



The RES Directive

The new Renewable Energy Directive (2009/28/EC) went live on 25 June 2009, and promises to deliver a sound Guarantee of Origin (GO) market.

It provides transferable electronic guarantees of origin, separate to the underlying energy; requiring these to be cancelled as proof that the associated energy has been consumed.

The AIB recently reviewed the provisions of the new Directive, and is considering how best to adjust the European Energy Certificate System (EECS).

In particular, the following have changed:

- standard size of a GO (1MWh)
- expiry within a year of production
- use of GO for heating & cooling
- Inclusion on a GO of energy source, location of production device, "extent" of support and date when the plant became operational.

Disclosure

Consumers can now be offered a choice concerning the source of their electricity. Where such products are not used, the source of supplied electricity is a "residual mix" - a blend of national or regional production, adjusted to reflect imports, exports and sales of electricity from specific sources.

Residual mix must be carefully calculated if double-counting is to be avoided: it is particularly important to take account of international trade, and to harmonise national calculation methodologies given the impact of international trade of electricity.

AIB is now participating in a voluntary Platform to promote development of an evolutionary Disclosure Standard, to protect consumers from incorrect (duplicated) offers from electricity suppliers.

It is proposed that this be followed by a more rigorous project "Reliable Disclosure Systems for Europe", to be submitted under the 2009 call of the IEE programme.

PRO Restructuring

The PRO (EECS Principles and Rules of Operation) is being restructured to address the new RES Directive, to simplify the system and make it more consistent, to enable the scope of EECS to be expanded, and to increase liquidity and operational simplicity.

The revised PRO addresses the core principles, the generic certificate system, scheme membership

and energy specifics (electricity, gas ...).

The timescales for putting the new PRO into place support implementation of the new RES Directive (2009/28/EC) and, following consultation with stakeholders, are intended to be implemented by spring 2010.

In the meantime, numerous legal and regulatory issues are being resolved.

New Applicants

Luxembourg has now consulted on its Domain Protocol, which will be reviewed by AIB in the coming weeks.

Croatia is tendering for the development of a GO system which complies with the EECS system.

Iceland has now applied for membership of the EU, and continues to consider whether to join AIB.

Slovenia has now applied to join the GO RES-E scheme, and the Netherlands and Switzerland have applied to join the Disclosure-GO scheme.

AIB Statistics

Statistics update

(All figures 1MWh certificates)

Since 2001:

- ISSUED: 604 million
- TRANSFERRED: 237 million
- CANCELLED: 368 million

In 2008:

- ISSUED: 185 million
- TRANSFERRED: 95 million
- CANCELLED: 111 million

In 2009:

- ISSUED: 90 million
- TRANSFERRED: 46 million
- CANCELLED: 91 million

The event of note during the first two quarters of 2009 was the cancellation of the first Disclosure-GO certificates for nuclear electricity.

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ISSUES ARISING FROM THE NEW RES DIRECTIVE (2009/28/EC)

The RES Directive

AIB recently investigated whether the current form of an EECS GO complies with the proposed new RES Directive; and whether the data items required on a GO by the new RES Directive can be recorded reliably.

The relevant provisions of the Directive are within Article 15:

2. ... A guarantee of origin shall be of the standard size of 1MWh ...
3. Any use of a guarantee of origin shall take place within twelve months of production of the corresponding energy unit. A guarantee of origin shall be cancelled once it has been used.
6. A guarantee of origin shall specify at least:
 - (a) the energy source from which the energy was produced and the start and end dates of production;
 - (b) whether it relates to:
 - (i) electricity; or
 - (ii) heating or cooling;
 - (c) the identity, location, type and capacity of the installation where the energy was produced;
 - (d) whether and to what extent the installation has benefited from investment support, whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;
 - (e) the date on which the installation became operational; and
 - (f) the date and country of issue and a unique identification number.

The Directive specifies items that must be on a GO, but does not prevent addition of extra items.

Issues

Art.15(2): Face value: The PRO must be adjusted so that a face value of 1MWh applies to all GOs, and that the current provisions for multi-MWh GO are no longer valid.

Transitional provisions will therefore be necessary until no further multi-MWh GO are in circulation (these appear to be issued solely by the Netherlands). Registries will need to be altered accordingly.

Art.15(3): Date of expiry: Restricting the use of GOs to within twelve months of production of the corresponding energy suggests inclusion on the GO of a date of expiry one year after the last day of production.

It also raises the issue of photovoltaic installations, which are metered infrequently. We understand that this article was intended to prevent banking of GO, suggesting that the Commission may be open to the introduction of provisions relating to small plants.

It may be appropriate for the one-year usability period to commence on the last day of associated production period for annually-metered plants.

Provisions are needed for the (probably automated) processing of EECS GO twelve months after the related production of electrical energy. This is relevant to statistics, which will need to distinguish between expiry and cancellation, and the use of such statistics for purposes of disclosure.

The new regulation should ideally come into force in line with the new Directive, as this will also affect GO currently held in EECS registry accounts.

However, care should be taken concerning existing GOs, which will continue to survive beyond the implementation of the new EU legislation and deletion of existing EU legislation (for instance, Flemish GOs expire five years after issue).

Art.15(6a): Energy source: 'Energy source' is not explicitly listed in the PRO as an item that is required on a certificate - EECS identifies both the nature of the energy source and the type of installation (this is required by Art.6(2a(c)). AIB will need to identify each separately, perhaps developing separate lists of options.

Art.15(6b(ii)): Electricity / Heating / Cooling: By default, each GO issued under EECS refers to electricity. AIB will consider introducing a new field to comply with this requirement, which will also help AIB in relation to the restructuring of the PRO to enable certification of outputs other than electricity.

Art.15(6c): Installation details:

Identity and capacity are already identified, but additional information concerning the location of the plant (whether this is its geographic map location or its postal address) may be required.

It may be necessary to exempt some plants from these requirements, for reasons of data protection or privacy. Alternatively, a different form of address might be used in some cases – perhaps only country and city are needed for small or domestic plants.

Concerning type, AIB typically refers to the type of production device by reference to the energy sources that it may convert into electricity. The Directive is not specific concerning the meaning of 'type', which could also refer to the technology used to convert a certain energy source into electricity.

Art.15(6d): Support: The PRO requires a GO to indicate whether support has been granted to a production device, but it is not clear whether this is sufficient. It depends on how 'to what extent' is interpreted: the status of any monetary transfer; the amount of support or something else.

Reliable information about this is difficult to collect for old plants. AIB is clarifying this with the Commission, and updating its list of all support schemes which are and have been available within Member States.

Art.15(6e): Date operational: The PRO does not currently require the date on which the production device became operational to be included in the certificate.

This item will have to be introduced. The definition of "Commissioning date" is important for upgraded plants, including those with increased capacity, and is likely to be a matter for national regulation.

Art.15(6f): Issue details: EECS already records on a GO the date on which it was issued, a unique identification number and the identity of the issuer.

However, the latter may not be sufficient to satisfy this requirement, in which case this will require a new field.



ISSUES ARISING FROM THE NEW RES DIRECTIVE (2009/28/EC) - *continued*

Reliability

The accuracy and veracity of all data items listed in the new Directive are not equally verifiable: in particular, support and the date on which the production device became operational.

Support: The new Directive states that a GO must mention "whether and to what extent the unit of energy has benefited" from production support.

Under EECS, a GO only mentions whether the production device has benefited from produc-

tion support, and it may prove difficult to verify accurately whether support was given in respect of an individual MWh, because this requires an extra level of detail.

Moreover, for some Issuing Bodies it will be difficult (if not impossible) to verify the accuracy of such data at all. This is because any details concerning support may be considered confidential and, as such, the body in charge of granting subsidies may not be in a position to disclose such information to the Issuing Body. In that case, the Issuing Body can only rely on the information submitted by the producer.

Finally, in some cases the entitlement to support may be linked to the issuance of a GO, making it impossible to determine beforehand whether the unit of energy has benefited from support.

Date on which the production device became operational: For existing production devices, it will be hard to accurately identify the date on which the production device became operational, because that information might not be available anymore.

European Platform for Electricity Disclosure

Background

Historically, electricity has been supplied to consumers as a homogenous commodity. Electricity products are now available which relate to the source of the energy used to produce the electricity. These may supply electricity from renewable, nuclear or fossil sources, which can be further categorised according to the exact source of the energy and the technology used to process it (e.g. offshore wind power, combustion of biomass by high-efficiency cogeneration etc).

Where such products are not used, the source of supplied electricity is a "residual mix" - a blend of national or regional production, adjusted to reflect imports, exports and sales of electricity from specific sources.

The residual mix - whether national or regional - must be carefully calculated if double-counting is to be avoided: it is particularly important to harmonise national calculation methodologies given the impact of international trade of electricity.

The new RES Directive (2009/28/EC) creates Guarantees of Origin (GO), which must be reliable, transparent and fraud resistant; and may only be used to support electricity disclosure as directed by the Internal Electricity Market Directive (2003/54/EC). As GO cannot be reliable without harmonised disclosure systems, the new RES Directive implicitly requires a coordinated approach to electricity disclosure.

A typical problem of today's national disclosure

systems is where a country exports more GO than physical energy. This leaves the country with "grey electricity", which cannot be disclosed properly. A pan-European approach is needed to balance this deficit of "disclosure attributes" with other countries which have excess attributes.

Much work on this subject has been undertaken by the E-TRACK project (see <http://www.e-track-project.org>).

The Platform

The users of any proper Disclosure Standard require a pan-European approach, a methodology supporting such a Disclosure Standard, and governance of the methodology.

A voluntary Platform has the advantage of promoting development of a prototype Disclosure Standard without the formal agreement of member states and third countries; while facilitating a pragmatic and evolutionary approach.

Vision (long term goals)

The Platform will deliver a Disclosure Standard to minimise (and eventually avoid) double-counting of renewable energy in the European energy market, to protect consumers from incorrect (duplicated) offers from electricity suppliers.

Minimising double-counting is only possible by adopting a coordinated European approach, supported by the national competent bodies responsible for disclosure systems.

The Disclosure Standard will be based on the

tracking of energy sources. Initially, this will be based on the AIB's European Energy Certificate System (EECS), which is the only pan-European standard for tracking electricity; but eventually the Disclosure Standard could be enhanced to encompass other forms of reliable disclosure of the source of electricity. The Disclosure Standard will give guidance to the national competent bodies on how the residual mix can be determined properly.

Targets (medium term goals)

- 1) Establishment of the Disclosure Standard Platform in 2009, with participation of at least 8 countries/regions;
- 2) The coordinated calculation of corrections to national residual mixes (the methodology) to be refined and used by the members of the Platform; and
- 3) Inclusion of 8 countries during 2009, based initially on GO issued under EECS; but eventually including other forms of disclosure of the source of electricity.

Deliverables (short term goals)

- 1) A description of the methodology for calculating national residual mixes, and corrections to these mixes as a result of cross-border trade of energy and GO;
- 2) A governance procedure for the enhancement and promotion of the methodology;



European Platform for Electricity Disclosure - *continued*

- 3) A procedure for changing and improving the methodology over time; and
- 4) Calculations for the years 2008 and 2009, to demonstrate the viability and effect of the Platform and of the Disclosure Standard.

Participants

- 1) National competent bodies or agencies responsible for national disclosure systems, and for designing national methodologies to calculate the residual mix; and those organisations that have implemented and administer national systems;
- 2) Issuing bodies monitoring the import and export of electricity, and of EECS certificates; and
- 3) Policy-makers and decision-makers responsible for high-quality disclosure systems, and safeguarding the interests of consumers.

Stepwise approach

An evolutionary approach is proposed, leading to a fully accepted and supported methodology for calculating national residual mixes based on proper electricity tracking.

1. Initial Phase. The Initiative Group will set up the Platform in autumn 2009, and send out invitations for the first meeting. RECS International has offered to finance the initial phase and organise the kick-off meeting. The following will be available at the outset:

- An initial proposal for the methodology to stimulate discussion;
- An initial calculation based on the proposed methodology, to stimulate discussion and highlight areas for improvement; and
- At least 4 (preferably 8) countries participating, with the bodies responsible for calculating the national residual mixes present in the Platform.

2. Test Phase. The participants will initiate a one-year test phase, to test the methodology and advertise the approach to other interested parties. They will adopt and, if necessary, adjust the organisational structure.

The methodology will be adjusted according to the wishes of participants. The business model for the Platform will be agreed, and will set out how each activity is financed. Costs will be covered by participants (perhaps with financial support from the European Commission). New countries and participants may join the Platform at any time.

