# **CHANGE**



ANNUAL REPORT 2020



### **CHANGE**

The cover of the report for the year 2019 illustrated the leap AIB is making towards certification of energy carriers other than electricity. In 2020, AIB evolved further, not only in respect of certification for electricity and gas, but also in terms of evolving our Association with the implementation of the new Association model. The gemstone is a metaphor for the ongoing transformation of our Association, the colours represent new beginnings, positivity and the resilience we have shown during Covid-19.



# Contents

Foreword	2		
A Farewell to AIB	4		
Thank you Phil	6		
Guarantees of Origin activity	7		
GO Activity for 2020	9		
Achievements	20		
Strategic Projects	22		
AIB - New organisation model	24		
AIB - Officials	25		
AIB - Secretariat	26		
Information Systems Unit	27		
External Affairs Unit	28		
EECS Unit and			
Electricity Scheme Group	29		
Gas Scheme Group	30		
Financial Year 2020	31		
Reports from Members			
Austria	38	The Netherlands	78
Belgium (Brussels)	40	Norway	80
Belgium (Flanders)	42	Portugal	82
Belgium (Wallonia)	44	Serbia	84
Belgium (Federal)	46	Slovakia	86
Croatia	48	Slovenia	88
Cyprus	50	Spain	90
Czech Republic	52	Sweden	92
Denmark	54	Switzerland	94
Estonia	56		
Finland	58	Reports from Observers	
France	60	Hinico	96
Germany	62	Bulgaria	97
Greece	64	Hungary	98
Iceland	66		
Ireland and Northern Ireland	68		
Italy	70	Annex Audit Report	105
Latvia	72		
Lithuania	74	Production and Graphics	119
Luxembourg	76	Sustainability Statement	120

# **FOREWORD**

### **Board Chair 2020**



Angela Tschernutter
Chair of the AIB Board
(until end November
2020)

2020 was a year of new experiences for all of us. Given the circumstances, the AIB successfully switched to online meetings in March 2020 and continued this format for the remainder of the year. Due to very good internal organisation, these meetings were as successful as the physical ones, but of course, the social effect and the bilateral exchange of ideas, discussions and chats were missed by all of us.

2020 was the year where the organisational change within AIB was fully executed, completed, and concluded with the election of the new Board at the end of November 2020. As chair of the Board, I would like to express my special thanks to the Board members Ivar Clausen, Lukas Groebke, Max Laven, Johan Malinen and Martin Standera for their efforts in previous years and the big milestones that we jointly achieved. It has always been a big pleasure working with such a professional team respecting each other's views and ideas.

One of the milestones from the Clean Energy Package was making it mandatory to issue Guarantees of Origin (GOs) for gases from renewable sources, like renewable gas and green hydrogen. This created a new dimension in preparing the organisation to be able to open up to Issuing Bodies, not only of GOs for electricity, but also of heating and cooling and gases from renewable sources. A Gas Scheme Group has been implemented and has started its work under the lead of Wouter Vanhoudt and a group of people who have great enthusiasm. The EECS Rules now also cover a chapter on gas and hydrogen GOs. It was a big success for the AIB to implement the basic principles on gas and hydrogen and we will be working on more details and principals in the upcoming year(s).

In 2020 the AIB was active in several interesting European projects. The AIB led the FaStGO (Facilitating Standards for Guarantees of Origin) project that provided expert advice to the European Commission DG ENER. The project was led by Katrien Verwimp who worked with a team of AIB members, RECS International, EEX, CertiQ, Grexel Systems, Gaia Consulting, Hinicio, ERGaR and the European Biogas Association. The project published its interesting final report on December 11th, 2020 and several sub-reports that covered upgrades to the European Guarantee of Origin system, challenges in the management of GO systems, upgrades in standardisation, a vision for a future IT architecture, a data transfer protocol and system requirement specifications, opportunities for GO statistics and a proposal for increased VAT fraud prevention measures. The AIB also participates in the Regatrace (REnewable GAs TRAde CEntre in Europe) project which is a H2020 project aiming to create an efficient system for issuing and trading biomethane/ renewable gases GOs. In this project the AIB leads the work package on the integration of Guarantees of Origin from different renewable gas technologies with electric and hydrogen GO systems. AIB joined the EMPACT project on VAT fraud issues and in addition, the CertifHY III project, AIB contribution will be kicked off soon.

Furthermore, the AIB launched a sector integration programme to convert energy carriers in a structured and harmonised way. As gas GOs are starting to being issued in some countries, it is essential for AIB to implement a harmonised way of converting the different GOs of different energy carriers to avoid double counting or misuse of GOs.

2



The Hub has further developed, necessary technical implementations have been made and Members profit from a robust and solid system for trading GOs across borders.

The AIB launched the Open Market Committee (OMC) in November with a high number of participants, a lot of press releases and webinars as well as newsletters to inform interested parties. The AIB participated and presented on many different occasions and at meetings organised by stakeholders, ministries, or public bodies.

One big internal step was achieved in hiring a new Secretary General. Liesbeth Switten started her work in summer 2020 and took over from our long-term Secretary General Phil Moody. Special thanks to Phil for the impressive piece of work he did for the AIB. He built and made the AIB what it is now: a well-established and trustworthy organisation for Issuing and Competent Bodies and a well-respected, trusted organisation for many stakeholders including the European Commission.

The AIB could not function without its members. In 2020 we gained two new members: AST from Latvia and REN from Portugal plus new observers Hinicio, SEDA (Bulgaria), HEA (Hungary), and the Energy Regulatory Agency of Montenegro.

The trust of energy consumers and GO market participants could be strengthened even more and the AIB will make all efforts in ensuring this trusting relationship remains in the upcoming years.

The AIB is looking back on 2020 as a successful, interesting year and is looking forward to the year 2021 under the new organisational model and a new team. It has been a big pleasure for me chairing the AIB Board for the last four years. Sincere thanks to all Board members, the former and the current Secretary General, the chairs of the Groups and Units and all Members, for their collaboration and their outstanding work, especially in the last year and best wishes to the new Board for 2021.

### 2021 - Bringing it all together



Ivar M. Clausen (Statnett, Norway), Chair of the AIB Board since 27 November

2021 will be an exciting year for AIB. The first full year of our new organization model, the year we will hopefully see the results of the work with the CEN16325 standard and we continue to build on sector integration. Most of all, it will be the year we will see the end of the pandemic and can finally meet our colleagues from all over Europe again.

In 2020, and 2021 we have seen that the members of AIB are becoming more diverse, and with the progress in the development of a GO market for gas we are also moving towards a situation where different members are providing services to different markets.

The core of our operations however still remains the same, and the mission of AIB - "Guaranteeing the

origin of European energy", stands the test of time, although AIB's vision will be updated.

In this context it will become increasingly important for AIB to provide a transparent and professional organization. Together with a more structured budget process, the board sees this as their primary goal for 2021.

The pandemic will set its mark on most of 2021. It is difficult to remain enthusiastic and positive when all of our interactions are on the same screen all of the time. The board will prioritize some "social" time on virtual meetings, hoping to keep the spirit up amongst old members and to make our newer members feel welcome.

Thank you for your efforts and contribution.

# A FAREWELL TO AIB



Phil Moody Interim President - 2001, Chair Workgroup Internal Affairs - 2002, Secretary General - 2002-2020

During the mid-1980s, having worked on deregulation of London financial institutions, I was returning to my office and met my managing partner, who had that smile on his face that meant one thing: trouble. I was offered an assignment on a major deregulation project, involving a new commodity with a short lifetime: it was created and snap (he clicked his fingers) ... it vanished. Was it a new Eurobond, a brand-new derivative? To my surprise, it was electricity. He explained that electricity could be sold as a product, "provided you chop it into megawatt-hour chunks – in effect, you'd be selling sparks". I was hooked.

For the next two years, we sought to discover how UK market parties would be impacted when the electricity pooling and settlement system went live. Would anyone receive windfall profits? Would anyone go bankrupt? The new system eventually went live, and I spent the next decade developing commercial trading systems with a large electricity and gas supplier and advising the regulator as chair of the UK gas shippers' IT group.

During these assignments, a colleague discovered that electricity production in one regime could receive public support from an interconnected regime by means of swap contracts, so that money would flow -but energy would not. Several deals followed, but the opportunities were soon exhausted, so I suggested we create a pan-European market for a new commodity: IMWh of "greenness". My colleague was – to put it mildly - unconvinced, and I let him persuade me to drop the idea. Three years later, the Dutch green certificate system went live.

We spent late 1998 designing an international certificate system and hoping to convince the Dutch government to support otherwise unsupported British generators. However, we needed an independent auditor to make it work, so rather than giving someone else our ideas, we gave up thoughts of brokering deals and set up an Issuing Body. I drove to Arnhem for one of the early RECS meetings, where I convinced a reluctant Peter Niermeijer that if he would let me stay, I would just sit quietly (which I did, but only for that meeting). We worked together for a year, after which we successfully tendered for EU support for a voluntary pilot of an international green certificate system: the RECS Test Phase.

The project was a raging success. We planned to issue 60 000 certificates, but actually issued a staggering 19 million. We hoped for three participating countries and got thirteen. Most certificates were for hydropower and forestry in those days, and the trades flowed from France to the Nordic regions – quite different to today's market.

Guarantees of Origin (GOs) were initially intended for target counting, but by 2004 suppliers were using them for disclosure. They were virtually the same as RECS certificates, so we tightened up the system to replace RECS certificates with GOs. The EECS Rules were developed by a team, and I cannot thank the members (principally Rolf Jorgensen of Statnett, Paul Verhaegen of E-CertE, Dietmar Preinstorfer of E-Control, Pasi Kuokkanen of Fingrid, Natascia Falcucci of GRTN, Jan Vorrink of CertiQ and Paul Brennan - the lawyer) enough for their contribution. The development of EECS took about two years and many meetings across Europe, and we still had battles to fight, such as whether separate certificates were needed to provide evidence for support schemes, and to disclose energy source to consumers. Five years later, RES Directive 2009/28/EC resolved this, but its other provisions meant we had to fine-tune EECS.

The resulting sets of rules provided the core of a new CEN/CENELEC standard, and I worked with Inge Pierre of Swedenergy, Remco van Stein Callenfels of CertiQ and others to draft what is now EN16325. This is currently being replaced by an updated and legally enforceable version, and my thanks go to Katrien Verwimp of AIB, Remco, Marko Lehtovaara of Grexel, Saul Pedraza of EEX, Adam White of RECS International and others for their sterling work on the EU FaStGO project, which advised the process.

In parallel to developing the EECS Rules, we needed better registry to registry linkages, so we develop a Hub to connect them all. Working Group Systems developed this, based on ideas from Mike Sandford and Ed Everson, with whom I worked at Campbell Carr until 2006, and with input from such people as Bert Pheiffer of TenneT and Nisheeth Singh of Swissgrid. The initial Hub was developed and piloted by Campbell Carr for a couple of years, until members felt it was time for something more industry-strength and hence it was

replaced by the Atos Hub Mk. II, and eventually by a more reliable and fully featured Unicorn System Hub Mk. III. Today, the Hub collects and stores national data for operational and statistical purposes and provides monitoring facilities.

The market continues to evolve and grow. GOs for fossil and nuclear source electricity are now required under law in some countries and voluntarily supported in others; while RED II requires GOs for hydrocarbon gases, hydrogen, and heating and cooling. The progression to full disclosure demonstrates the interest of stakeholders around the world in the environmental impact of energy, and in tighter matching of production and consumption to further the aims of energy transition.

In 2015, faced with increasing workload and a membership which was increasingly calling for a more formal approach to governance, I asked the Board for its support in the restructuring of the Association. This resulted in the Change process, which ran from 2016-2020 and resolved many structural and policyrelated issues. My congratulations to my successor, Liesbeth Switten, along with Elke Mohrbach of UBA and Ivar Clausen of Statnett, for delivering a workable solution while retaining their sanity!

After 20 years "at the pit face", I desperately needed a break – or at least a change - so I decided to step down as Secretary General. It seemed natural to take retirement at this point, but the arrival of Covid and lockdown meant that my plans to spend a year travelling round Europe had to be revised. A chance phone call with a fellow member of the UK electricity sector provided the seed corn for an idea.

From the outset, I have been fully convinced that full disclosure will enable renewable and carbon markets to be linked, offering opportunities for instruments to inform consumers and incentivise market parties. Furthermore, I have always been uncomfortable with the thought that the money I pay for renewable energy does not all go to a renewable producer - far from it the majority will go to any producer, and not necessarily a renewable energy producer. Back in the late 1990s and early in the new millennium, the markets for renewable electricity certificates and physical power were separated to prevent interference with existing well-running markets and to protect market liquidity. Thanks to new technology, we can now re-examine whether it is time to bring the two markets back together, and to consider how this might be achieved.

With these questions in mind, I concluded that a good place to start was to develop a standardised methodology for matching the source of produced and consumed energy on an hourly basis. After long discussions with Toby Ferenczi of Ovo Energy (a large UK supplier), we joined together to set up the EnergyTag initiative, which I now chair. We did so to seek a better market for environmentally beneficial energy, while at the same time seeking to protect the work done by the existing energy attribute certificate systems (such as the AIB) and their members.

I owe a debt of gratitude to the members of the AIB for their support, their inspiration, and their hard work. When I started down this road, I little expected it to be such a success. It has been my pleasure to work with and to serve you all. Thank you for the opportunity, and my very best wishes for the future.







Phil exploring Iceland - always with his camera, June 2013. Phil and his wife Jill Reykjavik, June 2013. Phil always in charge.

# THANK YOU PHIL

2020 marked the end of an era: AIB's founding father Phil Moody has retired as Secretary General. Phil contributed greatly in setting up the European GO system and has led the AIB since 2001.

The AIB was formed after a successful test of a voluntary certificate system (RECS), which proved the viability of international energy certificate systems. This developed into the EECS® standard for Guarantees of Origin (GO), which forms the basis of the CEN standard.

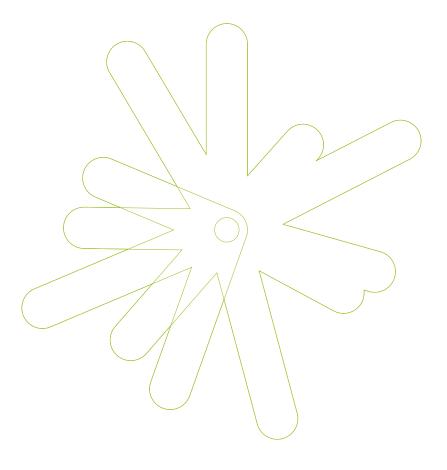
Phil is widely respected by all stakeholders in the GO sector, always open to answering questions, offering suggestions for improvement and keen on developing and fine-tuning the GO system as a whole. Early on, Phil realised how valuable it is to create a platform within the Association where members can meet as peers and discuss issues of common interest, either formally or over a drink at night, thereby providing a forum to overcome mutual challenges. Phil was a pioneer in many ways and the impressive workload he has carried out – often behind the scenes – is invaluable. The AIB is very grateful for his efforts and engagement.



As COVID-19 has prevented us from hosting a farewell party so far, we launched a farewell newsletter to him: for 20 weeks Phil received video messages from all over Europe with personal thank you messages.

It is an honour for me to follow in Phil's footsteps and to build upon the strong fundamentals he has laid down.

Liesbeth Switten, Secretary General



# GUARANTEES OF ORIGIN ACTIVITY

In this, the second decade of the AlB's activities, it is worth reflecting on progress made to date. The initial objective of the RECS Test Phase set out to prove that what are now known as "energy attribute certificates" could be traded internationally, with an objective of 60 000 certificates issued in the first two years. Records begin in 2001, and the first report shows that 14 088 059 RECS certificates had been issued by December 2002; and of these, 770 136 had been traded, 5 467 exported, and 5 211 175 had been cancelled. To the surprise of all concerned, including the EU Commission, which partfunded the project, it was a resounding success.

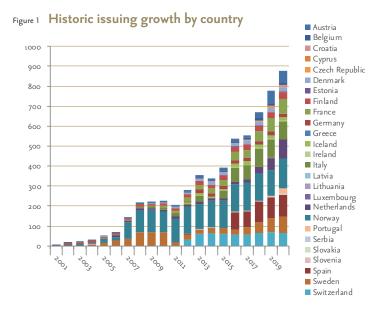
and Sweden, and a further ten countries joined over the next 18 months. All remain active members of the Association except for the UK. Not surprisingly, most certificates were for hydropower, but forestry was a close second – probably due to the predominant position of Finland in those early days. To show how times have changed, wind power hardly figured, and solar PV was totally absent. The major exporter was France, while Norway and Finland led the field when it came to cancellations.

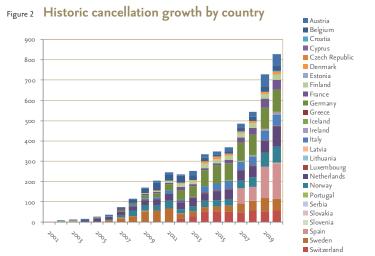
Finland issued the first certificate, followed by Germany

Since then, RECS Certificates have been replaced – some might say evolved into – Guarantees of Origin (GOs). Just short of 6 billion GOs have been issued by AIB members, and of these, 4.2 billion have been transferred to other domains, proving that GOs are truly international. 5.1 billion GOs have been cancelled, clearly demonstrating their appeal to a market anxious to contribute to the energy transition. The market continues to evolve and grow.

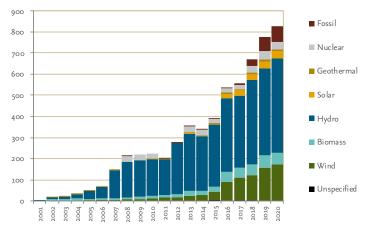
Since 2002, the AIB's thirteen members have been supplemented by a further sixteen, Portugal and Latvia having joined in 2020, so the Association is now represented in the majority of Europe. Bulgaria, Montenegro, and Hungary are currently applying for membership, leaving Romania, Poland, and Malta as the only EU non-members/applicants. Germany and the Benelux countries remain the major importers, while the major exporters are now not only the Nordic countries, but also France, Italy, and Spain.

Hydropower remains the majority energy source, and while the contribution of biomass has increased, it no longer has the same degree of presence in the market, having been supplanted by wind power and more recently by solar PV. Voluntary certificates for fossil and nuclear source electricity emerged in 2008 in Germany and Sweden respectively, and are now required under law in Austria, Switzerland, and the Netherlands. The use of certificates for fossil and nuclear is growing, with 12 member countries issuing and cancelling fossil certificates and four member countries issuing and cancelling nuclear certificates.









The market continues to evolve, and the latest innovation is GOs for hydrocarbon gases, hydrogen and heating and cooling being required under RED II as from the summer of 2021.

The continued adoption of fossil and nuclear GOs indicates the interest of European countries in moving towards a system of full disclosure, which will increasingly replace the residual mix with a more accurate means of providing evidence of the true source of energy, and hence its environmental impact. More accurate matching of production and consumption can only further the aims of energy transition and stakeholders are showing considerable interest in further innovation in this field.

Now let us review in more detail, events of 2020.

# GO ACTIVITY FOR 2020

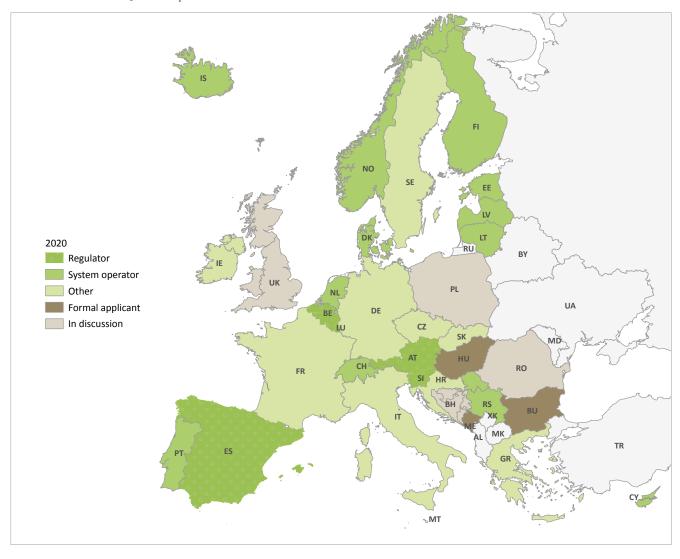
### Membership

At the end of 2020, AIB had a total of 29 members, representing 26 countries (the Belgian regions of Brussels, Flanders, and Wallonia each have their own Issuing Body, as has Federal Belgium, which holds responsibility for offshore production).

REN of Portugal and AST of Latvia joined the Association in 2020; while the issuers of GOs for Bulgaria (SEDA), Hungary (MEKH) and Montenegro (COTEE) began the membership application process. Discussions progressed with interested parties in Bosnia (REERS), Federation of Bosnia and Herzegovina (RES Operator), Poland, Romania (ANRE) and the UK (Ofgem).

This map identifies the countries of organisations that were members of the AIB, and countries interested in or actively pursuing membership, as at the end of 2020.





### **Market Activity**

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

### Overview of activity

2020 was another year of continued increase in the market. Activity continues to increase with sustainable, strong growth in the quantity of GOs used by suppliers to prove the source of electricity. Transfers within the same country continue to rise as the use of GOs for disclosure purposes gains further support, and there has been a continued increase in international transfers and even more so in cancellations.

By the end of 2020, 90% of GOs issued for electricity produced during 2019 and 36% of GOs issued for electricity produced in 2020 were reported as having been cancelled. 8% of GOs issued for electricity produced in 2019 have now expired, up from 6% the previous year.

