Summary[1]

Membership continues to grow, with Wallonia having applied for membership of the RES GO and CHP GO schemes; Switzerland applying for membership of the RES GO scheme; and Sweden applying for membership of the disclosure scheme.

The market continues to grow at a cyclical, increasing rate. Transfers are now rising significantly, having remained fairly constant for the last three years, while issuing and redemption have grown 30-50% per annum. Volumes issued, transferred and redeemed continue to increase faster in 2007 than in previous years; while so far in 2007 more certificates have been issued than ever before.

Sweden, Norway and Flanders have continued to increase their share of redemptions, joined by France; while the major certificate issuing countries remain Norway and, to a lesser extent, Sweden, then Finland and Netherlands. The largest exporters remain Sweden, Norway and Finland; while Netherlands, Austria, Flanders (in March) and increasingly Germany remain the major importers, joined by France – which is making its presence felt, with major imports over the summer overshadowing all other importers.

Regarding technology, hydropower is by far the majority technology, most other technologies having virtually ceased to contribute; although wind power still contributes 4% and biomass 2%. That being said, the number of issued hydropower certificates is not quite matched by the market for these certificates – 93% of issued certificates are for hydropower, but only 85% of the redeemed certificates: demand for other forms of certificate (particularly biomass and wind) is proportionally higher.

For **Benelux**, RECS activity has virtually ceased with Wallonia about to start operations, subject to gaining membership of the CHP GO and RES GO schemes. Flemish certificate issue has been similar to 2006, but there have been some exports. Dutch redemption continues to grow at the same rate as 2006, but issuing is a little lower and exports considerably larger.

Regarding the **Nordic** countries, Denmark continues to be a minor participant in the market, but recently commenced transferring and redeeming certificates; Finland issued and redeemed less than usual, but remains a major participant; Norway continues to issue, export and redeem certificates at a far higher rate than before; and Sweden continues to issue and redeem more certificates than ever before (Swedish redemptions in May were the highest of any country since AIB records began).

Of the **Mediterranean** countries, the French market is growing rapidly, with international trade and redemption far outstripping that of previous years – and of many other members – mostly due to a massive transfer over summer. The Italian market is similar to last year, with no international transfers, but far higher redemption; Slovenia has redeemed a few certificates, but has otherwise been inactive for the past year; and there has been little activity in Spain this year as the Spanish Regulator (CNE) prepares to commence activity as issuer of guarantees of origin.

For **central Europe**, Austria is emerging once more as a major importer, and is increasingly using its guarantee of origin database which will be transferred to an EECS database when connected to the HUB; Switzerland was relatively quiet, but has started transferring significantly more certificates than in the past; and Germany has imported and redeemed considerably more certificates than in previous years.

Finally, on the **Atlantic** coast, the Irish market has opened, with certificates issued and exported, although there has been no activity since early summer; and Portugal continues to issue a similar number of certificates to previous years, and is now redeeming them.

Phil Moody (Secretary General) – 2nd November 2007

[1] 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 redeeming certificates in one country and transferring the renewable benefit over national borders by means of redemption statements. This seems to be increasingly replaced by electronic transfer.

Data for the last quarter has been collected from all members.

Revised certificate activity figures for the period to end October 2007

Figure 1: raw data – issuing and redemption

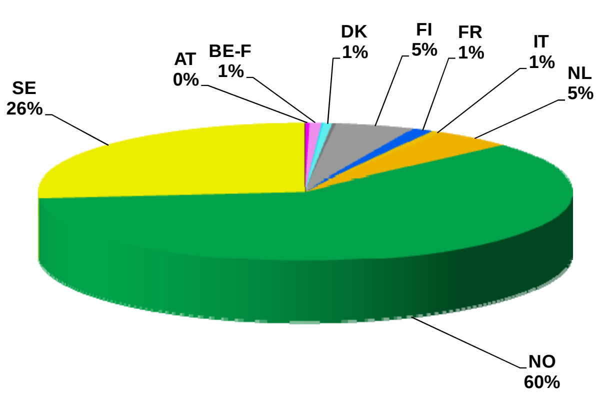
Issuing & Redemption for all technologies																
	Total		2007		2006		2005		2004		2003		2002		2001	
	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed
Austria	7,625,351	15,209,667	285,885	351,824	316,911	4,602,618	1,560,474	3,122,146	2,452,748	6,129,706	1,950,584	918,704	1,057,599	84,669	1,150	
Belgium Brussels																
Belgium Flanders	1,975,507	11,763,925	741,110	8,322,814	1,234,397	3,441,111										
Belg & Lux RECS	113,390	1,413,372		467,991		437,651		450,730		50,000		7,000	59,150		54,240	
Belgium Wallonia																
Switzerland	1,863,527	931,211	94,744	77,605	820,502	215,399	59,782	495,653	512,442	102,924	276,837	35,530	99,220	4,100		
Germany	48,351	3,883,725		3,198,949		616,653		25,036	5,963	43,087	41,789		450		149	
Denmark	2,735,164	212,929	543,966	187,751	529,882	564	631,304		777,965		24,686	24,614	74,233		153,128	
Spain	3,579,245	1,099,827	224,867	214,059	604,270	571,403	126,319	174,334	901,135	93,400	795,287	46,631	534,378		392,989	
Finland	41,914,964	11,072,376	4,855,054	574,071	8,333,595	1,112,145	6,734,247	2,254,194	8,260,681	1,412,330	7,177,954	4,192,610	5,840,401	1,527,025	713,032	1
France	3,517,096	10,779,013	1,246,112	9,405,378	960,349	610,996	719,430	461,004	443,662	214,878	142,991	86,757	4,552			
Greece																
Ireland	11,163		11,163													
Iceland																
Italy	2,735,165	1,560,338	683,716	657,075	1,185,323	573,660	418,397	241,048	73,970	76,873	59,549	10,557	302,814	1,125	11,396	
Netherlands	22,197,567	47,991,482	4,750,682	11,463,781	7,381,999	14,306,508	6,684,351	14,569,852	2,926,947	7,542,276	250,536	107,962	203,052	1,103		
Norway	111,714,267	16,499,675	60,502,107	8,674,624	19,762,654	2,711,968	14,506,286	1,101,274	5,625,516	827,342	7,817,149	725,706	3,500,555	2,458,761		
Poland																
Portugal	344,667	5,250	120,609	5,250	173,857		50,201									
Sweden	79,534,992	32,404,847	26,527,361	19,276,302	25,293,491	9,749,209	16,589,875	88,602	5,832,690	59,596	2,040,632	2,106,088	3,150,720	1,125,050	100,223	
Slovenia	3,799,763	1,824,297		31,653	31,653	23,462	167,396	1,769,182	3,600,714							
Turkey																
UK	90,158												90,158			
All countries	283,800,337	156,651,934	100,587,376	62,909,127	66,628,883	38,973,347	48,248,062	24,753,055	31,414,433	16,552,412	20,577,994	8,262,159	14,917,282	5,201,833	1,426,307	1
Percentage redeemed		55%		63%		58%		51%		53%		40%		35%		0%

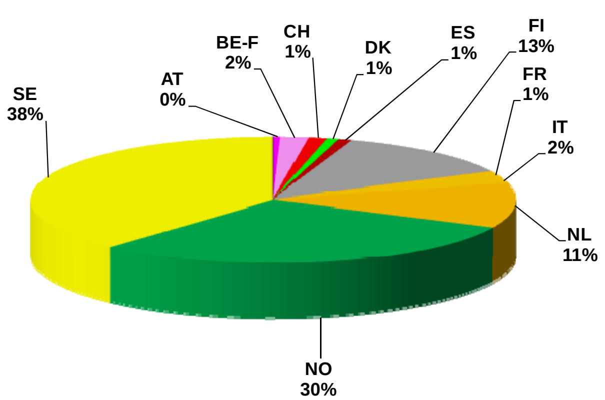
1

Issuing & redemption for all countries																
	Report for all countries		2007		2006		2005		2004		2003		2002		2001	
	Issue	Redeem	Issued	Redeemed	Issued	Redeemed	Issued	Redeemed	Issue	Redeem	Issue	Redeem	Issue	Redeem	Issue	Redeem
Onshore wind	13,775,729	8,071,950	3,731,115	2,890,107	4,151,110	2,231,463	3,260,994	1,945,381	2,131,530	804,795	309,845	153,738	166,708	46,465	24,427	1
Offshore wind	351,346	67,158	268,698	61,438	68,202		1,542	2,995	9,636	2,539	4	186	2,008		1,256	
Photovoltaic	12,454	8,297	2,556	2,302	4,145	3,095	4,005	2,895	1,735	5	13					
Thermal	3		1		2											
Hydropower	225,490,384	112,108,452	93,271,897	53,176,295	54,294,209	30,059,778	38,080,648	16,185,307	19,947,178	7,989,926	11,967,734	1,759,895	7,325,326	2,937,251	603,392	
Onshore tidal																
Offshore tidal																
Onshore wave																
Offshore wave																
Geothermal	261,516	102,898					35,627	36,081	53,431	55,175	6,434	10,517	166,024	1,125		
Energy crops	832,761	4,124,360	191,281	2,780,845	367,016	1,149,815	68,909	70,643	59,023	56,457	66,513	52,078	36,033	14,522	43,986	
Forestry etc	31,684,536	25,024,410	1,409,499	2,457,920	3,614,498	2,708,333	3,435,969	4,579,255	7,767,140	6,917,876	7,945,838	6,201,910	6,850,232	2,159,116	661,360	
Landfill gas	951,737	339,987	226,810	139,030	354,006	108,838	242,542	45,974	105,368	36,968	3,890	742	19,121	8,435		
Sewage gas	36,205	35,577			966	4,825	3,646	546	6,364	5,025	1,075	25,181	24,154			
Other biogas	391,801	112,044	213,939	58,626	141,715	35,603	26,405	16,316	9,112	1,499	630					
MSW	3,864,414	2,025,163	657,213	746,114	1,133,051	705,196	943,379	284,092	536,345	283,780	257,630	3,026	244,910	2,955	91,886	
IB&CW	6,147,452	4,631,638	614,368	596,450	2,499,963	1,966,401	2,144,396	1,583,570	787,571	398,367	18,388	54,886	82,766	31,964		
Total	283,800,337	156,651,934	100,587,376	62,909,127	66,628,883	38,973,347	48,248,062	24,753,055	31,414,433	16,552,412	20,577,994	8,262,159	14,917,282	5,201,833	1,426,307	1

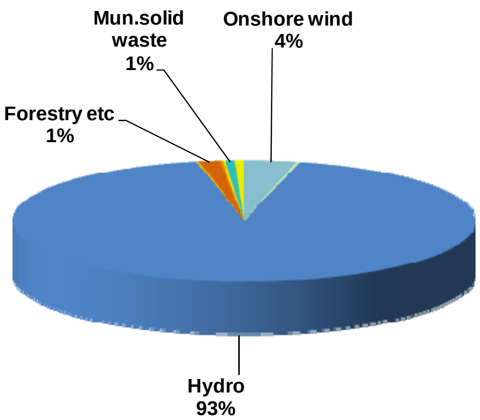
The tables above display issue and redemption statistics for each year to date, and for 2001-7 in total. These, and the following charts, show that volumes issued, transferred and redeemed continue to increase at a greater rate during 2007 than in previous years.