There will be a formal linkage to the proposed project "Reliable Disclosure Systems for Europe", submitted under the 2009 call of the IEE programme, if this is approved. This project will support the platform (which has limited internal resources and organisational support) and provide expertise as required. The resources of the project will ensure that the platform can work in a stable environment.

The objectives of the platform will be to:

- Increase the reliability of disclosure information provided to consumers;
- Support the allocation of true market values to electricity from different energy sources and using different conversion technologies, based on consumer preferences;
- Support further integration of renewable electricity or high-efficiency CHP plant receiving public support into the electricity market, and supporting the stability of these support systems; and
- Provide general guidance, applicable to the design of similar energy certification systems for (e.g.) Biogas.

3. Operational Phase. The Platform will be operational, and an organisational structure will exist for decision-making purposes. Residual mixes will be calculated and used by participating countries/regions. New countries and participants will still be able to join the Platform at any time.

Organisational structure/business model

In the Initial Phase:

- RECS International will facilitate establishment of the Platform (financing the initial phase, organising and facilitating initial meetings etc);

- The Platform will be managed by a preliminary Initiative Group. At the second meeting, this group will be confirmed by the participants in the Platform; and
- Participants in the Platform will propose and agree appropriate arrangements for governance in ensuing phases.

In subsequent (Test and Operational) phases, the structure will be adjusted in line with the status and participants of the Platform, such that decision-making and ownership are shared by participants and appropriate to the status of the Platform.

RECS International has offered to cover the cost of the Initial Phase (about €11,000, mostly for the development of a proposal for the methodology and initial calculations).

'Participants' (responsible for designing and publishing the residual mix in their own countries) will cover the cost of the Test Phase (estimated at about €15,000); and will cover the cost of the Operational Phase (cost not yet estimated).

Deliverables

A description of the methodology ("The Basic Rules") needs to be developed. RECS International is preparing an initial version to stimulate discussion.

An initial calculation, based on the initial methodology proposed by RECS International, will be available by the kick-off meeting. The purpose of this methodology is to demonstrate to potential participants the outcome of that calculation; highlighting shortcomings and challenges to be overcome.

Potential participants will be identified from those responsible for designing and publishing the residual mix in their own countries, and invited to join the Platform.

A website explaining the purpose and deliverables of the Platform will be developed and published at the outset.

The kick-off meeting will be held in September 2009. In this meeting, the Platform will be officially established by the Initiative Group.

New members are welcome.



RESTRUCTURING THE PRO

(PRO: THE PRINCIPLES & RULES OF OPERATION OF THE EUROPEAN ENERGY CERTIFICATE SYSTEM - EECS)

Rationale for change

The AIB "Principles and Rules of Operation" of the European Energy Certificate System" - the PRO - is currently being restructured for a number of reasons:

- The new RES Directive fixes the purpose of a GO as Disclosure and includes third countries, arguably removing the need for special "non-EU" certificates;
- To simplify the system by promoting a single process for all certificate types, and remove the need for separate management of each type of certificate;
- To expand the scope of EECS to new (including non-EU) countries and energy media (some AIB members have a role in both gas and electricity sectors; and most will handle heating & cooling) under the new Directive;
- To apply the same provisions and quality standards to each type of certificate, by consolidating as much as possible of each scheme into the core of the PRO;
- To remove gaps in the treatment of different types of certificate; and
- To increase liquidity and operational simplicity.

What will change?

The change to the PRO is primarily structural, although there will doubtless be changes to support new features in future.

The revised PRO will be in four parts:

- 1: The Principles of EECS
- 2: The generic certificate system
- 3: Scheme membership
- 4: Energy specifics (electricity, gas etc)

Within part IV will be created a new section N, which will address those aspects of PRO that are specific to electricity. This section will consolidate the current chapters (addressing types of electricity certificate, such as RECS certificates, RES GO etc).

The boundary between the PRO and its subsidiary documents will change, to retain policy statements within the PRO, and operational matters within the subsidiary documents

The Articles of Association of the AIB will need to be amended to enable AIB to address energies other than electricity; and to provide for appropriate decision-making.

Finally, from spring 2010, the existing provisions for the transition from the old (pre-2005) Basic Commitment to the PRO will no longer be relevant, and will therefore be deleted.

What is the process for change?

The timescales for putting the new PRO into place are tight: the new RES Directive (2009/28/EC) went into force on 25th June, and Member States are currently revising their legislation associated with guarantees of origin, which needs to be completed by 5th December 2011.

There are two stages to the revision of the PRO: the structure must change as outlined above; and the changes to GO provided under the new Directive must be implemented.

The AIB will be consulting members of RECS International concerning the issues that have been raised in the restructuring process, and will present these at the Markets Committee in late September 2009. The intention is to implement the restructured PRO by the first quarter of 2010.

The changes to reflect the new Directive will be implemented piecemeal, in the same way as other changes: the advice of the User Group of RECS International will be sought concerning these changes.

Complexities of the new Directive

Legal issues

GO issued under the old RES Directive (2001/77/EC) will still be acceptable under EU law after national legislation supporting the new Directive (2009/28/EC) comes into force.

However, failure to implement the new Directive will eventually bring about Commission infringement procedures.

The recognition by a Member State that has implemented the new Directive of GO from one that has not will be considered by the Commission on an individual basis.

With the assistance of the Commission, the AIB is considering some difficult questions, such as:

- Whether a single EECS certificate can provide a GO for both renewables and CHP. This would strengthen the provisions concerning double counting, but might introduce problems were a market for CHP GOs to emerge, perhaps for some future energy efficiency disclosure requirement; and
- The meaning of the "extent of support" - required under the new Directive: to what extent should this be quantified?

As a general guideline, the Commission has advised AIB to focus in all of its deliberations on the need (under Article 15(5)) for accuracy, reliability and fraud-resistance / veracity.

Regulatory issues

Issues that the AIB is considering include:

- Disclosure certificates can be issued for fossil and nuclear electricity certificates: however, the legal status of these is unclear.
- The treatment of labels has been subject to much discussion: it is possible that certificates will in future acknowledge their issue under one or more label schemes.
- Currently, standardised cancellation statements are issued for RECS certificates. In future, such standardisation may be applied to all such statements issued under EECS.
- Whether Issuing Bodies that do not administer a specific type of EECS certificate should be permitted to import and export these.



EECS CERTIFICATE STATISTICS (as of July 2009)

MEMBERSHIP

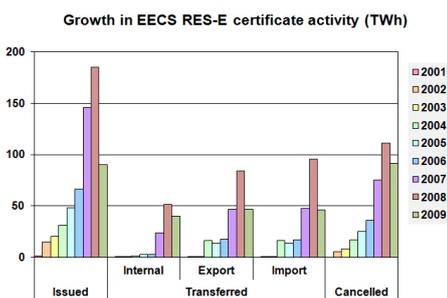
Luxembourg is currently seeking membership, while Croatia is developing an EECS-compliant GO system. Slovenia seeks entry to the RES GO scheme, while Switzerland and the Netherlands are seeking entry to the Disclosure-GO Scheme. Iceland has applied for membership of the European Union but has yet to decide whether to join AIB.

MARKET ACTIVITY

National summary (2009)

The market continues to grow rapidly, major certificate **issuing** countries remaining Norway (which has issued 62% of certificates this year) and Sweden, then the Netherlands and Finland. Regarding **cancellations**, Norway, Germany, the Netherlands and Sweden cancel the most certificates. The largest **exporters** are Norway, Sweden and Finland; while major **importers** are now Flanders, Germany, Sweden and the Netherlands.

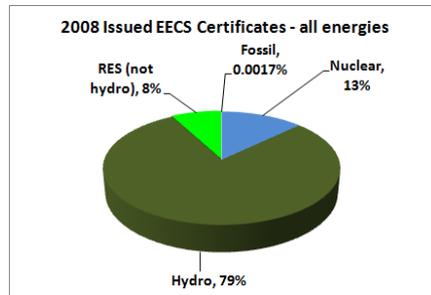
More certificates have been cancelled this year than have been issued, as traders use up certificates issued in previous years in anticipation of the limitation of the lifetime of GOs imposed by the new RES Directive. 61% of all certificates issued since 2002 have now been cancelled.



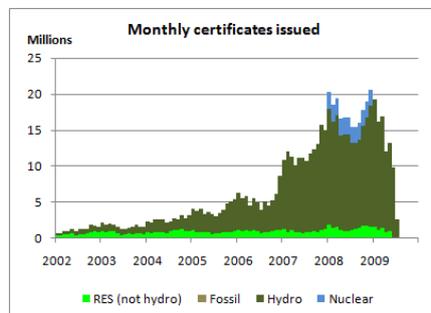
Technology / energy sources

Hydropower now provides 93% of issued RES certificates; while wind power contributes 4%. Most cancellations (93%) are for hydropower (and to a far lesser extent wind and biomass).

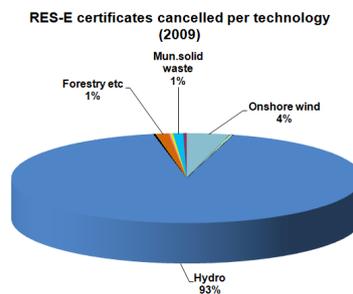
Since 2008, Disclosure-GO certificates have been issued for nuclear and fossil electricity, in the following proportions:



The growth of certificates issued for these technologies has been as follows:



Of these, the proportion cancelled were:



MEMBER ACTIVITY

BENELUX

Brussels has registered many auto-consumed PV production devices, producing about 100MWh per quarter but increasing.

Flemish issuing activity was similar to last year, along with imports and cancellation.

Wallonia has commenced international trade and expects to commence issuing soon.

Dutch cancellation continues to increase, while issuing is the same and trading is down on previous years. The Netherlands is a major market for Nordic EECS certificates.

NORDIC / NORTH EUROPEAN

Norwegian trading activity continues at a higher rate than before, some increases in trade perhaps being linked.

Since early 2009, **Finland** continues to issue and trade at near previous rates. However, cancellation has increased markedly.

Cancellation and import increases such that **Danish** activity is now much higher.

Sweden trades and cancels more certificates than before. It also issues Disclosure-GO for nuclear electricity, some 27 million certificates being issued in December for 2008 electricity, of which 22 million were cancelled recently.

Ireland is considering implementing transferable GO.

MEDITERRANEAN / SOUTH EUROPEAN

The **French** market continues to grow in most areas; exports, imports and cancellations being much higher since 2008.

Issuing grows in **Italy**, as does import and cancellation of RECS certificates.

Since resuming operations at the start of 2009, the **Spanish** domain saw relatively high activity levels at the start of 2009. However, has now slowed.

Portugal continues to issue a small number of certificates, but has otherwise been inactive.

CENTRAL EUROPE

Austria has virtually ceased issuing, although it has recently started to trade more.

Issuing virtually ceased in **Germany** last year, apart from the issue of landfill gas and methane certificates - the first fossil fuel Disclosure GO to be issued. Import, export and cancellation increased, the rapid increase in imports and cancellations being due to demand for 100% RES-E.

Swiss activity continues to rise considerably.

Slovenia is preparing to implement an EECS GO scheme by the end of 2009.



