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Annual Report 2013

AIB
association of issuing bodies

NEWSLETTER 21

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SYNOPSIS OF ARTICLES

AIB's new President: Dirk van Evercooren

In May 2014, Dirk Evercooren from VREG (the Flemish Regulator for Electricity and Gas) became President of the AIB. VREG has been involved in the AIB from the early days, and now it supports AIB even more by providing the senior ambassador of the organisation.

We need to certificate all sorts of energy

Always wondered why some people want to certify all types of electricity? Find the answer here...

AIB and ICS

Each EECS certificate identifies any 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 gives naturemade the opportunity to present its labels.

New series on green energy trades

Taking responsibility for your energy footprint is a big deal both for the environment, and as a further development in the market of green certificates. This newsletter sees the start of a series of articles about significant trades of green electricity.

Who issues what types of GO?

This newsletter publishes a result of a short survey of AIB members and observers, regarding the types of guarantee of origin (GO) that are issued in each EU member state.

AIB members and sustainable activities of members

Did you know that the first initiative to use the bike to get to your office was taken in 1956? Nearly 10% of GSE's employees cycle to work in the traffic crowded city of Rome.

Latest News

Latest News provides you with information on recent events or published results. This newsletter focuses on the CEER Customer Conference, Ålands Vindkraft case (ECJ ruling) and the VREG (from Belgium, Flanders) Fuel Mix Report.

Statistics

The latest activity statistics, showing continued growth in the market and the effect of the introduction of new members.

Newsflash

AIB, RECS International, Europex and RE-DISS get together in Split

Wednesday 24th Sept: There will be a meeting of the Europex Working Group Environmental Markets. Delegates have also been invited to join the AIB meetings on the following days.

Thursday, 25th Sept: Representatives from South Eastern European countries have been invited to meet members of the AIB Board. In the afternoon, the EU Commission-sponsored RE-DISS project will hold a workshop for competent bodies and market parties. In parallel, the AIB working groups will meet for the daily business. Afterwards, the Open Markets Committee will take place and offers an opportunity for market parties to raise any concerns that they may have in relation to the operation of EECS and the Hub. There will be a joint dinner in the evening.

Friday 26th September, the AIB General Meeting takes place, being the main AIB decision-making forum.
Please contact Andrea Effinger for any further information.

Interview with AIB's new President: Dirk van Evercooren

Since May 2014, Dirk Evercooren is the new president of the Association of Issuing Bodies (AIB).

"It is perhaps surprising that the AIB members have chosen me because until now, I played no operational role within the association," Dirk says. However, VREG has been involved in the AIB from the early days.

Why did you run for the AIB presidency?

I accepted the presidency because the AIB has a very high level of expertise and can count on a very enthusiastic team of people. The ambience is also imbued with positivism and constructivism. And although the AIB is in great part being run by volunteers from the national issuing bodies, we prove every day that the AIB is a professionally capable organisation.

What is your professional activity outside of AIB?

Currently I am acting as Director Markets with the Flemish Regulator for the Electricity and Gas, short VREG, in Belgium. I have been in this position since February 2002. I am also active within CEER, the Council of European Energy Regulators, where I'm a member of the Customer and Retail Markets Working Group and where I act as the Chair of the Customer Empowerment Task Force. In these positions, I have been fortunate to have given numerous presentations, including at the Citizen's Energy Forum in London, the European Consumer Summit and during the RECS Marketing Meeting.

My expertise is in particular with regard to the electricity and gas retail markets, the market for green certificates and CHP certificates, the market for guarantees of origin, smart meters, external communications and energy market research.

What is your professional background before you became an energy regulator?

I am trained as an economist and have always been interested in what makes the world and society go round and – although some might regret it – economics is a big factor in that! After my studies I spent 12 years working at different levels in the studies department of one of Belgium's major employee organisations, working on very different topics such as innovation policy, fiscal policy, mobility, sustainable development, energy policy,... Part of my responsibilities was representing the organisation in the relevant forums where these topics are being discussed. This allowed me to participate in discussions in such diverse organisations as the Belgian Central Economic Council, the Federal Council for Sustainable Development (acting as chair of the Climate Working Group), the Flemish Social and Economic Council, the Flemish Council for Science Policy, amongst others.

I also represented the organisation in the Board of Administrators of the Flemish Agency for Export Promotion, at the Institute for Innovation and Science and at the Office for credit insurance in global exports, Delcredere.

As the topic of sustainable development was launched around the time that I started my career, this new and at that time lesser known concept was given to the 'rookie' in the studies department, which allowed me to participated in the United Nations Conference on Environment and Development (UNCED), aka 'The Earth Summit' held in Rio de Janeiro from 3-14 June 1992. That was a great opportunity for me and stirred a life-long interest in the issue of sustainability.

Finally, I am also member of the editorial board of the monthly publication Samenleving and Politiek ('Society and Politics'), better known as SamPol, since 1990.

After 12 years of 'skipping' between all these topics, working on several topics on a daily basis, I felt it was time to focus on one specific theme. When the liberalisation of the electricity and gas markets led to the creation of the regulatory body in Flanders, the north part of Belgium, I jumped to the opportunity. The energy sector has been given a boost by the liberalisation and the developments have been drastic. The electricity and gas systems are still evolving very dynamically and I have not had the chance to be bored for a single day since starting at VREG...

Put AIB in the spotlight

As AIB has changed the role of the President, I see it as my role to be the ambassador of the organisation. It's my job to help the organisation to take its place in the spotlight in the energy market. I also want to act as a sounding board for the organisation, being at the same time very much involved,

Dirk van Evercooren, Belgium Flanders, VREG

but not 'absorbed' in daily operations. This makes it easier for me to see things from a distance and to express to the extent necessary a critical opinion to make the organisation stronger and better.

A big challenge is to bring the topics of energy certification and disclosure to the attention of the energy customers. We cannot allow these important topics to remain of a technical nature, being discussed amongst a limited number of experts. It is no coincidence that VREG has recently published a report on the use of 'Guarantees of Origin', bringing transparency by providing detailed information on the origin of electricity to the attention of the electricity users in Flanders/Belgium. This is a story that deserves the interest of all those who are interested in – or working on – energy, sustainability and the environment. (Read more about the VREG Fuel mix Report 2013 on page 8.)

Thank you, Dirk. AIB is very much appreciating having you on board.

Always wondered why some people want to certify all types of electricity?

If you still can't figure out why we want to certify every type of electricity...

We go to the shops for some ingredients for a fruit salad. Meet some friends then go into the greengrocers.

I buy some apples (Braeburns) from a local organic farm, some oranges from an organic farm in Seville, some soft fruit that the greengrocer grows in his back garden, and some lemon juice in a plastic squeezy bottle.

What's wrong with that?

Well, the apples and oranges have soil association accreditation, but what about the greengrocer's back garden? Heaven knows what he sprays on his crops!

And that squeezy bottle of lemon juice – is it concentrate? And concentrated what – genetically modified lemons? Who grew it – were they good to their work-force?

It's not just whether some of the ingredients are good, but whether some of them are actually bad for you.

If you don't care, it doesn't matter, but most people do care. And if you don't know, you can't choose.

Back to energy!

Now, say my supply has 25% renewable electricity – well OK, that's fine. But how about if you are trying to get a carbon neutral footprint and the remaining 75% is all produced from lignite? Well, that is going to make a hole in your carbon footprint, and no mistake.

Or maybe you have 25% wind power from Denmark, 50% Norwegian hydro, and 25% biomass from woodchips from forests somewhere on the other side of the world – carbon was emitted getting that to you, I'm sure.

People always say "well, most energy is fossil and nuclear, so certifying them would be more work than certifying renewables".

Not really: certifying biomass and waste is difficult, because power stations tend to burn a combination of these fuels – some of it is renewable, some is not. And some might not be eligible for support because of the source country, or the distance from the supplier to power station, or the energy crop being harvested in a non-politically correct manner...

In fact, many coal-fired plants are close to coal mines; so you know what comes out of the ground, and how much of it there is. And the fuels consumed by nuclear power plants are pretty well audited and controlled anyway.

So actually, at least on a per-MWh basis, certifying renewables is less hassle than certifying "traditional" energy sources.

Ask yourself: is it more useful to tell people that their electricity supply contains good energy, or that it doesn't contain bad energy?
Everyone will agree that shops should not be allowed to sell food that is bad for you; and as a consumer, you will want to be sure that you buy food that is actually good for you. Some people take this more seriously than others, but they should have a right to.

