belgium and Federal Belgium). Energimyndigheten has replaced Grexel for Sweden. Some issuing bodies have resolved legal or technical matters, including the Czech Republic (OTE), which has now adjusted its systems to resolve the issues surrounding its disclosure regime, enabling it to export internationally. Five observers will potentially become AIB members in 2018 or shortly after: Litgrid AB of Lithuania, LAGIE of Greece, Augstsprieguma tīkls AS of Latvia, Elektromreža Srbije of Serbia and RES Operator of Bosnia & Herzegovina.

The AIB Central Processing Hub

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

In 2017, work commenced on expanding the scope of the Hub to provide a database containing details of accounts held on member registries, to improve the ability of members to validate transfer details. This will conclude in 2018.

A tool was developed and implemented to detect suspicious behaviour in transfer in regard to VAT Fraud. The technical part of the audit of members was improved. Also in 2017, work commenced on a review of the adequacy of the structure and operations of the GO market, and of the technological options for supporting it.

Representation of member views concerning the review of the EU Commission package “Clean Energy for all Europeans Package”

This is a package of measures to reflect how the clean energy transition is changing global 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 legislative proposals cover energy efficiency, renewable energy, the design of the electricity market, security of electricity supply and governance rules for the Energy Union, and include changes to the Directives, which drive much of the work of the AIB: the Renewables, Internal Markets and Energy Efficiency Directives.

The AIB stated its vision in its Reflection Paper of 2015, which proposed provisions regarding GOs and energy source disclosure, encouraging 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.

The Commission now seeks the support of the Parliament and Council for the revised Directives within the next year, and we will continue to work with these bodies to champion our views, and seek appropriate legislation to support them.

Usage of GO's to convey information about CO₂ and radiation waste emissions

Over the past 2-3 years, the AIB has sought to further develop its GO and disclosure system into a full disclosure system, where it would be mandatory to use GOs for the disclosure of all energy sources.

To this end, we have been considering whether it is possible to develop a methodology for adding carbon emission values to GOs in a harmonised way across Europe. This methodology needs to be reliable, accurate and usable, protect consumer rights, and include a fall-back should information not be available; and must take into account aspects related to the disclosure obligations by producers and retailers of electricity, as well as carbon footprint requirements by consumers of electricity and GOs.

The proposed methodology would build heavily on the European Union Emissions Trading Scheme (EU-ETS) regulatory package as a fundamental reference for the monitoring and reporting of carbon emissions, explicitly acknowledging the complimentary and fundamental role that the EU-ETS has in the regulatory framework on the European Power sector, alongside the two Directives on which the GO system is based upon.

The work is now coming to an end, with a few final issues remaining unresolved.

Implemented the new Website Content Management System

The earlier AIB website was based upon an outdated technology, which led to difficulties maintaining the website and did not provide up to date facilities. The LifeRay Content Management System (CMS) was implemented as a replacement, and the data held on the old system was converted into the appropriate form for the new system. Porting the large number of documents and other information between the two was a major activity, and was undertaken by E-Control and its advisors.

E-Control has now decided to cease to support the website, and the AIB is seeking a new host. This will probably lead to a further change to CMS, and offers a good opportunity to redesign the website, bringing it up to date with current trends in web design and making the wealth of data it holds more accessible to users.

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

Since 2001, statistical information has been provided to stakeholders. This offers 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.

Data is now also available on the cancellation of GOs for use in countries other than that in which they are cancelled – so called “ex-domain cancellations” (EDCs).

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Work has also started to replace the current predominantly manual data collection and manipulation with automated data collection to a database, and subsequently the selection of software providing improved analysis.

Pursuing the AIB Stakeholder Strategy

The AIB is an organisation with unique expertise, but unless we are willing to share and demonstrate that expertise, no one will recognise us as the unique centre of knowledge we are. What good is it to be the expert, when nobody knows it and therefore asks you anything? So, the AIB needs to be more visible, more present, in order to sustain its activities. This is one of the goals of the AIB Stakeholder Strategy (SHS).

Establishing a presence online was one way of establishing a presence and achieving visibility. As we are a technical organisation, LinkedIn, Twitter and Slideshare fit best with our activities. A Twitter account (@AIBSEC) and LinkedIn Company page were set up as the backbone of the online presence. The AIB LinkedIn Company Page keeps gaining followers every month and was at 386 followers on 23 March 2018 (up from 246 in June 2017). More importantly, engagement is high. To further heighten the exposure of the AIB, it is important that AIB people share the updates and spread our information. The geographical spread of the followers is very uneven, with many situated in the Benelux, Germany and the Scandinavian countries.

As a result, the AIB's activities now attract more attention, resulting in invitations to participate in events (e.g. in the European Parliament) and in interest from media. This in turn fuels attention for our messages, bringing about a 'virtuous circle', serving the interests of the organisation.

Another way of establishing visibility and receiving public recognition from the European Commission is to participate in the EU Sustainable Energy Week Event.

Hosted an event at the European Union Sustainable Energy Week together with Rescoop.eu

Our proposal to co-organise a high level policy event during the European Commission's EU Sustainable Energy Week (EUSEW) was selected out of more than 125 submissions as one of only 30 events organised by non-European Commission entities. This confirms that the AIB is now a stakeholder that is seen as a serious voice in the European policy process.

The session took place on Thursday 22 June at the Charlemagne, De Gasperi meeting room, capable of holding over 400 people and was entitled "Involving consumers in the energy transition - Accountability, CSR and carbon accounting". All information can be found here: <http://eusew.eu/involving-consumers-energy-transition>.

The goal of the event was to demonstrate what is good and what can be made still better in the Clean Energy Package regarding the instrument of Guarantees of Origin and their use for disclosure information. Everything went smoothly and the EC commented very favourably on the event.

The AIB Newsletter featured an article on the event, so please refer to pages 4-5 of the newsletter for a debrief of the event.

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

The AIB and its environment are developing rapidly, which has led the Board to consider the way in which the AIB is organised:

- 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.

Five years ago, the strategic ambition of the AIB was to become the sole standard for European energy certificates. The growth of the AIB's member base and the success of the Hub demonstrate that we have accomplished this, so now it is time to look at the future, and assess how we work together in the most efficient and professional way.

Recently, members have indicated that decision-making should improve. As within 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 need 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 mean that the AIB must do everything in its power to ensure business continuity.

As a volunteer organisation, the AIB depends upon member resources, and its growth in a rapidly changing environment means more domain protocols, more audits, more incidents, changes and testing. Also, our visibility has increased significantly, so the outside world has more influence on our agenda. The AIB relies on determined people to do its work, with oversight from different stakeholders, and needs professional advice. This means that there is more to be done and less resources to do it.

The Board therefore instituted a study of the need and necessity for making AIB more future-proof. There are two main challenges:

- Adapting the AIB internally to provide an open interface with its environment, yet preserving its independence and staying true to its core values; and
- Structuring decision-making processes to optimise member cooperation and ensure progress.
- As a result, a two-way approach is proposed:
- A practical approach to prepare for growing operational responsibilities, involving recurrent, well-defined (and time-consuming) tasks like web services, DP reviews, application management, procurement, etc. and
- 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 & control cycle.

The resulting project started in 2017 with a review of member attitudes and needs, for use in a structured walkthrough of the issues associated with reorganisation and with professional assistance from experts, and will continue into 2018.

Open Markets Committee

AIB members are not market players, but we need to be aware that what we do is vital for the companies in the energy sector. This is why the Open Markets Committee (OMC) is an important annual meeting point where AIB and its members – the competent bodies for guarantees of origin across Europe – and GO market parties and their representative association, RECS International, can develop a better understanding of each other's needs and wishes. Both issuing bodies and market players operate in a very dynamic environment:

- The legal framework is changing constantly, now with the Clean Energy Package
- Technological: e.g. think of new market design and use of technologies such as blockchain
- Economical: RE100 is pushing the market forward.

This year we again broadened the scope of the OMC with interesting presentations and discussions about how we might eliminate barriers in European GO markets, progress with the agreement of the new RES Directive in the Clean Energy Package, the pros and cons of current market mechanisms and how they might be improved, market trends, GOs for hydrogen and biomethane, disclosure of emissions, Hub enhancements and the geographic scope of EECS.

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

This joint meeting will be held again in September 2018.

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 decided to take over the calculations as it considers reliable residual mix calculation, coordinated at a European level, to be crucial in its mission to guarantee the origin of European energy. It continues to do so, and the yearly report is available under FACTS of the AIB website.

OFFICIALS

The decision-making body of the AIB is the General Meeting, which meets quarterly at various locations in Europe. Meetings tend to be 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 informal discussions.

The President of the Association is 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.

The Management Board is responsible for day-to-day management of the Association, and meets broadly monthly, alternating physical meetings (normally associated with general meetings) with teleconferences. The general cycle of meetings is organised so that budgetary plans are approved at the December General Meeting. Angela Tschernutter (E-Control of Austria) chaired the Board during 2017, and will continue to do so into 2018.

The other Board members were: Lukas Groebke (Swissgrid, Switzerland), who was also Treasurer for the duration of 2017; Jennifer Holgate (Statnett, Norway) and Emma Kelly (SEMO, Ireland), both of whom resigned in September 2017; Lian Krijger (CertiQ, Netherlands), who joined the Board in March 2017; Ivar Much Clausen (Statnett, Norway), who joined the Board in September 2017; and Martin Štandera (OTE, Czech Republic), who joined the Board in December 2017.

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: this meeting is chaired by the President, Dirk van Evercooren.

The Working Groups include:

- **Working Group Internal Affairs**, chaired by Laura Plunkett (SEMO, Ireland)
- **Working Group External Affairs**, chaired by Dubravka Brkić (HROTE, Croatia)
- **Working Group Systems**, chaired by Annie Desaulniers (CWaPE, Belgium (Wallonia)).

Further, during 2017 there were two Task Forces:

- **TF Carbon**, chaired by Laura Plunkett
- **TF Organisation**, chaired by the Board Chair (Angela Tschernutter), and then by a Board member (Lian Krijger)

The General Meeting, Board and Working Groups are supported by the Secretariat; the Secretary General being Phil Moody (United Kingdom), assisted by:

- Andrea Effinger (Germany) regarding Working Group External Affairs, the Working Group Chair's meeting, and the Open Market Committee;
- Marika Timlin (Grexit, Finland) regarding Working Group Systems, and who is also SuperUser for the AIB Hub; and
- Liesbeth Switten (Belgium), concerning 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, Remco van Stein Callenfels (CertiQ, Netherlands), Diane Lescot (Observ'ER, France), Katrien Verwimp (also an employee of VREG, Flanders) and Michael Lenzen (Netherlands). 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 INTERNAL AFFAIRS

**Working Group
Internal Affairs**
(internal regulation
of the Association,
and administration
and development
of the EECS standard),
chaired by
Laura Plunkett
of SEMO, Ireland
(Sept 2017 until
March 2018).

The AIB Working Group Internal Affairs continues to develop, maintain and enforce the EECS rules for a harmonised, efficient and reliable energy certificate system that is compatible with national schemes and legislation. WGIA also focuses on the development and application of measures to ensure that the GO system remains efficient, robust, correct and secure.

In 2017, the same stalwart members continued their invaluable contribution to WGIA. The highly political topics in 2017 were challenging for the members, who have different opinions and national perspectives, although the good working relationships, willingness to debate and find agreement meant that the Working Group was able to facilitate the achievement of a number of WGIA objectives.

Following the publication of the Winter Package in November 2016, WGIA held a dedicated two day meeting in February 2017 to thoroughly debate 'the pros, cons, and risks of the Renewables Directive' with the deliverable of a technical analysis paper. The topic was particularly sensitive, with several elements in the proposals raising concerns, particularly those in relation to mandatory auctioning supported renewable energy, imposing the user of the CEN standard and the introduction of new energy types of GOs without proposing disclosure rules. On the other hand, some members welcomed the clarification that full disclosure, although not mandatory, would be legally supported. The technical analysis paper was debated at length in the WGIA and the General Meeting. The final agreed full version and summary version of the paper were approved at the Athens General Meeting in March 2017 and published on the AIB website (both papers are available under the Press Release section of the AIB website). The conclusions formed in the paper were presented to a wider audience in a session during EUSEW, June 2017, and again at a RECS International meeting in London in September 2017.

WGIA conducted a survey of all Members focusing on the restrictions to GO trade, expiry and cancellation under national legislation. The Workgroup welcomed the approval of the Athens GM to publish the results of the survey on the AIB website, and agreed to annual updates thereafter. GO market parties jumped at the opportunity to read the survey findings, demonstrated by the significant number of hits to the website when published.

WGIA brought and secured approval for Version 7.9 of the EECS Rules at the General Meeting in March 2017. Furthermore, WGIA presented and gained agreement for a clarification to the treatment of Pumped Storage in the EECS rules. (Further change requests were presented and approved in 2017, but are pending formal EECS rules version 7.10 in March 2018; such as clarification on the 'end of appointment' of issuing bodies and Ex-Domain Cancellation definition.)

Early in 2017, WGIA provided input to the discussion of the geographical borders of EECS, limiting the system to the European Union, EFTA and European Energy Community. The final proposed Articles of Association changes were presented by the AIB Board, and approved in June 2017.

Quality assurance of the GO system keeps its high priority within the AIB and is further being professionalised. During 2017, WGIA presented and secured General Meeting approval for amendments to Subsidiary Document EECS-SD07, and a new Subsidiary Document EECS-SD10, formalising the Professional Reviewers Group (PRG) within the AIB. The thorough debates which used to take up valuable WGIA time now take place in dedicated "Professional Reviewers' Group" (PRG) meetings, and Member Review teleconferences. The PRG initiative provides AIB with accountable, transparent reviews and audits, further increasing the quality assurance of the membership application and audit process.

In March 2017, the AIB accepted the Domain Protocol of Energimyndigheten, the Swedish Energy Agency who became an AIB member for Sweden, following up Grexel oy.

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The AIB's Carbon Task Force reviewed the methodology drafted by CDP for the calculation of carbon emissions for inclusion on the GO. However, in December 2017, the project was considered incomplete as the methodology did not address all concerns raised by members. The objective of the Task Force for 2018 is to bring the project to a conclusion, and if that is not a full working methodology, then any shortfalls will be documented.

