

## INSIDE THIS ISSUE

AIB takes responsibility for its own 'footprint'	2
AIB Internals – Working Group Internal Affairs	3
RECS Market Meeting 2013 in Berlin	4
AIB interviews RECS International	5
NGOs launched a pan-European ecolabel for electricity	6
Latest News	7
Statistics	8
8th European Conference on Green Power Markets	16
Forthcoming events	17

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2012

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association of issuing bodies



## NEWSLETTER 18

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## SYNOPSIS OF ARTICLES

### AIB takes responsibility for its own 'footprint'

The World is changing, as people realise that the energy we consume has to become more sustainable. AIB is part of this change to a more sustainable World, and is taking responsibility for its own organisation by making its activities more environmentally and socially friendly.

### AIB Internals – Working Group Internal Affairs

Keep updated on AIB teamwork: the first in a series of interviews with the chairs of the AIB Working Groups that are an essential part of a well-functioning Association.

### RECS Market Meeting 2013 in Berlin

Not able to attend the annual RECS Market Meeting last March? The highlights of the two days in Berlin are discussed in this issue.

### NGOs launch a pan-European ecolabel for electricity

Each EECS certificate identifies the Independent Criteria Schemes (ICS) under which it qualifies. These schemes are operated by organisations that are independent of AIB, and identify energy that complies with a specific set of criteria. The column dedicated to these organisations starts with EKOenergy.

### Council agrees measures to combat VAT fraud

On Friday 21st June 2013, the Economic and Financial Affairs Council reached political agreement on a package of measures aimed at enabling member states to better combat VAT fraud.

### Statistics

The latest activity statistics, showing continued growth in the market.

## Newsflash

In case you have not noticed, AIB has a new website (since early 2012) [www.aib-net.org](http://www.aib-net.org). If you are still using bookmarks which direct you to AIB-pages in the old design (more blue and not grey-green) please update these and let us know if you access any old webpages.

# AIB takes responsibility for its own 'footprint'



Throughout the world, the importance of sustainability within energy policy is rising markedly: in particular, those issues relating to clean energy and energy efficiency. To achieve the goals of such policies, it is vital that consumers are able to choose where their energy comes from. By the end of 2015, the AIB aims to provide the infrastructure and information to support disclosure of the source of their electricity to consumers in all EU Member States.

Electricity disclosure is particularly relevant for electricity produced from renewable energy sources. By supporting an environmentally-friendly electricity market in Europe, AIB has become part of the change to a more sustainable world.

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

Hence in 2012:

- [Wattimpact](#) compensated for the energy consumed by the AIB website
- AIB powered the servers and computers of its secretariat using renewable electricity
- AIB printed its Annual Report for 2011 on FSC-paper, 100%-recycled
- [Climat Mundi](#) compensated for the CO<sub>2</sub> produced by all of its members travelling to Helsinki to celebrate the AIB's 10th anniversary in June 2012

In 2013, AIB will continue to take steps towards improving the sustainability of its operations by:

- Continuing to power its servers and computers using renewable energy; and to benefit from the services of [Wattimpact](#)
- Printing its Annual Report for 2012 on the most environmentally friendly paper, in cooperation with a printing company that has committed itself to be a sustainable printer ([www.lokay24.de](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
  - Continuing to carbon offset the travels of all AIB-members to all General Meetings ([www.atmosfair.de](http://www.atmosfair.de)).



# AIB Internals – Working Group Internal Affairs

The following text is the first in a series of interviews with all AIB-Working Groups, each dedicated to a different Working Group that are one basis of a well-functioning Association.



*Markus, could you tell me more about you and the Working Group Internal Affairs (WGIA) that you are chairing?*

I am pleased to get the opportunity to tell you about the life and accomplishments of the Working Group Internal Affairs and to explain our role in the AIB family. My name is Markus Klimscheffskij and I am the chairperson of the working group. My background is in engineering and I am working with Grexel Systems Ltd as a renewable energy expert. Grexel Systems Ltd is the largest registry operator within the AIB, measured by number of users as well as certificate activity. The WGIA consists of about 10 members from various AIB member domains. Our small but international team meets four times a year in connection with the General Meetings; and we also talk together on the phone at least as often as we meet. The main task of WGIA is to maintain and develop the EECS Rules including its subsidiary documents and fact sheets. Generally, many of our tasks have strategic impact. As our work depends much on in-kind funding (free work) of the AIB members we are very efficient in prioritizing and delegating. Fortunately, the AIB is also prepared to provide us with professional assistance especially on legal issues which is an irreplaceable help.

*What are the highlights of 2012 and 2013 and how do AIB-members benefit from this work?*

2012 was characterized by the aftermath of the implementation of the new EECS rules and the associated domain protocols. Although the domain protocols were revised by assigned reviewers, the WGIA, as the rule geeks of the AIB, had to be alert to issues arising from the reviews.

One of the working group's greatest victories in 2012 and 2013 was the completion of the Hub User Agreement, which allows for non-members of the AIB to use the AIB HUB as a purchased service. This led to the German Competent Body UBA to decide to connect their upcoming registry to the AIB HUB without becoming member of the AIB (under the German law they are not allowed to join a private organization). As part of the process of cessation of support for non-governmental certificates for renewable energy sources, the WGIA redrafted the criteria for the acceptance of Independent Criteria Schemes used for adding a label such as TÜV Süd, EKOEnergy, OK Power or Naturemade, on a regular guarantee of origin. This means that the guarantee of origin directly depicts whether it has been issued for a plant fulfilling the criteria of one or several labels and this information follows the guarantee of origin no matter where it travels within the EECS world.

*What are the most important tasks to be done in the near future?*

Our future aim is to ease up the process of AIB membership for joiners by developing a mentoring service for the drafting of domain protocol and starting up processes. We also seek to further strengthen the robustness of the EECS Rules against double counting, fraudulent behaviour and technical errors.

In case you are interested in joining the WGIA (as AIB-member); please feel free to contact Markus [Markus.Klimscheffskij@grexel.com](mailto:Markus.Klimscheffskij@grexel.com) or any of the members of WGIA.

Milada Mehinovic from Working Group External Affairs (WGEA) thanks Markus for this interview and they both send their best wishes for a nice and sunny summer!

# RECS Market Meeting 2013 in Berlin – Market Players meet Issuing Bodies

## RECS Market Meeting 2013

The power of transparency



On 20/21 March, the annual RECS Market Meeting (RMM) was held, and was attended by more than 200 delegates from over 22 countries. On 19 March, two pre-conference workshops (one in German, one in English) were held with a relatively broad focus by experts and 'new-comers' to this field. The RECS conference is a very useful platform which assembles all of the stakeholders who are working to create a single European-wide system for GOs.

The presentation from UBA got a lot of attention, as it described the process of becoming an AIB Hub Participant, but without becoming a member of the AIB. Several changes and new agreements have been developed in order to maintain the quality of the AIB services to the benefit of all users.

During a coffee break, one question of high interest was discussed: 'How strict is the rule requiring GOs to expire 12 months after production of the associated electricity?'

The interest was derived from one insight in the conference Session 3 and 4 on Wednesday afternoon:

Session 3 – New Policy and National Developments;

Session 4 – How the Renewable Electricity Market works in Germany

- Overview on National Legislation - European countries and their compatibility to EECS. The Introduction by Peter Niermeijer showed how successful the work of AIB, RECS and other European (Governmental) initiatives has been in implementing a harmonised system that ensures the reliable operation of international certificate schemes and facilitates the international exchange of energy certificates.



(Number of Countries) (... kWh ...)