Electricity is the just same. Government sets limits on the environmental damage that power stations are allowed to do, but consumers should have a choice whether they want to go further. Certifying electricity allows both.

ICS enable the establishment of several renaturalisation projects – naturemade

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 third and – for the time being – the last one in a series of articles, each describing an individual scheme.

Naturemade stands for credible quality and ecological improvement as well as supporting renewable energies. By buying naturemade certified energy, energy consumers can make a valuable contribution to ecological progress and the sustainable use of resources. The more naturemade electricity is consumed, the more power plants of this sort are being built and/or environmentally upgraded.

The label *naturemade* in two quality grades

naturemade is a Swiss quality label for energy. It is founded and widely supported in Switzerland. The certification is separate for production (plant) and for supply (energy products). Power plants and energy products are certified according to *naturemade* standards for more than 13 years. In addition to electricity, heat and biomethane gas can also be certified as *naturemade*. Besides Switzerland, *naturemade* certified production plants can be found in e.g. Germany, Norway and France.

The label has two quality grades:

naturemade basic stands for 100% renewable energy. Additionally, *naturemade basic* certified energy products create additive production from new renewable energy sources like biomass, wind power and solar energy. Around one million inhabitants in Switzerland are supplied with a *naturemade basic* certified electricity product.

naturemade star stands for particularly environmental friendly produced energy. In addition to the overall consideration across the whole lifecycle, local and regional criteria apply as well. Also coming from 100% renewable energy sources, *naturemade star* guarantees the compliance with strict environmental requirements.

naturemade certified electricity – electricity with defined ecological quality

naturemade star assures the ecological quality of the produced energy. This is particularly relevant for hydroelectricity, where conventional energy production can result in massive impact on the local ecosystem. Hence, ecological criteria based on sound scientific principles have been developed. Compliance with these strict and comprehensive ecological requirements must be fulfilled to achieve the quality mark. Furthermore, one Swiss cent per sold kilowatt hour of *naturemade star* electricity produced is collected in a fund for ecological improvements. The allocation of funds is decided by a committee comprising power plant operators, local authorities and the relevant environmental organizations. Thereby renaturalisation of power station catchment areas can be achieved and the courses of rivers can be upgraded.

In 2013, 1.2 TWh/a have been produced in a *naturemade star* certified hydro power station. The fund for ecological improvements has enabled the establishment of several renaturalisation projects.

The Association for environmentally sound energy (VUE)

The label *naturemade* is awarded from the Association for environmentally sound energy (VUE). The auditing is carried out by independent institutions. The VUE is supported widely. Environmental and consumer organizations, renewable energy associations, major energy consumers and large, medium and small energy suppliers and producers are all represented in VUE and its Board. The *naturemade* certification procedure starts for *naturemade star* hydroelectric power with a preliminary study and a management plan. These are prepared by the power plant (e.g. in cooperation with a hydro-ecological expert). The audit is conducted by a VUE-accredited lead auditor, who passes the necessary documents and reports to VUE for certification. The certification is performed by the VUE Board. An annual control audits as well as a recertification every five years is demanded.

For more information, please visit the webpage or contact info@naturemade.ch.

Top trades of green electricity: ECOHZ and DNB

This newsletter sees the start of a series of articles about significant trades of green electricity.

Consumers who wish to take responsibility for the environment are highly interested in buying certified green electricity. These consumers can be the family next door aiming for a sustainable lifestyle, or they might be a company whose energy consumption is the same amount as 10,000 households or more. Taking responsibility for your energy footprint is a big deal both for the environment, and as a further development in the market of green certificates. To illustrate the size of the market of green electricity and the importance of big companies buying green energy, this series provides a platform for those who take part in these deals. In this issue of the AIB Newsletter we look at ECOHZ and DNB.

DNB buys renewable energy – aiming to become carbon neutral

In April 2014 DNB, Norway's largest financial services group, strengthened its intention to reduce its carbon footprint by signing an agreement with ECOHZ to buy renewable energy.

DNB is among the first large Norwegian companies that have committed to use renewable energy using Guarantees of Origin as evidence. ECOHZ is a large independent supplier of Guarantees of Origin from renewable energy in Europe.

"Buying electricity from renewable energy sources is an effective way of neutralizing the impact of greenhouse gases. For us, it is important to diligently document our use of renewable energy sources," says Dag Arne Kristensen, Executive Vice President CSR & Corporate identity, DNB.

"Guarantees of Origin from renewable energy sources is the only way to document renewable energy consumption. We are delighted that DNB has taken this significant step," says Tom Lindberg, Managing Director, ECOHZ.

"We see DNB as an important partner, and hope that we can continue to help the bank find the best renewable solutions to support its environmental commitment. At the same time, we hope that other large companies will follow DNB's decision and put energy behaviour so clearly on the agenda."

For further information, questions or interviews, please contact:

- **DNB** Dag Arne Kristensen or Marit E. Giske
- **ECOHZ** Vibeke Ajruli

DNB

DNB is Norway's largest financial services group, and one of the largest in the Nordic region in terms of market capitalisation. The Group offers a full range of financial services, including loans, savings, advisory services, insurance and pension products for retail and corporate customers.

ECOHZ

ECOHZ is a Norwegian-based company with offices in Oslo and Geneva. Its primary business is to offer Guarantees of Origin from renewable energy to electricity providers, businesses and organisations across Europe, with distribution partners in 12 European countries. ECOHZ has focused on ensuring increased traceability and improved documentation in connection with the purchase of electricity with Guarantees of Origin, and it has established a broad product portfolio.

Who issues what types of GO?

The following table is the result of a short survey of AIB members and observers, regarding the types of guarantee of origin (GO) that are issued in each EU member state, and follows on from the survey of VAT charging practices in member countries.

This survey identifies the competent bodies responsible for issuing GOs for renewable energy (RES GOs) and high-efficiency cogeneration (HEC GOs), as the two are not always the same. It also highlights whether single-purpose electronic documents are issued for each type of GO (RES and HEC), or whether a single multi-purpose electronic document conveys both types of GO.

Country	RES GO Issuer	HEC Issuer	Single/multiple purpose electronic document?
AT	E-Control	E-Control	Single
BE	VREG	VREG	Single
	CWaPE	CWaPE	Not known
	Brugel	Brugel	Single
CH	Swissgrid	None appointed	Single
CY	TSO-CY	TSO-CY	Single
CZ	OTE	None appointed yet, but it should be OTE	No registry for HEC GO yet
DE	UBA	BAFA	each single documents for RES GOs and for HEC GOs
DK	Energinet.dk	Energinet.dk	Single
EE	Elering	Not known	Not known
ES	CNMC	Not known	Not known
FI	Fingrid	Fingrid	Multi-purpose
FR	Powernext	Powernext	Not known
GR	LAGIE	Not known	Not known
HR	HROTE	None appointed	Single, but not clearly stated in the law
IE	SEMO	SEMO	No registry for CHP-GO yet
IS	Landsnet	None appointed	Single
IT	GSE	GSE	Single, but no registry for CHP-GO yet
LU	ILR	None appointed	Single
ME	REGAGEN	Not known	Not known
NL	CertiQ	CertiQ	Single
NO	Statnett	None appointed	Single
PT	REN	REN	Still pending the approval of the Operational Manual for RES GO
SE	Svenska kraftnät	Svenska kraftnät	Multi-purpose
SI	AGEN-RS	None appointed	Single
UK	Ofgem (for DECC)	CHPQA (for DEFRA)	Single

Clear rules apply
None appointed
Not known
Multi-purpose

AIB members and sustainable activities

Members of the AIB are drawn from energy certificate system administrators across Europe. The staff of the AIB member organisations devote their working time to allow contributing to a well-functioning AIB and sometimes even more; some member organisations encourage its employees to get involved in activities with a charitable and/or sustainable purpose. With this newsletter Marta Grassilli from GSE in Rome, Italy tells us about the "Bike to Work Day".

The "Bike To Work Day" was introduced in San Francisco back in 1956. Since then, it has been an annual event around the world, and has expanded over the years to promote the use of bicycles for commuting between home and work as a healthy alternative to the use of the motor car.

Bike to Work Day 2014 – GSE

A group of employees working with GSE use their bikes consistently, during all seasons of the year, to travel to work from places far from and near to the office in Rome; we can see their bikes tied to the railings of the offices. The GSE has adopted the project B2WD, thanks to the enthusiastic cyclists' collaboration. The project has evolved by word of mouth, and originally the idea came from one of the cyclists who is most faithful to his bicycle. The group met over a working lunch – and in front of a pizza – the decision to adopt the project was made early this year.

