Shining a light

The AIB shines a light on where consumers’ energy comes from: what energy source; and what technology was used to produce it? The AIB’s light is bright and clear, and lets consumers choose the energy they want, rather than having to reach out in the dark.
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2013 was for AIB in many ways a true year of harvest. Principally, because we had the pleasure of welcoming new countries as members; and connecting them to our AIB Hub. In chronological order France, Germany and Italy implemented the GO system in their countries based fully on the EECS standard. Also, the Czech Republic is now a member of the AIB, and is currently making the necessary preparations to enable its connection with the AIB Hub to go live.

Behind the scenes, quite a few milestones were achieved. To name a few: all AIB members have now fully implemented the format required by the EECS standard. This concludes the transition to the EECS standard which we started several years ago. Standardization is vital, so that end users – large and small – can rely on comparable and transparent information. With standardised GOs, we can enable the European energy market to link production and consumption of renewable electricity based on its determining characteristics.

We are also very pleased with the continuation of the Concerted Action on the RES Directive (CA-RES II) for a second period, especially concerning the workgroup on Guarantees of Origin; and the fact that the EU has recognised the strong tie between GOs and disclosure.

CA-RES II is very important for us to align the political issues we encounter in seeking to provide our service connecting countries that wish to recognise each other’s GOs. We all realise that an integral European approach is crucial for a sustainable future supply of energy.

These important milestones took years of preparation and fine-tuning. I am extremely proud that we were able to do this in such a constructive atmosphere, taking into account that rules and regulations vary significantly between countries. No effort was too great for the representatives of our members, who put in many voluntary hours to get to where we are now. Our secret is that there have been no secrets; despite our different backgrounds and interests, we were able to keep focused on our shared aspirations. We will continue to do so, for there is still a lot more to do in the interest of the transition towards a sustainable future in Europe. And also because we firmly believe that alone you may go faster, but together you go further.
Certificate activity for 2013

Membership
At the end of 2013, AIB had a total of 19 members, representing 16 countries (the Belgian regions of Brussels, Flanders and Wallonia each have their own issuing body); plus a non-member user of the Hub. During the year, UBA of Germany replaced Oeko-Institut, but as a Hub user rather than a member; and Powernext of France (replacing Observ’ER) and OTE of the Czech Republic became members. Oeko-Institut resigned its membership at the end of 2013.

The issuers of guarantees of origin (GOs) for Cyprus (TSO-CY), Croatia (HROTE) and Estonia (Elering) continued the membership application process; while discussions progressed with interested parties in Greece (LAGIE), Ireland (SEM-O), Poland and Hungary.

The following map identifies the countries of organisations that are either members of the AIB or users of the Hub, and countries interested in or actively pursuing membership.
Market Activity

New features of the statistics
This year, the statistics have been expanded to include a breakdown of the certificates issued in some countries for fossil fuels.

Also, statistics are now available for: certificate activity in a month; and certificate activity relating to electricity produced in a month. So it is possible to analyse the quantity of certificates which are issued, transferred and cancelled or expired in a month; as well as those which were issued, cancelled or expired for the electricity produced in a month. This makes it possible to see how many of each ‘vintage’ of certificate are still available on the market; and to review seasonal certificate activity.

Health warning: in reading these statistics, the reader should be aware that not all registries report:
1. certificates issued by date of issue; or
2. certificates cancelled or expired for electricity produced in a specific month. This should be borne in mind when developing conclusions based upon these statistics.

Overview of activity
Market activity continues to increase, with further increases in the quantity of certificates used by suppliers to prove the source of electricity. This has again led to significant increases in internal trade and cancellation; with more and more certificates finding a value (distinguishing between cancellation and expiry in some registries is not always possible, especially for the early days of the market, so cancellations may be overstated).

By the end of 2013, 79% of certificates issued for electricity produced during 2012 and 15% of certificates issued for electricity produced in 2013 were reported as having been cancelled. This compares with 57% of certificates issued for electricity produced in 2011. At least 7% of certificates issued for electricity produced in 2012 have now expired, up from 2% of certificates issued for 2011 production.

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

The number of issued certificates for electricity produced during 2013 will be finalised during the next few months, and we anticipate a higher final number of certificates issued for this production year than that reported in this article – historic trends suggest an increase of about 20%.

The following graphs show:
1. the annual quantity of certificates 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.
Source of certificates - technology/energy sources
Hydropower continues to be the major source of electricity for which certificates are issued and cancelled, although the proportion has decreased from 86.7 % to 80.6 %. The proportion of certificates issued has also fallen for biomass (from 4.9 % to 3.7 %) and wind (from 6.5 % to 4 %); but risen for geothermal (0.1 % to 1.4 %); while nuclear has recovered to 7.5 % thanks to Swiss use ofGEOs for non-renewable energy. Certificates are increasingly being issued for fossil and nuclear, enabling residual mixes to be more precisely calculated.

Source of certificates – country
EECS certificates issued per technology (2013)

At the same time, certificates for fossil are now being cancelled; while the proportion of certificates cancelled is broadly the same as for last year.

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

EECS certificates cancelled per technology (2013)

Regarding national activity, Norway and Switzerland are by far the major suppliers of certificates, supplying over 63 % of all certificates issued, followed by Germany, Finland and France, which issued a further 18.7 %.

Germany, the Netherlands and Switzerland are now the major consumers of certificates, cancelling 48.6 % of all certificates between them; while Norway, Sweden,
Annual activity
Activity has continued to increase since 2010, with most activities rising at the start of the year, and declining in the middle of the year; cancellation showing a market peak during:
- January: Austria
- February: Norway, Flanders and Germany
- May / June: Sweden and Flanders
- December: Wallonia, Sweden.

The following graphs show the annual quantity of certificates issued for a production period; along with those that have been transferred within a country, traded internationally and/or cancelled during that period.
Cumulative activity - national

As the following graphs demonstrate, the growth in issuing continues (note that the issuance of certificates for the remaining 2013 production will continue into 2014) historically, a further 20% is possible, meaning the eventual total might be as high as 340TWh. The following graph shows the annual quantity of certificates issued for production in each of the last 9 years.

Cancellation continues to grow, reflecting growing consumption in a number of countries during 2013. The following graphs show the annual quantity of certificates that have been cancelled for production during each of the last nine years; along with the certificates that have been cancelled in each year for all production periods. Note in reviewing these graphs that – in line with the provisions of the RES Directive 2009/28/EC - certificates are increasingly expired one year after the date of production. However, this was not the case before 2011, when certificates that had not been cancelled remained in registries for an unlimited time. Also, until relatively recently, registry operators recorded the quantities of certificates issued for each production period; and those transferred and cancelled during a year for production during any year – increasingly, registry operators now record both.

Each of the above issues impact the statistics: for example, certificates are normally cancelled late in their life, which explains why most certificates for 2013 production have yet to be cancelled. Also, the slight dip in cancellations during 2012 may have been due to energy suppliers using up old stocks of certificates before they expired. It is less easy to explain why cancellations seem to have diminished during 2013, although this may simply be down to change of issuing body in France and Germany.
Internal use of certificates continues to rise, with Belgium, Germany and Norway making a marked contribution. See the following graph (right).

Externally, there is little difference in activity among the exporting (predominantly Nordic) countries plus Austria.

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

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

Cumulative activity – technology
From the perspective of technology, production and transfer of electricity, hydropower remains predominant among energies, followed by nuclear, wind and biomass (nuclear certificates have been issued and cancelled by their producer for disclosure purposes within Sweden and Switzerland).

Of the less predominant technologies, fossil is starting to make its presence felt; and that ‘unspecified’ is precisely that: renewable energy for which the source is unknown – this is perhaps a phenomena of the transition between the pre-EECS and EECS regimes, when coding changes were implemented.

The following graphs show the annual quantity of certificates issued for energy produced during a year, analysing these in more details for energy sources other than nuclear and hydro.
In addition, the following graphs show certificates that have been transferred within a country, and those that have been traded internationally.

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

For the first time, we can also see the growth in expiry of certificates, as the requirements of Directive 2009/28/EC are implemented.
EECS market penetration

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

In the absence of conclusive and reliable statistics regarding the production of electricity during 2013, the following graphs relate to electricity produced in 2012. They show the annual RES production and the quantity of certificates issued for a production period in each member country.

These show that (with the exception of Norway, the Netherlands – and including Switzerland for the first time) AIB still has some way to go if it is to fully reflect the market in renewables. However, there has been growth in most countries, in particular Belgium, Denmark and France; while Italy has fallen back temporarily as it switches from RECS to GOs.
The following graphs, also relating to 2012 production, show clearly that AIB members cover regions which, during 2012, were responsible for the production of 74.5% of European electricity, 86.3% of which was from renewable sources. Hence the electricity for which certificates are not issued is either:
1. produced by a country which is not yet a member of AIB; or
2. produced by a member of AIB which does not yet support EECS for all forms of certificates, or which does not yet support EECS for some production (e.g. only for external trade); or
3. not certified, due to lack of demand; or
4. not certifiable, as it has received support and this electricity is included in the mix supplied to consumers.
New EECS rules
The EECS Rules have now replaced the old Principles and Rules of Operation (“the PRO”). This introduces substantial changes to the regulation of AIB and its members, implementing the new RES Directive (2009/28/EC); enlarging the scope of EECS to include all energies and all countries; rationalising and clarifying the current regulations; and homogenising the market and so helping to improve liquidity.

Dp reviews and audits
During 2013, all remaining member domain protocols were updated to reflect the new EECS Rules, and reviewed. The audit cycle will recommence in 2014.

Concerted action on the renewable energy sources directive
See “External Life” for a summary of AIB’s growing relationship with Core Theme 5 of CA-RES II.

Development of the hub participant agreement
For a variety of reasons – some institutional, some due to legal reasons – some countries do not wish to join AIB, but are willing to use the Hub under contractual conditions. This led AIB to develop a new set of regulations, based upon contractually-binding terms, which apply to “Hub Participants”; and these were signed by UBA as a non-member of AIB that wishes to use the Hub.

The new Hub Participants’ document set leans on the EECS Rules and incorporates a core document, supplemented by: (1) special conditions for individual users and standard terms and conditions of use for their account holder; (2) technical conditions of use (drawing upon the existing subsidiary document addressing the interface between registration databases and a number of relevant fact sheets); and (3) the informational questionnaire and domain protocol for the country in question. This document set has required careful identification of the relevant provisions of the EECS Rules supplemented by appropriate provisions of contractual law, and required considerable effort along with negotiations with prospective Hub Participants.

During 2013, AIB adjusted this document to make it suitable for binding members; as such a legal framework protects all users of the Hub from risk of financial liabilities. Further work is required, and it is anticipated that this will be complete, and that all members will have signed on to its provisions, by the end of 2014.

Anti-fraud
In 2013, AIB joined the “Group of Ten” (AIB, CEER, EACH, EFET, ENTSO-e, Eurelectric, Eurogas, EUROPEX, GIE and LEB) European electricity & gas associations, comprising regulators, exchanges, brokers, clearing houses, transmission system operators, energy trading firms, utilities and issuance bodies, which have banded together to fight VAT fraud in the energy sector.

As part of the process, the group has supported the anti-VAT-fraud package approved in 2013 by the ECOFIN Council, which constitutes a major step towards the eradication of VAT fraud in the electricity and gas markets in Europe.

The package consists of two major legislative changes: one provides for the possibility for Member States to introduce the reverse-charge mechanism (RCM) to a series of specified goods, including electricity and gas, at national level; while the other creates a Quick Reaction Mechanism (QRM) that will enable the European Commission to grant Member States special exemptions for a maximum period of one year in case of major fraud attacks.

EU Member States are now considering making appropriate use of their new ability to apply the RCM to qualifying electricity and gas transactions in their national markets in order to actively eradicate VAT fraud and to prevent significant losses to their Exchequers. Applying the RCM as broadly as possible within the European Union will prevent fraudsters from further abusing the electricity and gas markets for criminal purposes.