By the end of 2017, WGIA had organised four physical meetings and nine teleconferences. WGIA consists of representatives from Transmission System Operators, Electricity Regulators and Market Operators all over Europe. Welcome contributions from CertiQ, CWaPE, E-CONTROL, Elering, Energimyndigheten, Energinet.dk, Finextra, Grexel, GSE, HROTE, ILR, OTE, Pownext, SEM-O, Statnett, Swissgrid, UBA and VREG has meant that good progress was made on WGIA objectives.

So what is the outlook for WGIA in 2018? A first task will be to closely follow the progress of the Renewables Energy Directive, to be prepared for assessing changes required to the EECS rules and other AIB documents. If the CEN standard is enforced in the EECS rules, a review of both will be required to check for any conflicts and to ensure definitions are in line, and to agree a way in which the CEN standard and EECS can be adjusted such that the requirements of stakeholders and competent bodies can be fully met in acceptable timescales. WGIA will also contribute to the PRG topics, including integrating technical and onsite audit processes, evaluating the member audit frequency and a review of the compliance assessment panel process. WGIA will provide input into streamlining the process for collation, preparation and presentation of GO statistics as required by WG Systems.

WORKING GROUP SYSTEMS

Working Group Systems
(interfaces between
computer systems)
Co-chaired by
Annie Desaulniers of
CWaPE, Belgium-Wallonia

Working Group Systems (WGS) advises the AIB General Meeting on the AIB certificate transfer system, recommends change requests, and follows up on decisions made in this framework. The WGS' main task is on the follow-up of AIB software for certificate exchange, also referred to as the AIB Hub. In addition, WGS makes suggestions to and handles requests from the General Meeting and the Board, which can lead to new WGS projects.

The new Hub hosted, operated, and maintained by the Unicorn Energy Cloud ran smoothly during 2017 and more than 4300 transfers were recorded in December. The WGS appreciates the good collaboration and the quality of the service provided by Unicorn.

Again, this year the working group was very active and organized five 'in person' meetings and nine teleconferences during 2017. The WGS has also been working on topics like technical audits of registries, fraud detection, the analysis of the central account holder database, and the preparation of the transition to V71.

The purpose of the technical audit is to ensure the compliance to EECS and the quality of service in the transfers between registries. The tests for the audits are conducted by the Hub Superuser and are approved by the WGS. The tests performed and the report have been improved, and the coordination with the domain audit reviewers was increased over the last trimester of 2017. All this good work has been fruitful: many remarks were made to the registries audited and the registries rapidly adapted their systems under the supervision of WGS. The overall quality of the Hub and the registries is brought to a higher level with the technical audit.

During the year, the fraud detection tool has been implemented, its goal is to detect suspicious transfers with regard to VAT fraud. The parameters are still being tuned and the group has been working on a procedure to follow if suspicious transfers are detected.

The central account holder database has been delayed again but the analysis was completed in 2017 and the testing is going on at the moment of writing these lines. In addition to this major release, WGS saw that the most recent updates will be applied to the open source libraries used by the Hub.

In 2017, Energimyndigheten from Sweden became a member and has opened its registry connection to the AIB Hub in June 2017, the transition with the previous Issuing body for Sweden was completed by the end of the year. In addition, OTE (the Czech Republic) was opened for exports following the legislative change in February 2017. OTE was also the first to implement V71 schema in their registry as they had an urgent business need to emit GOs with Renewable Energy Source and High Efficiency cogeneration parameters, which is possible only in V71.

WGS consists of enthusiastic members of the AIB from all over Europe, bringing together needs, ideas, and expertise. This makes it possible to increase the quality of the AIB certificate transfer system. The members strive to find the best solution for all members, and the meetings are fruitful, inspiring and inclusive. They also keep an eye open on new development in the field and new technologies.

Martin Štandera from OTE became the WGS Board member liaison and replaced Jennifer Holgate who left the board in 2017. We would like to thank all those who contributed to the work of WGS in 2017, especially Jennifer Holgate, Arjan van der Toorn in vice chair position, and the Hub Superuser Marika Timlin-de Vicente.

WORKING GROUP EXTERNAL AFFAIRS

Working Group
External Affairs
(provision of
information)
Dubravka Brkić
of HROTE, Croatia

Working Group External Affairs (WGEA) has a significant role in the organisation as a promotor of all activities within AIB. It is in charge of all types of publications like the website, press information, newsletters and annual reports. The communication with stakeholders is essential for the promotion of the organisation. The President of the AIB, Dirk Van Evercooren, who is WGEA's key player in Social Media issues (see LinkedIn), also does this. In addition, he supports not only WGEA but also the entire association with his dedication as AIB's ambassador.

WGEA continually works on the recruitment of new AIB members in many ways: One task is providing easy to understand documents about the joining process including information for newcomers in connecting to the HUB. The latter was a successful joint working process involving the other Working Groups. This is normal procedure when outside the scope of WGEA and the cooperation is both helpful and supportive. Another approach to support applicants and new members is the so-called "SPOC" ("Single Point of Contact"). A SPOC is an experienced AIB member who volunteers to help newcomers during the process of joining the AIB and throughout the first year of the membership. We especially thank Martin Štandera (OTE, CZ), Milada Mehinovic (pronovo, CH), Dubravka Brkić (HROTE, HR), and Phil Moody (AIB Secretary General) for their supportive work.

Besides the above-mentioned Communication and Recruitment Strategies, one main task during 2017 was to support the AIB President in formulating and executing the stakeholder strategy, in which he takes the lead. If you want to learn more about our stakeholder approach which increases the voice of AIB during the development of a new Renewables Directive, please read 'Achievements' in this annual report. It provides a good example of the collaborative working culture within the AIB – WGEA, AIB Board and the President are closely linked to each other to spread the AIB's vision.

Social Media is very important nowadays in business. And we are proud to see more and more followers (see e.g. LinkedIn), especially those who are truly engaged in supporting the AIB's vision. This means a lot for the organisation's recognition.

WGEA worked on the comprehensive document "Value of AIB and GOs" that presents the most important facts about GOs and is addressed to authorities and consumers for better understanding the true value and purpose of GOs and disclosure.

The document is presented in two versions (one aimed at authorities and one at consumers) that were uploaded on the new website section: AIB - Value of AIB and GOs. The version for consumers might also be added to the Wikipedia page.

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The document is based on the three main European policy goals in the “Clean Energy for all Europeans” Package, which are:

- putting energy efficiency first;
- achieving global leadership in renewable energies; and
- providing a fair deal for consumers.

Consumers are active and central players on the energy markets of the future. Consumers across the EU will have a better basis for the choice of supply, access to reliable energy price comparison tools and the possibility to produce and sell their own renewable electricity. Increased transparency and better regulation give more opportunities for civil society to become more involved in the energy system. The package also contains a number of measures aimed at protecting the most vulnerable consumers.

European policy makers are working on a new legal framework for the European energy market, called the ‘Clean Energy for all Europeans’ package. To find out why this is important for consumers, and how consumers can contribute to the transition to a more sustainable European electricity market read on ...

DUBRAVKA BRKIC (HROTE, IB from Croatia) is the chair of WGEA. The group benefits greatly from its new team member **MAX LAVEN**, who works as a policy advisor to CertiQ, the issuing body for the Netherlands. He contributes to the work of WGEA very fruitfully with his work on Social Media aspects in AIB, and in developing promotional documents.

One more example of why we benefit from the AIB's 'ambassador', AIB President **DIRK VAN EVERCOOREN**: on the invitation of Leonardo Energy, he gave a webinar entitled “The value of Guarantees of Origin: empowering consumers in the energy transition”. The recording of the webinar is online.

Besides Dubravka, the following are active members of the working group:

- **MILADA MEHINOVIC**
(pronovo, the issuing body of Switzerland),
- **MAX LAVEN**
(CertiQ, the issuing body of the Netherlands),
- and the AIB's assistant to the Secretariat,
ANDREA EFFINGER.

BUDGET / ACTUAL EXPENDITURE AND INCOME

Note that the financial statement at the end of this annual report consolidates the books of account for the period 1st January to 31st December, and includes all accruals for work that has been done but has yet to be billed, and repayments for work that has yet to be done.

Further, the position at Jyske 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.

These three presentations of the accounts have different purposes, and the financial amounts will therefore be different.

Position at Jyske Bank

Actual income for 2017 represents the final payments of activity fees for 2016 plus all fees for 2017 except those final activity fees charged early in 2018 (€ 817 723 in total), plus VAT refunds (€ 63 001) received during 2017. The total income was € 880 723.

Actual expenditure for 2017 represents the payments of amounts outstanding for 2016, plus all expenses for 2017 except those final expenses paid early in 2018. It amounted to € 906 486.

In 2017, expenditure exceeded income by € 25 763. This reduced reserves from € 223 880 at the start of 2017 to € 198 118 on 31st December 2017. However, the increase in membership fees is expected to reverse this trend and lead to increasing reserves. Note that no bank interest was received for 2016, due to a zero bank rate for deposit accounts, but that € 1 505 bank interest was paid on cash held in the bank account.

Invoices have now been received for all work commissioned during this period, € 80 758 having been set aside at the beginning of the year for outstanding payments relating to work commissioned in 2017.

Invoices have also been issued for the remaining membership fees relating to 2017 (€ 58 798).

Position against budget

Annual costs	Budget	Actual	Variance
Administration	€ 378 989	€ 350 991	€ 27 998
Working Group Systems	€ 235 216	€ 239 335	- € 4 119
Working Group Internal Affairs	€ 122 923	€ 135 581	- € 12 658
Working Group External Affairs	€ 85 965	€ 86 319	- € 354
2017 expenditure	€ 823 093	€ 812 226	€ 10 867

Annual income	Budget	Actual	Variance
2017 income	€ 787 500	€ 884 561	€ 97 061

Difference	Budget	Actual	Variance
2017 income - expenditure	- € 35 593	€ 72 334	€ 107 928

Income

Income was € 97 061 more than the allocated budget, due to:

- 1 **Croatia** transferred less than had been expected
- 2 **Cyprus** has yet to link to the Hub
- 3 Because the **Czech Republic** had been unable to export at the start of 2017 due to potential double counting, its activity was less than anticipated. This has now been corrected.
- 4 **Greece, Latvia and Lithuania** did not join AIB in 2017, as expected
- 5 Spain was more active than expected
- 6 The remaining fees for 2016 collected in 2017 were offset by a slightly larger amount of fees for 2017 to be collected in 2018
- 7 **Of the countries whose membership fees were not capped**, Estonia, Iceland, Ireland, Luxembourg and Spain transferred more than expected.

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Expenditure

In total, expenditure was € 10 868 less than the allocated budget.

Within **General Administration**, costs were € 27 998 less than expected:

- The cost of the **Secretariat** was € 5 517 more than expected, due to additional work supporting AIB restructuring and consideration of the EU Commission package “Clean Energy for all Europeans”, and more secretarial support than expected relating to the new website – although this was offset by a lower workload in WGEA.
- **Banking** costs were substantially (€ 1 416) more than expected due to changes in Danish banking practice, whereby the cost of servicing a cheque from UK VAT authorities has risen sharply and bank charges are levied on funds held in current accounts.
- **Expenses** were € 11 842 more than anticipated, and can be attributed thus:
 - There was higher than expected expenditure **meeting accommodation** (€ 2 607), **travel and accommodation** (€ 10 819)
 - This was offset by underspending on **audit and VAT advice** (€ 355) and **teleconferencing** (€ 68) and **insurance** (€ 259) and **sundries** (€ 902).
- The **Brussels events** costs were as per the budget.
- **Corporate advice** was € 18 715 less than expected, due to there having been no requirement for external legal advice.
- **Residual Mix calculation** was € 10 165 less than expected.
- There was remaining expenditure on **Task Force Carbon** is in dispute, leading to underspend of € 17 893 – a provision for this is being held into 2018.

Within **Working Group Systems**, costs were in total € 4 119 more than expected.

Systems changes were less than anticipated (€ 7 199), while the cost of GDPR was deferred to 2018 (€ 6 000).

This was offset by Hub development, which is now complete, although it did run on into 2017, occasioning extra expense on commercial management (€ 3 980). Hub SuperUser / WGS Secretarial costs also overran, part due to the Hub implementation overrun, but also to increased input into technical audits (€ 13 338).

Working Group Internal Affairs spent € 12 657 more than its allocated budget.

This year saw no use of legal advice for WGIA matters (€ 4 023), and less work on amendment of regulations and agreements (€ 1 296). However, technical support overran due to continued work on RED II (€ 4 800) and professional auditors and reviewers continue to be used more than anticipated (€ 13 176).

Working Group External Affairs expenditure was close to budget, being € 354 more than the allocated budget.

While the secretariat costs were € 5 080 less than expected, some of this may have been due to time spent supporting the new website software being misallocated to General Administration. It was also due to the costs of greening-up AIB being zero and thus saving € 2 000, while the cost of producing and posting the annual report was less than expected (€ 2 766).

This was offset by the cost of the newsletter being higher than expected (€ 637), the implementation of the new website costing € 9 176 more than anticipated, and the higher than expected cost of registering the mark and logo EECSTTM in Norway and Switzerland (€ 387).

REPORTS FROM MEMBERS/ FROM OBSERVERS



The following pages give details of each of the members of the AIB and summarise the major events of 2017 and the expectations of 2018 for members and their countries.

There were no new members in 2017, although applicants for membership include Greece and Lithuania.

The community of countries in the process of becoming a member of AIB and connecting to the Hub is growing; current observers include:

- the Bosnia-Herzegovina Operator for Renewable Energy Sources and Efficient Cogeneration (RES Operator)
- the Greek Issuing Body (LAGIE)
- the Latvian transmission system operator (Augstsprieguma tīkls AS)
- the Lithuanian transmission system operator (Litgrid)
- the Serbian competent body for guarantees of origin (EMS) and
- the UK electricity and gas regulator (Ofgem).

This Annual Report does not include all of these countries, but reflects on their different rates of progress along the route to membership.

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

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

Area of operation
Austria

Address
Rudolfsplatz 13A
1010 Vienna
Austria

www.e-control.at

REPORT FROM MEMBER

Profile of the organisation

E-Control is the Austrian energy regulator.