2012	EECS compatible	11	35 %	343 TWh	44 %
2013	EECS compatible	16	51 %	583 TWh	75 %
2014	EECS compatible	22	71 %	710 TWh	92 %
	Non-EECS compatible after 2014	9	29 %	62 TWh	8 %

- Presentations from Norway, Sweden, Germany, Switzerland and Flanders offered a good opportunity to understand the difference between national implementations, and to review the success of the RE-DISS-project with its main deliverable: Best Practice Recommendations
- Residual mix calculation is a topic of high relevance and interest
- Communication to consumers: transparency is important, and keeping everything as simple as possible.
- The audience showed much interest in the presentation from Stadtwerke Kassel, which changed from 'grey' to 'green' electricity (and gas) without charging their customers extra, by using GOs. So far, the 'Kassel-Model' has been copied by 70 German Stadtwerke.

It was a great idea to hold the RECS conference in Berlin; right next to the river Spree in the famous shopping street 'Friedrichstrasse'. Although everyone expected some nice spring days, it was snowy, but the participants could enjoy the opportunity to stay in Germany's lively capital. In the morning before the RECS Market Meeting 2013 started, one conference participant went jogging in the public park 'Tiergarten', saying afterwards "it was a splendid experience to do some running early in the morning in this snow-white and frosted park" (Jan van der Lee, CertiQ).

# AIB interviews RECS International

**Peter Niermeijer**, Secretary General of RECS-International and  
**Niels van der Linden**, Vice-chairman of RECS-International /  
The Netherlands - Statkraft Markets

**AIB:** Peter and Niels, what would you say has been the biggest challenge and benefit of this RECS Market Meeting, when viewing it from a wider perspective of the recent situation in Europe (RECS certificates, 2016, beyond 2020,...)

**RECS:** The fact that producers, traders, supply companies and consumers, representing the whole chain of the electricity market, has come together to discuss how to further develop the market for renewable electricity is seen as the greatest and main benefit from the RMM. GOs are considered to be the backbone of this market: all players have an interest in the GO from their own point of view. Producers need GOs, to enable them to compete with fossil and nuclear electricity; traders are facilitating the wholesale market, helping to create price transparency and liquidity; suppliers need GOs to differentiate their product and prove their renewable offers; and consumers need evidence that the purchased electricity has a renewable origin.

We were happy that 5 issuing bodies were present at the RMM but, to be honest, we think that all issuing bodies should participate in the RMM in order to learn more about the development in the market: after all, they are the providers of services to market players, and once a year all market players meet and discuss further development at the RMM.

**AIB:** How can consumer demand be satisfied by the creation of a voluntary market in certificates? What are the most important drivers for the continuing growth of the market for energy from renewable sources?

**RECS:** Currently, we see two drivers in the market. For the commercial market, carbon accounting is seen as the most important driver. This is reflected in the discussions concerning the leading GHG Protocol, which is currently being reviewed. In these discussions we see two approaches. The first approach, which is the old and conventional approach, is based on carbon reductions calculated with the baseline as reference. The second approach is based on tracking electricity, and is more direct - without the need for a baseline. With the GO, the emissions on the production side can be very accurately allocated to consumers. Purchase of low carbon renewable electricity seems to have higher priority over offsetting in the GHG Protocol discussions.

For the domestic market, the proof that purchased renewable electricity leads to new power is the most important topic. In the RMM, two new steps were presented: (1) by EKOenergy, which introduces an extra fee for a fund; and (2) by introducing GOs with a substantial higher value, enabling investors to develop new projects without subsidies. In the second approach, the voluntary market can be seen as the basis for a policy instrument, in order to help reach RES targets - the market offers high cost-efficiency on a pan-European level.

**AIB:** Due to some high-impact changes, RECS certificates will no longer be issued from the end of 2014, and will cease to exist from the beginning of 2016. This means that the way in which national RECS organisations have worked in the past will be different in the future. What are the new activities and burning issues of RECS International when representing the interests of national and international renewable energy market players?

**RECS:** We are happy to be asked this question. RECS International is an association which brings together all of the market players that are making use of GOs, from producers, traders, and supply companies

to consumers. After all, we are working on a pan-European market for renewable electricity based on a standardised GO system as the backbone of the market. We consider all of these market players to be 'users' of the GO systems. And we are happy to see that more and more member states have decided to make use of the GO standard introduced by the AIB. Our final goal is to inform the consumer about the origin of purchased electricity. A European standard is the only way to guarantee the quality of that information.

Please note that RECS International is, and always has been, in favour of official governmental-controlled GO systems. In the early days of certificate trading, we started up the RECS system simply because no standardized GO systems had been implemented. You could say that these early experiences have been an educational process, also for the AIB, on how to standardise national certificate systems. We believe that the AIB did a tremendously good job, being flexible in changing its internal organisation frequently to meet the requirements of a changing market, and ending up being the only robust and reliable standard for national GO systems. As we said earlier, we consider ourselves as the 'user group' of the GO system, working in close cooperation with policy makers, to build up the pan-European market for renewable electricity. The final goal is, and always has been, to provide end-users with reliable information concerning the origin of their purchased electricity.

**AIB:** Thank you for participating in this interview, and for the great opportunity to develop and further enhance the services and work of the AIB and RECS as two independent organisations, which work in very different arenas; but for related objectives.

# NGOs launched a pan-European ecolabel for electricity

The AIB identifies on each EECS certificate the independent criteria schemes (ICS) which can use that specific certificate. These schemes are operated by organisations that are independent of AIB, and identify energy that complies with a specific set of criteria (such as the age of the plant, and certain qualities of the source of the energy etc.). The following article is the first in a series of articles, each describing an individual scheme.

EKOenergy is a network of European environmental NGOs willing to promote renewable electricity. EKOenergy is also the name of the ecolabel managed by that network. See [www.ekoenergy.org](http://www.ekoenergy.org)

## Background

Consumers on the European electricity market are faced with a variety of questions and doubts. “Why would I choose green electricity, if all electricity comes from the same grid anyway?” “Which supplier and what products should I choose?” “How does this affect my personal CO<sub>2</sub>-emission?” Surprisingly, these basic questions are answered in very different ways in different parts of Europe. This is a problem for international consumers, as well as for all other electricity consumers. Consumers buy green electricity because they want to make a difference. But making a difference at European level is difficult if consumers get confused from being pulled in different directions in different countries.

That is why 23 NGOs from 19 European countries have created the EKOenergy network. Last February, the members of the network agreed on a common European ecolabel for electricity: EKOenergy. Both the network and the label are results of an intensive consultation process, to which over 300 stakeholders from all stakeholder groups contributed.

## Thriving on positive energy

EKOenergy wants to mobilize “positive energy”. A lot of people and organizations are interested in green electricity, but they do not know

where and how to start. Also many individuals are willing to contribute. The EKOenergy network of volunteer translators counts about 40 people. And the EKOenergy Secretariat hosts 3 full time volunteers (European Volunteer Service).

## EKOenergy label

The EKOenergy label is a label for electricity supplied to end-consumers. It sets criteria for the following aspects:

- Consumer information: Consumers of EKOenergy get information about where and how the electricity has been produced.
- Climate: part of the green premium (price paid for the greenness) goes to renewable energy projects which could not have been initiated without the contribution resulting from the purchase.
- Biodiversity: EKOenergy takes into account the effect on the nature - e.g. via the hydropower fund, which is used to finance river restoration projects.
- Auditing and verification: All the claims made by suppliers of EKOenergy will be audited and verified.

## EKOenergy, EECS and the AIB

Chapter 10 of the EKOenergy criteria sets minimum tracking requirements. It focuses on the avoidance of double counting and deals with cancellations, import-export and ex-domain cancellations. The text explicitly mentions the Guarantees of Origin, the EECS-system, the AIB and the AIB hub and RE-DISS/EPED.