Given that specific environmental products, like emission allowances and guarantees of origin, are closely interconnected to energy products such as electricity and gas, it is very important to also protect these markets from VAT fraud. Hence the group is now promoting more permanent and timely unlimited legislative solution as well as preventive measures to protect the market from fraudsters.
Concerted Action for the Renewable Energy Sources Directive (CA-RES)


The Concerted Action on the RES Directive (CA-RES) supports the transposition and implementation of the Directive and the achievement of the national targets; and in August 2013 it entered its second phase (CA-RES II), which will continue until 2016. Partners and participants are nominated organisations from all 28 EU Member States plus Norway and Iceland.

In CA-RES II, participating countries exchange experience and best practices, participate in a cross-learning process and develop common approaches; and one of its seven core themes relates to stimulating participating countries to further harmonise the implementation of Guarantees of Origin and Disclosure. Important topics are the ongoing process of connecting all member states to a harmonised implementation of GOs, facilitating international exchange of information for disclosure purposes and preventing double counting, as well as strengthening the internal market for GOs for the benefit of all stakeholders.

One of the targets of Core Theme 5 (CT 5) is to develop an inventory of the problems that participating countries experience, so promoting an efficient implementation that is coherent at European level, prevents double counting and market distortion, and contributes to the finalisation of the internal energy market.

One of the major challenges that AIB faces concerns the interpretation of the RES Directive, and in particular those provisions which are unclear or can be construed in different ways, or which might conflict with existing national electricity markets; and those areas where the Directive is silent. Therefore the CA-RES Core Theme “Guarantees of origin and Disclosure” has created the concept of a ‘Policy Advice Group’ (PAG) that works in close contact with the AIB on the development of a roadmap to link all Member States, including resolving differences of interpretation. The use of the AIB’s infrastructure will help to avoid conflicting standards and support matching infrastructures across Europe.

CT 5 has reacted by creating the concept of a ‘Policy Advice Group’ (PAG), and AIB is now working with CT 5 to implement this concept.

Open Market Committee

The 6th Market Committee was held in June 2013, in Reykjavik. The meeting was well attended with participants from 13 European countries, and enabled RECS market players and AIB members to exchange views on several important topics.

As all attendees are strong supporters of the EECS system, everyone was interested in the current status and outlook for the geographic expansion of EECS (see more below: Recruitment of new members). New since 2013: EECS supports the marking of GOs to indicate that the energy they represent complies with the conditions of independent criteria schemes such as EKOenergy, Naturemade and TÜV SÜD Generation EE. Also, EECS is mutually compliant with the new CEN standard for GOs.

Phasing out the RECS scheme had been discussed several times this year; and RECS-I had confirmed to its members that the RECS certificate scheme would no longer be operational from 31st December 2015, with issuing stopping from 31st December 2014. Also, that RECS certificates may no longer be referred to as such from 1st January 2016.

AIB, along with many national Issuing Bodies, market players and members of RECS International, as well as the project team of RE-DISS II and the internet platform EPED, are all involved in energy source disclosure and strongly support a harmonised standard for tracking of electricity. One document is often referred to: the ‘Best Practice Recommendations’ (BPR) of the RE-DISS project (http://www.reliable-disclosure.org/documents/). All of these activities impact the EU Commission, which is very interested in voluntary co-ordinated systems for GO and electricity disclosure; but does not see the need to make a stronger contribution. However, both market parties and national authorities are of the opinion that the EU Commission should play a stronger role in this field.

The next meeting of market players and AIB issuing bodies will be held in September 2014 in Split, Croatia. It is open for all stakeholders to exchange views.
Participation in projects: RE-DISS

After the “Reliable Disclosure Systems for Europe (RE-DISS)” project successfully ended in October 2012, the follow-up project (RE-DISS II) was launched in April 2013. Like the first project phase, RE-DISS II has focussed on supporting European Competent Bodies for GO and electricity disclosure by providing recommendations for implementing GO systems and reliable disclosure schemes. This also includes the provision of annual residual mix data; and compilation and publication of country profiles.

One of the key recommendations from RE-DISS with respect to GO systems is that competent bodies should adopt the EECS system. RE-DISS has supported the AIB in successfully extending its services as provider of the AIB Hub - the central European GO interface to both members and non-members of the AIB. This provision of services to non-members is a crucial step forward in promoting the use of EECS amongst those countries for which membership of the AIB would impose an administrative barrier.

Representatives of the AIB have attended meetings organised by RE-DISS, including the 2013 workshop for Competent Bodies “Making Guarantees of Origin and Electricity Disclosure in Europe more reliable”. The AIB also participates in the second project phase of RE-DISS, as member of the Advisory Group; and provides input and guidance to the work of the RE-DISS project team.

The AIB General Meeting has decided, subject to confidentiality provisions, to provide to the RE-DISS project team statistics relating to transactions involving EECS GOs for 12 different fuel categories. This is crucial in order to support improved calculation and provision of residual mix data to European Competent Bodies by RE-DISS II. The future work of RE-DISS II will not only include continuation of ongoing responsibilities from the first project phase, but will also include new aspects like detailed analysis and recommendations with respect to environmental indicators in electricity disclosure, and in-depth discussion of the criteria for recognition of imported GO.

With an eye on the period after the end of RE-DISS II in September 2015, RE-DISS II also aims to organise a structure for future governance of a European Tracking System which is not depending on such restricted project settings. The AIB will actively contribute to the related discussions, and also consider its own possible role and responsibilities for the “post RE-DISS” period.

Recruitment of new members

Observ’ER ceased to be the issuing body for France at the end of December 2012; and in early 2013 Powernext was appointed by the French government as issuer for guarantees of origin. Powernext joined AIB in June 2013. At the end of December 2013, Oeko-Institut ceased to be the German issuing body of RECS certificates, EECS-Disclosure certificates and GOs under Directive 2001/77/EC, and also left AIB. Early in 2013, UBA was appointed by the German government as issuer for guarantees of origin under Directive 2009/28/EC. The UBA agreed with AIB on terms for the use of the AIB Hub, and signed these in May 2013, commencing use of the AIB Hub as a non-member, later in the summer.

Also early in 2013, OTE was appointed by the Czech government as issuer for guarantees of origin under Directive 2009/28/EC, and joined the AIB in autumn 2013. OTE will commence using the Hub in early 2014.

HROTE (Croatian market operator), TSO-CY (Cyprus TSO) and Elering (Estonian TSO) are continuing the process of applying to become members.

LAGIE (Greece) and SEM-O (Ireland) are also exploring membership; and there is further interest from Poland, where AIB spoke at two conferences, and also Hungary has shown interest.

Amongst members, Italy recently commenced the process of replacing RECS certificates with GOs; and Portugal is taking steps to do so in the future.
AIB - Officials

The decision-making body of the AIB is the General Meeting, which meets quarterly at various locations in Europe. Meetings tend to be over a two-day period, to enable decisions to be made at working and executive level. Normally, there is a social event associated with meetings, usually a dinner, giving members the opportunity for informal discussions.

Until June 2013, the President of the Association was Christof Timpe (Oeko-Institut, Germany), at which point he stepped down; AIB is currently seeking a replacement. In the meantime, the Chair of the Board (Jan van der Lee) has assumed his duties.

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

- Andrea Effinger (Germany) regarding Working Group External Affairs, the Working Group chair’s meeting, the Market Committee and the Joint Board;
- Petter Sandvik (EdiSys, Norway) regarding Working Group Systems;
- Liesbeth Switten (Belgium), on legal and regulatory advice to Working Group Internal Affairs – note that Liesbeth is a part-time employee of a member (VREG, Flanders); and
- Chris Pooley (Ramboll, United Kingdom) advised Working Group Internal Affairs on regulatory issues relating to the practical implementation of EECS.

Reviews of Domain Protocols, setting out how each member implements the EECS Rules, are conducted by members, assisted by the professional reviewers: Liesbeth Switten, Chris Pooley, Remco van Stein Callenfels (CertiQ, Netherlands) and Diane Lescot (Observ’ER, France). Each of the professional reviewers has worked with a member, either currently or in the past, and has in-depth knowledge of EECS.

The Management Board is responsible for day-to-day management of the Association, and meets monthly, alternating physical meetings with teleconferences. The general cycle of meetings is organised so that budgetary plans are approved at the December General Meeting. For the whole of 2013, Jan van der Lee (CertiQ, Netherlands) was chair of the Board. The other Board members were Angela Puchbauer Schnabel (E-Control, Austria); Lukas Groebke (Swissgrid, Switzerland), who was also Treasurer for the duration of 2013; and Lars Olav Fosse (Statnett, Norway), who was appointed in March 2013.
Three issues were key elements of year 2013 for WGIA: the Hub Participant Agreement (HPA); the new Domain Protocol template (and more explicitly AIB’s role in electricity disclosure); and the acceptance procedure for Independent Criteria Schemes. Furthermore, the transition from the V67 to V70 message format finally completed; France and the Czech Republic were welcomed into the AIB; the Articles of Association were updated; and the cooperation with CA-RES Working Group 10 was encouraged by the establishment of a Policy Advisory Group.

The Reykjavik General Meeting in the summer of 2013, sealed the yearlong work of WGIA by accepting the Hub Participant Agreement (HPA), which allows non-members of the AIB to use the AIB Hub as a service. In the same meeting, the German Federal Environment Agency (UBA) was accepted as the first non-member Hub participant of the AIB. The work still goes on to further strengthen the legal relationship between Hub users: the next step is to gain signature of the HPA by all current members of the AIB. The member version of the HPA is expected to be approved and ready for signature in the summer of 2014.

The Geneva GM in October 2013 accepted the new AIB domain protocol template. This new format sets the electricity disclosure regime explicitly under the AIB Domain Protocol review process. By doing so, AIB seeks to avoid all possibilities of the attributes represented by EECS certificates from being double counted.

Throughout 2013, WGIA has formally separated Independent Criteria Schemes (ICS) as additional flags on Guarantees of Origin, when fulfilling the criteria of certain independent labels; from Non-Governmental Certificates (NGC), which are stand-alone certificate schemes that are different from GOs. The emphasis will now be placed on the former, so that NGCs such as RECS certificates will eventually no longer be supported by EECS. However, AIB will retain the NGC:EECS-Disclosure, in order to allow the issuance of energy certificates for nuclear and fossil energy sources, where GOs cannot be issued for these sources under national legislation. This will promote reliable disclosure of all energy sources in Europe.

Personnel-wise, we were sad to see our long-term member Öko-Institut resign from AIB (and therefore from WGIA), but fortunately the new German member (UBA) has taken an active role in the group. Besides Öko-Institut and UBA, we have benefitted from the work contributions of CWaPE, E-Control, Grexel, GSE, ILR, Powernext and TenneT as members, and from the observers HROTE and SEM-O.

In 2014, and further into the future, WGIA will seek to further collaborate with CA-RES WG 10 in building reliable electricity tracking and disclosure throughout Europe together with the Ministries and Competent Authorities. More explicit goals for 2014 include the member version of the HPA and updating the EECS format to account for 2012/27/EC relating to CHP-GOs.
**Working Group Systems**

Working Group Systems (WGS) is responsible for the development and maintenance of interfaces between registries and for the overall functionality and management of the Hub service. Related issues such as common registry functionality and data visibility also fall within the remit of this group.

The transition to v70 of the inter-registry XML Schema started in 2012 and completed on 1 October 2013. WGS collaborated with Working Group Internal Affairs in the implementation of facilities to support the identification of Independent Certificate Schemes on EECS certificates, treating these separately to Non-Governmental Certificates.

A project with the purpose of creating a centralised database of account holders has been implemented, and it is anticipated that this will be ready by the end of 2014.

Gardar Larusson left Working Group Systems and was succeeded by Katrien Verwimp and Annie Desaulniers who were jointly elected as co-chairwomen, in October.

Also, Anne Cathrine Petersen of Edisys left WGS after having served as an excellent “SuperUser”: she is replaced by Petter Sandvik (also of Edisys).

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**Working Group External Affairs**

The main task of Working Group External Affairs (WGEA) is to ensure that the AIB is visible in public. WGEA is in fact mandated to promote, facilitate and incorporate new AIB members, HUB participants and observers.

To promote the importance of being part of the AIB, the smallest working group of the Association mainly uses the website, the publication of the Annual Report and the AIB newsletter which keeps the working group busy all year long.