THE RAW DATA - BY COUNTRY

	Total						2009						2008						2007					
	Issued	Transferred			Cancelled	Issued	Transferred			Cancelled	Issued	Transferred			Cancelled	Issued	Transferred			Cancelled				
		Internal	Export	Import			Internal	Export	Import			Internal	Export	Import			Internal	Export	Import		Internal	Export	Import	
Austria	13,790,398	502,931	2,165,452	26,826,675	19,882,755	1,105,103	1,125,103	1,835,001	1,948,156	694,994	30,011	1,505,007	324,932	4,811,693				9,186,919	2,851,824					
Belgium Brussels	4,746,403	1,747,099	476,056	41,253,720	17,520,867	445,478	100,001	7,420,199	818,749	1,674,707	69,384	24,989,678	13,099,146	1,389,628	583,243	306,691		6,150,528	3,393,274					
Belg & Lux RECS	113,390		2,031,496	2,048,355								431,750	431,750					671,224	671,224					
Belgium Wallonia	3,121,381	102,015	74,894	5,393,064	1,278,795		9,384	2,672,129	448,288		65,510	2,720,935	829,507											
Switzerland	65,612	6,514,529	759,906	32,281,605	26,527,572	938,454	375,071	1,035,598	1,629,886	295,902	15,278	1,047,572	1,156,997	697,087				6,429,485	5,289,723					
Germany	6,187,382	477,396	4,220,796	1,533,556	1,128,159	882,601	511,209	1,045,847	619,417	2,104,035	34,733	2,947,890	324,677	1,009,548	39,063	440,001		162,621	192,062					
Denmark	5,891,367		1,429,816	1	3,696,369	765,776	1	1,090,857						1,771,213					1,719,744					
Finland	60,150,419	5,926,731	42,616,744	15,437,789	15,281,600	3,863,351	5,995,205	3,529,020	2,679,393	10,928,537	1,813,069	13,448,873	11,427,659	1,421,081	869,127	4,917,854		315,010	682,821					
France	8,718,358	4,674,970	138,751	13,432,469	18,549,378	1,606,272	636,765	48,537	3,189,066	2,653,991	951,419	79,221	2,845,724	3,630,351	2,241,296	2,729,264		5,992	9,287,635					
Greece	162,414		10,001							151,251				11,163										
Ireland																								
Italy	11,472,414	2,205,065		98,001	8,989,516	1,065,660	226,570	98,001	3,398,515	7,047,084	681,242			3,759,063	1,288,221	464,854			928,675					
Netherlands	36,613,856	17,231,084	2,041,382	66,604,674	87,298,863	3,860,102	3,871,854	117,020	7,975,954	8,519,923	7,019,181	1,475,914	18,923,984	21,528,965	6,761,355	6,340,049		369,179	12,271,088					
Norway	301,441,288	77,010,352	121,912,880	4,450,514	69,557,551	55,859,117	23,320,396	28,748,381	1,945,509	11,080,954	39,576,843	50,537,408	2,318,511	28,062,028	83,289,057	12,597,127		33,114,164	184,500					
Poland																								
Portugal	565,329			7	11,156	108,047			5,906	109,641		1	7	123,583					5,250					
Sweden	146,674,564	6,295,310	47,191,736	24,134,713	90,979,016	19,531,607	9,416,017	7,587,130	29,368,527	39,776,431	446,209	14,165,120	14,104,488	28,749,478	34,358,895	6,845,721		1,946,004	19,732,466					
Slovenia	3,867,014		468,003	17,016	1,891,548				35,681	35,681				31,570					31,653					
Turkey																								
UK	90,158																							
All countries	603,671,747	122,687,482	226,052,441	236,682,490	368,085,065	90,051,568	40,153,584	46,980,367	91,270,684	185,090,392	51,213,121	84,092,327	95,365,911	111,007,448	145,504,083	23,628,537	46,653,420	47,356,233	75,274,312	52%				
Percentage Cancelled					61%				101%					60%										

NOTE

All certificates are 1MWh. As metering data is the basis for issuing certificates, there is always delay in gaining accurate statistics for a particular month, so the most recent quarter is understated and corresponding information should be treated with care. International trade statistics continue to be misleading due to the practice of cancelling certificates in one country and transferring the renewable benefit over national borders by means of cancellation statements rather than via electronic certificate transfer.



THE RAW DATA - BY TECHNOLOGY

	Report for all countries																			
	2009				2008				2007											
	Issue	Internal	Export	Import	Cancel	Issue	Internal	Export	Import	Cancel	Issue	Internal	Export	Import	Cancel					
Onshore wind	27,045,738	7,812,520	8,111,478	9,341,233	17,904,300	3,450,120	1,915,350	2,323,127	2,189,428	3,654,225	8,013,181	2,828,687	4,436,859	5,645,734	5,072,845	2,280,345	940,477	1,012,379	3,981,600	
Offshore wind	1,328,648	404,224	80,329	40,527	596,246	288,446	85,430	24,855	24,855	250,546	607,037	168,042	26,758		253,908	340,711	150,682	48,109	76,266	
Photovoltaic	30,085	1,006	48	2,851	16,550	2,877	247	48	2,851	2,119	10,335	344			4,694	4,994	415		3,729	
Thermal					3						1				2	1			1	
Hydropower	518,139,799	104,684,417	204,688,348	214,243,809	308,035,999	83,839,457	36,221,472	44,257,835	43,327,192	84,563,088	168,232,323	44,755,500	78,086,683	88,054,057	100,476,654	134,064,062	17,668,014	44,141,854	44,543,284	
Onshore tidal																				
Offshore tidal																				
Onshore wave																				
Offshore wave																				
Geothermal	920,415	212,502			825,577					205,848	523,769				409,912	135,130			106,919	
Energy crops	1,243,538	43,837	27,441	27,441	331,806	68,681	23,514	327,911	337,044	56,067	844,050	16,003			65,540	50,602	4,320		13,721	
Forestry etc	37,907,224	5,752,376	12,192,408	11,962,913	29,121,790	1,191,012	754,803	327,911	337,044	1,049,136	3,454,860	2,222,046	828,055	1,121,688	2,578,295	2,596,432	2,196,839	1,509,956	1,685,856	
Landfill gas	1,618,486	482,098	16,393	78,396	812,053	132,720	148,480	166	12,146	148,767	393,745	176,813	5,227	2,339	252,972	366,613	143,657	11,000	63,911	
Sewage gas	36,205		3,393	3,393	35,577															
Other biogas	1,130,911	118,415	5,875	14,313	481,735	209,277	85,941	157	11,653	188,916	433,611	14,767	5,718	2,660	135,886	310,159	17,707		103,515	
MSW	6,219,479	1,624,830	561,197	495,081	4,127,417	427,318	586,372	53,128	62,464	876,335	1,500,688	537,522	507,180	406,970	984,721	1,095,425	452,022	889	17,837	
IB&CW	8,051,205	1,541,257	365,631	472,532	5,796,011	441,660	331,975	17,895	156,793	275,626	1,076,792	493,398	195,847	132,463	772,020	1,010,605	714,536	1,135	22,757	
Total	603,671,747	122,687,482	226,052,441	236,682,490	368,085,065	90,051,588	40,153,584	46,980,367	46,124,427	91,270,684	185,090,392	51,213,121	84,092,327	95,365,911	111,007,448	145,504,083	23,628,537	46,653,420	47,356,233	75,274,312

NOTE

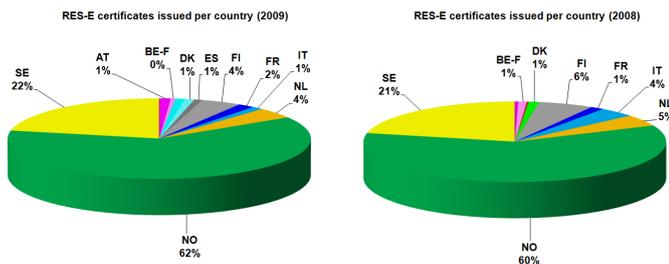
The tables above display issue and cancellation statistics for each year to date, and for 2001-9 in total. These, and the following charts, show that volumes issued, transferred and cancelled continue to increase at a greater rate than in previous years.



EUROPE: 2008-2009

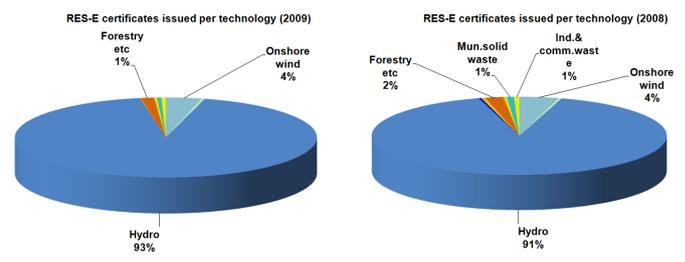
Source of certificates: country

Comparing 2009 with 2008, the major certificate issuing countries remain Norway and Sweden, then Finland and the Netherlands; with Norway continuing to increase its share.



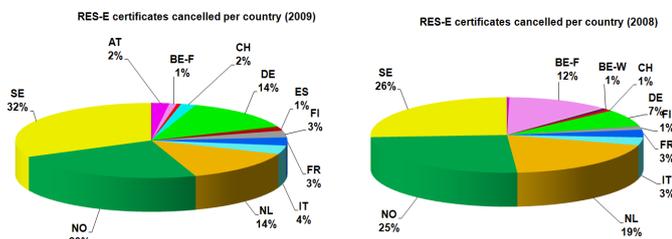
Source of certificates: technology

Hydropower has increased its predominant position; most other technologies having virtually ceased to contribute; although wind power and biomass still contribute 4% and 2% respectively.



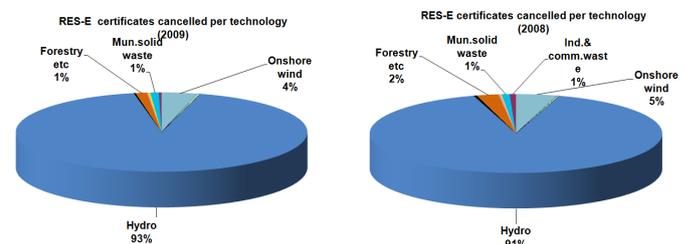
Destination of certificates: country

Norway, Germany, Finland, France and Spain have continued to increase their share of cancellations, principally at the expense of the Netherlands and Flanders.



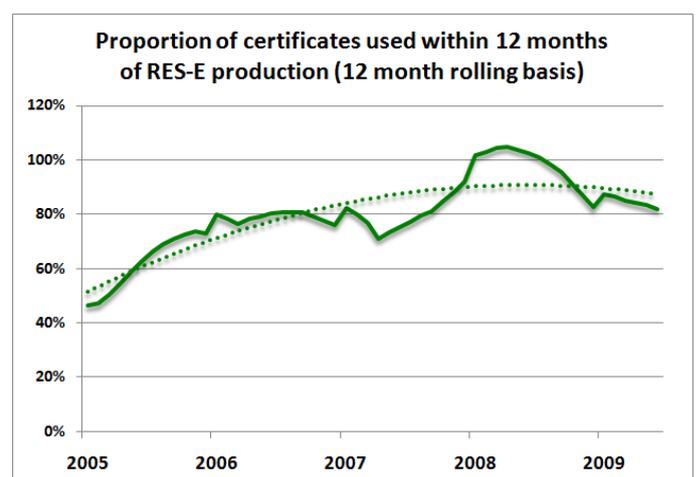
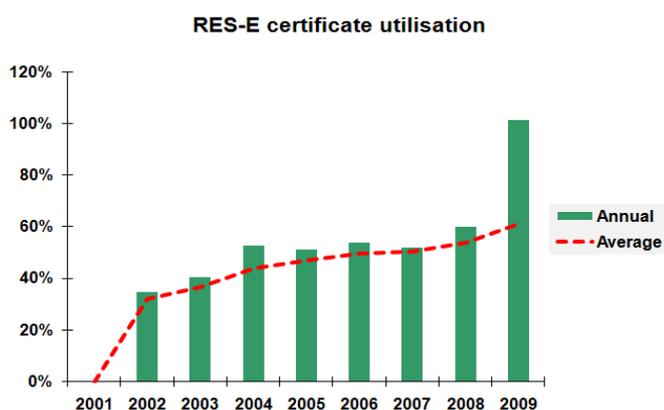
Cancelled certificates: technology

Again comparing 2008 with 2009, but this time for cancelled certificates by technology, hydro has held its market share along with wind, at the expense of other technologies.