## Plans

After 18 months of consultations, EKOenergy is now ready for launch. The License agreement is available on the EKOenergy website. Signing itself is without expenses. All fees and contributions are based on volumes of EKOenergy sold.

EKOenergy will also continue to invest in its relations to other stakeholders on the electricity market, in particular environmental organizations and consumer organizations. Being in contact with

them has been a priority in the past 18 months, and will continue to be so as long as we exist. On top of this, EKOenergy has a cooperation agreement with the American Green-e label.

Read more about all this on the EKOenergy website. [www.ekoenergy.org](http://www.ekoenergy.org), or contact the EKOenergy Secretariat.



# Latest News

## Concerted Action on the RES Directive

AIB members sometimes need to address issues which relate to policy, in order to provide an operational service. Normally, they will speak to the appropriate ministry; but some issues have a broader context, particularly those with international aspects.

The Concerted Action on the RES Directive (CA-RES) has been instituted as a structured and strictly confidential dialogue between national authorities responsible for the implementation of the Directive 2009/28/EC or their nominated representatives. In the CA-RES, Member States exchange experiences and best practices and develop common approaches to the transposition and implementation of the Directive 2009/28/EC and the achievement of the national targets.

The AIB believes its practical experience of guarantees of origin may be useful to CA-RES, and has suggested that a Policy Advice Group drawn from CA-RES participants would be helpful to AIB and its members in assisting the AIBs decision-making process. Further, it has invited Member States' representatives to join AIB general meetings with observer status, and to have access to meeting papers.

IB invites Member States' representatives (e.g. ministries for electricity or their nominated representatives) to contact the AIB Secretary General for further information (Phil Moody, [secgen@aib-net.org](mailto:secgen@aib-net.org)).



## UBA signed agreement with AIB

Umweltbundesamt (UBA) of Germany and AIB have concluded an agreement which allows UBA to use the AIB's inter-registry Hub.

While UBA will not be a member of AIB, it will be bound by similar conditions applying to AIB members for Hub usage and use the same standard for the electronic exchange of Guarantees of Origin (GO).

Use of the Hub offers administrators of GO systems a secure, simple and efficient way of exchanging GOs, providing them with a single point of contact into the Europe-wide system.

The cost of using the Hub is linked to usage, and capped.

## Powernext new IB in France

A decree by the French Ministry of Ecology, Sustainable Development and Energy was published on 15 January 2013 in the Official Journal of France appointing Powernext as the National Registry for electricity guarantees of origin in France from 1 May 2013, succeeding RTE in this duty. Since then, Powernext has started issuing guarantees of origin and has filed its application to become an AIB member. The application was approved by the AIB recently. Powernext replaces Observ'ER as issuing body for France and will be able to import and export guarantees of origin through the AIB hub before summer.

AIB welcomes Powernext; and says farewell to Diane Lescot of Observ'ER, who has contributed significantly to the success of the AIB for many years.

## Fraud Prevention

Energy certificates in Europe and fraud prevention - EECS, AIB and recommendations for tax authorities.

An article in 'TAX Tribune', issue no. 29 ([p.5ff.](#)) written by Marko Lehtovaara and Markus Klimscheffskij from Grexel in Finland.

## Council agrees measures to combat VAT fraud

On Friday 21st June 2013, the Economic and Financial Affairs Council reached political agreement on a package of measures aimed at enabling member states to better combat VAT fraud. The measures will be based on two directives:

- one aimed at enabling immediate measures to be taken in cases of sudden and massive VAT fraud ("quick reaction mechanism");
- the other allowing member states to implement, on an optional and temporary basis, a reversal of liability for the payment of VAT on the supply of certain goods and services ("reverse charge mechanism").

Further details can be found [here](#).

The AIB recently joined the group of ten European electricity & gas associations (comprising regulators, exchanges, brokers, clearing houses, transmission system operators, energy trading firms and utilities) who have been actively encouraging this agreement, and a press release to this issue can be found [here](#). Given that emission allowances and guarantees of origin are closely interconnected with electricity, then the next step must be to also protect these markets from VAT fraud: we will continue to work with the ten associations to promote this.

# Statistics

## Methodology

### Frequency of reporting

Statistical data is collected and reported quarterly. 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 is collected for each domain and month, and relates to single energy sources or groups of energy sources. For each domain / month / source the following is 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.

### Energy source codes

The list of codes has been prepared by reference to the codes used by all registries, and member preferences. EECS Rules Fact Sheet 5 provides the definitive list of energy source codes, aggregating reported codes into higher-level codes where codes: are **inactive** (e.g. hydro and wave power will be aggregated until such time as wave power becomes more widely used); are **unknown** (e.g. sold renewable fuel may be used where conversion between codes has resulted in the original code becoming unknown); are **not demanded** by the market (e.g. orimulsion is simply reported as "Fossil").

### 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.

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. Currently, close to 100% of the certificates for energy produced in a month will be issued within the following 6 months.

Country	Collection date	Source
Austria	21 May	Website
Belgium		
Brussels	12 June 2013	Spreadsheet provided by issuing body
Flanders	07 May	Spreadsheet provided by issuing body
Wallonia	05 June	Spreadsheet provided by issuing body
Denmark	17 May	Website
Finland	17 May	Website
France	14 January	Spreadsheet provided by issuing body. Observ'ER has now been replaced as AIB member by Powernext, which has yet to commence reporting.
Germany	21 May	Website. At the end of 31 December 2013, Oeko-Institut will be replaced by UBA as issuing body for Germany. For the time being, Oeko-Institut is reporting guarantees of origin (GOs) issued under Directive 2001/77/EC. UBA will commence reporting later this year, and will do so for GOs issued under Directive 2009/28/EC.
Iceland	21 May	Website
Italy	04 June	Spreadsheet provided by issuing body
Luxembourg	21 May	Website
Netherlands	10 June	Spreadsheet provided by issuing body
Norway	21 May	Website
Portugal	20 May	Website
Slovenia	N/A	There is only one market party currently, so publication of data would expose their trading position. It is anticipated that other market parties will commence trading in 2013, at which point trading data will again be made available.
Spain	20 May	Website
Sweden	21 May	Website
Switzerland	22 May	Website



### Explanatory notes to statistics

These statistics were completed on 11<sup>th</sup> June 2013 and based on statistics gathered either from statistics published AIB member websites, or where such data is not available, from data provided to the AIB by individual members. The data itself was provided on the following days:

In some cases detailed data has been aggregated. For instance “manure” also refers to “pig manure”, and “fossil” also contains “unknown source”. Further, unspecified renewable energy contains that which originates from technology codes T05000000 (combustion) and T07000000 (known).

The Grexel registries (DE [Oeko-Institut], DK, FI, IS, LU, NO and SE) provide all required information, and have done 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 provide facilities for the expiry of certificates.

The Atos registries (AT and CH) and the “on demand” registries (BEF, FR, IT 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).