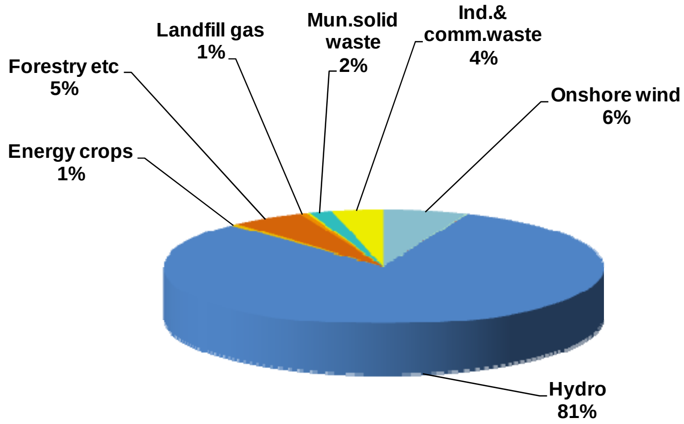
Comparing 2007 with 2006, the major certificate issuing countries remain Norway and Sweden, then Finland and Netherlands. Note that Norway is now responsible for issuing the majority of certificates.





Regarding technology, hydropower is now by far the majority technology; most other technologies having virtually ceased to contribute; although wind power still contributes 4% and biomass 2%.

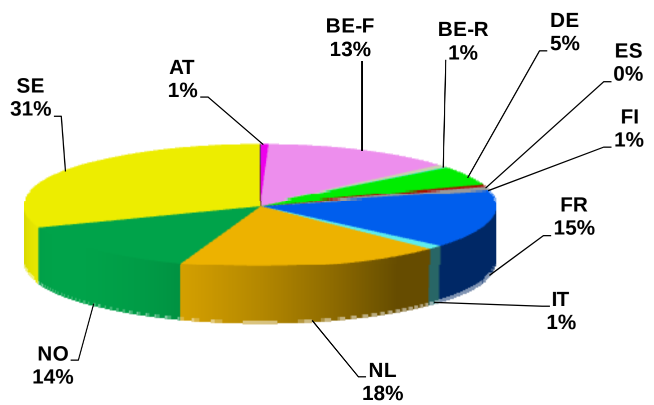




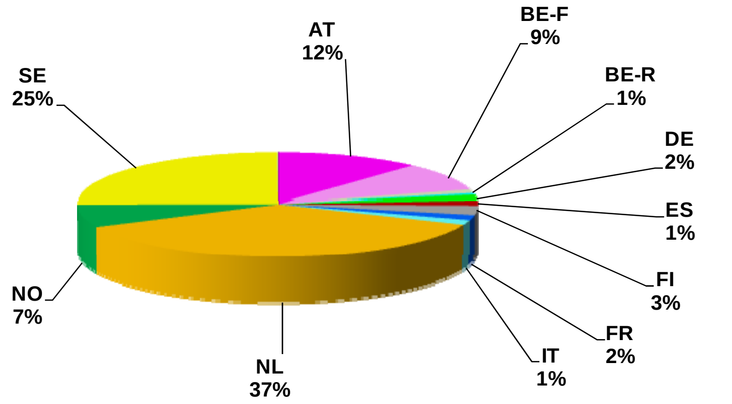
Again comparing 2006 with 2007 to date, but this time for certificates redeemed, Sweden, Norway and Flanders have this quarter continued to increase their share, joined by a newcomer - France.

Netherlands continues to redeem about the same number of certificates, while Austria has having virtually ceased to do so this year. In addition, Germany is redeeming an increasing number of certificates.

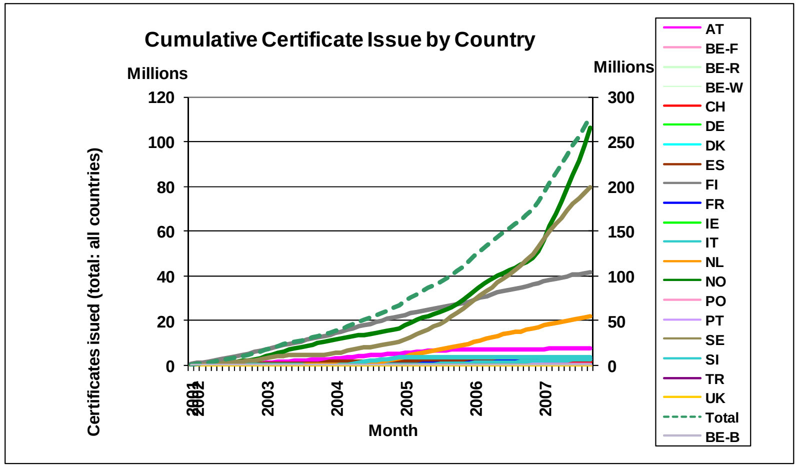
Certificates Redeemed Per Country (2007)

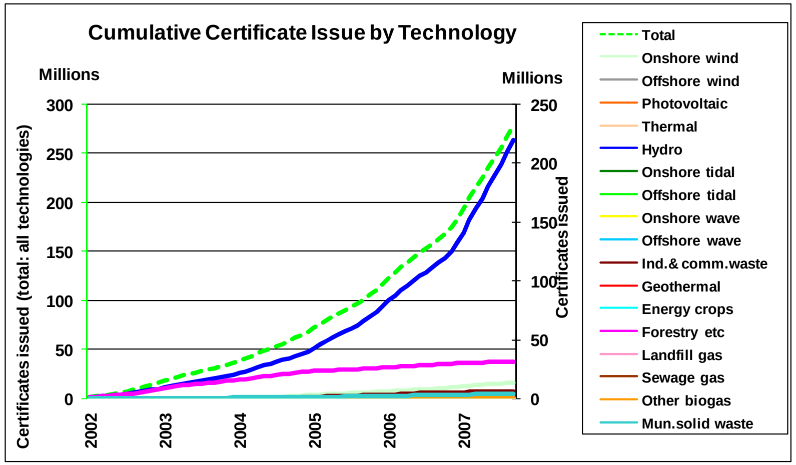


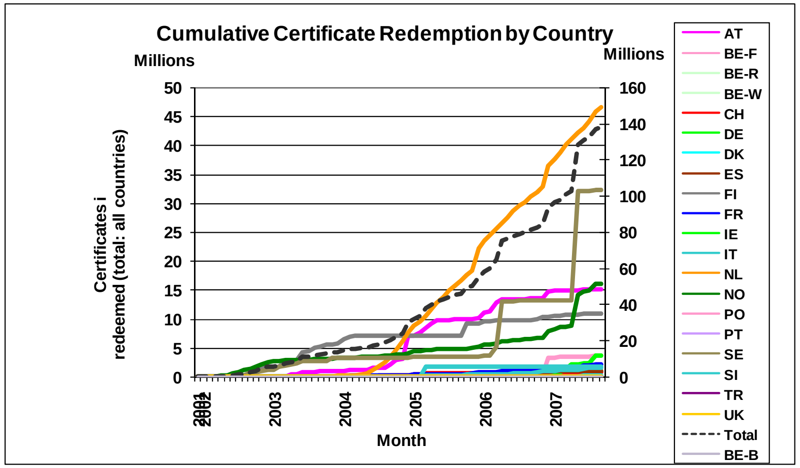
Certificates Redeemed Per Country (2006)

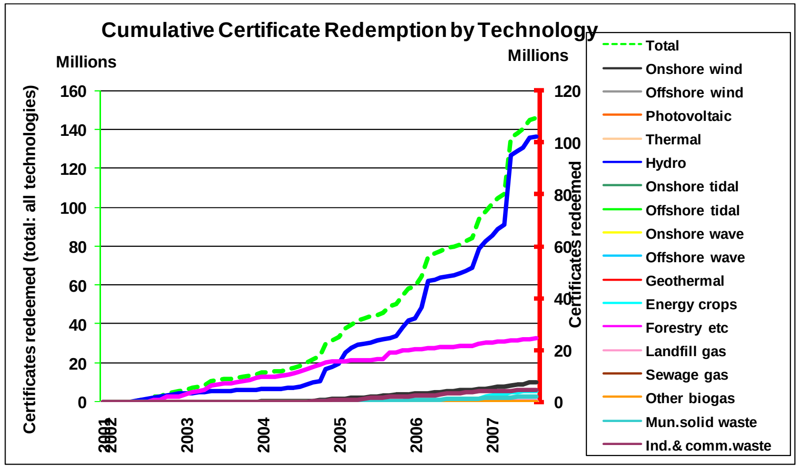


Overall, issuing and redemption are increasing more rapidly as guarantees of origin are increasingly used for disclosure purposes. The volume of hydro issued and redeemed continues to increase substantially at the expense of everything else (except wind).

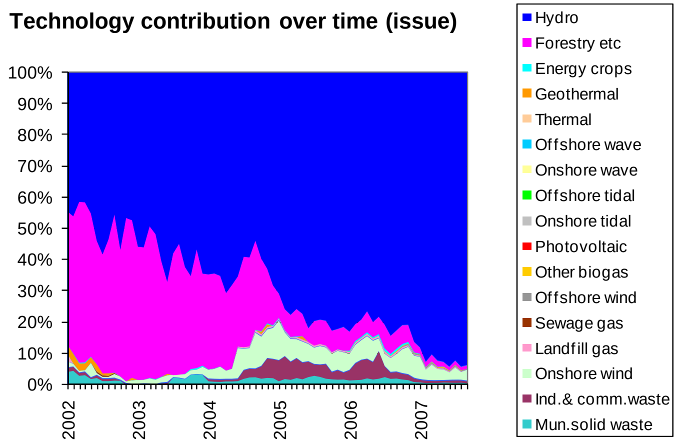


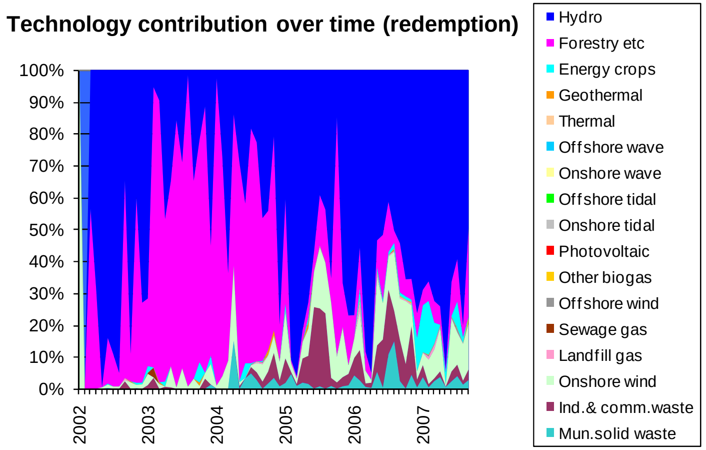


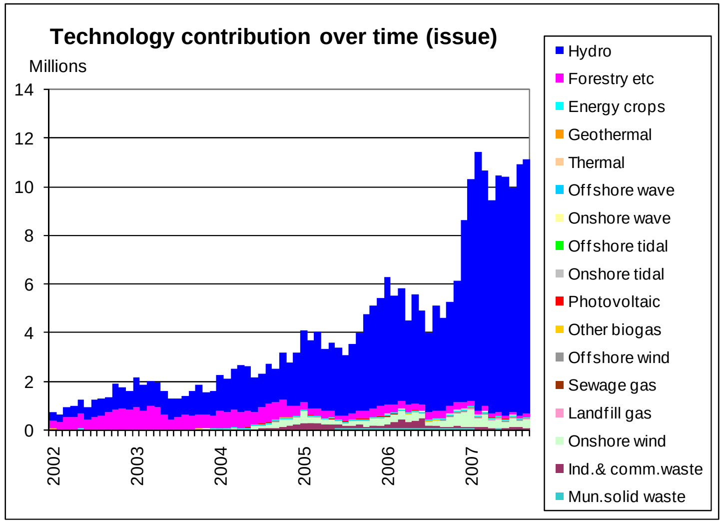


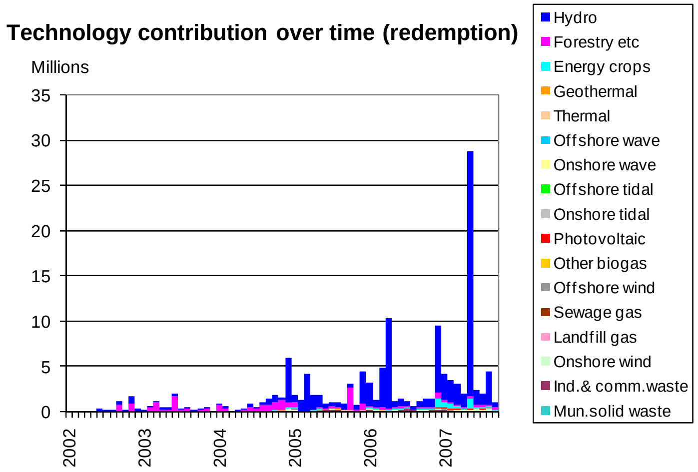


Another way of considering changing trends in technology is to consider the blend of technologies for which certificates are being issued and redeemed at any point in time. The following bar charts show that the significant growth in hydropower certificates is not matched by the market for these certificates – although around 93% of issued certificates are for hydropower, only 85% of the redeemed certificates are – meaning that the demand for other forms of certificate (particularly biomass and wind) is proportionally higher.