At the first meeting of the spontaneous working group, I was absolutely amazed to discover that there are people on the other side of Rome who put into practice mixed-bike trains, leaving their bikes at the train station, hidden behind a dumpster, and some of them even do so wearing high heels! I have travelled to work by bicycle only three or four times in my life, so I felt like an absolutely unworthy representative of the group, but I soon realized that I was already benefitting from what B2WD should have as its main objective: to discover, through communication and through experimentation, that "you can".

The B2WD group has provided technical expertise regarding appropriate routes and paths, which has been shared on Google Maps and a contact person for each path has been identified.

The GSE has made available its expertise to the organizers of the event, giving appropriate emphasis to internal communications and taking care of identifying distinctive elements and combining them as necessary. Each participant was given a "bib" with a GSE logo; and B2WD gave us a proud sense of "belonging" and upon arrival the flawless organization allowed us to park our bicycles in a special area before we were greeted by a festive welcome breakfast.

Some figures. Though the event took place at the same time as the most important photovoltaic electricity production exhibition in Italy, which half of GSE attended, 35 GSE employees participated in B2WD: nearly 10% of GSE's employees in the Rome office. We were divided into four groups of about eight people each, who cycled the main streets of Rome to GSE along the banks of the river Tiber and then the river Aniene, and then along Viale Regina Margherita, which is a very traffic intense street of Rome; and finally the mixed public transport bike-path for those who did not possess a bicycle but still wanted to participate, renting it at Termini. Furthermore, those who had an agreed path to follow but still wanted to take part in the project participated individually.

Why travel to work by bicycle? There are several reasons which make it tempting to use this means of transport in everyday life:

- "Travelling to work by bicycle is an easy way to keep fit, taking advantage of the time that you would normally spend standing still in traffic or waiting for public transportation."
- "Assuming that for 150 days a year, 20 employees use the 'home to office' bike path for a distance of 10 km; and that the average emissions of a car equal 120 g/km of CO_2; then the CO_2 emissions spared will equal 7,200 kg – more than 7 tons of CO_2! "

What do we learn from this experience? I believe that one of the most rewarding aspects of this day was the size of the group that has been created in organizing this event, and which will hopefully increase every year.

What is our hope for the future? We have raised awareness among colleagues and the company – that sometimes "you **can** do it." Seeing more bikes parked in the special area made available by the company has created networks of contacts that inspire us to use this means of transport every so often, and preferably together. Hopefully, the photovoltaic exhibition next year will not coincide with the next B2WD, which will be even more popular!

Latest News

Retail energy markets: from advocacy to action

2014 Annual CEER Customer Conference, Brussels, 18 June

The 3rd CEER Annual Conference on Energy Customers "Retail Energy Markets: from advocacy to action" took place on Wednesday 18 June 2014 in Brussels.

Discussions and speeches were given by Mr Gunther Oettinger (Commissioner for Energy), Mr Neven Mimica (Commissioner for Consumer Policy) and other high level representatives from the Council of the EU, the European Parliament, the European Commission and BEUC. The conference was attended by consumer organisations, ombudsman services, national regulatory authorities, government and European institutions, and industry; together with the speakers around 130 participants from 10 countries.

AIB participated for the first time in the CEER Customer Conference (CCC), as recently the '2020 Vision for Europe's energy customers' was launched by CEER and BEUC and, together with 16 other organisations, AIB indicated its support for the Vision and its commitment to contribute.

The full programme of the conference, the presentations, list of participants and photos of the event are available on the website. The press release can be found here.

About CEER:

The Council of European Energy Regulators (CEER) was established in 2000 for the cooperation of the independent energy regulators of Europe. It seeks to facilitate the creation of a single, competitive, efficient and sustainable EU internal energy market.

CEER is closely linked to the Agency for the Cooperation of Energy Regulators (ACER) and they share similar objectives. ACER is a formal EU Agency whereas CEER is a Belgian not-for-profit association set up by the regulators themselves.

CEER works on consumer issues ranging from providing guidance and developing advice on best practices to sharing experiences and conducting market monitoring (at both national and EU level) in order to ensure that Europe's energy markets are to the benefit of the consumers.

ECJ Aland ruling

The European Court of Justice has ruled that the Swedish support scheme promoting green energy production in the national territory is compatible with EU law; and that Member States are not required to support the production of renewable energy in other EU States.

The Court found that the Swedish support scheme is compatible with the Renewables Directive (2009/28/EC), and that as this support scheme can hinder imports of electricity from other Member States, especially green electricity, it restricts the free movement of goods. However, the Court found that the restriction is justified by the public interest objective of promoting the use of renewable energy sources to protect the environment and combat climate change. Hence the Court conceded that, as EU law currently stands, Sweden could legitimately consider that for those purposes the national support scheme should be reserved to the national production of green electricity in order to foster long-term investments in green energy. In these circumstances, the Court ruled that the Swedish support scheme is also consistent with the principle of the free movement of goods.

The full text of the judgment is published on the CURIA website.

VREG Fuel mix Report 2013 is out

Energy legislation in Flanders/Belgium requires each electricity supplier to disclose the fuel mix on the electricity bill and on all printed and electronic promotional material.

The source of the electricity that was supplied has to be stated, using the following categories:

1. electricity produced from renewable energy sources;
2. electricity produced with high efficiency cogeneration;
3. electricity produced from fossil fuels;
4. electricity produced in nuclear power plants;
5. power which originates from unknown sources.

This fuel mix must be disclosed, stating the total volume supplied by the supplier concerned ("supplier mix"), as well as the specific electricity product supplied to the end user in question ("product mix ").

VREG has the responsibility to verify that the information provided by the electricity supplier is correct. The supplier must hand in a report annually about the origin of the electricity supplied during the previous calendar year.

This would be sufficient and the customer could be considered sufficiently informed. But VREG aims higher, and we want to make the electricity market more transparent. Therefore, we combine the information of all suppliers into the Fuel mix report in which we provide not only a market wide overview, but also include specific information that can be found on the Guarantees of Origin used by the electricity suppliers to prove that the electricity supplied to the customers holding a "green" contract is from renewable sources.

On this basis, the Fuel mix report contains per electricity supplier specific information on the geographical and technological source of the renewable electricity supplied. This allows the customer to go beyond the simple 'green vs. grey' issue and evaluate the performance of the electricity supplier's green contract.

For more information, please see the VREG Fuelmix report (only available in Dutch unfortunately) . And its press release in English available on Pastebin.

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. Furthermore, pricing and trading strategy are disclosed; this enables the 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.

Explanatory notes to statistics

Date of collection of data

These statistics were completed on 22nd July 2014 and based on statistics gathered either from statistics published on the 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:

Country	Collected	Source
Austria	18 Jul 2014	website
Belgium		
Brussels	16 Jul 2014	spreadsheet provided by issuing body
Flanders	14 Jul 2014	spreadsheet provided by issuing body
Wallonia	16 Jul 2014	spreadsheet provided by issuing body
Czech Republic	11 Jul 2014	spreadsheet provided by issuing body
Denmark	16 Jul 2014	website
Finland	19 Jul 2014	website
France	22 Jul 2014	spreadsheet provided by issuing body
Germany	17 Jul 2014	website
Iceland	16 Jul 2014	website
Italy	11 Jul 2014	spreadsheet provided by issuing body
Luxembourg	16 Jul 2014	website
Netherlands	11 Jul 2014	spreadsheet provided by issuing body
Norway	19 Jul 2014	website
Portugal	16 Jul 2014	website
Slovenia	10 Jan 2012	Data will be published when other market parties commence trading
Spain	16 Jul 2014	website
Sweden	17 Jul 2014	website
Switzerland	18 Jul 2014	website

Aggregation of data

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).

Completeness of data

The Grexel registries (DE [Oeko-Institut], DK, FI, IS, 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 provide facilities for the expiry of certificates; and the Austrian registry does not currently provide expiry data.

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 in registering the transaction (and which is potentially treated differently by different registries).

Change to pie-charts

The basis of the pie-charts has changed since the last statistics report: in the past, issued certificate referred to those certificates issued for electricity produced in a year, but cancellation referred to certificates cancelled in a year, regardless of when the associated electricity was produced. Now, both refer to the date of production of the associated electricity.

Further, to clarify the charts, only contributions of 1% or greater are shown.

Statistical report

During the second quarter of 2014, market activity continued to increase, as has the use of guarantees of origin (GOs[1]) for disclosure purposes.

1 Note that this includes the few remaining RECS certificates (these will cease to be issued from the end of this year, and they will all expire at the end of 2015.