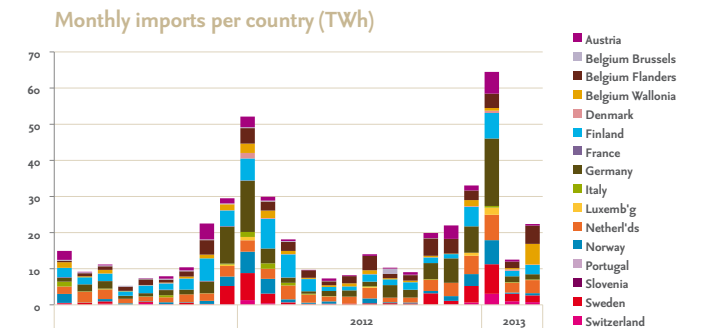
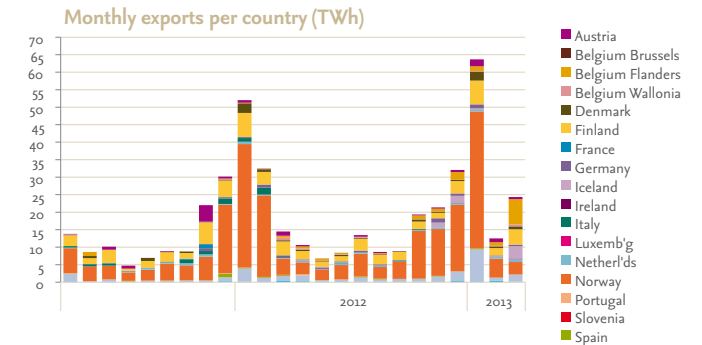
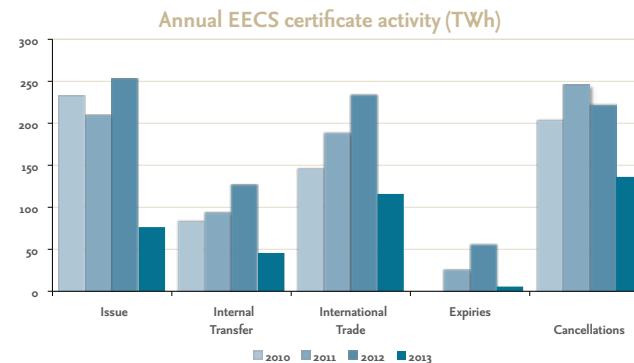
During 2013, market activity continued to increase, and in particular the use of certificates for disclosure purposes.

The number of certificates issued during 2012 was up on the previous year, benefiting from Switzerland now reporting all certificates issued, including those used domestically. Some issuing will doubtless be reported late, but the number of certificates issued is close to the final figure.

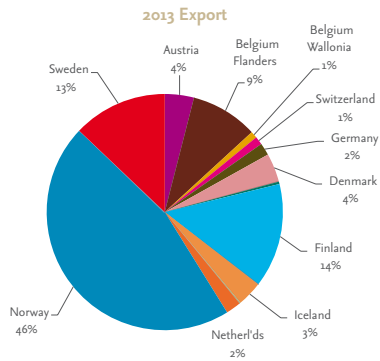
The introduction of expiry by a number of countries at the start of 2012 means that certificates that would have sat unused on registry accounts are now removed from the market. It also resulted in electricity suppliers using up stocks of old certificates before expiry regulations came into effect - this resulted in an abnormally high number of cancellations such that certificates cancelled plus expired in 2012 was greater than those issued that year. Expired certificates are now shown separately on the following graph. Transfers and cancellations continued to increase during 2013, and the next two quarters will see the impact of UBA and Powernext joining AIB, perhaps along with other countries (membership applications are being processed for Croatia, Cyprus, Estonia and the Czech Republic).

The monthly discrepancy between exports and imports is due to not all transfers being instantaneous, and hence trades which commence in one month can complete the following month.

Norway, Sweden, Finland and Belgium continue to be the major exporters; while Belgium, Finland, Netherlands and Germany are the main importers. Some countries figure in both exports and imports, suggesting trading activity.



Limited trade still exists in the form of the cancellation of certificates in one country for use in another: the EECS Rules only permit this where transfer is technically impossible.



So far during 2013, France has replaced the past RECS system with GOs, leading to Observ'ER being replaced by Powernext as AIB member; and Germany has agreed to use the AIB Hub as a non-member. Also, Italy will now issue GOs under EECS. Further, we are processing membership applications from Croatia, Estonia, the Czech Republic and Cyprus.

It is really too early in the year to compare activity with last year, although it seems similar to 2012.

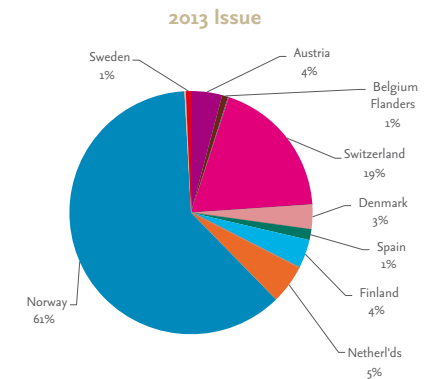
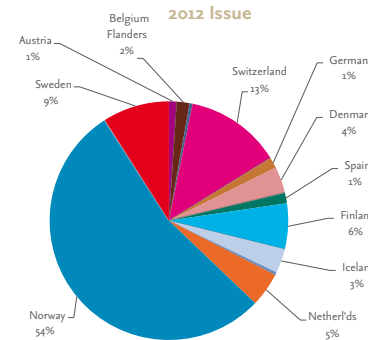
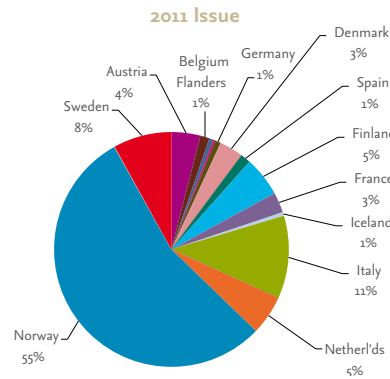
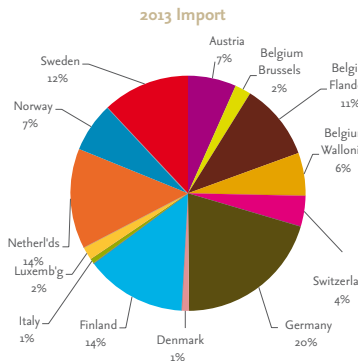
However, we do now have a full picture for 2012.

The proportion of issued certificates changed between 2011 and 2012, due to Switzerland issuing all GOs under EECS, while Italy has changed its compliance policy. It is unclear why Austria has reduced issuing so much.

Regarding cancellation, Belgian and Italian cancellations decreased due to changes to compliance policy, while those of Norway decreased although

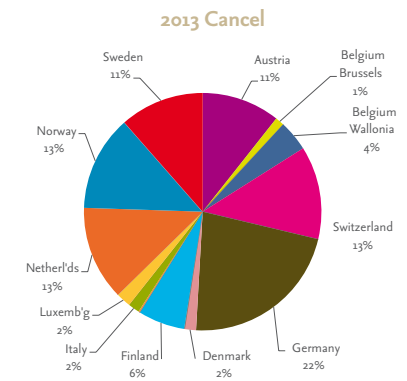
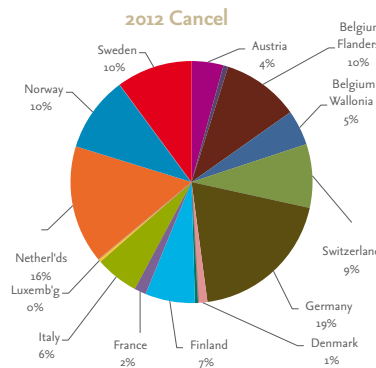
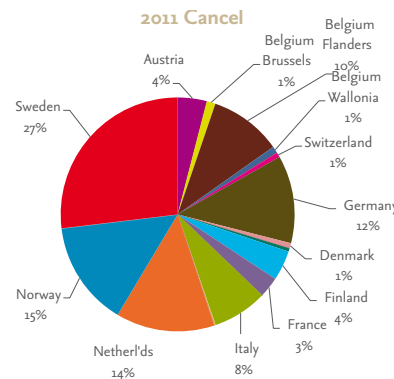
for less clear reasons. Sweden decreased markedly due to the national registry taking over the administration of GOs for domestic use (see <http://ursprungsgarantier.svk.se>), leaving Grexel to deal exclusively with international trade.