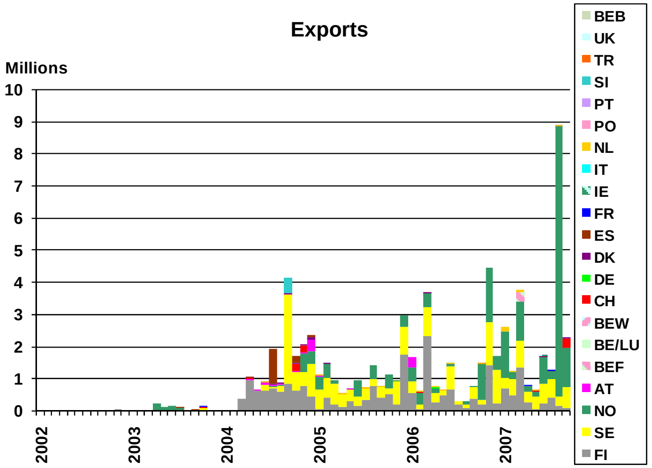


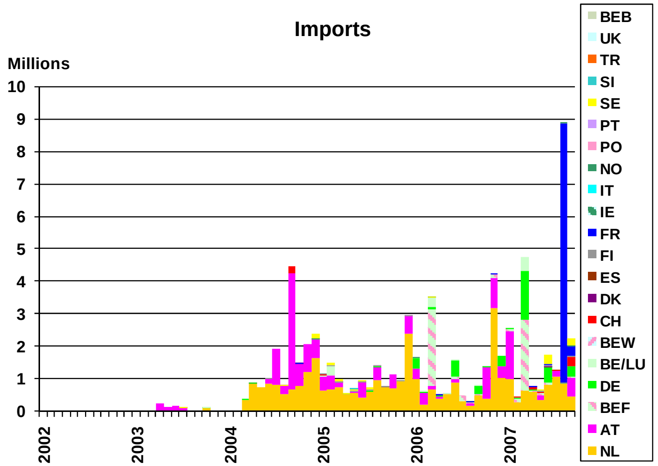




Revised certificate activity figures for the period to end October 2007

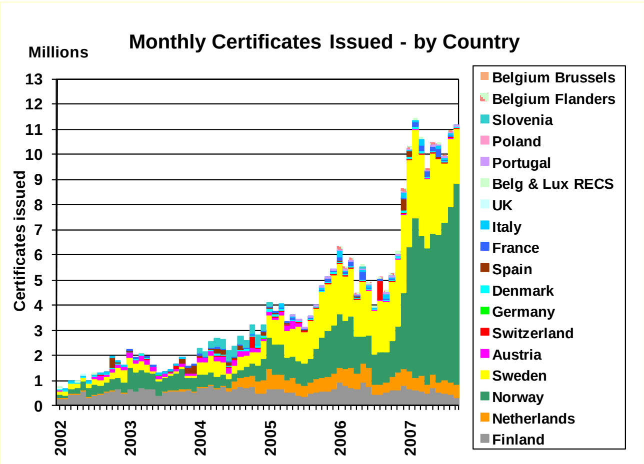
The largest exporters remain Sweden, Norway and Finland; while Netherlands, Austria, Flanders (in March) and increasingly Germany remain the major importers, joined by France – which is making its presence felt, with major imports over the summer overshadowing all other importers.

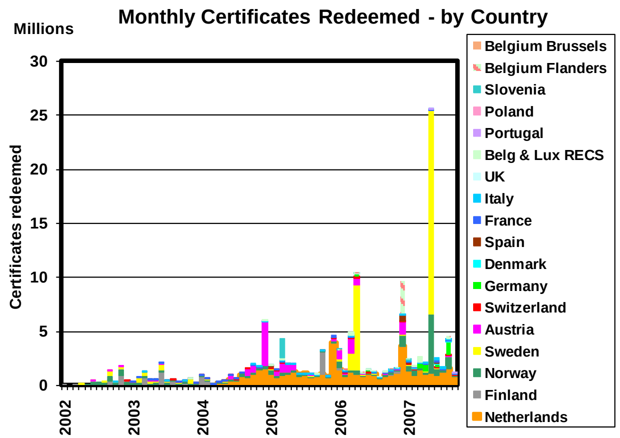




Monthly activity

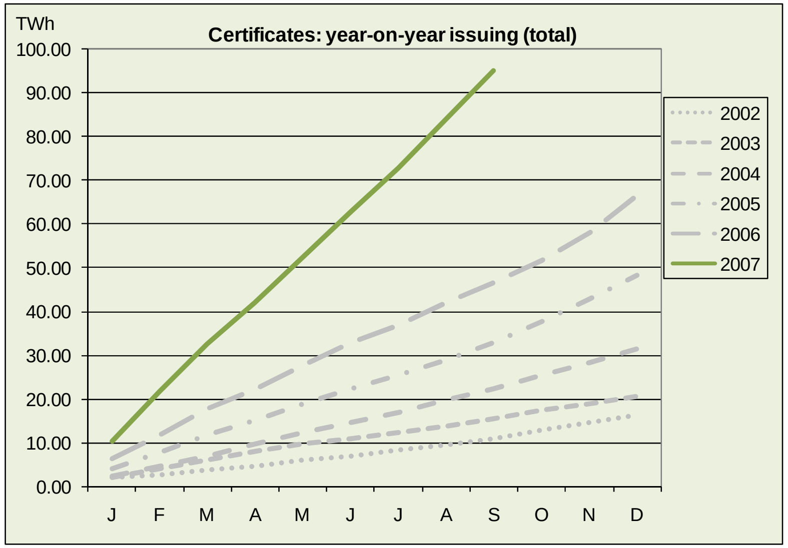
The following bar charts summarise monthly issuing and redemption, clearly showing the influence on international trade of the producing countries – Sweden and Norway, and to a lesser extent Finland and Netherlands; and of the consuming countries – Netherlands, Germany & Flanders, and significantly Sweden during the summer.

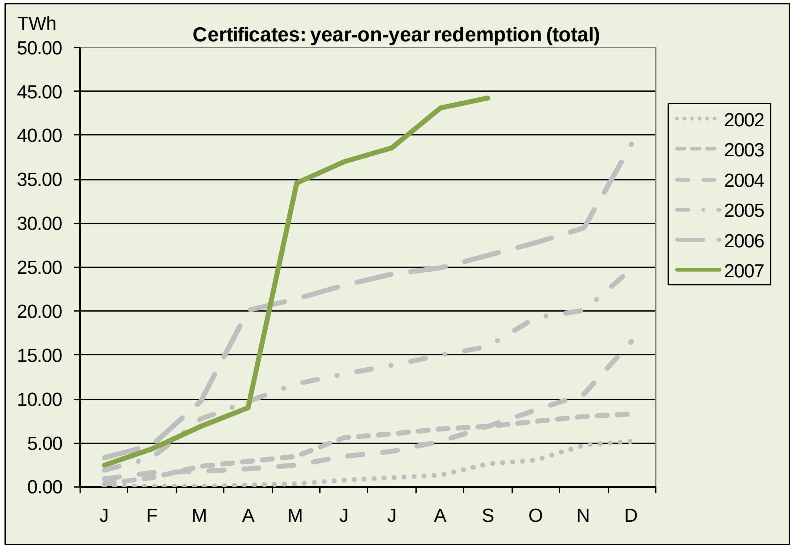


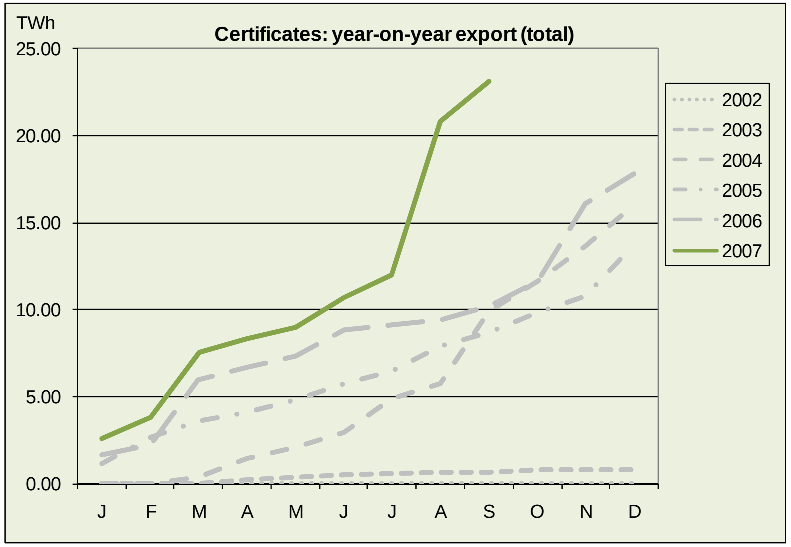


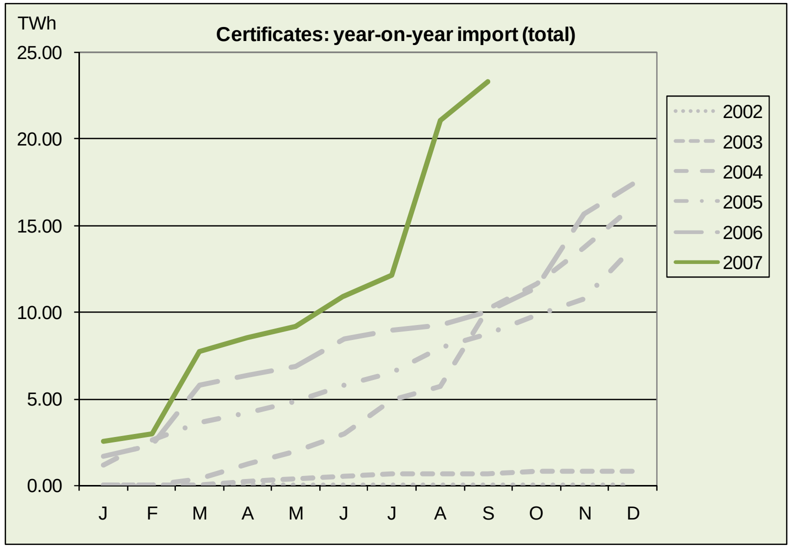
Year-on-year

Issuing, international transfers and redemption all continue to grow increasingly this year, for above previous years, with a sudden increase in redemption driven by Nordic countries requiring the redemption of guarantees of origin for disclosure purposes.