Realisation of value

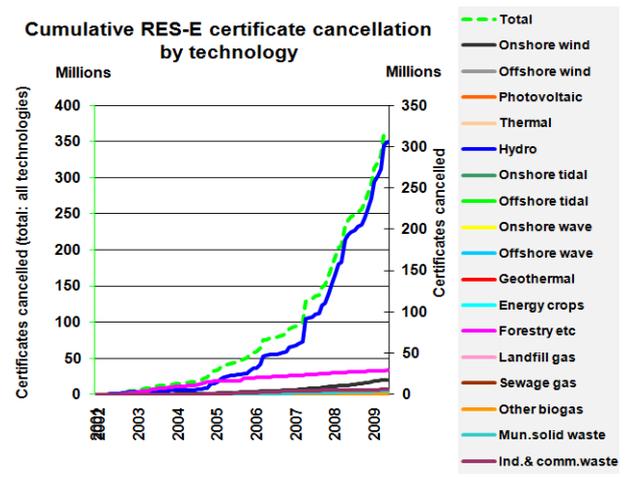
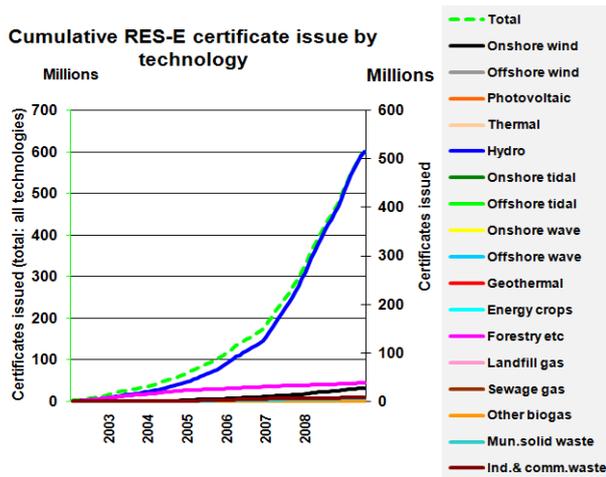
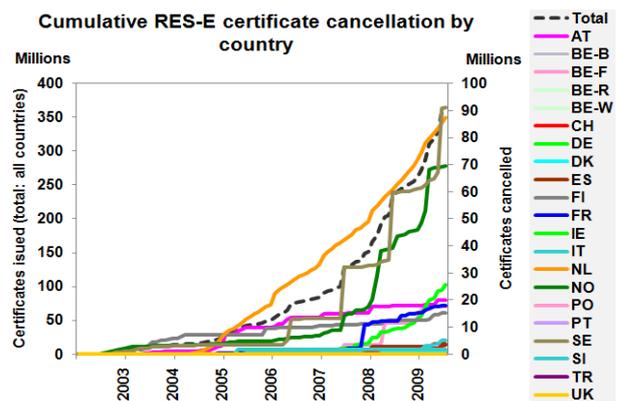
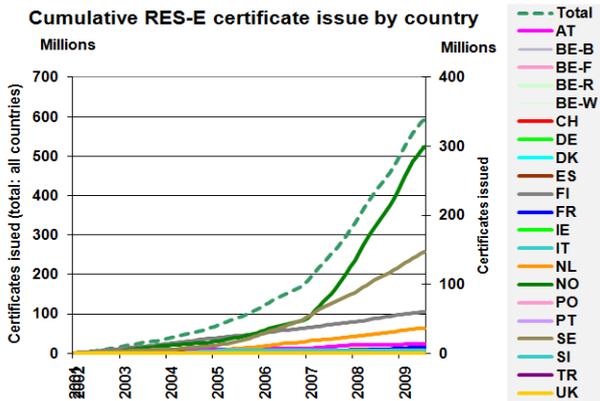
The proportion of certificates that were cancelled has again risen to over 61% overall, but during 2009 it is more than 101% (up from 60% in 2008) - suggesting that stocks of certificates from previous years are now being used up, and that most certificates are now being cancelled within 12 months of the production of the associated electricity.





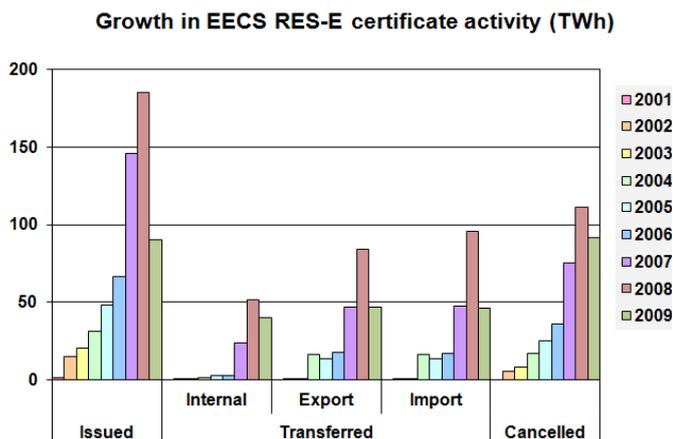
Cumulative issue and cancellation

Overall, issuing and cancellation continue to increase rapidly as GO are increasingly used for disclosure across Europe. The volume of hydro issued and cancelled continues to eclipse everything else (except wind and forestry).

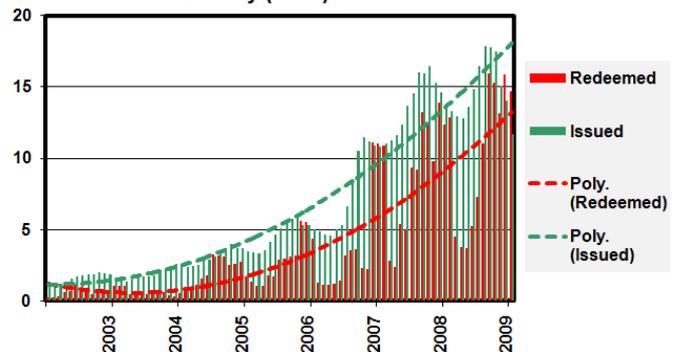


Growth

Last year, 111 million certificates were cancelled; and it seems likely that this will easily be exceeded in 2009.



Rolling 3-monthly average RES-E certificate activity (TWh)



Rolling three month averages show that the market continues to grow at a cyclical and increasing rate.

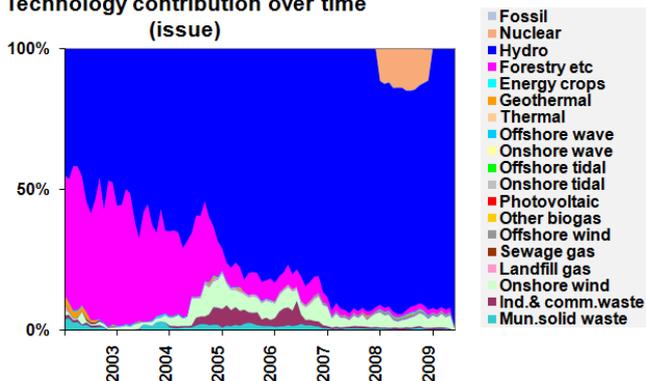


Technology Contribution

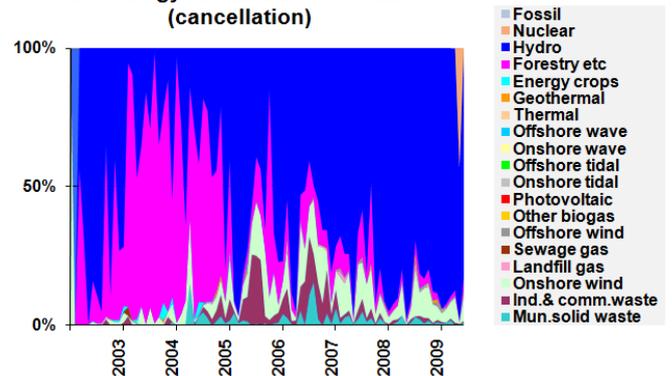
Analysis of energy sources shows that significant growth in hydropower certificates is now close to being matched by the market for these certificates – around 93% of certificates issued this year are for hydropower, and over 92% of these have been cancelled.

Also of note is the recent appearance of nuclear Disclosure-GO certificates (and fossil, in the form of methane - but these volumes are too small to see).

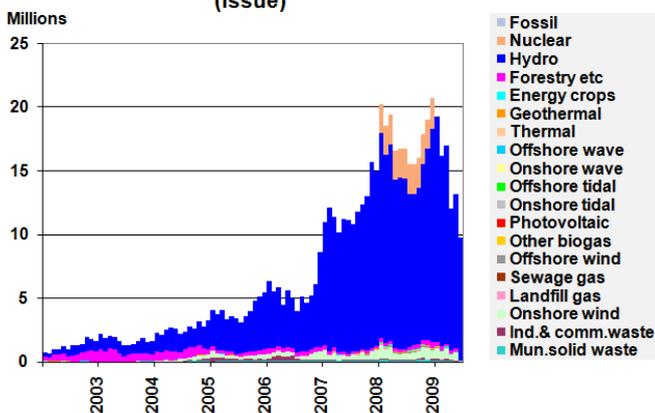
Technology contribution over time (issue)



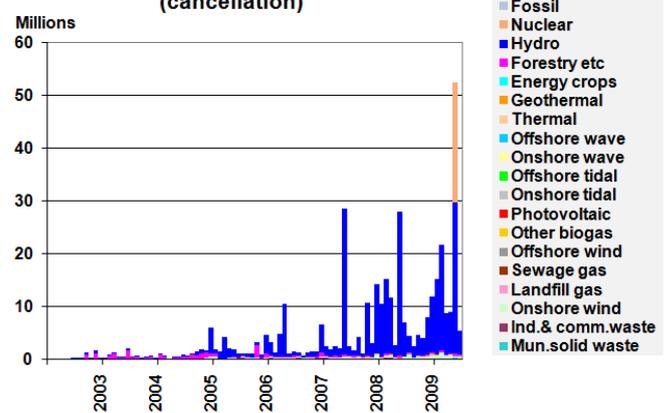
Technology contribution over time (cancellation)



Technology contribution over time (issue)

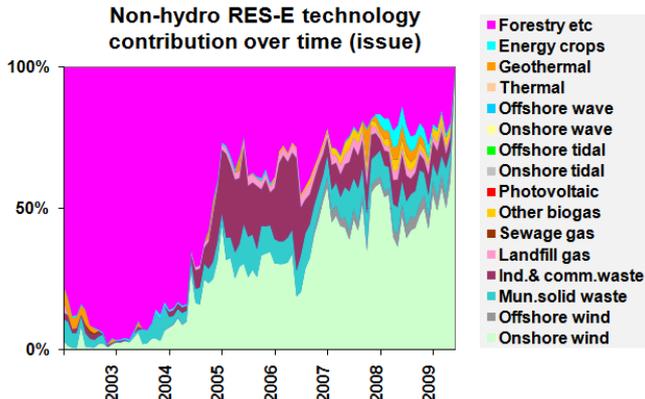


Technology contribution over time (cancellation)

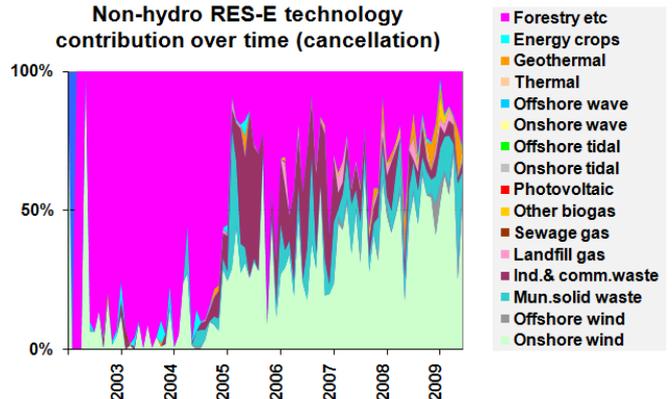


The predominance of hydro - and the emergence of nuclear - masks the growth of the non-hydro renewable electricity market. Removing hydro and nuclear from the picture exposes the growth in wind power, at cost to biomass.