Again, this demonstrates that there is a relatively minimal amount of stock of GOs more than 12 months old, thanks to the requirement under the EU Renewable Energy Directives (2009/28/ EC and its successor 2018/2001/EC) for GOs to expire within 12 months of production, although interestingly this is growing – indicating that the market is becoming more 'long'. This is due, in part, to increased demand for new sources of supply being offset by the growth in member states looking to comply with the Directive in a cost-efficient way by joining the AIB and using the Hub, and by the increasing availability of GOs due to auctions.

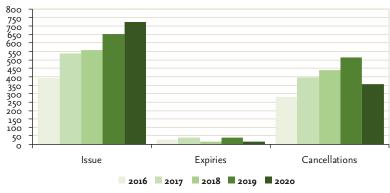
The number of issued GOs for electricity produced during 2020 is close to the final figure now, although there will inevitably be some late additions due to final settlements and resolution of errors and disputes.

Note that the high number of internal transfers may be due to some transfers between trading accounts held by the same account holder.

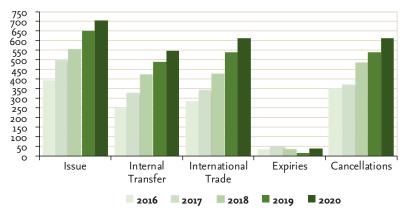
### These graphs show:

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

Figure 5a
Annual EECS transactions by production date (TWh)



Annual EECS transactions by transaction date (TWh)



### Source of GOs - technology / energy sources

Hydropower continues to be the major source of electricity for which GOs are issued but has fallen from 54% to 51.5% since 2019. The proportion of GOs issued for fossil has risen by 2.4%, while those issued for wind have risen by 1.9% while those issued for nuclear power have fallen by 0.7% and those issued for biomass have also fallen by 1.2%. Geothermal has risen 0.3% and solar has risen by 0.5%. Those where the energy source is unspecified have re-emerged, with 0.3% of the total.

Over the last year, the cancellation of GOs for hydropower has dropped by 4.8% on the previous year. Cancellation of GOs for wind has risen by 2% while that for biomass has fallen by 0.2%. Solar PV and geothermal remain broadly the same, while nuclear has risen 1.1%, and fossil has risen 3.6%. Cancellations for unspecified energy have fallen by 0.5%.

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

Figure 6 a + b
EECS certificates issued per technology (2019)

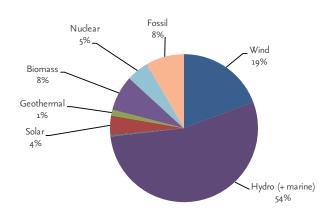
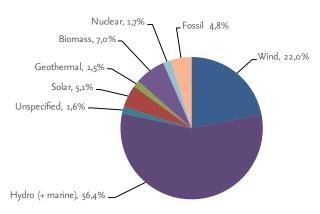


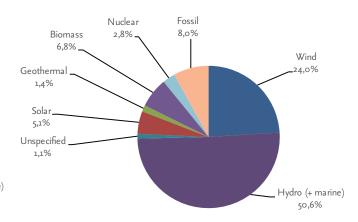
Figure 6 c+d
EECS certificates cancelled per technology (2019)



### EECS certificates issued per technology (2020)

# Fossil Wind 20,9% Nuclear 4,3% Biomass 6,8% Geothermal 1,3% Solar 4,5% Unspecified 0,3% Hydro (+ marine) 51,5%

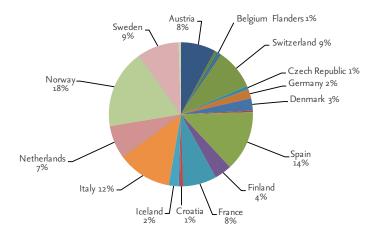
### EECS certificates cancelled per technology (2020)



### Source of GOs - country

Regarding national activity, the major producers of GOs are Norway followed by Spain, the Netherlands and Italy; supplying 52% of all GOs issued. They are followed by Sweden, France, Switzerland, and Austria, which issued a further 33%.

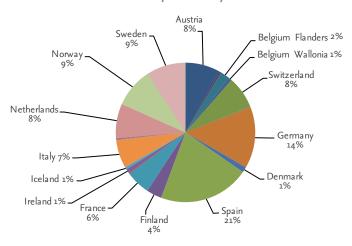
Figure 7 a + b
EECS certificates issued per country (2019)



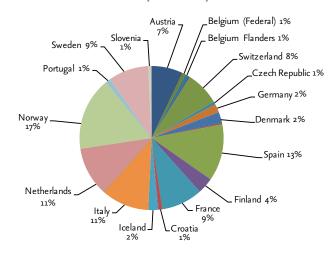
Spain, Germany, the Netherlands, and Norway followed by Sweden, Switzerland and Austria are now the major consumers of GOs, cancelling 77% of all GOs between them; while Italy, France, Finland, Belgium, Ireland, and Denmark collectively cancelled a further 19%.

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

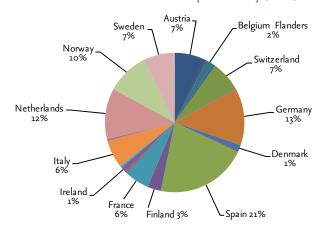
Figure 7 c + d
EECS certificates cancelled per country (2019)



### EECS certificates issued per country (2020)



### EECS certificates cancelled per country (2020)



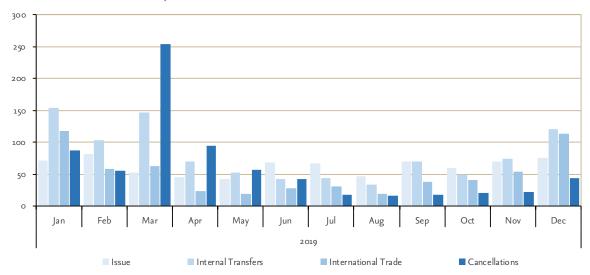
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### Annual activity

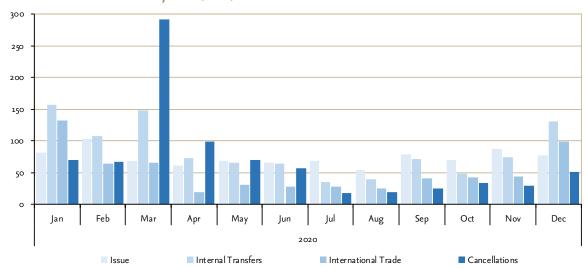
Activity has continued to increase, with most activities rising at the start of the year to a peak for cancellation in March and tailing off in the middle of the year.

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

Figure 8 EECS certificate activity 2019 (TWh)







### Cumulative activity - national

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

Norway is still the leading producer of GOs, providing the market with 149 TWh from Hydro in 2020, followed by Spain with 109 TWh. As the rest of the market keeps growing and developing, Norway's share of total certificates continues to decrease.

Again, hydropower predominates but wind, solar PV and biomass are growing. Fossil is also growing, as member states move to full disclosure as a way of gaining a more accurate picture of the source of all electricity.

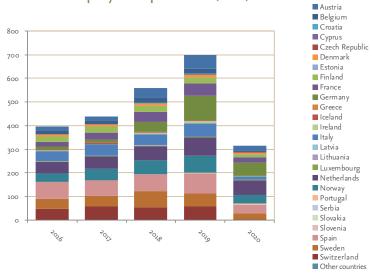
Cancellation continues to increase, reflecting strongly growing consumption in several countries during 2020. The following graphs show the annual quantity of GOs that have been cancelled for production during the last five years; along with the GOs that have been cancelled in each year for all production periods.

In reviewing these graphs, please note that – in line with the provisions of the RES Directive 2009/28/EC and its successor 2018/2001/ EC - GOs expire one year after the date of production.

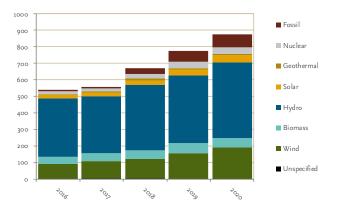
GOs are often cancelled close to expiration, which explains why some of the GOs for 2020 production have yet to be cancelled – these will be cancelled later in 2021.

Figure 10 a + b Issued per year of production (TWh) Austria ■ Belgiu m ■ Croatia Cyprus Czech Republic Denmark ■ Estonia Finland 800 ■ France ■ Germany 700 ■ Greece ■ Iceland 600 Ireland ■ Italy 500 ■ Latvia 400 ■ Lithuania ■ Luxembourg 300 ■ Netherland ■ Norway Portugal Serbia ■ Slovakia Slovenia Sp ain 2019 70/s ₹<sub>0</sub>2% ■ Sweden Switzerland

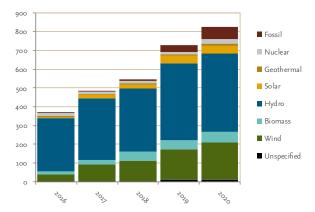




### Issued per energy source (TWh)



### Cancelled per energy source (TWh)



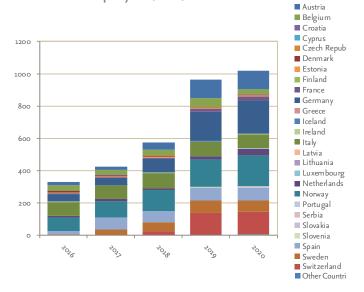
The continued rise in cancellations reflects the demand for 827 TWh of GOs for all energies (including 737 TWh for RES-E) and the market continues to shorten.

Households, organisations, and businesses all contribute to this impressive market growth, as do new forms of electricity consumers, such as the ongoing growth in motor vehicles and server farms, although the corporate sector is the main driver. Global reporting initiatives like CDP1 (Carbon Disclosure Project) and the Greenhouse Gas Protocol<sup>2</sup>, as well as the CSR Directive<sup>3</sup>, emphasise that renewable energy is an important part of a broad corporate sustainability agenda. The Guarantee of Origin is the primary European tool for tracking the purchase of renewable energy and this has been reinforced by the Renewable Energy Directive 2018/2001/EC, which comes into force in summer 2021

- 1 https://www.cdp.net/en-US/Pages/HomePage.aspx
- 2 http://www.ghgprotocol.org/
- 3 http://ec.europa.eu/finance/accounting/ non-financial\_reporting/index\_en.htm

Internal use of GOs continues to rise, with Austria, Germany, Italy, Norway and Spain, Sweden and Switzerland making a marked contribution, as shown:

Transferred per year (TWh)

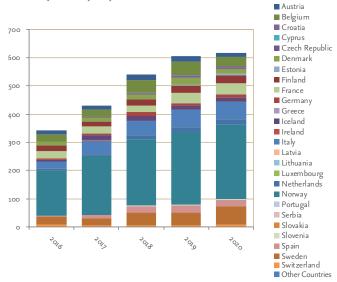


Externally, the exporting countries are predominantly Nordic plus Italy, France, and Belgium.

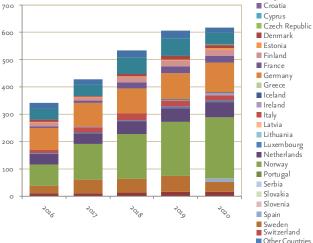
The contribution of individual importers continues to show the Nordic countries, Belgium, the Netherlands, and Germany as the major importers.

Below the annual quantity of GOs traded internationally each year are shown.

Figure 13 a + b Exported per year (TWh)



Imported per year (TWh)



Austria

■ Belgium

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

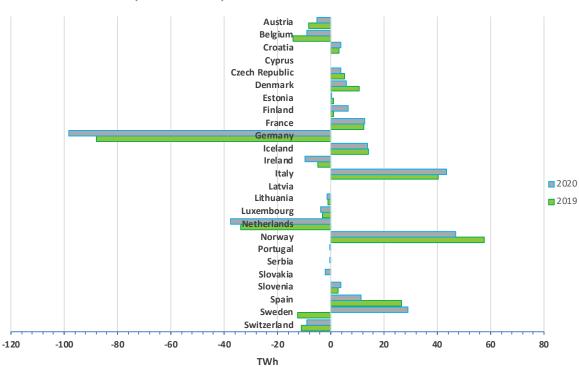


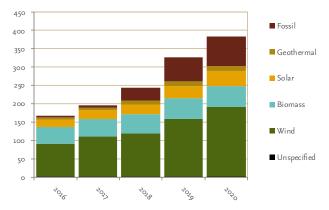
Figure 14 Nett Importers Nett Exporters

### Cumulative activity - technology

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

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

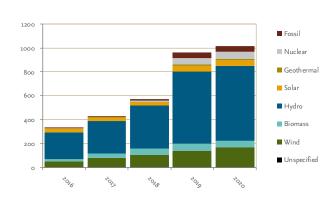
Figure 15
Issued per energy source (TWh)
(except nuclear and hydro)



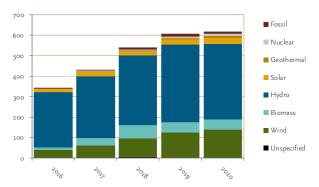
In addition, the following graphs show the volume of GOs by each energy source that have been transferred within a country and those that have been traded internationally.

Figure 16 a + b

Transferred per energy source (TWh)



### Exported per energy source (TWh)



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

Also shown is the composition of the expired GOs required by the RES Directive 2009/28/EC and its successor 2018/2001/EC, which are increasingly fossil and biomass.

Figure 17 a + b

Cancelled per energy source (TWh)

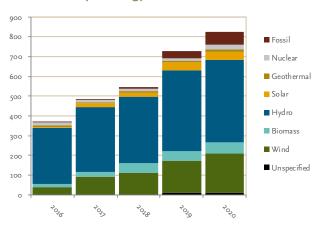
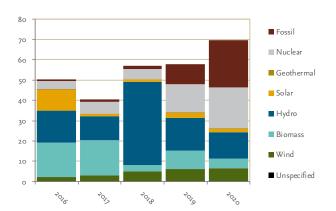
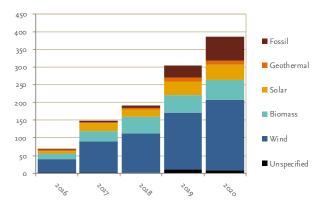


Figure 18 a + b

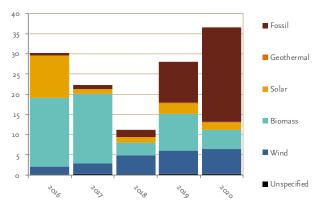
Expired per energy source (TWh)



Cancelled per energy source (TWh) (except hydro and nuclear)



Expired per energy source (TWh) (except hydro and nuclear)



Finally, it is interesting to consider those GOs which are cancelled for use outside of the European Union, the European Economic Area, and contracting parties to the European Community: where do they go?

As the following graphs show, the majority of EECS GOs are transferred via the AIB's hub, but some are still cancelled for use outside of the AIB area. Of these, the vast majority are for use in non-member countries, in particular the UK, where they can be used to obtain public support. Others are used outside of Europe, for places as far afield as China, Australia, and Brazil, while a few others have an unspecified destination.

On occasion, some are cancelled for use in member countries. This is normally forbidden for members of the AIB, but where there are technical issues which prevent transfer then, provided the two members formally agree, the GOs can be cancelled for use in the destination country.

Figure 19
Ex-domain cancellations by destination

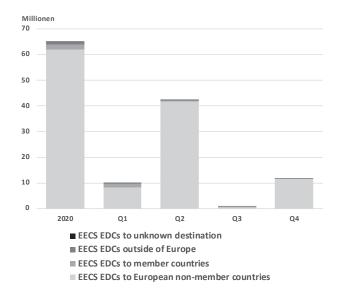
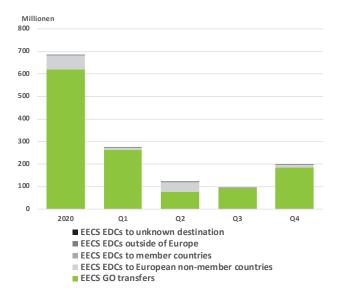


Figure 20 Ex-domain cancellations compared with transfers



# ACHIEVEMENTS

2020 was about implementing the changes adopted in 2019, preparing for the implementation of the REDII Directive (EU) 2018/2001 and laying down further, the fundamentals for sector integration and of course we continued and improved the routine work for which AIB is well known.

### **Members**

In 2020 we welcomed REN Portugal back as a member and connected their registry to the AIB Hub in August. Hub connection was also established for EMS Serbia in November. We welcomed Latvia as a member: the Issuing Body, AST started issuing EECS Certificates on December 1st and gained import status, which was turned into full membership in early 2021. Litgrid was accepted as a full member of the Electricity Scheme after having an import only status. The audits of VREG, HROTE, Brugel, Energinet, Litgrid and GSE were approved. AIB also conducted several audits online due to COVID-19 travel restrictions, including Elering and EEX.

### **Future members**

Hungary, Bulgaria and Montenegro have applied for membership. We are in talks with the Energy Community Secretariat and find that there is much interest in the Contracting Parties joining AIB, as Serbia did. In parallel, a Union wide third party agreement with the Contracting Parties of the Energy Community on mutual recognition of GOs with EU/EEA is expected. We have also been speaking with the Turkish and Moroccan ministries of energy about their future plans for a GO system connected to the European system.

### Sector integration

AIB has done major work to be prepared for gas GOs, by adding a Gas Scheme to the EECS framework and participating in the REGATRACE and CERTIFHY projects. In 2020, the AIB Sector Integration Programme was launched, including a clear vision which allows AIB to bring together our work on sector integration in a coordinated approach and distinguish ourselves further from other organisations. This programme is coordinated by Katrien Verwimp.

### **Revision of CEN-EN16325**

AIB has been actively participating in the ongoing revision of CEN standard EN16325 on Guarantees of Origin, by participating in plenary WG5 meetings and subgroups on: Generic GOs, Electricity, Hydrocarbon gas, Hydrogen, Heating and Cooling and the Steering group.

Furthermore, AIB has led the FaStGO project, providing expert advice to the European Commission DG ENER, based on the terms of Reference N° ENER/C1/2019-517: "Technical support for RES policy development and implementation. Establishing technical requirements and facilitating the standardisation process for Guarantees of Origin on the basis of Dir (EU) 2018/2001." This project delivered several work packages, amongst which was a text proposal for a revised EN16325 standard on GOs.

Directive (EU) 2018/2001 establishes the main design aspects of the GO system. To ensure a reliable set-up, which is essential for trusting imports, the CEN EN16325 standard harmonises principles and essential aspects of the building blocks of this GO system. In order to make the cross-border transfers efficient when volumes become big, and also to ensure reliable transfers, further details need to be harmonised. EECS® facilitates further harmonisation of the details in a voluntary standard that is adaptable to changing circumstances, in agreement between Issuing Bodies.

The EN16325 standard for GOs, developed in 2013, has been based on the EECS Rules that were developed in AIB. Its ongoing revision builds upon the updated EECS Rules, for the principles of certificate administration and scheme-specific rules for different energy carriers. While the EECS Rules will require an update after finalising the EN16215 revision, embedding the full size of EECS into a CEN standard is not advisable. Indeed, time has proven that continuous developments are needed and that details are subject to dynamic change. AIB has a democratic decision making structure for continuous quality management of services and for the various levels of documentation of EECS, as shown in the graph below. This way, AIB facilitates both efficient and reliable handling of GOs in line with their purpose as set by legislation.

### Statistical reporting

AIB changed the way of collecting statistics from our members, who now upload their certificate data to the AIB Hub. This allows AIB to publish monthly figures, a feature that is highly valued by all stakeholders. Statistics can be found on the AIB website -> Facts -> Market Activity. Further improvements are under development with the assistance of an internal Task Force Statistics.

### External representation.

AIB organised several online events, including the annual Open Markets Committee and three public workshops within the framework of the FaStGO project.

Furthermore, AIB was invited to speak at multiple online events regarding Guarantees of Origin, energy certification and the energy transition, including (a non-exhaustive overview):

- ENTSOG Workshop on Roadmap for New Gases,
   10 March 2020 (Katrien Verwimp)
- Eurogas masterclass on gas GOs, 30 April 2020 (Katrien Verwimp)
- EFET member meeting on gas GOs,
   5 May 2020 (Katrien Verwimp)
- RECS Market Meeting webinar on EAC developments, 14 May 2020 (Liesbeth Switten)
- Florence School of Regulation –
   CEER Regulatory Policy Workshop on the role of GOs in pursuing energy sector decarbonisation,
   29 May 2020 (Phil Moody)
- EUSEW webinar on Understanding renewable gases, hydrogen and power-to-gas: empowering consumers to make informed choices, 29 June 2020 (Phil Moody)
- Greenfact Conference 2020, Design elements for a functional GO system for all energy carriers, 16 September 2020 (Katrien Verwimp)
- World Hydrogen Leaders Conference,
   A standard for Guarantees of Origin for hydrogen,
   30 September 2020 (Katrien Verwimp)
- EMPACT workshop on the prevention of VAT fraud,
   13-14 October 2020 (Liesbeth Switten)
- Workshop on GOs organised by the German-Moroccan Energy Partnership,
   21 October 2020 (Liesbeth Switten)
- The certificate market in Turkey,
   27 October 2021 (Liesbeth Switten)
- Florence School of Regulation CEER debate on a fair governance for enhanced Guarantees of Origin, 6 November 2020, online (Katrien Verwimp)
- EU Citizen's Energy Forum, 20 November 2020 (Liesbeth Switten)
- Workshop organised by the Energy Community Secretariat, 24 November 2020 (Liesbeth Switten)
- World Business Council for Sustainable Development workshop on GOs and disclosure, 2 December 2020 (Katrien Verwimp)

# STRATEGIC PROJECTS

In 2020, AIB participated in several European projects. More information can also be found on the AIB website -> News and events.