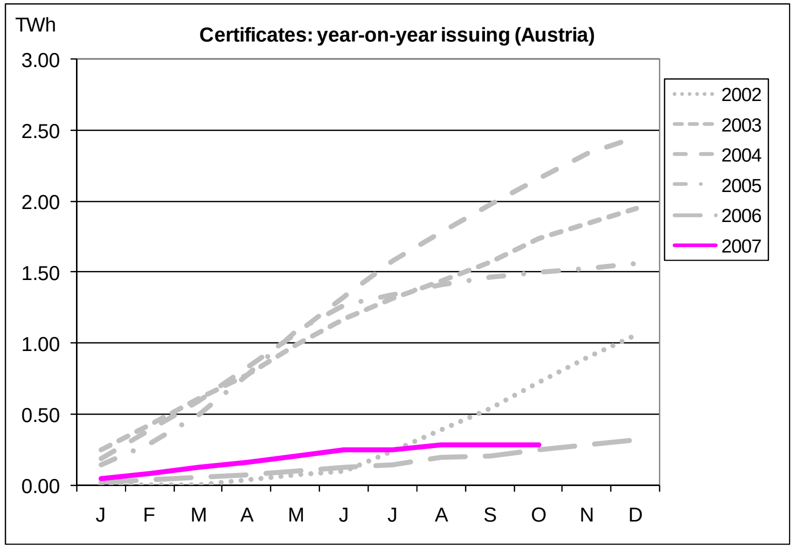


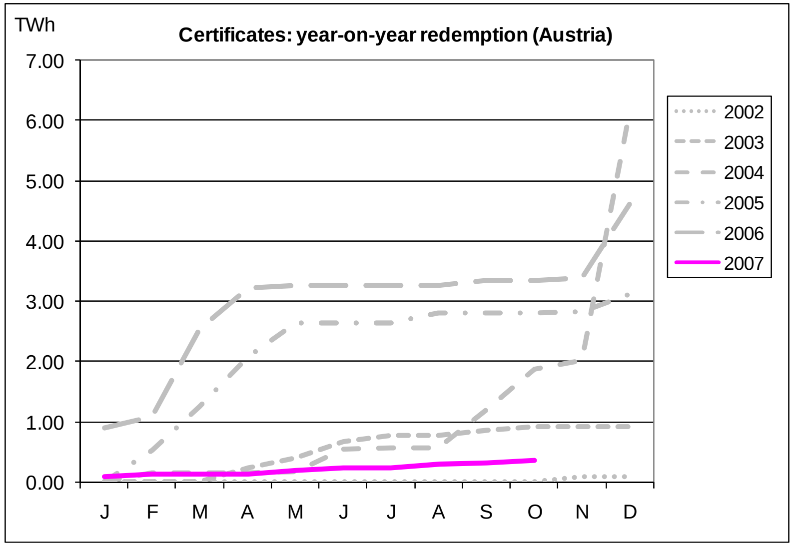


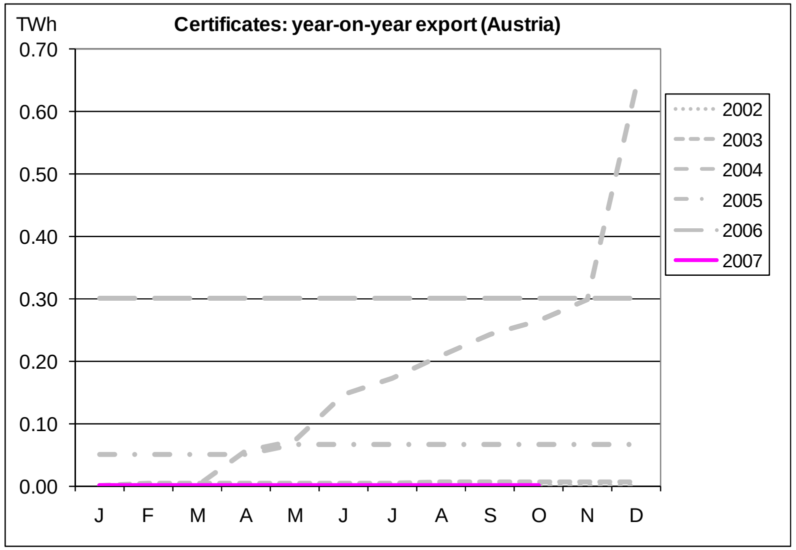


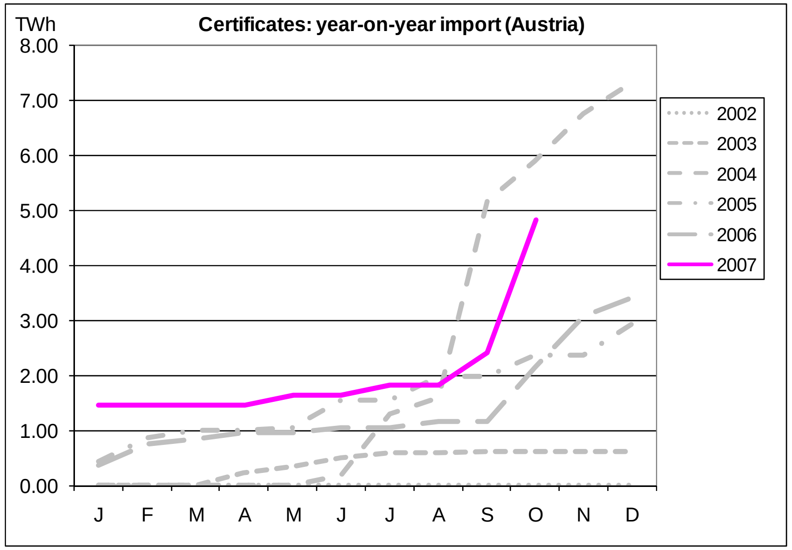


Austria is emerging once more as a major importer, and is increasingly using its guarantee of origin database (which will be transferred to an EECS database when connected to the HUB).

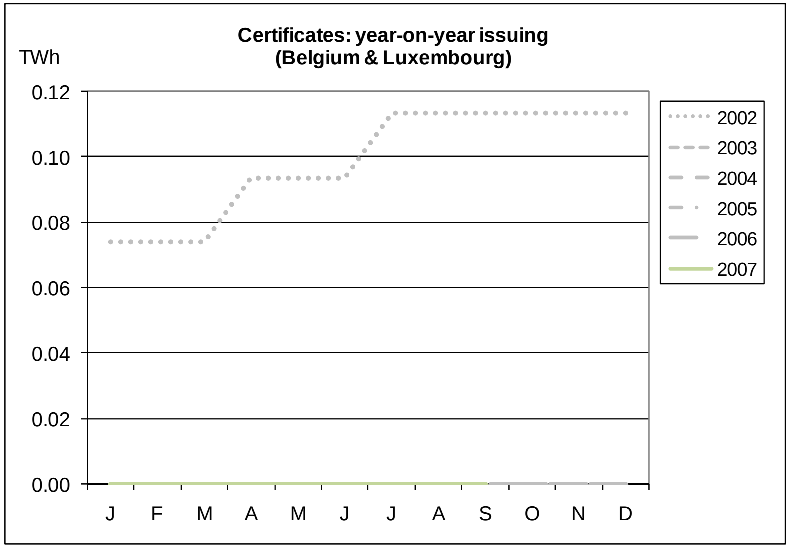


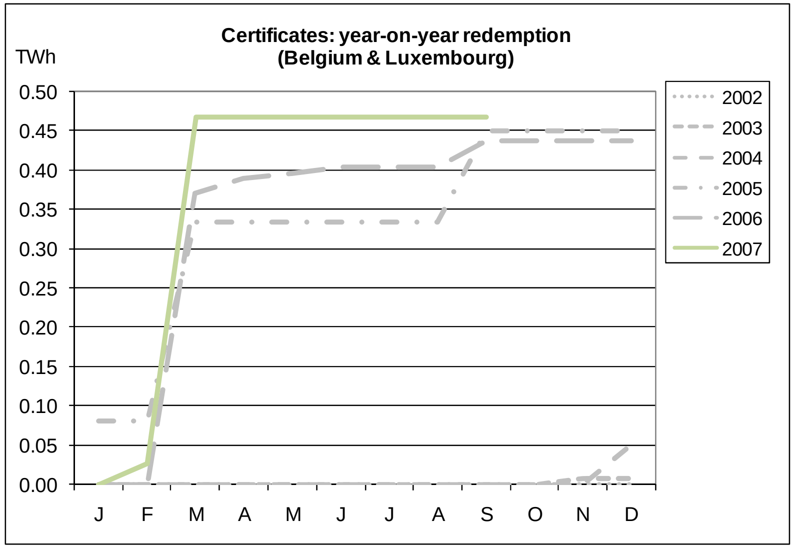


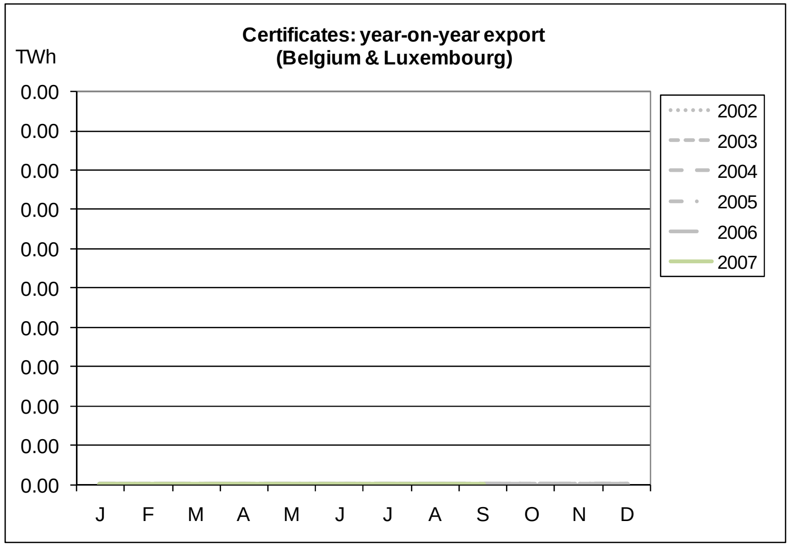


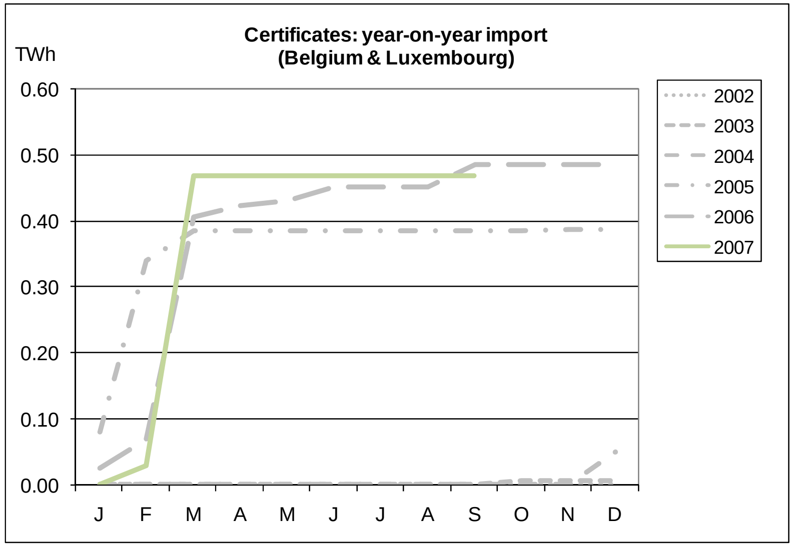


Belgium / Luxembourg. RECS activity, as expected, has virtually ceased with the promise of Wallonia commencing operations (the application of Wallonia for AIB membership is under review).