WGEA is often involved in the optimisation of processes, which includes making more accessible those documents which are necessary to becoming a member and to be compliant with the internal rules.

Furthermore, WGEA is the promoter of the “Greening the AIB” project which has the purpose of making the AIB’s own structures and organisation environmentally and socially friendly. The main areas in which the AIB is able to improve its own sustainability are communication (website, emails) and the AIB meetings which are held across Europe - i.e. giving priority to 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.
Income in 2013 exceeded expenditure by €201,347, income being €77,125 more than had been forecast; while expenditure was €54,768 less than the allocated budget. This has enabled AIB to retain cash reserves at 31st December of €292,655.

### Budget / Actual expenditure and income

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<th>Variance</th>
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<th>Budget</th>
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<th>Variance</th>
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<td><strong>2013 income</strong></td>
<td><strong>746,641</strong></td>
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**Position against budget**

**Income**

Income was €77,125 more than the allocated budget. This was due to greater levels of activity than expected in Switzerland, France, Iceland, Italy, Luxembourg and Slovenia; despite lower levels of activity than expected in Italy and Spain; and Croatia, Cyprus, Greece and Estonia not yet joining.

**Expenditure**

In total, expenditure was €54,768 less than the allocated budget.

Within **General Administration:**
- The cost of the Secretariat was €27,762 lower than expected, due to over-budgeting.
- Banking costs were more than covered by interest received (a variance of €126).
- Expenses were €1,100 more than anticipated, and can be attributed thus:
  - No expenditure on insurance (€20,000) and sundries (€2,000), plus underspending on teleconferencing (€483) and travel and accommodation (€2,449).
  - This was offset by discussions with Atos about improvements to the hosting and support agreement, along with its service level agreement (€15,870); overspending on AIB audit and advice on the correct place of registration of AIB for VAT purposes (€2,709); DP reviews, which (partly or wholly) took place for 17 countries, and involved 43 man days of effort from professional reviewers (€7,115) plus the time of member reviewers; and meeting accommodation (€2,338).

Within **Workgroup Systems**, costs were in total €31,694 less than expected. Expenditure on hosting and supporting the Hub was €8,892 under budget, as the anticipated increase in costs under a successor agreement had not materialised. Expenditure on enhancing the Hub was €9,193 under budget; while WGS support and Hub SuperUser costs were €16,889 under budget, which had presupposed that AIB moved to a fixed-price agreement: in the event, the existing time-and-materials agreement proved more cost-effective.

**Workgroup Internal Affairs** spent €7,229 more than its allocated budget due to the costs associated with:
- developing the Hub Participants Agreement to address members as well as users
- revising the Articles of Association to reflect the current and proposed requirement
- registration with the Belgian data protection body
- assisting the European Federation of Energy Traders to develop GO agreement
- developing confidentiality agreement to give RE-DISS II project access to AIB statistical data
- development of cogeneration GO model
- support of CEN/CENELEC on international GO standard
- resolving the proper country of registration under VAT legislation
- reviews of the AIB Domain Protocol template and Independent Criteria Scheme regulations
- assisting in the development of the Policy Advice Group being put in place by the Concerted Action on the Renewables Directive

These activities resulted in overspend on regulatory advice amounting to €33,174; but this was for the most part offset by €25,045 less expenditure on legal advice than anticipated.

**Workgroup External Affairs** expenditure was €3,514 less than the allocated budget, due to the costs of producing the annual report being higher than expected (€3,479) and the marginally higher than expected cost of proof-reading (€112), plus the un-budgeted costs associated with the newsletter (€1,580); being offset by the costs of the secretariat being €820 less than anticipated, as were website hosting and development (€5,020 – although an €2,400 of this has been accrued until 2014), the trademark (€15), other printing and graphics (€2,870).

Within **General Administration:**

**Position at Jyske Bank**

2013 commenced with €337,332 brought forward in the bank account. Receipts for membership and meeting attendance fees (€582,588) plus receipts for registration of ICSS (€2,000), VAT refunds (€62,341), and repayment of expenses (€2,533) were offset by expenditure of €691,602 during the period January to December, resulting in €292,655 being carried forward to 2014.

Invoices have now been received for all work commissioned during this period, €40,287 having been set aside at the beginning of the year for outstanding payments relating to work commissioned in 2013. Invoices have also been issued for the remaining membership fees relating to 2013, and which amount to €236,441.
The following pages give details of each of the members of the AIB during 2013; and summarise the major events of 2013 and the expectations of 2014 for members and their countries.

The transition from the old Principles and Rules of Operation ("the PRO") to the new EECS Rules is now complete. This replaced and substantially changed the regulation of AIB and its members, implementing the new RES Directive (2009/28/EC), enlarging the scope of EECS to include all energies and all countries, rationalising and clarifying the current regulations, and homogenising the market and so helping to improve liquidity.

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

Member of the AIB
Member of the AIB since 2001.

E-Control joined the AIB in the summer 2001 in the course of the Helsinki Meeting. Ever since, E-Control has actively contributed to the development of the Association. For instance, Walter Boltz, Executive Director of E-Control, headed the AIB as President from summer 2004 to summer 2006. Since 2008, Angela Puchbauer-Schnabel has been an active member and she is also member and vice chair of the Board of the AIB.

Activities within the AIB
Angela Puchbauer-Schnabel: Vice Chair of the Board, Member of Working Group Internal Affairs. She also represents E-Control as a partner of the RE-DISS project, and is involved in the Concerted Action Project dealing with Guarantees of Origin and disclosure.

News and perspectives regarding national IB
The layout of the Austrian database was modernised and adapted to E-Control’s corporate layout. Further, an additional security code was implemented to secure the registration and the login process. Several small adaptations were made to facilitate the users’ and the administrators’ work with the database.

In the Austrian domain GOs from renewable sources and fossil sources are issued, transferred and cancelled electronically. GOs issued in other countries and imported to the Austrian database are automatically checked once they are going to be used for disclosure purposes. Where they are found not to be in line with the criteria of § 6 SK-VO 2011, amended in 2013, cancellation of these GOs is not allowed in the system. This mechanism serves as a quality check which ensures that the supplier uses only valid GOs for national disclosure purposes.

News and perspectives regarding the national framework on electricity
The Stromkennzeichnungsverordnung (Disclosure by law) 2011 has been revised and an amended version came into force in 2013. The major adaptation was the implementation of detailed regulations on the issuing of GOs of pumping power plants.
“AIB offers an excellent platform for exchange of good practices ... 25% of the GOs used for Austrian disclosure purposes were imported from other countries, mainly issued in Norway.”

Further, the Elektrizitätswirtschafts- und -organisationsgesetz (ElWOG 010) has been amended and came into force in 2013. The major changes are the obligation on suppliers to cancel GOs for the full amount of electricity delivered to final customers in a calendar year from 2015 onwards, and detailed regulation on issuing GOs from pumping power plants.

As an immediate consequence of the full disclosure requirement, a majority of the additional Austrian suppliers decided to sign the standard terms and conditions to use the AIB HUB for international transfer of GOs. In 2012, 21 participants were registered; in 2013 already 38 market actors were trading via the AIB HUB.

Benefits to the company of AIB membership

The AIB plays a major role when transferring GOs within the European market. The AIB guarantees a high quality of traded certificates based on the European Renewables Directive. Further, the AIB offers an excellent platform for exchange of good practices between issuing bodies and related organisations. The AIB cooperates with European projects dealing with GOs and disclosure in Europe, namely RE-DISS and CA-RES, which broadens the scope for all participants and is a welcoming approach for networking.

Being an AIB member means being connected to the European market for GOs through a transparent, reliable and cost-effective system and a great platform of experience.

Based on the amended national regulations and the possibility to import EECS-GOs from other countries through the AIB-HUB, the Austrian national disclosure mix was raised to 92.75 % electricity of known sources (thereof 74.53 % renewable sources, 17.91 % fossil sources and 0.31 % other known sources), 25 % of the GOs used for Austrian disclosure purposes were imported from other countries, mainly issued in Norway. Angela Puchbauer-Schnabel

Scope of national participation in EECS

| Number of registered scheme participants | 38 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,593</td>
<td>18,128</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>12,350</td>
<td>94</td>
</tr>
<tr>
<td>Hydro</td>
<td>3,028</td>
<td>16.892</td>
</tr>
<tr>
<td>Wind</td>
<td>215</td>
<td>1.142</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,300</td>
<td>n. a.</td>
</tr>
</tbody>
</table>
Profile of the organisation
Regulator

Role
BRUGEL is the competent authority for the delivery of guarantees of origin for green electricity production, which is defined as electricity produced from renewable energy sources and from high-efficiency cogeneration.

Member of the AIB
BRUGEL has been a member of the AIB since 2008.

Activities within the AIB
The follow-up of AIB activities and representation of BRUGEL at General Meetings has been assured by Régis Lambert. Patrice Mathot follows up on matters relating to Working Group Systems.

News and perspectives regarding national IB
During the Geneva General Meeting in September 2013, the new Domain Protocol of Brussels, which ensures the compliance with the RES-directive and the latest EECS-rules, was approved.

The Decree implementing the legal framework for certification of production devices, issuing of GO and disclosure, is currently under review. As the first reading of the Decree, prepared by the Government and the following formal advice from BRUGEL, has been accomplished in the beginning of 2014, it is expected that this new legislation will come into force in late spring 2014. BRUGEL has seized this opportunity to adapt the text in order to fully comply with and be totally consistent with the RES Directive, the EECS Rules and the Brussels Domain Protocol. The Brussels database will be adapted accordingly.

News and perspectives regarding the national framework on electricity
The improved profitability for large PV-plants triggered by the adaptations of the support scheme made in June 2011 has continued and led to a steep evolution of installed PV power.
As a consequence, the total PV installed power had more than doubled by the end of 2013 compared to end of 2012, with more than 24 MW installed power during 2013, which is an impressive evolution for a highly urbanized area like the Brussels Region.

On the other hand, high-efficiency cogeneration is rather stagnating. The competent authorities are investigating the appropriate measures to make this sector dynamic as well.

The suppression during 2012 of the tax-reduction accorded to suppliers proportional to the RES part in their electricity disclosure has led to a small decrease in the RES-part of their disclosures, and hence of the import of GOs. This evolution is expected to be confirmed for the disclosure of 2013 (which is handled at the time of the preparation of this report; hence figures could not yet be consolidated).

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

Benefits to the company of AIB membership
The AIB enables BRUGEL to be part of and to be involved in the broader European debate on Guarantees of Origin. As for now, no transferable GOs are issued in the Brussels Region itself, it is crucial for BRUGEL to be connected to a stable and reliable exchange-platform, which enables market parties to import standardised GOs in order to prove to Brussels consumers the origin of their electricity in a transparent and waterproof manner.

**Scope of national participation in EECS**

<table>
<thead>
<tr>
<th>Number of registered scheme participants</th>
<th>27 *</th>
</tr>
</thead>
</table>

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices*</th>
<th>Total capacity installed per technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>90.3 **</td>
</tr>
</tbody>
</table>

* These 27 scheme participants are all pure GO-importers
** 1.53 % of 5901 GWh total consumption in BEB = 90.3 GWh of RES-production; these figures are best available estimates and are subject to confirmation
Profile of the organisation
Regulator for Electricity and Gas

Role
Competent authority for renewable electricity guarantees of origin, operator of the certificate database in Flanders

Member of the AIB
VREG has been a member of the AIB since 2006.

Activities within the AIB
AIB WGS co-chair: Katrien Verwimp
RE-DISS country representative: Katrien Verwimp
CEER CEM taskforce chair: Dirk Van Evercooren

News and perspectives regarding national IB
During 2014 a new database will be developed to improve the functionalities in trading guarantees of origin.
News and perspectives regarding the national framework on electricity

In 2013 support certificates for quota obligation and guarantees of origin were divided into separate certificates, each to be used for different purposes: support and disclosure respectively.

Support is limited in duration: new production devices receive a support level relating to their technology, and this category is applied by recording the appropriate banding when the certificate is issued.