In 2011, there was a deficit (209 TWh issued and 245 TWh cancelled), the shortfall being made up by old certificates; but with the "12 month expiry rule" this is no longer possible, and in 2012 only 221 TWh of the 252 TWh certificates issued were cancelled.



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. Notable changes include the application of the EECS Rules to all Swiss production, and not solely to international transfers, and significant growth in cancellation of German certificates.



During 2012, 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 are being issued once again as countries increasingly certify all source of energy, and not solely renewable energy.

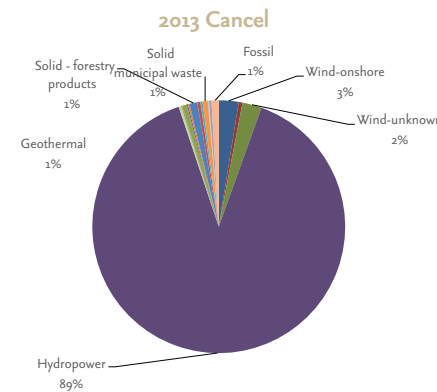
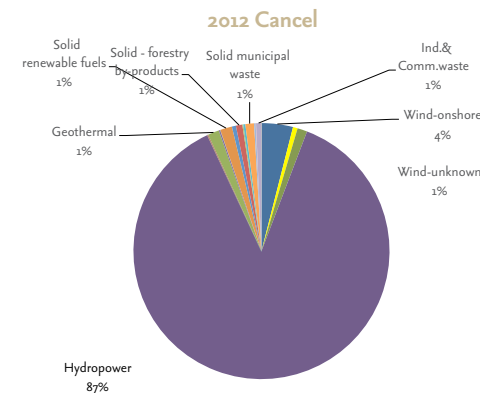
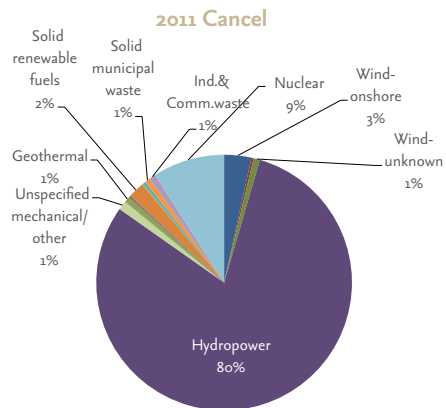
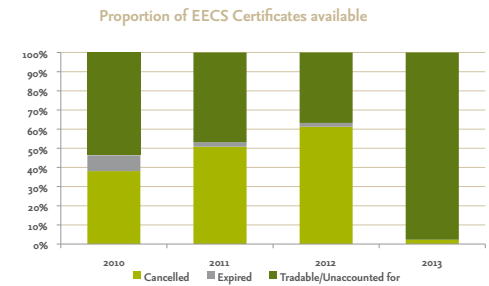
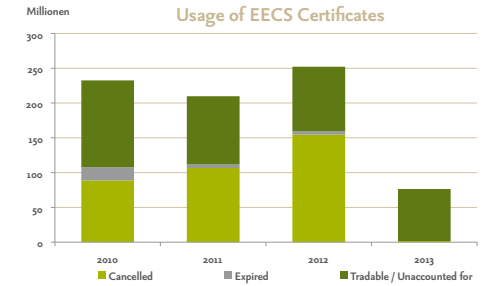
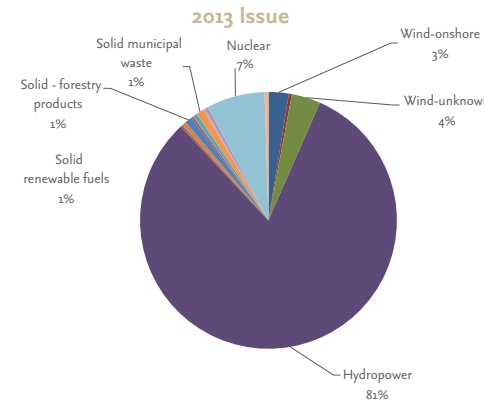
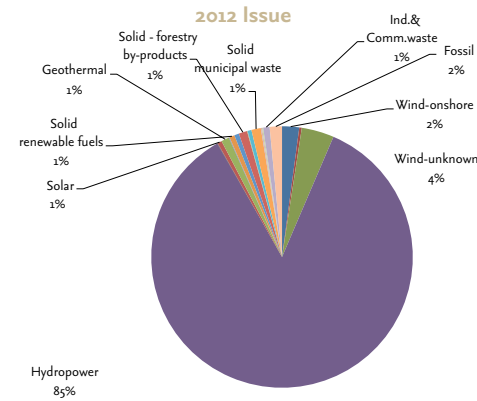
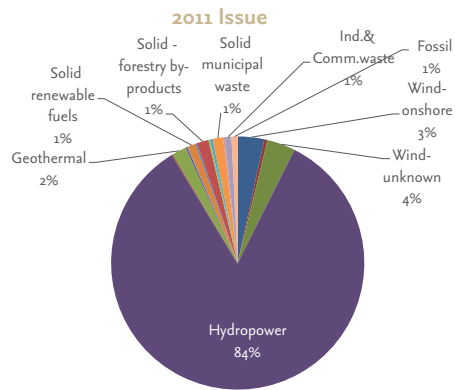
Comparing the status of different vintages of EECS certificate, we can see what has happened to the certificates that were issued for energy produced in the last four years - that is, whether the certificates have:

- 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 meanwhile.

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



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 2011 until the date of collection of the data (during May/June 2013 – the implementation of the new version of EECs meant that not all registries can provide the required information upon request – see also “Explanatory notes to statistics” in this statistical report).