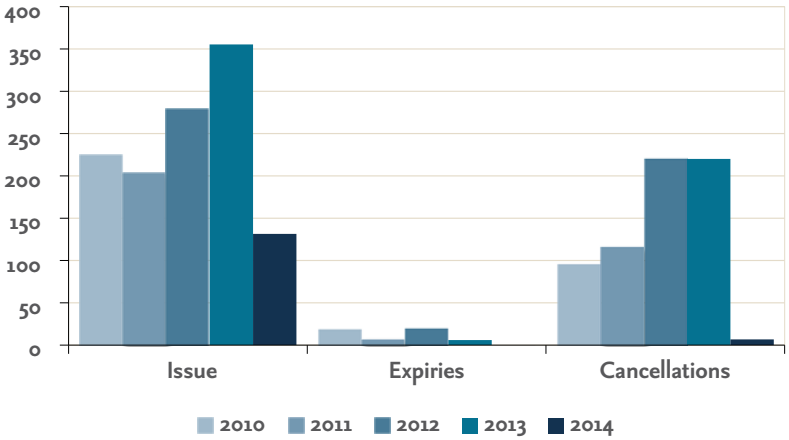
Expiries continue to decrease as the market recognises that it has a limited period – one year – in which to gain a value from its GOs and cancels them before they expire.

These graphs illustrate activity in two ways:

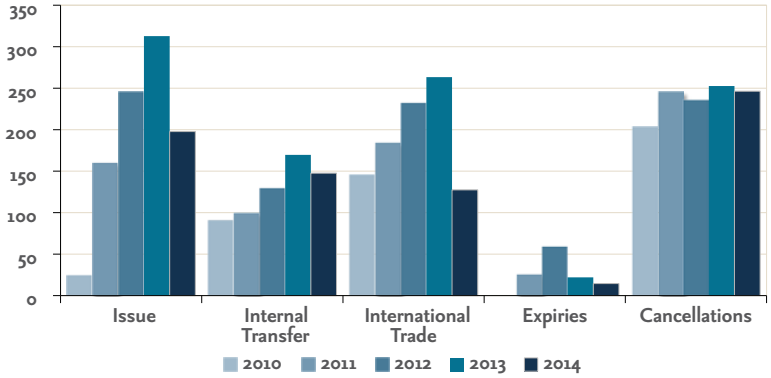
1. Activity by production date shows the quantity of certificates issued, expired and cancelled which relate to **electricity produced in a given year**; and indicates those which either remain on the market or are otherwise unaccounted for.
2. Activity by transaction date shows the quantity of certificates **actually** issued, transferred within that country or region, transferred internationally, expired and cancelled in a given year.

Issue, transfer and cancellation continue to increase, and further growth is expected as further countries are connected to the Hub, and as member countries (recently Italy) replace RECS certificates with GOs. Croatia is awaiting changes to its disclosure legislation, and it is hoped that it will connect to the Hub in the autumn. Membership applications continue to be processed for Cyprus and Estonia. Furthermore, contact continues with interested parties in Greece, Poland, Hungary, Ireland, Spain and Montenegro.

Annual EECS transactions by production date (TWh)

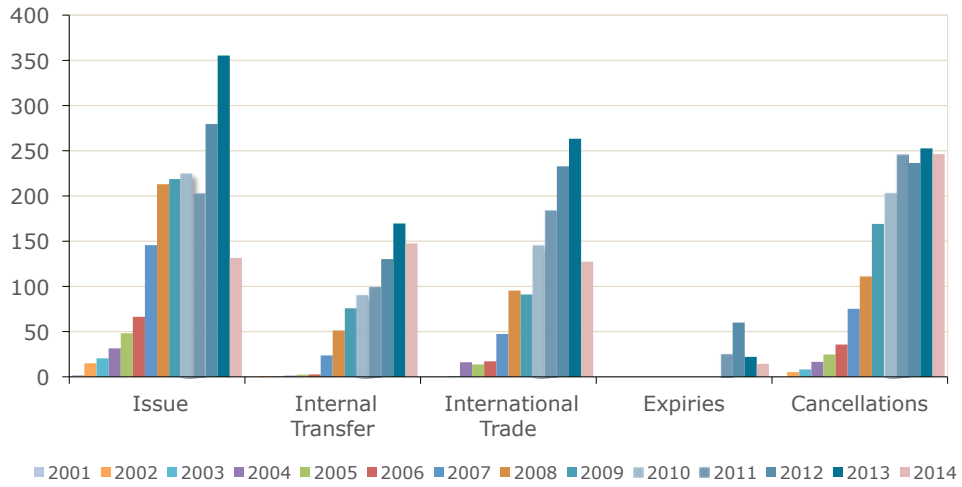


Annual EECS transactions by transaction date (TWh)



It is also interesting to see how the market has developed since its inception, in 2001. Here, the dips in issuing (in 2011) were caused by low reservoir level due to low rainfall; while market reaction to the introduction of expiry shows, with market parties now seeking to gain a value from their GOs rather than letting them expire. Cancellation is already close to the levels of the previous three years, suggesting that it will be higher by the end of the year; and demonstrating the increased use of GOs for purposes of selling products for differentiated energy sources. Note that issuing tends to be 20% understated over the past quarter, due to delays in capturing metering data.

Annual EECS transactions by transaction date (TWh)



The monthly discrepancy between exports and imports is due to not all transfers being instantaneous, so hence trades which commence in one month can complete the following month; however, the general shape of the import and export graphs is similar.

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

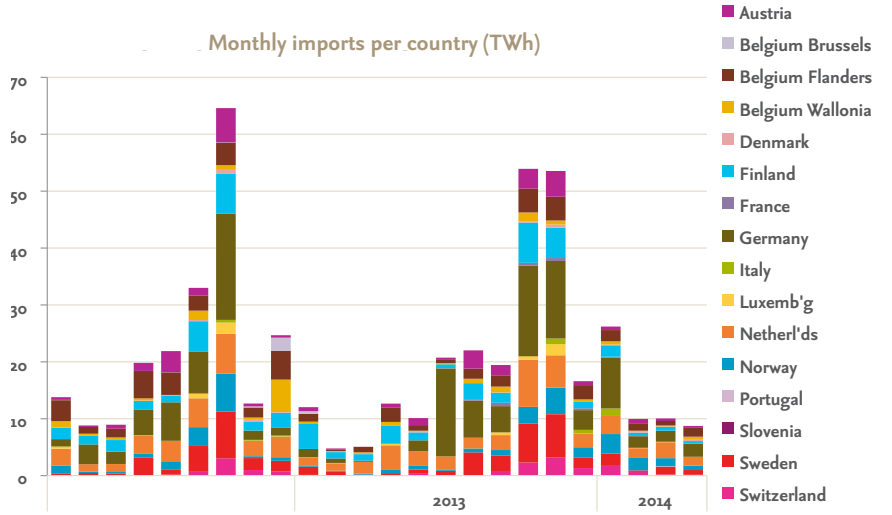
There are still trades where certificates are cancelled in one country for use in another: these are known as "ex-domain cancellations (EDCs)". The EECS Rules only permit this where transfer is technically impossible, so this does not (or should not) occur between member countries.

EDCs can and do occur between member countries and non-member countries; and AIB is currently seeking to quantify the size of this market sector, and to agree with market parties whether such information can be published without compromising their activity and trading positions.

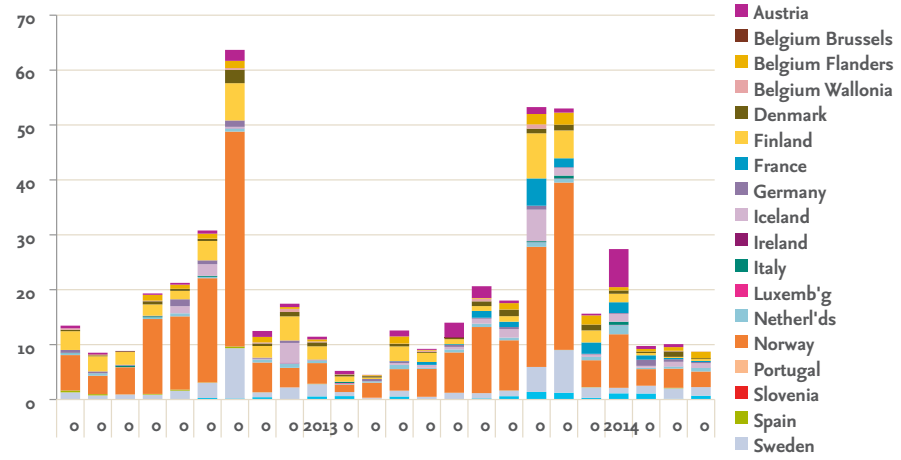
EDCs may also occur where the account holder either does not reveal (or perhaps conceals) the country for which GOs are being cancelled: this is a matter for individual competent bodies.

