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## Annual Report 2012

Is out now!



**AIB**

association of issuing bodies

## NEWSLETTER 16

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## SYNOPSIS OF ARTICLES

### Fraud prevention

Following on from lessons learned in carbon markets, AIB members have reacted to concerns about the potential for VAT fraud by approving a “good practice guide” for members seeking to detect and prevent fraudulent activity; and including a recommended “know your customer” questionnaire. Implementation of the provisions of these documents is at the discretion of members. Ingrid Nyttun Christie of Statnett, Norway and chair of AIB’s Board provides an update.

### Membership

The current status of members is reviewed, including (for each domain): the date when they will have drafted their procedures to support the new EECS Rules, the status of the implementation of version 70 of the technical specification for data exchange between registries, and the acceptability of RECS certificates for disclosure. Also, applications for new membership are reviewed in brief.

### A new graphical identity for AIB

This newsletter concludes the AIB’s program of updating its visual

image, including a new annual report format and a brand new website. Diane Lescot of Observ’ER, France and chair of workgroup External Affairs gives details.

### Trading with non-member domains

“Ex-domain cancellation” – the transfer of certificates to and from other registries by cancelling them for use in the other country – can now only be done where the importer is not a member of AIB, or the transfer is technically not possible.

Further, AIB is actively pursuing ways in which members can communicate with non-members via the Hub: this will be a new service for non-members.

Finally, registry operators and the Hub service provider have been implementing the new EECS Rules. Here they summarise the work done, identifying the benefit to users and discussing some of the challenges faced during the transition period between the old and new EECS Rules.

Lisbeth Rasmussen Stet of Energinet.dk reviews recent work in this area, with input from Atos (which operates the Hub on behalf of AIB) and Markus Klimscheffskij of Grexel, Finland.

### Market Committee meeting

The AIB Market Committee met in Helsinki in June, where members of AIB and market parties from RECS International considered the future of the RE-DISS project, cancellation of certificates for use in other countries, and certificate expiry. Claudia Delmirani of GSE, Italy and member of workgroup External Affairs considers the discussions.

### Statistics

The AIB reached a significant milestone recently: it has now cancelled over one billion certificates, and continues to do so at a rate of over 250 million per year – broadly equal to the annual consumption of renewables of France, Germany and Italy.



## FRAUD PREVENTION

The Berlin GM in March 2012 agreed to establish a Task Force on fraud prevention. This Task Force sought advice from national tax authorities and Europol about how to detect and prevent fraud in the GO market, and refined the “good practice guide” and “know your customer” (KYC) questionnaire.

National and European tax authorities generally supported the use of a KYC questionnaire for all applicants. They feel that this document deters potential fraudsters, and is a useful tool in energy and carbon markets. Also, the early detection of possible fraudsters before they materially impact the market is beneficial for all of stakeholders of the GO market.

Experience from other markets shows that VAT fraud can become a problem very quickly, and the availability of a central point of information like the Hub is an effective tool for spotting potential market abuse. For the EU ETS market, Commission Regulation 920/2010 (Art 75, sec 2 a) offers national tax administrations a mandate to request information from the carbon credit market central hub; and it was suggested that AIB adopt a similar ruling.

### Good Practice Guide (“the Guide”)

The Helsinki General Meeting approved the Guide as the main recommendation for AIB members seeking to prevent fraudulent activities. It did, however, acknowledge that differences in national legal systems meant that some members could not fully implement the recommendations of the Guide (e.g. The Netherlands and Flanders may not ask prospective account holders to complete KYC forms as a precondition of account holding).

The Task Force will now identify the most important points of the Guide for possible incorporation into the Hub User Agreement; taking care to ensure that account applications do not unduly prevent small organisations and individuals from opening accounts.

### Know Your Customer questionnaire (“KYC”)

The Helsinki General Meeting approved the KYC, and members were urged to consider using this. However, while the KYC was a good idea, the different provisions of national legal systems meant that its use by AIB members could not be made compulsory.

### Relation with tax and law enforcement authorities

The Helsinki General Meeting agreed that the secretary general should be permitted to pass on information from the central Hub concerning suspicious activity or transactions to tax authorities that formally request this, or at the direction of the Board.

The General Meeting also agreed that Europol should be offered access to the Hub to help it to identify suspicious behaviour, solely at the request of the proper legal authorities, provided that the provision of access was accompanied by advice on the interpretation of the data.

AIB members will take these matters up with their national authorities and legal advisors, and AIB will take legal advice on the rights and duties of AIB and its officers in this respect.

# Membership

## Status of current members

The members represented at the Helsinki General Meeting were asked to identify:

- 1) When their revised domain protocols would be ready for review
- 2) Whether RECS certificates were acceptable for disclosure purposes and
- 3) Whether they had implemented the v70 data exchange standard.

Their responses are summarised in the following table, which also draws on information from absent members.

Domain	Date DP ready for review	Acceptability of RECS certificates for disclosure	V70 implementation
Austria	Oct 12	No	Yes
Belgium (Brussels)	Not known	No	No
Belgium (Flanders)	Oct 12	No	Yes
Belgium (Wallonia)	Oct 12	No	Yes
Switzerland	Oct 12	Yes (GOs take priority)	Yes
Cyprus	Oct 12	Not known	No
Germany	Sep/Oct	Yes – until 1/2013	Yes
Denmark	Aug 12	No	Yes
Estonia	Not known		No
Spain	Sep 12	Yes	Yes
Finland	Aug 12	Yes – until new law in late 2012 / early 2013	Yes
France	Awaits new IB	No	Awaits new IB
Iceland	Jul 12	Yes	Yes
Italy	Dec 12	No	Yes
Latvia	Drafted	Not known	No
Luxembourg	Not known	Yes	Yes
Netherlands	Jan 13	No	July
Norway	Aug 12	No	Yes
Portugal	Not known	Yes	Yes
Sweden	Oct/Nov 12	Yes	Yes
Slovenia	Aug 12	No	July

## Membership applications

### Iceland

Landsnet, the transmission system operator for Iceland, became a member of AIB at the beginning of the year. It currently issues guarantees of origin according to Directive 2001/77/EC, which are also eligible as RECS certificates; and anticipates upgrading its guarantees of origin to support Directive 2009/28/EC later in the year.

### Estonia

While Elering has prepared a draft Domain Protocol, the legislation appointing Elering as the issuing body of Estonia is still in draft form and has not been sent to the Estonian Parliament for approval yet.

### Latvia

SIA Aiguta is a commercial body which has applied to issue RECS certificates. It has prepared a Domain Protocol for Latvia, which is currently being considered by Workgroup Internal Affairs assisted by Chris Pooley of Ramboll, a professional reviewer appointed by AIB.

### Cyprus

There has been a preliminary agreement that the Cyprus TSO will be the only GO official competent body in Cyprus.

Work on the application to join AIB, including preparation of the Domain Protocol, is proceeding.

### Germany

AIB has met and corresponded with BMU and UBA concerning Germany becoming a user of the Hub for RES GOs only (but not a member), with the result that both parties have agreed to continue discussions at a more detailed level. Further details will follow in the next newsletter.



## A new graphical identity for AIB

Working Group External Affairs is pleased to introduce the new layout of the newsletter, which was designed by Loep ontwerp of Arnhem, Netherlands, in order to harmonise with the AIB's new logo.

At the same time, this working group has produced the AIB's 2011 annual report, which also displays this new visual identity.

You can download this document from the AIB's website.

We invite you to visit the website ([www.aib-net.org](http://www.aib-net.org)), which has been thoroughly redesigned and reorganised in a way that we hope will enable you to find all documents (on the AIB itself, EECS rules, certification processes and uses) and information (on statistics, market parties...) you may need very easily.

And last, but not least, after several years participating in workgroup External Affairs (and, in particular, correcting our English!), Lisbeth

Rasmussen Poulsen has moved onto fresh challenges. Members of the workgroup would like to thank her very much for her commitment and for her contribution, and wish her success.

Your comments are very welcome and can be sent to [wgea@aib-net.org](mailto:wgea@aib-net.org).