### ISSUING, TRADE & REDEMPTION FOR ALL TECHNOLOGIES

	TOTAL : 2001 TO 2013								2011 TO 2013							
	PRODUCTION			TRANSACTION					PRODUCTION			TRANSACTION				
	ISSUE	EXPIRE	CANCEL	TRANSFER	EXPORT	IMPORT	EXPIRE	CANCEL	ISSUE	EXPIRE	CANCEL	TRANSFER	EXPORT	IMPORT	EXPIRE	CANCEL
Austria	37.014.604			53.765.212	31.941.481	76.884.663		62.168.486	14.172.925			38.823.368	18.972.350	32.991.654		33.824.291
Belgium Brussels	10.794			881		10.423.235		9.080.772	5.700					7.276.903		6.012.852
Belgium Flanders	16.500.529	481.725	9.030.053	23.197.488	33.835.208	147.355.509	1.617.040	106.799.685	7.623.118	376.549	4.725.827	13.945.329	22.781.270	71.316.876	1.503.863	47.345.535
Belg & Lux RECS	113.390					2.031.496		2.048.355								
Belgium Wallonia	5.142.198		1.560.431	11.357.784	7.490.156	51.945.313	341.857	38.666.464	2.332.969		1.560.431	6.428.801	3.815.592	26.432.077	341.857	18.438.822
Switzerland	51.035.579		18.659.936	102.015	7.733.492	17.584.135		41.725.611	47.757.193		18.659.936		3.930.770	11.271.853		37.805.258
Germany	5.468.911		120.806.927	54.593.584	13.309.228	180.792.128		155.680.115	5.399.659		76.282.369	35.465.914	9.176.493	109.887.814		103.049.156
Denmark	31.848.406	3.081.712	7.028.173	9.280.353	23.572.784	7.933.073	3.081.712	8.854.618	18.463.433	629.345	5.019.215	7.721.988	16.524.942	4.901.311	3.081.712	6.767.280
Spain	14.241.725				5.152.180	78.371		6.543.588	7.528.331				3.722.364	78.370		2.025.192
Finland	105.873.957		39.339.753	28.757.628	144.997.949	122.307.777		54.796.463	30.057.123		24.665.211	19.736.171	84.795.526	89.601.576		33.581.052
France	26.632.654		3.663.208	8.304.037	2.037.498	18.014.841		37.582.765	5.858.302		3.663.208	2.187.262	1.872.333	1.626.361		10.575.693
Ireland	162.414					10.001										
Iceland	9.327.775	896.092	252.745		8.303.428	300.011	896.092	252.745	9.327.775	896.092	252.745		8.303.428	300.011	896.092	252.745
Italy	56.021.497		39.749	21.357.965	10.480.660	10.575.013		52.472.218	25.016.612		39.749	13.923.809	10.480.660	8.964.071		33.532.410
Luxembourg	810		4.365.703	2.140.096	493.319	5.316.486		4.365.703	810		3.663.253	2.140.096	473.403	5.102.779		4.178.844
Netherlands	79.721.466	1.015.080	38.902.795	54.010.437	12.134.257	165.824.308	1.015.085	213.441.069	26.959.741	1.001.213	38.902.795	24.105.159	9.483.456	74.255.574	1.015.085	85.927.328
Norway	756.760.776	55.451.605	44.265.366	227.242.416	518.781.390	54.960.629	55.451.605	181.574.810	297.281.273	4.929.760	43.151.658	98.426.555	286.856.049	41.187.047	55.451.605	75.773.526
Portugal	1.184.693		10.637		967.256	58.702		75.213	376.073		10.637		942.255	58.695		55.163
Sweden	330.236.804	26.001.925	97.501.927	12.791.596	116.730.219	92.689.197	26.001.925	274.350.809	40.126.615	2.061.060	42.324.501	3.949.815	45.703.397	52.037.785	26.001.925	104.083.498
Slovenia	4.002.666				668.004	117.018		1.927.200					100.001	100.002		
UK	90.158															
<b>Total</b>	<b>1.531.391.806</b>	<b>86.928.139</b>	<b>385.427.403</b>	<b>506.901.492</b>	<b>938.638.510</b>	<b>965.191.905</b>	<b>88.405.316</b>	<b>1.252.406.689</b>	<b>538.287.652</b>	<b>9.894.019</b>	<b>262.921.535</b>	<b>266.854.267</b>	<b>527.934.289</b>	<b>537.390.759</b>	<b>88.292.139</b>	<b>603.228.645</b>

## ISSUING, TRADE & REDEMPTION FOR ALL TECHNOLOGIES

	2013								2012								2011									
	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	3.154.940			7.949.468	4.592.976	7.701.107		14.494.420	2.666.803			18.737.673	4.474.979	13.420.158		9.433.964	8.351.182			12.136.227	9.904.395	11.870.389		9.895.907		
Belgium Brussels						2.560.851		1.642.634					1.770.052		1.418.518		5.700					2.946.000		2.951.700		
Belgium Flanders	617.174		65.681	2.605.800	10.571.569	12.256.289	388.240		4.364.256	123.793	2.282.606		7.671.075	6.779.771	32.734.529	959.708	22.811.089		2.641.688	252.756	2.377.540	3.668.454	5.429.930	26.326.058	155.915	24.534.446
Belg & Lux RECS																										
Belgium Wallonia	86.836		172.212	1.689.948	1.068.695	6.850.083	70.091	5.712.472	1.017.991		1.388.219	3.111.407	1.880.861	10.983.778	271.766	10.434.100	1.228.142			1.627.446	866.036	8.598.216		2.292.250		
Switzerland	14.407.962		28.246		1.287.918	4.906.135		17.282.987	32.798.002		18.631.690		1.475.000	3.193.944		18.843.014	551.229				1.167.852	3.171.774		1.679.257		
Germany				6.125.801	1.934.507	23.489.123		30.198.887	3.734.772		37.651.853	20.873.500	5.033.901	48.902.384		43.050.359	1.664.887		38.630.516	8.466.613	2.208.085	37.496.307		29.799.910		
Denmark	2.496.393		82.470	2.689.009	4.546.339	1.185.841	309.748	2.196.131	9.035.874	276.740	2.576.844	3.086.416	6.713.625	2.383.487	351.892	2.760.388	6.931.166	352.605	2.359.901	1.946.563	5.264.978	1.331.983	2.420.072	1.810.761		
Spain	1.101.941				369.713	20.000			3.537.412				1.715.138	58.368		916.599	2.888.978				1.637.513	2		1.108.593		
Finland	2.925.019		70.588	4.226.588	16.479.471	16.201.602		8.714.647	15.629.204		10.781.617	10.173.919	35.146.816	40.050.887		14.704.892	11.502.900		13.813.006	5.335.664	33.169.239	33.349.087		10.161.513		
France												113.429	205.126	168.000		3.488.360	5.858.302		3.663.208	2.073.833	1.667.207	1.458.361		7.087.333		
Ireland																										
Iceland	36.660				3.956.532		896.092	252.745	8.215.134	868.088	252.745		4.346.896	300.011			1.075.981	28.004								
Italy				375.471	10.000	778.132		2.125.596	1.058.335		39.749	5.718.098	4.388.067	4.320.814		12.815.302	23.958.277			7.830.240	6.082.593	3.865.125		18.591.512		
Luxembourg	77			1.738.465	168.613	2.103.153		2.728.346	358		2.716.497	395.604	277.960	2.065.924		936.133	375		946.756	6.027	26.830	933.702		514.365		
Netherlands	3.951.921		1.060.098	4.004.273	2.372.922	15.962.490	572.547	17.528.512	11.613.268	290.139	36.209.733	10.845.165	3.817.412	32.774.471	442.538	34.920.702	11.394.552	711.074	1.632.964	9.255.721	3.293.122	25.518.613		33.478.114		
Norway	46.933.481		264.651	13.435.286	52.871.712	7.966.599	3.067.738	17.724.573	135.695.995	3.030.404	21.197.288	43.874.425	134.539.492	18.849.813	52.383.867	22.373.385	114.651.797	1.899.356	21.689.719	41.116.844	99.444.845	14.370.635		35.675.568		
Portugal	133.813				10.000			6.876	95.654		10.637		412.865	55.607		23.799	146.606				519.390	3.088		24.488		
Sweden	522.439		3.210	797.998	14.850.394	13.876.795	358.434	15.619.328	22.756.543	313.321	20.849.994	2.384.567	17.274.307	21.131.818	1.702.626	22.380.228	16.847.633	1.747.739	21.471.297	767.250	13.578.696	17.029.172	23.940.865	66.083.942		
Slovenia																					100.001	100.002				
UK																										
<b>Total</b>	<b>76.368.656</b>	<b>0</b>	<b>1.747.156</b>	<b>45.638.107</b>	<b>115.091.361</b>	<b>115.858.200</b>	<b>5.662.890</b>	<b>136.228.154</b>	<b>252.219.601</b>	<b>4.902.485</b>	<b>154.589.472</b>	<b>126.985.278</b>	<b>228.482.216</b>	<b>233.164.045</b>	<b>56.112.397</b>	<b>221.310.832</b>	<b>209.699.395</b>	<b>4.991.534</b>	<b>106.584.907</b>	<b>94.230.882</b>	<b>184.360.712</b>	<b>188.368.514</b>	<b>26.516.852</b>	<b>245.689.659</b>		

Similar to the “by country” data above, the following tables display the raw data by technology at a yearly level.