The following charts show the large role that the Nordic region has in this market, and the interest in renewable products elsewhere in Europe.

Monthly imports per country (TWh)



Monthly exports per country (TWh)

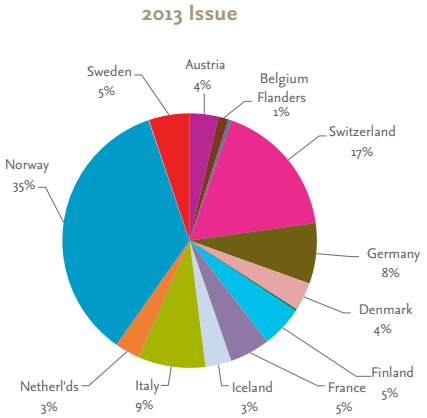


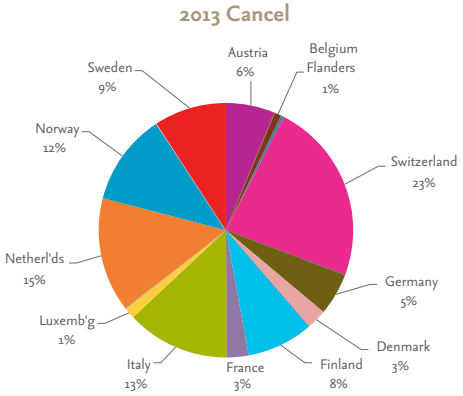
It is still too early to compare the difference between issuing and cancellation activity in 2013 and 2014 – this might be possible in the autumn. The following graphs are based on specific "vintages" of certificate (i.e. associated with electricity produced in a particular year), and show the final destination of GOs associated with electricity produced by each member country in a year.

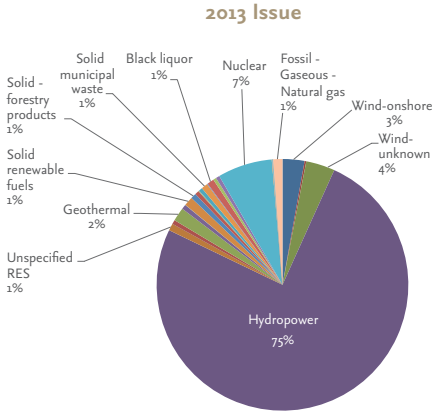
Note that Finnish law and regulation changed so that instead of GOs having infinite life but only being able to be used for the first year of their existence; they now expire one year after production of the associated electricity. This has led to the expiry of all GOs which are more than one year old – in practice, this has meant that GOs have been expired for electricity produced from 2004 until spring 2013.

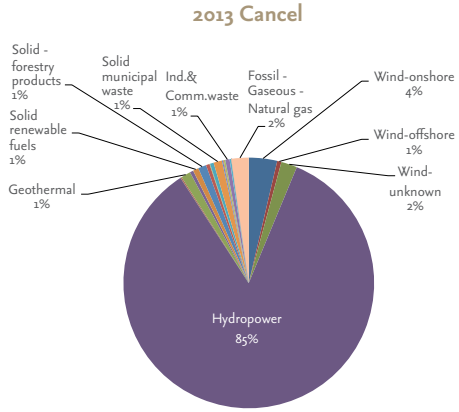
So far, the contribution of the various fuel sources remains broadly similar to last year: for renewables, hydropower remains by far the prevalent renewable energy source, followed by wind and then biomass. Certificates for fossil and nuclear are increasingly being issued, as countries increasingly certify all sources of energy, and not just renewable energy.

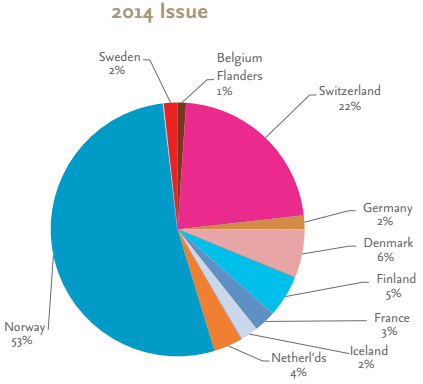
The rather marked differences between cancellations in 2013 and 2014 are presumably due to suppliers initially using wind in preference to hydropower, and then cancelling hydropower GOs once all wind GOs have been cancelled.

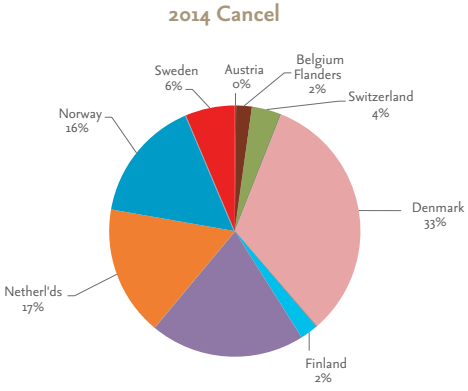


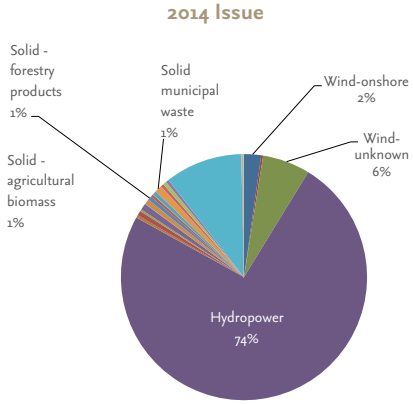


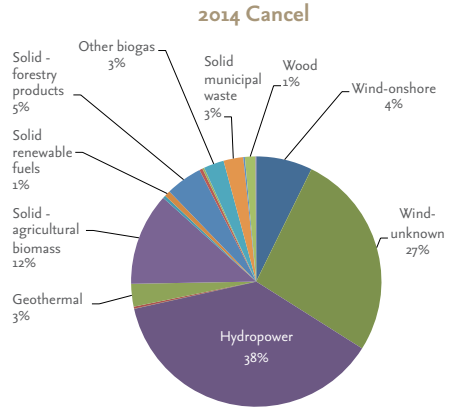












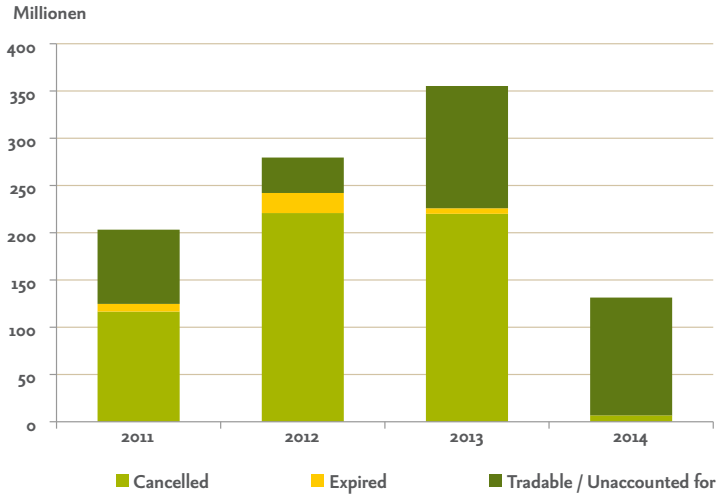
Comparing the status of different vintages of EECS certificates, we can see what has happened to the certificates that were issued for energy produced in the last four years - that is, whether the certificates have:

- 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.

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 picture is becoming clearer as more and more registries support expiry.