## Trading with non-member domains

**Transferring guarantees of origin and certificates to and from domains that are not members of AIB – ex domain cancellations are now almost a thing of the past.**

According to the European Directive 2009/28 on guarantees of origin, all EU member states must be able to exchange guarantees of origin (GOs) issued in accordance with the respective national legal provisions, and other certificates issued under ICS (independent certificate schemes) which are all in line with the requirements of the above Directive.

AIB members now have the technical facilities to support the interchange of certificates with non-members, as the Hub has been upgraded to allow it to be used to receive certificates from, and export certificates to, countries outside of the AIB

domains. This preparation has required the EECS rules to be updated, and this became operational on 1st September 2011. The update was undertaken in response to the requirement to adopt all of the requirements of European Directive 2009/28 relating to GOs. This required the drafting of a new format, v70, for data exchanges between issuing bodies, which will apply to all certificates issued according to the EECS standard. All registry suppliers have therefore been busy preparing for the update. One of the registry suppliers is Grexel Systems Ltd.

### Which changes were required from the system operators?

We asked Grexel what was required by them as a system operator. Grexel has listed the following requirements, which have now been successfully

implemented in the CMO.grexel registry.

The most notable change was that the old energy source codes have been replaced by new fuel codes and type of installation codes. This required redesigning part of the database structure:

- Conversion of the technology and fuel source codes of existing production devices (PDs) into the new format
- Conversion of existing certificates into the new format
- Issuing to support the new format
- Changes in the PD registration form
- Public report changes
- PD reports to show the full installation type name and code of the PD
- Statistics to show the full fuel name and code



For inter-registry transfers of certificates via the AIB Hub, changes in the xml transfer message were required. The old (v65) message format was replaced with the v70 format which includes new fields, new names, new specifications for field formats etc...Also, new formats for acknowledgement (ACK) and negative acknowledgement (NAK) files have been introduced.

Furthermore, the data content of a certificate has been changed. For example, PD details are now included in the information content of the certificate, instead of just the GSRN (Global Service Relation Number) number. The issuing process has been amended accordingly to retrieve the additional data from the production device information.

Other changes include the banning of cancellation of certificates for use in other AIB domains, which means that such “ex-domain cancellations” are not permitted to take place between any of the AIB domains, except for a small period when this is permitted for France and The Netherlands – please see below.

In addition, there are changes in certificate associations. All former GO associations were marked with a product status ‘GO’ and the former RECS association was given the product status ‘ICS:RECS’. The product type field was introduced to facilitate the separation of CHP-GOs and RES-GOs.

The process of implementing the new format was prepared by Atos. The v70 interface format is a further development of the v65 and v67 formats, and its advantage is that it is now possible to describe PDs at a greater level of detail by using more sophisticated technology codes and quality attributes. A further benefit is the possibility of defining further detail of non-renewable energy sources (e.g. fossil, nuclear). In general, self-explanatory error code handling has been implemented, which makes it easier for issuing bodies to interpret the error messages (e.g. ‘technology code is not valid’) more effectively. This is a considerable improvement over the old v65/v67 interface.

To use a sustainable and future-oriented communication, together with the v70 format, web service technology has been implemented in the Hub, which now supports several transformation and communication technologies-such as web service to email, email to web service, v65 to v70 and v70 to v65. The web service technology offers synchronous communication, assuring a stable communication method without any delay.

### Benefit to the users

The upgrade has made it easier to distinguish between GOs issued according to national legislation and ICSs, and to include further environmental information in a certificate through ICSs. The structure has become hierarchical for energy sources (instead of a list), and more information may be included in a certificate (PD name). Furthermore, all domain protocols will be

updated during 2012, and will therefore be easier to understand.

### Users of the Hub

As mentioned above, all certificates traded via the Hub must comply with the EECS standard, which has been prepared by the AIB to comply with the Directive 2009/28/EC, and regarding which all AIB members have had the opportunity to comment, and have agreed. This is not only an advantage to all AIB members; it is also an advantage for newcomers, who are invited to engage in the various AIB workgroups and to set up lines of communication for future challenges in connection with trading certificates.

### Delay of implementation – France and the Netherlands

Section M11 of the EECS rules provides for a transition period regarding the implementation of the new format in the various national registries and their connection to the AIB Hub. This transition period was set to end on the 31st of March, the date on which no more certificates corresponding to former format (V65 and V67) should be issued nor circulated among AIB members.

### End of transition period for EECS rules France and NL

The EECS rules became operational on the 1st September 2011. They were created in order to adapt to all requirements set by the European Directive 2009/28 for guarantees of origin (GOs). By implementing the EECS Rules, all issuing

bodies are assured that they will issue GOs that will be compliant with the RES Directive. This has required the drafting of a new format, v70, for data exchanges.

Section M11 of the EECS rules provides for a period of transition during which the new format will be implemented in the various national registries, and in connecting them to the AIB Hub. This transition period was set to end on 31st March, the date from which no more certificates corresponding to the former formats (v65 and v67) should be issued or circulated among AIB members.

The Basel General Meeting in mid-December 2011 discussed the cases of France and the Netherlands, as both had announced that they would be unable to meet the deadline for the following reasons:

- In France, ordinance 2011-1105 from 16th September 2011 provided that, as of 1st January 2012, only GOs could be used by suppliers to prove to end consumers the origin of supplied RES-E. At the same time, the ordinance foresaw that a competent authority would be designated by the Ministry to ensure the issuing, transfer and cancellation of GOs according to Directive 2009/28. No deadline was indicated for this designation. Observ'ER, which is the current AIB French member and planned to cease issuing EECS RECS from 1st April 2012, stated that it could not start implementing the new format until the legal situation had been clarified.
- In the Netherlands, CertiQ has undertaken a general change of software system for all operations they are managing (so not only regarding GOs), which did not have the same timeline of implementation as that of the AIB.

It was decided in the Basel meeting that Observ'ER and CertiQ would be allowed a later implementation of v70, with the deadline postponed until 30th September.

As from 31st March, Observ'ER has ceased imports and exports of certificates. Traders that still want to export or import EECS RECS certificates can do so only by cancelling them for use in other domains (ex-domain cancellations).

CertiQ has chosen to continue imports and exports of certificates with blank fields for elements of information that are required in the v70 format, and not in v65. If exported, these certificates will be valid only until 31st March 2013. If imported into the Netherlands, certificates will be stripped of the corresponding information and will keep their validity of one year, but if re-exported, their lifetime will be limited to 31st of March 2013.

## Feedback from the June 2012 Market Committee

The meeting took place in Helsinki on 14th June and, as usual, gathered RECS market parties and AIB members, giving them the opportunity to have an open discussion.

### RE-DISS

Christof Timpe chaired the meeting and introduced the first item on the agenda: What is the status of RE-DISS Best Practice, and how might it be improved?

The EU-funded RE-DISS project was presented by Diane Lescot, who invited attendees to comment on the Best Practice Recommendations (BPR) - see [http://www.reliable-disclosure.org/upload/166-RE-DISS\\_Best\\_Practice\\_v13.pdf](http://www.reliable-disclosure.org/upload/166-RE-DISS_Best_Practice_v13.pdf).



As the project ends in October 2012, a proposal has been submitted to the European Commission Intelligent Energy Europe (IEE) programme, for a follow-up project - RE-DISS II. In the event of a positive outcome, RE-DISS II could start in March or April 2013, which would be in time for the calculation of residual mixes for 2012. A fallback option is needed in case the IEE decides not to fund the project, but this can be developed after the announcement of the decision, which is expected to be in November 2012.

RECS International (RECS-I) has raised comments and questions, among them:

- RECS –I strongly supports RE-DISS and the proposed RE-DISS II project.
- The Greenhouse Gas Protocol for carbon accounting will refer to RE-DISS and EPED with regard to the residual mix calculations. RECS believes that this will call for a higher degree of transparency concerning the methodology used.
- This should be satisfied by the publication of a description of the Residual Mix methodology in publicly available documents.
- RECS-I also suggests that stakeholders should be given full access to the data relating to Residual Mix calculations. This would give more credibility to the results, and would be appropriate in view of the public funding of the project.
- Both Christof Timpe and Diane Lescot are reluctant to offer full access to the data. This is because the Competent Bodies which

supply figures for the RE-DISS calculation of Residual Mixes might oppose publishing these figures, some details of which may be confidential. It must be remembered that RE-DISS is only partly funded by the Commission. Also, although all results are published, ownership of the intellectual property regarding the base data remains with the project team.