### **FaStGO**

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

FaStGO took place under a one year service contract to DG ENER of the European Commission, during the preparation of the entry into force of the Renewable Energy Directive (EU) 2018/2001. The project team consisted of a cooperation between the Association of Issuing Bodies, RECS International, EEX, CertiQ, Grexel Systems, Gaia Consulting, Hinicio, ERGaR and the European Biogas Association.

The FaStGO project published its final report on December 11th, 2020. The project was led by AIB through Katrien Verwimp. Its reports facilitate upgrades to the European Guarantee of Origin system. In the first half of 2020 the project team mapped challenges in the management of Guarantee of Origin systems, identified areas for updates in standardisation and developed a text proposal for a revised EN16325 standard on Guarantees of Origin. In the second half of the year the team brought forward a vision for a future IT architecture, a data transfer protocol and system requirement specification, development opportunities for the GO statistics, essentials for the residual mix for all energy carriers and a proposal for increased VAT fraud prevention measures.

While developing this content, the project team was in constant dialogue with a wide scale of stakeholders. In the course of one year the project team organised: three public webinars, four public consultations, and had many discussions with a variety of stakeholders. All public reports and webinar recordings are published on the AIB website.

### Overview of Tasks

- 1 Mapping currently existing standardisation frameworks
- 2 Specification of the technical requirements for the extended coverage of GOs
- 3 IT system specifications and the requirements for the associated infrastructure for cross-border exchange of GO for all energy carriers
- 4 Systems for EU-based market supervision statistics
- 5 Methodologies for enhanced prevention of financial fraud
- 6 Stakeholder consultation processes

The project ran for one year, starting on the 16<sup>th</sup> of December 2019.

### CertifHy3

In October 2020, the CertifHy 3 project kicked off, in the framework of which AIB takes part in a Consortium with HINICIO, le Commissariat à l'énergie atomique et aux énergies alternatives (CEA), Grexel, LudwigBölkow-Systemtechnik (LBST) and TÜV SÜD. CertifHy 3 will implement a harmonized Hydrogen GO (H2 GO) scheme across Europe and beyond, build a market for H2 GO trade in close collaboration with market players, and design a Certification Scheme for compliance with RED II renewable fuels for transport. This project is supported by the FCH 2 JU.

To achieve that, previous CertifHy work will be used as pre-normative research to assist the AIB in the development of the Gas Chapter. The scheme will be further developed within AIB's newly established Gas Scheme Group (GSG), and will be compliant with RED II art. 19, the CEN-EN16325 Standard and the EECS Rules. The scheme will therefore facilitate harmonized implementation and future cross border transfers.

### **REGATRACE**

The REGATRACE project (REnewable GAs TRAde CEntre in Europe) aims to create an efficient system for issuing and trading Guarantees of Origin for biomethane/renewable gases. This will strongly contribute to the uptake of the European common biomethane market. The REGATRACE project receives funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under Grant Agreement no. 857796 and runs from June 2019 until November 2022. The project contains eight work packages. AIB is leading a work package on the integration of Guarantees of Origin for multiple energy carriers.

In this work package, the project published a report on "Guidelines for the verification of cross-sectoral concepts". It maps verification areas in relation with tracking of energy carrier conversion between electricity, hydrogen, biomethane, bio-LNG and biomethanol along the value chain. In March 2021 a report will be published on the comparison between the certification systems of AIB, ERGaR and CertifHy. Its results will be presented in a public webinar.

Furthermore, an exercise is ongoing to map the practical challenges related to energy carrier conversion. A closed workshop, on 11th March 2021 with Issuing Bodies and Registry Operators, aims to synchronise understanding of technical challenges and collect participant feedback.

Together these form inputs for upcoming reports on harmonised rules for energy carrier conversion (by October 2021) and a design study on a coordinated conversion process (by April 2022).

### **EMPACT**

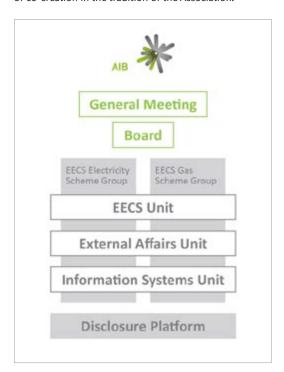
The Norwegian Tax Administration leads a Europol project on Missing Trader Intra Community Fraud with GOs, called the EMPACT project. Further participants are tax and law enforcement authorities from Austria, Belgium, Czech Republic, Germany, Spain, the Netherland, Portugal, and Sweden.

From AIB's side, both the secretariat and the members of the Task Force Fraud Prevention contribute. The Eurofisc WF1 coordinator is an observer to the project.

The EMPACT project aims at assessing the current efforts for prevention and detection of MTIC fraud with GOs and developing guidelines to improve these. In this respect two interactive workshops were organised in 2020. This work continues in 2021 with the aim of delivering the final report on 30 June 2021. AIB is pleased with this cooperation and looks forward to its results. A bonus is the steep learning curve resulting from the cooperation and the opportunity it offers to build relationships with law enforcement agencies and tax inspection offices from all over Europe.

# AIB - New organisation model

Following the finalisation of the change process, new Articles of Association were approved on February 4th, 2020. The new organisation model allows for independent decision making for Issuing Bodies specifically for gas and electricity, on topics related to each of these energy carriers where needed, but for harmonisations on generic energy certification it is as before. It also means a next step in the professionalisation of the Association. The change process has been a long process of co-creation in the tradition of the Association.



The residual powers within AIB have shifted from the General Meeting to the Board.

The General Meeting is the guardian of the Articles of Association and of Part I "Principles of EECS" of the EECS Rules. It focuses on the supervision and appointment of the Board and on the adoption of a strategy, an annual plan and a budget.

The Board monitors and supports the operational activities of Units, Groups and the Secretariat based on a delegation matrix, along with preparing a strategy (short and long-term), an annual work plan and an overall budget.

Working Groups are now called Units; Units have more decision making powers and deal with matters that concern the whole organisation.

Also, following the introduction of the sector-coupling governance model, "vertical" Scheme Groups were created for members of electricity on one hand and gas (to be set up) on the other hand. These groups decide on Scheme specific issues (electricity-only and gas-only).

During 2020 all Units and Scheme Groups became operational and drafted their terms of reference.

Task Forces can be established for dealing with temporary issues and projects.

Discussion forums can be set up for bringing together various contributors for discussions on a specific theme.

# AIB - OFFICIALS

The AIB Board meets monthly, usually alternating physical meetings with teleconferences. The Board is compiled of representatives of all Units and Scheme Groups and three strategic board members. The Board members are elected for a two-year period, as are the Board Chair, the Treasurer, the Vice-Board Chair and the Vice-Treasurer.

Following the new organisation model, a brand new Board was elected in November 2020.

Elke Mohrbach (UBA, Germany) represents the Electricity Scheme Group. Wouter Vanhoudt (Hinicio) joined the Board as representative of the Gas Scheme Group. Annie Desaulniers (SPW Walloon Region, Belgium) is the representative of the Information Systems Unit. For now, there is no representative from the External Affairs Unit.

The strategic Board members are:

- Ivar Munch Clausen (Statnett, Norway), Chair;
- Ilona Bruens (CertiQ, Netherlands), Treasurer;
- Lukas Groebke (Pronovo, Switzerland),
   Vice Treasurer and Vice Chair.

On that occasion, Angela Tschernutter (E-Control, Austria) who has chaired the Board since 2016, ended her mandate. Other outgoing Board members are Martin Standera (OTE, Czech Republic, Johan Malinen (Energimyndigheten, Sweden) and Max Laven (CertiQ, Netherlands). In February 2020, the function of the

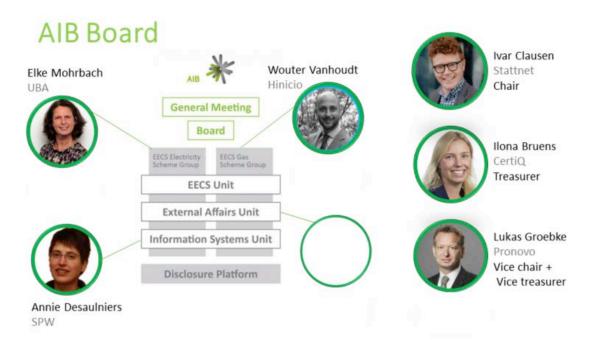
President ceased to exist, and AIB said goodbye to Dirk Van Evercooren (VREG, Belgium).

As per the new organisation model chairs were elected for all Units and Scheme Groups. The Information Systems Unit is chaired by Annie Desaulniers (SPW Walloon Region, Belgium). The External Affairs Unit was chaired by Max Laven (CertiQ, Netherlands) until July 2020, replaced by Milada Mehinovic (Pronovo, Switzerland) from 2021. The EECS Unit and Electricity Scheme Group are chaired by Maria Koulouvari (DAPEEP, Greece). Wouter Vanhoudt (Hinicio) chairs the Gas Scheme Group.

A Task Force Statistics was installed in the last quarter of 2020, which is chaired by Martin Standera (OTE, Czech Republic). Task Force Fraud Prevention is chaired by Morten Hilger (Energinet, Denmark).

Furthermore, 2020 meant the end of the Project Team Change (PT Change) that was chaired by Liesbeth Switten (AIB Secretariat, Belgium) and included Elke Mohrbach (UBA, Germany), Ivar Munch Clausen (Statnett, Norway), and Max Laven (CertiQ, The Netherlands).

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



# AIB - SECRETARIAT

The General Meeting, Board, Units and Scheme Groups are supported by the Secretariat.

AIB's Secretary General Phil Moody retired on July 1st and was replaced by Liesbeth Switten.

Other secretariat members include:

- Katrien Verwimp as new chair of the Professional Reviewers Group. Katrien also supports the EECS Unit and both Scheme Groups in regulatory matters and she represents AIB within CEN. She chaired the FaStGO project on behalf of AIB and represents AIB in the REGATRACE and CertifHy projects. Due to her roles and outstanding expertise, she was appointed as Coordinator of the Sector Integration Programme in November 2020.
- Andrea Effinger in the External Affairs Unit, the Chairs Unit meetings and the Open Market Committee.
- Marika Timlin (Grexel, Finland) in the Systems Unit, who is also the SuperUser for the AIB Hub.
- Svenja Vloeberghs supports the Secretariat in financial and administrative matters since September 2020.

Reviews of Domain Protocols, setting out how each member implements the EECS Rules, are conducted by members, assisted by the professional reviewers:

- Katrien Verwimp (Belgium)
- Conall Gallagher (Ireland) (from November 2020)
- Christos Toufexis (Cyprus)
- Diane Lescot (Observ'ER, France)
- Emma Kelly (Ireland)
- Markus Klimscheffskij (Gaia Consulting, Finland)
- Remco van Stein Callenfels (CertiQ, Netherlands) (who stepped down as reviewer in August 2020).

Each of the professional reviewers has, during their careers, worked with a member and has in-depth knowledge of EECS. The Professional Reviewers group meets quarterly and in September 2020, Katrien Verwimp took over as chair from Liesbeth Switten.

Given the growth of the association, the AIB is constantly looking for new professional reviewers to join the pool. More information can be found on the AIB website -> EECS -> Subsidiary Documents -> <u>SD10</u>.

# INFORMATION SYSTEMS UNIT



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

The Information Systems Unit (ISU), formerly Working Group Systems (WGS), advises the AIB Scheme and Units on the AIB certificate transfer system, recommends change requests, and follows up on decisions made in this framework. The ISU's main task is to supervise and further develop the AIB Hub which facilitates transfers of certificates between AIB members' registries and ensure the quality of the registries with regular auditing.

The AIB Hub facilitated activities for the year 2020 which increased from previous years. The total volume of certificates transferred in year 2020 was 634 072 378, which represents an increase of 1 508 267 from the year 2019 when 632 564 111 certificates were transferred.

Even though the total number of certificates transferred through the AIB Hub did not change significantly in percentage, there was another figure which had a big increase. The total number of successful transfers in the year 2020 was 40 281, which represents a 47,58% increase compared to previous years (2019: 27 295 and in 2018: 22 289 successful transfers). One reason behind this change is the increasing usage of automated methods of creating transfers and this is expected to increase even more in the future. Subsequently, the number of failed transfers also increased from the previous year, from 1 350 in 2019 to 1 656 in 2020, nevertheless the percentage of failed transfers in comparison to all transfers was reduced from 4,71% in year 2019 to 3,95 % in 2020.

Four new members were successfully connected to the AIB Hub in 2020 after obtaining Scheme Membership and successfully passing the technical audit. The new members are: Latvia (import only), Portugal, Serbia and Slovakia. In addition, the Norwegian member (Statnett) implemented a new registry in November. As of the end of the year 2020, there were 28 member registries connected to the AIB Hub.

Based on the decision of the AIB General Meeting, the usage of the statistics gathering tool has been mandatory since the 1st July 2020. The goal is to simplify statistics gathering and to broaden the scope of the collected statistics with a monthly collection including Ex-Domain cancellations.

The Unit did not organize 'in person' meetings given the pandemic, but there were fourteen teleconferences during 2020. The concept of a monthly meeting was introduced to follow up smoothly on topics. The Unit also contributed to the FastGO project and VAT Fraud prevention meetings with tax authorities.

Following the tender and awarding of the Hub Maintenance contract to Unicorn Systems in early 2020, a new role has been created to assist registry operators with daily operations: Technical Support User. The role is held by Drahoslav Stejskal. Unit members are happy to welcome him and get his support. A new service desk tool was brought in for the transfer issues follow up. The development method also evolved to Agile.

The AIB Hub SuperUser role remains as business specialist, auditor and second line. The SuperUser role is still held by the experienced Marika Timlin-de Vicente from Grexel Systems Ltd. Her work with the statistics improvement is invaluable to AIB.

Following the rules related to the AIB new structure, Annie Desaulniers was elected in the role of Chair and Board representative for the ISU. Her great ability to bring the ISU related topics efficiently to the Board and back to the ISU is appreciated. Martin Štandera is given great thanks for his former roles of a WGS Vice-Chair and AIB Board liaison and his further continuation in the ISU as a group member and as a Task Force Statistics Chair.

Short-term goals remain to increase the automation of tests and audit procedures. Bigger challenges on the horizon are to further develop the AIB Hub to accommodate new energy carriers (which stems from the RED II directive coming into force), improving statistics gathering and publishing and to improve fraud detection.

The ISU acknowledges and thanks all members who contributed to the work of the group in 2020 and welcome new members to join to the group!

# EXTERNAL AFFAIRS UNIT





External Affairs Unit (provision of information) Chaired by Max Laven of CertiQ, The Netherlands until December 2020, followed by Milada Mehinovic of Pronovo,

The External Affairs Unit (EAU) has a significant role in the organisation as a promotor of AIB's activities. It is responsible for all types of publications including the AIB website, press information, newsletters and annual reports. The EAU is also responsible for an up-to-date presence on social media such as LinkedIn and Twitter.

The EAU continues to support the recruitment of new EECS members (for all Scheme Groups). In this regard, the AIB website has been updated to reflect the new AIB structure. The AIB grew in 2020 to 29 members, now including Latvia and Portugal plus the new observers Bulgaria, Hungary and Montenegro. The small number of countries that have not yet become AIB members are countries from south eastern Europe and the EAU has been actively working to establish contact with and to provide support in setting the course to AIB Membership. With the addition of the EECS Gas Scheme in November 2019, the EAU is on track with its strategy to approach potential new Gas representatives.

Communication with stakeholders is essential for the promotion of the organisation. AIB newsletters are published every second month and sent directly via email. We also publish documents and reports for our target audience in order to update them on AIB developments, latest news on AIB members and GO-related news.

Social media has become an essential instrument of communication in order to maintain existing relations with external parties. We focused on LinkedIn and Twitter and we are proud to have approximately 1300 followers on LinkedIn, a number that is growing every day. The updates (on average 1-2 per week) generally receive 500-800 impressions with an average of around 20 likes.

As part of an active and dedicated field of organisations, companies and energy market analysts, we are grateful for increased collaboration through events in the energy community like the Open Markets' Committee and actively participate in conferences, webinars and round tables organised by the Florence School of Regulation, CEER, EU Citizens' Energy Forum, The Energy Community secretariat, GreenPowerGlobal, CEN, ENTSOG, World Business Council and the RECS Market meeting.

By the end of the year, the continued growth of the AIB in terms of member countries and the new structure including the gas scheme resulted in the External Affairs Unit gaining two active contributing members, Friederike Domke and Mieke Langie.

Max Laven (CertiQ, Issuing Body of the Netherlands) resigned as the chair of EAU; we would like to thank Max for his efforts in fulfilling the EAU's responsibilities. Milada Mehinovic (Pronovo, Issuing Body of Switzerland) was a candidate for the chair position and was elected in January 2021.

We thank the active members of the Unit:

- Dubravka Brkic (HROTE, Issuing Body of Croatia),
- Friederike Domke (UBA, Issuing Body of Germany)
- Mieke Langie (VREG, Issuing Body of Belgium Flanders)
- Milada Mehinovic (Pronovo, Issuing Body of Switzerland),
- $\,-\,$  AIB's assistant to the Secretariat, Andrea Effinger.

# EECS UNIT AND ELECTRICITY SCHEME GROUP



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

The year 2020 was exciting for both the AIB and for the EECS Unit, on many levels. During this year and as the new organizational structure of the Association was gradually being implemented, the foundations of a new operational framework for GOs were laid out. In addition to electricity, EECS GOs can now be issued for gaseous fuels and hydrogen in a way that ensures the unique use of each renewable attribute in the final consumption.

From early 2020, the role of the Unit as being formally responsible for the development of the EECS Rules, was further enhanced through the introduction of two separate groups, the Electricity and Gas Scheme Groups, i.e. one for each scheme. The issuance rules for each scheme are described in detail in the respective chapters of the EECS rules and both groups consist of AIB members who are responsible for the issuance of the respective certificates in their domain.

Under the context of implementing this new organizational structure, the EECS Unit succeeded in the timely adaptation of the terms of the EECS Rules through the new decision-making bodies of AIB, enabling the smooth operation of the Association throughout the year. At the same time, the EECS Unit elaborated on its operational rules and established the Terms of Reference of the Unit itself, as well as the scheme groups that the Unit consists of. As the Unit and the Scheme Groups can now contribute to the decision-making, it is essential that their Terms of Reference ensure an operation characterized by democratic procedures, built on respecting different views, thus following the principles closely intertwined with the Association.

Moreover, the Unit met on a regular basis throughout the year giving opportunity to its members to exchange thoughts and synthesize views on many crucial, outstanding issues and concerns that arose during the formulation of the revision proposal of the EN 16325 standard, under the framework of the FaStGO Project. At the same time, participating in the public consultation for the revision of RED II, the Unit provided the Board with proposals that were formulated as a result of thorough discussions and had the crucial support of the majority of its members.

The Electricity Scheme Group welcomed REN (Portugal) and AST (Latvia) as members in 2020. Hub connection was established for EMS (Serbia), member of the Electricity Scheme Group since late 2019. From 2020 the Electricity Scheme Group has had ownership of its budget. Elke Mohrbach, UBA (Germany) was unanimously elected as the Electricity Scheme representative on the Board.

# GAS SCHEME GROUP



Gas Scheme Group
(Development and implementation of the regulations surrounding the gas-specific part of the EECS Rules), chaired by Wouter Vanhoudt of Hinicio Europe since October 2020

After the AIB members integrated the Gas Scheme into the EECS Rules at the end of 2019, and through further elaboration of the new organizational structure of the AIB (that was adopted in early 2020), the Gas Scheme Group (GSG) participants laid the foundations for the operation of the GSG and other crucially important changes for the AIB throughout 2020. The group has been able to follow European and National developments with regards to Gas Guarantees or Origin and kickstart the finetuning of the EECS Rules for gaseous energy carriers.

The Gas Scheme Group has followed up and provided feedback on the work in the FaStGO and REGATRACE projects, thus providing input in the development of the CEN EN16325 standard, supporting the establishment of a sound and efficient gas certificate market in Europe. This includes rule setting and aligning practices for certificate handling in relation to energy conversion to facilitate sector coupling.

The AIB has joined the CertifHy 3 project which started in October 2020, with a view to adequately supporting hydrogen certificates in the EECS Rules.

The Gas Scheme Group has closely followed the implementation of the Renewable Energy Directive 2018/2001(EU) art. 19 with regards to gas and hydrogen in Member States throughout Europe. In many countries it is still in its infancy but already a lot of questions have been raised. The GSG has been sharing information among AIB members along the way, with the intent to facilitate the implementation of gas and hydrogen certification schemes in a cost-effective way.

Hinicio aims to set up an Issuing Body for a voluntary scheme for hydrogen certification. With this scope, it has joined the AIB as an observer and as an active contributor in the development of the Gas Scheme. In 2020, its European Director Wouter Vanhoudt was elected as Chair of the Gas Scheme Group, by the group's participants. The other participants in the Gas Scheme Group are members of the EECS Electricity Scheme Group, who are observing or preparing for Gas Scheme implementation.

In 2020, the group agreed on the internal rules of operation and decision making; acknowledging the observer and scheme-developer status of all GSG participants until there are three formal Gas Scheme Members approved with a dedicated EECS domain protocol for gaseous energy carriers.

Furthermore, the Gas Scheme Group started preparing for an update of the EECS Rules and plans to subsequently improve the EECS Domain Protocol Template to explicitly accommodate gas and hydrogen certification.

The Gas Scheme Group has proven to be a dynamic group, closely following and participating in the roll-out of gas and hydrogen Guarantees of Origin markets.

Grateful for the contributions of the GSG participants: Brugel (BE-B), DAPEEP (GR), E-Control (AT), EEX (FR), Elering (EE), Energimyndigheten (SE), ILR (LU), GSE (IT), Hinicio (BE), OKTE (SK), OTE (CZ), Pronovo (CH), SPW (BE-W), UBA (DE), VREG (BE-F)!