Role

Competent authority for electricity guarantees of origin for all types of resources. Competent authority for disclosure in Austria.

Member of the AIB

Member of the AIB since 2001.

E-Control joined the AIB in the summer 2001 in the course of the Helsinki Meeting. Ever since, E Control has actively contributed to the development of the Association. Since 2008, Angela Tschernutter has been an active member and 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 she was involved in the Concerted Action RES Projects.

News and perspectives regarding the national IB

E-Control's day-to-day business includes dealing with up to 82 250 plants that generate electricity from renewable and fossil sources, 77 600 of which are photovoltaic plants. All of them lead to issuance of GOs in the Austrian disclosure database with highly automated processes. Austria implemented a full disclosure system as of 2015. Suppliers must label all the electricity they deliver to final customers with GOs of all types of sources (in practice, RES GOs and fossil GOs are used). All suppliers implemented this full disclosure requirement, resulting in full transparency for consumers in Austria. Based on this supply-side obligation, and it can be assumed that almost 100% of the Austrian electricity production is registered in the Austrian database.

Non-Austrian GOs can be imported to the Austrian database and are automatically checked in the process of cancellation if they are fulfilling the legal requirements to be accepted for Austrian disclosure purposes (see national Labelling Ordinance (section 6 Stromkennzeichnungsverordnung 2011, amended in 2013). This mechanism ensures that national disclosure is exclusively based on GOs which fulfil the national requirements, i.e. which are valid. E-Control publishes on its website a list of accepted countries of origin.

The processes and database are continuously being improved, even though in 2017 no major adaptations were necessary.

News and perspectives regarding the national framework for electricity and disclosure

The Stromkennzeichnungsverordnung (Labelling Ordinance) 2011 was amended in 2013. No adaptations were required in 2017.

The Elektrizitätswirtschafts- und -organisationsgesetz (Electricity Act) 2010 was amended in 2013. As a result of this amendment, full disclosure has been in force since 2015 (for the disclosure year 2014) – see point above.

The amendments of the RES Directive and the Electricity Directive will result in adaptations in the national legislation in 2019.

Benefits to the company of AIB membership

The AIB is the major player in the international market for trading guarantees of origin (GOs) and in the future also certificates issued for fossil and nuclear plants will be included. The AIB assures a high standard for GOs and certificates primarily based on the European Renewables Directive. Further, the AIB also deals with disclosure, the reason why GOs and certificates are issued and then used. Disclosure is the only driver for GOs, and clear rules and regulations to avoid double counting and any other kind of misuse are essential.

Being an active member of the AIB enables us an excellent network of professionals active in the GO and disclosure business. It allows us to participate in the development and improvement of the EECS standard which is based on European legislation and national laws. It unites decision takers, issuing bodies and organisations responsible for electricity source disclosure within the association. It also allows participating in European discussions, exchange thoughts and ideas on GOs and disclosure, especially in 2017 when the European directives, primarily the RES and the Electricity Directives were recasts, are proposed. Having this bundled platform and power for AIB members to speak in front of the Commission is essential for the high quality of GO and disclosure systems. E-Control's strong ambitions are to lead Europe into a market of full disclosure.

Working together in an international environment strengthens the power of every individual member country. Also, learning about the different expectations on GOs and disclosure systems of European countries helps improving the EECS system. The mutual learning factor and the enjoyment of working with highly qualified people from different nationalities greatly contribute to positive outcomes. E-Control appreciates being part of this team and is looking forward to continuing the joint work on the European GO and disclosure market.

“AIB benefits from a great network of specialists in Europe. E-Control's aim is to work on the increasing demand for transparency in the GO and disclosure market. Through the AIB the European GO market is connected. Using a common standard to trade GOs via the AIB Hub is a quality guarantee and raises the reliability of the Austrian system. Being an AIB member enables an efficient, cost effective trade of GOs in Europe.” Wolfgang Urbantschitsch, Chief Executive Officer

“Being an AIB member enables an efficient, cost effective trade of GOs in Europe”

Scope of national participation in EECS

Number of registered scheme participants	52
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
82 242	34 446

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
PV	77 565	990
Hydro	3 336	17 934
Wind	563	2945
Others	778	12 577

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

EECS RES production	National RES production
35655	43272

Name of the company
BRUGEL

Area of operation
Belgium (Brussels)

Address
Avenue des Arts 46
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. BRUGEL is promoting the effective functioning of the energy market, the development of a smart grid and the protection of the consumer.

Role

The mission of BRUGEL comprises, among other things, managing the markets for green certificates and guarantees of origin. To do so, the regulator is responsible for the quarterly issuing of green certificates and guarantees of origin. BRUGEL also ensures 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.

Member of the AIB

since 2008

Activities within the AIB

The following of AIB activities and representation of BRUGEL on the General Meetings is assured by Régis Lambert. Patrice Mathot follows the Working Group Systems.

News and perspectives regarding the national IB

Mid 2017, BRUGEL initiated the analysis and the tendering process for the complete renewal of its database managing the production devices as well as the markets for green certificates and guarantees of origin. The new applications will run in a modern, dynamic and open-source framework, will have reinforced security and will propose a bunch of new functionalities to end-users as well as the back-end office. One of the evolutions concerns the gathering and validation of production data for the issuing of green certificates, which will be performed by the distribution network operator instead of BRUGEL. The automation of the exchange of production data for the issuing of guarantees of origin is within the scope of the project as well.

The aim is to go-live around the end of May 2018. BRUGEL expects that this renewal of the applications could potentially lead to a higher level of activity on the registry.

“It is crucial for BRUGEL to be connected to a stable and reliable exchange-platform, which enables market parties to import standardised GOs in order to prove to Brussels consumers the origin of their electricity in a transparent and reliable manner.”

News and perspectives regarding the national framework for electricity

Regarding disclosure, 2017 was the first full year during which our online tool Greencheck (<https://greencheck.brugel.be>) was in operation. This tool allows Brussels end-consumers to check the green percentage declared by their electricity supplier for their specific consumption-point. Moreover, the tool visualises if the electricity supplier has handed in the required number of GOs to cover each client's consumption, and allows the client to see the details of the GOs that were used, namely the fuel source and the geographic origin.

Benefits to the company of AIB membership

The AIB enables BRUGEL to be part of and to be involved in the broader European debate on Guarantees of Origin. As of now, only few transferable GOs have been issued in the Brussels Region itself, so it is crucial for BRUGEL to be connected to a stable and reliable exchange-platform, which enables market parties to import standardised GOs in order to prove to Brussels consumers the origin of their electricity in a transparent and reliable manner.

Scope of national participation in EECS

Number of registered scheme participants	30*
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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	National RES production
data not available before printing	

* Except for one GO-producer/importer, these 30 scheme participants are all pure GO-importers or traders



VREG

your guide on the
energy market

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 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

- Katrien Verwimp: Vice Chairperson WGIA, vote
- Karolien Verhaegen: Registry Operation
- Dirk Van Evercooren: President
- Anaïs Leuridan: alternate vote

News and perspectives regarding the national IB

The VREG Domain Protocol, setting out how the trade of guarantees of origin is implemented in Flanders, was updated in 2017 to reflect the new role of the distribution system operators as Production Registrar for solar PV. Furthermore, it addresses the improved features of the renewed VREG trade hub, one of which offers the possibility of importing HEC GOs from outside of Flanders through the AIB Hub.

Future perspectives include an audit of the VREG Domain Protocol in 2018.

News and perspectives regarding the national framework for electricity

An interactive tool on the VREG website, the 'Origin Comparator', is available to electricity consumers allowing them to study our annual fuel mix report. This tool facilitates comparison of electricity suppliers in terms of whether the energy supplied is green or fossil/nuclear electricity. In addition, the technology used (wind, hydro, solar, geothermal ...) and the geographical origin (country) can be displayed. The latest update in 2018 will provide the information at contract level for each electricity supplier (= ex ante checking).

The Origin Comparator has proven successful and is appreciated by many consumers and it has gained some media attention.

Furthermore, since 2012 VREG has facilitated an online GreenCheck allowing consumers to check whether the supplier actually did provide the origin of electricity as stated in the contract (= ex-post checking) by using their personal EAN code. Comparable to the Origin Comparator, the latest update of the GreenCheck in 2018 provides more details to the customer in terms of the technology and the country of origin of the GOs used in case green energy was supplied.

“ Participating actively in the AIB brings a lot of benefits: access to a vast array of experience, sharing best practices, joint developments ... ”

Lastly, the statistical information published regarding the GO-market in Flanders was extended significantly, now also including average transaction prices for GOs traded within Flanders on a monthly basis.

Benefits to the company of AIB membership

Participating actively in the AIB brings a lot of benefits: access to a vast array of experience, sharing best practices, joint developments... Being able to transfer GOs to and from all AIB members just by a single connection to the AIB Hub is much more efficient than having to set up bilateral connections to all registries with whom market parties want to exchange GOs.

Additional information

People and companies can choose their electricity supplier. They can choose the cheapest contract, a supplier with good services, a supplier that supplies green. If you attach importance to the origin of your electricity, the Origin comparator and GreenCheck are good tools. You can check if your electricity was produced from nuclear power, natural gas or oil or from renewable sources such as sun, wind, hydropower...

In Flanders, in 2017, more than 31,5% of all the electricity that was supplied, originated from renewable resources. This is the highest level since 2012, when the tax exemption for green electricity was abolished. Clearly, consumers, both households and corporates, care more and more about the origin of their electricity and the environmental burden it carries.

<http://www.vreg.be/nl/herkomst-stroom-vergelijken-herkomstvergelijker>
<http://www.vreg.be/nl/controleren-hoe-groen-uw-stroom-groencheck>

Scope of national participation in EECS

Number of registered scheme participants	6.010
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
800	3 919,55414

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biogas – digestion of Fruit-and vegetable waste	3	5,753
Biogas – agricultural	42	102,716
Biogas – other	20	20,942
Biogas – sewage	25	9,829
Biogas – landfill gas	17	19,423
Biomass – selectively collected biogenic waste	10	193,335
Biomass – biogenic municipal waste	9	51,838
Biomass – agricultural or forestry	26	381,46084
Hydropower	10	5,534
Wind on shore	237	1 021,861
Solar photovoltaic	320 044	2 547

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

EECS RES production	National RES production
4.533,081	data not available before printing

issued GOs for 2017 on 14/5/2018.



Name of the company
CWape (Commission
Wallonne pour l'Énergie)

Area of operation
Belgium (Wallonia)

Address
Route de Louvain-la-Neuve 4
boîte 12
Namur
Wallonia, Belgium

www.cwape.be

REPORT FROM MEMBER

Profile of the organisation

Regulator of electricity and gas for Wallonia, Belgium.

CWape is responsible for enforcing public service obligations and distribution regulations, distribution tariffs, and for developing renewables: support system, electricity tracking and integration into the grid.

Role

Competent authority for renewables (EECS GO) and CHP electricity guarantees of origin, operator of the certificate database in Wallonia

Member of the AIB

Member of the AIB since 2007, scheme member since 2009, pending scheme membership: potentially CHP-GO

Activities within the AIB

- Workgroup System Chairwoman: Annie Desaulniers
- Representatives to the General Meeting:
Pierre-Yves Cornélis & Annie Desaulniers
- Workgroup Internal Affairs, CA-RES Policy Advisory Group,
Carbon Task Force, organisation Task Force: Pierre-Yves Cornélis
- Legal counsel: Sabine Keirse
- Statistics: Gauthier Libeau

News and perspectives regarding the national IB

- CWape performs approval of distribution system tariffs and manages the renewable electricity support, and in the future CWape may focus on regulatory issues.
- CWape handles daily up to 4,000 meter readings, some leading to issuance of GOs. Processes and database are continuously being improved.
- CWape has been consulted with regard to improving support to biomethane injection, including reviewing the legal framework for issuance of biogas GOs which has been in place since 2010. A few biomethane projects have started and should benefit from indirect support through biomethane GOs.
- CWape was successfully audited by AIB in 2017 and 2018.

News and perspectives regarding the national framework for electricity

Support

- **Context:** the support system based on green certificates (i.e. specific support certificates) has demonstrated its efficiency in developing affordable renewables and CHP by tripling generation in 10 years. This support is mostly based on reference costs per technology and in addition, the measured environmental performance for fuel based renewable production devices is taken into account (avoided greenhouse gas emissions (CO₂ –eq). In the past, supplementary certificates were generously granted to

solar plants. Consequently, the price of green certificates fell to the legal minimum for all technologies. Although the quota system remains formally in place, for all matters practical it behaves like a feed-in premium system.

- **Quota:** the nominal quota was 34.03% in 2017 and steadily increases up to a peak of 37.9% in 2020. Decommissioning of much capacity in 2021 causes a dip to 34% but the quota gradually rises back to 37.9% in 2024.
- **Market price of support certificate:** The oversupply of support certificates means most generators sell at the guaranteed price of 65 € / certificate. Price recovery should take a very long time, although a few transactions were made at higher prices. Financing these guaranteed purchases becomes a heavy burden.
- **Review of support level:** Every two years, the support by way of green certificates is assessed for each technology. The banding factor, number of green certificates issued for each MWh, is adapted accordingly for new plants. Another support scheme, paid directly, is applied for new PV's below 10 kW; however, this scheme will terminate in 2018.
- **Joint schemes within Belgium:** National burden sharing has been agreed, but support certificates remain regional.
- **New installations:** Almost 7900 new small (≤ 10 kW) photovoltaic plants with a cumulative capacity of 47 MW were set up in 2017. Furthermore, an increase in non-domestic solar plants took place counting more than 14 MW. Few wind, biomass or hydro plants were commissioned, some for reasons related to financial support and many due to uncertainties in planning permissions; a new capacity of more than 46 MW of wind was added last year.
- **Sustainability criteria:** Since 2002, Wallonia has applied demanding sustainability criteria, especially for solid and liquid biomass. CWAPE follows closely developments of the Sustainable Biomass Partnership (SBP).