- Market players wish for a more important role/inclusion in the RE-DISS project.
- The main target group for the current RE-DISS project is Competent Bodies. The RE-DISS team is most willing to increase transparency, but the team's experience shows that Competent Bodies have far more open discussions without Market Players being present. In any case, the RE-DISS II proposal includes a conference with Market Players. The precise details of transparency will also depend on the performance criteria defined by the IEE in the project contract.

Country profiles are available on the RE-DISS website, which explains the way in which the BPR is implemented, and gives recommendations for improvements. RE-DISS is monitoring this for these countries; but cannot enforce its recommendations on any countries because it is a consultancy project. However, market players could consider how they could contribute to supporting the outcome of RE-DISS at a European level - e.g. by putting pressure on national competent bodies. Even if this project cannot provide binding

recommendations on disclosure, RE-DISS will propose to Member States new Commission guidelines on the implementation of disclosure, to stimulate a harmonised approach.

### Ex-domain cancellation

Rolf Jorgensen took stock of the situation with ex-domain cancellation. The new rules are quite straightforward: members will only be able to cancel certificates for use in non-member countries, and for use in member countries where it is technically impossible to transfer them, and provided this is accepted by the importing country and the details of each such transfer are notified to both the importing country and to the AIB.

### Expiry of certificates

The closing presentation was also given by Rolf Jorgensen, who made it clear that expiry of a GO is governed by domain-specific rules (the EU Directive is not detailed enough in this matter, and leaves space for interpretation by each country/domain). Where a GO and an ICS are linked, then they will expire at the same time. ICS-only certificates (like RECS certificates) have no expiry date. Participants agreed that it would make sense to remove "old" RECS certificates from the registries. However, this would have to be done by the account holders. AIB members cannot enforce this.

### Next meeting

The next Market Committee is scheduled for June 2013 in Reykjavik, Iceland.

### Papers

For AIB members who missed the event, or who wish to review the above issues in more depth, the agenda and the presentations are available on members' pages of the Association's website at

[http://www.aib-net.org/portal/page/portal/AIB\\_HOME/MEMBERS\\_SECTION/MEETINGS\\_THIRD\\_PARTIES/Markets%20Committee/12012-06-14%20Helsinki](http://www.aib-net.org/portal/page/portal/AIB_HOME/MEMBERS_SECTION/MEETINGS_THIRD_PARTIES/Markets%20Committee/12012-06-14%20Helsinki).

## AIB celebrated 10 years of existence in Helsinki



Diane Lescot – Chairman of the organising workgroup  
External Affairs - reports

You may have the impression that AIB has always been there and it is true that we have been talking about the AIB for longer than 10 years, but the facts are there and formally the AIB has existed since May 2002.

In June 2012, Workgroup External Affairs seized the opportunity to make use of the late sunset in the Nordic countries to allow for a very long evening of partying ...

And we were very well inspired! Thanks to the tremendous support and the good spirit of Grexel (in particular our local organisers Markus Klimscheffskij and Saara Jokela) – and of course the support of our sponsors (Grexel, GreenStream Network, UPM and Fortum) we were able to propose a programme that would leave fond memories (although for some, who we will not name here, the memory of Helsinki could also trigger memories of record headaches...!).

### Boat trip, quiz and treasure hunt

The evening started with a glass of champagne on the sunny deck of the M/s Monica, and a welcome from one of the sponsors and an AIB member, Marko Lehtovaara of Grexel. We took advantage of everyone being unable to get off the boat to test their knowledge of the AIB. Some fiendishly difficult questions were set and read out by Phil, as question master, but the teams (mixing AIB and RECS International members) did very well. Not surprisingly, the honours went to the oldest members (in terms of membership of the associations, of course ...), the team that ended up winning including among its members Peter Niermeijer and Claes Hedenstrom. The quiz and its answers are attached to this newsletter for those who were not able to join the meeting. In honour of AIB's 10 Year History, cancellation statements were distributed to each of the teams. The boat took the whole party to Suomenlinna Island, where everyone was divided into teams with such names as 'ducks,' 'cows,' 'bees' - we then had

to identify ourselves to our fellow team members by imitating the cry of the animal (picture in your mind's eye a member of the 'cows' team mooing to identify itself to its partners...) - in France, there is a saying: 'being ridiculous does not kill you, thank God!' The treasure hunt which followed was a nice excuse for walking around the island under the ever sunny sky. Nobody seems able to recall the name of the team who won (was it the cows? Was it the monkeys? Frankly, who cares!). The treasure was discovered in a stunning, vaulted room that was perfectly equipped for us to enjoy good food and fine wines.

### 'Greening' the AIB (and RECS International)

The treasure was compensation for the CO<sub>2</sub> emissions of the journeys of all participants from the rest of Europe to Finland. The AIB also 'greened' the consumption of electricity used by its website and the PCs of the visitors to it (for more details, click on the green icon 'website electrically





green' by Wattimpact in the footer of the new AIB website at [www.aib-net.org](http://www.aib-net.org)).

### Speeches

The dinner was introduced by a speech of welcome from our kind sponsors, Hans Backström of Fortum and Juha Ruokonen of GreenStream Network, followed by a speech from AIB's President, Christof Timpe, who outlined the development and accomplishments of the AIB as follows.



Ten years ago, AIB emerged as the result of a joint initiative between market actors and service providers, both of whom were interested in the certification of energy. AIB and RECS International were formed, and have developed much further since then: they have many joint interests, but also some differences. The mission of the AIB is to 'be the leading enabler of energy certificate schemes in order to promote and facilitate transparent energy markets.' EECS successfully integrates the RECS system and guarantees of origin under European and national legislation, providing a reliable and consistent European certificate system which can be used as the legislative tool for tracking renewable source electricity and other types of electricity production.

The AIB has now 18 members from 16 countries, and as of June 2012 it has issued certificates representing 1.275 TWh, and cancelled certificates representing 1.004 TWh: this means that about 30% of all RES-E in Europe has been administered under EECS.



Recently, the 2009 RES Directive (2009/28/EC) was implemented by means of a major revision of EECS; the central Hub for inter-registry certificate transfer was replaced and upgraded; and AIB has worked with RECS International on developing residual mix calculations (this is currently achieved by the EU Commission-supported RE-DISS project).

AIB and the EECS system have undergone different phases, aimed at developing a functioning system, raising market demand and accommodating both governmental GOs and private certificates in a single system. The mission and vision of the AIB states: 'The AIB aims to provide the infrastructure to support electricity disclosure in all EU Member States by the end of 2015.' To this end, the AIB is now working hard on implementing guarantee of origin systems based on EU and national legislation, expanding AIB membership to the remaining European countries. This will mean cooperating even more closely with governments. In this regard, the focus of AIB remains to promote full membership, but connection to the registries of non-member countries via the Hub will also be possible. AIB is striving to help overcome barriers created by inconsistent national regulations, so supporting a level playing field for the market. Its focus will remain electricity, but AIB is also prepared to expand into additional fields of energy certification if this is needed and can be justified. Finally, Christof thanked the work of AIB's members, and picked out the departing chairman of the workgroup Internal Affairs, Rolf Jorgensen,

and AIB's tireless Secretary General, Phil Moody, for special thanks; noting that it was the good relationship of the AIB with market players that had made it all possible. Finally, he thanked the hosts of the Helsinki meetings and the sponsors of the dinner event.

### After-dinner entertainment

The conclusion of the dinner also reviewed AIB's history through the eyes of RECS International. Claes Hedenstrom and Peter Niermeijer, the President and Secretary General respectively, evoked several of the turning moments of the two associations in the form of a "Do you remember when" dialogue.