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 2012 until the date of collection of the data (during July 2014– but note 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 Fuels

	Total : 2001 to 2014									2012 to 2014								
	Production			Transaction						Production			Transaction					
	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel
Austria	35.846.805		45.728.040	38.785.029	72.620.104	49.101.684	95.440.621		78.188.280	19.159.736		29.459.249	21.427.570	45.542.033	26.228.158	39.677.223		39.948.178
Belgium Brussels	10.794				2.797.570	14.800	10.889.986		14.756.931					2.796.689	14.800	4.797.654		8.737.311
Belgium Flanders	21.707.254	967.285	11.712.112	17.784.032	56.732.013	21.427.677	170.132.020	4.366.408	123.080.042	10.338.570	607.724	5.030.287	11.131.687	28.007.791	18.737.986	70.019.532	4.097.316	39.091.446
Belg & Lux RECS	113.390						2.031.496		2.048.355									
Belgium Wallonia	6.516.849	3.783	2.267.931		18.088.680	9.456.683	59.539.730	506.003	41.905.006	2.479.478	3.783	2.267.931		11.532.251	4.916.083	25.428.278	506.003	19.385.114
Belgium	28.348.287	971.068	13.980.043	17.784.032	77.618.263	30.899.160	242.593.232	4.872.411	181.790.334	12.818.048	611.507	7.298.218	11.131.687	42.336.731	23.668.869	100.245.464	4.603.319	67.213.871
Switzerland	127.696.068		81.759.493	129.172.557	102.015	16.517.229	29.693.534		106.022.395	123.866.453		81.759.493	129.172.557		11.546.655	20.209.478		100.422.785
Czech Republic				900.550	762.988			3.751	658.105				900.550	762.988			3.751	658.105
Germany	35.069.600	1.777.410	144.464.129	28.721.499	132.400.747	17.903.308	258.025.514	1.823.918	234.041.400	33.335.461	1.777.410	61.291.507	28.721.499	104.806.464	11.562.488	149.928.895	1.823.918	151.610.531
Denmark	51.174.576	4.406.560	15.134.680	41.379.886	16.021.991	32.176.347	9.761.051	4.406.560	16.961.125	30.854.334	1.592.735	10.765.821	32.172.157	12.517.063	19.863.527	5.417.207	1.986.488	13.063.026
Spain	14.156.547			2.905.558		5.345.561	42.890		6.543.588	4.554.175			2.905.558		2.278.232	42.887		916.599
Finland	128.417.951	7.510.516	65.199.708	66.883.691	47.467.703	170.075.777	150.274.177	7.510.516	80.656.418	41.098.217	1.664.001	32.056.496	43.947.902	33.110.582	77.334.504	84.930.006	7.510.516	49.279.494
France	71.093.756	12.068.227	20.868.863	48.964.590	11.590.164	16.786.158	20.565.187	16.124.759	68.646.471	44.461.102	12.068.227	17.205.655	48.964.590	3.399.556	14.953.786	2.718.346	16.124.759	34.552.066
Croatia																		
Ireland	162.414					10.001												
Iceland	24.004.731	963.728	322.013	24.004.731	1.006.587	23.451.927	968.443	963.728	322.013	22.928.750	935.724	322.013	24.004.731	1.006.587	23.451.927	968.443	963.728	322.013
Italy	86.560.173	1.434.278	28.841.737	31.172.651	70.031.971	12.002.392	13.626.902	1.434.852	84.365.763	31.597.011	1.434.278	28.841.737	31.172.651	54.767.575	5.919.799	8.150.835	1.434.852	46.834.443
Luxembourg	46.360		7.748.509	46.360	3.828.729	749.853	9.093.291		7.748.509	45.985		6.099.303	46.026	3.822.702	703.107	7.945.882		7.047.285
Netherlands	91.955.154	2.465.675	81.161.258		64.637.496	20.328.957	206.895.748	2.465.680	255.699.532	27.804.182	1.660.887	79.528.294		25.476.497	14.385.034	89.808.401	2.465.680	94.707.677
Norway	903.730.101	56.867.020	72.536.739	427.681.430	281.687.693	642.439.236	75.363.762	56.867.020	209.846.183	329.598.801	4.445.819	49.733.312	334.359.910	111.754.988	307.276.476	47.819.545	56.867.020	68.369.331
Portugal	1.432.767		180.231	454.631		1.052.256	188.396		244.807	477.541		180.231	454.631		507.865	185.301		200.269
Sweden	350.707.260	26.653.809	119.773.111	86.673.718	17.798.887	142.234.831	123.165.823	26.653.809	296.621.993	43.749.438	965.205	43.124.388	47.223.322	8.189.856	57.629.313	65.485.239	2.712.944	60.270.740
Slovenia	4.002.666					668.004	117.018		1.927.200									
UK	90.158																	
Total	1.954.495.374	115.118.291	697.698.554	945.530.913	797.575.338	1.181.742.681	1.235.815.589	123.127.004	1.630.284.116	766.349.234	27.155.793	447.665.717	756.605.341	447.493.622	597.309.740	623.533.152	96.496.975	735.416.413

Issuing, Trade & Redemption for all Fuels

	2014									2013								
	Production			Transaction						Production			Transaction					
	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel
Austria	20		12.450	7.935.136	12.058.726	9.122.498	7.703.938		12.272.075	13.023.029		13.843.212	10.825.631	14.745.634	12.630.681	18.553.127		18.242.139
Belgium Brussels					2.790.206				2.752.865					6.483	14.800	3.027.602		4.565.928
Belgium Flanders	1.409.205		135.346	2.661.847	3.122.032	6.779.832	12.354.083	795.136	2.891.391	4.589.864	123	1.877.287	4.079.570	13.895.543	7.819.054	25.529.945	2.342.472	13.574.919
Belg & Lux RECS																		
Belgium Wallonia	21.661	3.783			2.479.217	108.959	2.425.816	135.179	1.172.393	1.439.826		879.712		5.941.627	2.926.263	12.018.684	99.058	7.778.621
Belgium	1.430.866	3.783	135.346	2.661.847	8.391.455	6.888.791	14.779.899	930.315	6.816.649	6.029.690	123	2.756.999	4.079.570	19.843.653	10.760.117	40.576.231	2.441.530	25.919.468
Switzerland	29.096.913		255.183	35.304.237		4.781.358	7.783.526		50.170.671	61.938.652		50.992.831	59.654.049		4.760.297	8.702.008		31.409.100
Czech Republic				655.677	541.506			3.751	654.198				244.873	221.482				3.907
Germany	2.308.637		2.091	10.207.146	33.581.467	2.212.263	32.272.717	1.823.918	58.626.494	27.292.052	1.777.410	11.866.071	14.120.829	50.351.497	4.316.324	68.753.794		49.933.678
Denmark	8.226.875		2.213.086	10.285.310	5.943.195	4.362.298	1.324.920	699.400	6.304.353	12.814.724	653.030	5.696.239	12.688.731	3.487.452	8.787.604	1.708.800	935.196	3.998.285
Spain				319.992		164.897	22.887			1.016.763			1.798.712		398.197	20.000		
Finland	6.933.157		154.299	12.495.031	8.530.198	9.914.276	10.175.179	7.510.516	17.549.391	18.535.856	416.632	18.538.856	15.717.142	14.406.465	32.329.412	34.824.563		17.025.211
France	3.701.118		1.350.156	9.489.839	1.242.150	6.872.168	1.300.321	278.281	5.168.886	18.170.880	127.032	6.065.218	19.619.260	2.043.977	7.876.492	1.250.025	11.941.195	10.575.993
Croatia																		
Ireland																		
Iceland	2.920.966			5.581.644	25.747	5.624.197	18.000	24.908	69.248	11.790.581	24.908	69.268	13.053.886	980.840	13.480.834	650.432	938.820	252.765
Italy	143.027		261	17.236.633	42.800.766	1.123.153	2.958.064	1.434.852	30.816.843	30.395.649	1.434.278	28.801.727	13.936.018	6.248.711	408.579	871.957		3.202.298
Luxembourg	24.108			33.249	1.615.711	150.629	2.401.547		3.290.880	21.519		3.287.041	12.384	1.811.387	274.518	3.478.411		2.820.272
Netherlands	4.779.409		1.127.749		4.332.720	4.213.800	17.198.604	612.280	19.830.896	11.279.512	425.507	32.036.341		10.298.612	6.353.822	39.835.326	1.410.862	39.956.079
Norway	69.452.854		1.071.757	75.214.376	27.076.581	57.351.616	14.728.939	806.990	21.248.543	124.449.952	794.357	25.708.307	127.795.093	40.803.982	115.385.368	14.325.296	3.676.163	24.747.403
Portugal	150.715			163.532			128.337		144.705	189.409		153.346	204.667		95.000	1.357		31.676
Sweden	2.302.741		429.572	10.158.595	1.459.068	15.717.387	14.578.521	325.771	13.361.371	18.347.880	271.898	20.203.848	18.981.572	4.346.221	24.637.619	29.774.900	684.547	24.529.141
Slovenia																		
UK																		
Total	131.471.406	3.783	6.751.950	197.742.244	147.599.290	128.499.331	127.375.399	14.450.982	246.325.203	355.296.148	5.925.175	220.019.304	312.732.417	169.589.913	242.494.864	263.326.227	22.028.313	252.647.415

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 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.