ISSUING, TRADE & REDEMPTION FOR ALL COUNTRIES																	
	TOTAL : 2001 TO 2013								2011 TO 2013								
	PRODUCTION			TRANSACTION					PRODUCTION			TRANSACTION					
	ISSUE	EXPIRE	CANCEL	TRANSFER	EXPORT	IMPORT	EXPIRE	CANCEL	ISSUE	EXPIRE	CANCEL	TRANSFER	EXPORT	IMPORT	EXPIRE	CANCEL	
Wind	Wind - onshore	56.233.395	317.848	7.873.538	25.084.992	22.366.171	33.329.282	725.487	49.057.041	14.364.709	278.288	6.595.062	12.075.709	9.488.613	19.164.338	722.003	20.664.281
	Wind - offshore	4.546.176	144.867	888.462	2.077.211	1.252.969	3.175.961	216.191	4.230.015	1.919.625	144.867	888.462	1.262.540	1.126.457	3.114.106	216.191	2.688.591
	Wind - unknown	23.440.830	3.732.371	7.917.168	8.764.913	22.848.254	11.964.705	3.888.941	8.060.153	20.469.243	749.075	6.871.981	8.764.913	22.848.254	11.964.705	3.888.941	8.060.153
		84.220.401	4.195.086	16.679.168	35.927.116	46.467.394	48.469.948	4.830.619	61.347.209	36.753.577	1.172.230	14.355.505	22.103.162	33.463.324	34.243.149	4.827.135	31.413.025
Hydro/marine		1.241.427.927	66.102.139	330.138.655	413.577.579	858.994.507	878.025.743	66.419.736	1.030.031.224	453.527.766	7.975.958	236.362.045	212.205.493	475.910.515	481.712.709	66.319.413	511.990.452
	Unspecified mechanical/other			166.843	7.411	13.533	6.167.154		6.299.602				6.530	13.533	3.220.530		3.431.390
	Unspecified renewable energy		11	120.740	95.724	8.188	277.068	11	209.429		11	120.740	95.724	8.188	277.068	11	209.429
	Unspecified heat																
Other	Solar	1.928.677	199.310	368.318	348.517	71.792	83.578	199.331	386.974	1.735.586	169.487	272.380	305.343	71.756	83.568	199.221	323.748
	Geothermal	8.410.972	19.204	327.745	227.633	2.274.218	2.188.513	19.204	6.437.649	6.213.669	19.204	327.745	15.131	2.274.218	2.188.513	19.204	5.548.330
		10.339.649	218.525	983.646	679.285	2.367.731	8.716.313	218.546	13.333.654	7.949.255	188.702	720.865	422.728	2.367.695	5.769.679	218.436	9.512.897
Solid - agricultural biomass (inc. energy crops)	Solid - agricultural biomass (inc. energy crops)	2.503.806	4.750	258.149	1.142.268	1.287.205	1.000.789	4.747	1.588.041	744.379	4.404	256.115	631.946	1.248.609	969.966	4.747	1.066.811
	Solid - agricultural products	262.164	2.466	124.603	26.577	94.752	114.669	7.220	78.995	262.164	491	107.511	26.577	93.482	105.626	7.220	70.929
	Solid - renewable fuels (inc. For&Ag bp & w)	51.053.797	110.833	4.599.981	23.719.755	17.538.522	17.297.005	165.828	44.886.597	4.178.612	31.855	2.938.608	10.118.899	4.049.224	4.058.129	164.602	8.593.401
	Solid - forestry products	2.603.326	29.628	1.768.205	2.372.718	2.131.404	1.791.275	62.377	2.479.551	2.603.326	29.628	1.768.128	2.372.718	2.131.404	1.791.275	62.377	2.479.551
	Solid - forestry by-products & waste	6.014.875	93.444	464.544	2.181.281	1.865.160	1.520.485	142.516	2.321.798	5.926.266	40.876	463.764	2.181.281	1.865.160	1.520.485	142.516	2.321.798
	Gas - landfill	3.522.104	28.077	435.041	2.201.518	199.432	293.269	43.585	2.391.496	592.196	22.762	314.820	538.796	172.134	215.948	41.103	792.759
	Gas - sewage	106.494		15.749		4.340	4.246		37.933	70.226		15.749		947	853		2.356
	Gas - other biogas	4.707.789	194.150	1.295.755	2.478.596	684.867	604.348	197.343	3.042.397	2.323.495	136.120	881.161	1.254.423	655.799	577.492	191.892	1.687.275
	Solid - municipal biogenic waste	15.866.750	440.894	2.269.151	5.710.555	3.452.137	3.386.734	477.321	11.388.014	6.445.553	201.997	1.928.433	2.946.896	2.890.559	2.900.209	477.220	5.101.579
	Liquid - renewable fuels (inc. Mun.waste)	118.786	5.646	53.043	200.226	134.652	846.230	332.960	492.838	118.786	5.629	53.043	200.226	134.652	846.230	332.960	492.838
	Liquid - black liquor	883.854		111.249	690.298	582.253	64.030		141.249	883.854		111.249	690.298	582.253	64.030		141.249
	Solid - unspecified wood	386.832		131.462	33.746	187.570	202.414		132.510	386.832		131.462	33.746	187.570	202.414		132.510
	Solid - industrial & commercial waste	14.687.900	101.991	3.214.173	9.906.994	1.861.305	1.902.124	102.008	11.543.582	4.072.622	79.524	1.900.871	5.074.098	1.395.685	1.460.284	102.008	3.825.932
	Biomass	102.718.477	1.011.879	14.741.105	50.664.532	30.023.600	29.027.618	1.535.905	80.525.001	28.608.311	553.286	10.870.914	26.069.904	15.407.478	14.712.941	1.526.645	26.708.988
RENEWABLE		1.438.706.454	71.527.629	362.542.574	500.848.512	937.853.231	964.239.622	73.004.806	1.185.237.088	526.838.909	9.890.176	262.309.329	260.801.287	527.149.012	536.438.478	72.891.629	579.625.362
NUCLEAR		86.826.912	15.396.667	22.273.121		2	2	15.396.667	65.835.301	5.593.943		498			15.396.667	22.272.623	
FOSSIL		5.858.440	3.843	611.708	6.052.980	785.277	952.281	3.843	1.334.300	5.854.800	3.843	611.708	6.052.980	785.277	952.281	3.843	1.330.660
Total		1.531.391.806	86.928.139	385.427.403	506.901.492	938.638.510	965.191.905	88.405.316	1.252.406.689	538.287.652	9.894.019	262.921.535	266.854.267	527.934.289	537.390.759	88.292.139	603.228.645