Peter remembered: "At the very start, actually this was born in Denmark. In the Netherlands we had the 'Groenlabelsysteem' which was done by the electricity companies, to share the efforts in Holland. And then there was a guy in Denmark called Hans-Erik Kristofferson who said 'this is really exciting, can we do this in Europe?' And at the same time there was an EU project [Editor: it was called ReCert] run by Chris Crookall-Fallon of ESD, England, which held a project meeting at Energined in Arnhem in 1998 [Editor: actually, it was 1999]. Here, the concept of RECS took shape, and RECS International came into being four years later, 2002 ... we had our own rules, called the Basic Commitment, written by Jos Benner and later by Phil, and we were very unhappy when AIB grew up and wanted to rule its own rules – we wanted AIB to consult RECS before changing the rules, and we fought over this for 2-3 years. We came to an agreement eventually, but we never signed the

paper!”  
Claes recalled: “I came into the picture in Stavanger, in 2000, from a background in physical trading of electricity and people are talking about certificates and redemption. I didn’t understand a thing! ...  
Also, when EECS was presented the first time by the AIB in Brussels, at the offices of Tractebel in September 2004, I remember that most RECS members became upset and angry on the issue of

who controlled the system, saying ‘who are they to take control?’ It went so far that a RECS member suddenly raised a hand, pointed at a man entering the room and shouted ‘who are you?’ It turned out that the poor guy was our host, and a RECS member! Today we know how wrong we were, but feelings are feelings. Thank you, AIB, for the EECS system.”  
Claes then performed a song ‘The AIB Blues’ that he had composed for the AIB. Members of the AIB

now look forward to returning the compliment at the 10th anniversary of RECS International, this winter.

**Long live the AIB!**

## Statistics



### New format

The format and content of the reported statistics has been revised in line with market demand to reflect the new EECS source / technology coding structure; to separately account for cancelled certificates and expired certificates (which allows energy supplied as a residual mix to be considered separately to that supplied as a product); and to inform the market of the quantity of certificates remaining tradable for each vintage.

### Frequency of reporting

There are no plans to change the frequency of data collection and reporting, which is currently quarterly, as the additional effort of monthly collection cannot be justified. Where available, data has been collected for all months since 2000, as this permits a high level of reconciliation between individual and total figures.

### Data items recorded

Data will still be collected for each domain and month, and relate to single energy sources or groups of energy sources; and for each domain / month / source the following will be recorded:

- a. **By production date:** issued, expired and cancelled - this lets the market know how many certificates of each vintage are available for trade, so informing price setting.
- b. **By transaction date:** transferred within domain, imported, exported, expired and cancelled - this helps in judging the level of market activity, and making certificate expiry dates visible further informs pricing and trading strategy; and also enables AIB to calculate its membership fees.

When power exchanges become linked to registries, inter-registry statistics may be limited to the final transfer at the end of a settlement

period, obscuring the full picture of market activity. AIB is investigating whether this is a problem and, if so, will seek ways of overcoming it. Trading via power exchanges may result in increased trading not directly associated with acquiring certificates for supply to consumers, but should also diminish the size of market price spread.

### New codes

Regarding the use of the new codes in support of EECS Rules Fact Sheet 5, the reported codes will aggregate into higher-level codes, for: inactive codes (e.g. hydro and wave power will be aggregated until such time as wave power becomes more widely used); unknown codes (e.g. sold renewable fuel may be used where conversion between codes has resulted in the original code becoming unknown); and codes where there is no



current market demand for detailed information (e.g. Orimulsion is simply reported as “Fossil”).

The list of codes has been prepared by reference to: the codes used by all registries and member preferences. Further codes will be reported to reflect new technologies (e.g. “Hydro and marine” when wave power is used more widely); or when the market justifies it (e.g. disaggregating “Fossil” into natural gas, coal and oil).

### Analysis

Where possible, the statistical reports will provide a disclaimer explaining shortcomings in the data. This might include domains that do not provide certain items of data, and those that have not contributed to the latest report. The value of publishing data which contains such shortcomings is felt to outweigh the absence of such data.

Some items may solely be useful at a pan-European level (e.g. domains will not know if certificates they issued and exported have been cancelled). Hence it will be possible to know the length of the market across Europe, but not necessarily for certificates issued in a specific country.

Certificates withdrawn by the issuer (perhaps those issued in the wrong quantities or for the wrong technology) are statistically insignificant, and have therefore been ignored.

### General

All certificates are 1MWh. As metering data is the basis for issuing certificates, there is always some delay in gaining accurate statistics for the corresponding data for a specific month, so the most recent quarter’s issuing activity will always be understated and consequently this information should be treated with caution.

Note that statistics for certificates issued in a specific month are not presented, as the value of this data is not clear. In general, “issued by transaction date” will be similar to, but slightly later than, “issued by production date”, due to the inevitable delays in processing meter data.

### Explanatory notes to statistics issued 29 June 2012

The version of the statistics published 29 June 2012 is based on statistics for each AIB domain and either supplied by the issuing body, or accessed from its website, between 10th April and 22nd June 2012. The delay in reporting was largely the result of unavailability of data, due to domains implementing the new EECS Rules on different dates.

Note that no information was received from the Brussels and Wallonia regions of Belgium, which last responded in January 2012. Slovenia is currently implementing its new registry.

Data is collected direct from the registries of:

AT	E-Control	ES	GCC	NO	Statnett
CH	swissgrid	FI	Grexel	PT	REN
DE	Oeko-Institut	IS	Landsnet	SE	Grexel
DK	Energinet.dk	LU	ILR		

The following registries provided information on demand:

BE	VREG (Flanders)	FR	Observ'ER	IT	GSE
NL	CertiQ				

The Grexel registries (DE, DK, FI, LU, NO and SE) provide all required information, and have done so for a number of months. However, information from these domains relating to periods prior to the adoption of this version of the registry is not always available. For instance, the previous registries did not record the quantity of cancellations by production date that had taken place during the life of these registries.

The LogActiv registries (ES and PT) do not currently expire certificates.

The Atos registries (AT and CH) and the “on demand” registries (BEF, FR, GSE and NL) do not currently provide expiry data, or production-based expiry and cancellations.

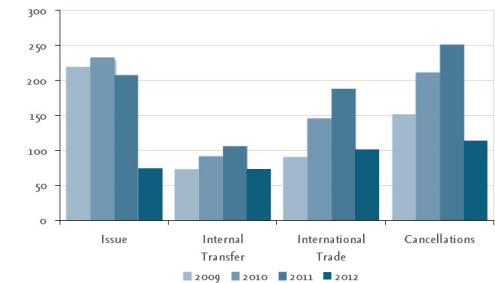
The difference between total exports and imports is the result of absences in the information gathered, and due to exports to Belgium needing to be accepted by the importer, introducing delay registering the transaction (and which is potentially treated differently by different registries). We are currently investigating whether there might be

other reasons for this.

During 2012, market activity has continued to increase, and in particular the use of certificates for disclosure purposes.

The number of certificates issued during 2011 was down on the previous year, due to the requirement to re-register Swedish production devices, and the use of domestic GOs rather than EECS GOs internally, but this decrease looks to have stopped. Conversely, transfers and cancellations continued to increase.

Annual EECS Certificate activity (TWh)



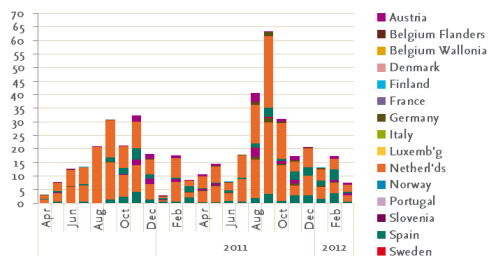
The monthly discrepancy between exports and imports is due to some transfers not being instantaneous, and hence trades which commence in one month can complete the following month. Norway, Sweden and Finland continue to be the

major exporters, although Denmark, Italy and Belgium (note that no input was received from Wallonia) continue to make their presence felt. Regarding imports, these continue to be dominated by Finland and Germany, followed by

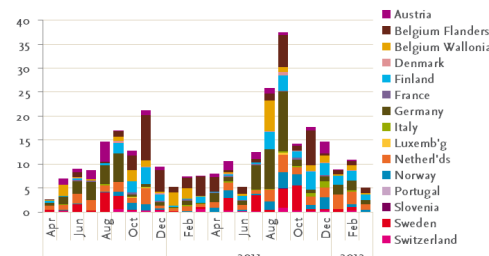
Netherlands, Norway and Sweden; while other countries play a lesser part. Some countries (e.g. Norway, Finland and Sweden) figure in both exports and imports, suggesting trading activity.

Other trade exists in the form of the cancellation of certificates in one country for use in another: the new EECS Rules only permit this where transfer is not possible.