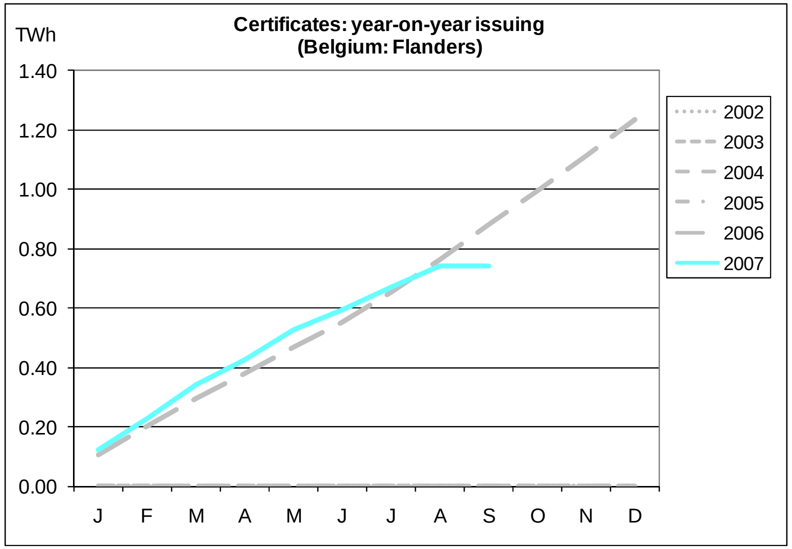


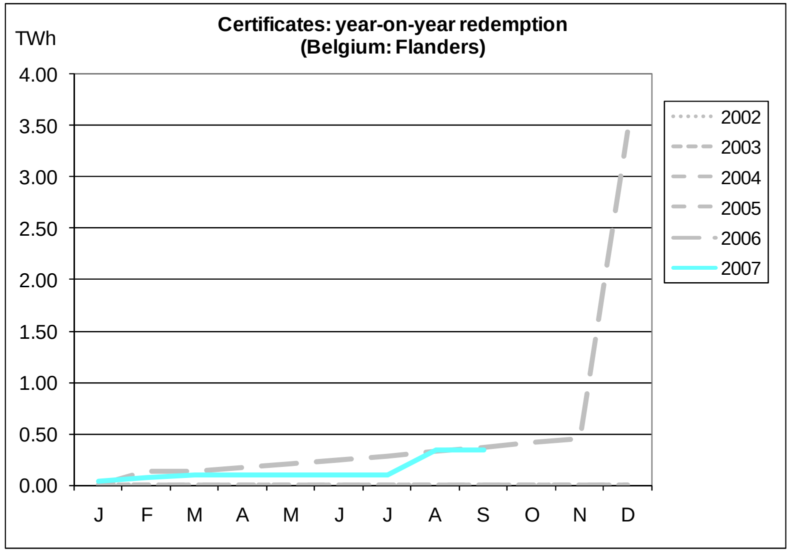


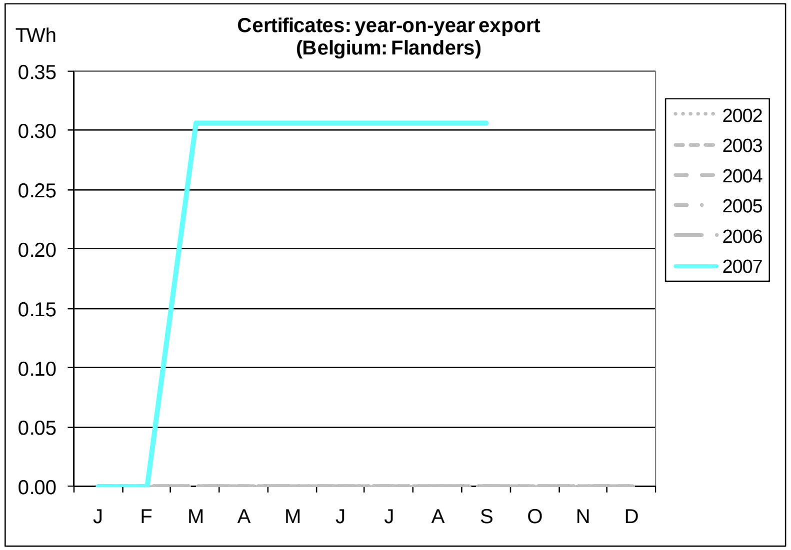


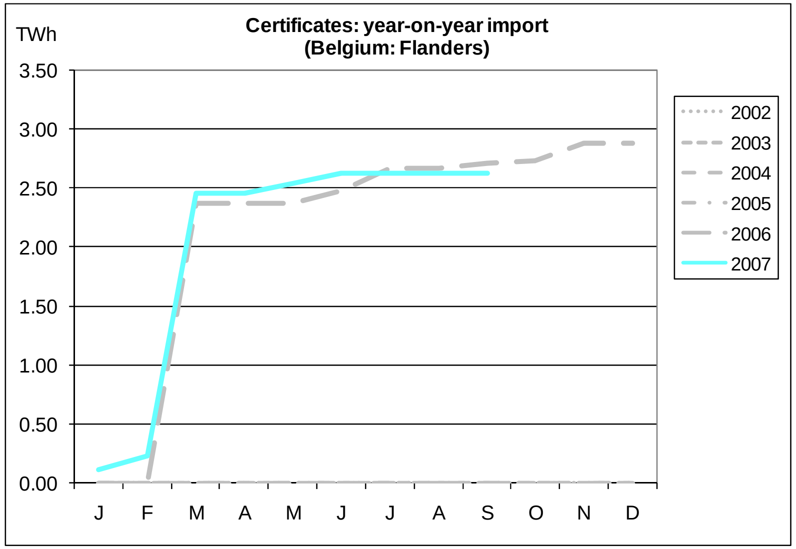


Belgium (Flanders). Certificate issue has been broadly the same as last year. Imports have been the same as last year, but for the first time there have been some exports. The ongoing redesign of the registry will result in better data being made available soon.

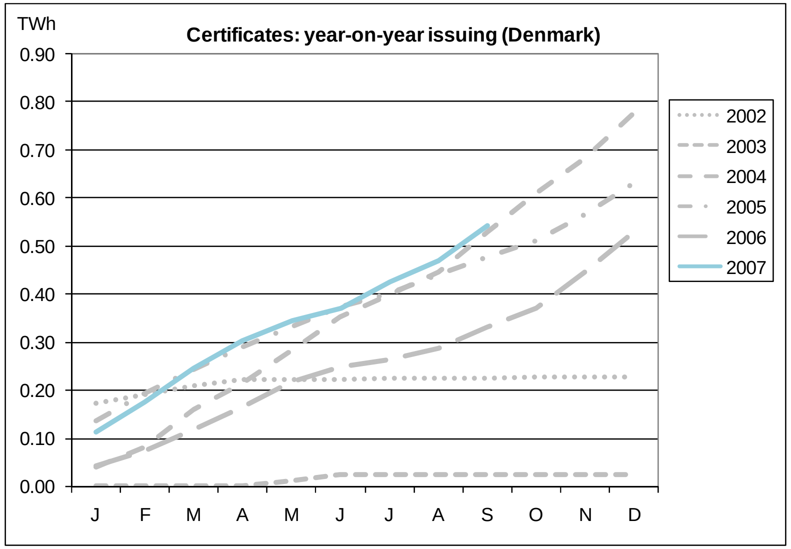


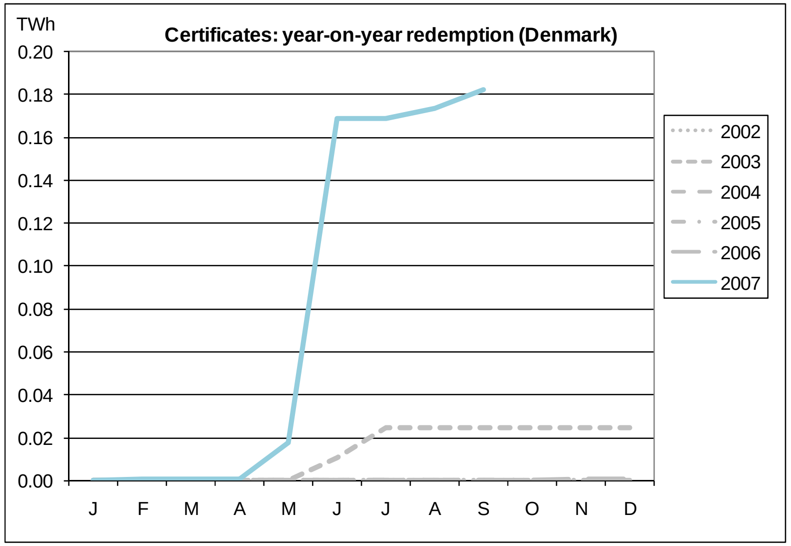


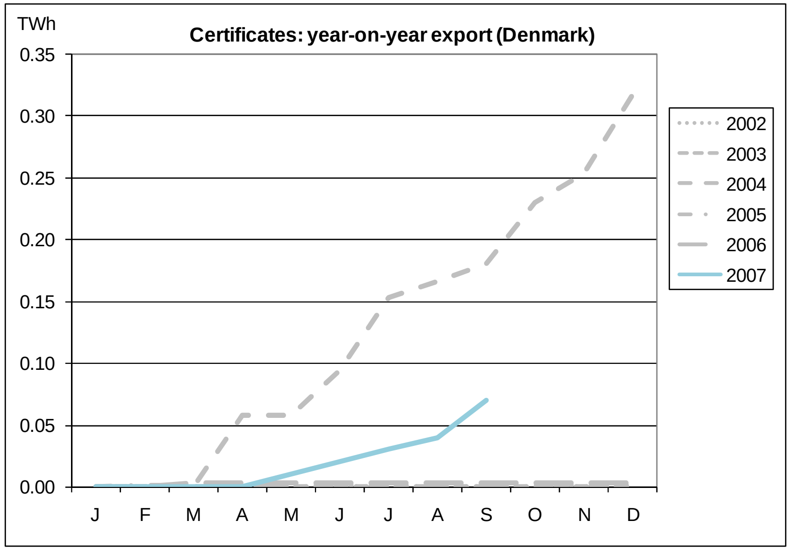


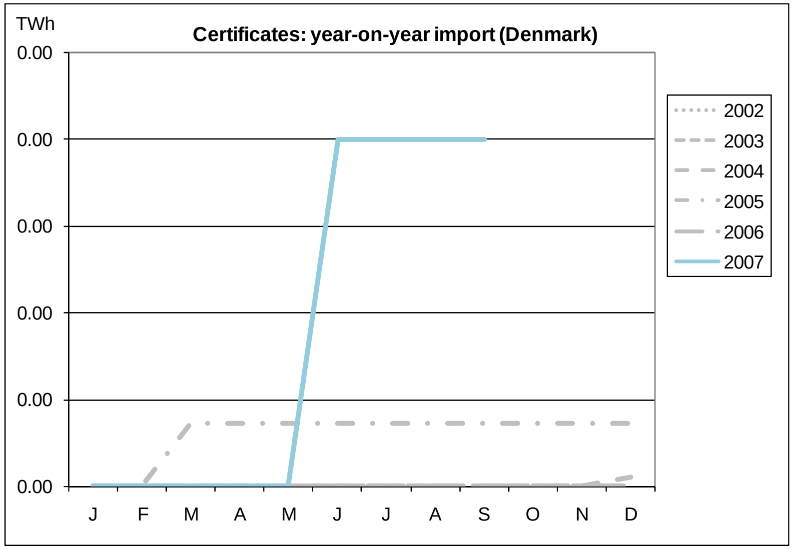


Denmark. Denmark continues to be a minor participant in the market, but has recently commenced importing, exporting and redeeming certificates, presumably for disclosure purposes.