Non-hydro RES-E technology contribution over time (issue)



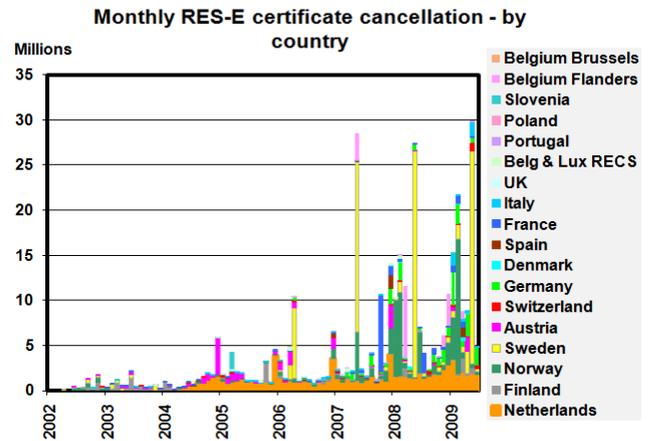
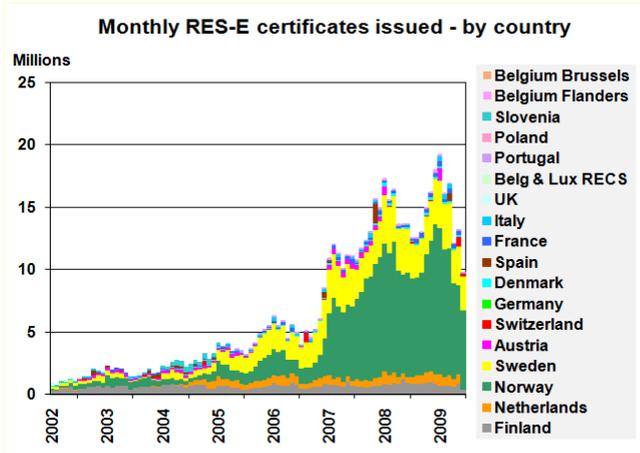
Non-hydro RES-E technology contribution over time (cancellation)





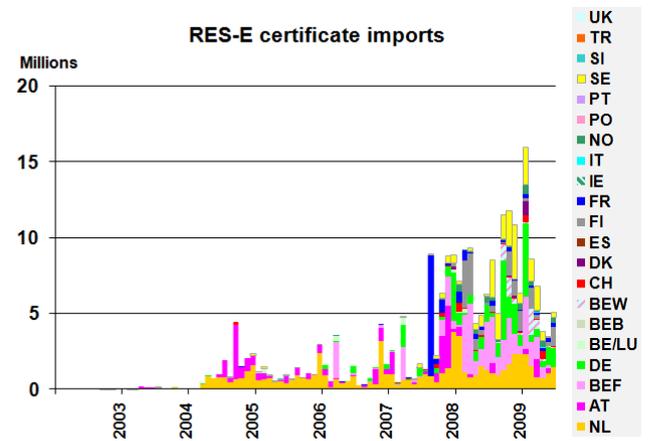
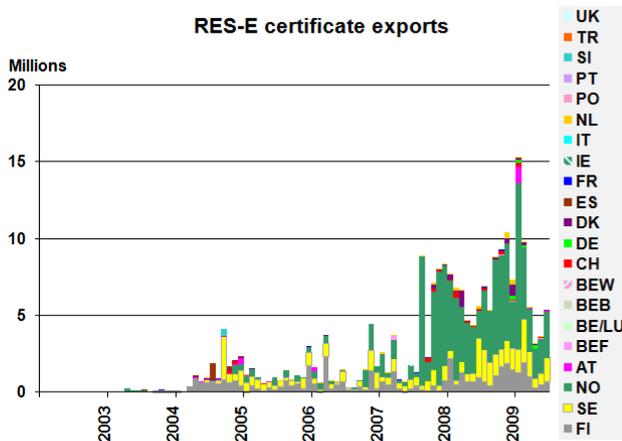
TRADE

The following graphs summarise monthly issuing and cancellation, clearly showing the influence on international trade of the producing countries – Norway, Sweden, Finland and the Netherlands; and of the consuming countries – Flanders, Sweden, Norway, Germany and the Netherlands.



Exports and imports

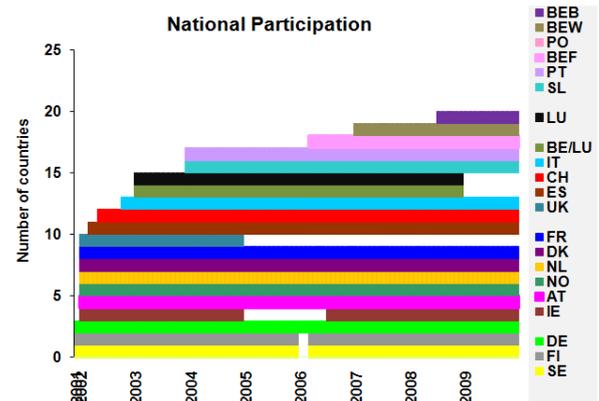
The largest exporters remain Norway (by far), then Sweden and Finland; while Flanders, Germany, Sweden and the Netherlands are the major importers.



NATIONAL PARTICIPATION

Membership continues to grow, and while the RECS issuing body for Belgium & Luxembourg has now ceased operations, Belgium is now fully represented by GO issuing bodies, and Luxembourg has given formal notice of its intention to seek membership.

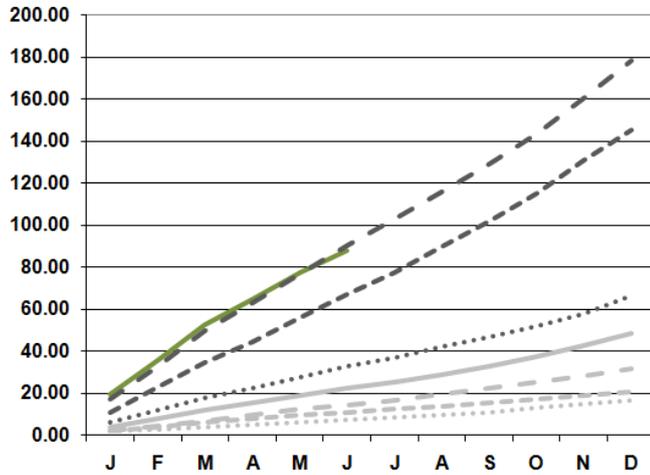
Membership of the GoO RES-E scheme is now available to countries wishing to issue support certificates as well as GoO RES-E; and countries issuing GoO RES-E can export these into countries operating the Disclosure-GO scheme.



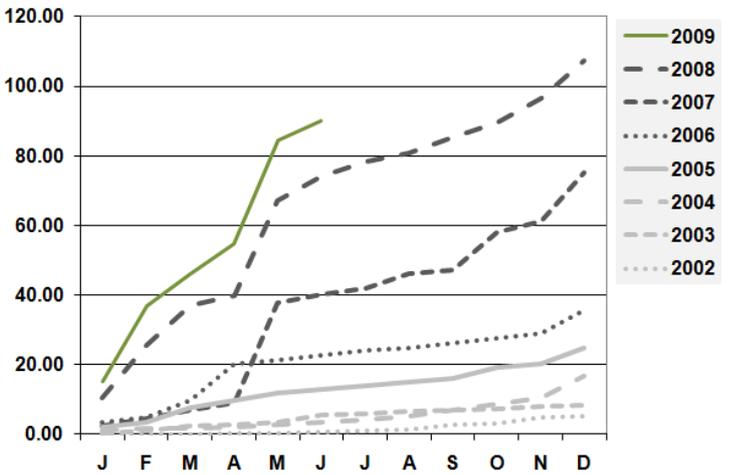


EUROPEAN ACTIVITY

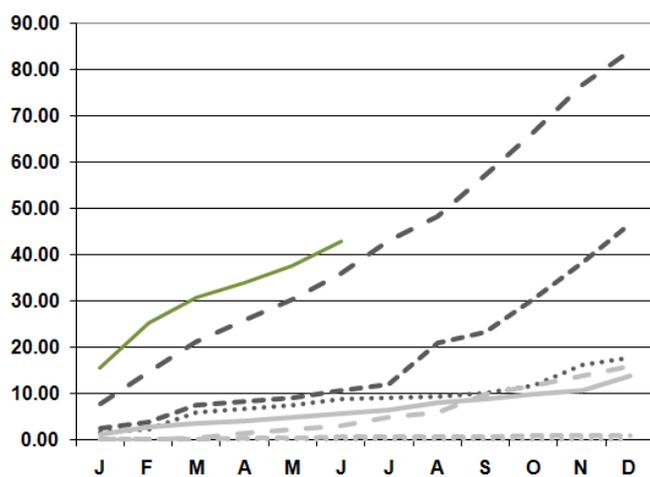
TWh **Certificates: year-on-year issuing (total)**



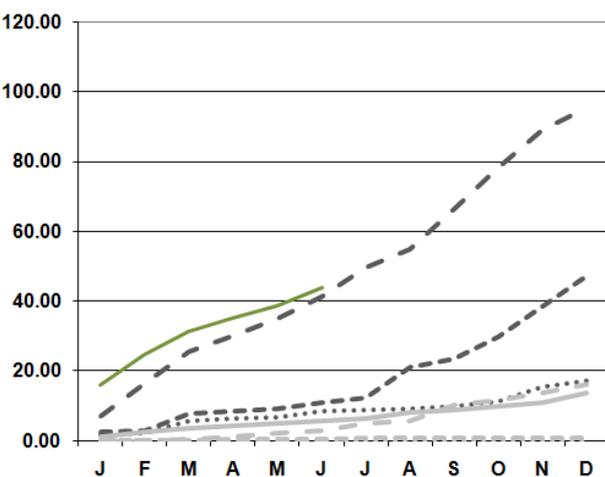
TWh **Certificates: year-on-year cancellation (total)**



TWh **Certificates: year-on-year export (total)**



TWh **Certificates: year-on-year import (total)**



Issuing, international transfers and cancellation have all continued to grow increasingly, the growth in cancellation betraying the increasing demand for GO to provide evidence for disclosure purposes.

This has been driven by a number of governments requiring the cancellation of GO as evidence for disclosure purposes, while public awareness is increasing of the usefulness of this form of guarantee.



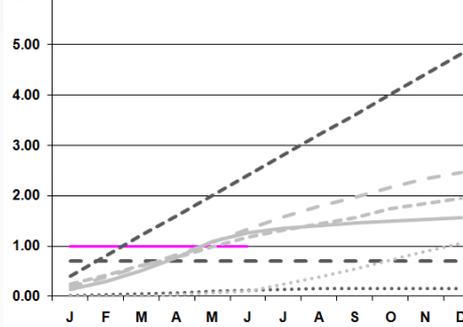
COUNTRY REPORTS

Austria

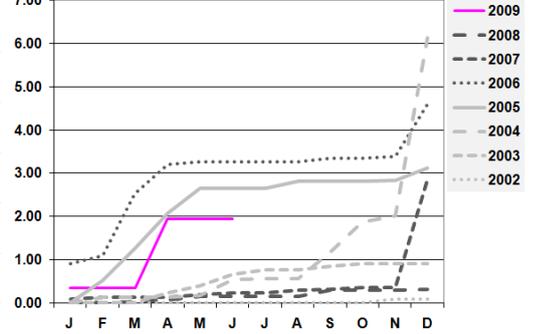
Austria has virtually ceased issuing, although it has recently started to trade more, particularly export.

For more information, contact:
Christian Schönbauer
E-Control (Issuing body for Austria)
Tel: +43 (1) 24724 707
Email: christian.schoenbauer@e-control.at

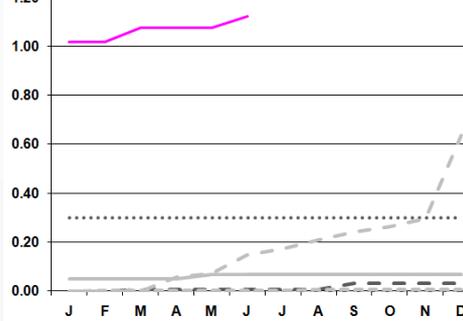
Certificates: year-on-year issuing (Austria)



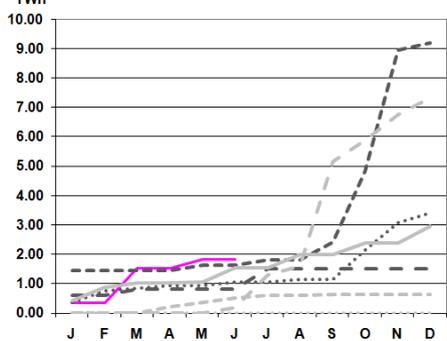
Certificates: year-on-year cancellation (Austria)



Certificates: year-on-year export (Austria)



Certificates: year-on-year import (Austria)



Belgium (Brussels)

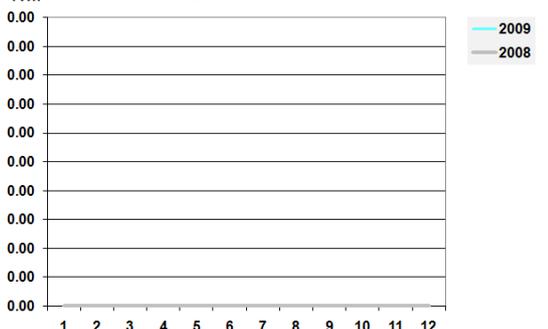
Brugel has registered a substantial number of accounts and production devices, most of which relate to photovoltaic production which is fully auto-consumed by producers. For the moment, this only represents about 100MWh per quarter, but it is increasing fast and will be reported in the next newsletter.