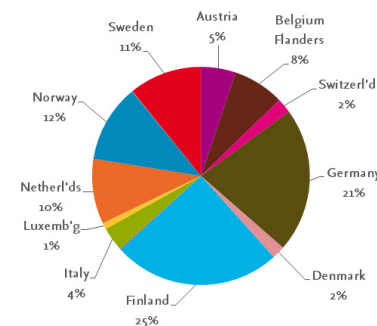
Monthly exports per country (TWh)



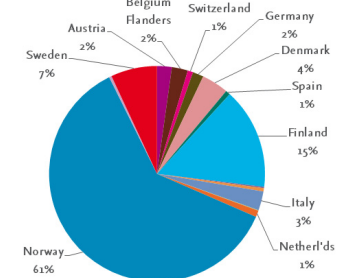
Monthly imports per country (TWh)



2012 Import



2012 Export

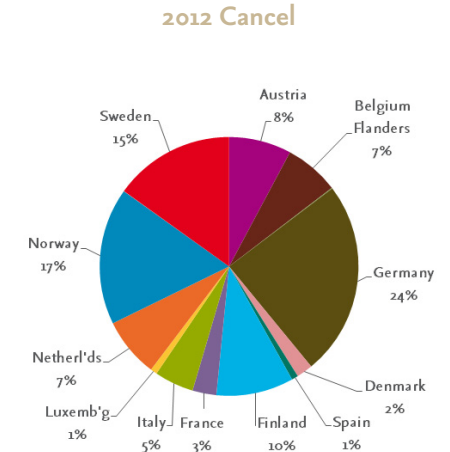
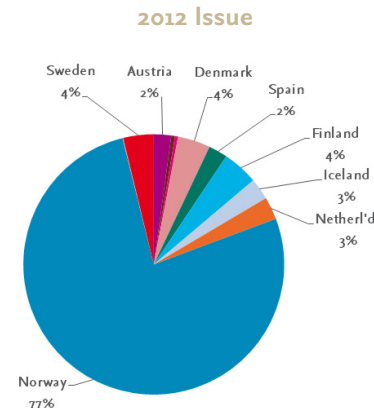
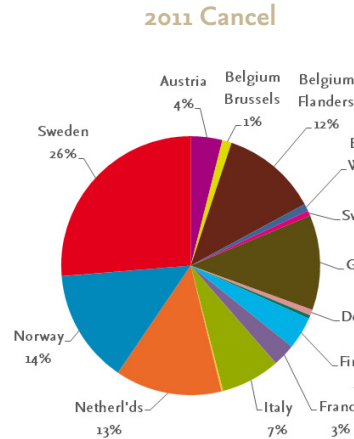
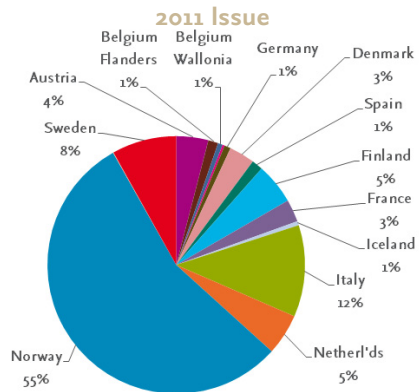


The pie charts on this page show the certificates issued and cancelled last year and this year, in

summary. Again, these charts show the large role that the Nordic region has in this market, and

the interest in renewable products elsewhere in Europe, in particular Germany, Austria, Benelux

and Italy. This position has changed little in 2012.

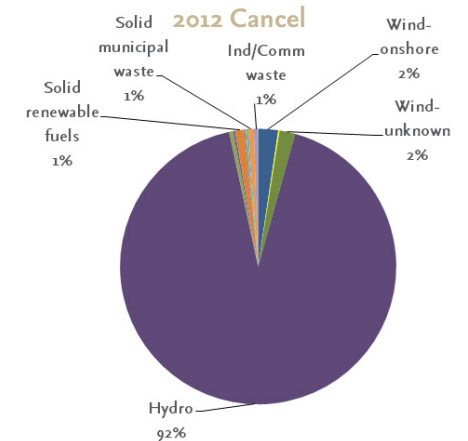
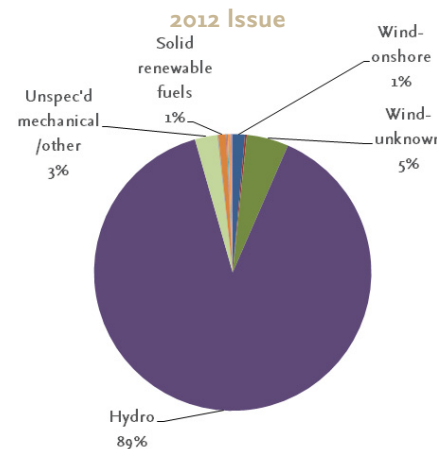
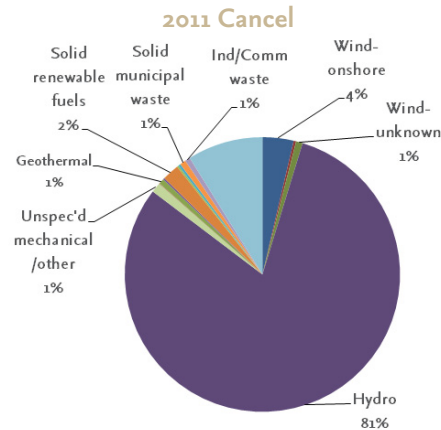
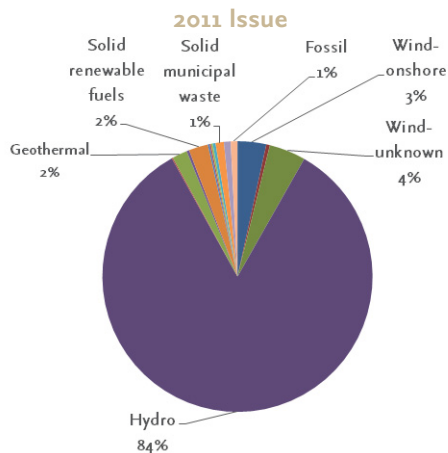


During 2011, hydropower remained by far the prevalent renewable energy source, followed by

wind and biomass. Note that certificates for nuclear are issued during the following year, and that

certificates for fossil have returned.

Again, the picture is much the same for 2012.



A new feature of AIB statistics is the ability to compare the different vintages of EECS certificate. Here, we can see what has happened to the certificates that were issued for energy produced in the last four years – whether their certificates have been cancelled as evidence of supply; expired due to it being more than one year since the associated energy was produced (as required by Directive 2009/28/EC); or whether their whereabouts is unknown. This may mean that they remain available for trade, but it could also be that they

have been transferred to a registry that does not currently report expiry and cancellation by the date of production. Note also that some registries do not yet support expiry. AIB members are currently working to provide such information from their registries, but it may be a while before this is available: the reader is asked to be patient in the meantime.

Two graphs are shown. In the first, actual numbers of certificate are given; while the second illustrates the proportion of certificates in each category.

Usage of EECS Certificates



Proportion of EECS Certificates available



The following tables display the raw data by domain at a yearly level. Aggregated totals are given for the period since records began (2000); and for the period from January 2010 until the date of collection of the data (between April and June 2012, depending upon registry – the implementation of the new version of

EECS meant that not all registries could provide this information upon request – see also “Explanatory notes to statistics issued 29 June 2012” in this statistical report).