# FINANCIAL YEAR 2020

### 1 Summary

The complete set of bookkeeping has been processed according to the financial reporting framework applicable in Belgium.

The annual accounts, the report of the auditor and the budget versus expenditure consolidate the book of accounts for the period of January 1st to December 31st, 2020.

The position at KBC Bank relates to the amount of cash held in the bank at the end of the financial year.

### 2 Annual Account

The annual accounts contains the balance sheet after appropriation, the income statement, the appropriation account and the explanatory disclosure. The annual accounts provides a comparison between the current period (2020) and the preceding period (2019).

The total gain of 2020 available for appropriation is € 265.596,50.

### 3 Auditor

Based on their review, the financial auditor concludes that nothing has come to their attention that would cause them to believe that the financial statements are not presented fairly, in all material respects, on the financial position at December 31st, 2020, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

### 4 KBC Bank

On December 31st, 2020, the bank balance was € 363.396,87.

Part of this balance, being  $\leqslant$  41.121,47, is reserved for the Regatrace project and should therefore not be considered available cash. Please also note that the outstanding invoices at the end of the financial year ( $\leqslant$  467.761,97) and the outstanding purchases ( $\leqslant$  259.067,62) are not taken into account in this bank balance

At the end of 2019, the bank balance was € 441.204,75.

As a rule of thumb, AIB strives to hold € 500.000 as a bank reserve.

### 5 Budget versus Income

The income was more than anticipated, due to one new member and four members who increased in membership category.

Category	Budget #	Final #	Budget membership fee	Final membership fee
Large	0	1	€ 32.000,00	€ 69.000,00
Large Plus	13	14	€ 897.000,00	€ 897.000,00
Medium	4	4	€ 96.000,00	€ 96.000,00
Medium Plus	1	0	€ 43.000,00	€ 53.000,00
Small	1	2	€ 11.000,00	€ 11.000,00
Small Minus	5	5	€ 22.500,00	€ 31.000,00
Small Plus	1	0	€ 21.000,00	€ 32.000,00
	25	26	€ 1.122.500,00	€ 1.189.000,00

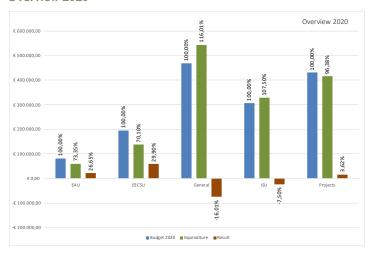
## 6 Budget versus Expenditure

The costs are specified per unit. Depreciations are not considered, therefore the budget versus expenditure deviates from the amounts stated in the annual account.

### 6.1 General overview

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
General	€ 469.000,00	€ 544.072,46	-€ 75.072,46
Bank charges	€ 500,00	€ 1.382,34	-€ 882,34
CO2 task force (2018)	€ 0,00	€ 0,00	€ 0,00
Corporate and legal advice	€ 100.000,00	€ 107.927,47	-€ 7.927,47
AIB Corporate Advise	€ 50.000,00	€ 70.922,50	-€ 20.922,50
Brussels Offices - Infrastructure	€ 15.000,00	€ 7.991,70	€ 7.008,30
Change process	€ 20.000,00	€ 11.790,00	€ 8.210,00
External legal advice	€ 15.000,00	€ 17.223,27	-€ 2.223,27
EUSEW event (2020)	€ 5.000,00	€ 0,00	€ 5.000,00
Expenses	€ 82.500,00	€ 65.459,60	€ 17.040,40
Audit and VAT advice	€ 5.000,00	€ 0,00	€ 5.000,00
Financial management / advice	€ 20.000,00	€ 25.723,55	-€ 5.723,55
Insurance (allowance)	€ 4.000,00	€ 30.377,44	-€ 26.377,44
Meeting accommodation	€ 15.000,00	€ 1.588,00	€ 13.412,00
Sundries	€ 1.500,00	€ 3.701,18	-€ 2.201,18
Teleconferencing	€ 2.000,00	€ 1.049,90	€ 950,10
Travel and accommodation	€ 35.000,00	€ 3.019,53	€ 31.980,47
General Secretariat	€ 253.500,00	€ 342.803,05	-€ 89.303,05
Assistant	€ 31.000,00	€ 19.975,00	€ 11.025,00
Secretary General	€ 222.500,00	€ 322.828,05	-€ 100.328,05
Residual Mix Calculation	€ 27.500,00	€ 26.500,00	€ 1.000,00
Total	€ 469.000,00	€ 544.072,46	-€ 75.072,46

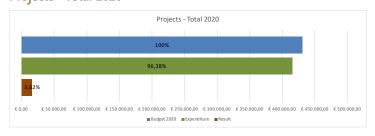
### Overview 2020



### Total 2020



### **Projects - Total 2020**



### 6.2 Overview per Unit

### 6.2.1 EAU

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
EAU	€ 82.000,00	€ 60.145,93	€ 21.854,07
Annual report	€ 7.000,00	€ 8.055,75	-€ 1.055,75
Annual report postage	€ 0,00	€ 0,00	€ 0,00
Annual report printing	€ 2.200,00	€ 2.548,00	-€ 348,00
Design of cover for AR	€ 1.200,00	€ 1.445,00	-€ 245,00
Layout of annual report	€ 3.000,00	€ 3.534,00	-€ 534,00
Proof-reader	€ 600,00	€ 528,75	€ 71,25
Greening up the AIB	€ 500,00	€ 0,00	€ 500,00
Carbon offsetting	€ 0,00	€ 0,00	€ 0,00
Website usage	€ 500,00	€ 0,00	€ 500,00
News letter	€ 2.500,00	€ 641,25	€ 1.858,75
Layout of newsletter	€ 2.000,00	€ 0,00	€ 2.000,00
Proofreading	€ 500,00	€ 641,25	-€ 141,25
Technical support	€ 34.000,00	€ 29.784,00	€ 4.216,00
Assistant	€ 11.000,00	€ 13.336,50	-€ 2.336,50
Coordination	€ 23.000,00	€ 16.447,50	€ 6.552,50
Trade mark	€ 10.000,00	€ 2.029,84	€ 7.970,16
Trade mark	€ 10.000,00	€ 2.029,84	€ 7.970,16
Website	€ 28.000,00	€ 19.635,09	€ 8.364,91
Hosting and maintenance	€ 13.000,00	€ 9.196,59	€ 3.803,41
Migration	€ 0,00	€ 0,00	€ 0,00
Preferred software enhancements	€ 0,00	€ 0,00	€ 0,00
Required software enhancements	€ 10.000,00	€ 9.328,50	€ 671,50
Website: training and checking (new SG)	€ 5.000,00	€ 1.110,00	€ 3.890,00
T . 1	6.02.000.00	6 (0 1 (5 0)	6 21 05 4 27
Total	€ 82.000,00	€ 60.145,93	€ 21.854,07

# 6.2.2 EECSU

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
EECSU	€ 196.000,00	€ 137.405,45	€ 58.594,55
CEN (EN 16325)	€ 70.000,00	€ 33.435,63	€ 36.564,37
DP reviews and audits electricity	€ 40.000,00	€71.614,51	-€ 31.614,51
DP reviews and audits gas	€ 0,00	€ 0,00	€ 0,00
Legal and regulatory support	€ 22.000,00	€ 18.600,00	€ 3.400,00
Technical support	€ 64.000,00	€ 13.755,31	€ 50.244,69
Total	€ 196.000,00	€ 137.405,45	€ 58.594,55

### 6.2.3 General

The negative result is mostly due to the change in Secretary-General, which was foreseen to occur earlier in 2020, as well as the fact that the budget foreseen was insufficient to cover the transfer.

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
General	€ 469.000,00	€ 544.072,46	-€ 75.072,46
Bank charges	€ 500,00	€ 1.382,34	-€ 882,34
CO2 task force (2018)	€ 0,00	€ 0,00	€ 0,00
Corporate and legal advice	€ 100.000,00	€ 107.927,47	-€ 7.927,47
AIB Corporate Advise	€ 50.000,00	€ 70.922,50	-€ 20.922,50
Brussels Offices - Infrastructure	€ 15.000,00	€ 7.991,70	€ 7.008,30
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External legal advice	€ 15.000,00	€ 17.223,27	-€ 2.223,27
EUSEW event (2020)	€ 5.000,00	€ 0,00	€ 5.000,00
Expenses	€ 82.500,00	€ 65.459,60	€ 17.040,40
Audit and VAT advice	€ 5.000,00	€ 0,00	€ 5.000,00
Financial management / advice	€ 20.000,00	€ 25.723,55	-€ 5.723,55
Insurance (allowance)	€ 4.000,00	€ 30.377,44	-€ 26.377,44
Meeting accommodation	€ 15.000,00	€ 1.588,00	€ 13.412,00
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Teleconferencing	€ 2.000,00	€ 1.049,90	€ 950,10
Travel and accommodation	€ 35.000,00	€ 3.019,53	€ 31.980,47
General Secretariat	€ 253.500,00	€ 342.803,05	-€ 89.303,05
Assistant	€ 31.000,00	€ 19.975,00	€ 11.025,00
Secretary General	€ 222.500,00	€ 322.828,05	-€ 100.328,05
Residual Mix Calculation	€ 27.500,00	€ 26.500,00	€ 1.000,00
Total	€ 469.000,00	€ 544.072,46	-€ 75.072,46

6.2.4 ISU

The costs for contract management, hosting and support and ISU Secretary/ Superuser were higher than anticipated, mostly due to connection of new members and new registries, and technical audits.

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
ISU	€ 306.000,00	€ 328.948,41	-€ 22.948,41
Contract management	€ 10.000,00	€ 22.520,32	-€ 12.520,32
Hosting and support	€ 70.000,00	€ 98.637,50	-€ 28.637,50
Hub re-tender	€ 35.000,00	€ 10.407,65	€ 24.592,35
System changes	€ 121.000,00	€ 85.644,00	€ 35.356,00
CR for small changes	€ 41.000,00	€ 44.040,00	-€ 3.040,00
Major libraries/technical update	€ 0,00	€ 16.500,00	-€ 16.500,00
Server certificate change	€ 0,00	€ 0,00	€ 0,00
Statistic module	€ 0,00	€ 15.104,00	-€ 15.104,00
Technical audit automation	€ 60.000,00	€ 10.000,00	€ 50.000,00
XML schema v72	€ 20.000,00	€ 0,00	€ 20.000,00
WGS Secretary / superuser	€ 70.000,00	€ 111.738,94	-€ 41.738,94
Total	€ 306.000,00	€ 328.948,41	-€ 22.948,41

# 6.2.5 Projects

	Budget 2020	Expenditure 31.12.2020	Result 31.12.2020
Projects	€ 431.000,00	€ 415.411,90	€ 15.588,11
CertifHy	€ 0,00	€ 4.930,00	-€ 4.930,00
FastGO	€ 398.000,00	€ 385.778,77	€ 12.221,23
Regatrace	€ 33.000,00	€ 24.703,13	€ 8.296,88
Total	€ 431.000,00	€ 415.411,90	€ 15.588,11

# REPORTS FROM MEMBERS/ FROM OBSERVERS

The following pages aim to provide an update on each AIB member, summarising the major events of 2020 and the expectations for 2021 for members and their countries.

AIB's member base is growing. In early 2021, the Hungarian Energy Agency (HEA) and the Montenegrin electricity Market Operator were approved as AIB members and are preparing for Scheme membership. Furthermore, also in 2021, the secretariat of the Energy Community have been admitted as observers. We are also in contact with SEDA in Bulgaria and the Polish registry operator, TGE.

This Annual Report does not include all of these countries but reflects on their different rates of progress along the route to membership. For example, Bosnia and Herzegovina is not mentioned at this time, although the application of OIEIEK was received early April 2021.

Two former observers became members of AIB in 2020: the Transmission System Operators, AST of Latvia and REN of Portugal.

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



# 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 gas and hydrogen Guarantees of Origin. Competent Authority for electricity and gas source disclosure in Austria.

### Member of the AIB

E-Control joined the AIB in the summer of 2001. Since 2008, Angela Tschernutter has been an active member of the AIB, she was vice chair of the Board and from December 2016 to December 2020 chaired the Board of AIB.

### **Activities within the AIB**

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

### News and perspectives regarding the national IB

E-Control's day-to-day business includes dealing with around 114,000 plants that generate electricity from renewable and fossil sources. All production leads to the issuance of GOs via the Austrian disclosure database through highly automated processes. Austria implemented a full disclosure system as of 2015. All suppliers implemented this full disclosure requirement, resulting in full transparency for consumers in Austria. Based on this supply-side obligation, it can be assumed that almost 100% of Austrian electricity production is registered in the Austrian database.

The processes and database are continuously being improved. In 2019, the expansion to a gas GO system was technically completed and it was then launched in 2020. A gas disclosure by-law was published in September 2019 and has been in force since 01.01.2020. As a revision to primary law is still due and will come into force in spring 2021, the disclosure of gas consumption is voluntary for suppliers and not obligatory as yet.

# News and perspectives regarding the national framework for electricity and gas

The amendments of the RES Directive and the Electricity Directive will result in adaptations of the national law which are foreseen for spring 2021 and will broaden the scope of electricity GOs and source disclosure to gas GOs and source disclosure. The Gaskennzeichnungsverordnung (Gas disclosure Ordinance) BGBl. II Nr. 275/2019 came into force on 01.01.2020. In 2020, suppliers could

voluntarily disclose the sources of gas with GOs to their customers, unless the total Austrian production and injection into the grid of biogas reached more than 30 m³ (then disclosure becomes obligatory for all suppliers). With the revision of the gas act in spring 2021, this gap shall be closed.

# Benefits to the company of AIB membership

AIB is the major player in the international market for trading Guarantees of Origin (GOs) and certificates issued to fossil and nuclear plants and soon also to gas plants. E-Control supports the AIB in the discussions on becoming a central platform for international trading of GOs, including gas GOs. As Austria has technically implemented a national gas GO and disclosure system, it works in parallel in the Gas Scheme Developments under AIB. In addition, we consider the Sector Integration Programme of the AIB of high value. Conversion of energy carriers will be relevant for all countries in the near future and solid preparation is essential. Furthermore, the strong involvement of AIB in CEN-EN 16325, especially of the project leader of FastGO, Katrien Verwimp, is of big value to us. The coordinated work on European level is highly appreciated.

AIB unites decision makers, Issuing Bodies and organisations responsible for energy source disclosure within the association. E-Control enjoyed being the chair of the board in AIB and working as part of an excellent network of professionals. With the full implementation of the new organisational structure and after four years of fulfilling the role as chairperson of the board, E-Control decided to step down to allow a new team of people to further develop the AIB. E-Control will stay active in the Electricity and Gas Scheme Groups and the EECS-Unit. Furthermore, it will put a lot of effort into the development of the Gas Scheme under AIB and the conversion and sector integration programme. The mutual learning factor and the enjoyment of working with highly qualified people from different nationalities greatly contributes to positive outcomes.

The re-organisation of the AIB offers a lot of new possibilities for members. New roles and groups are developed, a new decision making model will be in place to reflect the changing situation of having many different members on board and a new spirit will drive the organisation towards a highly professional and efficient organisation.

The AIB spirit unites a big group of specialists and professionals working with a high-quality standard for trading electricity, and in the future gas GOs, internationally on a well-functioning hub. E-Control tries to be a frontrunner and brings the advanced national experience of gas GOs and gas disclosure as well as sector coupling. Therefore, the Sector Integration Programme is especially seen as a core value for future developments in the GO field. Dr. Harald Proidl, Head of Renewables and Energy Efficiency Department)

"The AIB spirit unites a big group of specialists and professionals working with a high-quality standard for trading electricity ..."

# Scope of national participation in EECS

Number of registered scheme participants	57
Number of registered scheme participants	37

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
115 166	22 766

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
PV	111 042	1 537
Hydro	3 467	17 838
Wind	657	3 391

EECS RES production	National RES production
39 677	47 840



# Profile of the organisation

BRUGEL regulates and monitors the regional energy market and ensures that the distribution network is reliable and accessible for consumers and producers.

#### Role

BRUGEL is the Competent Authority and Issuing Body for Guarantees of Origin (GO) and green certificates. It manages the transactions, the certification, control, and follow-up of all installations established in the Brussels-Capital Region.

BRUGEL is also responsible for the disclosure scheme regarding renewable electricity and is required to provide disclosure information to the general public. Brussels end-consumers can use an online tool, <u>Greencheck</u>, to verify the green percentage declared by their electricity supplier for their specific consumption point. The application also shows if the electricity supplier has cancelled the required number of Guarantees of Origin to cover the client's consumption and allows this client to identify the source of green energy provided and its geographical origin.

### Member of the AIB

BRUGEL has been a member of the AIB since 2008.

### **Activities within the AIB**

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

### News and perspectives regarding the national IB

BRUGEL will likely be appointed as the Issuing Body for gas, heating and cooling Guarantees of Origin in 2021. Given this perspective, BRUGEL has joined the newly created Gas Scheme Group as an observer.

# News and perspectives regarding the national framework for electricity

There is an increasing interest in Guarantees of Origin both from consumers and producers. While Brussels has long had only one installation receiving GOs – the regional waste incinerator – BRUGEL has recently received several demands from producers, including from smaller installations. We are currently working with the regional grid operator on adapting our IT systems and we will certainly start issuing GOs for several installations in 2021.

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

BRUGEL continues to be closely involved in the REDII implementation process in the regional legal framework and will continue this work in 2021. As the Brussels government has been preparing the necessary legislation to implement gas GOs and heating and cooling GOs, BRUGEL has fulfilled its role as an advisory body and issued several notes regarding the ongoing legal modifications. This work and involvement will continue in 2021.

In October 2020, BRUGEL launched a study to analyse the potential to further develop renewable energy in the Brussels Region in the next ten years and to develop a modelling tool to anticipate the renewables market evolution. This study aims to adapt the support scheme accordingly so that the investments remain high and energy production from renewables continues to grow rapidly.

### Benefits to the company of AIB membership

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

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

Régis Lambert, Manager Renewable Energy

### Scope of national participation in EECS

Number of registered scheme participants		
--	--	--

Registered production devices and total capacity installed

38

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)
Incineration of municipal waste	1	51

EECS RES production	Brussels regional RES production
95,81	232,79



# Profile of the organisation

Electricity, gas and district heating regulator

#### Role

Competent Authority and Issuing Body for Guarantees of Origin, Competent Body for disclosure scheme and providing disclosure information.

### Member of the AIB

Member of the AIB since 2006.

### **Activities within the AIB**

- GM: Pieterjan Renier
- EAU: Mieke Langie
- GSG: Bram van der Heijde
- ESG and EECS Unit: Jana Vynckier
- ISU: Karolien Verhaegen

### News and perspectives regarding the national IB

VREG issued its first GOs for biomethane injected into the grid. Although these GOs are not formally classed as EECS-GOs, they adhere to the specifications in the Gas Chapter of the EECS Rules. We participate in the Gas Scheme Group to closely follow the evolution towards transferring these new GOs between AIB members.

# News and perspectives regarding the national framework for electricity

No substantial changes in 2020.

"AIB needs to do the utmost to ensure that consumers can trust the information carried by Guarantees of Origin."

### Benefits to the company of AIB membership

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

### Additional information

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

# Scope of national participation in EECS

Number of registered scheme participants	120 *
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Registered production devices and total capacity installed

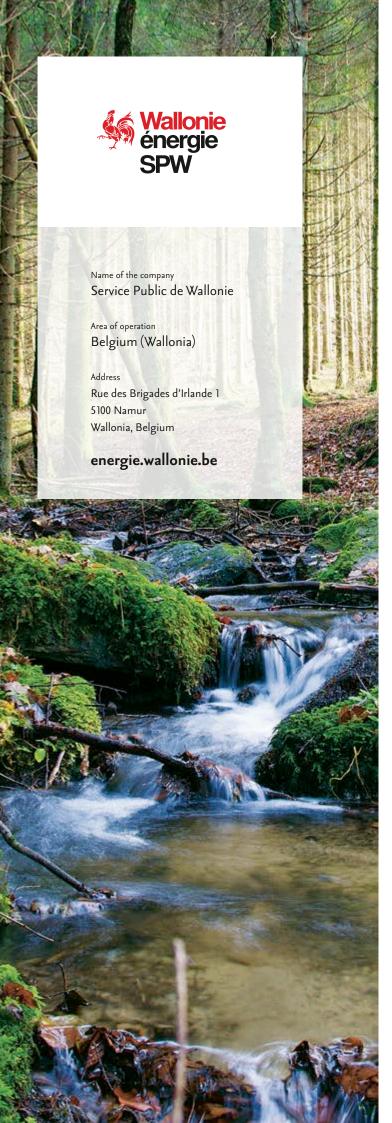
Number of production devices	Total capacity installed (MW)
528 500	5 737

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biogas	157	170
Biomass	42	571
Hydropower	14	6
Wind	318	1 312
Solar PV devices > 10kW	8 074	1 420
Solar PV devices < 10 kW (non-EECS)	519 895	2 258

EECS RES production	National RES production
6.489	*

<sup>\*</sup> Data not yet available for 2020



# Profile of the organisation

Walloon Administration, Department of Energy

#### Role

Competent Authority for issuing of renewables (EECS GO), CHP Electricity and Gas Guarantees of Origin, operator of the Green Certificate database in Wallonia.

### Member of the AIB

Member of the AIB since 2019.

### **Activities within the AIB**

- Representatives at the General Meeting:
   Muriel Hoogstoel and Annie Desaulniers
- Information System Unit Chairperson and Board representative: Annie Desaulniers

### News and perspectives regarding the national IB

The first biomethane injection into the Gas network in Wallonia started in October 2020, leading to the first issuance of biomethane GOs.