Benefits to the company of AIB membership

In 2012, 52% of the Flemish Electricity consumption proved to be produced from renewable energy sources through cancellation of guarantees of origin. 85% of these guarantees of origin originated from Scandinavian countries.

Scope of national participation in EECS

<table>
<thead>
<tr>
<th>Number of registered scheme participants</th>
<th>215,713</th>
</tr>
</thead>
</table>

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>230,424</td>
<td>3,273,405</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of RES-E devices in Flanders</th>
<th>Total capacity installed per technology (KWe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>biogas – digestion of Fruit-and vegetable waste</td>
<td>2</td>
<td>3,761</td>
</tr>
<tr>
<td>biogas - agricultural</td>
<td>81</td>
<td>81,708</td>
</tr>
<tr>
<td>biogas – other</td>
<td>22</td>
<td>28,157</td>
</tr>
<tr>
<td>biogas – sewage</td>
<td>16</td>
<td>4,772</td>
</tr>
<tr>
<td>biogas – landfill gas</td>
<td>12</td>
<td>14,730</td>
</tr>
<tr>
<td>Biomass – selectively collected biogenic waste</td>
<td>11</td>
<td>235,402</td>
</tr>
<tr>
<td>Biomass – biogenic municipal waste</td>
<td>9</td>
<td>40,383</td>
</tr>
<tr>
<td>Biomass – agricultural or forestry</td>
<td>36</td>
<td>308,542</td>
</tr>
<tr>
<td>Hydropower</td>
<td>16</td>
<td>1,006</td>
</tr>
<tr>
<td>Wind on shore</td>
<td>118</td>
<td>435,602</td>
</tr>
<tr>
<td>Solar photovoltaic</td>
<td>230,101</td>
<td>2,119,343</td>
</tr>
<tr>
<td>total</td>
<td>230,424</td>
<td>3,273,405</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,342,305</td>
<td>4,344,381</td>
</tr>
</tbody>
</table>
Profile of the organisation
Regulator of electricity and gas, in charge of enforcing public services obligations and distribution regulations, and developing renewable support system, electricity tracking and integration into the grid.

Role
EECS GO

Member of the AIB
Member of the AIB since 2007, scheme member since 2009, pending scheme membership: none (potentially CHP-GO)

Activities within the AIB
- Representatives to the General Meeting: Pierre-Yves Cornélis & Annie Desaulniers
- Workgroup System (co-chairwoman): Annie Desaulniers
- EPED: member
- Other contact: Gauthier Libeau

News and perspectives regarding national IB
The revised Walloon Domain protocol has been approved by the General meeting, allowing export and imports of GOs.

CWAPE has successfully up-scaled its online issuing system; it now daily handles 1,000 photovoltaic meter readings and issues accordingly. Our processes and database are being continuously improved. This year has also seen the successful improvement of our single point of contact located at Distribution Grid Operators for photovoltaic plants smaller than 10 kW.

CWAPE is still considering whether to transform local CHP GO into EECS CHP GO. The legal framework for issuing biogas GOs is in place, although no project is running yet (such projects would be encouraged, were public support to be offered).

CWAPE’s connection to the AIB Hub has been successfully upgraded to v70, and its activity has again doubled during the year. CWAPE remains busy upgrading its database software.

News and perspectives regarding the national framework on electricity
Support
- Context: the support system based on green certificates (i.e. specific support certificates) has demonstrated its efficiency in developing affordable renewable and CHP by tripling generation in 10 years. This support is based on the extra costs (when compared to conventional plants) of the technology (banding) and the measured environmental performance of the individual plant (avoided CO2 emissions).
Supplementary certificates were generously granted to solar plants, which eventually received about half of all support; this led to a crash in market price of green certificates and impacted all pathways.

- **Quota**: Quota is set to 37.9% in 2020 with steadily increasing steps until then.
- **Market price of support certificate**: The current oversupply of support certificates means that most generators are making use of the guaranteed price, meaning that price recovery is likely to take a while.
- **Joint schemes within Belgium**: It is still unclear whether the scope of discussions between the Belgian regions would include extending the mutual recognition of green certificates, already applied between Wallonia and Brussels, to include Flanders. However, it is unlikely to include federal off-shore wind.
- **Review of support level**: Usually, every 3 years, the support level granted to generators by way of green certificates is assessed for each technology. The number of green certificates issued for each MWh will be adapted accordingly for new plants set up for the next period. Small PVs now receive less support outside the support certificates scheme.
- **New installations**: About 60,000 new small (<10 kW) photovoltaic plants were set up in 2013, but the figure is expected to be smaller in the coming year. Nevertheless, a sharp increase in non-domestic solar plants took place. The number of larger plants that were commissioned dropped (biomass, wind, etc.) due to uncertainties in financial support and planning permission.
- **Sustainability criteria**: Wallonia has been actively applying demanding sustainability criteria since 2002, especially for solid and liquid biomass. Transposition of Directive for bio-liquids did not change this. Progress is also slowly being made towards harmonisation of sustainability criteria for wood pellets.

Disclosure:
- Good practices exchanged with other competent bodies in CA-RES, EPED and RE-DISS lead to improvements to CWaPE’s disclosure system (e.g. mandatory GO cancellation prior to fuel mix declaration). Monthly reporting to the regulator of renewable products and monthly cancellation of guarantees of origin for those products remain.
- The tax deduction based solely on the renewable fuel mix has been scrapped for 2013.

**Benefits to the company of AIB membership**

“The AIB system lubricates the gears of the international trade in renewable electricity.”

Annie Desaulniers, co-chairwoman of Work Group System
Profile of the organisation
OTE, a.s., the Czech electricity and gas market operator, is a joint stock company established in 2001. OTE provides comprehensive services to individual electricity and gas market players. OTE commenced organising trading in the day-ahead electricity market in 2002 and, later on, in the intra-day and block electricity markets. OTE has been the market operator on the gas market since 2010, including operation of the day-ahead gas market and the intra-day gas market. Continuous data processing and exchange required for the accounting and settlement of the imbalance between the contractual and actual volumes of electricity and gas supplied and received are among the services offered by the OTE to players in the Czech electricity and gas markets, as well as the administrative procedures associated with change of supplier. The OTE also administers the National Register of Greenhouse Gas Emissions. OTE is the holder of the license for the market operator’s activities, which includes activities in the electricity and gas markets in the Czech Republic.

Role
OTE, a.s. is a RES GO issuing body for the Czech Republic.

Member of the AIB
OTE, a.s. became member of the AIB on 28 November 2013.

Activities within the AIB
In the year 2013, OTE, a.s. was represented in the AIB General Meetings and the RE-DISS Workshop by Miroslav Řehoř, Zuzana Stašková and Martin Štandera.

News and perspectives regarding national IB
We are currently preparing a connection of our completely new GO scheme to the AIB Hub enabling import of GOs from other AIB members to the Czech domain.
“As a new member of the AIB we highly appreciate the possibility of gathering information and experience from other members of the AIB.”

News and perspectives regarding the national framework on electricity
As of 1 January 2013, OTE, a.s. became responsible for the Czech system of payments of support for renewable energy sources. This system is closely connected to the new Czech GO scheme in terms of sharing data on RES production.

In November 2013, the Czech Energy Regulatory Office decided to significantly reduce the support of newly built renewable energy sources with effect from 1 January 2014.

Benefits to the company of AIB membership
As a new member of the AIB we highly appreciate the possibility of gathering information and experience from other members of the AIB.

The new Czech GO scheme, which should be connected to the AIB Hub in the first quarter of 2014, will facilitate electricity producers’ and traders’ exchange of GOs internationally, which is not possible in the current Czech scheme. This is highly anticipated by major Czech energy market participants.

Scope of national participation in EECS

| Number of registered scheme participants | 47 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>2,322</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro-electric head</td>
<td>31</td>
<td>1,173</td>
</tr>
<tr>
<td>Thermal</td>
<td>19</td>
<td>1,137</td>
</tr>
<tr>
<td>Wind</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Solar</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>244,9</td>
<td>8,381,1</td>
</tr>
</tbody>
</table>
Profile of the organisation
Energinet.dk is the Danish transmission system operator (TSO). The enterprise was established by virtue of the Danish Act on Energinet Danmark of December 2004.

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

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

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

Role
Energinet.dk is the Danish issuing body, issuing under EECS: guarantees of origin for renewable source electricity (since 2004), guarantees of origin for cogeneration (since 2010) and RECS certificates (since 2002).

Member of the AIB
Energinet.dk has been member of the AIB since the foundation of the AIB in 2002.

Activities within the AIB
Energinet.dk is represented in the AIB by Grexel.
News and perspectives regarding the national framework on electricity

Approximately 90,000 PV units have now been installed and the total capacity is expected to reach approximately 500 MW at the end of 2013. The support system keeping households cost neutral within the year ended 19 November 2012 for smaller units up to max 6kW. Denmark has a limited number of GOs issued on PV.

A centralized DataHub, an energy market communication platform, went live in March 2013 in Denmark. The DataHub is a scalable IT platform responsible for handling all market processes between market actors, and settlement of energy based on measures of approximately 3.5 mio consumption and production meters down to the hour in the energy market. The platform is based on the market philosophy and legislation driven by EU-Directives. The platform is owned by Energinet.dk - for further information go to the website www.energinet.dk/datahub.

Benefits to the company of AIB membership

“Being part of the AIB ensures that Energinet.dk meets the requirements of the EU directives in an efficient way that also ensures efficient markets. Furthermore, the AIB provides the opportunity to share knowledge and information which ensures implementation of best practise.”

Louise Rønne Christensen, Head of Retail Market Development at Energinet.dk

Scope of national participation in EECS

| Number of registered scheme participants | 16 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97,648</td>
<td>6,053</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass</td>
<td>76</td>
<td>598</td>
</tr>
<tr>
<td>Biogas</td>
<td>190</td>
<td>92</td>
</tr>
<tr>
<td>Wind</td>
<td>5,922</td>
<td>4,793</td>
</tr>
<tr>
<td>Hydro</td>
<td>47</td>
<td>9</td>
</tr>
<tr>
<td>Solar</td>
<td>91,413</td>
<td>561</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,684,649</td>
<td>15,125,444</td>
</tr>
</tbody>
</table>
Profile of the organisation
Grexel is a privately owned company. Grexel enables energy certification by providing market infrastructure solutions and services.

Our main service includes central registry system provision for guarantees of origin and other energy certificates as well as market design and regulatory engineering. We help Competent Bodies and legislators to develop the entire energy certification scheme from registry systems to definition of key processes as well as implementation of reliable electricity disclosure and residual mixes.

Role
Registry operator. Grexel operates as the EECS Issuing Body in Finland and Sweden.

Member of the AIB
Member of the AIB since 2006.

Activities within the AIB
Chair of WGIA (Markus Klinscheffskij)
Member of WGS (Marko Lehtovaara, Vesa Hyrskylahti, Marika Timlin)
Project partner in RE-DISS

News and perspectives regarding national IB
2013 marked the long-waited amendment in Finnish legislation transposing Article 15 of the RES directive. Guarantees of Origin are now the only way to sell green electricity to final consumers, and a residual mix is calculated by the energy market authority.

In Sweden a new registry was opened featuring trading of both Guarantees of Origin and Elcertificates (used for RES support). The new registry, Cesar.NET, thus combines the former Swedish registries: Cesar and Cesar.GO. In Sweden GOs are issued for approx. 95% of all electricity produced, thus leaving very small volumes in the residual mix.

The monetary value of certificates traded within Grexel’s registries continued to grow during 2013, exceeding 1 billion euros annually. The Guarantee of Origin exchange operated by the European Energy Exchange (EEX) opened operation in the Finnish domain of CMO. grexel.
In late 2013, Grexel will start providing registry services for the Bio methane Certification Scheme in the UK, operated by Green Gas Trading Limited and Anaerobic Digestion and Biogas Association (ADBA).

News and perspectives regarding the national framework on electricity
Grexel is a project partner in RE-DISS II (Reliable Electricity Disclosure systems for Europe) project, where our main task is residual mix calculation and further development of the calculation methodology as well as offering support to Competent Bodies. Grexel considers it vital for the success of the GO system in Europe that also the electricity disclosure arena is further harmonized.