Disclosure:

- Good practices exchanged, among others in CA-RES, EPED and RE-DISS, lead to improvements to our disclosure system (e.g. mandatory GO cancellation prior to fuel mix declaration). Monthly reporting to the regulator regarding renewable products and monthly cancellation of guarantees of origin for those products remain.
- Coordination of fuel mix calculations with other Belgian regulators should lead to even more coherent results i.e. achieving a Belgian residual mix.

Benefits to the company of AIB membership

“The AIB challenges our practices in order for us to improve the value of renewable energy for our electricity consumers.”

Pierre-Yves Cornélis, senior advisor at CWAPE

“ The AIB challenges our practices in order for us to improve the value of renewable energy for our electricity consumers.”

Scope of national participation in EECS

Number of registered scheme participants	1 023
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 522	1 358

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass (total)	61	300
among which bio-CHP	53	175
Wind	99	780
Hydro	90	104
Solar	1 245	146
Total	1 495	1 329

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

EECS RES production	Regional RES production
3 653	4 418

— 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. CREG is an independent body with legal responsibility accountable 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 it comprises all offshore wind producers in Belgium. Disclosure and residual mix calculation are not within CREG's legal remit.

Member of the AIB

Member of the AIB since 2015.

Activities within the AIB

In 2017, CREG was represented in the AIB General Meetings and Working Group Internal Affairs by Philip Godderis. He was also part of an assessment panel on EECS Rules compliance and he participated in an audit of the Irish domain..

News and perspectives regarding the national IB

With the fourth wind park that came online in 2017, 165 MW was added to the total offshore capacity, which now amounts to 878 MW. Further expansion is planned for 2019.

“ The AIB’s harmonised standard ensures a high level of reliability. ”

News and perspectives regarding the national framework for electricity

The regulatory framework regarding guarantees of origin is stable. In the beginning of 2017, a new support regime was introduced, after approval by the European Commission under State Aid rules. An LCOE-based system grants CREG a power of proposal.

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 across Europe. The AIB’s harmonised 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	5
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
4	878,1

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Offshore Wind	4	878,1

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

EECS RES production	Regional RES production
2 513 932	National RES production of 2017 is not available before printing

Name of the company
**HROTE)
CROATIAN ENERGY MARKET
OPERATOR**

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 with the purpose of certification of electricity produced from plants in the Republic of Croatia, in accordance with the Energy Act.

As laid down in 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 member of the AIB with conditional status in May 2014. In the meantime, all terms on the disclosure rule have been fulfilled and the unconditional status of the membership was approved in November 2014.

Activities within the AIB

- Dubravka Brkić contributes to WGEA tasks as chair of the workgroup.
- Morana Lončar contributes to WGIA tasks as member of the workgroup.
- Ida Čandrić contributes to WGIA tasks as member of the workgroup.

News and perspectives regarding the national IB

The Rules on use of the Guarantees of Origin Registry address the operation of the Registry for electricity Guarantees of Origin with the purpose of certification of electricity produced from plants in the domain of Croatia, 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 allowing the possibility of international GOs transfer: <http://www.hrote.hr/registry>

“ Working meetings and communication with AIB members/ observers are very useful ... ”

News and perspectives regarding the national framework for electricity

The competent body for disclosure is the Croatian Energy Regulatory Agency. The disclosure rule and the methodology for calculation of the residual mix are under the supervision of the Croatian Energy Regulatory Agency.

Since January 2016, the regulation has made cancelled EECS-GO certificates the sole proof of the source of energy eligible for disclosure approval. In addition, the supplier claims the electricity purchased from the feed-in system to its customers.

HROTE is assigned the task of calculating and publishing the Residual Mix. The calculation must be done “in coordination” with other issuing/disclosure competent bodies (this interprets to using EAM). The residual mix for Croatia is calculated according to the methodology presented in the RE-DISS Best Practice Recommendations. Since Croatia has electricity imports/exports with third countries, ENTSO-e data are used for determining net imports from certain countries. The report for residual mix calculation for 2016 is available at: <http://www.hrote.hr/reports-313>

New Act on RES and HE-CHP came into force on 1 January 2016; however, the sub-laws have yet to be agreed. The New Act defines the new support scheme for RES, which will be established according to new Guidelines on State Aid for environmental protection and energy 2014-2020.

Benefits to the company of AIB membership

Working meetings and communication with other AIB members are important because of the need to report the progress of (and influence of changes to) the new RED-II (Renewable Directive) to national authorities responsible for guarantees of origin and disclosure.

Additional information

The Croatian domain is a “small registry” with regard to 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 very first beginning.

Although the Croatian Register remains a “small member”, GOs for 1,71 TWh were issued which makes a significant increase compared to 2016, where 0,6 TWh were issued.

Scope of national participation in EECS

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

Number of production devices	Total capacity installed (MW)
6	542,24

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro power plant	5	536,29
Wind	1	5,95

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

EECS RES production	National RES production
1 713,68	8 982,69



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

Area of operation
Cyprus

Address
Evangelistrias 68
2057 Strovolos
Cyprus

www.dsm.org

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, maintaining security of supply, integrating renewable energy sources and issues connection conditions for new independent power producers. It has also been appointed the 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

Cyprus TSO has been a member of the AIB since September 2014.

Activities within the AIB

TSOC was represented in AIB General Meetings and WGIA by Dr 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 by the AIB General Meeting in Oslo in June. National GOs stopped being issued, with the start of the operation of the EECS GO Registry.

Connecting the Cyprus EECS GO Registry to the AIB Hub has not been possible yet. This is expected to happen in 2018.

“ 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 was implemented for the second time in 2017. TSOC performed the Residual Mix and Suppliers Mix calculations for calendar year 2016, applying Regulatory Decision 1279/2015. Contribution of energy sources to the overall fuel mixture and greenhouse gas emission data is being published on consumers' bills since 1 July 2016.

Benefits to the company of AIB membership

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

Scope of national participation in EECS

Number of registered scheme participants	6
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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
211,0	415,3



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 organising trading in the day-ahead electricity market in 2002 and the intra-day and block electricity markets later on. OTE has been the market operator on the gas market since 2010, including operation of the day-ahead gas market and the intra-day gas market. 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 are among the services offered by the OTE to players in the Czech electricity and gas markets, 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 also administers the National Registry of Greenhouse Gas Emissions. OTE is the holder of the license for the market operator's activities, which includes activities in the electricity and gas markets in the Czech Republic.

Role

OTE, a.s., is a RES and high efficiency CHP GOs competent authority for the Czech Republic. Czech high-efficiency CHP GOs are not yet an EECS product.

Member of the AIB

As of 28th November 2013.

Activities within the AIB

OTE, a.s., was represented in the AIB General Meetings and Work Group Systems by Martin Štandera who also became a Board member in December 2017.

News and perspectives regarding the national IB

Following the restoration of imports of guarantees of origin in December 2016, the Czech market operator expanded the functionalities of its system with the possibility to export guarantees of origin to other countries, which are members of the AIB, at the beginning of 2017.

News and perspectives regarding the national framework for electricity

In mid-2017, transmission system operators and NEMOs representing Austria, Czech Republic, Germany, Hungary, Romania, Croatia and Slovenia launched a Local Implementation Project aimed at coupling the intraday electricity markets using the XBID technical solution.

“ ... the Czech market operator expanded the functionalities of its system with the possibility to export guarantees of origin to other countries, which are members of the AIB, at the beginning of 2017”

In connection with meeting the requirements of Commission Regulation (EU) 2015/1222 establishing a Guideline on Capacity Allocation and Congestion Management (the CACM Regulation), discussions continued in 2017 with the relevant regulators regarding approval of the Market Coupling Operator plan for the joint implementation and performance of functions of the entity that carries out matching for market coupling (MCO plan) and proposals for methodologies and procedures stipulated by the CACM Regulation from NEMOs. The joint MCO Plan was approved in June 2017 by all national regulatory authorities of the EU Member States, which marked an important milestone in creating a single electricity market. The MCO plan sets out rules for governance and cooperation between Nominated Electricity Market Operators (NEMOs), defines relations with third parties, and describes the transition of the existing initiatives pertaining to the coupled day-ahead and intraday markets to a single integrated day-ahead and intraday market.

On 1 October 2017 OTE, a.s., successfully implemented the requirements of Act No. 297/2016 Coll., on trust services for electronic transactions, which implemented Regulation (EU) No 910/2014 of the European Parliament and of the Council (eIDAS). As of that day, only a qualified certificate can be used for electronic signature and access to the CS OTE website.

Benefits to the company of AIB membership

“We believe that the significant updates to our system in 2017, which were an ending of an intensive yearlong work of the Czech market operator, help our business partners in the implementation of their plans and development of activities in the energy market, and will also help market participants in the Czech Republic to participate fully on the benefits arising from this system of transparent disclosure of origin of electricity from renewable sources at European level.”

Ing. Aleš Tomec, Chairman of the Board of OTE, a.s.

Scope of national participation in EECS

Number of registered scheme participants	397
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
644	2 506

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	32	113
Solar	225	515
Thermal	269	601
Hydro	118	1 277

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

EECS RES production	National RES production
2 897	8 487



ENERGINET

Name of the company
Energinet.dk

Area of operation
Denmark

Address
Tonne Kjærsvvej 65
7000 Fredericia
Denmark

www.energinet.dk

REPORT FROM MEMBER

Profile of the organisation

Energinet.dk is the Danish transmission system operator (TSO). The enterprise was established by virtue of the Danish Act on Energinet Danmark of December 2004.

Energinet.dk is an independent public enterprise owned by the Danish State, as represented by the Ministry of Climate, Energy and Building. It has its own Supervisory Board.

As the entity, responsible for the electricity and natural gas systems, Energinet.dk owns the overall energy infrastructure, ensuring reliable energy supply and creates the framework for well-functioning energy markets and effective integration of renewable energy.

Energinet.dk is appointed by Executive orders in accordance with the Danish Electricity Law to issue Guarantees of Origin, to prepare a general declaration for the default set of disclosure information, and to lay down conditions and guidelines for individual declarations on specific electricity supply.

Role

Energinet.dk is the Danish issuing body, issuing under EECS:

- guarantees of origin for renewable source electricity (since 2004), and
- guarantees of origin for highly efficient cogeneration (since 2010).

Member of the AIB

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

Activities within the AIB

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

“ We support a transparent certificate market, declaring the origin of electrical production, to provide an informed basis for a customer’s free choice of energy. ”

News and perspectives regarding the national framework for electricity

A customer-centric market model was introduced in Denmark on 1 April 2016. The market model will empower the customer to choose a prime supplier, and aims for increased competition between energy traders/suppliers. Among other features, the model allows for hourly settlement, mobilises flexible consumption balancing the grid. Energy traders can after the introduction still brand their products using GOs when approaching the customers even though GOs are disclosed at an aggregated level.

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.dk meets the requirements of the relevant EU directives in a secure and efficient way. We support a transparent certificate market, declaring the origin of electrical production, to provide an informed basis for individual customer’s free choice of energy.”

Carl Morten Baggesen Hilger at Energinet.dk

Scope of national participation in EECS

Number of registered scheme participants	19
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
108 762	8 147

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	74	1 624
Biogas	187	118
Wind	6 883	5 491
Hydro	42	7
Solar	101 575	907

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

EECS RES production	National RES production
19 371	19 833

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 producers, various network operators and consumers to complete the system and ensuring high-quality energy supply to Estonian consumers.

Member of the AIB

Elering AS has been an observer since 2011 and became a member of the AIB in September 2014.

Activities within the AIB

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

News and perspectives regarding the national IB

Elering AS is continually developing and improving the Estonian registry system that facilitates the issuing, transfer and cancelling of guarantees of origin in accordance with the feedback from both international and internal market participants and also in order to meet the requirements set by the AIB Hub and to better integrate the management of the national support scheme into the system.

News and perspectives regarding the national framework for electricity

In December 2017, the European Commission granted Estonia State Aid permission, which enables changing the support scheme for electricity produced from renewable sources or in high-efficiency cogeneration mode. The changes to the Electricity Market Law regarding the aforementioned production support schemes are still subject to discussions in the Estonian parliament, and no planned date of enactment has yet been announced.

“ ... being a member of the AIB allows us to be part of the group of experts that are able to actually participate in the further development of this [EECS] system.”

Benefits to the company of AIB membership

“The AIB is not a Ding an sich, i.e. thing-in-itself, but rather all its members, working daily and consistently to ensure a reliable Europe-wide GO market. The AIB Hub, the harmonized and transparent EECS rules, as well as the Association itself, helps members connect with other countries to not only internationally transfer certificates, but also share experiences to improve and promote the system. As Elering has been appointed to administer the system for issuing, transferring and cancelling guarantees of origin in Estonia and this system has been created in line with the EECS rules, being a member of the AIB allows us to be part of the group of experts that are able to actually participate in the further development of this system”

River Tomera, Head of Renewable Energy Unit

Scope of national participation in EECS

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

Number of production devices	Total capacity installed (MW)
63	710

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	24	333,8
Hydro	15	8,9
Biogas	6	
Biomass	13	362,5
Solar	5	0,4

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

EECS RES production	National RES production
1 251,2	1 620

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 wholly-owned subsidiary of Fingrid Oyj, which is the Finnish Transmission System Operator (TSO).

Role

Fingrid Oyj, which is the appointed Competent Authority according to the Finnish legislation, has assigned this duty to its wholly-owned subsidiary Finextra Oy.

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

We aim to provide a continuous cost-effective service, based on customers' needs, with the goal of maintaining high customer satisfaction.

News and perspectives regarding the national framework for electricity

The common imbalance settlement service for the Finnish, Swedish and Norwegian electricity markets run by the service company eSett Oy, was launched in May 2017.

“A clean, reliable electricity system is being achieved through the joint efforts of active energy citizens, a well-functioning electricity market and a smart grid.”

Regarding GO services, the new imbalance settlement model caused some changes in the delivery of production data. All changes were done in time. With this new model, Finextra has started issuing GOs in a shorter time.

Benefits to the company of AIB membership

One of the main benefits of the membership is facilitating transfers of GOs across Europe. The AIB Central Hub is essential for GO trading in Europe. AIB's harmonized standard assures a high-level reliability of GOs. We support a transparent GO market.

Additional Information

Fingrid expects the future clean electricity system to be diverse, flexible and cost-effective.