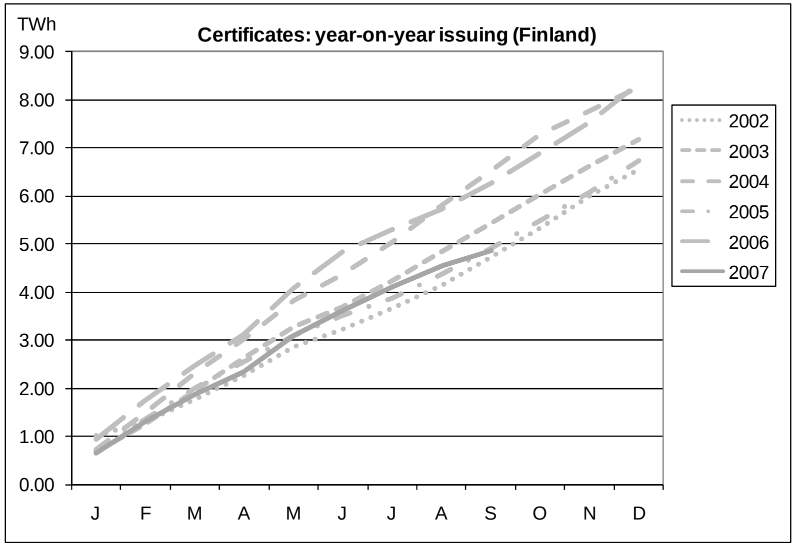


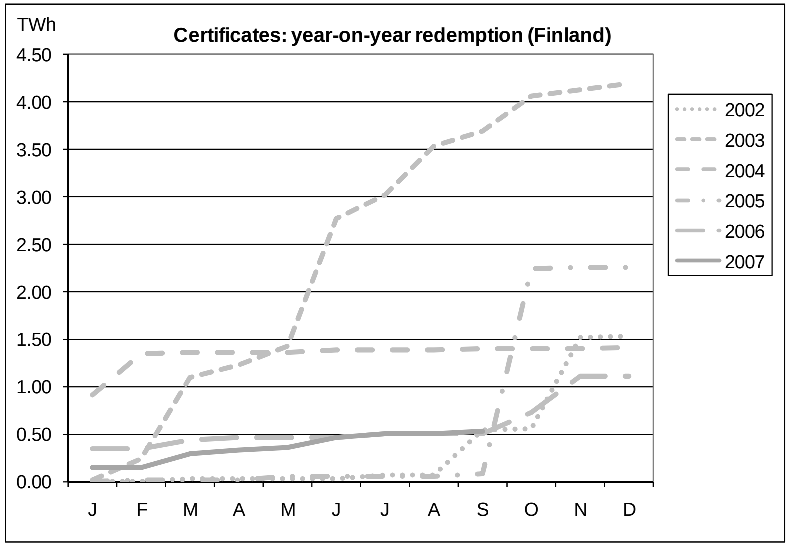


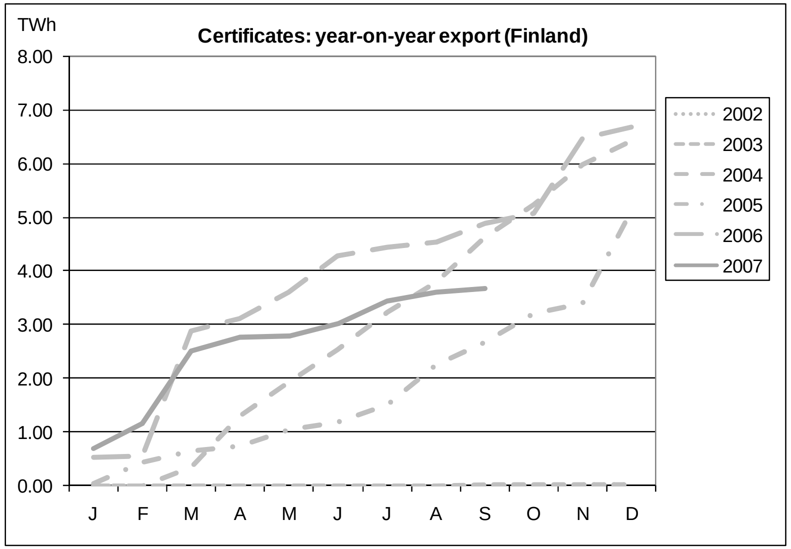


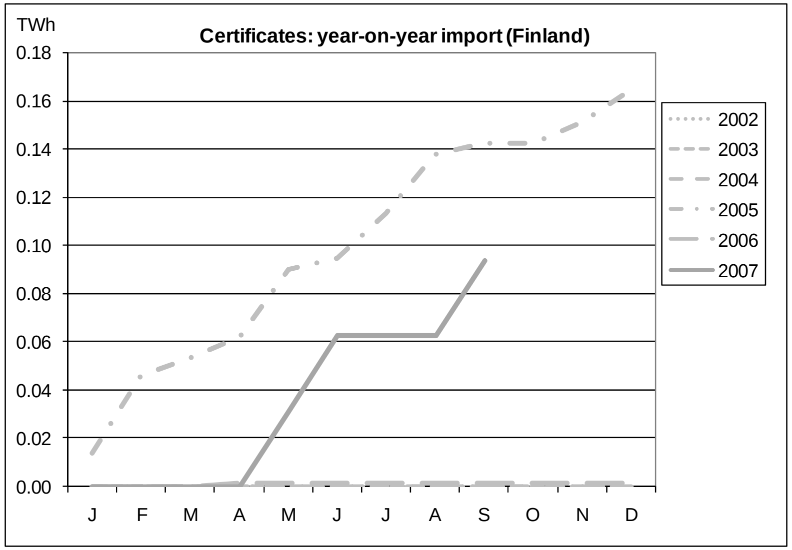


Finland has issued and in particular redeemed far less than its usual large number of certificates, but still remains a major participant. It is exporting close to last year, and has recently commenced importing certificates.

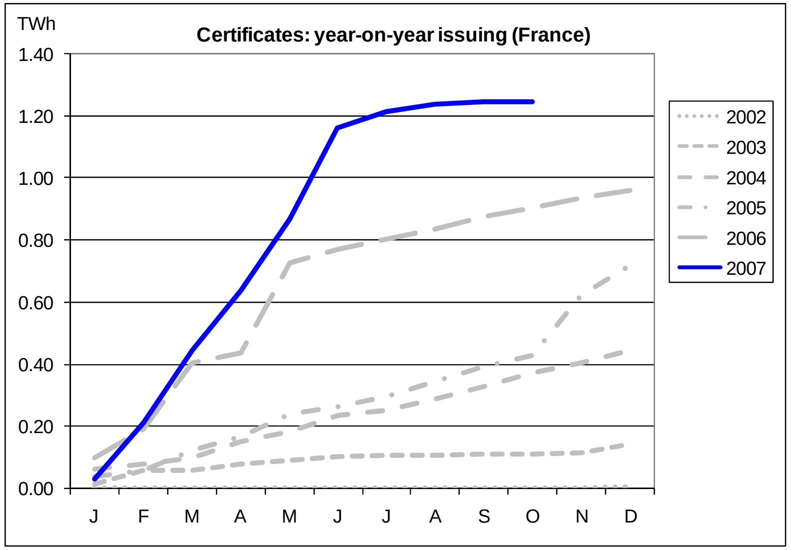


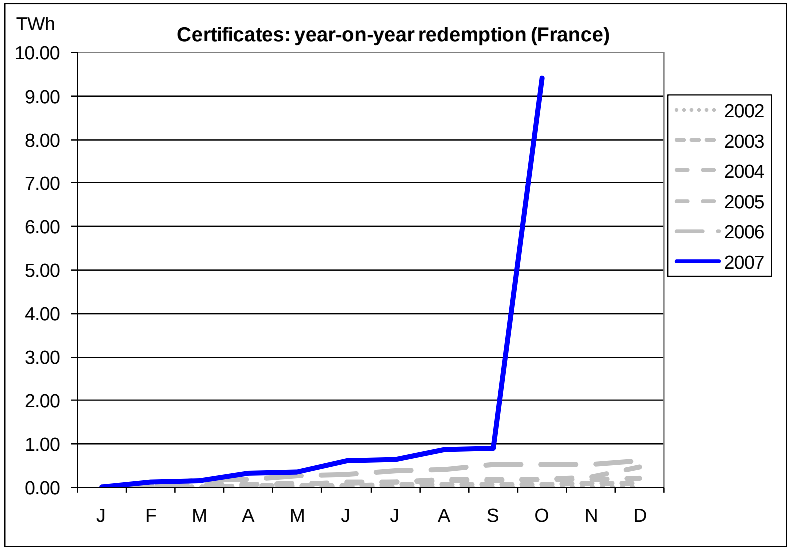


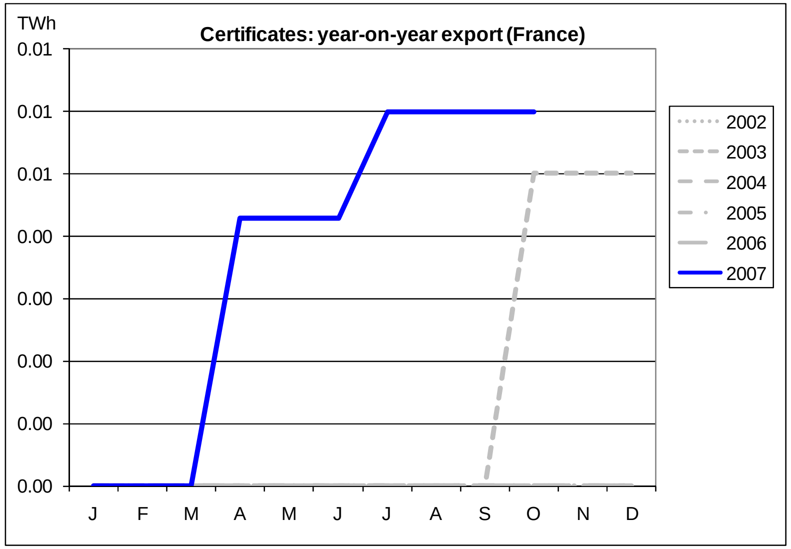




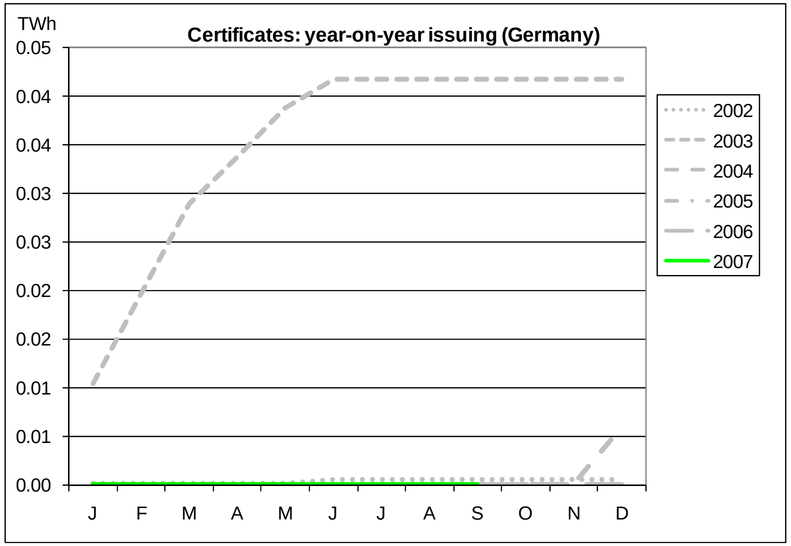
France. The French market continues to grow rapidly, with international trade and redemption far outstripping that of previous years – and of many other members – mostly due to a massive transfer over summer.