Benefits to the company of AIB membership
AIB and EECS put together national GO systems and make them fit like pieces in a puzzle. Without AIB, a reliable GO market could never be Europewide. Being a member of the AIB enables us to use the EECS system, connect with other countries through the HUB as well as share experiences and develop the system further.

Markus Klimscheffskij, Chair of WGIA

“AIB and EECS put together national GO systems and make them fit like pieces in a puzzle.”

Scope of national participation in EECS

| Number of registered scheme participants | 56 | 31 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>179</td>
<td>6.063</td>
</tr>
<tr>
<td>561</td>
<td>20.891</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production device*</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>26</td>
<td>146</td>
</tr>
<tr>
<td>Hydro</td>
<td>107</td>
<td>2,761</td>
</tr>
<tr>
<td>Thermal</td>
<td>46</td>
<td>3,156</td>
</tr>
<tr>
<td>Wind</td>
<td>355</td>
<td>1,030</td>
</tr>
<tr>
<td>Hydro</td>
<td>196</td>
<td>12,935</td>
</tr>
<tr>
<td>Thermal</td>
<td>3</td>
<td>138</td>
</tr>
<tr>
<td>Nuclear</td>
<td>7</td>
<td>6,788</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,500</td>
<td>19,300</td>
</tr>
<tr>
<td>12,000</td>
<td>72,700</td>
</tr>
</tbody>
</table>

Finland
Sweden
Profile of the organisation
Energy Exchange

Role
Competent Authority for issuance, transfer and cancellation of renewable electricity guarantees of origin, mandated by the French Ministry for Ecology, Sustainable Development and Energy.

Member of the AIB
Member of the AIB since July 2013.

Activities within the AIB
The follow-up on AIB activities and representation of Powernext on the General Meeting is ensured by Aude Filippi, who is also member of the Working Group Internal Affairs and System. Matthieu Boisson is in charge of following the activities of the Working Group System.

News and perspectives regarding national IB
Powernext has been appointed as the French national registry for guarantees of origin (GOs) as of 1 May 2013 by a decree issued on 15 January 2013 by the French Ministry for Ecology, Sustainable Development and Energy. Powernext has succeeded RTE in this role and has taken over the whole records of GOs issued by RTE since 2006. Powernext developed inhouse a completely new electronic registry for GOs and became member of the AIB in June 2013.

News and perspectives regarding the national framework on electricity
On 20 January 2012, the decree #2012-62 modified the existing legislation on guarantees of origin for electricity produced from renewable sources or cogeneration (decree #2006-118 of 5 September 2006). It also modified decree #2004-388 of 30 April 2004. It introduces new characteristics on French GOs, making them fully compliant with Directive 2009/28/EC. In particular, GOs can only be cancelled in France provided their production start date has occurred within the 12 previous months. Only GOs can certify the origin of the electricity produced from renewable sources in order to prove to final consumers the quantity of energy produced from renewable sources that contains the commercial offer contracted with their energy suppliers: from 20 January 2012, RECS certificates cannot be used in France to prove the renewable character of electricity.
Benefits to the company of AIB membership
Powernext has faith in the European guarantee of origin mechanism to provide reliable information to consumers on energy. We are particularly proud of having been mandated to become the national registry for guarantees of origin in France and as such participate in this contribution to the transparency of energy markets.

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

As soon as Powernext had been designated, the decision was made to join the AIB. We were already convinced of the decisive role of the Association in the development of the GO market. Within a very tight schedule and thanks to the AIB, Powernext has been able to allow all its market participants to easily import and export guarantees of origin throughout Europe. Powernext also wanted French GOs to become compliant with the EECS standard developed and promoted by the AIB. We are confident on the reliability of such a standard as it relies on clear and secured processes regularly audited by the AIB members themselves. Today, as a member of the AIB, Powernext is pleased to contribute to constantly improving the GO system, and therefore reinforcing consumers’ confidence in renewable energy.

“Powernext is honoured to be a member of the AIB. We are delighted to answer the renewable actors’ needs for international exchanges of guarantees of origin and to contribute to respond to the consumers’ demand for increasing the transparency of the energy market”, states Jean-François Conil-Lacoste, Powernext’s Chief Executive Officer.

Scope of national participation in EECS

<table>
<thead>
<tr>
<th>Number of registered scheme participants</th>
<th>26</th>
</tr>
</thead>
</table>

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>294</td>
<td>14,482</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro</td>
<td>290</td>
<td>14,441</td>
</tr>
<tr>
<td>Thermal</td>
<td>4</td>
<td>42</td>
</tr>
</tbody>
</table>

Certified EECS production as compared to national RES production 2012 (GWh)

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,600</td>
<td>78,600</td>
</tr>
</tbody>
</table>
Profile of the organisation

The UBA is a public authority competent for operating the German registry and issuing GOs, and also has regulatory competencies with regard to the detailed provisions on GOs and the registry laid down in the GO Implementing Ordinance as well as fees. Besides operating the GO system, UBA is the scientific environment authority that comes within the remit of the Federal Ministry of the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and it deals with a wide and varied range of environmental subjects.

Öko-Institut e.V. is an independent non-profit research institution. Öko-Institut has been commissioned by RECS Deutschland e.V. to act as the Issuing Body for the German EECS Domain for RES-GO (produced up to 2012), ICS: RECS-Certificates and ICS: Disclosure-Certificates.

Role

For all RES production with a production date from the beginning of 2013, the regulations of the revised Renewable Energy Act (Erneuerbare-Energien-Gesetz, EEG) apply, which means that the UBA is the competent authority and issuing body for Guarantees of Origin according to the EU Directive 2009/28/EC (RES Directive).

With respect to RES production which took place before the end of 2012, environmental auditors were still legally responsible for issuing RES-E GO based on the former version of the EEG. They cooperated with Öko-Institut e.V. to perform the issuance of RES-E GO within the framework of EECS.

Besides RES GO for 2012 production as described above, Öko-Institut also operated the national ICS:RECS and ICS:EECS-Disclosure Products until the end of 2013.
**Member of the AIB**

Since July 2013, the UBA has been a Hub-user, and is not member of the AIB.

Öko-Institut e.V. was a member of the AIB from 2001, and resigned from membership at the end of 2013.

**Activities within the AIB**

**UBA:**
- Friederike Domke – Observer, Participant in WGIA, Spokesperson of the CA-RES II Policy Advisory Group to the AIB
- Elke Mohrbach – Observer, Participant in WGIA
- Michael Marty – Observer, Head of the register of guarantees of origin for electricity from renewable energy sources

**Öko-Institut e.V.:**
- Dominik Seebach - Vice-Chair of Working Group Internal Affairs (until end of 2013)
- Christof Timpe – President
- Öko-Institut also coordinates – just like several related earlier projects – the IEE-funded project “Reliable Disclosure Systems for Europe – Phase II” (RE-DISS II)

**News and perspectives regarding national IB**

On 1 January 2013, the UBA became the new competent body for GOs in Germany. The first year was characterised by administrative and technical hurdles. Nevertheless, in summer 2013 the UBA concluded an agreement with the AIB to use the communications Hub as a non-member. In 2014, UBA will continue the challenging process of fine-tuning the new register software as now all functionalities have been implemented.

Another major objective is promoting the linkage between the AIB Hub and all EU Member States.

After a transition phase in 2013, Öko-Institut stopped its activities as EECS Issuing Body at the end of 2013, passing the EECS baton on to the UBA. Unfortunately, this leaves no option for handling EECS-Disclosure Certificates for non-renewables in Germany from the beginning of 2014.

Öko-Institut e.V. will now focus on its “core activities”, being research and consultancy in the field of environmental, climate and energy policy issues.

**News and perspectives regarding the national framework on electricity**

In December 2013, the new German government decided to revise the Renewable Energy Sources Act (EEG) in 2014 with the prospect of continuing to foster renewable energies, while limiting the costs and maintaining the international competitiveness of German energy-intensive industry. Impacts can be expected on feed-in tariffs and market premiums for new installations. The German GO framework, as such, will remain unaffected; however, changes to the supporting scheme may cause reductions in the number of registered production devices or issued GOs.

Also with the start of the UBA GO registry, the new disclosure regulation fully applies as of disclosure year 2013 (which must be disclosed by 1 November 2014 at the latest). This implies that e.g. RES GOs cancelled in the UBA GO registry are the only means for explicit tracking of RES attributes. Use of a residual mix is foreseen for “unknown shares” by the German Energy Law. UBA will provide data for this calculation made by the German Association of Energy and Water Industry (BDEW).
Benefits to the company of AIB membership

“We are glad to be a part of the AIB family now as it allows us to offer the import and export of GOS on a high standard and gives us the opportunity to engage in the further development of the national and European GO market.”

Michael Marty and Elke Mohrbach, Federal Environment Agency (UBA).

“The Work of Öko-Institut in its research projects has strongly benefited from synergies with our engagement in the EECS development and operation. In return, we are confident to say that this close link between research and operation of a live system has also been to the benefit of the AIB and the quality of EECS,” says Christof Timpe, Öko-Institut’s Head of Energy & Climate Division.

Dominik Seebach, coordinator of the RE-DISS II project adds: “We hope that this close cooperation will also last in the future, in order to jointly work on transparency in energy markets and increased shares of sustainable power production.”
### Scope of national participation in EECS Öko-Institut

| Number of registered scheme participants | 51 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>1.344</td>
</tr>
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</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices*</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill gas</td>
<td>3</td>
<td>11.4</td>
</tr>
<tr>
<td>Methane (mine gas)</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>Hydro</td>
<td>2</td>
<td>14.4</td>
</tr>
<tr>
<td>Natural gas</td>
<td>2</td>
<td>1.254</td>
</tr>
<tr>
<td>Wind</td>
<td>2</td>
<td>4.8</td>
</tr>
<tr>
<td>Biomass and waste</td>
<td>1</td>
<td>57.2</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.387*</td>
<td>147,200</td>
</tr>
</tbody>
</table>

EECS Non-RES production

| 4.870 |

* Issuing date 2013, production date 2012

### Scope of national participation in EECS UBA

| Number of registered scheme participants | 1,414 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>917</td>
<td>14,710,695</td>
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</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices*</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind – onshore</td>
<td>539</td>
<td>1,407,025</td>
</tr>
<tr>
<td>Solar</td>
<td>23</td>
<td>6,385,33</td>
</tr>
<tr>
<td>Hydro</td>
<td>245</td>
<td>4,890,218</td>
</tr>
<tr>
<td>Biogas – other biogas</td>
<td>2</td>
<td>0,780</td>
</tr>
<tr>
<td>Biogas – landfill</td>
<td>44</td>
<td>50,204</td>
</tr>
<tr>
<td>Biogas – sewage</td>
<td>3</td>
<td>1,406</td>
</tr>
<tr>
<td>Solid renewable fuels</td>
<td>32</td>
<td>1,177,224</td>
</tr>
<tr>
<td>Unspecified renewable energy</td>
<td>29</td>
<td>7,177,452</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production*</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,677,496</td>
<td>147,200</td>
</tr>
</tbody>
</table>

* RES contribution to supply of electricity 2013, status: 17.12.2013
Profile of the organisation

Landsnet hf 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 (TSO). Landsnet operates under a concession arrangement. Landsnet’s activities are subject to regulation by the National Energy Authority (Orkustofnun).

Landsnet owns, operates and maintains all major electricity transmission lines in Iceland. The Icelandic electricity system’s highest operating voltage is 220 kV. A large part of the system operates at 132 kV, but some parts have voltages of 66 kV and 33 kV. The newest transmission lines in south-west Iceland were built as 420 kV lines, but operate at 220 kV. In 2012, 17 TWh were transmitted through the transmission system.

Role

The Icelandic Parliament has appointed Landsnet as the Icelandic Issuing Body, by the Act on guarantees of origin of electricity produced from renewable energy sources no. 30 of 2008.

Member of the AIB

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

Activities within the AIB

Landsnet is represented in the AIB by Iris Baldursdottir, head of System Operation and Market at Landsnet.