Issuing, Trade & redemption for all countries

	Total : 2001 to 2014									Total : 2012 to 2014								
	Production			Transaction						Production			Transaction					
	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel
Wind - onshore	67.120.223	902.394	19.152.115	7.626.871	38.868.148	23.168.938	37.584.617	1.406.594	63.114.954	18.293.892	618.614	16.345.242	6.578.416	19.870.974	5.118.340	13.193.036	1.384.172	26.283.778
Wind - offshore	5.265.312	406.765	2.518.347		3.330.369	1.121.546	5.521.126	478.089	6.286.196	1.895.478	302.444	2.428.729		2.021.160	939.353	5.368.880	478.089	4.028.121
Wind - unknown	42.383.858	5.145.446	17.006.208	42.322.391	18.428.111	36.330.113	18.124.465	5.310.753	17.371.254	31.589.695	1.267.390	12.677.332	32.288.602	16.561.075	29.272.374	16.336.302	3.713.103	15.343.926
Wind	114.769.393	6.454.605	38.676.670	49.949.262	60.626.628	60.620.597	61.230.208	7.195.436	86.772.404	51.779.065	2.188.448	31.451.303	38.867.018	38.453.209	35.330.067	34.898.218	5.575.364	45.655.825
Hydro/marine	1.557.446.069	88.105.865	572.915.862	769.333.986	656.787.349	1.073.517.771	1.112.392.247	94.036.505	1.330.916.253	608.091.843	21.928.675	360.207.244	625.973.388	363.502.389	534.298.319	551.759.999	84.829.423	615.805.124
Unspecified mechanical/other	9.315	34.220	169.064	9.315	9.013	5.119	5.894.396	726	5.816.433	9.315	34.220	2.221	9.315	8.132	5.119	1.772	726	2.221
Unspecified renewable energy	3.672.303	101.076	446.596	1.424.311	682.031	448.263	8.240.900	326.055	562.040	3.672.303	101.065	446.153	1.424.311	682.031	448.263	8.240.900	326.055	562.040
Unspecified heat																		
Solar	4.552.135	679.085	981.815	4.372.506	713.520	111.623	143.453	1.607.237	1.187.559	4.065.528	553.212	702.440	4.045.962	486.810	72.335	112.601	1.577.981	991.239
Geothermal	14.217.724	28.250	4.499.780	8.481.515	6.689.289	6.789.235	7.374.840	42.353	12.134.098	8.259.754	28.199	4.499.780	8.481.515	6.476.787	6.789.235	7.374.840	42.353	9.663.260
Other	22.451.477	842.631	6.097.255	14.287.647	8.093.853	7.354.240	21.653.589	1.976.371	19.700.130	16.006.900	716.696	5.650.594	13.961.103	7.653.760	7.314.952	15.730.113	1.947.115	11.218.760
Solid - agricultural biomass (inc. energy crops)	6.198.681	248.509	2.884.768	3.789.836	1.268.525	3.806.406	4.024.738	250.168	4.598.612	3.942.240	239.887	2.880.224	3.499.004	236.559	3.105.058	3.309.603	250.168	3.592.251
Solid - agricultural products	465.560	36.096	241.276	216.710	70.229	166.876	188.067	46.056	203.371	308.084	32.574	135.026	216.141	66.214	99.910	110.639	46.056	194.698
Solid - renewable fuels (inc. For&Ag bp & w)	55.621.252	1.811.775	6.871.856	8.765.368	25.702.087	18.030.498	17.888.043	1.269.155	47.593.272	6.604.552	683.672	3.975.839	4.804.645	6.464.112	1.833.494	1.909.656	1.179.706	6.303.242
Solid - forestry products	5.089.482	171.243	3.809.946	2.552.576	4.449.060	2.534.139	2.288.961	213.450	4.944.340	4.651.266	131.255	3.752.570	2.479.305	4.449.060	2.415.098	2.203.567	213.450	4.939.340
Solid - forestry by-products & waste	8.156.330	355.819	1.784.678	2.727.333	3.596.037	2.404.640	2.133.836	456.817	4.366.813	4.957.270	275.872	1.707.391	2.412.521	3.479.069	2.019.962	1.918.190	456.817	4.366.813
Gas - landfill	3.868.509	45.930	675.774	540.193	2.597.961	211.985	233.072	71.819	2.755.721	504.673	25.312	303.106	360.097	614.637	88.054	100.412	66.835	664.192
Gas - sewage	188.006	1.497	24.519	145.848	4.410	4.246	4.340	1.507	46.708	151.143	1.497	24.415	145.848	4.410	853	947	1.507	11.023
Gas - other biogas	6.636.277	365.987	2.849.453	2.428.473	3.229.080	1.156.027	1.178.013	453.113	4.731.343	3.608.296	218.361	2.206.471	1.763.922	1.727.659	1.030.352	1.050.964	396.788	2.617.885
Solid - municipal biogenic waste	19.376.773	882.254	5.369.946	2.844.367	7.409.321	5.374.544	5.603.545	1.001.771	14.929.954	7.196.929	419.629	4.328.595	2.072.773	3.898.190	4.125.616	4.434.008	776.484	6.846.741
Liquid - renewable fuels (inc. Mun.waste)	442.698	11.790	411.163	272.720	676.018	372.590	1.102.887	341.201	1.150.200	440.003	6.801	353.746	272.720	676.018	372.590	1.102.887	341.201	1.150.200
Liquid - black liquor	4.437.095	89.182	3.133.336	4.436.890	999.896	1.062.684	425.634	89.182	3.163.310	3.943.086	89.182	3.133.310	4.436.890	999.896	1.062.684	425.634	89.182	3.163.310
Solid - unspecified wood	2.524.520	135.157	1.620.559	2.512.022	1.032.555	1.071.441	1.055.119	135.157	1.710.399	2.524.520	135.157	1.620.559	2.512.022	1.032.555	1.071.441	1.055.119	135.157	1.710.399
Solid - industrial & commercial waste	16.510.031	143.875	4.428.491	5.959.535	10.628.465	2.138.675	2.289.723	167.858	13.259.397	4.227.639	43.367	2.320.945	4.103.132	3.832.021	1.225.970	1.399.631	166.951	3.573.662
Biomass	129.515.214	4.299.114	34.105.765	37.191.871	61.663.644	38.334.752	38.415.978	4.497.254	103.453.440	43.059.701	2.302.566	26.742.197	29.079.020	27.480.400	18.451.082	19.021.257	4.120.302	39.133.756
RENEWABLE	1.824.182.153	99.702.215	651.795.552	870.762.766	787.171.474	1.179.827.359	1.233.692.022	107.705.566	1.540.842.227	718.937.509	27.136.385	424.051.338	707.880.529	437.089.758	595.394.420	621.409.587	96.472.204	711.813.465
NUCLEAR	119.516.304	15.403.747	39.577.915	64.326.671		56.821	56.821	15.404.432	83.140.094	38.283.335	7.080	17.305.292	38.283.336		56.819	56.819	7.765	17.304.793
Unknown	405.907	720	87.842	9.206	57.602	189.006	33.430	720	81.482	402.267	720	87.842	9.206	57.602	189.006	33.430	720	77.842
Solid - Unknown																		
Solid - Hard coal	76			76						76			76					
Solid - Brown coal	67			67						67			67					
Solid - Peat																		
Solid - Municipal solid waste	640.814		132.829	640.815					132.829	640.814		132.829	640.815					132.829
Solid - Industrial and commercial waste	98.511	11.608	69.563	121.596		6.369	6.360	14.015	52.441	98.511	11.608	69.563	121.596		6.369	6.360	14.015	52.441
Liquid - Unknown	1.853		1.853	1.853					1.853	1.853		1.853	1.853					1.853
Liquid - Crude oil																		
Liquid - Natural gas																		
Liquid - Petroleum products	58.191		889	56.027					889	58.191		889	56.027					889
Gaseous - Unknown	2			18.076		2		2.270	167	2			18.076		2		2.270	167
Gaseous - Natural gas	9.591.496	1	6.032.111	9.593.760	10.346.262	1.663.124	2.026.856	1	6.032.134	7.926.609		6.016.111	9.593.760	10.346.262	1.663.124	2.026.856	1	6.032.134
Gaseous - Coal-derived gas																		
Gaseous - Petroleum products																		
Gaseous - Municipal gas plant																		
Gaseous - Process gas																		
Heat - unknown							100									100		
Heat - Process heat																		
FOSSIL	10.796.917	12.329	6.325.087	10.441.476	10.403.864	1.858.501	2.066.746	17.006	6.301.795	9.128.390	12.328	6.309.087	10.441.476	10.403.864	1.858.501	2.066.746	17.006	6.298.155
Total	1.954.495.374	115.118.291	697.698.554	945.530.913	797.575.338	1.181.742.681	1.235.815.589	123.127.004	1.630.284.116	766.349.234	27.155.793	447.665.717	756.605.341	447.493.622	597.309.740	623.533.152	96.496.975	735.416.413