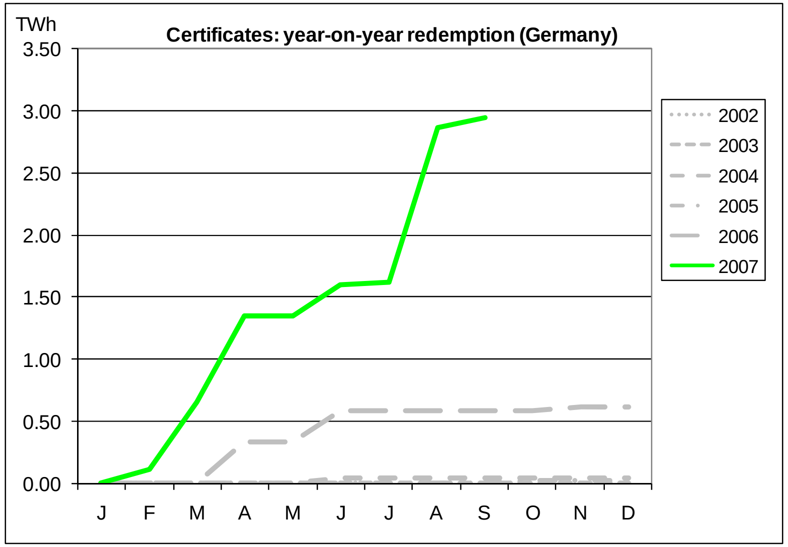


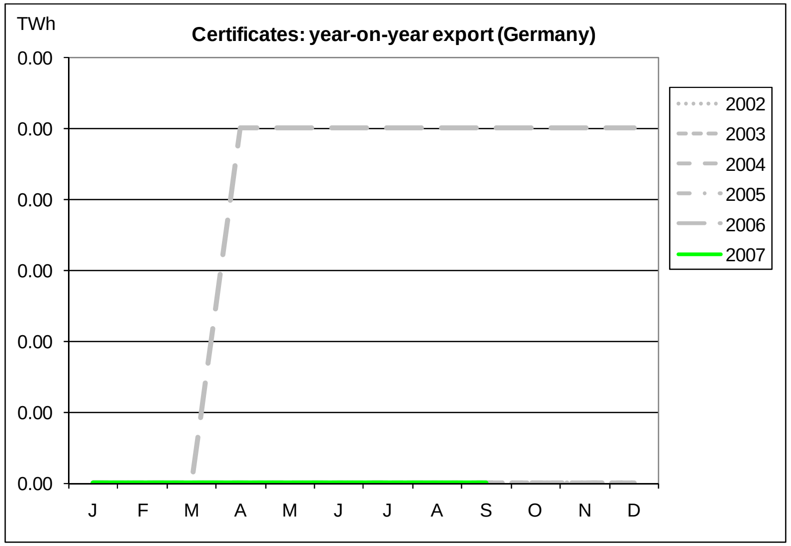


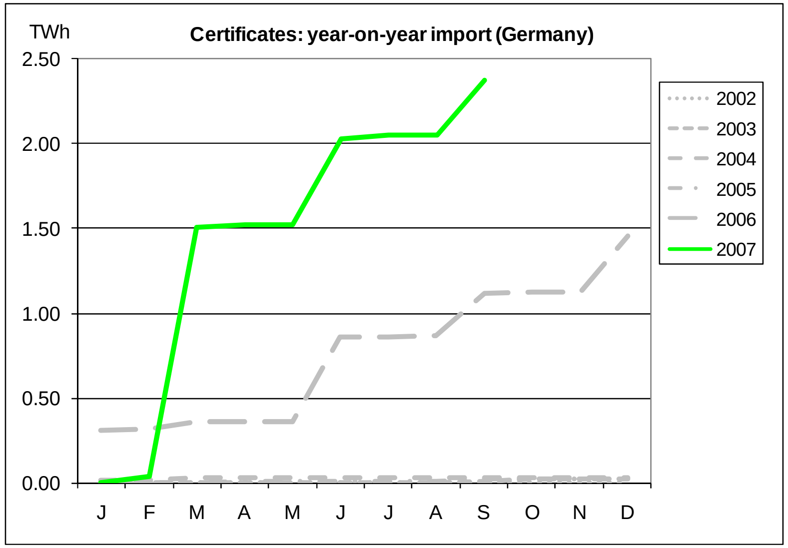


Germany has imported and redeemed large numbers of certificates, well in excess of the numbers experienced in previous years.

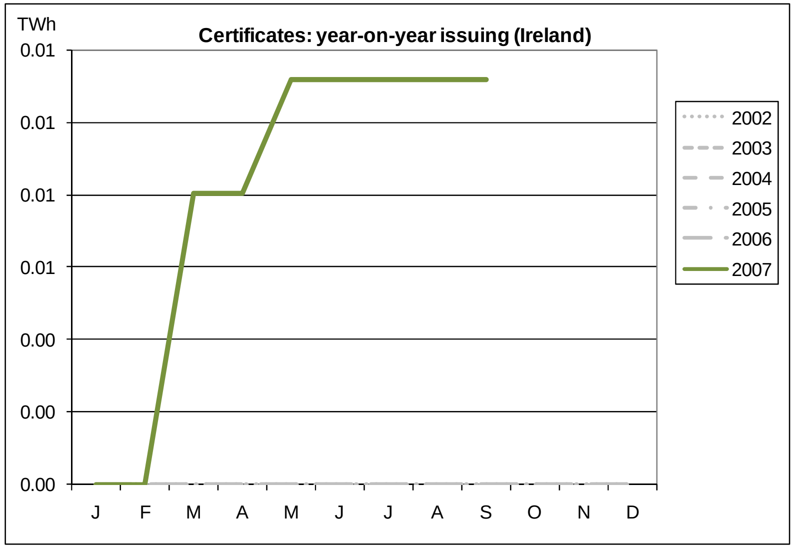

TWh
Certificates: year-on-year issuing (Germany)
0.05
0.04
0.04
0.03
0.03
0.02
0.02
0.01
0.01
0.00
J F M A M J J A S O N D
2002
2003
2004
2005
2006
2007


TWh
Certificates: year-on-year redemption (Germany)
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
J F M A M J J A S O N D
2002
2003
2004
2005
2006
2007

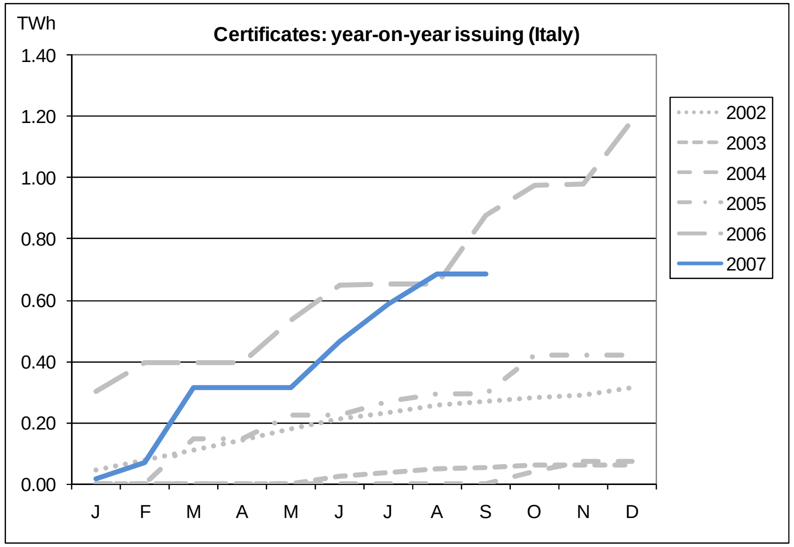

TWh
Certificates: year-on-year export (Germany)
0.00
0.00
0.00
0.00
0.00
0.00
0.00
J F M A M J J A S O N D
2002
2003
2004
2005
2006
2007

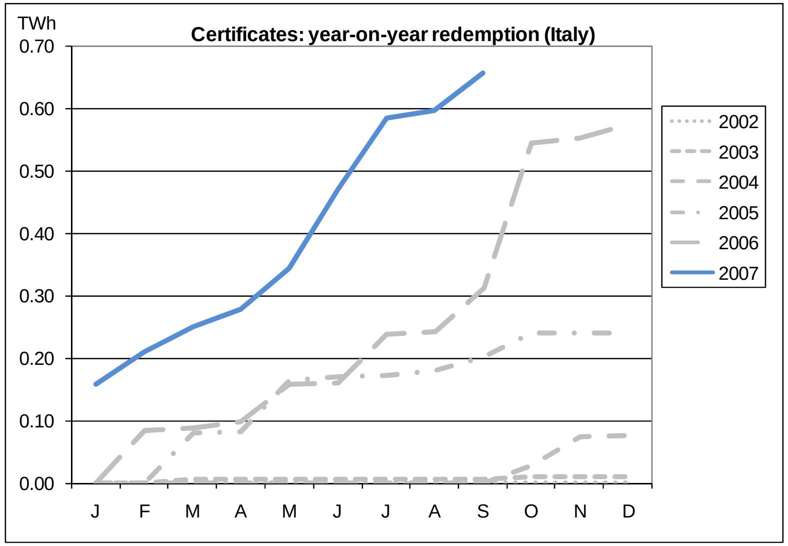

TWh
Certificates: year-on-year import (Germany)
2.50
2.00
1.50
1.00
0.50
0.00
J F M A M J J A S O N D
2002
2003
2004
2005
2006
2007

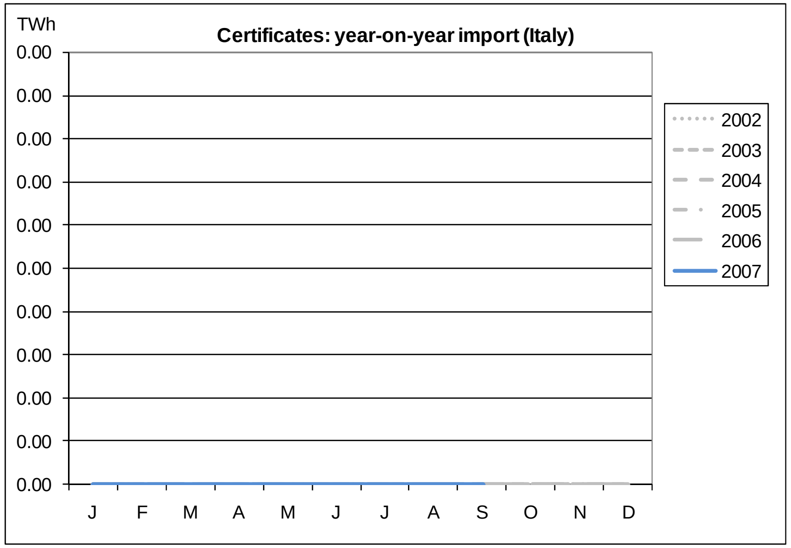
Ireland. The Irish market has opened in early summer, with certificates issued and exported, but activity has now ceased.



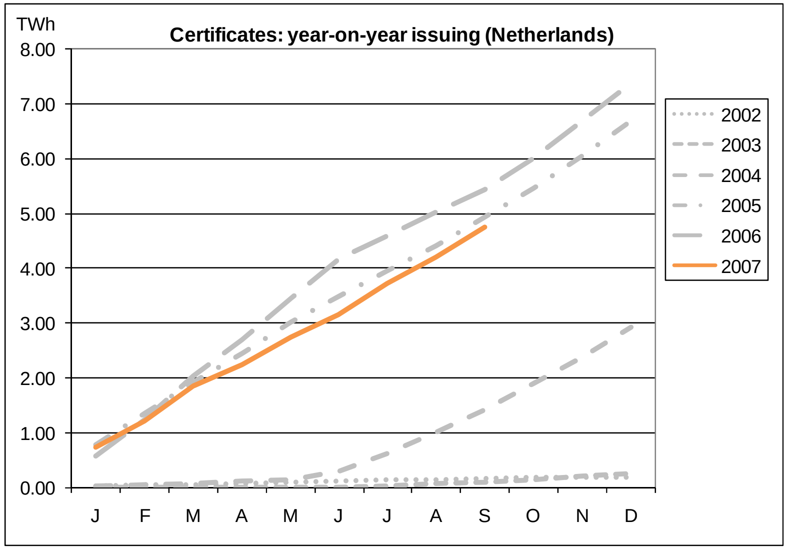
Italy. Issuing is similar to last year, but redemption is far higher. There have been no international transfers.