The biomethane GOs may be purchased by electricity producers eligible for the Walloon Green Certificate scheme. The lower carbon dioxide emission values of the cancelled biomethane GOs increase the number of Green Certificates being issued for a cogeneration plant.

SPW has a user-oriented approach and works to improve the service; an upgrade of the registry system has started and is associated with the ergonomic redesign of the website, the go live is planned for autumn 2021.

"The first biomethane injection into the Gas network in Wallonia started in October 2020, leading to the first issuance of biomethane GOs."

# News and perspectives regarding the national framework for electricity

The new support scheme called 'Prolongation' was prepared with the aim of granting producers the aid required to keep their facilities in operation. The legislative amendments are under way and the final text will be approved by the end of 2021.

### Benefits to the company of AIB membership

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

### Scope of national participation in EECS

Number of registered scheme participants	1 589
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
2 365	1 747

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass (Total)	64	304
among which bio-HEC	50	177
Wind	118	978
Hydro	68	110
Solar	2 052	305
HEC Natural Gas	63	50

EECS RES production	Regional RES production
4 127	5 148

# -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 has been the Regulator of the Belgian electricity and gas markets since 1999. It is an independent body answerable to the federal parliament.

#### Role

CREG is entrusted with the task of issuing Guarantees of Origin for renewable electricity produced in the Belgian sea area and managing the corresponding registry. The CREG registry has been fully operational since 2015 and is comprised of all offshore wind producers in Belgium. 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

During 2020, CREG was represented at the AIB General Meetings by Philip Godderis.

# News and perspectives regarding the national IB

With the three wind parks that came on-line in 2020, 706 MW was added to the total offshore capacity, which now amounts to 2,266 MW. With a view to further expansion; new concessions, tendering procedures and a Modular Offshore Grid II are being prepared.

"For CREG, the primary benefit of AIB membership is to facilitate the export of Belgian offshore wind GOs across Europe."

# News and perspectives regarding the national framework for electricity

The regulatory framework regarding Guarantees of Origin is stable. Circa 285 km² of new zones for renewable production offshore will be tendered through a procedure for which the legal basis was established in the Electricity Act.

# 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. AIB's harmonized standard ensures a high level of reliability. The Association is also an ideal platform for continuously sharing experience and exchanging best practices.

# Scope of national participation in EECS

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

Number of production devices	Total capacity installed (MW)
7	2 266

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Offshore Wind	7	2 266

EECS RES production	Regional RES production
6 201 623	6 201 623



### 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 and has been adjusted several times in the meantime.

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

However, even though the legislation covers HEC, HROTE still does not issue those certificates (EECS-HEC).

### Member of the AIB

HROTE became an AIB member with conditional status in May 2014 and unconditional status membership was approved in November 2014

### **Activities within the AIB**

- Dubravka Brkić contributes in the EAU as a member.
- Ida Žužić contributes in the EECS Unit as a member.

### News and perspectives regarding the national IB

The Rules on the use of the Guarantees of Origin Registry lays down the rules of running the Registry of electricity Guarantees of Origin for the purpose of certification of electricity produced by plants in the Domain, in accordance with the Electricity Market Act. The Rules are under the supervision of HROTE.

The Registry is an electronic registry based on database technology with the possibility of international GOs transfer: <a href="http://www.hrote.hr/registry">http://www.hrote.hr/registry</a>

During 2020, HROTE issued Guarantees of Origin for electricity for some eligible producers in the incentive system, sold through the EKO balance group to the electricity market, which were then sold on the market through auctions, i.e. through the CROPEX IT auction platform. Following the conclusion of the auction and successful sale of the Guarantees of Origin, the collected funds were transferred to the incentive system fund, while Guarantees of Origin that were sold at the auctions were transferred to the accounts of the auction participants who succeeded in buying them.

For 2020, the percentage or portion of electricity from eligible producers in the incentive scheme that was sold was 60%, or 1.907.255 Guarantees of Origin.

# News and perspectives regarding the national framework for electricity

According to the Law on Renewable Energy Sources and High Efficiency Cogeneration and a Regulation on the Promotion of Electricity Production from Renewable Energy Sources and High Efficiency Cogeneration the new models of incentivizing: (i) the model to grant market premium and (ii) the model to pay the guaranteed purchase price (likewise the former feed-in model), have been established. Both models include the obligatory tender procedures with opting for the price of the investor's bid at the tender.

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

The Regulation on Quotas for all technologies are set up for groups of plants whose production will be stimulated and the conditions for tendering will be announced by 2023.

The first call was announced in Q4 2020.

# Benefits to the company of AIB membership

Even though 2020 was the first year without physical meetings, that mean a lot for cooperation and catching up with colleagues from other domains, HROTE still benefited from teleconferences. Some projects will be of great help to HROTE in order to implement some provisions from RED II, likewise the CEN standard for GO.

### Additional information

At the end of 2020 there were five producers with 20 power plants, eight electricity suppliers and three traders registered in Croatian domain. In 2020 it issued 4.85 TWh.

"Some projects will be of great help to HROTE ..."

# Scope of national participation in EECS

Number of registered scheme participants	16
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
20	2 054,94

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydropower	17	2 034,79
Wind	2	17,15
Termal	1	3

EECS RES production	National RES production
6 676,75	9 714,93



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

Area of operation Cyprus

Address Evangelistrias 68 2057 Strovolos Cyprus

www.tsoc.org.cy



### REPORT FROM MEMBER

# Profile of the organisation

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

#### Role

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

### Member of the AIB

TSOC has been a member of AIB since September 2014.

### Activities within the AIB

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

# 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.

Connection of the Cyprus EECS GO Registry to the AIB Hub was established on the  $12^{\rm th}$  of June 2019.

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

# News and perspectives regarding the national framework for electricity

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

### Benefits 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, also aiming 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. GOs 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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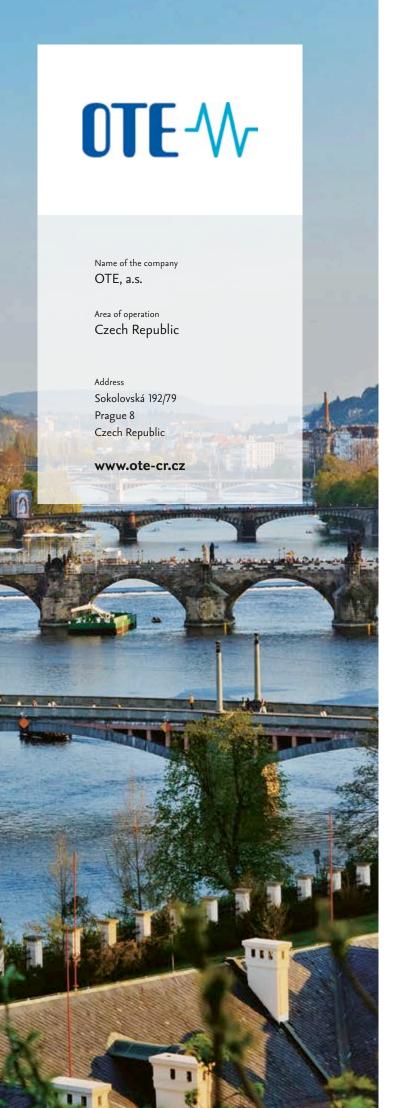
Registered production devices and total capacity installed

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

EECS RES production	National RES production
228,61	561,00



### Profile of the organisation

OTE, a.s., is a joint stock company established in 2001 and 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. 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 intraday and block electricity markets later on. OTE has been the Market Operator of the intraday gas market since 2010. 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 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 is also the Czech national administrator of the Union Registry which serves to guarantee accurate accounting for all allowances issued under the EU emissions trading system (EU ETS).

#### Role

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

### Member of the AIB

Member of the AIB since 2013.

### **Activities within the AIB**

OTE was represented at the AIB General Meetings by Martin Štandera who is also the ISU vice-chair.

### News and perspectives regarding the national IB

In the area of supported energy sources and Guarantees of Origin, we focused on further development of processes increasing the quality of services provided to producers.

For the latest news we recommend following our website http://www.ote-cr.cz/en/, where you can find other useful information and freely available data for download.

"We highly appreciate the lively cooperation between members of the AIB with the aim to secure the credibility of the GOs system and transparency of the whole association."

# News and perspectives regarding the national framework for electricity

2020 was the first year in which the intraday electricity market organized by OTE was interconnected with the pan-European intraday electricity market. This interconnection brought a number of positives for the Czech and European markets – a fold increase in the amount of electricity traded, the facilitation of cross-border trading and the prevention of non-standard conditions in the electricity system.

### Benefits to the company of AIB membership

"We highly appreciate the lively cooperation between members of the AIB with the aim to secure the credibility of the GOs system and transparency of the whole association. In addition to that, the possibility to exchange experiences with other members of the AIB helps us fulfil our role as an electricity and gas Market Operator in the Czech Republic and to further contribute to the consumers' demand for a transparent electricity market in the ongoing transformation of the energy sector", states Aleš Tomec, Chairman of the OTE's Board.

# Scope of national participation in EECS

Number of registered scheme participants 1115
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
2 260	4 080

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	176	324
Solar	539	946
Thermal	736	1 298
Hydro-electric head installations	809	1 512

EECS RES production	National RES production
6 042	8 580



# Profile of the organisation

TSC

#### Role

Energinet is the Danish Issuing Body, issuing under EECS: Guarantees of Origin for renewable source electricity (since 2004), and Guarantees of Origin for cogeneration (since 2010).

### Member of the AIB

Energinet has been member of the AIB since 2002.

### **Activities within the AIB**

Energinet is currently represented at the AIB GMs by Carl Morten Baggesen Hilger, taking part in the EECS Unit and chairing the TFFP (Task Force Fraud Prevention).

# News and perspectives regarding the national IB

Electricity settlement in Denmark is now 100% hourly on all meters since January 1st. 2021, mobilising flexible consumption based on the hourly market price signals, empowering the final customer to react on price.

Yet, electricity suppliers can still market their electricity products towards final customers as green using GOs even though the GOs are disclosed one year later, and on a MWh aggregated level, without correlation to the customer facing hourly energy product, and hourly market price settlement.

"Transparency in the certificate markets needs improvement for a trusted information supply-chain, enlightening the final customer's free choice of energy."

### 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, now monitored exchange of certificates ensures that Energinet meets the requirements of the EU directives in a secure and efficient way. "Transparency in the certificate markets needs improvement for a trusted information supply-chain, enlightening the final customer's free choice of energy", says Carl Morten Baggesen Hilger, Energinet.

# Scope of national participation in EECS

Number of registered scheme participants

Registered production devices and total capacity installed

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

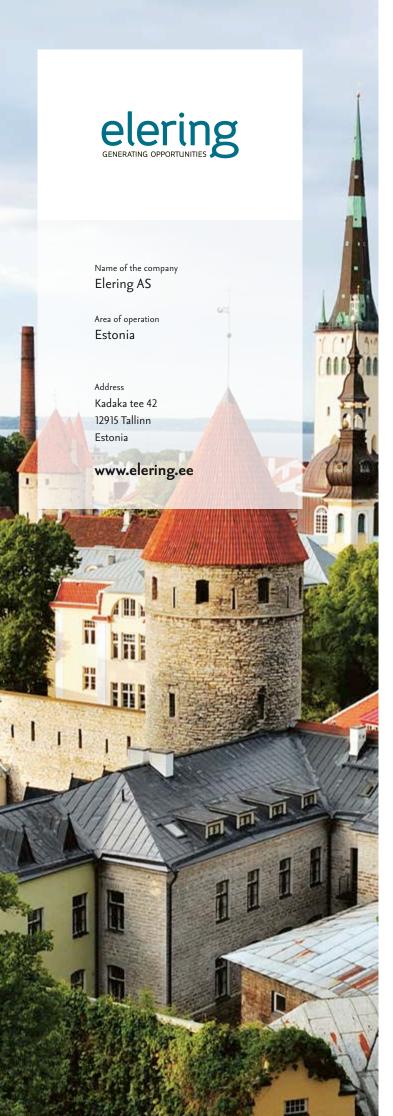
# Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	75	2 224
Biogas	202	144
Wind	7 005	8 279
Hydro	40	7
Solar	111 667	1 357

# Certified EECS production as compared to national RES production (GWh) $\label{eq:compared} % \begin{subarray}{ll} \end{subarray} % \begin{subar$

EECS RES production	National RES production
21 843	23 226

The 2020 statistical data from Denmark has not passed external revision before publication of this brochure.



# Profile of the organisation

Electricity and Gas Transmission System Operator

#### Role

Elering is an independent electricity and gas Transmission System Operator with the primary task of connecting the producers, various network operators and consumers who form the system as a unified whole, ensuring a high-quality energy supply to Estonian consumers.

### Member of the AIB

Elering AS started as an observer of the AIB in 2011 and became a member in September 2014.

### Activities within the AIB

River Tomera was a member of the WGIA from autumn 2015, with Liis Kilk being the alternate member. Since 2020 River Tomera is the formal member representative of the General Meeting, Liis Kilk is the representative of the Electricity Scheme Group and EECS unit and Kadri-Liis Rehtla is the representative of the Gas Scheme Group.

### News and perspectives regarding the national IB

Elering AS has begun to further improve the registry of Guarantees of Origin working towards full disclosure. We are currently working on developing and integrating a consumer portal for final customers to provide them with a better overview of the Guarantees of Origin cancelled specifically for them. The registry for biomethane Guarantees of Origin became fully operational and since 2020 the certificates for transport statistics are also handled in the same registry.

# News and perspectives regarding the national framework for electricity

The new support scheme that started in 2020 has tied the support scheme to the national objective of generating electricity from renewable sources. The necessary amount of renewable electricity to obtain that target is purchased via public reverse auctions arranged by the government and conducted by Elering. National legislation will undergo some changes due to the REDII implementation.

"Being a full member of the AIB provides us with a way to better access the brilliant know-how and information that is within the other registry operators and Issuing Bodies, to share experiences and to enhance the system to match the demand of the market even better."

### Benefits to the company of AIB membership

"Elering AS has been appointed to administer the system for Guarantees of Origin (for both electricity, biomethane production and soon for heating and cooling and hydrogen). Being a full member of the AIB provides us with a way to better access the brilliant know-how and information that is within the other registry operators and Issuing Bodies, to share experiences and to enhance the system to match the demand of the market even better.

The ongoing development and promotion of the harmonized and transparent EECS rules are the foundation to ensure a reliable GO market and for climate protection in Europe. In addition, we are looking for solutions of how better to use GOs for sector integration and create a link between Guarantees of Origin, national RES targets and CO2 emissions."

River Tomera (Head of Renewable Energy Unit)

# Scope of national participation in EECS

Number of registered scheme participants	143
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
441	1 890,6

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	27	315
Hydro	19	8,2
Biogas	5	4,6
Biomass	23	1 490,3
Solar	361	53,7
Natural gas	6	18,8

EECS RES production	National RES production
1 969	2 230

# FINGRID Finextra

Name of the company Finextra Oy

Area of operation Finland

Address Läkkisepäntie 21 Helsinki

www.fingrid.fi



REPORT FROM MEMBER

# Profile of the organisation

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

#### Role

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

### Member of the AIB

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

### **Activities within the AIB**

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

### News and perspectives regarding the national IB

We develop our registry cost-effectively in order to meet customers' and our own expectations and requirements. Currently we are planning an API from our registry to customers.

# "We are building a platform for a clean power system."

# News and perspectives regarding the national framework for electricity

National implementation of RED II is ongoing and legislation based on REDII should be valid from June  $30^{th}$ , 2021 onwards. Fingrid / Finextra will continue to be the Issuing Body for GOs of electricity.

# Benefits to the company of AIB membership

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

# Scope of national participation in EECS

Number of registered scheme participants	47
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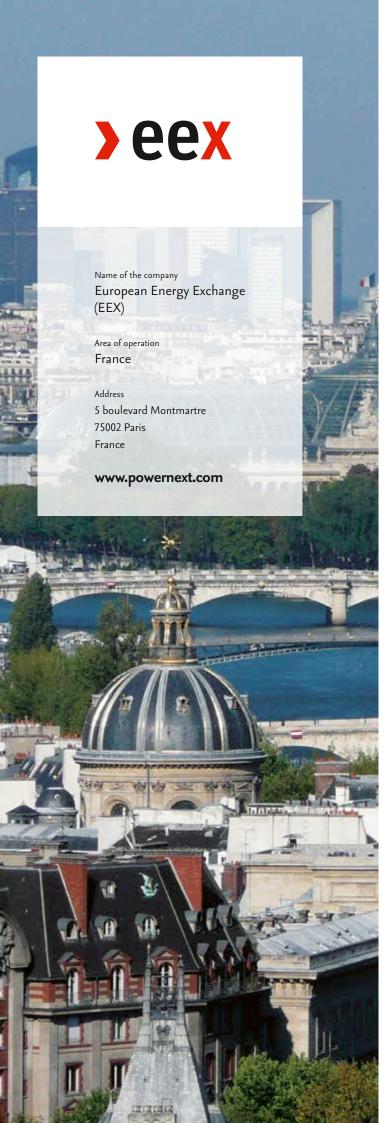
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
722	10 934

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	160	3 226
Wind	476	2 754
Solar	8	4
Thermal	78	4 950

EECS RES production	National RES production
32 160	33 730



### Profile of the organisation

The European Energy Exchange is the leading energy exchange in Europe which develops, operates and connects secure, liquid and transparent markets for energy and related products. As part of the EEX Group, EEX offers contracts on Power, Natural Gas and Emissions as well as Freight and Agricultural Products. EEX also provides registry services for White Certificates, Capacity Certificates and GOs on behalf of the French State, as well as auctions for GOs.

#### Role

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

### Member of the AIB

Member of the AIB since 2013.

### **Activities within the AIB**

The follow-up of AIB activities and representation of EEX at the GM is ensured by Mathieu Morvan, who is Head of Registry Services or Mohammed Mohammedi. Moreover, Mathieu and Mohammed are members of the EECS Unit, ESG, and are observers in the GSG. Mohammed is the SPOC for Poland and part of the EAU.

# News and perspectives regarding the national framework for electricity

The French legislation on GOs was updated in 2017 and 2018; from January 2021, the cancellation rules for GOs will change in France – the power consumption month and the GO production month will need to coincide.

In addition, by transposing the REDII, it will be possible for market participants to issue, transfer and cancel GOs for non-renewable production devices.

"... EEX is pleased to contribute to constantly improving the GO system, and therefore reinforcing consumers' confidence in renewable energy."

# Benefits to the company of AIB membership

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

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

# Scope of national participation in EECS

Number of registered scheme participants

94

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
11 463	46 393,82

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	1 881	25 731,80
Wind	1 508	17 616,10
Solar	6 068	10 386,90
Thermal	2 006	2 171,50

EECS RES production	National RES production
82 082,30	120 700



HKNR Herkunftsmachweisregister

Name of the company
German Environment Agency
(UBA)

Area of operation Germany

Address P.O. Box 1406 06813 Dessau-Roßlau

www.hknr.de www.umweltbundesamt.de



### REPORT FROM MEMBER

### Profile of the organisation

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

#### Role

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

The Bundesnetzagentur (BNetzA) is the German competent authority for disclosure. UBA has very limited inspection tasks related to RES electricity GOs in this context.

### Member of the AIB

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

### **Activities within the AIB**

- Friederike Domke Member of EAU
- Christian Herforth Member of EECSU and ESG, Member of CEN/CLC/JTC14/WG5/PT Electricity
- Katja Merkel Member of ISU
- Elke Mohrbach Member of AIB Board since 11/2020, Member of ESG

### News and perspectives regarding the national IB

The UBA maintains two registries, the "Register of Guarantees of Origin" (HKNR) and the "Register of Guarantees of Regional Origin" (RNR). In 2020 we saw a significant increase of participants in the HKNR since the support, according to the Renewable Energy Sources Act, for plants installed in 2000 or earlier is being phased out after 20 years. This trend is also reflected in the growing acceptance of guarantees of regional origin.

UBA is still involved in the revision of the CEN-Standard 16325, has assumed responsibility in the AIB Board and is active in every AIB Unit. The reverse charge procedure for GOs was introduced in Germany to prevent VAT fraud.

"We are very interested in a lively "Disclosure Platform" as it may help to get disclosure bodies more involved. They are an important part of a reliable GO-System in Europe."

# News and perspectives regarding the national framework for electricity

251 014 GWh of electricity was produced from renewables in Germany in 2020, which represents 45% of the total German electricity consumption. UBA provided input regarding the implementation of Art. 19 of Directive EU 2018/2001 to the new Renewable Energy Sources Act that came into force on 01.01.2021. In addition to other changes, the new legislation also contains regulations for simplifying the process of registering plants.

### Benefits to the company of AIB membership

Constant growth of knowledge through the exchange and collaboration among members today is useful with regard to the implementation of REDII. Many issues on GOs regarding conversion and sector integration are addressed within AIB and we appreciate this knowledge pool for our work on GOs.