From December 2012 and until mid-year 2013 Landsnet participated in WGS.

News and perspectives regarding national IB

Landsnet experienced significant growth in the issuing of GOs in 2013 since the first issue in April 2012. This growth prompted a decrease in the tariff for the issue of GOs in October 2013.

News and perspectives regarding the national framework on electricity

A law dealing with disclosure, and based on the REDISS BPR (Best Practice Recommendations) that came into effect in September 2012, was fully implemented in 2013.

The Icelandic Master Plan for Hydro and Geothermal Energy Resources came into effect in January 2013. The working process on
the Master Plan, which details strategic planning of the country’s extensive resources and the development of energy production, started in 1999.

At the end of the year 2013, the capacity of Iceland’s power facilities totalled approximately 2500 MW, of which approximately 1850 MW were generated by hydroelectric power plants and 670 MW by geothermal power plants.

The Búðarháls hydroelectric station, with an installed capacity of 95 MW, will start generating energy before the end of 2014, bringing the country’s total capacity to 2600 MW.

**Benefits to the company of AIB membership**

“Membership of the AIB has given Landsnet valuable insight into the challenges and issues facing GO issuers, and helped us build on our own experiences. Membership has also provided important information on the fulfilment of the requirements of the European Directives concerning the issuance of GOs” says Ríz Baldursdóttir.

### Scope of national participation in EECS

| Number of registered scheme participants | 5 |

| Registered production devices and total capacity installed |
| --- | --- |
| **Number of production devices** | **Total capacity installed (MW)** |
| 24 | 2535.4 |

| Registered production devices and total capacity installed per technology |
| --- | --- |
| **Technology** | **Number of production devices** | **Total capacity installed per technology** |
| Hydro | 17 | 1845.4 |
| Geothermal | 7 | 670 |

| Certified EECS production as compared to national RES production (GWh) |
| --- | --- |
| **EECS RES production** | **National RES production** |
| 13,054 | 17,435* |

* Exact RES production available 1 Jan 2014
Profile of the organisation
Gestore dei Servizi Energetici - GSE - is responsible for the promotion and support of renewable energies in Italy fostering sustainable development by granting economic support to renewables and by taking actions to build awareness of environmentally-efficient energy uses.

GSE is a state-owned company whose sole shareholder is the Ministry of Economic and Finance which cooperates with the Ministry of Economic Development in providing guidance on GSE’s activities.

GSE is the parent company of three subsidiaries:
- Gestore dei Mercati Energetici S.p.A. - GME - which organizes and economically manages the electricity markets as well as the environmental markets and the gas markets.
- Acquirente Unico S.p.A. - AU - which buys electricity in the market on the most favourable terms and resells it to distributors or retailers of the standard offer market for supply to small consumers who did not switch to the open market.
- Ricerca sul Sistema Energetico S.p.A. - RSE - which performs R&D activities related to the electricity and energy sector.

Role
GSE is the competent body for renewable electricity guarantees of origin and operator of the NGC RECS scheme

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 within AIB activities is very enthusiastic, as con-ﬁrmed by its fully operational participation in the AIB organization:
- General Meeting: Gerardo Montanino
- WGIA: Rosanna Pietropaolo and Annalisa Ciatti
- WGEA: Claudia Delmirani
- WGS: Marta Grassilli

GSE is also a supporting partner of the RE-DISS PROJECT.
News and perspectives regarding national IB

In accordance with the Inter-ministerial Decree of July 6, 2012, GSE issues Guarantees of Origin to certify the share of electricity produced from renewable energy sources in accordance with Article 15 of Directive 2009/28/EC.

During 2013, GSE’s application to issue GOs under the EECS Rules was accepted and, at the end of October 2013, the Italian registry was finally connected to AIB HUB, thus allowing Italian operators to compete in the international market for EECS certificates.

Within the Italian domain, GOs can be traded through the Bilateral Contract Platform and the GO exchange Platform, both of which are managed by GME. Furthermore GOs held by GSE, mostly supported GOs, are put into the market through 5 auction sessions per year.

News and perspectives regarding the national framework on electricity

On July 2012, a Ministerial decree (namely V CONTO ENERGIA) was issued, and updated dispositions to grant incentives to PV plants.

It provided a limit to the total amount of support awarded under the relevant support scheme. Such a limit was reached on July 2013 and no further in-centives for PV installations are expected to be provided. Renewable energies other than PV can still be supported. Three different ways based on capacity to access to incentives are in place: dutch auctions, which award the lowest price; (over 5 MW); application to registries with limited capa-bilities (below 5 MW and above 60 kW); and direct access for very small plants.

Benefits to the company of AIB membership

Mr Montanino - Head of GSE’s Operational Division – thinks that “the core value of participation in the AIB Association is that it offers the opportunity to the market to make green electricity supply more feasible with every day that passes”. Marta Grassilli (WGS) underlines the importance that of na-tional registry being connected to the AIB HUB in order to ensure that Ital-ian account holders have the opportunity to exchange GOs at an interna-tional level. That the strategic work done within the Association to develop and update the EECS Rules is a continuous challenge that provides a comprehensive, international outlook on energy matters, is the opinion of Rosanna Pietropaolo (WGIA). Moreover, the priceless chance to participate in General Meetings and share experience and know-how is one of the major benefits given by being member of AIB, considers Claudia Delmirani (WGEA).

“… AIB provides a reliable, fraud resistant and accurate system allowing a more easily cross-border trading of certificates and preventing any double counting …”
Profile of the organisation
The Institut Luxembourgeois de Régulation (ILR) is the national regulatory authority for telecommunication, railways, airport taxes, postal services, electricity and national gas market. It is also the national competent authority for issuing guarantees of origin for electricity generated from renewable sources.

EECS scheme membership
The ILR is the national issuing body for renewable electricity guarantees of origin.

Member of the AIB
The Luxembourg registry has been operational since 1 January 2010

Activities within the AIB
Jill Thinnes and Claude Hornick participate in WGIA

News and perspectives regarding national electricity framework
Disclosure regulations entered into force in 2010 defining a unique electricity label to be used by all suppliers in their disclosure information. Cancellations of EECS certificates represent an easy and straightforward tool for electricity suppliers to prove the renewable origin of their electricity supply.

News and perspectives regarding the national issuing body
More information for account holders is available on the following websites:
- http://cmo.grexl.com, which allow access to public details of the registry; and
”... allowing electronic transfer and cancellation of guarantees of origin, while ensuring utmost accuracy, reliability and fraud-resistance.”

Benefits to the company of AIB membership
Participation in the standardised system - promoted by the AIB and connecting with other registries via the Hub - offers an excellent tool to generators wanting to value their renewable generation attributes; and for suppliers wishing to improve the reliability and credibility of their electricity products, and thus to enable consumer choice.

”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 EECS standard. Joining the AIB EECS standard is an important step towards fulfilling the requirements of the European Directives, i.e. putting into place a mechanism allowing electronic transfer and cancellation of guarantees of origin, while ensuring utmost accuracy, reliability and fraud-resistance” says Claude Hornick of ILR.

Scope of national participation in EECS

| Number of registered scheme participants | 5 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>22.43</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photovoltaic</td>
<td>6</td>
<td>0.43</td>
</tr>
<tr>
<td>Wind</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hydro</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.012</td>
<td>0.353</td>
</tr>
</tbody>
</table>
Profile of the organisation

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

Role

CertiQ B.V. performs the role of national issuing body for guarantees of origin, a task for which TenneT is legally appointed by the Dutch Ministry of Economic Affairs.

In addition to guarantees of origin for renewable and CHP electricity, and guarantees of origin for renewable heat, CertiQ also issues disclosure certificates for electricity derived from other sources.

Within the Netherlands, CertiQ works closely with:

- The Ministry of Economic Affairs, which determines the legal frameworks upon which guarantees of origin are based within the Netherlands;
- The NL Agency, an agency of the Ministry charged with, amongst other things, the execution of support schemes related to the production of renewable electricity;
- The Authority for Consumers and Markets (regulator), which supervises the correct functioning of the Dutch electricity markets

Member of the AIB

Member of the AIB since 2001.

Activities within the AIB

- Mr J. van der Lee, Senior manager, Chair of the AIB management board
- Mr R. van Stein Callenfels, Assistant controller, Member of Working Group Internal Affairs
- Mr A. van der Toorn, Functional application manager, Member of Working Group Systems

News and perspectives regarding national IB

In 2013 we issued the first Dutch guarantee of origin for renewable heat. The information included in such guarantees of origin may entitle producers of renewable heat to receive support under the Dutch renewable energy support scheme.

Also, in 2013 we further improved the new myCertiQ registry which we took into operation in 2012. It allows both traders and end-consumers to access more data in an easier way, thereby providing even more transparency to the (Dutch) market for guarantees of origin.
News and perspectives regarding the national framework on electricity

In close cooperation with, amongst others, the Ministry of Economic Affairs, TenneT/CertiQ is investigating how regulations for certification of renewable electricity, high-efficiency cogeneration, renewable heat and renewable gas can be harmonised.

Furthermore, the Ministry of Economic Affairs is exploring options for allowing cooperatives to invest in the production of renewable electricity to benefit from a levy exemption. Information on guarantees of origin issued for such an investment project may be used for determining the levy exemption for the cooperative.

“... the common standard that AIB provides is crucial, in that it allows issuing bodies to recognise and transfer GOs between countries. It is a key condition for further strengthening the European market for renewable energy.”

Benefits to the company of AIB membership

In the Netherlands, the demand for guarantees of origin exceeds supply. To meet this demand several Dutch suppliers import GOs from other countries. For reasons of transparency and reliability, the common standard that AIB provides is crucial, in that it allows issuing bodies to recognise and transfer GOs between countries. It is a key condition for further strengthening the European market for renewable energy.

The AIB Hub, in particular, is very important for the efficient functioning of our registry. We therefore welcome the fact that more and more EU member states are seeking to connect to the AIB Hub, either as AIB Members or as Hub Participants.

Jan van der Lee, Manager of CertiQ.

Scope of national participation in EECS

| Number of registered scheme participants | 74 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,401</td>
<td>8,835</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass</td>
<td>249</td>
<td>6,126</td>
</tr>
<tr>
<td>Hydro</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Solar</td>
<td>11,060</td>
<td>88</td>
</tr>
<tr>
<td>Wind</td>
<td>1,073</td>
<td>2,584</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,600</td>
<td>12,100</td>
</tr>
</tbody>
</table>
Profile of the organisation

TSO

Role
Statnett SF is the system operator of the Norwegian electricity system. This means operating about 11,000 km of high-voltage power lines and 150 stations all over Norway. Operations are monitored by one national control centre and three regional centres. Statnett is also responsible for the connections to Sweden, Finland, Russia, Denmark and the Netherlands.

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

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

Member of the AIB
Statnett has been member of the AIB since 1 January 2002. It has issued RECS certificates since 2001, and Statnett-issued certificates have been compliant with both GO RES-E and RECS standards since 1 January 2007.

Activities within the AIB
- Lars Olav Fosse, Board
- Jennifer Holgate, WGS

News and perspectives regarding national IB
During 2013 we have continued to improve the new CMO system (NECS), which was developed by Grexel. Statnett cooperates closely with the customers in improving the registry, which includes customer satisfaction studies as well as meetings with the customers.

Norway saw a record high issuance of 135.7 million GOs in 2012 due to high hydro production.
News and perspectives regarding the national framework on electricity

Statnett will be making annual investments worth NOK 50-70 billion during the coming decade, according to the Grid Development Plan which was presented late October 2013. The next-generation main grid is important for connecting new renewable generation to the markets both in Norway, on the Continent and in the UK.

The major change regarding Statnett’s role as issuing body is the joint elcertificates market, which is shared with Sweden and which entered into force on January 2012. The first annual settlement was completed on 1 April 2013 resulting in 2.38 million certificates cancelled to cover quota obliged consumption.