Issuing, Trade & redemption for all countries

	2014									2013								
	Production			Transaction						Production			Transaction					
	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel	Issue	Expire	Cancel	Issue	Transfer	Export	Import	Expire	Cancel
Wind - onshore	2.946.555		491.333	4.220.961	7.956.803	2.029.599	3.478.821	557.656	8.316.253	10.010.371	474.533	9.183.520	1.652.992	7.238.156	1.560.203	5.252.459	321.898	9.220.117
Wind - offshore	335.919				335.128	109.292	2.132.732	107.111	1.334.918	771.072	83.436	1.320.601		1.003.656	577.215	2.133.121	304.839	1.385.150
Wind - unknown	8.220.278		1.802.316	11.022.246	7.609.503	7.496.972	3.746.567	1.226.661	7.389.146	13.210.138	537.868	6.559.411	11.258.362	4.941.879	10.723.287	5.867.925	716.006	5.212.874
Wind	11.502.752		2.293.649	15.243.207	15.901.434	9.635.863	9.358.120	1.891.428	17.040.317	23.991.581	1.095.837	17.063.532	12.911.354	13.183.691	12.860.705	13.253.505	1.342.743	15.818.141
Hydro/marine	97.691.680	3.783	2.534.108	149.822.793	120.797.378	112.298.999	111.760.401	9.610.392	193.848.704	267.864.680	3.492.303	162.582.688	253.539.259	137.955.327	215.218.150	226.148.874	18.476.516	213.647.255
Unspecified mechanical/other	3.021			3.656	1.574	3.347		726	2.100	6.294	726	2.221	5.659	6.558	1.772	1.772		121
Unspecified renewable energy	445.639		2.091	847.991	255.557	323.454	136.823	326.044	338.079	3.226.664	101.065	333.765	576.320	342.397	116.621	7.857.055		102.905
Unspecified heat																		
Solar	837.422		16.800	938.745	323.229	69.820	109.870	507.214	518.521	1.881.320	45.993	435.922	1.790.195	54.730	1.650	1.905	976.733	304.523
Geothermal	327.182		197.954	3.806.347	4.925.919	1.984.947	1.984.847	23.149	3.388.537	6.239.285	9.046	3.899.081	4.212.219	1.535.737	4.531.288	5.116.993	19.204	3.135.657
Other	1.613.264		216.845	5.596.739	5.506.279	2.381.568	2.231.540	857.133	4.247.237	11.353.563	156.830	4.670.989	6.584.393	1.939.422	4.651.331	12.977.725	995.937	3.543.206
Solid - agricultural biomass (inc. energy crops)	1.125.663		806.286	1.251.251	4.455	553.862	543.810	29.239	2.098.385	2.110.722	23.152	1.791.419	2.200.393	132.540	2.415.783	2.641.866	216.439	1.113.601
Solid - agricultural products	73.930		25.000	89.796	2.179	2.661	2.661	21.146	93.993	106.449	7.607	87.997	117.217	39.791	73.299	71.614	18.181	36.423
Solid - renewable fuels (inc. For&Ag bp & w)	860.271		51.367	2.207.186	739.072	465.389	329.185	1.092.948	1.169.995	4.116.341	669.442	1.483.262	1.192.911	2.290.999	415.002	644.207	11.907	1.820.909
Solid - forestry products	662.945		318.629	784.095	922.594	297.461	292.712	55.613	1.141.617	2.509.610	53.328	1.980.473	843.238	2.400.751	973.052	792.786	130.610	2.672.514
Solid - forestry by-products & waste	463.500		28.039	834.358	659.152	203.055	321.815	243.788	1.425.561	1.870.734	177.182	1.195.996	881.691	981.471	765.282	803.081	101.246	1.149.434
Gas - landfill	50.899		15.544	175.411	240.814	2.851	2.851	17.395	198.981	319.528	6.416	210.373	140.307	178.047	33.380	25.412	22.855	191.785
Gas - sewage	23.128		1.084	46.383	4.316			1.507	6.501	71.411	1.497	6.179	46.604	94	198	292		3.418
Gas - other biogas	660.213		177.025	484.607	551.086	236.885	213.731	116.276	848.198	1.678.141	41.039	1.130.580	780.745	671.428	547.775	638.366	201.187	1.197.383
Solid - municipal biogenic waste	1.220.841		172.033	663.860	711.564	1.232.714	1.232.714	282.109	1.687.942	2.944.111	93.235	2.255.814	705.822	2.152.138	1.863.742	2.082.972	387.951	2.751.178
Liquid - renewable fuels (inc. Mun.waste)	32.286		13.936	55.096	215.470	129.754	129.821	7.441	420.459	319.516	5.035	290.420	192.124	288.312	129.648	382.837	18.170	354.733
Liquid - black liquor	516.963		337	2.408.523	288.051	318.653	199.826	89.182	2.845.170	3.148.436		2.998.887	1.384.054	37.996	178.227	174.808		223.745
Solid - unspecified wood	640.297		91.902	974.513	388.863	481.690	461.756	85.630	1.172.595	1.413.511	78.635	1.244.386	1.413.564	643.064	579.751	583.363	49.527	527.804
Solid - industrial & commercial waste	500.275		6.166	881.960	445.994	200.188	237.534	41.270	767.161	1.711.862	15.840	904.795	1.715.629	1.203.222	402.084	537.539	38.758	1.383.975
Biomass	6.831.211		1.707.348	10.857.039	5.173.610	4.125.163	3.968.416	2.083.544	13.876.558	22.320.372	1.172.408	15.580.581	11.614.299	11.019.853	8.377.223	9.379.143	1.196.831	13.426.902
RENEWABLE	117.638.907	3.783	6.751.950	181.519.778	147.378.701	128.441.593	127.318.477	14.442.497	229.012.816	325.530.196	5.917.378	199.897.790	284.649.305	164.098.293	241.107.409	261.759.247	22.012.027	246.435.504
NUCLEAR	13.367.002			15.851.628		56.819	56.819	7.765	16.752.793	24.916.333	7.080	17.304.794	22.431.708					552.000
Unknown	168.473				687	908		719	55.994	227.766	717	56.352	4.082	56.915	178.098	3.893	1	21.848
Solid - Unknown																		
Solid - Hard coal										76			76					
Solid - Brown coal										67			67					
Solid - Peat																		
Solid - Municipal solid waste	222.940			271.930					132.829	375.563		132.829	349.375					
Solid - Industrial and commercial waste	22.860			27.101		9			48.267	57.818		65.389	93.429		6.360	6.360	14.015	4.174
Liquid - Unknown									1.853	1.853		1.853	1.853					
Liquid - Crude oil																		
Liquid - Natural gas																		
Liquid - Petroleum products	13.162			13.231					889	23.415		889	42.796					
Gaseous - Unknown				2		2				2			18.074				2.270	167
Gaseous - Natural gas	38.062			58.574	219.902		3	1	319.762	4.163.059		2.559.408	5.141.652	5.434.705	1.202.997	1.556.727		5.633.722
Gaseous - Coal-derived gas																		
Gaseous - Petroleum products																		
Gaseous - Municipal gas plant																		
Gaseous - Process gas																		
Heat - unknown							100											
Heat - Process heat																		
FOSSIL	465.497			370.838	220.589	919	103	720	559.594	4.849.619	717	2.816.720	5.651.404	5.491.620	1.387.455	1.566.980	16.286	5.659.911
Total	131.471.406	3.783	6.751.950	197.742.244	147.599.290	128.499.331	127.375.399	14.450.982	246.325.203	355.296.148	5.925.175	220.019.304	312.732.417	169.589.913	242.494.864	263.326.227	22.028.313	252.647.415

Forthcoming events

2014

25 Sept	Split, Croatia	Open Markets Committee
25 Sept	Split, Croatia	RE-DISS workshop with energy stakeholders
26 Sept	Split, Croatia	RECS International Advisory Group meeting
26 Sept	Split, Croatia	AIB General Meeting
27-28 Nov	Prague, Czech Republic	AIB General Meeting