### Additional information

"UBA is excited about the further development of AIB. The association still has a lot of tasks to get a new scheme for Gas and Hydrogen up and running and to manage the increase of GO volumes. We are very interested in a lively "Disclosure Platform" as it may help to get disclosure bodies more involved. They are an important part of a reliable GO-System in Europe." Elke Mohrbach

# Scope of national participation in EECS

Number of registered scheme participants	2 439

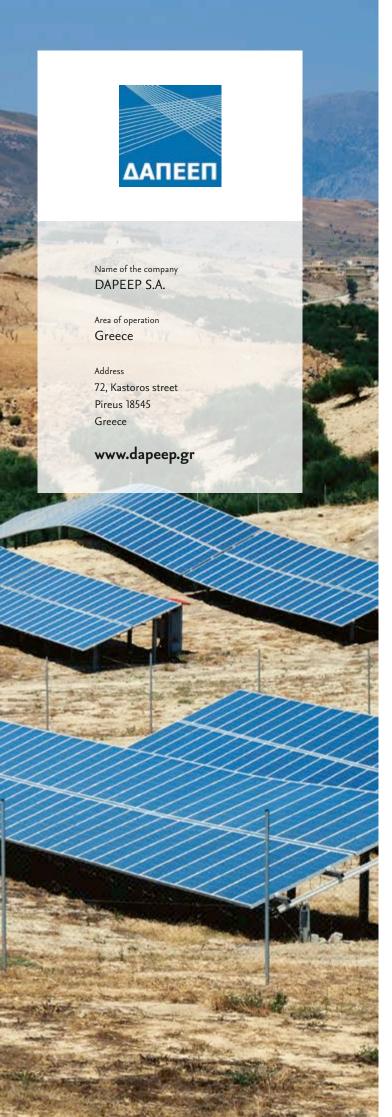
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
660	14 083,727

# Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind - onshore	221	581,650
Solar	92	215,764
Hydro	237	4 691,858
Biogas - other	2	0,780
Biogas - landfill	28	27,373
Biogas - sewage	2	0,462
Solid renewable fuels	39	1 114,484
unspecified re- newable energy	39	7 451,356

EECS RES production	National RES production
17 049,661	251 014



### Profile of the organisation

With a main focus on satisfying modern challenges in the field of Renewable Energy Sources, DAPEEP's business scope encompasses:

- The management of the RES and the HE-CHP of the National Interconnected System, conclusion of contracts with producers, clearing and settlement of the energy produced.
- Representation of RES and CHP Producers to the Electricity Markets (DAM/IDM/Balancing) as an Aggregator.
- Financial and accounting management, acting as the exclusive Administrator of the Special RES and CHP Account that facilitates the monthly compensation of RES and CHP producers in the Greek territory.
- Competent Body appointed by EU for the management of State Aid support schemes related to electricity.
- Issuing Body for the Guarantees of Origin (GO) of electricity and Competent Body for Disclosure.
- Auctioneer of the CO2 Emissions Allowances, representing the Greek State in the auctions carried out by EEX and managing the revenues from the respective auctions.
- Registered Reporting Mechanism (RRM) approved by ACER, providing REMIT Reporting services.

### Role

DAPEEP is assigned the role of Issuing Body for electricity GOs by virtue of Law 3468/2006. The company acts also as the Administrator of the GO Integrated Information System where the Registries of all three Issuing Bodies, each appointed to a clearly separated Domain in the Greek territory, are implemented. By virtue of Law 4512/2018 DAPEEP is the Competent Body for disclosure at a national level and is responsible for auditing the suppliers for the proper use of GOs in disclosing the origin of electricity supplied.

### Member of the AIB

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

### **Activities within the AIB**

DAPEEP is represented in AIB by Maria Koulouvari, assigned the role of chair of the EECS Unit and the Electricity Scheme Group from the beginning of 2020.

### News and perspectives regarding the national IB

In 2020 DAPEEP harmonized its disclosure calculation to the Issuance Based method applied by AIB. The basic principles for disclosure are approved by the NRA, as part of DAPEEP's code.

"... the value of the EECS GOs issued for renewable electricity in Greece will be enhanced, contributing to a higher integration of RES stations in the Greek electricity market, assisting the country's efforts for the transition towards a low-carbon economy."

A new GO Information System is being developed under the responsibility of DAPEEP. It will be EN16325 compliant enabling the issuance of EECS GOs, offering high end services by using more automatized procedures, thus minimizing operational errors. It is planned to be operational by the end of 2021 and will allow connection to the AIB hub enabling the cross border trade of Greek EECS GOs.

# News and perspectives regarding the national framework for electricity

The new Electricity Market introducing the Day-Ahead Market (DAM), Intraday Market, Balancing Market, Futures Market became operational on November 1st, 2020. Greece's DAM, already coupled with the Italian market, is set to be coupled with the Bulgarian market by May 2021.

### Benefits to the company of AIB membership

DAPEEP enjoys working together with highly skilled experts, exchanging expertise for implementing best practices on a national level but also working towards a reliable European GO market. The benefits arising from being an AIB member will be unfolded to their fullest, once the connection to the AIB hub is established. DAPEEP expects that the value of the EECS GOs issued for renewable electricity in Greece will be enhanced, contributing to a higher integration of RES stations in the Greek electricity market, assisting the country's efforts for the transition towards a low-carbon economy.

# Scope of national participation in EECS

EECS GOs are planned to start being issued in the new GO Information System by the end of 2021

National RES production (GWh)

17 588,1



### Profile of the organisation

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

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

Landsnet owns, operates and maintains all transmissions lines in Iceland. The Icelandic electricity system's highest operating voltage is 220 kV and will gradually replace most of the aging 132 kV lines. In preparation for the future, a portion 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 energy Guarantees of Origin in Iceland, as stipulated in the Act on Guarantees of Origin, No. 30/2008.

### Member of the AIB

Landsnet started as an Observer of the AIB in 2009 and has been a full member since September 2011.

### **Activities within the AIB**

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

### News and perspectives regarding the national IB

The total installed power capacity of registered renewable energy production devices in Iceland is 2.843 MW, from the total renewable power capacity of 2.872 MW.

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

### Benefits to the company of AIB membership

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

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

# Scope of national participation in EECS

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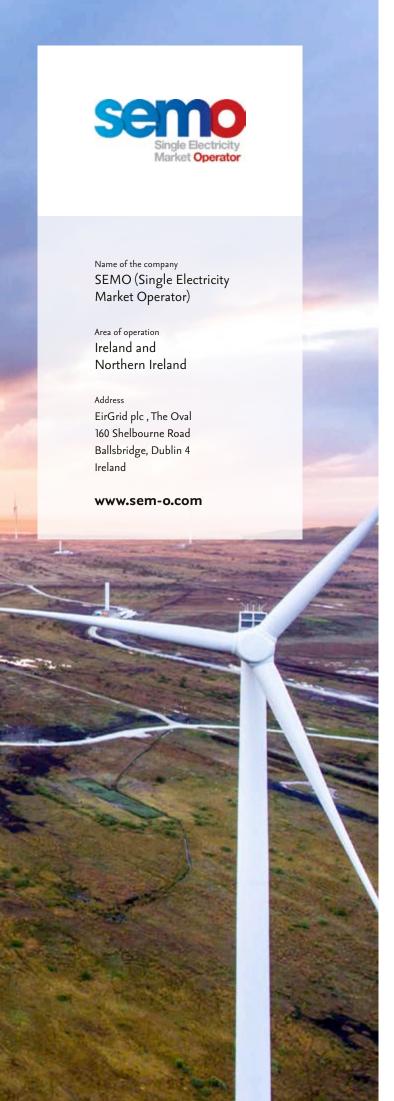
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
52	2 843,4

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	41	2 076,5
Thermal	10	765
Wind	1	1,8

EECS RES production	National RES production
18 415	18 660



### Profile of the organisation

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

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

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

#### Role

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

SEMO is also the nominated Competent Body for Fuel Mix Disclosure (FMD) for the island of Ireland (Ireland and Northern Ireland), on behalf of the CRU in Ireland and the UR in Northern Ireland.

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

### Member of the AIB

Member of the AIB since 19th May 2015.

### Activities within the AIB

SEMO is represented in the AIB by Liam McLoughlin and Dylan Gregg in the General Meetings, Electricity Scheme Group and the EECS Unit.

# News and perspectives regarding the national IB

SEMO continues to see strong interest in GOs in Ireland with an increase in registered scheme participants (up 12%).

GOs issued for renewable sources in other EU countries and imported into the Irish registry continue to be accepted for FMD in Ireland, provided they have not already been cancelled or used in FMD. The volume of GOs being imported to the SEM continues to grow with a 96% increase in volumes in 2020.

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

"As an Issuing Body that promotes transparency, our AIB membership highlights this ethos further through the harmonised and transparent approach adopted by the AIB."

RESS is the new Renewable Electricity Support Scheme in Ireland. RESS will provide financial support to renewable electricity projects in the Republic of Ireland. It is a pivotal component of the National Energy and Climate Plan and is essential for achieving Ireland's 70% renewable electricity target by 2030. EirGrid completed the first RESS 1 auction on the  $4^{\rm th}$  of August 2020.

# News and perspectives regarding the national framework for electricity

The Supervisory Framework for the Administration of Guarantees of Origin (CER/11/824) remained unchanged in 2020.

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

The annual All-Island (Ireland and Northern Ireland) Fuel Mix methodology, used in 2020 for calendar year 2019, remained unchanged from previous years.

In 2020, the Green Source Product Verification mechanism was carried out for the 2019 period to ensure that suppliers selling green source products had sufficient green attributes (GOs or contract based tracked supported renewable energy) to cover their sale.

# Benefits to the company of AIB membership

The AIB continues to play an invaluable role in the development and secure operation of Guarantees of Origin trading in Europe. The Association continues to support Issuing Bodies to collaborate in identifying best practice, knowledge sharing and experience for the common goal of continuous development of the European GO scheme.

AIB membership enables SEMO to adopt a reliable and efficient approach to GO transactions in Ireland and Europe through adherence to the EECS Rules. As an Issuing Body that promotes transparency, our AIB membership highlights this ethos further through the harmonised and transparent approach adopted by the AIB. Liam McLoughlin, Market Operations

# Scope of national participation in EECS

Number of registered scheme participants
--

Registered production devices and total capacity installed

55

Number of production devices	Total capacity installed (MW)
104	882,41

Registered production devices and total capacity installed per technology

7	Fechnology	Number of production devices	Total capacity installed per technology (MW)
V	Wind	65	650,17
H	Hydro	39	232,24

EECS RES production	National RES production
2 192,6	12 852,4



# Profile of the organisation

GSE is a public company which promotes and supports renewable energy sources in Italy.

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

#### Role

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

### Member of the AIB

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

### **Activities within the AIB**

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

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

# News and perspectives regarding the national IB

Two important improvements were achieved during 2020 related to GSE's software platform. First, the statistics extraction module was implemented, as initially requested by the AIB, in order to easily access and provide data when requested. Also, the import/export process has been optimized, in order to align the GSE and AIB platforms, avoiding possible time out or network related errors such as "error 65 - duplication of certificates", and reducing waiting time for certificate import procedures.

"The participation in the General Meetings and Units is also an ideal opportunity for sharing experiences and best practices with members from other countries."

# News and perspectives regarding the national framework for electricity

On the 4<sup>th</sup> July 2019, the Ministry of Economic Development published the Ministerial Decree that foresees the possibility for consumers involved in PPAs, to cancel GOs in the country of consumption when they claim the green origin of the energy. This Decree aims at promoting renewable power plants through a revised set of incentives.

In particular, RES power plants may benefit from:

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

Incentives are granted either through registry procedures or through tender procedures.

### Benefits to the company of AIB membership

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

The participation in the General Meetings and Units is also an ideal opportunity for sharing experiences and best practices with members from other countries"

according to Floriana Furno, member of EECS Unit.

# Scope of national participation in EECS

Number of registered scheme participants 2	777
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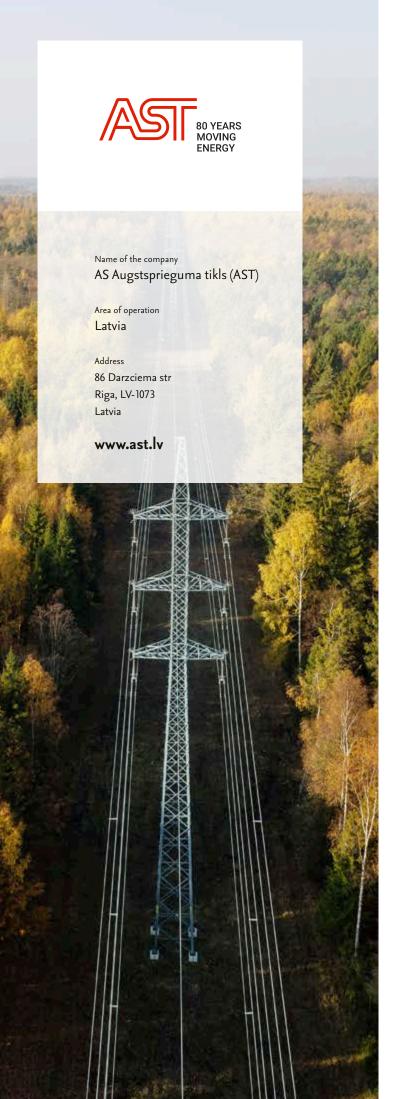
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
4 449	35 356

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	489	9 589
Geothermal	34	922
Hydro	943	17 973
Solar	2 881	4 738
Thermoelectric	102	2 134

EECS RES production	National RES production
70 352	122 969



# Profile of the organisation

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

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

#### Role

The Authorised Issuing Body and the Competent Authority for EECS GOs in Latvia is AST. Its role, defined in national legislation, is to be responsible for the operation of EECS GOs in Latvia. An additional role is to administer the EECS Registration Database and its interface with the EECS Transfer System.

#### Member of the AIB

AST has been a member of AIB since December 2020.

#### Activities within the AIB

AST is represented in AIB GMs by Aigars Sīlis as the formal member representative and Kalvis Ertmanis as alternate representative, taking part also in the Electricity Scheme Group, EECS unit and Information Systems Unit.

72

"The main benefits of being a member of AIB is that it enables reliable transfer of GOs across Europe and the EECS rules are the best guarantee that consumers and businesses can rely on the origin of the energy that they consume."

# Benefits to the company of AIB membership

The main benefits of being a member of AIB is that it enables reliable transfer of GOs across Europe and the EECS rules are the best guarantee that consumers and businesses can rely on the origin of the energy that they consume. Aigars Sīlis, Head of Data Analysis Group

### **Additional information**

AST started issuing EECS Certificates on 1 December 2020 and gained import status, which was turned into full electricity scheme membership early 2021.

# Scope of national participation in EECS

Number of registered scheme participants	20

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
4	1 560,596

# Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	1	1
Hydro	3	1 557,6
Thermal	1	1,996

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

EECS RES production	National RES production
171,5	3193

AST started issuing EECS Certificates on 1 December 2020 and gained import status, which was turned into full electricity scheme membership early 2021.



### Profile of the organisation

Litgrid is the electricity Transmission System Operator.

#### Role

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

#### Member of the AIB

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

#### **Activities within the AIB**

Participation in General Meetings.

### News and perspectives regarding the national IB

Litgrid joined the AIB in 2018 with provisional import only scheme participation. In order to achieve full AIB membership, with the ability to export GOs, Litgrid actively participated in the preparation of legislative changes for disclosure. In April 2020, the regulations were adopted, ensuring avoidance of double counting. Following that, amendments have been carried over into the Domain Protocol of Lithuania.

In December 2020, AIB approved the decision to allow full electricity scheme membership therefore the certificates issued for the electricity produced from January 1, 2021 are called EECS GOs. The most important aspect of this is that starting from this date Lithuanian GOs can be exported to other members. Lithuanian GOs that were issued in respect of electricity production that took place prior to this date and foreign GOs which resided in Lithuania before this date, cannot be exported over the AIB hub.

"Participation provides relevant information and best practices among the members."

# News and perspectives regarding the national framework for electricity

At the beginning of the year, a substantial number of producers become eligible to obtain GOs due to the end of fixed tariff support. The legislation regarding the fuel balance form has been adopted. The producers that simultaneously use non-renewables in their production process must fill out this form to prove the origin of the fuel consumed and receive GOs.

Currently, there is still an issue regarding the majority of GOs being recognized and being manually imported from non-AIB members rather than through AIB hub.

### Benefits to the company of AIB membership

AIB ensures secure and transparent transactions between the members. Participation provides relevant information and best practices among the members, especially the implementation of the EECS scheme rules.

# Scope of national participation in EECS

Number of registered scheme participants	21

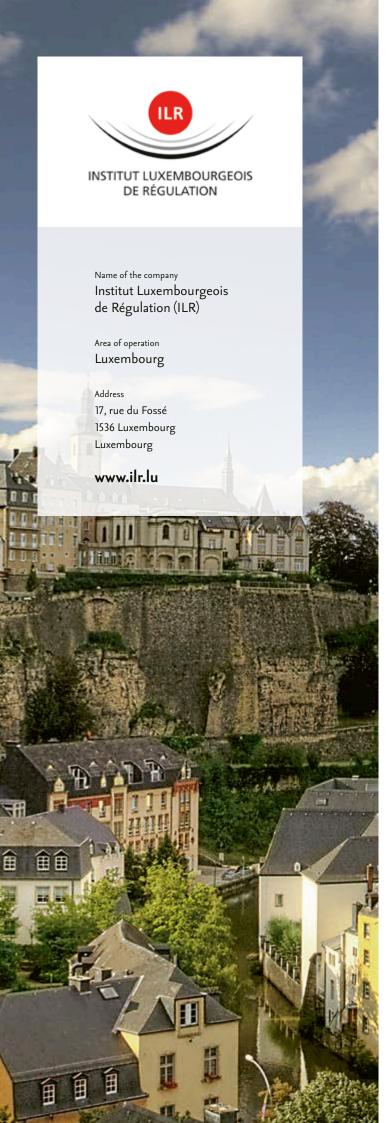
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
8	122

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Wind	6	15,8
Hydro	1	101
Biomass	1	5

EECS RES production	National RES production
259,9	3 193,70



### 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, radio spectrum and networks information system security. In addition to this, ILR is also designated as the national Competent Authority for issuing Guarantees of Origin for electricity generated from renewable energy sources.

#### Role

ILR is the national Issuing Body for renewable electricity Guarantees of Origin (RES GOs) and for CHP GOs and it is also responsible for disclosure.

#### Member of the AIB

The Luxembourg registry has been operational since 1 January 2010.

#### Activities within the AIB

Pamela Boeri and Claude Hornick participate in the EECS-U, ESG, and GSG.

#### News and perspectives regarding the national IB

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

More information for account holders is available on the website of <u>Grexel</u>, which allows access to public details of the registry and <u>ILR</u>, which describes GOs and their use within Luxembourg.

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

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

# News and perspectives regarding the national framework for electricity

In July 2010, disclosure regulations entered into force and 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 2020, almost three and a half million GOs (3.5 TWh) were cancelled in the registry, representing more than half of the total electricity consumed in Luxembourg.

# Benefits to the company of AIB membership

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

"Generators can value their renewable generation attributes; and suppliers can improve the reliability and credibility of their electricity products" says Claude Hornick.

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

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

The auctions are open to any account holder within an EECS registry. More information available on the <u>ILR website</u>.

# Scope of national participation in EECS

Number of registered scheme participants

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
35	234

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Photovoltaic	12	10
Wind	15	144
Hydro	3	28
Biomass	5	52

EECS RES production	National RES production
642	957



### Profile of the organisation

CertiQ, a full subsidiary of TenneT TSO, is the Issuing Body for Guarantees of Origin (GOs) in The Netherlands. TenneT is mandated by the Minister of Economic Affairs and Climate Policy to perform this task.

#### Role

CertiQ's mandate encompasses GOs for both renewable and non-renewable electricity, for electricity from high-efficient cogeneration and for renewable heat.

#### Member of the AIB

Member of the AIB since 2001.

#### Activities within the AIB

- Ilona Bruens, head of CertiQ, is the treasurer of the AIB Board.
- Remco van Stein Callenfels, advisor of CertiQ, is an ESG, EECS, and alternate GM member.
- Jeroen Hanskamp, Product Owner of CertiQ, is an ISU member.
- Anca Visser, Policy officer of CertiQ, is a GM, EAU, and alternate EECS member since February 2021.
- Jerney Lubbers, Functional Application Manager of CertiQ, is an alternate ISU member since February 2021.

### News and perspectives regarding the national IB

An important topic of 2020 was preparing our procedures and systems for certifying energy produced as a result of conversion. With regard to this topic we contributed to the FaStGO project, specifically the sub-task to develop a text proposal for a revised EN16325 standard on Guarantees of Origin.

# News and perspectives regarding the national framework for electricity

From January 2020, CertiQ was required to issue GOs for non-renewable electricity upon the request of the producer. This has led to 73 TWh of such GOs for non-renewable electricity being issued over the course of 2020. It is now also mandatory for suppliers to validate their disclosure statements entirely with GOs.

In December 2020, the consultation was launched for the new Dutch Energy Act. The goal of this law is to combine the existing Dutch Electricity and Gas Acts.

"Thanks to the AIB and all its members, European consumers and businesses can truly rely on the origin of their consumed energy."

### Benefits to the company of AIB membership

The quality and reliability of a GO depends on the EECS standard and the well-functioning of the AIB-hub. "Thanks to the AIB and all its members, European consumers and businesses can truly rely on the origin of their consumed energy." Ilona Bruens, Board member.

The EECS standard enables the reliable trade of GOs where it also promotes the renewable energy market. This is important to transition from conventional to renewable energy production. This transition can only be achieved by collaboration between different countries, which the AIB facilitates. It is therefore of vital importance that the AIB actively promotes the benefits of membership.

#### Additional information

In 2020, we have seen a significant increase of installed wind and solar PV capacity in The Netherlands compared to 2019. However, the electricity usage has been lower than usual due to Covid-19, which has led to fewer cancellations of GOs.