For more information, contact:
Pascal Misselyn
Brugel (Issuing body for Brussels)
Tel: +32 (2) 563 0202
Email: pmisselyn@brugel.irisnet.be

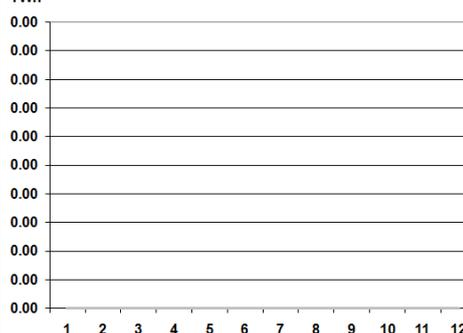
Certificates: year-on-year issuing (Belgium: Brussels)



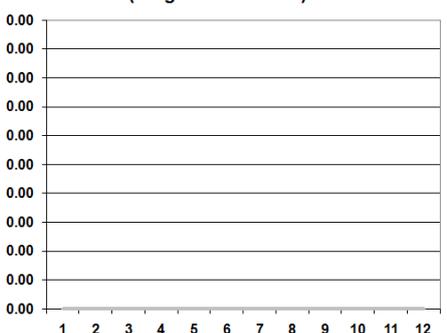
Certificates: year-on-year cancellation (Belgium: Brussels)



Certificates: year-on-year export (Belgium: Brussels)



Certificates: year-on-year import (Belgium: Brussels)



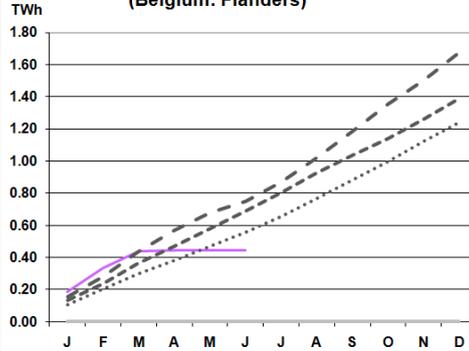


Belgium (Flanders)

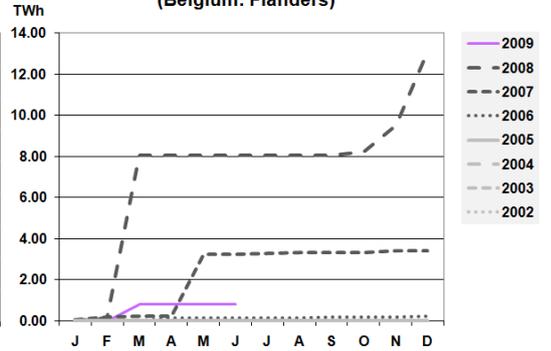
So far, issuing activity has been similar to last year, along with imports and cancellation. However, the Flemish registry is currently being upgraded, preventing access to up-to-date statistics, and those presented above originate from May 2009.

For more information, contact:
Thierry van Craenenbroeck
VREG (Issuing body for Flanders)
Tel: +32 (0) 2 553 13 59
Email: thierry.vancraenenbroeck@vreg.be

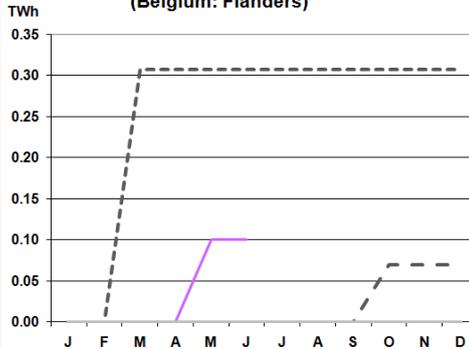
Certificates: year-on-year issuing
(Belgium: Flanders)



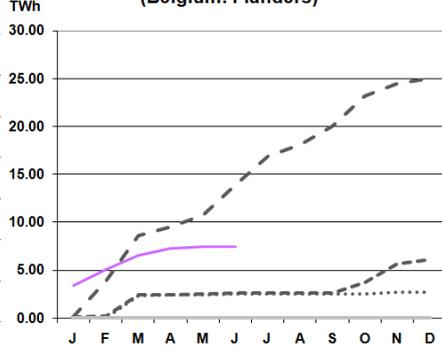
Certificates: year-on-year cancellation
(Belgium: Flanders)



Certificates: year-on-year export
(Belgium: Flanders)



Certificates: year-on-year import
(Belgium: Flanders)

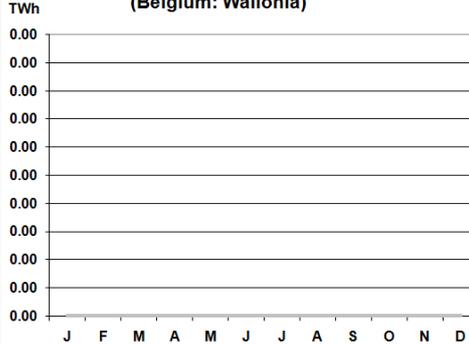


Belgium (Wallonia)

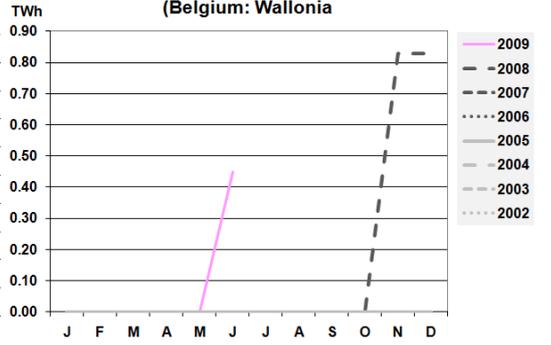
CWaPE continues to trade GO internationally, and expects to commence issuing in the near future.

For more information, contact:
Pierre-Yves Cornélis
CWaPE (Issuing body for Wallonia)
Tel: +32 (0) 81 33 08 14
Email: pierre-yves.cornelis@cwape.be

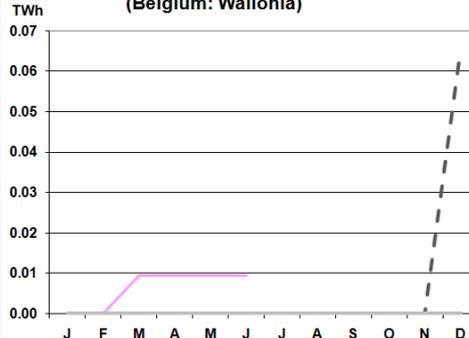
Certificates: year-on-year issuing
(Belgium: Wallonia)



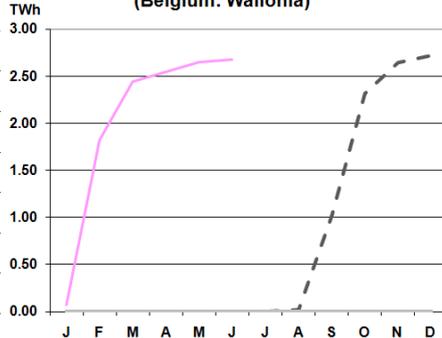
Certificates: year-on-year cancellation
(Belgium: Wallonia)



Certificates: year-on-year export
(Belgium: Wallonia)



Certificates: year-on-year import
(Belgium: Wallonia)



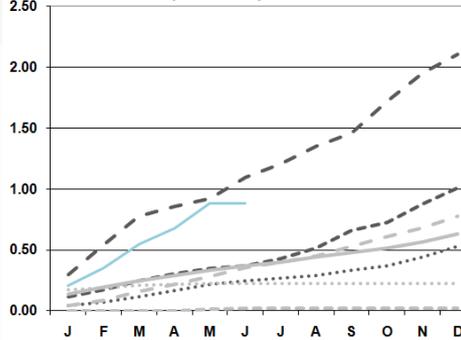


Denmark

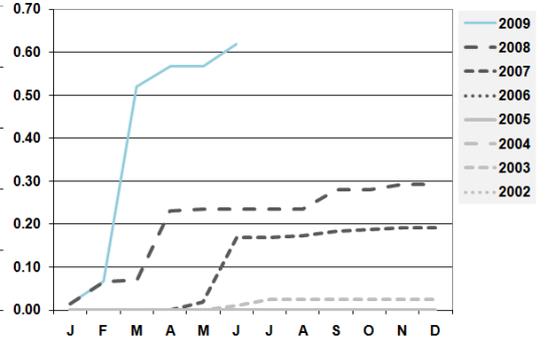
Cancellation and import are now increasing to the extent that Danish activity in these areas is now running much higher than in previous years.

For more information, contact:
Louise Rønne
Energinet.dk (Issuing body for Denmark)
Tel: +45 7622 4439
Email: lro@energinet.dk

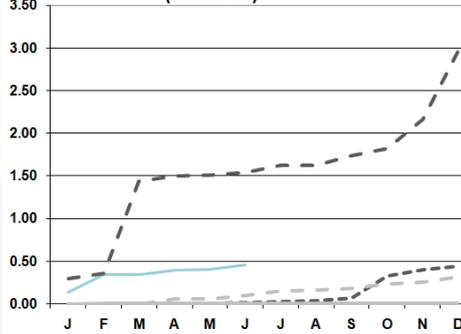
TWh Certificates: year-on-year issuing (Denmark)



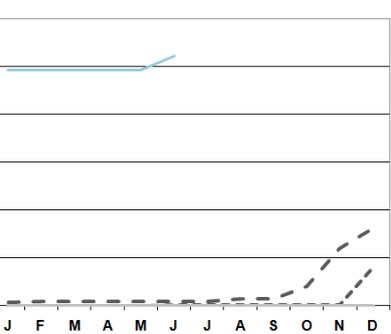
TWh Certificates: year-on-year cancellation (Denmark)



TWh Certificates: year-on-year export (Denmark)



TWh Certificates: year-on-year import (Denmark)

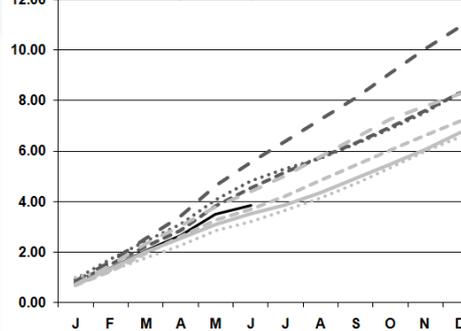


Finland

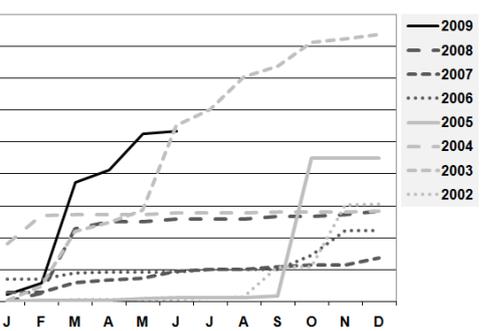
Since the start of 2009, Finland has continued to issue and trade internationally at close to previous rates. However, cancellation has increased markedly.

For more information, contact:
Marko Lehtovaara
Grexel (Issuing body for Finland)
Tel: +358 (9) 251 22211
Email: marko.lehtovaara@grexel.com

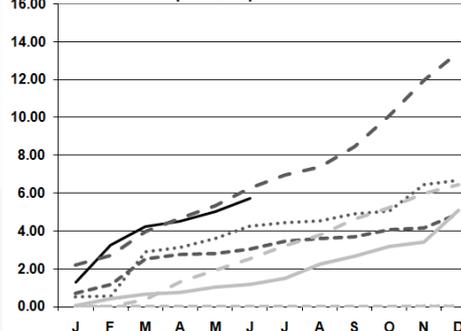
TWh Certificates: year-on-year issuing (Finland)



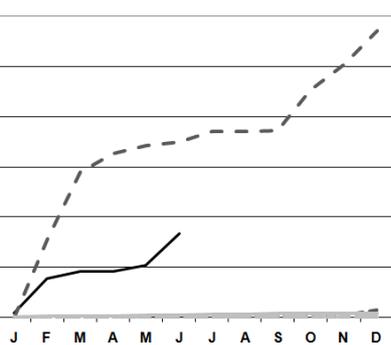
TWh Certificates: year-on-year cancellation (Finland)



TWh Certificates: year-on-year export (Finland)



TWh Certificates: year-on-year import (Finland)



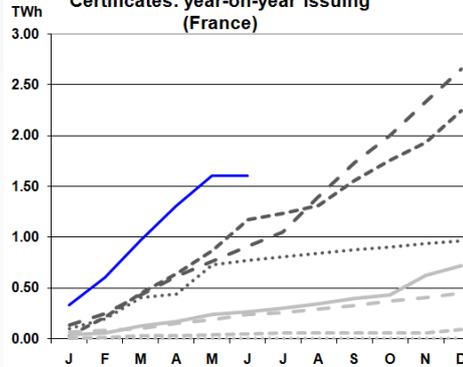


France

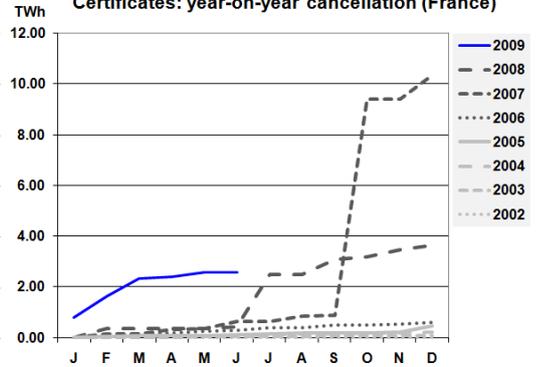
The French market continues to grow, with higher issued, exported and cancelled certificates than in previous years.