Benefits to the company of AIB membership

“Applying the EECS Rules and transferring certificates through the AIB Hub ensures the Norwegian registry members access to efficient and reliable certificate handling. In addition the AIB is an important partner in preventing VAT-fraud.” Lars Olav Fosse

Scope of national participation in EECS

| Number of registered scheme participants | 45 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>950</td>
<td>32.375</td>
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</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>26</td>
<td>838</td>
</tr>
<tr>
<td>Bio</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>Hydro</td>
<td>921</td>
<td>31,513</td>
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</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>124,500</td>
<td>134,300</td>
</tr>
</tbody>
</table>
Profile of the organisation

TSO-REN is engaged in two principal lines of business: electricity transmission, where it operates the National Transmission Grid, the only electricity transmission network in mainland Portugal; and natural gas, where it is engaged in the reception, storage and regasification of LNG, the operation of the national high-pressure gas transmission network and the underground storage of natural gas.

Role

Operator of ICS RECS scheme

Member of the AIB

Member of the AIB since 2003 scheme member since 2004.

News and perspectives regarding national IB

In 2013 REN was appointed as the Issuing Body for RES-E Guarantees of Origin and submitted for approval the Operations Manual that defines the scope of its activities.

News and perspectives regarding the national framework on electricity

In 2014, we expect to start a new IT platform that will allow the automation of several processes, and to issue the first GO for RES-E.

Benefits to the company of AIB membership

“I consider that the AIB, Association of Issuing Bodies, has taken an important step towards achieving a standardised model for the energy certificate system which supports and promotes the international trade of certificates. Being a member of AIB allows REN to participate in the construction of this standard, and closely follow the implementation of Guarantees of Origin in the other member states of AIB.”

Pedro Pereira
“I consider that the AIB, Association of Issuing Bodies, has taken an important step towards achieving a standardised model for the energy certificate system which supports and promotes the international trade of certificates.”

Scope of national participation in EECS

| Number of registered scheme participants | 3 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>68</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro</td>
<td>4</td>
<td>68</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>189</td>
<td>29,528</td>
</tr>
</tbody>
</table>
Profile of the organisation
Regulator

Role
AGEN-RS is the regulatory authority for electricity and gas in Slovenia and Issuing Body for RECS and GO in Slovenia. AGEN-RS is the competent authority for issuing renewable production declarations for production devices covered by the Slovenian support scheme and for issuing GO/RECS certificates. It is also the Slovenian competent authority for disclosure.

Member of the AIB
Member of the AIB since 2004.

Activities within the AIB
- Andrej Spec – member of the WGIA
- Tomaz Lah – member of the WGS

News and perspectives regarding national IB
AGEN-RS plays an important role in the national support scheme, since it issues production declarations, which are necessary for all producers who wish to enter the support scheme. Furthermore, AGEN-RS decides on the eligibility of each producer to enter the support scheme and determines the actual prices for each producer in the scheme, taking into account previously received investment support. AGEN-RS also prepares yearly input for the calculation of feed-in tariffs and premiums in the form of forecasts of average electricity prices and fuel costs. The new Energy Act, which is about to be adopted in the first months of 2014, will bring some changes to the national support scheme, but no changes to the national GO system.
News and perspectives regarding the national framework on electricity

In September 2013, AGEN-RS published a completely changed Act laying down the mode of determining shares of individual production sources, and the manner of their presentation. This is a piece of secondary legislation that describes rules of the disclosure system. The new system is based on the residual mix and allows disclosure of RES electricity only with cancellation of GOs.

The changes of the support scheme will be detailed in the secondary legislation that will be prepared after the adoption of the new Energy Act.

“Our membership also enables Slovenian companies to be involved in the international trade with green electricity.”

Benefits to the company of AIB membership

Membership of the AIB gives us the possibility to be in line with the latest European trends in the field of energy certificates and tracking of electricity sources from production to final consumption. We use these experiences in the development of our national systems, which are partly our responsibility and partly the responsibility of the Slovenian government. Our experiences from the AIB were transposed into the current Slovenian GO system (in cooperation with our Ministry, responsible for Energy). Our membership also enables Slovenian companies to be involved in the international trade with green electricity.

Scope of national participation in EECS

| Number of registered scheme participants | 2 |
| Registered production devices and total capacity installed |
| Number of production devices | Total capacity installed (MW) |
| 38 | 913 |

Registered production devices and total capacity installed per technology

| Technology | Number of production devices | Total capacity installed per technology |
| Hydro | 38 | 913 |

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

| EECS RES production | National RES production |
| 3,469 | 5,166 |
Profile of the organisation
Independent

Role
EECS RECS

Member of the AIB
GCC was a founding member of the AIB (then representing Ireland) and became Issuing Body for Spain in 2008.

Activities within the AIB
Ed Everson is a member of the Workgroup Systems.

News and perspectives regarding national IB
The market for RECS in Spain has between 1 and 3 TWh per year of certified production. Traders remain active in the RECS market and are achieving value through the benefits of the EECS framework. The market players are currently preparing for the mandated closure of the RECS scheme and investigating alternatives outside of, or supplemental to, the Guarantee of Origin for 2015 onwards.

News and perspectives regarding the national framework on electricity
The RECS scheme within Spain remains in demand with traders and their customers as the Guarantee of Origin system does not meet their needs. The flexible and robust framework offered by RECS provides the assurance consumers require within an operational structure that meets their business requirements and reporting timetables. Although there is a general push within the AIB and elsewhere across Europe for adoption of Guarantees of Origin as the primary or sole standard, this does not always meet the requirements of traders and their customers. RECS meets this need for the Spanish market and is a valued support mechanism for renewables.
“Links to other European markets are a useful component of the overall success of renewable products.”

Benefits to the company of AIB membership
The AIB has been important to the success of our scheme, providing a framework consistent with those adopted by other Issuing Bodies across Europe. With requirements for Spain driven by Market Participants, the quality assurance provided by the AIB gives them the security they desire for their trading activities. Links to other European markets are a useful component of the overall success of renewable products.

Scope of national participation in EECS

| Number of registered scheme participants | 3 |

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (GW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>4,207,85</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (GW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro</td>
<td>44</td>
<td>4,151,80</td>
</tr>
<tr>
<td>Wind</td>
<td>4</td>
<td>56.05</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>National RES production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,016,763</td>
<td>?</td>
</tr>
</tbody>
</table>
Profile of the organisation
Swissgrid is the Transmission System Operator (TSO) of Switzerland.

Role
Swissgrid is the sole competent Issuing Body for Guarantees of Origin in Switzerland. Swissgrid has been accredited with this task 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 5a of the Federal Law on Energy as well as in the Ordinance on Energy and the Ordinance on Guarantees of Origin. In addition, Swissgrid operates the ICS RECS scheme for Switzerland.

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

Activities within the AIB
– Mr Lukas Groebke, Treasurer and Member of the Board
– Ms Milada Mehinovic, Member of the Working Group

External Affairs

News and perspectives regarding national IB
As of 2013 plant operators are legally obliged to register the whole electricity production of plants with an installed capacity higher than 30kW (all technologies) in the Swiss Guarantee of Origin system. Therefore, almost 100% of the Swiss electricity production is registered in the Swissgrid database. On the supply side, all available national and international Guarantees of Origin have to be cancelled for disclosure purposes in order to give maximum transparency to end consumers. In addition, suppliers are obliged to publish their disclosure mixes on a common website once a year (www.stromkennzeichnung.ch). With this regulation, Switzerland has implemented almost all of the recommendations proposed by the EU-supported RE-DISS project (Reliable disclosure system for Europe).
News and perspectives regarding the national framework on electricity

While still negotiating with the European Union on an energy agreement, Switzerland is about to implement its Energy Strategy 2050. The aim of the Swiss Energy Strategy 2050 includes replacing nuclear electricity production by means of renewable energy and improved efficiency. To this end, all Swiss nuclear power plants will be shut down by 2035. In an early stage, the new strategy will focus on the exploitation of existing energy efficiency potential and on new renewable energy sources. Even though the revision of the Swiss energy legislation is still in progress, its initial measures will come into force in 2014. On one hand, the feed-in tariff system will be extended; while on the other hand, an investment support programme for small photovoltaic plants will be introduced. After 2020, the Federal Council intends to replace the existing support system by an incentive programme.

“The European Energy Certificate System (EECS) is the success factor for bringing transparency into the European energy market ...”

Benefits to the company of AIB membership

“The European Energy Certificate System (EECS) is the success factor for bringing transparency into the European energy market and therefore an important element of the Swiss and the European Energy Strategy. Furthermore, the EECS system provides a standardized access to the international certificate markets providing a high quality and security with regard to the traded certificates.”

René Burkhard, Head of Renewables & Disclosure Services, Swissgrid

Scope of national participation in EECS

<table>
<thead>
<tr>
<th>Number of registered scheme participants</th>
<th>2029</th>
</tr>
</thead>
</table>

Registered production devices and total capacity installed

<table>
<thead>
<tr>
<th>Number of production devices</th>
<th>Total capacity installed (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,467</td>
<td>19,815</td>
</tr>
</tbody>
</table>

Registered production devices and total capacity installed per technology

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of production devices</th>
<th>Total capacity installed per technology (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass</td>
<td>341</td>
<td>410</td>
</tr>
<tr>
<td>Hydro</td>
<td>1,230</td>
<td>15,119</td>
</tr>
<tr>
<td>Solar</td>
<td>14,752</td>
<td>462</td>
</tr>
<tr>
<td>Wind onshore</td>
<td>52</td>
<td>96</td>
</tr>
<tr>
<td>Nuclear</td>
<td>5</td>
<td>3,388</td>
</tr>
<tr>
<td>Crude oil</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Natural gas</td>
<td>63</td>
<td>258</td>
</tr>
<tr>
<td>Waste</td>
<td>15</td>
<td>116</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

Certified EECS production as compared to national production (GWh)

<table>
<thead>
<tr>
<th>EECS RES production</th>
<th>EECS non-RES production</th>
<th>National production</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,386</td>
<td>25,674</td>
<td>63,175</td>
</tr>
</tbody>
</table>
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, high efficient cogeneration and bio fuels under the supervision of the Ministry of Economy.

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

Member of the AIB
HROTE enrolled as an observer member of the AIB in 2009.

Activities within the AIB
− Dubravka Skrlec supports WGEA as an observer member.
− Boris Dokmanovic supports WGIA as an observer member.

News and perspectives regarding national IB
The provisions established for the use of the Guarantees of Origin Registry lay 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 will be an electronic registry based on database technology allowing transfer of international GOs.

News and perspectives regarding the national framework on electricity
All eligible producers who are awarded in the feed-in tariff system are exempted from the GOs system. The competent body for the disclosure is the Croatian Energy Regulatory Agency. The disclosure rule with the methodology applied for calculation of residual mix is under supervision of the Croatian Energy Regulatory Agency. The new disclosure rule proposes that a supplier claims the renewable electricity only with cancelling the GOs to his customers. Additionally, the supplier claims the electricity purchased from feed-in system to his customers.

Benefits to the company of AIB membership
HROTE benefits from its role as an observer member through regulations regarding GOs that have been passed lately in Croatia. Useful pieces of information on EU legislation have always been available, also as mutual communication with colleagues from other countries on the main issues on electricity certification.
Profile of the organisation
The TSO-Cyprus was established in 2004 as an independent organisation for public benefit. It operates, maintains and develops Cyprus’ electricity transmission system; and it maintains security of supply, integrates renewable energy sources and issues the conditions for connections to be applied by new independent power producers. Furthermore, it also operates the Cyprus electricity market.

Role
TSO-Cy is responsible for issuing, transferring, cancelling and revoking Guarantees of Origin for RES as well as High Efficiency CHP installations in Cyprus.

Member of the AIB
TSO-Cy is an Observer and applied for full membership in 2013.

Activities within the AIB
TSO-Cy is currently not involved in AIB activities.

News and perspectives regarding national IB
The Electronic Registry for issuing, transferring and cancelling GOs has been fully operational since 2011, when the first GO was issued. Since then, the Registry has been functionally improved and it is being continually upgraded to harmonise with AIB’s rules and to interconnect with the AIB Hub.

News and perspectives regarding the national framework on electricity
Harmonisation of the national law with Directive 2009/28/EC regarding the internal market of electricity has already been completed. The new law includes provisions for disclosure of the energy mix as well as provisions for joint projects.