ISSUING, TRADE & REDEMPTION FOR ALL COUNTRIES

	2013			2012								2011													
	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	Wind - onshore	1.943.216		148.284	2.085.569	864.272	2.818.207	198.447	3.451.171	5.325.263	42.587	4.806.160	4.319.430	1.587.287	5.032.266	504.618	8.774.694	7.096.230	235.701	1.640.618	5.670.710	7.037.054	11.313.865	18.938	8.438.416
	Wind - offshore	293.094		109.469	196.376	692.018	1.694.175	150.052	663.887	789.233	40.546	689.375	571.626	357.305	1.297.977	66.139	1.308.053	837.298	104.321	89.618	494.538	77.134	121.954		716.651
	Wind - unknown	2.782.916		73.266	2.915.388	6.719.792	3.728.925	520.855	3.350.919	10.120.194	468.095	3.634.711	3.982.489	11.041.794	7.033.617	1.770.436	2.741.906	7.566.133	280.980	3.164.004	1.867.036	5.086.668	1.202.163	1.597.650	1.967.328
		5.019.226		331.019	5.197.333	8.276.082	8.241.307	869.354	7.465.977	16.234.690	551.228	9.130.246	8.873.545	12.986.386	13.363.860	2.341.193	12.824.653	15.499.661	621.002	4.894.240	8.032.284	12.200.856	12.637.982	1.616.588	11.122.395
Hydro/marine		62.218.588		761.722	33.645.752	100.412.012	101.177.058	4.356.522	121.783.551	215.333.028	4.117.353	137.015.010	102.163.416	208.730.210	213.032.335	52.856.132	193.076.544	175.976.150	3.858.605	98.585.313	76.396.325	166.768.293	167.503.316	9.106.759	197.130.357
	Unspecified mechanical/other				6.530	13.533	274.530		485.390																2.946.000
	Unspecified renewable energy				11.647		20.046		88.373			120.297	84.077	8.188	257.022	11	121.056		11	443					
	Unspecified heat																								
Other	Solar	99.566		5.057	15.491	797	1.049	76.041	22.459	1.342.082	74.799	83.945	107.249	865	826	94.034	168.195	293.938	94.688	183.378	182.603	70.094	81.693	29.146	133.094
	Geothermal					2.001.218	1.915.513	19.204	827.745	2.453.002	19.153	327.745	15.131	273.000	273.000		3.139.066	3.760.667	51						1.581.519
		99.566		5.057	33.668	2.015.548	2.211.138	95.245	1.423.967	3.795.084	93.952	531.987	206.457	282.053	530.848	94.045	3.428.317	4.054.605	94.750	183.821	182.603	70.094	3.027.693	29.146	4.660.613
Solid - agricultural biomass (inc. energy crops)	Solid - agricultural biomass (inc. energy crops)	98.310		73.425	8.010	448.431	160.438	257	201.415	149.055		180.442	99.564	135.413	123.927	4.490	380.265	497.014	4.404	2.248	524.372	664.765	685.601		485.131
	Solid - agricultural products	1.552			2.316	4.193	2.166	491	6.040	103.136		18.803	24.244	23.950	36.364	6.729	64.282	157.476	491	88.708	17	65.339	67.096		607
	Solid - renewable fuels (inc. For&Ag bp & w)	408.505		801	1.394.366	209.579	226.052	1.528	280.922	1.627.803	1.528	2.155.706	3.229.860	1.021.097	1.025.043	74.851	3.315.645	2.142.304	30.327	782.101	5.494.673	2.818.548	2.807.034	88.223	4.996.834
	Solid - forestry products	696.231		432.319	1.249.613	865.554	587.812	35.150	1.349.342	1.468.879	1	1.278.510	1.123.105	1.147.195	1.118.069	27.227	1.125.209	438.216	29.627	57.299		118.655	85.394		5.000
Solid - forestry by-products & waste	Solid - forestry by-products & waste	198.847		50.942	229.094	514.063	511.545	30.733	529.980	2.616.968	21.550	368.675	1.835.219	1.054.852	793.294	111.783	1.791.818	3.110.451	19.326	44.147	116.968	296.245	215.646		
	Gas - landfill	23.727			68.169	22.943	22.685	12.016	26.541	133.599	10.607	62.373	186.354	51.827	86.547	26.585	273.426	434.870	12.155	252.447	284.273	97.364	106.716	2.502	492.792
	Gas - sewage	14.566				292	198		1.144	55.065		15.645		655	655	1.104		595		104					108
	Gas - other biogas	386.405		54.953	306.773	312.779	277.853	61.693	356.635	1.203.092	48.851	598.487	504.209	245.692	198.867	79.325	572.304	733.998	87.269	227.721	443.441	97.328	100.772	50.874	758.336
Liquid - renewable fuels (inc. Mun.waste)	Solid - municipal biogenic waste	721.788		9.312	1.153.176	1.103.461	1.098.875	164.510	897.180	2.932.980	51.417	1.273.885	1.026.993	1.080.060	1.118.322	87.524	2.407.621	2.790.785	150.580	645.236	766.727	707.038	683.012	225.186	1.796.778
	Liquid - renewable fuels (inc. Mun.waste)	21.831		646	27.990	71.455	256.001	17.370	48.765	94.260	657	41.119	172.236	63.197	590.229	315.590	444.073	2.695	4.972	11.278					
	Liquid - black liquor	112.158		16.854	16.449	16.449	13.030		46.854	277.687		94.395	673.849	565.804	51.000	94.395	494.009								
	Solid - unspecified wood	27.511			33.118	177.570	192.414		122.510	359.321		131.462	628	10.000	10.000		10.000								
FOSSIL	Solid - industrial & commercial waste	356.145		10.062	910.955	315.800	387.474	14.178	435.321	2.014.798	1.498	1.096.565	2.173.944	623.698	624.558	86.923	1.422.526	1.701.679	78.026	794.244	1.989.199	456.187	448.252	907	1.968.085
	Biomass	3.067.576		649.314	5.400.029	4.062.569	3.736.543	337.926	4.302.649	13.036.643	136.109	7.316.067	11.050.205	6.023.440	5.776.875	821.027	11.902.668	12.504.092	417.177	2.905.533	9.619.670	5.321.469	5.199.523	367.692	10.503.671
		70.404.956		1.747.112	44.276.782	114.766.211	115.366.046	5.659.047	134.976.144	248.399.445	4.898.642	153.993.310	122.293.623	228.022.089	232.703.918	56.112.397	221.232.182	208.034.508	4.991.534	106.568.907	94.230.882	184.360.712	188.368.514	11.120.185	223.417.036
	NUCLEAR	5.593.943										498													15.396.667
RENEWABLE		369.757		44	1.361.325	325.150	492.154	3.843	1.252.010	3.820.156	3.843	595.664	4.691.655	460.127	460.127		78.650	1.664.887	16.000						
	Total	76.368.656	0	1.747.156	45.638.107	115.091.361	115.858.200	5.662.890	136.228.154	252.219.601	4.902.485	154.589.472	126.985.278	228.482.216	233.164.045	56.112.397	221.310.832	209.699.395	4.991.534	106.584.907	94.230.882	184.360.712	188.368.514	26.516.852	245.689.659

See also the AIB website at [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.

# 8th European Conference on Green Power Markets

For the first time, the AIB will be a partner of the 8th European Conference on Green Power Markets. This conference has provided a forum for market players and decision makers in the renewable energy industry for the past twelve years. AIB decided to co-operate with this politically independent platform/conference in order to

further stimulate exchange of views with market players. This will not detract from AIB's traditional support for the RECS Market Meeting Conference: both of these prestigious conferences provide useful access to market parties.

The third AIB General Meeting this year will be co-located with the GPM conference in Geneva on 8/9 October, to make it convenient for members to attend to the conference.



## 8th EUROPEAN CONFERENCE 2013 GREEN POWER @ MARKETS

**The European forum for market players and decision makers in the renewable energy industry**

**Location:** Hotel InterContinental Geneva, Switzerland

**Conference date:** October 10 and 11, 2013

Industry experts can look forward to a unique forum in Geneva: a chance to find out about and discuss the latest developments and trends in the European green power markets. The European Conference on Green Power Markets offers a perfect platform for market players and decision makers of Europe's burgeoning renewable energy industry.

Main topics in focus

- Grid and market integration of renewables
- Short-, medium-, and long-term developments and trends in green power and energy markets, policies and industries
- Relevance and influence of these developments for the market players in the renewable energy industry
- Regulatory and country-specific frameworks
- Developments and trends in portfolio management, sales, marketing and trading of green power
- Hands-on experience, success stories and feedback from selected market players

Over the past twelve years it proved to be one of the best places to nurture your existing contacts and forge new alliances with the vanguard of Europe's green power business.

For further information please visit: [www.greenpowermarkets.eu](http://www.greenpowermarkets.eu)

AIB and its member organisations will receive a discount of 10 % on the regular conference fee!





## Forthcoming events

2013

8-9 October  
10-11 October  
27-28 November

Geneva  
Geneva  
Frankfurt

AIB General Meeting  
Green Power Markets conference  
AIB General Meeting