For more information, contact:
Diane Lescot
Observ'ER (Issuing body for France)
Tel: +33 1 44 18 0080
Email: diane.lescot@energies-renouvelables.org

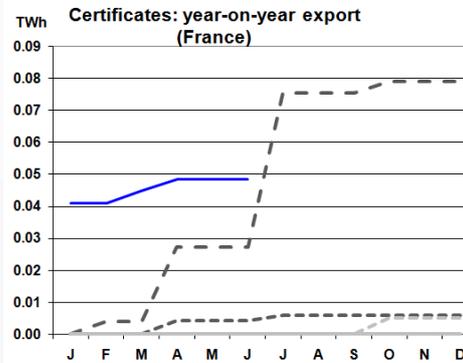
Certificates: year-on-year issuing (France)



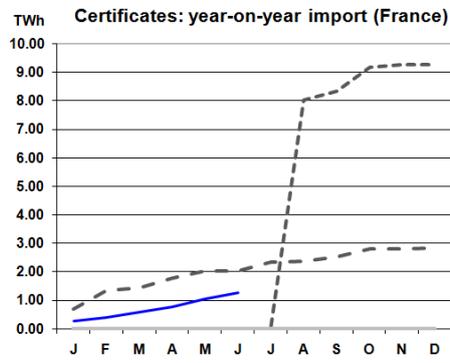
Certificates: year-on-year cancellation (France)



Certificates: year-on-year export (France)



Certificates: year-on-year import (France)

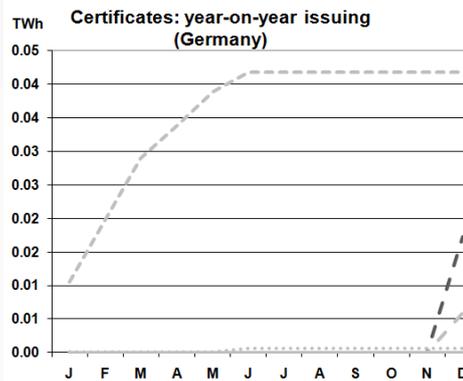


Germany

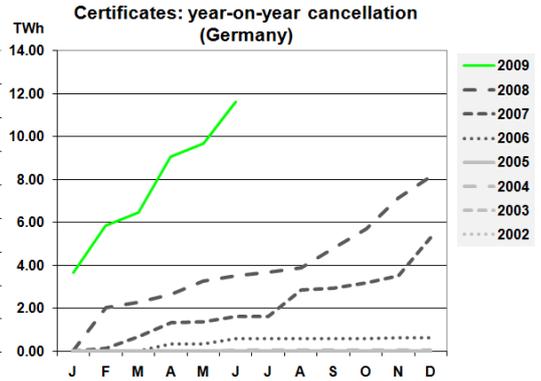
Since 2008, issuing has virtually ceased. The import, export and cancellation of increasing numbers of certificates have continued at a much higher rate than previous years. The rapid increase in imports and cancellations seems to be due to increasing numbers of consumers and suppliers switching to supply of 100% renewable electricity.

For more information, contact:
Christof Timpe
Oeko-Institut (Issuing body for Germany)
Tel: +49 (761) 452 95-25
Email: c.timpe@oeko.de

Certificates: year-on-year issuing (Germany)



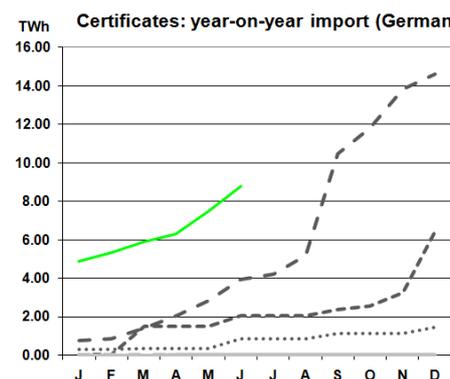
Certificates: year-on-year cancellation (Germany)



Certificates: year-on-year export (Germany)



Certificates: year-on-year import (Germany)





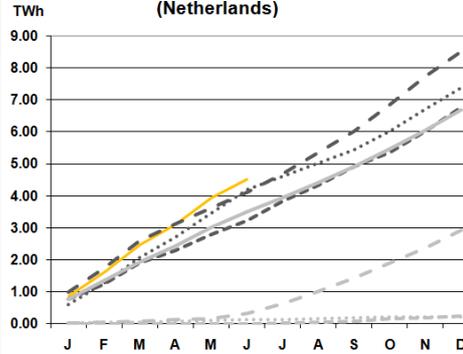
The Netherlands

During 2009, cancellation has continued to increase above the level of previous years, while issuing follows earlier trends and trading is down on previous years.

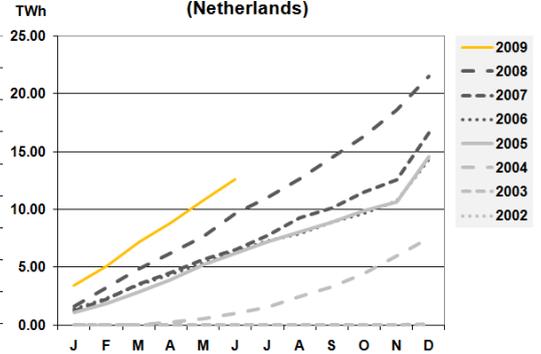
The Netherlands continue to be one of the major markets for EECs certificates, which mostly originate from the Nordic countries.

For more information, contact:
Gineke van Dijk
CertiQ (Issuing body for Netherlands)
Tel: +31 (26) 373 1754
Email: g.v.dijk@certiq.nl

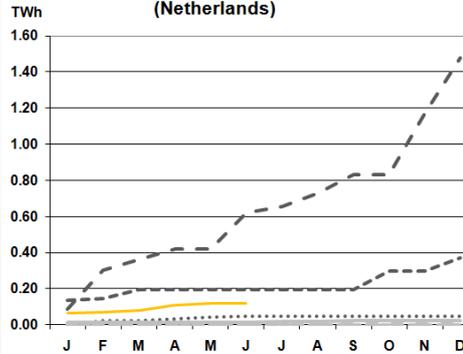
Certificates: year-on-year issuing (Netherlands)



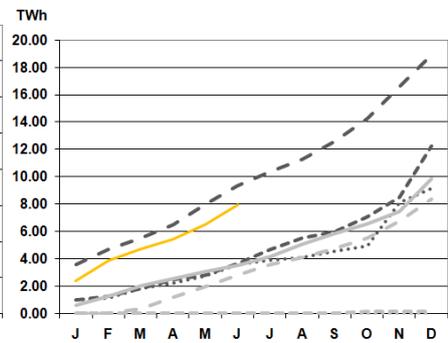
Certificates: year-on-year cancellation (Netherlands)



Certificates: year-on-year export (Netherlands)



Certificates: year-on-year import (Netherlands)



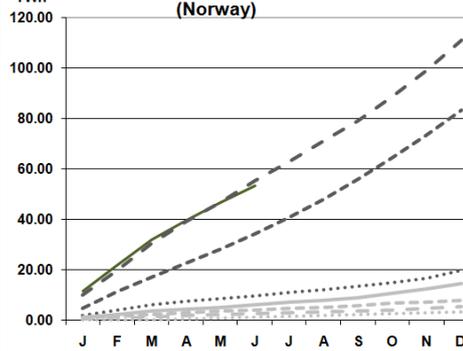
Norway

Norway has continued to issue, import, export and cancel certificates at a higher rate than ever before.

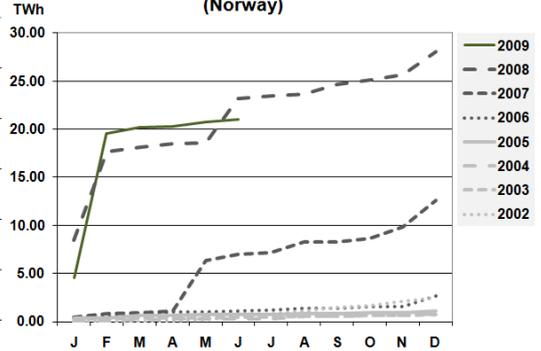
Some of the increases in imports and exports may be linked, perhaps explaining the relative increase in trading activity.

For more information, contact:
Tor Bjarne Heiberg
Statnett (Issuing body for Norway)
Tel: +47 (2252) 7573
Email: tor.heiberg@statnett.no

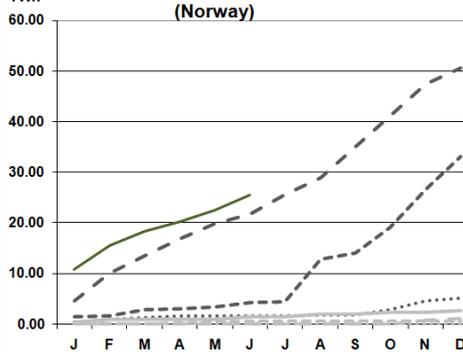
Certificates: year-on-year issuing (Norway)



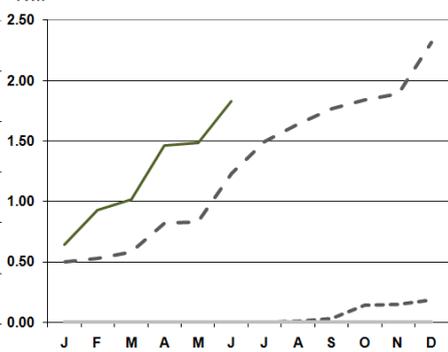
Certificates: year-on-year cancellation (Norway)



Certificates: year-on-year export (Norway)



Certificates: year-on-year import (Norway)





Portugal

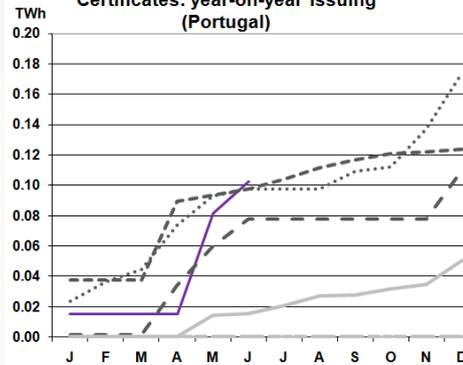
Portugal continues to issue and cancel a small number of certificates, but apart from that has been inactive.

There has been no international trade other than some tests.

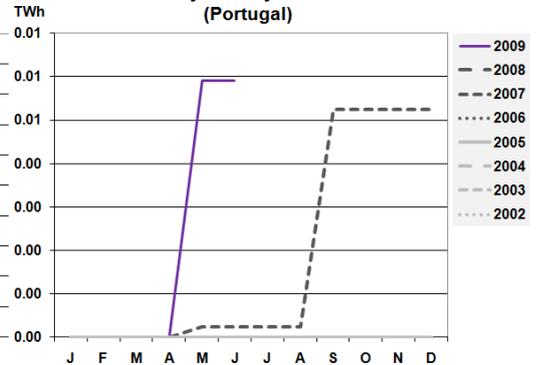
For more information, contact:

Pedro Cabral
REN (Issuing body for Portugal)
Tel: +351 (220) 012 416
Email: pedro.cabral@ren.pt

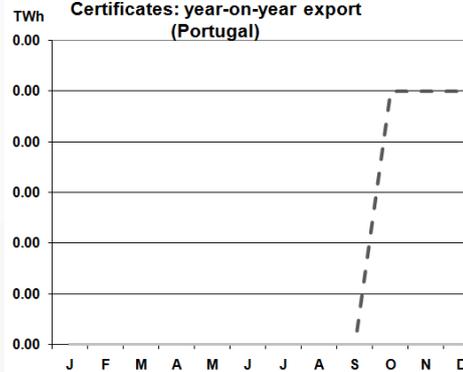
Certificates: year-on-year issuing (Portugal)



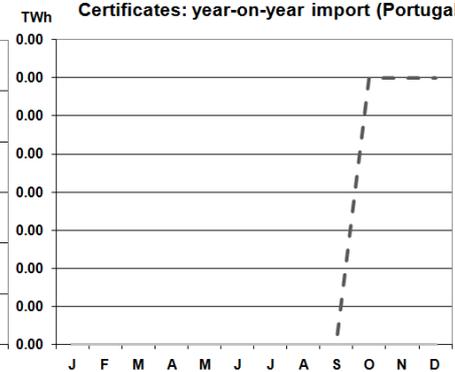
Certificates: year-on-year cancellation (Portugal)



Certificates: year-on-year export (Portugal)



Certificates: year-on-year import (Portugal)



Slovenia

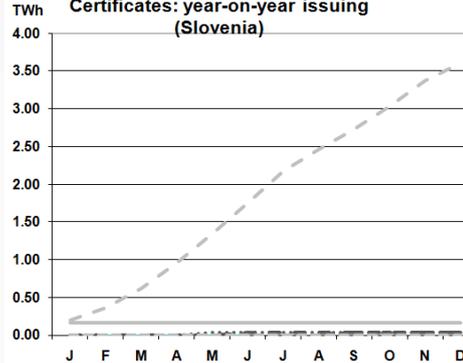
Slovenia has cancelled a small number of certificates this year, but has otherwise been inactive for the past year or so.