Scope of national participation in EECS

Number of registered scheme participants	30
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
508	9 226

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	158	3 100
Wind	280	1 854
Solar	7	3
Thermal	63	4 269

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

EECS RES production	National RES production
26 512	30 384



Name of the company
Pownernext SAS

Area of operation
France

Address
5 boulevard Montmartre
Paris
France

www.pownernext.com

REPORT FROM MEMBER

Profile of the organisation

Pownernext SAS, incorporated in 2001, is a private company aiming at delivering highly reliable services in the energy sector. Pownernext is the national registry for electricity guarantees of origin in France. Via the PEGAS platform, Pownernext operates an exchange for natural gas trading in spot and derivatives. Pownernext is part of EEX Group and Deutsche Börse Group.

Role

Pownernext was appointed as the French national registry for guarantees of origin as of 1 May 2013 by a decree issued on 15 January 2013 by the French Ministry for Ecology, Sustainable Development and Energy.

Member of the AIB

Member of the AIB since July 2013.

Activities within the AIB

The follow-up of AIB activities and representation of Pownernext on the General Meeting is ensured by Aude Filippi, who is also member of the Working Groups Internal Affairs and Systems, and Mathieu Morvan.

News and perspectives regarding the national IB

Pownernext operates the French National Registry for Guarantees of Origin and, as such, is responsible for the issuance, the transfer and the cancellation of GOs in France. Pownernext developed in-house a whole new electronic registry for GOs and became a member of the AIB in June 2013.

News and perspectives regarding the national framework for electricity

The French legislation on guarantees of origin was updated in February 2017, and introduced an auction mechanism for GOs issued from production devices receiving subsidies. Those GOs will be issued by the French State and then auctioned. GOs are the only mechanism to track the source of electricity from renewable sources that is recognised in France. For offering green electricity, suppliers are required to use GOs in order to prove to final consumers the quantity of energy from renewable sources being supplied. For standard offers, the residual mix is used as a basis for the calculation of the supplier mix for untracked electricity.

“Powernext is honoured to be a member of the AIB.”

Benefits to the company of AIB membership

Powernext has faith in the European guarantee of origin mechanism to provide reliable information to consumers on electricity. We are particularly proud of having been mandated to become the national registry for guarantees of origin in France and, as such, contribute to the transparency of energy markets.

As soon as Powernext was assigned the registry, we decided to join the AIB. Within a very tight schedule and thanks to the AIB, Powernext has been able to allow all its market participants to easily import and export guarantees of origin throughout Europe. Powernext also wanted French GOs to become compliant with the EECS standard developed and promoted by the AIB. We have confidence 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, Powernext is pleased to contribute to constantly improving the GO system, and thereby reinforcing consumers' confidence in renewable energy.

“As the registry for guarantees of origin in France, we are committed to respond to the consumers' demand for increasing transparency in the electricity market. Since serving our clients is our fundamental objective, we decided to join the AIB in order to corroborate the reliability of the French GO system and to enable the international transfer of certificates”

Egbert Laege, Powernext's Chief Executive Officer.

Scope of national participation in EECS

Number of registered scheme participants	56
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
354	19 791

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	333	19 618
Thermal	17	141
Wind	4	32

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

EECS RES production	National RES production
44 064	88 800



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 Germany's scientific environment authority dealing with a wide and varied range of environmental subjects. Among its manifold tasks, UBA has the competence to operate the German registry and issue guarantees of origin (GOs). Besides this, UBA has the regulatory power regarding the detailed provisions on GOs and the registry laid down in the GO Implementing Ordinance as well as fees. The register of GOs is legally and technically supervised by the Federal Ministry for 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 (RES Directive). The responsible work unit is called "Register of Guarantees of Origin for Electricity from Renewable Energy Sources" (German abbreviation "HKNR").

Member of the AIB

Since 2016, UBA has been a member of the AIB. From 2013 until then, UBA had been a Hub user, but without membership.

Activities within the AIB

- Friederike Domke – Member, Participant in the WGIA
- Michael Marty – Member, Head of the Register of Guarantees of Origin for Electricity from Renewable Energy Sources
- Katja Merkel – Member, Participant in the WGS
- Elke Mohrbach – Member, Participant in WGIA and in the project team for the change process of AIB

News and perspectives regarding the national IB

Since 2017, UBA has been assigned to implement a regional GO scheme according to the revised Renewable Energy Sources Act (EEG 2017). This new scheme starts in 2019, and it will allow suppliers to disclose to their final customers that they have consumed supported renewable electricity produced in their region (the region covers an area of approximately 50 km around the consumer). Regional GOs will only be issued for market-premium supported electricity, as they are not RES-GOs according to the RES Directive and thus will follow special rules defined in the new legislation. The Regional GOs can only be applied inside Germany and do not interact with European GOs.

“The change process has been started, an exciting evolution in which all members are involved.”

News and perspectives regarding the national framework for electricity

In 2017, more than 217 000 GWh electricity were produced from renewables in Germany, which is more than 36% of the total electricity consumption. The 2017 Renewable Energy Sources “The EEG 2017” will continue this success story. In 2018, changes to the legal basis of the GO system will be made: The amendment of the Guarantees of Origin Implementing Ordinance (HkRNDV) and the amendment of the Guarantees of Origin Fee Ordinance (HkRNGebV) will enter into force.

Benefits to the company of AIB membership

“Since its foundation, the AIB has not only achieved remarkable growth. Changes in the membership structure from mainly trade-oriented, often private organisations to public authorities that comply with their obligations under the European Renewable Energy Directive or organisations mandated by public authorities make it necessary today to review the organically-grown structures of the AIB. The change process has been started, an exciting evolution in which all members are involved ” Elke Mohrbach

Additional information

Many market participants in Germany are looking forward to the start of the Regional GO Register. Perhaps the concept for regions defined by the consumer could also be an interesting idea for the GO market in the development of meeting consumers' demands?

Scope of national participation in EECS

Number of registered scheme participants	1 633
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
753	13 445,708

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind - onshore	341	1 015,835
Solar	49	27,347
Hydro	250	4 946,2115
Biogas - other	2	0,780
Biogas - landfill	37	44,528
Biogas - sewage	3	1,406
Solid renewable fuels	36	1 071,944
unspecified re-newable energy	35	6 337,656

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

EECS RES production	National RES production
12 329,886	217 900

LANDSNET

Name of the company
Landsnet hf

Area of operation
Iceland

Address
Gylfaflöt 9
112 Reykjavík
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 major electricity transmission lines in Iceland. The Icelandic electricity system's highest operating voltage is 220 kV. A large part of the system operates at 132 kV, but some parts have voltages of 66 kV and 33 kV. As a preparation for the future, some of the grid is made up of 400 kV capable lines that are currently 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, achieving membership the same year.

Activities within the AIB

Landsnet is represented in the AIB by Svandís Hlín Karlsdóttir and Ragnar Sigurbjörnsson who contribute to the AIB by participating in the General Meetings.

“ Being part of the AIB also provides us with valuable opportunities to network with experts and share knowledge and experience with other AIB members ”

News and perspectives regarding the national framework for electricity

Late in 2017, Landsnet connected the latest geothermal power plant, called Theistareykir, to the national grid. The plant has a production capacity of 45 MW, which is expected to be doubled in 2018. The plant was certified for EECS in December 2017.

Furthermore, a new hydro power plant will be connected to the national grid in the summer of 2018, adding 100 MW to the green energy production in Iceland.

Benefits to the company of AIB membership

“For Landsnet, the AIB membership enables us to harmonise with the EU and establish standard procedures regarding energy certification and improve reliability. Being part of the AIB also provides us with valuable opportunities to network with experts and share knowledge and experience with other AIB members..” Svandís Hlín Karlsdóttir, Manager Customer Relations and Business Devt

Scope of national participation in EECS

Number of registered scheme participants	4
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
26	2 655

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	18	1 940
Geothermal	8	715

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

EECS RES production	National RES production
18 428	18 512,6



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 wholesale electricity market operating in Ireland and Northern Ireland. The Single Electricity Market Operator (SEMO) facilitates the continuous 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 (UREG) in Northern Ireland.

Role

SEMO is the Issuing Body for Guarantees of Origin (GO) to generators of electricity from renewable sources in Ireland only. SEMO is responsible for the operation of the registry for issuance, transfer and cancellation of GOs. SEMO is also the competent body for Fuel Mix Disclosure for the Island of Ireland (Ireland and Northern Ireland).

Member of the AIB

Member of the AIB since 19th May 2015.

Activities within the AIB

- Laura Plunkett - Chair of Working Group Internal Affairs
September 2016 to March 2018

News and perspectives regarding the national IB

SEMO utilise a CMO.grexel registry which is fully operational since April 2015. The electronic registry enables GOs to be issued, transferred or cancelled efficiently.

SEMO was granted membership of AIB in May 2015, and has been connected to the AIB hub since July 2015.

To facilitate further transparency on GO statistics, in 2017 SEMO implemented a change to the registry such that Ex-Domain Cancellations statistics are now accessible from the public reporting facility on CMO.grexel.com.

GOs issued for renewable sources in other countries and imported to the Irish registry, continue to be accepted for Fuel Mix Disclosure (FMD) in Ireland provided they have not already been cancelled or used in FMD.

“AIB membership means that Account Holders can efficiently trade GOs with any of the 23 AIB members through the AIB Hub.”

News and perspectives regarding the national framework for electricity

The RES Directive (2009/28/EC) was implemented in national legislation on the 28th of March 2011 by Statutory Instrument No. 147 of 2011. On the 28th October 2014, the European Communities (Renewable Energy) Regulations 2011 (S.I. No. 147 of 2011) published the European Union (Renewable Energy) Regulations 2014 (S.I. No 483 of 2014). There were no changes to national legislation in 2017.

No changes were made to the Supervisory Framework for the Administration of Guarantees of Origin (CER/11/824) in 2017.

Benefits to the company of AIB membership

AIB membership means that Account Holders have the opportunity to efficiently trade GOs with any the 23 AIB members through the AIB Hub. It also provides SEMO with the opportunity to collaborate with other competent bodies throughout Europe, be involved in the broader debate on GOs and contribute to the maintenance and development of the EECS rules.

Additional information

As a member of AIB, SEMO contribute to an efficient, reliable and secure Guarantees of Origin market by tracking the origin of renewable energy production and in turn enabling suppliers to provide reliable information to their customers.

Scope of national participation in EECS

Number of registered scheme participants	36
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
111	884,38

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	63	631,47
Hydropower	42	232,78
Landfill Gas	6	20,13

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

EECS RES production	National RES production
1 876,228	8 385,156



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

Area of operation
Italy

Address
Viale Maresciallo Pilsudski 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. The sole shareholder of GSE is the Ministry of Economy and Finance, which exercises its rights in consultation with the Ministry of Economic Development.

Role

GSE is the Issuing Body for Guarantees of Origin. Competent Authority for the disclosure scheme and 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 within AIB activities encompasses all the working groups:

- General Meeting: Emanuele Del Buono
- WGIA: Annalisa Ciatti, Floriana Furno, Giuseppe Petronio
- WGEA: Claudia Delmirani
- WGS: Marta Grassilli

News and perspectives regarding the national IB

In 2017, we were going to move to a new schema, v.71, in accordance with the AIB project plan, and to develop the connection with the Account Holder Database.

News and perspectives regarding the national framework for electricity

On 23 June 2016, the Ministry of Economic Development published the Ministerial Decree aimed at promoting renewable power plants through a revised set of incentives that replaced the previous regime under the de-cree of 6 July 2012. General principles and access procedures are the same as the ones under the Decree of 6 July 2012 and do not apply to photovoltaic plants.

“Being a member of the AIB means protecting green energy through a reliable inter-registry telecommunication Hub.”

As in the previous regime, RES power plants may benefit from:

- All-inclusive tariff (capacity up to 500 kW); or
- Feed-in tariff (capacity in excess of 500 kW and capacity up to 500 kW for power plants which do not opt for the All-Inclusive Tariff).

Incentives are granted either to direct access, registry procedure or tender procedures.

Benefits to the company of AIB membership

“Being a member of the AIB gives access to the AIB platform which ensures the connection between the national and foreign markets of GO. Furthermore, participating in the meetings and working groups organised by the AIB offers valuable opportunities to share knowledge, points of view and experiences with other members.” *Floriana Furno, member of Working Group Internal Affairs*

“Being a member of the AIB means protecting green energy through a reliable inter-registry telecommunication Hub. The AIB is not only the major platform for trading Guarantees of Origins, but also the right driver to ensure a trustworthy application of the new disclosure rules contained in the forthcoming RES Directive. In the AIB it is possible to draw maximum benefit from meetings and the working groups through exchange of local experiences and synergies created by working together with members from other Countries.”

Annalisa Ciatti, member of the Working Group Internal Affairs.

“The continuous growth of AIB provides, especially with the participation in General Meetings, every day more possibilities to exchange know-how and improve knowledge in energy legislation and related matters.” *Claudia Delmirani, member of the Working Group External Affairs.*

Scope of national participation in EECS

Number of registered scheme participants	1 149
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 476	28 282

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	298	5 817,00
Geothermal	32	872
Hydro	587	17 261
Solar	497	1 253
Thermoelectric	62	3 079

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

EECS RES production	National RES production
23.656,414	285 118 *

* Provisional data 2017: 285 118
data 2016: 279 703



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. Besides this, ILR is also designated as the national competent authority for issuing guarantees of origin for electricity generated from renewable energy sources.

Role

The ILR is the national issuing body for renewable electricity guarantees of origin (RES GOs) and for CHP GOs and it is also the national competent authority 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 1 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 15 of Directive 2009/28/EC.

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 22 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.

“Today, 100% of the electricity supplied to low voltage consumers is disclosed as being generated from renewable energy sources, mainly through GO cancellations.”

News and perspectives regarding the national framework for electricity

In July 2010, disclosure regulations entered into force and define 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 straightforward tool for electricity suppliers to prove the renewable origin of their electricity supply. In 2017, more than 3 million GOs (3 TWh) were cancelled in the registry, representing 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 available a platform 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](#).

Scope of national participation in EECS

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

Number of production devices	Total capacity installed (MW)
13	50,67

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Photovoltaic	6	1,32
Wind	3	4,10
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
148	450



Name of the company
CertiQ B.V.