Harmonisation of the national law with the RES Directive 2009/28/EC is completed and the law was implemented in the summer of 2013.

Benefits to the company of AIB membership
TSO-Cy membership will facilitate the sharing of knowledge and experience with other AIB members, and hence the communication and implementation of more efficient and widely accepted ways of harmonising with EU law regarding efficient and transparent market systems. It will particularly assist TSO-Cy in learning from the experiences of other issuing bodies and implementing best practices, aiming also to standardising local practices and rules. The use of the AIB Hub will mark the beginning of GO trading between Cyprus and other approved users.
Profile of the organisation
Transmission System Operator

Role
Elering is an independent electricity system operator in Estonia whose main duty is to guarantee high-quality electricity supply to Estonian consumers at all times. Elering is also the appointed issuing body for renewable electricity and efficient co-generation guarantees of origin in Estonia.

Member of the AIB
Elering AS has been an observer since 2011 and has applied for full membership.

News and perspectives regarding national IB
Elering AS is in the process of developing the Estonian registry system in order to facilitate the issuing, transfer and cancelling of guarantees of origin. The first version of the platform has already been implemented and the next steps are being prepared to further develop the trading and transferring possibilities (i.e. connection to the AIB Hub).

News and perspectives regarding the national framework on electricity
Changes to the Electricity Market Act including adjustment of the financial support schemes for renewable projects are still subject to discussions in the Estonian Parliament; and the European Commission has also been informed about applying for State Aid permission.

Benefits to the company of AIB membership
"In the Electricity Market Act of Estonia, Elering AS has been appointed to develop a reliable and fraud-resistant system for issuing, transferring and cancelling guarantees of origin for both renewable energy sources and efficient co-generation. As observers, the background information from AIB members as well as other observers and the subsidiary documents managed by the AIB which take into account the EU directives, but leave room for national distinctions, have been very useful while developing the Estonian national registry and rules of operation. The next logical steps are to apply for full membership of the AIB and connect to the AIB Hub."
Ingrid Arus (Head of Electricity Markets Department)
Profile of the organisation
Market Operator

Role
Competent authority for renewable electricity guarantees of origin

Member of the AIB
Observer since 2012.

News and perspectives regarding national IB
Tendering for new information system for GO from RES and High Efficiency CHP units, to be connected to the AIB Hub.

News and perspectives regarding the national framework on electricity
Regulation on energy disclosure. New rules in energy market by end of 2014.

Benefits to the company of AIB membership
Membership of the AIB gives us the opportunity to exchange ideas, share experience and ask for opinions regarding common problems in the integrated European electricity market.

The Hub enables the transparent, reliable and certified GO transfer throughout Europe.
<table>
<thead>
<tr>
<th>Country</th>
<th>No</th>
<th>Name</th>
<th>Telephone</th>
<th>Fax</th>
<th>Email</th>
<th>Function in AIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>1</td>
<td>Angela Puchbauer-Schnabel</td>
<td>+43 1 2474 700</td>
<td>+43 1 2474 900</td>
<td><a href="mailto:angela.puchbauer-schnabel@econtrol.at">angela.puchbauer-schnabel@econtrol.at</a></td>
<td>Board member</td>
</tr>
<tr>
<td>BE (B)</td>
<td>2</td>
<td>Brugel – Energy Regulation Commission in the Brussels-Capital Region</td>
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<td></td>
<td></td>
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<tr>
<td>BE (F)</td>
<td>3</td>
<td>VREG – Vlaamse Reguleringinstantie voor de Elektriciteits- en Gasmarkt</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE (W)</td>
<td>4</td>
<td>CWAPE – Commission Wallonie pour l’Énergie</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CZ</td>
<td>5</td>
<td>OTE, a.s., the Czech electricity and gas market operator</td>
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<tr>
<td>DK</td>
<td>6</td>
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<tr>
<td>Fl/SE</td>
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<td>Grexel Systems Oy</td>
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<td>FR</td>
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<td>Powernext</td>
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<td>DE</td>
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<tr>
<td>DE</td>
<td>10</td>
<td>Federal Environment Agency (Umweltbundesamt - UBA)</td>
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<tr>
<td>IS</td>
<td>11</td>
<td>Landsnet hf.</td>
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<td></td>
</tr>
<tr>
<td>ES</td>
<td>12</td>
<td>GCC - The Green Certificate Company Ltd</td>
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</tr>
<tr>
<td>IT</td>
<td>13</td>
<td>GSE - Gestore dei Servizi Energetici - GSE S.p.A.</td>
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</tr>
<tr>
<td>NL</td>
<td>14</td>
<td>Certiq b.v.</td>
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<tr>
<td>NO</td>
<td>15</td>
<td>Statnett</td>
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<tr>
<td>PT</td>
<td>16</td>
<td>REN – Rede Eletrica Nacional, S.A.</td>
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</tr>
<tr>
<td>SI</td>
<td>17</td>
<td>AGEN-RS – Slovenia Energy Agency of the Republic of Slovenia</td>
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<tr>
<td>CH</td>
<td>18</td>
<td>Swissgrid AG</td>
<td></td>
<td></td>
<td>Board member, Treasurer</td>
<td></td>
</tr>
<tr>
<td>CY</td>
<td>19</td>
<td>TSO-Cy - TRANSMISSION SYSTEM OPERATOR – CYPRUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>20</td>
<td>Elering AS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GR</td>
<td>21</td>
<td>LAGIE SA - Electricity Market Operator SA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>22</td>
<td>HRTO - Croatian Energy Market Operator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
ASSOCIATION OF ISSUING BODIES

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

1. Introduction

We have audited the balance sheet and profit and loss account for the year ended 31 December 2013.

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

2. Purpose of the Audit

The purpose of the audit is to:

a) Verify the balance sheet and profit and loss account at the year end.
b) Check that the cut off between 2013 and 2014 is correctly accounted for.
c) Evaluate the payment routine.
d) Check the control over invoicing is correct and complete and in accordance with the instructions of the Board.
e) Check that the control over expenses is in accordance with existing agreements, well documented and properly authorized.
f) Calculate the audit-trail between the system and the books.

To carry out the audit we received support from the General Secretary who provided us with board minutes, agreements, a trial balance and nominal ledger at 31 December 2013, transaction lists, invoices and vouchers. The audit was performed on a sample basis.

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

a) Membership fee.
The information on total certificates issued and transferred between domains per member is based on data from the websites (ie: necs.statnett.org) The total number of certificates transferred between domains in 2012 was the basis for the standing charge component of the membership fee in 2013.

The activity fees are linked to the total certificates transferred between domains in the year. Any certificates relating to the year 2013 and invoiced after the books have been closed for the year have been recognized as revenue in these accounts.

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

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

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

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

d) Accounts Receivable
These were checked to the invoices raised during the year.

e) VAT
The Association’s proper place of registration is currently under review with the Belgian authorities. Until this is resolved it continues to be registered in the UK.

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

The rate of VAT for the year was 20%.

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

f) Accounts Payable/Accruals
These were checked to the invoices raised by suppliers and found to be correctly recorded.

An accrual of 3,400 EUR due to the auditor is included in these accounts.
g) Audit Trail
There is a good audit trail between the original invoices for both fees and expenses and the nominal ledger system.

4. Conclusion
In our opinion the Financial Statement gives a true and fair view of the state of Association of Issuing Bodies as at 31 December 2013 and of its surplus for the year.

The statement has been properly prepared from information supplied.

Jonathan Russell (Statutory Auditor)
For and on behalf of
Russell Phillips
23 Station Road
Gerrards Cross
Bucks. SL9 8ES

Date: 2014
# Financial Statement

## Association of Issuing Bodies

**Financial Statements for the Year Ended 31 December 2013**

### Profit & Loss Account

<table>
<thead>
<tr>
<th>Description</th>
<th>31/12/2012</th>
<th>31/12/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual membership fee, small</td>
<td>30000</td>
<td>30000</td>
</tr>
<tr>
<td>Annual membership fee, large</td>
<td>200000</td>
<td>220000</td>
</tr>
<tr>
<td>Membership Joining Fee</td>
<td></td>
<td>5000</td>
</tr>
<tr>
<td>Activity based membership fee</td>
<td>326070</td>
<td>514175</td>
</tr>
<tr>
<td>Other operating revenues</td>
<td>10635</td>
<td>12640</td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td>566705</td>
<td>781815</td>
</tr>
</tbody>
</table>

### Operating Costs

<table>
<thead>
<tr>
<th>Description</th>
<th>31/12/2012</th>
<th>31/12/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultancy fee &amp; administration</td>
<td>355748</td>
<td>449056</td>
</tr>
<tr>
<td>Travelling &amp; Hotels</td>
<td>34883</td>
<td>37244</td>
</tr>
<tr>
<td>Other operating costs</td>
<td>151610</td>
<td>122992</td>
</tr>
<tr>
<td>Depreciation</td>
<td>41767</td>
<td>41766</td>
</tr>
<tr>
<td><strong>Total operating costs</strong></td>
<td>(584008)</td>
<td>(651058)</td>
</tr>
</tbody>
</table>

### Net Financial Items

<table>
<thead>
<tr>
<th>Description</th>
<th>31/12/2012</th>
<th>31/12/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net financial items</td>
<td>746</td>
<td>88</td>
</tr>
<tr>
<td>Net profit/loss for the year</td>
<td>(16557)</td>
<td>130845</td>
</tr>
</tbody>
</table>

### Balance Sheet

<table>
<thead>
<tr>
<th>Description</th>
<th>31/12/2012</th>
<th>31/12/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machinery</td>
<td>41767</td>
<td>1</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>73166</td>
<td>271680</td>
</tr>
<tr>
<td>Net Vat refund</td>
<td>19587</td>
<td>21032</td>
</tr>
<tr>
<td>Bank</td>
<td>337332</td>
<td>292655</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>471852</td>
<td>585368</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>31/12/2012</th>
<th>31/12/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td>60312</td>
<td>42983</td>
</tr>
<tr>
<td><strong>Total Net Assets</strong></td>
<td>411540</td>
<td>542385</td>
</tr>
<tr>
<td>Opening Reserve</td>
<td>428097</td>
<td>411540</td>
</tr>
<tr>
<td>Profit/loss for the year</td>
<td>(16557)</td>
<td>130845</td>
</tr>
<tr>
<td><strong>Closing Reserve</strong></td>
<td>411540</td>
<td>542385</td>
</tr>
</tbody>
</table>
Design: Loep ontwerp, Arnhem, NL
Layout: Andrea Jaschinski, Berlin, DE
Print: Druckerei Lokay e.K., Reinheim, DE

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

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AIB’s vision is that throughout the world, the importance of energy- and policy-related issues is rising markedly; in particular, those issues which relate to clean energy and energy efficiency. The AIB aims to provide the infrastructure and information to support electricity source disclosure in all EU Member States by the end of 2015.

Electricity disclosure is highly relevant for electricity produced from renewable energy sources. Supporting an environmental friendly electricity market in Europe AIB is part of the change to a more sustainable world.

AIB has taken responsibility for its own organisation, and seeks to make its own structures and organisation environmentally and socially friendly. Hence in 2013:

- Wattimpact (http://www.wattimpact.com/Commitment.aspx) compensated for the energy consumed by the AIB web site
- AIB powered the servers and computers of its secretariat using renewable electricity
- AIB printed its Annual Report for 2013 on FSC-paper, 100%-recycled

In 2014 AIB aims to continue with steps towards more sustainability by:

- Continuing to power its servers and computers using preferably renewable energy; and to benefit from the services of Wattimpact
- Printing its Annual Report for 2013 on the most environment friendly paper, in cooperation with a printing company that has committed itself to be a sustainable printer (http://www.lokay24.de/)
- Holding its quarterly General Meetings:
  - Giving priority to 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
  - Ask for regional, organic, low meat catering
  - Continuing to carbon offset the travels of all AIB members to all General Meetings. (www.atmosfair.de)
- AIB is also aware of social aspects of sustainability and one small step towards it is the consistent use of the term chair instead of chairman or chairwoman.
Association of Issuing Bodies

The AIB is a non-profit-making international association

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