# Scope of national participation in EECS

Number of registered scheme participants 220	Number o	of registered	scheme	participants	220
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Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
28 912	36 973,1

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	254	5 393,9
Hydro	15	37,1
Solar	26 476	5 122,6
Wind	1 431	6 524,8
Non-renewable	736	19 895,3

EECS RES production	National RES production
28 600	31 000

# **Statnett**

Name of the company
Statnett SF

Area of operation Norway

Address Nydalen Allé 33 / PB 4904 Nydalen 0423 Oslo Norway

www.statnett.no



REPORT FROM MEMBER

# Profile of the organisation

TSO (Transmission System Operator)

#### Role

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

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

Statnett is responsible for the Norwegian certificate registry, (NECS) and is the Issuing Body of Guarantees of Origin and elcertificates (a technology neutral, market-based support scheme for renewable energy sources).

#### Member of the AIB

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

#### Activities within the AIB

- Ivar Munch Clausen, Chair of the Board
- Kristian Røst Hagen, Member of the Information Systems Unit

### News and perspectives regarding the national IB

In November 2020 Statnett launched the new NECS registry. The new registry is based on modern IT-design principles of modularity, scalability and connectivity. In the new solution the NECS users can configure, save and share the screens/searches they use most often.

The new NECS solution is built with an "API first" approach, meaning that most GUI functionality is available in a machine to machine interface. This approach makes it possible for NECS account holders to connect their own systems to NECS, resulting in better data quality and more secure operations. Using the API also allows NECS account holders to develop new services to offer their customers.

The transfer volumes in NECS continue to grow, and in 2020 NECS handled a total transaction volume of more than 760 million GOs via approximiately 37 000 transactions. 760 million GOs corresponds to 760 TWh of energy produced.

The objectives now are to take advantage of the already acquired experience to develop EEGO's System and optimise a few processes to meet our customers' needs; to increase the number of audits of production facilities; to extend registration to smaller facilities; and to start the necessary procedures for the implementation of the mechanism of Guarantees of Origin for renewable and low-carbon-content gases.

In the coming years we aim to continuously develop the NECS solution in close cooperation with our account holders.

### Benefits to the company of AIB membership

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

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Solar / Photovoltaic / Unspecified	3	0,82
Solar / Photovoltaic / Classic silicon	1	0,58
Wind / Unspecified / Unspecified	4	231,70
Wind / Unspecified / Onshore	51	3 932,78
Hydro-electric head installations / Unspecified / Unspecified	1091	36 518,99
Hydro-electric head installations / Run-of-river head installation / Unspecified	205	2 291,39
Hydro-electric head installations / Storage head installation / Unspecified	33	837,72
Thermal / Unspecified / Unspecified	6	77,62
Thermal / Gas turbine with heat recovery / Unspecified	1	4,00

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

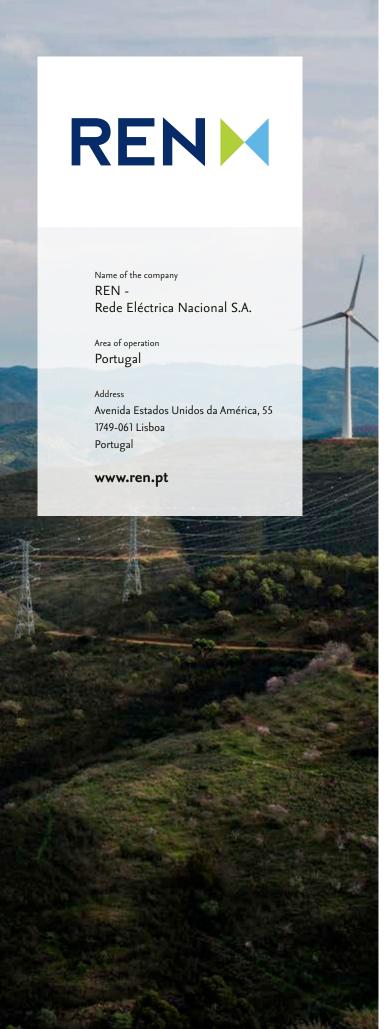
# Scope of national participation in EECS

Number of registered scheme participants

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 346	43 896

EECS RES production	National RES production
149 789 GWh	n/a



# Profile of the organisation

**Electricity Transmission System Operator** 

#### Role

In January 2019, REN was appointed the single Authorised Issuing Body and Registry Operator for electricity GOs. The work unit entrusted with the issuing is called EEGO, the Issuing Body for Guarantees of Origin. In accordance with the Portuguese legislation, REN also operates as a Production Auditor. In August 2020, REN was also appointed as the single Authorised Issuing Body and Registry Operator for renewable and low carbon gases GOs.

#### Member of the AIB

Member of the AIB since 1st July 2020.

#### **Activities within the AIB**

In the AIB, REN is represented by:

- Isabel Fernandes General Meetings;
- Miguel Jerónimo ISU, EAU and GSG;
- Pedro Rodrigues ESG and EECS Unit.

#### News and perspectives regarding the national IB

2020 was characterised by a strong momentum associated with the start of the mechanism for issuing Guarantees of Origin in Portugal. After all legal conditions were met, EEGO's activity started on March 2nd, with the first membership application taking place the next day. The process of joining the AIB started immediately and was completed on July 1st, the date from which the GOs issued in Portugal became part of the EECS mechanism. The first international operation took place in October, the same month in which the first audit of a production facility was carried out. The transition period for the registration of production facilities ran until the end of 2020, during which facilities with installed capacity above 1 MW were registered.

# "Joining the AIB was one of REN's main objectives from the outset."

# News and perspectives regarding the national framework for electricity

With regards to legislation, the main new element in 2020 was the publication of Decree Law No. 60/2020, of August 17th, which provides the mechanism for issuing guarantees of origin for low-carbon-content gases and for gases of renewable origin, and grants REN the corresponding competences as Issuing Body. Although the aforementioned decree introduces the bases for the operation of the GO mechanism for the gas sector and a few changes for the electricity sector, new legislative changes are still expected with the transposition of the European RED II Directive into Portuguese law, which is expected to take place in 2021.

The auctions of GOs of facilities that benefit from state support and that are under the purview of the government entity DGEG (Directorate General of Energy and Geology) are also expected to happen in 2021.

### Benefits to the company of AIB membership

Joining the AIB was one of REN's main objectives from the outset, and it was formally achieved just four months after the start of EEGO's activity. Being part of the AIB was crucial to boosting the Portuguese GOs market, enabling Portuguese agents to operate at a European level, as well as international agents to access a market in which renewable energy represents a very significant percentage of electricity production.

The AIB plays a key role in coordinating and developing the GOs mechanism at a European level, ensuring its transparency and credibility. For REN, the support and knowledge acquired through the AIB are crucial, especially in this start-up phase of activity.

# Scope of national participation in EECS

Number of registered scheme participants

313

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
542	13 805

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Solar	93	647
Wind	248	5 520
Hydro	146	7 279
Thermal	55	359

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

EECS RES production	National RES production
12 295,92	13 345,66

Since July 2020, when REN became a AIB member



### 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 trans-mission 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.

#### Pol

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

#### Member of the AIB

Member of the AIB since 2019.

#### **Activities within the AIB**

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

- GM: Jovana Drašković
- ESG and EECS Unit: Jovana Drašković

### News and perspectives regarding the national IB

In November 2020 EMS JSC was fully connected to AIB Hub and becoming first country outside EEA to do so.

The first import into the Serbian registry was successfully made in November 2020.

Membership of the Association provides that Guarantees of Origin that were issued for electricity produced from RES in Serbia are accepted and recognized from other AIB members for trading and disclosure

"In November 2020 EMS JSC was fully connected to AIB Hub and becoming first country outside EEA to do so."

# News and perspectives regarding the national framework for electricity

The legal framework for the certification scheme in Serbia is based on the provisions laid down in the Energy Law and by-law legislation for Guarantees of Origin in 2017. All the technical requirements and legal frameworks have been implemented following the EECS rules and best practice recommendations from the AIB. In 2020, EMS participated in a working group to establish completely new RES law and new Energy law. It is expected that in 2021, these new laws will be approved. Following that, we expect further improvements to by-law legislation.

# Benefits to the company of AIB membership

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

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

#### Additional information

After successful connection to the AIB HUB, Serbian account holders have already made transactions through the AIB HUB showing that being part of AIB is important for allowing development of the GO market in Serbia. Therefore EMS JSC is happy to continue good cooperation with AIB and its members.

# Scope of national participation in EECS

Number of registered scheme participants	10
--	----

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
10	1 562,417

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	7	1 561,83
Solar	3	0,587

EECS RES production	National RES production
6 621	11 016



# Profile of the organisation

OKTE, a.s. is authorised by law to perform activities as the Shortterm Electricity Market Operator in the Slovak Republic.

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

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

#### Role

OKTE, a.s. is the Issuing Body for Guarantees of Origin in Slovakia. It was also appointed as the Competent Authority of administration of the Feed-in Tariff (FIT) and Feed-in Premium (FIP) scheme for Renewable and High-Efficiency Co-generation.

#### Member of the AIB

OKTE became member of the AIB in September 2019.

#### Activities within the AIB

OKTE is represented in the AIB General Meetings, ESG and EECS unit by Ondrej Kulich.

## News and perspectives regarding the national IB

As of 1 January 2020, OKTE, a.s. became responsible for the Slovak system of the Feed-in Tariff support scheme for renewable energy sources. This system is closely connected to the new Slovak GO scheme in terms of sharing data on RES production.

An important milestone was reached on the 5<sup>th</sup> of February when OKTE launched the GO registry. Within the first days of the registry being active, the account holders started registering. OKTE also organized its first auction of GOs from production facilities that received public support in November 2020. OKTE participates in the Gas Scheme Group to closely follow the evolutions which might influence future legislative changes in Slovakia, so that OKTE could become the Issuing Body for Gas GOs.

"The changes made to the GO scheme consisted of modernisation of the whole system of issuing and administration, which is appreciated by both electricity producers and suppliers"

# News and perspectives regarding the national framework for electricity

In 2020 OKTE started upgrading its product portfolio by introducing a purchase block order on the platform for day-ahead trading in June 2020. This will be followed by broader changes and the introduction of new products in the day-ahead product portfolio in 2021. Notable progress has also been made in different market coupling projects in the day-ahead and intraday timeframe, paving the way for significant changes that will be implemented in the coming years.

#### Benefits to the company of AIB membership

With OKTE's appointment as the GO Issuing Body, the account holders have a reliable entity for GO administration. The account holders are very pleased with the level of automation of the new registry as this leads to saving on resources needed to handle the GOs. One of the key benefits for the account holders is the ability to transfer GOs across the Domains very easily and reliably. Furthermore, energy consumers are starting to gain more trust in the GOs scheme.

#### Additional information

The changes made to the GO scheme consisted of modernisation of the whole system of issuing and administration, which is appreciated by both electricity producers and suppliers. Via an auction organized by OKTE, a.s. suppliers will now be able to purchase, for their customers, the Guarantees of Origin from renewable sources in Slovakia which have received operational subsidy in the form of FIT or FIP. Since, the auction revenue will be used to reduce the financial burden of the RES system, we avoid providing overlapping support for the producers.

In practice, customers in Slovakia can credibly declare consumption of exclusively green electricity that is substantiated by Guarantees of Origin.

# Scope of national participation in EECS

Number of registered	scheme participants	
----------------------	---------------------	--

Registered production devices and total capacity installed

32

Number of production devices	Total capacity installed (MW)
2 437	2 360

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydropower	271	1 663
Solar PV devices > 10kW	1 380	529
Solar PV devices < 10 kW	785	5
Biomass	1	163

EECS RES production	National RES production
2 679,00	2 074,00



# Profile of the organisation

National Regulatory Authority

#### Role

The Energy Agency is the National Regulatory Authority for electricity and gas in Slovenia and the Slovenian Issuing Body of GOs for renewable electricity and electricity from high efficiency CHP. It is also the Competent Authority for issuing renewable and CHP production declarations that are needed by production devices to be eligible for the issuing of 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 Representative at GM, EECS Unit and ESG
- Blaž Bratina Representative at GM, EECS Unit and ESG

#### News and perspectives regarding the national IB

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

# News and perspectives regarding the national framework for electricity

In accordance with the new Decree on support for electricity generated from renewable energy sources and high-efficiency cogeneration of heat and electricity, the Energy Agency in 2020 performed two tendering procedures for the selection of new entrants to the national support system. The procedures started by publishing an invitation for submission of applications for the new entrants. After the deadline for submission, the Agency selected the new entrants from the candidates on the basis of the allowed increase in funds for support and the price offered for the production of electricity.

"Being an AIB member puts us in the position to ensure that all the necessary conditions for market participants to benefit from the electricity market are in place."

# Benefits to the company of AIB membership

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

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

# Scope of national participation in EECS

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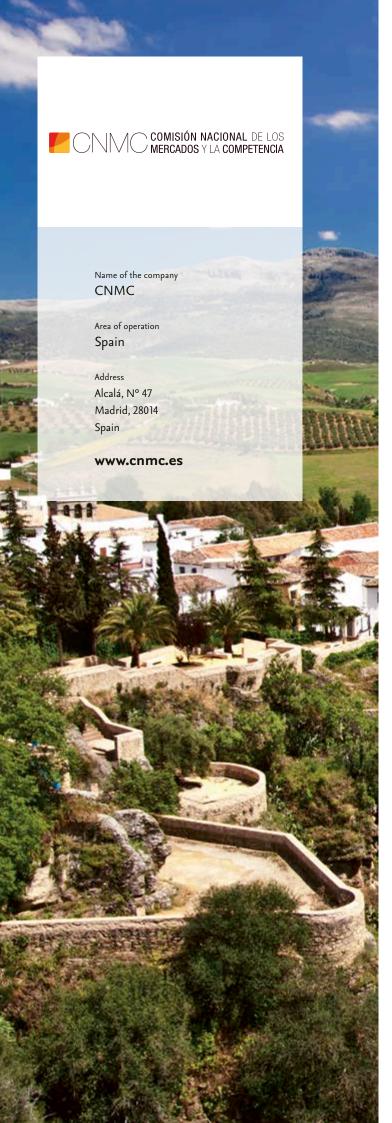
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
1 348	1 225

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Hydro	199	1 071
Solar	1 068	113
Wind	2	3
Biogas	12	11
Biomass	3	1
СНР	64	26

EECS RES production	National RES production
4 559	5 244



# Profile of the organisation

CNMC is the Spanish regulator for the energy sector, as well as telecoms, audio-visual media, transport and postal sectors, and the Spanish competition authority.

#### Role

(By law): Competent Authority for electricity Guarantees of Origin, disclosure of electricity, production device inspection and also Competent Authority for support schemes clearance and payment. Since January 2019, CNMC has had new responsibilities for electricity and gas tariffs, as well as issues related to grid access of new generation.

#### 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 regulator's Associations such as CEER, MEDREG and ARIAE.

"In 2020 the number of electricity suppliers using Guarantees of Origin, increased to 200 companies. This is 15% higher than the previous year."

# News and perspectives regarding the national framework for electricity

There is a new tender system for renewable plants in place since January 2021, and a new update of disclosure legislation since February 2021.

#### Benefits to the company of AIB membership

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

#### Additional information

In 2020 the number of electricity suppliers using Guarantees of Origin, increased to 200 companies. This is 15% higher than the previous year.

# Scope of national participation in EECS

Number of registered scheme participants\*

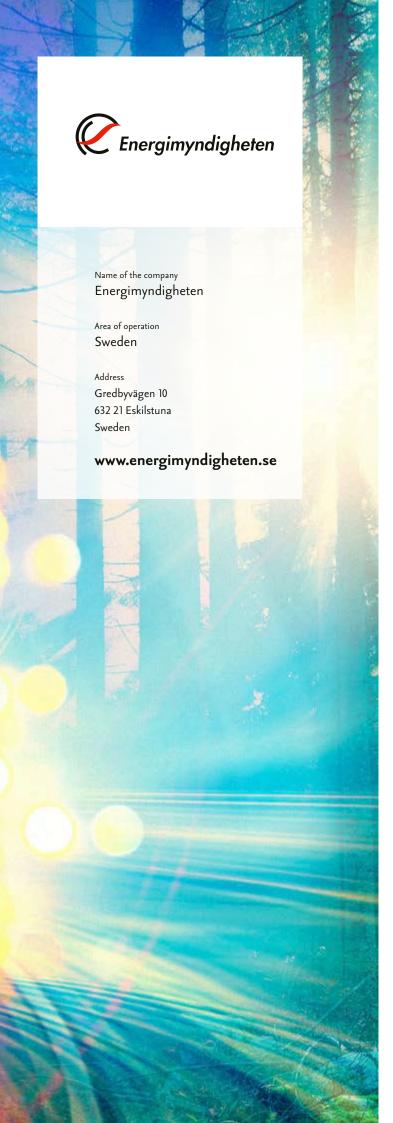
66 616

\* There are no "Scheme participants". All production devices eligible (66 160 ) and all Spanish supplier companies (456) can participate in the system

#### Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
66 160	65 245

EECS RES production	National RES production
21 404	106 405



# Profile of the organisation

Government agency

#### Role

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

#### Member of the AIB

Member of the AIB since June 2017.

#### **Activities within the AIB**

- Martina Berg, representative to the GM
- Eva Nordlander, member of EECS-U, ESG and GSG
- Johanna Egenor Lohman, member of ISU
- Nina Emanuelsson, member of ISU
- Johan Forsman, member of GSG

#### News and perspectives regarding the national IB

The work for Energimyndigheten during 2020 similar to 2019, has been characterised by the work connected to the implementation of RED II. Guarantees of Origin schemes for additional energy carriers such as gas and heating are under development. The scheme for electricity Guarantees of Origin will be undergoing a revision and modernisation throughout the course of 2020/2021.

During 2020 Energimyndigheten have increased the staff to be able to have representatives in more groups within AIB. There are now six employees at Energimyndigheten who are involved in the work with AIB

From the 6th of January 2021, all traders who deal with Guarantees of Origin must submit information of their business if they intend to transfer Guarantees of Origin to another EU member state. This is stated in the adopted rules and regulations.

# News and perspectives regarding the national framework for electricity

Sweden has a joint support scheme with Norway, the Electricity Certificate Scheme, which is a market-based support scheme that builds on a quota obligation for all consumers of energy. The goal is to promote the expansion of renewable electricity production. In June 2017, the parliament decided to raise the target by 18 TWh of new production by 2030, and to prolong the scheme until 2045. In November 2020, the parliament decided to reduce the scheme to the end of 2035. The first goal of the support scheme was met in May 2019, almost seven months in advance. In December 2020 the additional goal of 18 TWh was only 2,3 TWh from being fulfilled. Therefore the goal is expected to be reached in the course of 2021, approximately nine years in advance.

"Lessons learned since the implementation of the former RES directive shows that international cooperation is something that needs to be included from day one."

### Benefits to the company of AIB membership

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

"Lessons learned since the implementation of the former RES directive shows that international cooperation is something that needs to be included from day one. We hope to be able to achieve that when it comes to GOs for new energy carriers such as gas, heating and cooling." Johan Malinen, Energimyndigheten

#### Additional information

The fast expansion during last year of wind and solar power continues but due to the Covid-19 pandemic, the expansion of wind hasn't continued at the same fast pace during 2020 as in earlier years.

There is a growing interest in Guarantees of Origin both from traders and producers. Many players within the industry would like a solution on how GOs should interact with EU-ETS and sustainability criteria.

# Scope of national participation in EECS

Number of registered scheme participants	511
--	-----

Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
2 470	22 651

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Thermal (excl. Nuclear)	12	971
Wind onshore	2 093	7 900
Wind offshore *	4	163
Hydropower	359	12 167
Nuclear	1	1 450
Solar power**	1	0

<sup>\*</sup> The difference in number of production devices for Wind offshore compared with previous year is due to fusion of metering points.

EECS RES production	National RES production
81 200	75 500

<sup>\*\*</sup> The total capacity installed for solar is 0,04 MW

# pronovo

Name of the company Pronovo AG

Area of operation Switzerland

Address
Dammstrasse 3
CH-5070 Frick
Switzerland

www.pronovo.ch



#### REPORT FROM MEMBER

### Profile of the organisation

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

#### Role

Pronovo is the sole competent Issuing Body for Guarantees of Origin in Switzerland. Pronovo has been mandated with this task by law and is accredited by the Swiss Accreditation Service (SAS). The Swiss Federal Office of Energy is the official authority for the supervision of issuing Guarantees of Origin for electricity as well as for the supervision of electricity disclosure in Switzerland. The legal basis is 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: Board (Vice Chair, Vice Treasurer), GSG
- Andrea Miksch: ESG, EECSUMilada Mehinovic: EAU (Chair)
- Katja Hassouna: ISU
- Fabian Möller: TF Fraud Protection

### News and perspectives regarding the national IB

Pronovo has started a project to replace its 15 year old GO registry with a completely new one. The new system is due to go live by the end of 2022. Due to the fact that Pronovo will be mandated to be the Issuing Body not only for electricity but for all energy carriers as of 2023, the system will be ready to support all types of GO in the future. The goal is to have one fully integrated GO registry for Switzerland.

As a result of this, Pronovo has strengthened its representation in AIB to support the extension of the EECS standard to other energy carriers

"The membership of Switzerland as a third county within AIB serves as a symbol and good example for a fruitful and reliable cooperation."

# News and perspectives regarding the national framework for electricity

Switzerland is about to implement its "Energy Strategy 2050". One important element, a GO obligation for imported electricity has been introduced. With this measure, any electricity supply in Switzerland must be disclosed based on GO only, regardless of whether it refers to domestic or foreign production. As a result of this, Switzerland has reduced its share of electricity from unknown sources to 4.3% in 2019. After the end of the still ongoing transitory period, the full disclosure scheme will lead to 100% transparency to Swiss end consumers.