Area of operation
The Netherlands

Address
Utrechtseweg 310
PO box 718
Arnhem
Netherlands

www.certiq.nl

REPORT FROM MEMBER

Profile of the organisation

CertiQ B.V. is a complete subsidiary of TenneT, TSO B.V.

Role

CertiQ 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 issues GOs for renewable electricity, as well as for electricity from highly-efficient cogeneration and for renewable heat. Additionally, CertiQ issues disclosure certificates for electricity from non-renewable sources.

CertiQ works closely together with, inter alia:

- The Ministry of Economic Affairs and Climate Policy, which is responsible for national policymaking on guarantees of origin and (renewable) energy.
- The Netherlands Enterprise Agency, which is, as 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 is as regulator responsible for the correct functioning of the Dutch electricity market

Member of the AIB

Member of the AIB since 2001.

Activities within the AIB

- Lian Krijger, senior manager, member of the AIB Board
- Remco van Stein Callenfels, assistant controller, member of Working Group Internal Affairs
- Arjan van der Toorn, functional application manager, member of Working Group Systems
- Max Laven, policy advisor, member of Working Group External Affairs

News and perspectives regarding the national IB

In 2017, we executed two large projects on our registry (MyCertiQ), next to the more regular changes to keep the application running, in order to meet the needs of our customers and to improve the overall efficiency of the application.

First, we investigated the current state of our MyCertiQ-system from an asset-management point of view, in order to find out which updates were necessary to keep the system operational and secure. Second, we formulated our Strategic IT-roadmap, based on which we will modernize our application over the coming years so we can keep up with our ever-changing environment. Over the next few years, CertiQ will make significant investments in the technical and functional quality of our E-certification system to improve its user-friendliness.

Furthermore, we formulated CertiQ's strategic ambitions for 2018-2023:

- to provide reliable, secure and user-friendly certification of electricity and heat;
- to facilitate Full Disclosure in the broadest sense (supply and production, centralised and decentralised, renewable and non-renewable);
- to include plant-specific CO₂ emissions and a fuel's country of origin on GOs; and
- to provide real-time information on the production and use of sustainable electricity and heat.

News and perspectives regarding the national framework for electricity

From 2018, the calculations on energy labels will be more reliable and straightforward, because any deviations from the residual mix must now be corroborated by GOs, disclosure certificates for electricity from non-renewable sources or a supplier's own data backed up by an independent auditor's report.

In January 2018, the House of Representatives in the Netherlands approved an amendment to the Energy Transition Progress Act, which, if approved by the Senate in the Spring of 2018, will mean that energy labels will have to be fully substantiated with GOs or disclosure certificates.

Benefits to the company of AIB membership

The quality and reliability of a GO depends on the well-functioning of the AIB-hub. It is, thanks to the AIB and all its members, that household consumers and market parties alike can truly rely on the origin of their energy. In 2017, the AIB contributed its expertise on the proposed EU-legislation on GO's within the 'Clean Energy for All Europeans' package. By doing so, AIB positioned itself as the go-to organisation when it comes to GOs and disclosure mechanisms.

Additional information

Certification of energy has a clear added value: it provides European consumers, market parties and governments with reliable and transparent information on the origin of energy, and how they were generated.

At CertiQ, we have noticed that more and more consumers and businesses want to make a difference by buying energy from a specific origin. We certified a record total of 15.8 TWh of renewable electricity in 2017, 1.4 TWh more than in 2016. The import of GO's, through the AIB-hub, rose to record heights as well (40.1 TWh), just as the number of cancellations which were up 2.8% on last year and reached a historic maximum of 49.4 TWh.

These developments illustrate that GOs become even more important and gain added value to consumers and businesses alike.

“Harmonisation of the GO system requires expertise and a common voice, and the AIB provides both.”

Scope of national participation in EECS

Number of registered scheme participants	127
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
15 880	7 987

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	239	3 113
Hydro	16	37
Solar	14 430	672
Wind	1 195	4 165

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

EECS RES production	National RES production
15 000	15 300

Statnett

Name of the company
Statnett SF

Area of operation
Norway

Address
Nydalén Allé 33 /
PB 4904 Nydalén
0423 Oslo
Norway

www.statnett.no

REPORT FROM MEMBER

Profile of the organisation

Transmission System Operator - TSO

Role

Statnett is the transmission system operator in the Norwegian energy system. This includes operating about 11 000 km of high-voltage power lines and 150 stations all over Norway. The operations are monitored by one national control center and two regional centers, 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 plan.

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.

Apart from being owner of the national grid, Statnett has a 28.2% ownership of Nord Pool, which Statnett owns together with the other Nordic and Baltic TSOs.

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 1 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

News and perspectives regarding the national IB

Statnett is a considerable contributor of guarantees of origin to the European market, with approximately 30 percent of the total share.

To meet our customers' needs we are continuously developing our registry in close cooperation with our IT service provider. We notice that for larger customers the two-way Application Programming Interface (API) solution is appreciated.

“ ... the collaboration with other members gives synergies and input on how to run and develop our registry. ”

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 has been finalized over the last couple of years while several projects are still under construction. E.g. the transmission capacity of the northern parts of Norway along with the western parts are being strengthened. This to enhance the transfer capacity and the flow of power from an area with surplus to one with deficit, both between regions and out of the country, as well as to meet the commitments concerning production of renewable energy. As many forms of renewable sources are unstable and dependent on the weather conditions, an increase in the available transmission capacity is important for supply dependability.

There are currently two projects running that have demanded preparatory systemic changes to our registry:

- The Nordic Balance Settlement has been operational from 1 May 2017. The project is strengthening the integration of the Nordic markets.
- The implementation of the Elhub, a datahub, shall enhance competition in the electricity market by ensuring effective storage and distribution of metering values and customer information between market parties in the electricity market. Elhub will calculate settlement data, deviation substrates and perform deviation settlement for profile settled metering points. The Elhub is scheduled to be operational early 2019.

Benefits to the company of AIB membership

Being part of the AIB gives 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.

Scope of national participation in EECS

Number of registered scheme participants	68
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 206	33 562

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	1 175	32 246
Wind	29	1 263
Thermal	5	53

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

EECS RES production	National RES production
136 214,26	137 600 (2016)*

* National RES production of 2017 is not available before printing



Name of the company

Agencija za energijo

Area of operation

Slovenia

Address

Strossmayerjeva ulica 30

P.O. Box 1579

SI-2000 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 GO for renewable electricity and electricity from high efficiency CHP. The Energy Agency is also the competent authority for issuing renewable and CHP production declarations that are needed by the production devices to be eligible for issuing 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
- Gorazd Škerbinek – participating in the General Meetings

News and perspectives regarding the national IB

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 prepared two tendering procedures for the selection of new entrants to the national support system in 2017. 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 among the candidates based on the allowed increase in funds for support and the price offered for the production of electricity. In 2017, 171 new entrants were selected among 510 candidates.

News and perspectives regarding the national framework for electricity

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 enables us to offer all the necessary conditions for market participants to benefit from the electricity market. Suppliers are able to offer their customers electricity produced in an environmentally friendly way, while traders can internationally exchange attributes of such electricity. The most important outcome of these facts is that the customers can choose 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 the colleagues from other countries and to actively participate in the creation of new standards for certifying electricity and other energies with regard to source and production method.

“Being part of the AIB enables us to offer our consumers advanced and reliable instruments for proving the origin of the electricity they consume.”

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 enables us to offer all the necessary conditions for market participants to benefit from the electricity market. Suppliers are able to offer their customers electricity produced in an environmentally friendly way, while traders can internationally exchange attributes of such electricity. The most important outcome of these facts is that the customers can choose 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 the colleagues from other countries and to actively participate in the creation of new standards for certifying electricity and other energies with regard to source and production method.

Scope of national participation in EECS

Number of registered scheme participants	4
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
982	1 121

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	156	1 037
Solar	815	76
Biogas	9	7
Biomass	2	1

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

EECS RES production	National RES production
2 734	4 247

Name of the company
CNMC

Area of operation
Spain

Address
Alcalá, N° 47
Madrid, 28014
Spain

www.cnmc.es

REPORT FROM MEMBER

Profile of the organisation

CNMC is the Spanish energy regulator.

CNMC is also regulator for telecoms, audio-visual media, transport and postal sectors, and the Spanish competition authority.

Role

(By law): Competent authority for electricity guarantees of origin, competent authority for disclosure of electricity, competent authority for 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

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

CNMC is also part of CEER. CNMC Director General for Energy, Fernando Hernandez Jimenez-Casquet is Chairman of the CEER Electricity Working Group.

News and perspectives regarding the national IB

CNMC joined the AIB in March 2016. That year, CNMC implemented changes to the legislation regarding the guarantee of origin system. In 2017, CNMC participated in renewable competitive tenders as supervisor body.

“Being part of the AIB is an opportunity to remove possible administrative barriers that might impair trading GOs’ across Member States ”

News and perspectives regarding the national framework for electricity

In 2017, Spain developed two renewable competitive tenders for solar PV and wind technologies, in order to implement the support schemes.

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

Scope of national participation in EECS

Number of registered scheme participants	66 240
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There are no “Scheme participants”. All production devices eligible (65 856) and all Spanish supplier companies (384) can participate in the system

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
65 856	56 551

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
CHP	1 023	5 757
Solar PV	61 367	4 676
Solar CSP	52	2 300
Wind	1 360	23 074
Small Hydro (< 50 MW)	1 078	2 079
Biomass	213	744
Urban Solid Waste	10	208
Big Hydro > 50 MW)	753	17 713
TOTAL	65 856	56 551

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

EECS RES production	National RES production
12 520	83 453

Total domestic Guarantee of Origin 2017*: 78 982

* GO issued for domestic market are not considered EECS GOs



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 renewable electricity guarantees of origin.

Member of the AIB

Member of the AIB since 2017 (June).

Activities within the AIB

- Johan Malinen, member of WGIA
- Jessica Eriksson, member of WGS

News and perspectives regarding the national IB

The role as AIB member for Sweden was taken over by the Swedish Energy Agency from Grexel Systems Ltd during 2017. After running the two registries in parallel for a time, the CMO.grexel registry for Sweden was finally closed down on 31 December 2017. From 1 January 2018 onwards, the Swedish Energy Agency is the only AIB member representing Sweden.

This change will allow market actors to receive EECS certificates directly into the Swedish registry Cesar without passing the CMO.grexel registry. Also import can now take place directly to Cesar, which has been connected to the AIB hub in June 2017. Therefore, administrative burden and costs for the producers and other market actors can go down.

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 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 with 18 TWh new production until 2030, and to prolong the scheme until 2045.

“Not being part of the AIB is simply not an alternative for us since it would mean we would have to set up separate connections with all EU member states in order to exchange guarantees of origin.”

Benefits to the company of AIB membership

In the European context of today, it has been a natural step for the agency to join the AIB, even though it took some time. “Not being part of the AIB is simply not an alternative for us since it would mean we would have to set up separate connections with all EU member states in order to exchange guarantees of origin.”

Zinaida Kadic, Head of Elcerts and GO unit.

The AIB and the AIB hub enable trade to and from Sweden in an efficient way. Our future aim for the organization is to connect to all member states, simplify processes and to make the electricity market even more transparent to consumers.

Scope of national participation in EECS

Number of registered scheme participants	268
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 502,00	14 721,00

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Thermal (excl. Nuclear)	9,00	585,90
Wind onshore	1.194,00	3 462,20
Wind offshore	48,00	110,40
Hydropower	251,00	10 562,77

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

EECS RES production	National RES production
23 465	95 000 (estimated)



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 newly established 100% subsidiary company of Swissgrid, which is the Transmission System Operator (TSO) of Switzerland.

Pronovo is the successor of the former Swissgrid renewable energy and GO division, and therefore responsible for the support of renewable energy 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 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 given 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

News and perspectives regarding the national IB

With the enforcement of the revised Federal Energy Act, Swissgrid was obliged to establish a 100% subsidiary company (Pronovo) as of 1 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 governance 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 the beginning of 2018.

News and perspectives regarding the national framework for electricity

In May 2017, the people of Switzerland decided on a new energy legislation called the "Energy Strategy 2050". This legislation has come into force on 1 January 2018. 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 perspective. The focus is on small hydropower, biomass, solar photovoltaic and wind power.



“The membership of Switzerland within AIB ... serves as a symbol and good example for a fruitful and reliable cooperation even under difficult political circumstances.”

New incentives as direct marketing, investment support for all sizes of PV plants and other improvements have been added to the current support system. Due to very low market prices, a new financial support scheme for already existing large-scale hydropower plants has been established in addition.

As an improvement of the disclosure system, a Guarantee of Origin obligation for imported electricity has been introduced. With this measure, starting in 2018, any electricity supply in Switzerland has to be disclosed based on Guarantees of Origin only, no matter whether it refers to domestic or foreign production. This will lead to maximum transparency to the end consumers.

Benefits to the company of AIB membership

“Switzerland is geographically located in the heart of Europe and technologically connected by 41 cross-border power lines to the surrounding countries. Therefore, Switzerland is deeply embedded into the European power transmission system. A stable grid and a high security of power supply are one of the most important goods for all nations. Since it is expected that the negotiations between the EU and Switzerland regarding a common power market will not be completed soon, the membership of Switzerland within AIB is gaining even more importance. It serves as a symbol and good example for a fruitful and reliable cooperation even under difficult political circumstances. Our participation in the AIB is therefore one of our main goals now and in the future.”

René Burkhard, CEO, Pronovo

Scope of national participation in EECS

Number of registered scheme participants (with online accounts)	2 722
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
63 912	22 047

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	402	539
Hydro	1 384	15 667
Solar	61 859	1 683
Wind onshore	61	74
Nuclear	5	3 388
Crude oil	16	8
Natural gas	153	335
Waste	32	353

Certified EECS production as compared to national production (GWh)

EECS RES production	EECS non-RES production	National production
34 041	21 263	58 414



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

The single-span Mostar bridge, the UNESCO world heritage site, known as Stari most (Old Bridge) was built in 1566 over a deep valley through which flows the Neretva River. The river brings its water to four hydroelectric power plants with an installed capacity of 576 MW and an average yearly production of 2 TWh.