	TOTAL : 2001 to 2012									2010 to 2012						
	Production			Transaction						Production			Transaction			
	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel
Austria	32,796,450			40,050,650	25,272,910	60,997,093		47,070,785	18,961,048			33,324,582	23,040,056	25,774,535		27,088,130
Belgium Brussels -	10,794			881		6,092,332		6,019,620	8,244			881		5,994,468		5,921,756
Belgium Flanders -	11,835,274			46,788,523	19,100,234	109,974,341		87,843,380	5,298,665			42,659,037	16,157,177	66,483,270		68,859,571
Belg & Lux RECS -	113,390					2,031,496		2,048,355								
Belgium Wallonia -	4,037,371			6,556,429	4,540,600	34,111,452		22,519,892	3,039,374			4,607,852	4,282,536	25,896,902		16,425,801
Belgium	15,996,829			53,345,833	23,640,834	152,209,621		118,431,247	8,346,283			47,267,770	20,439,713	98,374,640		91,207,128
Switzerland	4,112,699			102,015	5,853,067	11,713,249		5,702,384	973,948				3,027,953	8,124,954		2,282,310
Germany	1,734,139		75,165,918	35,189,624	8,107,810	130,149,308		110,039,106	1,664,887		62,707,586	26,447,009	6,817,047	85,116,543		78,829,126
Denmark	23,095,513	2,632,617	4,375,200	6,232,247	16,690,642	6,315,824	2,632,617	6,201,645	14,968,323	886,716	4,212,048	5,648,261	12,084,846	4,524,947	2,632,617	5,036,182
Spain	11,358,230					3,818,612		3	5,466,863				2,388,796	2		2,847,219
Finland	89,805,882		26,879,328	18,772,121	106,473,329	91,229,002		42,336,038	24,865,911		22,085,986	12,522,685	62,353,391	74,594,944		26,733,255
France	26,632,654			8,304,037		2,037,498		18,014,841	15,065,624			3,238,472	1,889,442	3,735,371		16,692,118
Ireland	162,414					10,001										
Iceland	3,075,780					541,006			3,075,780					541,006		
Italy	54,963,162			20,157,360	9,203,433	9,097,527		43,112,390	35,652,031			17,098,138	9,203,433	8,741,423		31,843,333
Luxembourg	375		1,637,357	401,631	124,256	2,102,052		1,637,357	375		1,450,498	401,631	124,256	2,102,052		1,637,357
Netherlands	65,560,706			42,858,167	7,014,419	126,867,221		169,425,794	22,826,808			20,606,789	4,780,581	51,300,765		69,362,177
Norway	631,463,884	51,112,062	23,563,014	191,226,973	397,889,784	39,896,825	51,112,062	160,872,458	275,909,589	2,238,196	23,491,253	100,284,815	248,132,046	35,000,313	51,112,062	83,585,545
Portugal	1,010,674				957,256	57,702		64,576	413,153				957,255	57,695		53,420
Sweden	309,773,274	24,465,053	76,616,383	11,512,422	92,091,508	68,662,702	24,465,053	253,465,265	86,933,343	17,338,705	62,638,429	4,712,455	38,223,155	38,271,042	24,465,053	138,710,615
Slovenia	4,002,666				668,004	117,018		1,927,200					200,001	100,002		35,652
UK	90,158															
<b>Total</b>	<b>1,275,635,489</b>	<b>78,209,732</b>	<b>208,237,200</b>	<b>428,153,080</b>	<b>700,394,369</b>	<b>717,429,988</b>	<b>78,209,732</b>	<b>1,004,303,280</b>	<b>515,123,966</b>	<b>20,463,617</b>	<b>176,585,800</b>	<b>271,552,607</b>	<b>434,202,977</b>	<b>435,819,228</b>	<b>78,209,732</b>	<b>575,943,567</b>

	2012									2011									2010								
	Production			Transaction						Production			Transaction						Production			Transaction					
	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel			
Austria	1,603,589			12,972,579	2,399,384	5,233,695		8,830,683	8,351,182			12,136,227	9,904,395	11,870,389		9,895,907	9,006,277			8,215,776	10,736,277	8,670,451		8,361,540			
Belgium Brussels -									5,700					2,946,000		2,951,700	2,544			881		3,048,468		2,970,056			
Belgium Flanders -	342,620			13,175,516	2,616,366	7,710,044		7,716,213	2,615,594			15,587,116	5,429,930	26,255,664		30,175,438	2,340,451			13,896,405	8,110,881	32,517,562		30,967,920			
Belg & Lux RECS -																											
Belgium Wallonia -									1,228,142			1,627,446	866,036	8,598,216		2,292,250	1,811,232			2,980,406	3,416,500	17,298,686		14,133,551			
Belgium	342,620			13,175,516	2,616,366	7,710,044		7,716,213	3,849,436			17,214,562	6,295,966	37,799,880		35,419,388	4,154,227			16,877,692	11,527,381	52,864,716		48,071,527			
Switzerland	283,084				882,493	2,229,193		102,774	551,229				1,167,852	3,171,774		1,679,257	139,635			977,608	2,723,987			500,279			
Germany			657,383	7,595,341	1,766,990	21,748,687		27,608,237	1,664,887		29,991,982	8,466,613	2,208,085	37,496,307		29,799,910			32,058,221	10,385,055	2,841,972	25,871,549		21,420,979			
Denmark	3,017,767		12,570	2,727,319	4,379,687	1,952,079	212,545	2,303,546	6,692,773	180,250	2,353,672	1,946,563	5,263,113	1,331,983	2,420,072	1,810,761	5,257,783	706,466	1,845,806	974,379	2,442,046	1,240,885		921,875			
Spain	1,755,858				751,283			916,599	2,888,978				1,637,513	2		1,108,593	822,027							822,027			
Finland	3,300,700		38,147	4,415,000	16,505,824	25,173,714		10,959,114	10,688,348		12,257,293	5,335,664	29,765,082	33,349,087		10,161,513	10,876,863		9,790,546	2,772,021	16,082,485	16,072,143		5,612,628			
France				113,429	205,126	168,000		3,379,042	5,858,302			2,073,833	1,667,207	1,458,361		7,087,333	9,207,322			1,051,210	17,109	2,109,010		6,225,743			
Ireland																											
Iceland	1,999,799				541,006				1,075,981																		
Italy				4,892,964	3,120,840	3,621,460		5,581,070	23,958,277			7,830,240	6,082,593	3,865,125		18,591,512	11,693,754			4,374,934		1,254,838		7,670,751			
Luxembourg				395,604	77,510	954,643		936,133	375		935,816	6,027	26,830	933,702		514,365			514,682		19,916	213,707		186,859			
Netherlands	2,087,963			3,697,168	1,070,496	9,779,874		8,433,939	10,787,806			9,255,721	3,293,122	25,518,613		33,478,114	9,951,039			7,653,900	416,963	16,002,278		27,450,124			
Norway	57,332,584		765,370	21,294,268	66,519,598	11,752,608	51,112,062	19,395,606	114,651,797	710,217	21,683,936	41,116,844	99,444,845	14,370,635		35,675,568	103,925,208	1,527,979	1,041,947	37,873,703	82,167,603	8,877,070		28,514,371			
Portugal	55,448				412,865	54,607		20,038	146,606				519,390	3,088		24,488	211,099				25,000			8,894			
Sweden	2,815,836		23,501	1,903,391	7,540,990	10,982,118	524,188	17,114,012	16,847,249	524,188	21,415,456	767,250	13,523,696	17,029,172	23,940,865	66,083,942	67,270,258	16,814,517	41,199,472	2,041,814	17,158,469	10,259,752		55,512,661			
Slovenia													100,001	100,002							100,000				35,652		
UK																											
<b>Total</b>	<b>74,595,248</b>	<b>0</b>	<b>1,496,971</b>	<b>73,182,579</b>	<b>108,790,458</b>	<b>101,360,722</b>	<b>51,848,795</b>	<b>113,297,006</b>	<b>208,013,226</b>	<b>1,414,655</b>	<b>88,638,155</b>	<b>106,149,544</b>	<b>180,899,690</b>	<b>188,298,120</b>	<b>26,360,937</b>	<b>251,330,651</b>	<b>232,515,492</b>	<b>19,048,962</b>	<b>86,450,674</b>	<b>92,220,484</b>	<b>144,512,829</b>	<b>146,160,386</b>	<b>0</b>	<b>211,315,910</b>			

Similar to the “by country” data above, the following tables display the raw data by technology at a yearly level. See also the AIB website at [http://www.aib-net.org/portal/page/portal/AIB\\_HOME/FACTS/Market%20Information/Statistics](http://www.aib-net.org/portal/page/portal/AIB_HOME/FACTS/Market%20Information/Statistics) for Excel spreadsheets in both Excel 2003 and Excel 2010 formats, containing the detailed data since records began, summarised by year; and also by month.