### Benefits to the company of AIB membership

"Switzerland is geographically located in the heart of Europe and deeply embedded in the European power transmission system.

A stable grid and a high security of power supply are some of the most important goods for all nations.

The cross-border power market is increasing in both, volume and importance. Therefore, the membership of Switzerland as a third country within AIB is gaining even more importance. It serves as a symbol and good example of a fruitful and reliable cooperation. Our active participation in the AIB is one of our main goals, to ensure a reliable and transparent standard to guarantee the origin of energy for Europe.

With its upcoming role, being the Swiss Issuing Body for all energy carriers, Pronovo is fully supporting AIB's strategy on sector integration and GOs for all types of energy." Thomas Spaar, CEO, Pronovo

# Scope of national participation in EECS

Number of registered scheme participants

2 684

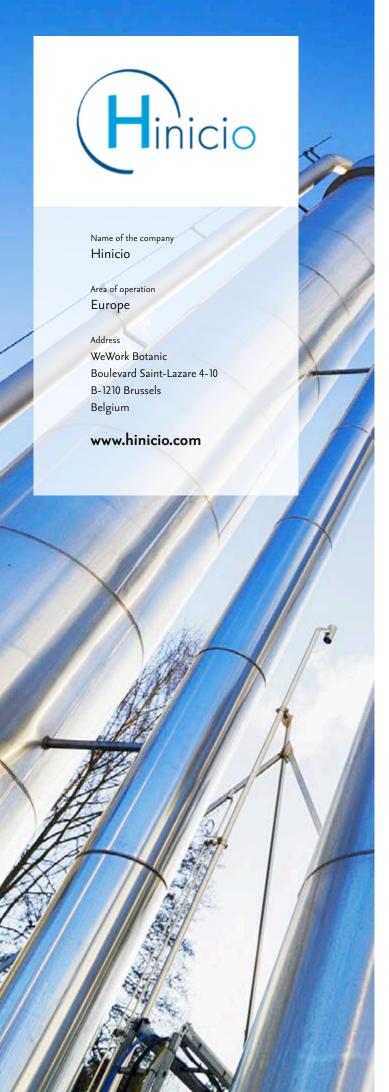
Registered production devices and total capacity installed

Number of production devices	Total capacity installed (MW)
107 222	22 840

Registered production devices and total capacity installed per technology

Technology	Number of production devices	Total capacity installed per technology (MW)
Biomass	422	479
Hydro	1 456	16 115
Solar	105 044	2 510
Wind onshore	65	83
Nuclear	4	3 014
Crude oil	16	8
Natural gas	183	278
Waste	32	353

EECS RES production	EECS non-RES production	National production
40 674	24 432	67 642



#### REPORT FROM OBSERVER

### Profile of the organisation

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

Hinicio have joined the AIB Gas Scheme Group as an observer. Mr. Wouter Vanhoudt, CertifHy project leader, was appointed as chair of the AIB Gas Scheme Group and as a member of the AIB Board. CertifHy and AIB will use the preliminary research of CertifHy to facilitate the update of the EECS Rules for renewable gases, including hydrogen. The CertifHy scheme will also be updated so that it becomes compliant with the RED II, the CEN EN16325 standard and the EECS rules, to facilitate cross border transfers.

#### Role

The CertifHy project operates a NGC scheme (https://www.certifhy.eu) and an Issuing Body for hydrogen which will apply for recognition as an ICS in 2021.

#### Member of the AIB

Observer since 2020

#### Activities within the AIB

Wouter Vanhoudt – Chair Gas Scheme Group, AIB Board Member Matthieu Boisson – Member, Gas Scheme Group

### News and perspectives regarding the national IB

Hydrogen GO schemes are yet to be implemented by Member States.

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

#### Benefits to the company of AIB membership

H2 GOs are still at their infancy and must take advantage of the lessons learned by the electricity GO market over the years.

Being part of the AIB and contributing to the development of the EECS Gas Rules will foster the implementation of an efficient and harmonized GO market for hydrogen in Europe.

#### REPORT FROM OBSERVER

### Profile of the organisation

The Sustainable Energy Development Agency is an executive agency to the Minister of Energy.

#### Role

Among other activities, SEDA is the the IB of internationally transferable Guarantees of Origin (GOs) for electricity in Bulgaria. SEDA is also the administrator of the GO Registry in the country. SEDA's functions are set in The Renewable Energy Sources Act and The Energy Efficiency Act.

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

#### Member of the AIB

An Observer status application was submitted in early 2020. In December 2020 the application was put on hold as it was decided that SEDA membership to the AIB should became a part of a larger reform under the National Recovery and Resilience Plan. After the NRRP receives the official EU Commission's approval engagement in AIB activities is to become state policy. Thus we hope to build an even more transparent and reliable national GO's system in Bulgaria which supports national and international legislation and harmonizes with the systems of other partner countries.

#### **Activities within the AIB**

When SEDA becomes an Observer, we will be glad to join in with AIB activities.

# News and perspectives regarding the national IB

SEDA is an active participant in the discussions and plan to begin drafting in regard to introducing a new scheme – GOs for hydrogen. SEDA aims to connect to the AIB Hub and facilitate GOs trade with the other AIB member states

# News and perspectives regarding the national framework for electricity

Bulgaria is making consistent efforts to liberalize the electricity market.

#### Benefits to the company of AIB membership

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

#### REPORT FROM OBSERVER

### Profile of the organisation

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

#### Role

Among other tasks, HEA is the Competent Authority and Issuing Body for electricity Guarantees of Origin in Hungary.

#### Member of the AIB

A first approach as observer was made in 2014 and HEA applied for AIB membership in December 2020.

#### Activities within the AIB

HEA has been participating in the Concerted Action on the Renewable Energy Directive projects (CA-RES 1-3). The collaboration in the CA-RES projects provided important experiences for HEA that helped to organize and operate a domestic GO scheme.

In the past few years, several personal meetings were held between HEA and AIB representatives. HEA also contribute to the residual mix calculations and send their data to AIB every year.

#### News and perspectives regarding the national IB

HEA submitted an application to AIB for membership and hub use on the  $17^{\rm th}$  December 2020.

# News and perspectives regarding the national framework for electricity

In relation to RED II implementation, HEA elaborated on a regulatory proposal for the legislator. During 2021, an improved framework is to enter into effect that will cover electricity GOs and disclosure, based on RED2 and the RE-DISS best practice recommendations.

#### Benefits to the company of AIB membership

HEA expects that the Hungarian GOs will be tradeable throughout Europe and therefore more domestic producers will enter the market. Through the involvement of the work with AIB, HEA also expects new experiences regarding both regulation and operation of GO and disclosure schemes.

# AUDIT REPORT





# ASSOCIATIONS OF ISSUING BODIES IVZW

Annual accounts for the year ended 31 December 2020

Limited review





# INDEPENDENT PRACTITIONER'S REVIEW REPORT TO THE BOARD OF DIRECTORS OF THE ASSOCIATION OF ISSUING BODIES IVZW FOR THE YEAR ENDED 31 DECEMBER 2020

We have reviewed the accompanying financial statements of the Association of Issuing Bodies IVZW for the year ended 31 December 2020.

#### Management's Responsibility for the Financial Statements

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

#### Practitioner's Responsibility

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

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

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





#### Conclusion

Based on our review, nothing has come to our attention that causes us to believe that these financial statements do not present fairly, in all material respects, the financial position of the Association of Issuing Bodies IVZW as at 31 December 2020, and its financial performance for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

Brussels (Belgium), 24 April 2021

PKF-VMB Bedrijfsrevisoren CVBA

Represented by Ingrid Vosch Registered Auditor

201				1	EUR
NAT.	Filing date	Nr.	P.	U.	D.

#### **ANNUAL ACCOUNTS AND OTHER DOCUMENTS** TO BE FILED UNDER BELGIAN COMPANIES AND ASSOCIATIONS CODE

egai torm: <u>ivori-prolit organization</u>	
dress:Visverkopersstraat	Nr.: <i>13</i> Box:
ostal code:1000 Municipality:B	Brussels
ountry: Belgium	
egister of legal persons - Commercial court of :	Brussels, Dutch-speaking
/ebsite address <sup>1</sup> :	
	Company identification number BE 0864.645.330
	emorandum of association OR of the most recent document mentioning ation and of the act amending the articles of association.
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he date of publication of the memorandum of associa	ation and of the act amending the articles of association.  EUROS (2 decimals)  approved by the general meeting of 2 07 / 05 / 2021  ear from 01 / 01 / 2020 to 31 / 12 / 2020

Ivar Clausen President

Liesbeth Switten Executive director

108

Optional information.

By the board of directors in the case of a foundation / by the general management in case of an international non-profit association OCR9002 2

Strike out what is not applicable.

Nr. A-npo 2.1 BE 0864.645.330

#### LIST OF THE DIRECTORS, BUSINESS MANAGERS AND AUDITORS AND STATEMENT REGARDING AN ADDITIONAL ORDER FOR REVIEW OR CORRECTION

#### LIST OF THE DIRECTORS, BUSINESS MANAGERS AND AUDITORS

COMPLETE LIST with surname, first names, profession, place of residence (address, number, postal code and municipality) and position within the company

Ilona Bruens

Hoevestraat 6, 6905 CC Zevenaar, Netherlands

Annie Desaulniers

Rue Basse 6, 4711 Walhorn, Belgium

Elke Mohrbach

Wintgensstrasse 8, 12101 Berlijn, Germany

Wouter Vanhoudt

Belpairestraat 66, 2600 Berchem (Antwerp), Belgium

Ivar Clausen

Jorgen Lovlandsgate 23 box c, N-0569 Oslo, Norway

Lukas Groebke

Hauptstrasse 125, 4102 Binningen, Switzerland

Director

27/11/2020 - 26/11/2022

27/11/2020 - 26/11/2022

27/11/2020 - 26/11/2022

Director

27/11/2020 - 26/11/2022

Chairman of the board of directors 27/11/2020 - 26/11/2022

Vice-chairman of the board of directors

27/11/2020 - 26/11/2022

Nr.	BE 0864.645.330		A-npo 2.2	ı
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#### **AUDITING OR ADJUSTMENT MISSION**

#### Optional information:

- if the annual accounts were audited or corrected by an external accountant or by a company auditor who is not the statutory auditor, mention name, surnames, profession and address of each external accountant or company auditor and his membership number with his institute, as well as the nature of his assignment:
  - A. Bookkeeping of the association or foundation,
  - B. Preparing the annual accounts,
  - C. Auditing the annual accounts and/or
  - D. Correcting the annual accounts.
- if the tasks mentioned under A or B are executed by certified accountants or certified bookkeepers tax specialists, you can mention hereafter: name, surnames, profession, address of each certified accountant or certified bookkeeper – tax specialist and the nature of his hereafter: name, surnames, profession, address of each certified accountant or certified bookkeeper – tax specialist and the nature of his assignment.

Name, surnames, profession and address	Membership number	Nature of the assignment (A, B, C and/or D)
De Kleine Prins BV Nr.: BE 0466.721.042 Zwartzusterstraat 14, 3000 Leuven, Belgium Represented by:	50296924	AB
Bruno Deprins Pastoor Legrandstraat 57, 3012 Wilsele, Belgium	10413150	

Nr. BE 0864.645.330 A-npo 3.1

## **ANNUAL ACCOUNTS**

### **BALANCE SHEET AFTER APPROPRIATION**

	Discl.	Codes	Period	Preceding period
ASSETS				
FORMATION EXPENSES		20		
FIXED ASSETS		21/28	138.283,89	83.653,36
Intangible fixed assets	6.1.1	21	135.619,99	83.653,36
Tangible fixed assets	6.1.2	22/27		
Land and buildings		22		
Plant, machinery and equipment		23		
Furniture and vehicles		24		
Leasing and similar rights		25		
Other tangible fixed assets		26		
Assets under construction and advance payments		27		
Financial fixed assets	6.1.3	28	2.663,90	
CURRENT ASSETS		29/58	839.739,72	486.432,88
Amounts receivable after more than one year		29		
Trade debtors		290		
Other amounts receivable		291		
Stocks and contracts in progress		3		
Stocks		30/36		
Contracts in progress		37		
Amounts receivable within one year		40/41	467.761,97	40.518,96
Trade debtors		40	380.003,80	8.523,58
Other amounts receivable		41	87.758,17	31.995,38
Current investments		50/53		
Cash at bank and in hand		54/58	363.396,87	441.204,75
Deferred charges and accrued income		490/1	8.580,88	4.709,17
TOTAL ASSETS		20/58	978.023,61	570.086,24

Nr. BE 0864.645.330 A-npo 3.2

	Discl.	Codes	Period	Preceding period
EQUITY AND LIABILITIES			. 5.155	Tressum g period
EQUITY		10/15	664.574,62	398.978,12
Association or foundation Funds	6.2	10		
		12		
Revaluation surpluses	0.0			
Allocated funds	6.3	13		
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$		14	664.574,62	398.978,12
Investment grants		15		
PROVISIONS AND DEFERRED TAXES	6.2	16		
Provisions for liabilities and charges		160/5		
Pensions and similar obligations		160		
Taxation		161		
Major repairs and maintenance		162		
Environmental obligations		163		
Other liabilities and charges		164/5		
Provisions for grants and legacies to reimburse and gifts with a recovery right		167		
Deferred taxes		168		
AMOUNTS PAYABLE		17/49	313.448,99	171.108,12
Amounts payable after more than one year	6.3	17		
Financial debts		170/4		
Credit institutions, leasing and other similar obligations		172/3		
Other loans		174/0		
Trade debts		175		
Advances received on contracts in progress		176		
Other amounts payable		178/9		
Amounts payable within one year	6.3	42/48	259.067,62	84.230,00
Current portion of amounts payable after more than one year		40		
falling due within one year		42		
Financial debts		43		
Credit institutions		430/8		
Other loans		439	050.067.60	04 000 00
Trade debts		44	259.067,62	84.230,00
Suppliers		440/4 441	259.067,62	84.230,00
Bills of exchange payable				
Advances received on contracts in progress		46 45		
Taxes, remuneration and social security		45		
Taxes		450/3		
Remuneration and social security		454/9		
Miscellaneous amounts payable		48		
Accruals and deferred income		492/3	54.381,37	86.878,12
TOTAL LIABILITIES		10/49	978.023,61	570.086,24

Nr. BE 0864.645.330 A-npo 4

## **INCOME STATEMENT**

	Discl.	Codes	Period	Preceding period
Operating income and charges Gross operating margin(+)/(-)		9900	300.701,16	148.016,00
Non-recurring operating income		76A		
Turnover*		70		
Contributions, gifts, legacies and grants*		73	1.246.416,67	1.031.500,00
Raw materials, consumables, services and other goods*		60/61	1.402.053,21	928.218,87
Remuneration, social security costs and pensions(+)/(-) Depreciation of and other amounts written off formation		62		
expenses, intangible and tangible fixed assets		630	33.677,37	12.432,54
Amounts written off stocks, contracts in progress and trade debtors: Appropriations (write-backs)(+)/(-) Provisions for liabilities and charges: Appropriations (uses		631/4		
and write-backs)(+)/(-)		635/9		
Other operating charges		640/8		1.275,00
Operating charges carried to assets as restructuring costs (-)		649		
Non-recurring operating charges		66A		
Operating profit (loss)(+)/(-)		9901	267.023,79	134.308,46
Financial income	6.4	75/76B	47,48	644,99
Recurring financial income		75	47,48	644,99
Non-recurring financial income		76B		
Financial charges	6.4	65/66B	1.474,77	4.169,65
Recurring financial charges		65	1.474,77	4.169,65
Non-recurring financial charges		66B		
Gain (loss) for the period before taxes $\ \dots \dots \dots (+)/(-)$		9903	265.596,50	130.783,80
Transfer from deferred taxes		780		
Transfer to deferred taxes		680		
Income taxes(+)/(-)		67/77		
Gain (loss) of the period(+)/(-)		9904	265.596,50	130.783,80
Transfer from untaxed reserves		789		
Transfer to untaxed reserves		689		
Gain (loss) of the period available for appropriation $(+)/(-)$		9905	265.596,50	130.783,80

<sup>\*</sup> Optional information. First - A-npo2021 - 6 / 11

Nr. BE 0864.645.330 A-npo 5

#### **APPROPRIATION ACCOUNT**

Profit (loss) to be appropriated(+)/(-) Gain (loss) of the period available for appropriation(+)/(-)
Profit (loss) brought forward(+)/(-)
Withdrawals from capital and reserves
Appropriations to allocated funds

Codes	Period	Preceding period
9906	664.574,62	398.978,12
(9905)	265.596,50	130.783,80
14P	398.978,12	268.194,32
791		
691		
(14)	664.574,62	398.978,12

Nr. BE 0864.645.330 A-npo 6.8

#### **VALUATION RULES**

VALUATION RULES

Intangible fixed assets:

These are valued at the purchase price and depreciated at the following percentage: 33.33% linear.

#### Claims

Operating receivables and other receivables are valued at nominal value. If the realisation value of the claims at the balance sheet date is lower than the book value, amounts written off are applied.

#### Debts

The debts are valued at nominal value.

#### Provisions

Provisions for risks and costs are booked for foreseeable risks and clearly defined losses or costs incurred during the financial year to which the financial statements relates or during previous financial years and which are certain or probable at the balance sheet date, but the amount of which is not fixed.

#### Grants

Grant revenues are recognized in accordance with the matching principle between costs and revenues.

IMPORTANT EVENTS AFTER THE END OF THE FINANCIAL YEAR (Art. 3:6, 2° CAC.)

Since the end of the financial year, no major events have occurred that may have a significant impact on the development of the association, except for the covid-19 virus outbreak. The Corona crisis is currently on the rise globally, in Belgium since 16 March 2020. This has a significant impact on economic activities in general.

The Board examined the implications of continuing operations (continuity assumption) and concluded that, given the current liquidity position, this is still assured, especially if, as is generally expected, economic activity can be systematically restarted in the coming months. However, this is based on our current knowledge. The rapid development and variability of the situation creates special uncertainties, which makes the final impact very unpredictable.

First - A-npo2021 - 10 / 11

Nr. BE 0864.645.330 A-npo 7

# OTHER DOCUMENTS TO BE FILED UNDER BELGIAN COMPANIES AND ASSOCIATIONS CODE

MANAGEMENT REPORT

Nr. BE 0864.645.330 A-npo 6.1.3

	Codes	Period	Proceeding period
	Codes	reiloa	Preceding period
FINANCIAL FIXED ASSETS			
Acquisition value at the end of the period	8395P	xxxxxxxxxxxxx	
Movements during the period			
Acquisitions	8365	2.663,90	
Sales and disposals	8375		
Transfers from one heading to another(+)/(-)	8385		
Other movements(+)/(-)	8386		
Acquisition value at the end of the period	8395	2.663,90	
Revaluation surpluses at the end of the period	8455P	xxxxxxxxxxxxx	
Movements during the period			
Recorded	8415		
Acquisitions from third parties	8425		
Cancelled	8435		
Transferred from one heading to another(+)/(-)	8445		
Revaluation surpluses at the end of the period	8455		
Amounts written down at the end of the period	8525P	xxxxxxxxxxxxx	
Movements during the period			
Recorded	8475		
Written back	8485		
Acquisitions from third parties	8495		
Cancelled owing to sales and disposals	8505		
Transferred from one heading to another(+)/(-)	8515		
Amounts written down at the end of the period	8525		
Uncalled amounts at the end of the period	8555P	xxxxxxxxxxxxx	
Movements during the period(+)/(-)	8545		
Uncalled amounts at the end of the period	8555		
oncaned aniounts at the end of the period			
NET BOOK VALUE AT THE END OF THE PERIOD	(28)	2.663,90	

Nr. BE 0864.645.330 A-npo 6.1.1

### **EXPLANATORY DISCLOSURES**

## STATEMENT OF FIXED ASSETS

	Codes	Period	Preceding period
INTANGIBLE FIXED ASSETS			
Acquisition value at the end of the period	8059P	xxxxxxxxxxxx	96.085,90
Movements during the period			
Acquisitions, including produced fixed assets	8029	85.644,00	
Sales and disposals	8039		
Transfers from one heading to another(+)/(-)	8049		
Acquisition value at the end of the period	8059	181.729,90	
Depreciations and amounts written down at the end of the period	8129P	xxxxxxxxxxxx	12.432,54
Movements during the period			
Recorded	8079	33.677,37	
Written back	8089		
Acquisitions from third parties	8099		
Cancelled owing to sales and disposals	8109		
Transferred from one heading to another(+)/(-)	8119		
Depreciations and amounts written down at the end of the period	8129	46.109,91	
NET BOOK VALUE AT THE END OF THE PERIOD	(21)	135.619,99	

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# SUSTAINABILITY STATEMENT

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

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 renewable energy; and to benefit from the services of Wattimpact.
- Carbon offsetting of all travel of attendees of AIB meetings including; the General Meetings, physical Group meetings, on site audits and reviews and the annual Strategy Meeting. For 2020, a total of 100 t CO<sub>2</sub> was compensated by <u>SouthPole</u>.
   100t is twice the amount of a rough estimate of the CO<sub>2</sub> emitted due to travelling, and even without physical meetings, we decided to support communities, protect biodiversity and improve prosperity via certified climate action projects.
- Printing its Annual Reports on the most environmentally friendly paper (FSC paper, 100% recycled) in cooperation with the printing company <u>Lokay</u>, which has committed itself to be a sustainable printer.
   A further decision was made in early 2021: the Annual Report will no longer be printed but published online only.
- Holding its quarterly General Meetings:
   Seeking 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 aspect of the realisation of this is to give preference to regional food with a good choice of vegetarian and vegan options.

# Association of Issuing Bodies ivzw

The AIB is a non-profit-making

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# Registered offices

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