REPORT FROM OBSERVER

Profile of the organisation

Operator za OIEiEK was established by The Government of Federation of Bosnia and Herzegovina in 2013, as the institution responsible for 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 the Federal Ministry of Energy, Mining and Industry, Operator za OIEiEK aggregates surcharges from electricity consumers and uses it for payment of RES electricity.

Role

Among the responsibilities defined by primary and secondary legislation, the RESEC Operator is an authorised body for issuing, transferring and cancellation of renewable electricity Guarantees of Origin. According to the rulebook on issuing of Guarantees of Origin, approved by the 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 2016.

Activities within the AIB

Almir Muhamedbegović, as a representative of the Operator za OIEiEK, regularly participates in the Working Group Internal Affairs meetings, general meetings as well as contributes to the Sounding Board's efforts to reshape the AIB.

News and perspectives regarding the national IB

The Operator za OIEiEK prepared terms of reference for the joint project with The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH to create the first draft version of the Domain protocol for the Federation of Bosnia and Herzegovina and Methodology for Calculation of residual mix.

News and perspectives regarding the national framework for electricity

In 2018, Operator za OIEiEK is to prepare a draft of disclosure rules including the methodology for calculation of residual mix; the proposal will be presented to the Federal Regulatory Energy Agency for approval.

Benefits to the company of AIB membership

Being an observer in the AIB offers a great chance to gain practical knowledge from the best sources with regard to the implementation of EECS across Europe by standardised solution.

Additional information

No matter how much AIB members' views differ, at the end, they are always homogenised and standardised by EECS rules.

Profile of the organisation

Electricity Market Operator

Role

Competent authority for renewable electricity guarantees of origin.

Member of the AIB

An application to the AIB for Membership is under review.

News and perspectives regarding the national framework for electricity

Starting from 20.6.2018 LAGIE's corporate business focuses on renewable electricity. According to Law 4512/17.01.2018 the company is renamed to "Operator of RES and Guarantees of Origin S.A." (distinctive title DAPEEP S.A.) and the activity of Power Exchange is detached to the new company "Hellenic Energy Exchange S.A."

DAPEEP maintains the roles and responsibilities assigned to it with respect of Guarantees of Origin.

DAPEEP is additionally appointed as the Competent Body for Electricity Disclosure and is assigned the responsibility of auditing the Suppliers regarding the use of GOs in identifying the origin of electricity to the consumers.

Benefits to the company of AIB membership

The benefit of participating in the AIB is the standardization of the procedure for issuing, transferring and cancelling Guarantees of Origin, which facilitates the exchange of GOs across Europe.

The Association also provides a forum for members to address issues of common relevance and to share knowledge and experience.



Name of the company
LAGIE S.A.

Area of operation
Greece Mainland and
Grid Interconnected Islands

Address
Kastoros 72
Piraeus
Greece

www.lagie.gr



Name of the company
LITGRID AB

Area of operation
Lithuania

Address
A. Juozapavičiaus g. 13,
LT-09311 Vilnius
Lithuania

www.litgrid.eu

REPORT FROM OBSERVER

Profile of the organisation

Litgrid is the Lithuanian Electricity Transmission System Operator.

Role

Litgrid, the Lithuanian electricity transmission system operator, manages the electricity flows in Lithuania and maintains a stable operation of the national power system. The company is responsible for the implementation of the strategic energy projects, reorientation of the country's power system towards a synchronous operation with the Continental Europe. Litgrid is also appointed issuing body for the electricity guarantee of origin in Lithuania.

Member of the AIB

Litgrid has been an observer since 2017, and was approved as a member on 8 June 2018.

Activities within the AIB

So far, Litgrid does not participate actively in any of the AIB's Activities.

News and perspectives regarding the national IB

Litgrid has submitted a formal application to join the AIB organization in 2017. It is expected that the company will acquire the permanent member status in 2018.

Litgrid has been mandated by the Government of Lithuania to arrange the issuance and trading of GOs. Following the international public tendering (procurement), the Lithuanian electricity transmission system operator, Litgrid, has selected Grexel as the provider of the central registry for electricity Guarantees of Origin (GO) in Lithuania.

News and perspectives regarding the national framework for electricity

Lithuanian market participants started to take an active interest in the possibilities of registration and use of foreign guarantees of origin at the end of 2014. These changes, taking place in the electricity industry and the electricity markets in Europe, resulted in the need for improvement of the management of guarantees of origin in Lithuania. The Lithuanian legal act was therefore amended at the end of 2016 to allow the implementation of EU directives on free movement of the guarantees of origin, not only within the country but also outside the country. These amendments also obligated Litgrid to join the AIB.

Benefits to the company of AIB membership

"The central registry of GOs will strengthen the national scheme and will provide opportunities for international trading. We have set up the highest standards for the reliability and security of the service and hope to be part of the common European market."

Rimantas Busila, Finance Director at Litgrid

Additional information

The main goal for Litgrid this year is to become a member of the AIB in 2018. Right now, we are doing our best to achieve this target.

Profile of the organisation

EMS JSC Belgrade is the Transmission System Operator (TSO) established in 2005. The company is owned by the state and it operates and maintains the transmission system network in Serbia. The Serbian transmission system network operates on 110, 220 and 400 KV voltage levels. The key business goal is safe and reliable electricity transmission, efficient control of the transmission system interconnected with power systems of other countries, optimal and sustainable development of the transmission system to meet the needs of users and society as a whole, ensuring the functioning and development of the electricity market in the Republic of Serbia and its integration into the regional and pan-European electricity market.

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, registry operator, and measurement body for the production devices connected to the transmission grid, and responsible party for calculating the Serbian national residual mix.

Member of the AIB

Active observer since 2015.

Activities within the AIB

Representatives of EMS JSC Belgrade regularly attend general meetings of the AIB as well as working group meetings.

News and perspectives regarding the national IB

EMS JSC Belgrade procured a registry for guaranties of origin and all necessary legislative framework was successfully implemented; and from December 2017, the GO scheme in Serbia started as national GOs. EMS JSC's future plans are to apply for full membership of the AIB and to start the EECS GO scheme.

News and perspectives regarding the national framework for electricity

The legal framework for the certificate scheme in Serbia is established through the Energy Law and by-law legislation for guaranties of origin. Regulation for guaranties of origin was adopted in September 2017 and Disclosure rules were adopted in October 2017 by the Government and Ministry. The Domain protocol and price act were adopted by the Assembly of EMS JSC Belgrade in December 2017. All the technical requirements and legal framework have been implemented in accordance with EECS rules and best practice recommendations from the AIB.

Benefits to the company of AIB membership

The benefits for EMS JSC Belgrade of being part of the AIB is actively gathering knowledge of the EECS system with the aim to establish a certificate scheme in Serbia fully under the EECS rules, and to become a full member of the AIB.



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



Making a positive difference
for energy consumers

Name of the company

Ofgem

Area of operation

United Kingdom

Address

10 South Colonnade
London, E14 4PU
United Kingdom

www.ofgem.gov.uk

REPORT FROM OBSERVER

Profile of the organisation

Ofgem is the electricity and gas markets regulator.

Ofgem is the electricity and gas markets regulator, and is also responsible for the administration a number of the government's environmental and social schemes. We are experts in operational design and delivery excellence.

Role

Competent authority for renewable electricity guarantees of origin

Member of the AIB

Observer since 2015

Activities within the AIB

Ofgem is currently an observer within AIB

News and perspectives regarding the national IB

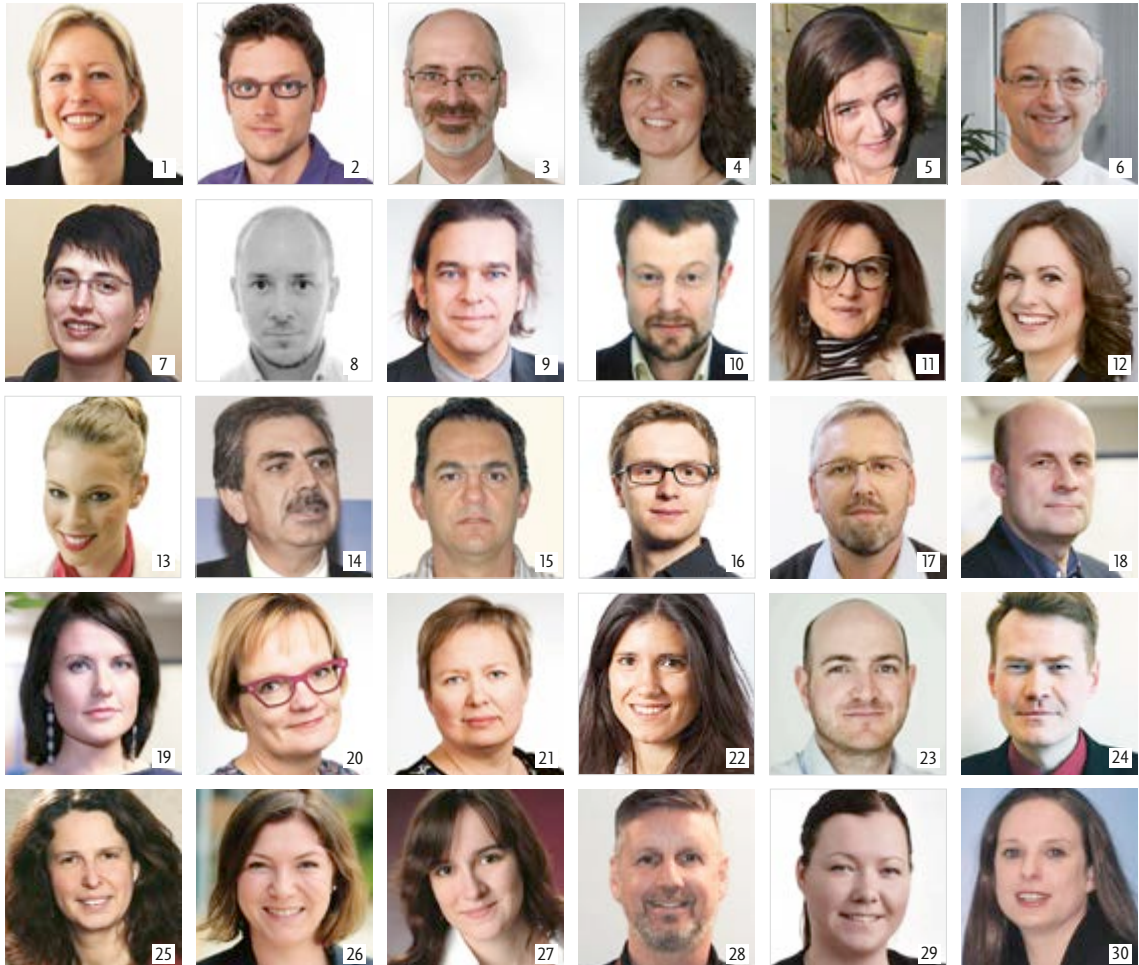
As important changes to the UK's renewable electricity schemes are under way, Ofgem will continue to work closely with the UK government and other stakeholders to ensure the continued efficient delivery of schemes.

News and perspectives regarding the national framework for electricity

A new process was devised to recognise Guarantees of Origin for the 2015/16 disclosure period. This will be reviewed in due course.