	TOTAL : 2001 to 2012								2010 to 2012							
	Production			Transaction					Production			Transaction				
	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel
Wind - onshore	50,062,736	33,964	1,218,193	21,989,820	20,354,753	27,195,788		38,879,647	16,900,119		1,047,393	12,642,722	11,510,927	16,978,622		18,581,435
Wind - offshore	3,676,674			1,533,992	428,193	721,652		2,423,914	1,826,396			1,042,452	347,864	705,980		1,583,536
Wind - unknown	15,705,472	3,106,955	2,943,877	5,216,381	11,568,128	5,175,991	3,263,525	4,136,869	15,713,716	580,516	2,843,284	5,216,381	11,568,128	5,078,127	3,263,525	4,044,705
Wind	69,444,882	3,140,919	4,162,070	28,740,193	32,351,074	33,093,431	3,263,525	45,440,430	34,440,231	580,516	3,890,677	18,901,555	23,426,919	22,762,729	3,263,525	24,209,676
Hydro/marine	1,028,425,535	59,293,239	180,991,453	358,000,485	645,326,801	662,979,991	59,170,633	822,770,966	422,544,117	4,350,217	161,374,112	224,912,665	401,520,407	398,959,241	59,170,633	476,815,334
Unspecified mechanical/other	1,976,822		166,843		350,006				1,976,822		166,843	881	350,006	5,892,624		5,814,212
Unspecified renewable energy					8,188	8,188							8,188	8,188		
Unspecified heat	2,550															
Solar	500,865		8,889	485,478	70,148	82,146		222,674	438,646		8,889	471,917	70,138	82,136		197,739
Geothermal	5,957,970			212,502	82,000	82,000		2,972,566	4,361,016				82,000	82,000		2,146,989
Other	8,438,207		175,732	697,980	510,342	172,334		3,195,240	6,776,484		175,732	472,798	510,332	6,064,948		8,158,940
Solid - agricultural biomass (inc. energy crops)	2,417,256	3	61	1,141,671	881,808	898,639		1,274,546	931,571		61	888,789	845,718	862,549		899,084
Solid - agricultural products	25,525	1,975	105,799	7,332	204,150	21,752	1,975	1,017	25,525	1,975	90,799	7,332	204,150	21,752	1,975	1,017
Solid - renewable fuels (inc. For&Ag bp & w)	52,310,234	76,214	322,104	22,147,077	17,331,404	16,979,071	76,217	42,474,264	11,108,200		205,393	14,415,698	4,934,317	4,830,611	76,217	11,897,596
Solid - forestry products	438,216		36,006	222,831	427,757	181,367		118,640	438,216		36,006	222,831	427,757	181,367		118,640
Solid - forestry by-products & waste	496,668	53,591	43,276	181,304	458,838	267,222	53,591	87,276	496,668	53,591	43,276	181,304	458,838	267,222	53,591	87,276
Gas - landfill	3,375,300	2,339	5,837	2,016,912	145,856	202,224	2,339	2,231,935	1,474,052		5,837	1,368,725	126,591	132,936	2,339	1,303,346
Gas - sewage	37,232				4,048	3,917		35,748	1,027				655	524		171
Gas - other biogas	3,191,112	2,660	1,156	2,104,751	228,778	239,899	2,660	2,247,837	1,549,219		1,156	1,678,559	223,060	237,239	2,660	1,597,603
Solid - municipal biogenic waste	11,630,403	220,547	92,546	4,270,565	1,539,634	1,468,506	220,547	8,716,985	4,136,704	65,960	92,546	2,325,929	978,564	982,889	220,547	4,037,629
Liquid - renewable fuels (inc. Mun.waste)		17	7								7					
Liquid - black liquor																
Solid - unspecified wood																
Solid - industrial & commercial waste	12,503,423	21,561	28,530	8,621,953	983,876	921,632	21,578	9,869,455	3,493,730	14,691	23,530	6,176,396	545,666	515,218	21,578	3,599,951
Biomass	86,425,369	378,907	635,322	40,714,396	22,206,149	21,184,229	378,907	67,057,703	23,654,912	136,217	498,611	27,265,563	8,745,316	8,032,307	378,907	23,542,313
RENEWABLE	1,192,733,993	62,813,065	185,964,577	428,153,054	700,394,366	717,429,985	62,813,065	938,464,339	487,415,744	5,066,950	165,939,132	271,552,581	434,202,974	435,819,225	62,813,065	532,726,263
NUCLEAR	81,232,969	15,396,667	22,272,623		2	2	15,396,667	65,835,301	26,043,335	15,396,667	10,646,668		2	2	15,396,667	43,217,304
FOSSIL	1,668,527			26	1	1		3,640	1,664,887			26	1	1		
Total	1,275,635,489	78,209,732	208,237,200	428,153,080	700,394,369	717,429,988	78,209,732	1,004,303,280	515,123,966	20,463,617	176,585,800	271,552,607	434,202,977	435,819,228	78,209,732	575,943,567



	2012								2011								2010							
	Production			Transaction					Production			Transaction					Production			Transaction				
	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Transfer	Export	Import	Expire	Cancel
Wind - onshore	1,053,239			2,888,526	630,141	1,716,979		2,637,051	7,146,212		6604,983	5,889,048	6,847,054	11,313,865		9,200,563	8,700,668		442,410	3,865,148	4,033,732	3,947,778		6,743,821
Wind - offshore	165,464			224,783	224,547	537,843		177,513	884,659			494,538	77,134	121,954		704,977	776,273			323,131	46,183	46,183		701,046
Wind - unknown	3,649,168		12,570	3,349,345	6,483,325	3,875,964	1,665,875	2,077,377	9,092,961	123,659	1,900,629	1,867,036	5,084,803	1,202,163	1,597,650	1,967,328	2,971,587	456,857	930,085					
Wind	4,867,871		12,570	6,462,654	7,338,013	6,130,786	1,665,875	4,891,941	17,123,832	123,659	2,505,612	8,250,622	12,008,991	12,637,982	1,597,650	11,872,868	12,448,528	456,857	1,372,495	4,188,279	4,079,915	3,993,961		7,444,867
Hydro/marine	66,447,768		1,484,401	61,059,164	98,716,840	93,469,275	50,100,736	104,570,641	174,077,616	1,287,910	85,817,899	87,435,848	163,525,969	167,432,922	9,069,897	202,589,792	182,018,733	3,062,307	74,071,812	76,417,653	139,277,598	138,057,044		169,654,901
Unspecified mechanical/other	1,976,822				350,006									2,946,000		2,946,000			166,843	881		2,946,624		2,868,212
Unspecified renewable energy					8,188		,188																	
Unspecified heat																								
Solar	14,194			100,838	18	443		39,775	288,042		8,889	331,381	70,094	81,693		127,780	136,410			39,698	26			30,184
Geothermal					82,000	82,000		501,728	3,760,667							1,581,519	600,349							63,742
Other	1,991,016			100,838	440,212	90,631		541,503	4,048,709		8,889	331,381	70,094	3,027,693		4,655,299	736,759		166,843	40,579	26	2,946,624		2,962,138
Solid - agricultural biomass (inc. energy crops)	23,961			101,099	112,993	109,527		259,725	633,868		61	525,386	728,949	749,246		486,832	273,742			262,304	3,776	3,776		152,527
Solid - agricultural products	22,977			7,315	202,995	18,301	1,975	1,017	2,548		88,707	17	1,155	3,451					1,975	2,092				
Solid - renewable fuels (inc. For&Ag bp & w)	644,889			2,806,834	1,023,558	933,161	2,495	1,191,007	4,790,462		91,743	5,618,807	2,818,548	2,807,034	73,722	4,981,104	5,672,849		113,650	5,990,057	1,092,211	1,090,416		5,725,485
Solid - forestry products				222,831	309,380	95,973		113,640	438,216		35,929		118,377	85,394		5,000			77					
Solid - forestry by-products & waste	68,609			64,336	189,148	51,576	53,591	87,276	339,450	2,257	42,496	116,968	269,690	215,646			88,609	51,334	780					
Gas - landfill	14,147			53,556	21,194	18,187		166,075	432,916		5,611	297,149	97,364	106,716	2,339	485,094	1,026,989		226	1,018,020	8,033	8,033		652,177
Gas - sewage	369				655	524		63	595							108	63							
Gas - other biogas	97,056			165,703	102,382	112,271		197,063	709,762		125	505,143	97,328	100,772	2,660	713,002	742,401		1,031	1,007,713	23,350	24,196		687,538
Solid - municipal biogenic waste	224,891			669,888	271,017	298,969	2,546	710,220	2,053,914	829	22,546	822,137	707,038	683,012	218,001	1,731,716	1,857,899	65,131	70,000	833,904	509	908		1,595,693
Liquid - renewable fuels (inc. Mun.waste)											7													
Liquid - black liquor																								
Solid - unspecified wood																								
Solid - industrial & commercial waste	191,694			1,468,335	62,070	31,540	21,577	566,835	1,696,451		18,530	2,246,086	456,187	448,252	1	1,537,213	1,605,585	14,691	5,000	2,461,975	27,409	35,426		1,495,903
Biomass	1,288,593			5,559,897	2,295,392	1,670,029	82,184	3,292,921	11,098,182	3,086	305,755	10,131,693	5,294,636	5,199,523	296,723	9,940,069	11,268,137	133,131	192,856	11,573,973	1,155,288	1,162,755		10,309,323
RENEWABLE	74,595,248		1,496,971	73,182,553	108,790,457	101,360,721	51,848,795	113,297,006	206,348,339	1,414,655	88,638,155	106,149,544	180,899,690	188,298,120	10,964,270	229,058,028	206,472,157	3,652,295	75,804,006	92,220,484	144,512,827	146,160,384		190,371,229
NUCLEAR															15,396,667	22,272,623	26,043,335	15,396,667	10,646,668		2	2		20,944,681
FOSSIL				26	1	1			1,664,887															
Total	74,595,248		1,496,971	73,182,579	108,790,458	101,360,722	51,848,795	113,297,006	208,013,226	1,414,655	88,638,155	106,149,544	180,899,690	188,298,120	26,360,937	251,330,651	232,515,492	19,048,962	86,450,674	92,220,484	144,512,829	146,160,386	0	211,315,910