It is understood that Slovenia is now preparing to implement a GO scheme in compliance with the EECs model, and intends to submit its revised Domain Protocol in the coming weeks.

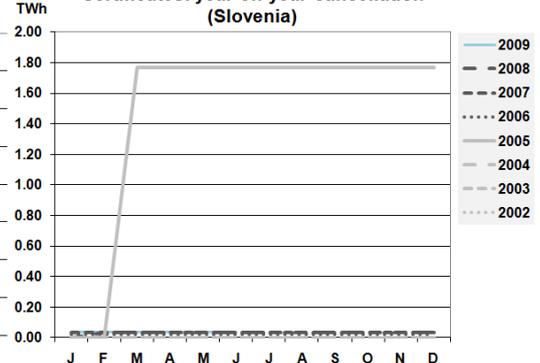
For more information, contact:

Ervin Seršen
Slovenian Energy Agency (Issuing body for Slovenia)
Tel: +386 (0) 2 234 03 00
Email: ervin.sersen@agen-rs.si

Certificates: year-on-year issuing (Slovenia)



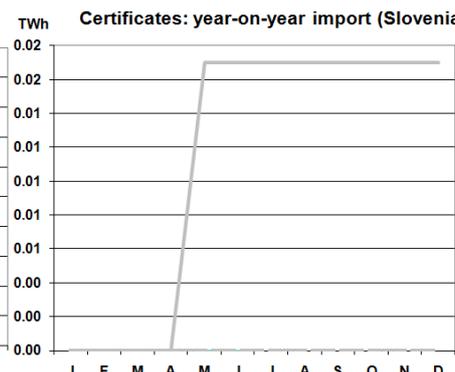
Certificates: year-on-year cancellation (Slovenia)



Certificates: year-on-year export (Slovenia)



Certificates: year-on-year import (Slovenia)



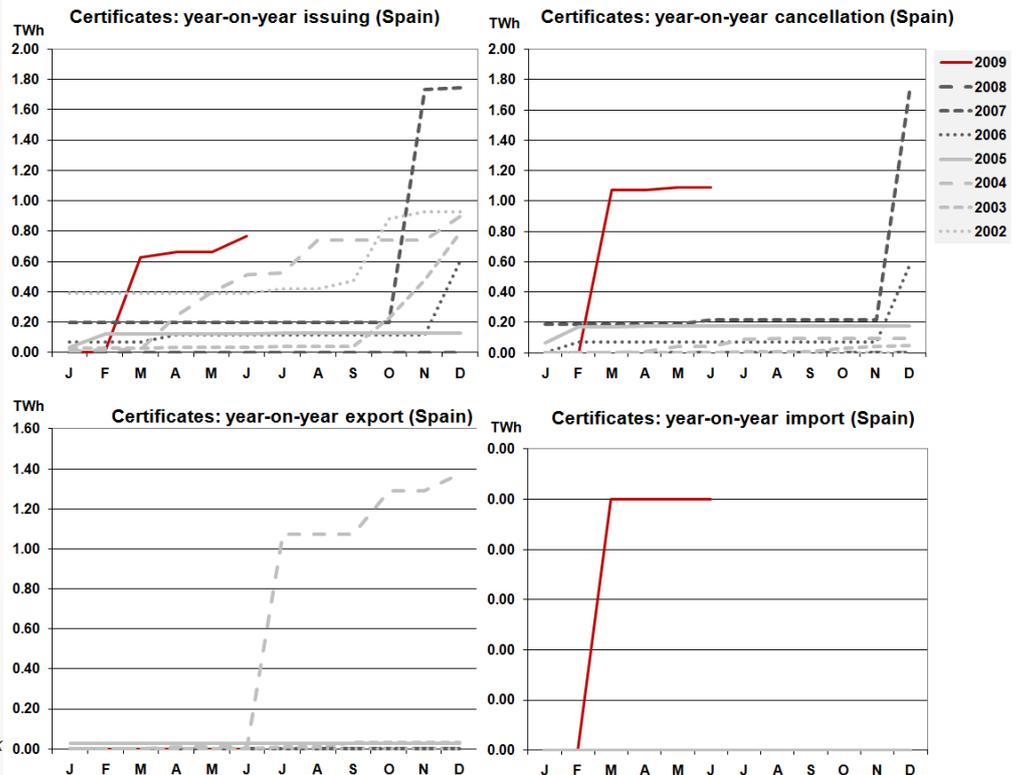


Spain

GCC has now replaced Red Electrica España as issuing body for Spain, following its withdrawal from ALB membership due to the appointment of the Spanish Regulator (CNE) as issuer of renewable electricity and high-efficiency cogeneration GO.

Since resuming operations at the start of 2009, the Spanish domain has seen relatively high activity levels servicing domestic consumers.

For more information, contact:
Edmund Everson
GCC (Issuing body for Spain)
Tel: +44 7941 236053
Email: ed_everson@green-certificates.co.uk



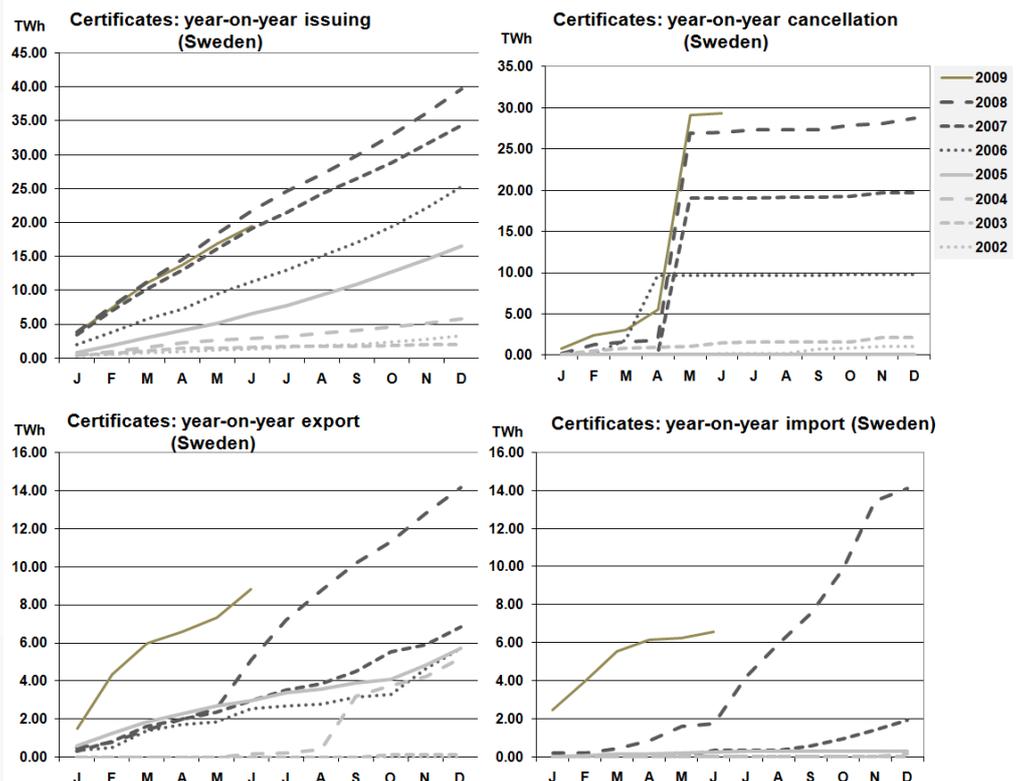
Sweden

Sweden continues to import and export more than in previous years.

The above statistics focus on renewable energy, and ignore nuclear electricity, for which Sweden now issues Disclosure-GO. Some 27 million Disclosure-GO certificates were issued last December for electricity produced during 2008, and 22 million of these were subsequently cancelled in May 2009.

The increase in the scope of EECS to encompass non-renewable electricity will provide better statistics for calculation of the Swedish residual mix.

For more information, contact:
Marko Lehtovaara
Grexel (Issuing body for Sweden)
Tel: +358 (9) 251 22211
Email: marko.lehtovaara@grexel.com





Switzerland

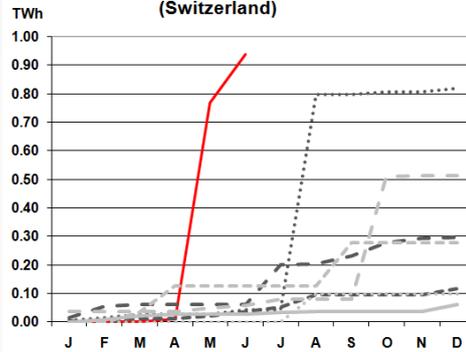
In the last quarter, Swiss RECS certificate activity has risen considerably over previous years.

Switzerland is currently seeking admission to the Disclosure-GO scheme: Swiss RES GO will also be eligible as Disclosure GO (but not vice versa).

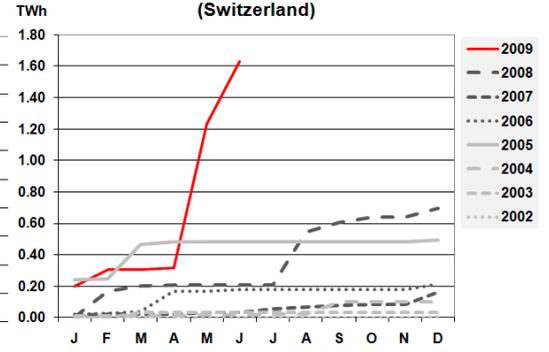
The current form of the forthcoming EU Renewables Directive includes provisions for the treatment of "third countries" outside of the EU such as Switzerland.

For more information, contact:
Lukas Groebke
swissgrid ag (Issuing body for Switzerland)
Tel: +41 (58) 580 2138
Email: lukas.groebke@swissgrid.ch

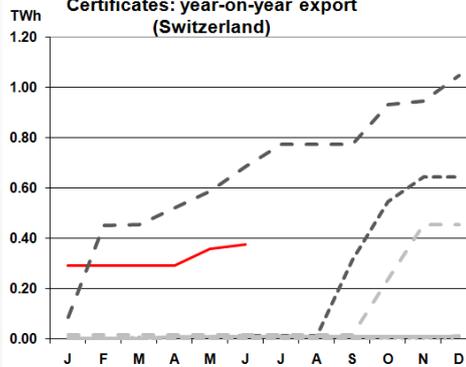
Certificates: year-on-year issuing (Switzerland)



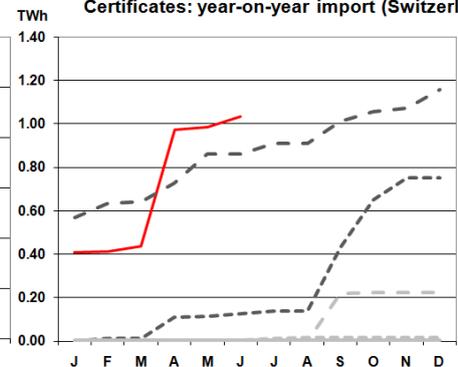
Certificates: year-on-year cancellation (Switzerland)



Certificates: year-on-year export (Switzerland)



Certificates: year-on-year import (Switzerland)







2009 : EVENTS

FORTHCOMING MEETINGS

September 30	Geneva	AIB General Meeting
October 1-2	"	Green Power Marketing Conference
December 9	Rome	RECS International Workshop
December 10-11	"	AIB General Meeting

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