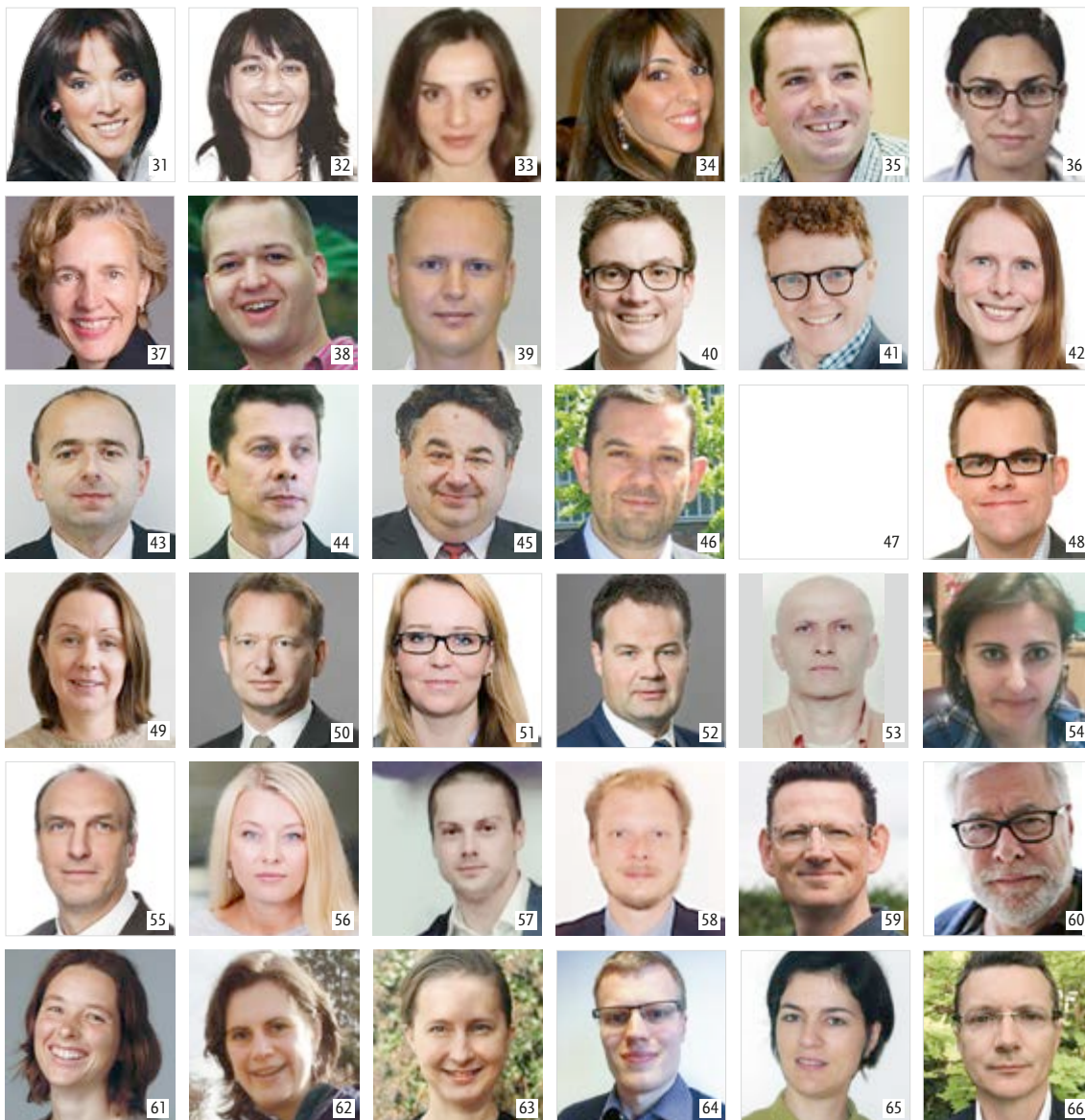
ANNEX

CONTACTS



Country	No	Name	Telephone	Fax	Email	Function in AIB
AUSTRIA		Energie-Control Austria				
	1	Angela Tschernutter	+43 1 24724 720	+43 1 24724 900	angela.tschernutter@econtrol.at	Chair of the Board
BELGIUM, BRUSSELS		Brugel – Energy Regulation Commission in the Brussels-Capital Region				
	2	Régis Lambert	+32 2 563 0208	+32 2 563 0213	rlambert@brugel.brussels	
	3	Pascal Misselyn	+32 2 563 0202	+32 2 563 0213	pmisselyn@brugel.brussels	
BELGIUM, FLANDERS		VREG - Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt				
	4	Katrien Verwimp	+32 2 553 1377	+32 2 553 1350	katrien.verwimp@vreg.be	Vice chair WGIA
	5	Karolien Verhaegen	+32 2 553 7065	+32 2 553 1350	kvh@vreg.be	
BELGIUM, WALLONIA		CWaPE - Commission Wallonne pour l'Énergie				
	6	Pierre-Yves Cornélis	+32 81 33 08 41	+32 81 33 08 11	pierre-yves.cornelis@cwape.be	
	7	Annie Desaulniers	+32 81 32 50 12	+32 81 33 08 11	annie.desaulniers@cwape.be	Chair of WGS
	8	Gauthier Libeau	+32 81 33 08 45	+32 81 33 08 11	gauthier.libeau@cwape.be	
BELGIUM, FEDERAL		CREG				
	9	Koen Locquet	+32 22 897 636	+32 22 897 619	klo@creg.be	
	10	Philip Godderis	+32 22 897 688	+32 22 897 619	pgd@creg.be	
CROATIA		HROTE - Croatian Energy Market Operator				
	11	Dubravka Brkić	+385 1 6306 706	+385 1 6306 777	dubravka.brkic@hrote.hr	Chair WGEA
	12	Morana Lončar	+385 1 6306 724	+385 1 6306 777	morana.loncar@hrote.hr	
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CYPRUS		TSO-Cy - TRANSMISSION SYSTEM OPERATOR – CYPRUS				
	14	George Ashikalis	+357 22 611 611	+357 22 611 666	gashikalis@dsm.org.cy	
	15	Michalis Syrimis	+357 22 611 611	+357 22 611 666	msyrimis@dsm.org.cy	
CZECH REPUBLIC		OTE, a.s., the Czech electricity and gas market operator				
	16	Martin Štandera	+420 296 579 329	+420 296 579 180	mstandera@ote-cr.cz	Board member
DENMARK		Energinet.dk				
	17	Carl Morten Baggesen Hilger	+45 51677936		moh@energinet.dk	
ESTONIA		Elering AS				
	18	River Tomera	+372 715 1349	+ 372 715 1200	river.tomera@elering.ee	
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ICELAND		Landsnet hf.				
	28	Ragnar Sigurbjörnsson	+354 8580205		ragnarsig@landsnet.is	
	29	Svandís Hlín Karlsdóttir	+354 616 0882		svandis@landsnet.is	
IRELAND		SEMO - Single Electricity Market Operator				
	30	Laura Plunkett	+353 123 702 17		guaranteesoforigin@sem-o.com	Chair WGIA (since Sept 2016)

CONTACTS



Country	No	Name	Telephone	Fax	Email	Function in AIB
ITALY	GSE - Gestore dei Servizi Energetici - GSE S.p.A.					
	31	Claudia Delmirani	+39 06 8011 4370		claudia.delmirani@gse.it	
	32	Marta Grassilli	+39 06 8011 4174		marta.grassilli@gse.it	
	33	Annalisa Ciatti				Until May 2017
	34	Floriana Furno	+39 06 8011 4206		floriana.furno@gse.it	Since May 2017
LUXEMBURG	ILR - Institut Luxembourgeois de Régulation					
	35	Claude Hornick	+352 28 228 341		claudie.hornick@ilr.lu	
	36	Pamela Boeri	+352 28 228 349	+352 28 228 229	pamela.boeri@ilr.lu	
NETHERLANDS	CertiQ B.V.					
	37	Lian Krijger	+31 6 30 78 34 58		lian.krijger@certiq.nl	Board member (since March 2017)
	38	Remco van Stein Callenfels	+31 6 46 99 30 41		remco.van.steincallenfels@certiq.nl	
	39	Arjan van der Toorn	+31 6 13 58 50 91		arjan.vander.toorn@certiq.nl	
	40	Max Laven	+31 6 25 76 42 45		max.laven@certiq.nl	
NORWAY	Statnett					
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	42	Jennifer Holgate				Board member (until March 2018)
SLOVENIA	Agencija za energijo - Slovenia Energy Agency of the Republic of Slovenia					
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	44	Tomaž Lah	+386 2 23 40 300	+386 2 23 40 320	tomaz.lah@agen-rs.si	
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SPAIN	CNMC - National Authority for Markets and Competition					
	46	José Miguel Unsión	+34 917879838		josemiguel.unsion@cnmc.es	
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SWEDEN	Energimyndigheten					
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SWITZERLAND	Pronovo AG					
	50	Lukas Groebke	+41 58 580 2138	+41 58 580 2038	lukas.groebke@pronovo.ch	Board member, Treasurer
	51	Milada Mehinovic	+41 58 580 3527	+41 58 580 3727	milada.mehinovic@pronovo.ch	
	52	René Burkhard	+41 58 580 3520	+41 58 580 3720	rene.burkhard@pronovo.ch	
OBSERVERS						
FEDERATION OF BOSNIA AND HERZEGOVINA			Operator za OIEiEK			
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GREECE	LAGIE SA - Electricity Market Operator SA					
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SERBIA	AD Elektromreža Srbije					
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UNITED KINGDOM	Ofgem E-Serve					
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OTHERS						
	59	Dirk van Evercooren	+32 2 553 1360	+32 2 553 1350	president@aib-net.org	AIB President
	60	Phil Moody	+44 1494 681183		secgen@aib-net.org	Secretary General
	61	Andrea Effinger	+49 176 444 32 955	+49 3212 1061 071	andrea@aib-net.org	Assisting Secretary General
	62	Liesbeth Switten	+32 486 558301		Liesbeth@switten.be	Professional reviewer – legal advisor
	63	Marika Timlin	+358 9 4241 3164		hubinfo@aib-net.org	Assisting Secretary General, Superuser
	64	Alex Björkholm	+358 9 4241 3168		hubinfo@aib-net.org	Superuser
	65	Diane Lescot	+33 144 18 7353	+33 144 18 0036	diane.lescot@energies-renouvelables.org	Independent reviewer
	66	Michael Lenzen	+31 6441 60 209		michael@communicating-sustainability.eu	Independent reviewer

AUDIT REPORT



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e-mail: accounts@russellphillips.co.uk
Website: www.russellphillips.co.uk

ASSOCIATION OF ISSUING BODIES

Report of the Independent Auditors to the Members of the Association of Issuing Bodies.

1. Introduction

We have audited the Balance Sheet and Profit and Loss Account for the year ended 31 December 2017.

This report is made solely to the members of the Association and we do not accept or assume responsibility to anyone other than the Association and the members of the Association for our audit work, for this report, or for the opinions we have formed.

2. Purpose of the Audit

The purpose of the audit is to:

- a) Verify the Balance Sheet and Profit and Loss Account at the year end.
- b) Check that the cut off between 2017 and 2018 is correctly accounted for.
- c) Evaluate the payment routine.
- d) Check the control over invoicing is correct and complete and in accordance with the instructions of the Board.
- e) Check that the control over expenses is in accordance with existing agreements, well documented and properly authorized.
- f) Calculate the audit-trail between the system and the books.

To carry out the audit we received support from the General Secretary who provided us with board minutes, agreements, a trial balance and nominal ledger at 31 December 2017, transaction lists, invoices and vouchers. The audit was performed on a sample basis.

The AIB is registered in Belgium, but VAT registered in the UK. The audit, as in the previous year, does not include the evaluation of transaction matters.



Registered Address: As above - Company No: 5236467 - Registered in England
Russell Phillips is the trading style of Russell Phillips Ltd.
Russell Phillips Ltd is registered by the ICAEW to carry out company audit work.
Registered with The Chartered Institute of Taxation as a firm of Chartered Tax Advisers.
A member of the UK200Group, Quality Assured Accountants & Lawyers
and the International Association of Practising Accountants.

Directors: Jonathan Russell FCA
Lina Pujara FCCA CTA

Executive Consultant: Stephen Cox
Consultant: Wassem Sadique FCA



3. Findings and Recommendation

a) Membership fee.

The information on total certificates issued and transferred between domains per member is based on data from the websites (ie: necs.statnett.org). The total number of certificates transferred between domains in 2016 was the basis for the standing charge component of the membership fee in 2017.

The activity fees are linked to the total certificates transferred between domains in the year. Any certificates relating to the year 2017 and invoiced after the books have been closed for the year have been recognized as revenue in these accounts.

We have verified the annual membership fees were invoiced according to the approved membership fee calculation as set out in the invitation to tender.

b) Expenses

We have reviewed that expenses are supported by appropriate documents and have been correctly authorized. We have checked in particular the major costs of the consulting fees and travel expenses. We found the controls to be good and the year end cut-off seemed reasonable.

c) Bank

The payment routine was found to be in good order with the general secretary creating the payment instructions and the Treasurer authorizing the payment instructions.

The bank account in the nominal ledger reconciled both with the statements received from Jyske Bank and their year end certificate.

d) Accounts Receivable

These were checked to the invoices raised during the year.

e) VAT

The Association's proper place of registration continues to be in the UK.

The income is mainly from outside the UK and is zero rated to registered bodies in the EU whilst the expenses are mainly in the UK and the VAT can be deducted. Therefore, most quarters, the Association receives a VAT refund.

The rate of VAT for the year was 20%.

The VAT was found to be correctly calculated and recorded in the system for the year and the end of year balance agreed to the records.

f) Accounts Payable/Accruals

These were checked to the invoices raised by suppliers and found to be correctly recorded.

An accrual of 3,800 EUR due to the auditor is included in these accounts.

g) Audit Trail

There is a good audit trail between the original invoices for both fees and expenses and the nominal ledger system.

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Directors: Jonathan Russell FCA Executive Consultant: Stephen Cox
Lina Pajars FCCA CTA Consultant: Waseem Sadique FCA

In our opinion the Financial Statement gives a true and fair view of the state of Association of Issuing Bodies as at 31 December 2017 and of its deficit for the year.

The statement has been properly prepared from information supplied.



Jonathan Russell (Statutory Auditor)

For and on behalf of

ReesRussell LLP

37 Market Square

Witney

Oxon OX28 6RE

Date 15 May 2018

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Directors: Jonathan Russell FCA
Lina Pejara FCA CTA

Executive Consultant: Stephen Cox
Consultant: Wasem Sadique FCA

FINANCIAL STATEMENT

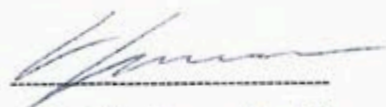
ASSOCIATION OF ISSUING BODIES FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2017

Profit & Loss Account

	31/12/2016	31/12/2017 (amount in Euro)
Annual membership fee, small	31250	40000
Annual membership fee, large	260000	240000
Activity based membership fee	438775	512332
Other operating revenues	<u>1031</u>	<u>-----</u>
Total operating revenues	731056	792332
Operating costs		
Consultancy fee & administration	566189	639583
Travelling & Hotels	35996	42974
HUB Costs	93093	93139
Website maintenance	11216	20527
Other operating costs	42388	44248
Depreciation	<u>90915</u>	<u>90915</u>
Total operating costs	(839797)	931386
Net profit/loss for the year	<u>108741</u>	<u>139054</u>

Balance Sheet

	31/12/2016	31/12/2017 (amount in Euro)
Assets		
Computer Hardware & Software	181831	90916
Accounts receivable	75401	58799
Prepayment	-----	-----
Net Vat refund	17606	16884
Bank	<u>223880</u>	<u>198118</u>
Total Assets	498718	364717
Liabilities		
Accounts payable	<u>76720</u>	<u>81773</u>
Total Net Assets	<u>421998</u>	<u>282944</u>
Opening Reserve	530739	421998
Profit/loss for the year	<u>(108741)</u>	<u>(139054)</u>
Closing Reserve	<u>421998</u>	<u>282944</u>



Date 8th May 2018
Lukas Groebl



8th May 2018
ANGELA TSCHERNUTTER

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and the International Association of Practising Accountants.

Directors: Jonathan Russell FCA
Lina Pejara FCCA CTA

Executive Consultant: Stephen Cox
Consultant: Waleed Sadique FCA

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. Supporting an environmental-friendly electricity market in Europe, 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 printer.
- Carbon offset all travelling by attendees to AIB meetings, including the four General Meetings per year, physical Working Group meetings, audits and reviews on site and the annual Strategy Meeting. In 2018, a total of 72 t CO₂ were compensated by SouthPole.
- 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 part to realize this is to prefer regional food with a good amount of vegetarian options.



Association of Issuing Bodies

The AIB is a non-profit-making international association

Telephone: +44 (0)1494 681183
Website: www.aib-net.org
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Registered offices

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Belgium



Administrative offices

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Registered in Belgium
Registration number
(numero d'entreprise):
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