# AIB ten year anniversary quiz– the answers

**Question 1.** How many certificates were issued by Norway in 2001?

Answers

- i. 7.8m (7,817,149)
- ii. None (Norway hadn't started issuing then)\*
- iii. 3.5m (3,500,555)
- iv. 5.6m (5,625,516)

**Question 2.** How many times does the word “redemption” appear in the body of the EECS Rules?

Answers

- i. None
- ii. 55
- iii. 155
- iv. 255

**Question 3.** Can you change the contents of an EECS certificate?

Answers

- i. With the approval of the AIB
- ii. Provided you use ink
- iii. Only before it has been transferred to another domain
- iv. No

**Question 4.** Who was the first chairman of an AIB GM?

Answers

- i. Pierluigi Parcu
- ii. Peter Niermeijer
- iii. Phil Moody
- iv. Walter Boltz

**Question 5.** Spot the secretary general



Answers

- i. Phil Moody (AIB)
- ii. Peter Niermeijer (RECS International)

**Question 6.** What is the greatest number of papers that has ever been tabled at an AIB GM?

Answers

- i. 22
- ii. 25 (Basel 9 Dec 2011)
- iii. 31
- iv. 21

**Question 7.** How did AIB originally decide how to vote?

Answers

- i. We tossed a coin
- ii. We all agreed, so no need to make decisions
- iii. We let Christof make a decision for us
- iv. We voted: one man one vote

**Question 8.** How many Board meetings has the AIB held?

Answers

- i. 116
- ii. 120
- iii. 83
- iv. 97

**Question 9.** How many times has the AIB held a GM in Berlin?

Answers

- i. 2
- ii. 0
- iii. 1
- iv. 3

**Question 10** What does EECS mean?

Answers

- i. Everyone Else Can Sleep
- ii. European Energy Certificate System
- iii. English Extra Complicated Stuff
- iv. Extremely, Esoteric, Complex and Secretive

**Question 11** What does CMO mean?

Answers

- i. Count Me Out
- ii. Count MWh Occasionally
- iii. Call My Optician
- iv. Central Monitoring Office

Continued on page 19 >

Question 12. Name these people (Rome, 2002)



Answers (clockwise ...)

- i.
- ii.
- iii.
- iv.
- v.
- vi.
- vii.

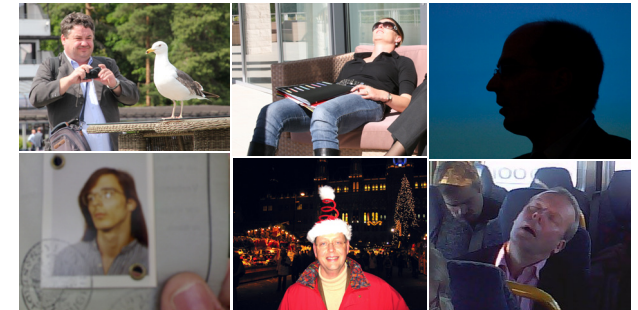
Question 13. Who are the following?



Answers (Left to right)

- i.
- ii.
- iii.
- iv.

Question 14. Name these people (clockwise from top left):



Answers

- i.
- ii.
- iii.
- iv.
- v.
- vi.

## Answers

Question 1. How many certificates were issued by Norway in 2001?

- ii. None (Norway hadn't started issuing then)

Question 2. How many times does the word "redemption" appear in the body of the EECS Rules?

- ii. 55

Question 3. Can you change the contents of an EECS certificate?

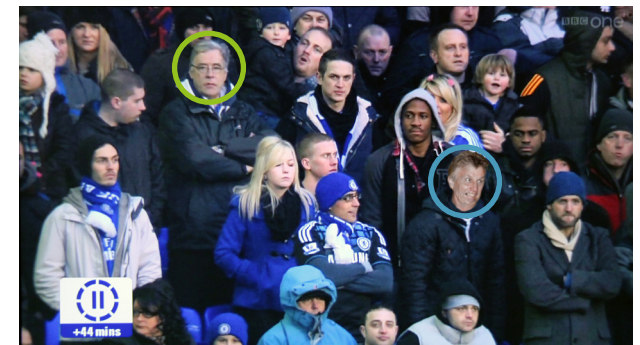
- iii. Only before it has been transferred to another domain

Question 4. Who was the first chairman of an AIB GM?

- ii. Peter Niermeijer

Question 5. Spot the secretary general

- i. In the green ring, Phil Moody (AIB)
- ii. In the blue ring, Peter Niermeijer (RECS International)



**Question 6.** What is the greatest number of papers that has ever been tabled at an AIB GM?  
ii. 25 (Basel 9 Dec 2011)

**Question 7.** How did AIB originally decide how to vote?  
iv. We voted: one man one vote

**Question 8.** How many Board meetings has the AIB held?  
i. 116

**Question 9.** How many times has the AIB held a GM in Berlin?  
iii. 1

**Question 10** What does EECS mean?  
ii. European Energy Certificate System

**Question 11** What does CMO mean?  
iv. Central Monitoring Office

**Question 12.** Name these people (Rome, 2002)  
i. Geerit-Jan Shaefer (NL, ECN)  
ii. Pierre-Emanuel Martin (FR, Observ'ER)  
iii. Peter Niermeijer (NL, EcoFys)  
iv. Ann Goosens (BE, Electrabel)  
v. Kees van der Leun (NL, Ecofys)  
vi. John Stewart (UK, Campbell Carr)  
vii. Chris Crookall-Fallon (UK, ESD)

**Question 13.** Who are the following?  
i. Paul Dirix  
ii. Jan Vorrink  
iii. Fiona Santokie  
iv. Claes Hedenstrom

**Question 14.** Name these people (clockwise from top left):  
i. Gorazd Skerbinek  
ii. Gineke van Dijk  
iii. Christof Timpe  
iv. Claes Hedenstrom  
v. Rolf Jorgensen  
vi. Christof Timpe

## Forthcoming events

2012

20/21 September  
06/07 December

Rome  
Vienna or Milan (TBA)

AIB General Meeting  
AIB General Meeting

### RE-DISS: diarise the date for the closing conference

The final RE-DISS conference will be held on 12th September 2012 at the offices of VREG, in Brussels. More information can be found on the RE-DISS website, at <http://www.reliable-disclosure.org/events/>.