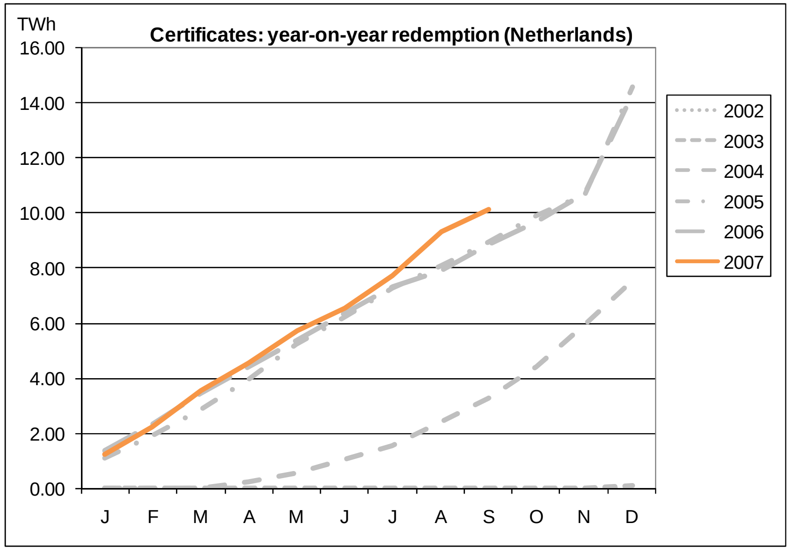


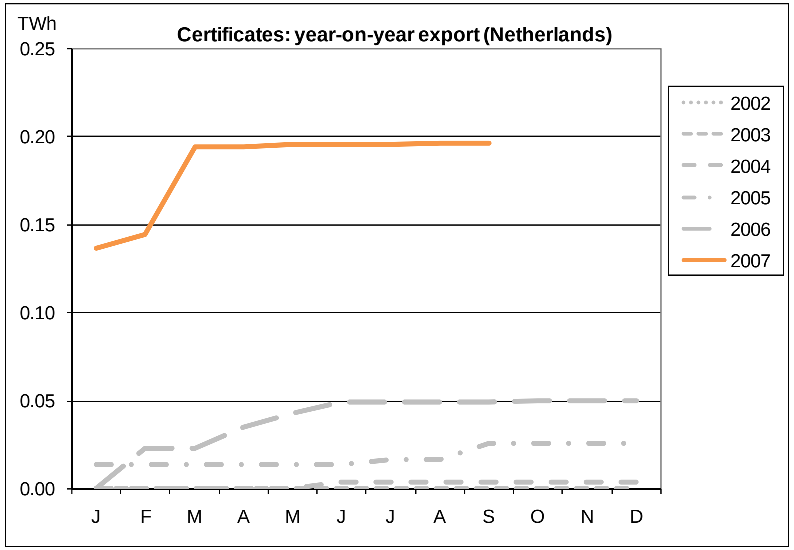


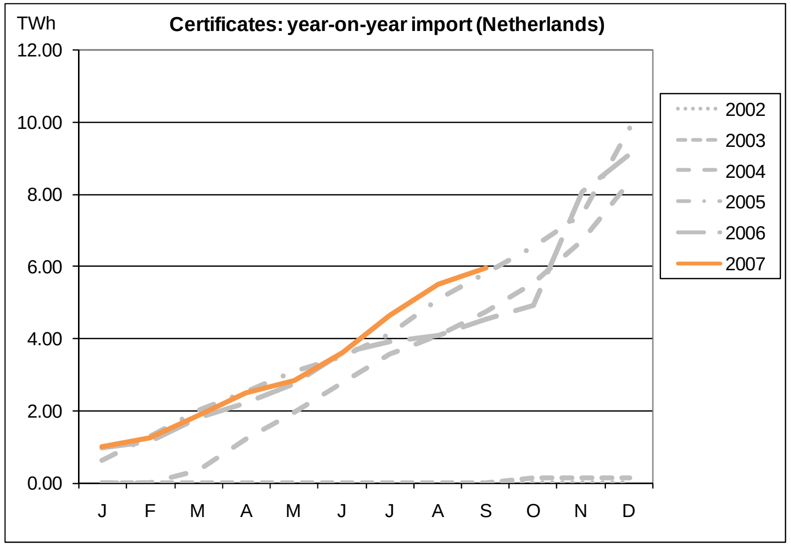


Netherlands. Redemption continues to grow at around the same rate as 2006, although issuing is a little lower. Exports are considerably larger than in previous years, but imports are about the same.

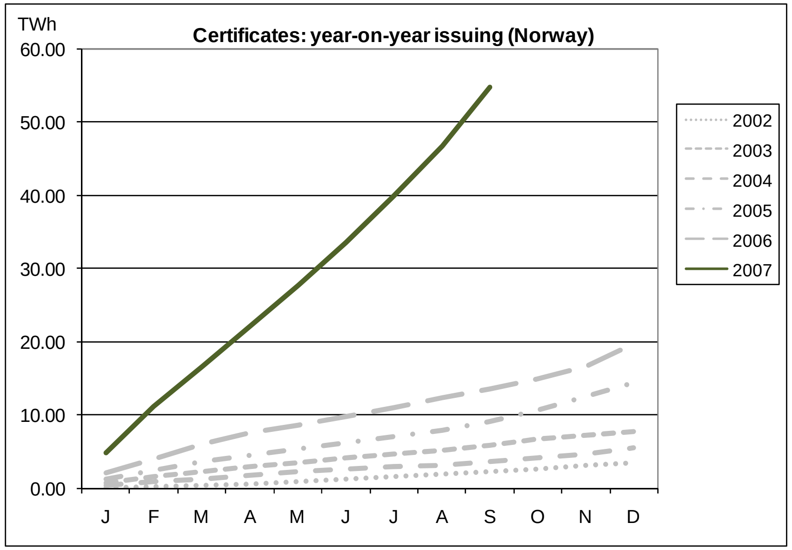


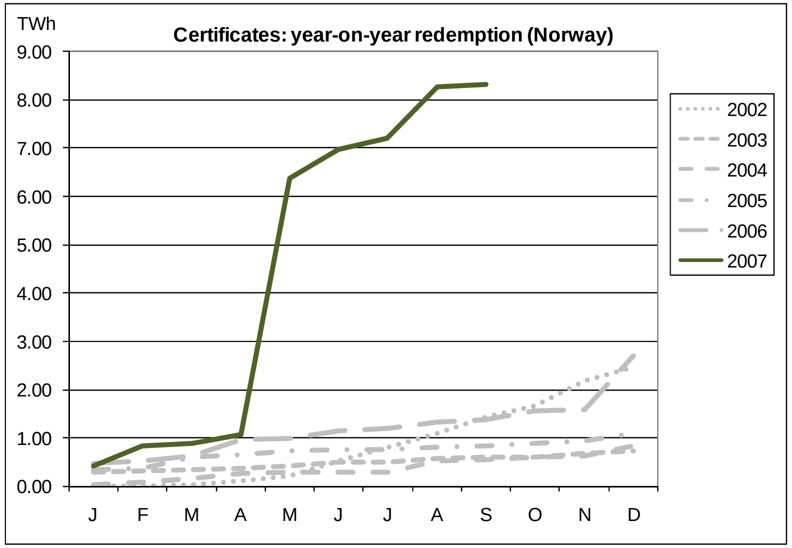


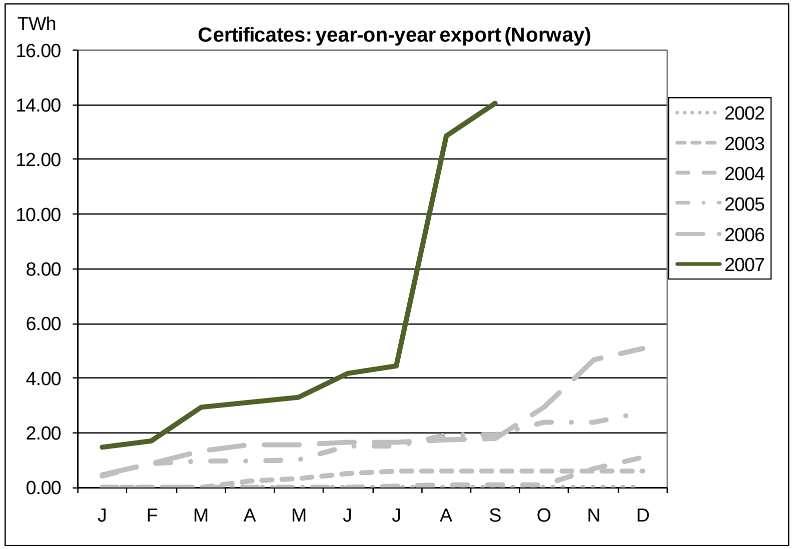


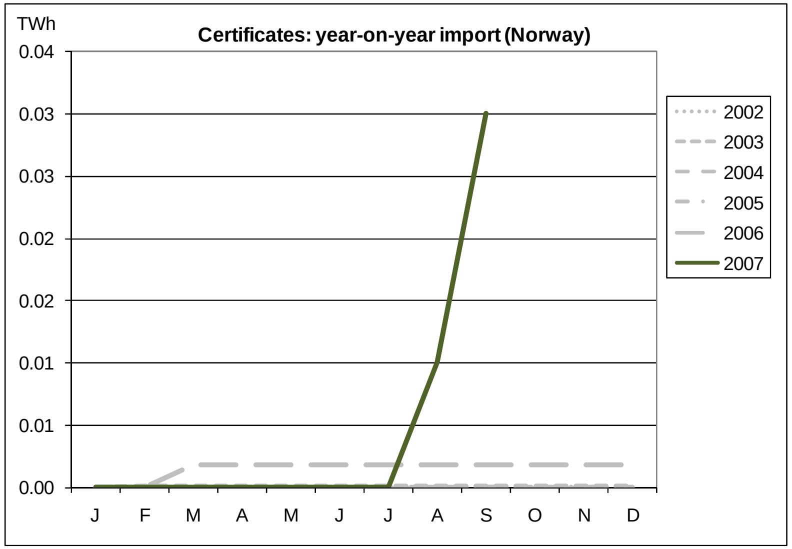


Norway continues to issue, export and redeem certificates at a higher rate than ever before, presumably for purposes of disclosing the source of electricity.

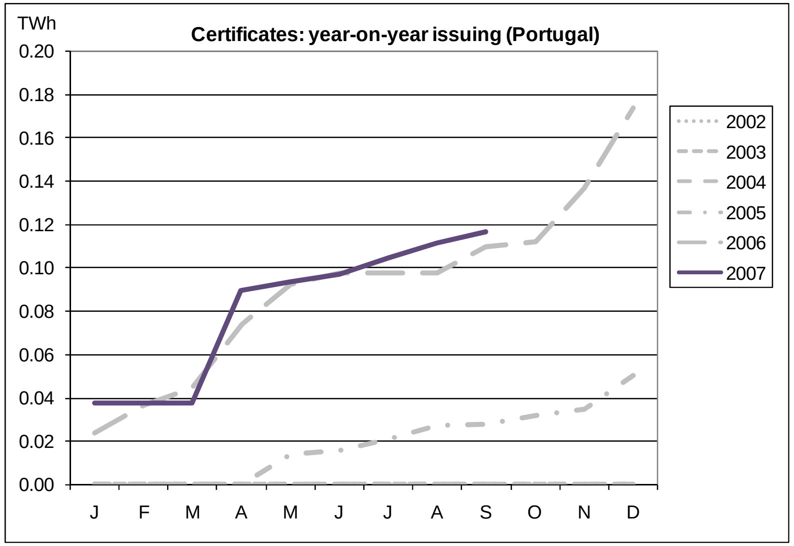


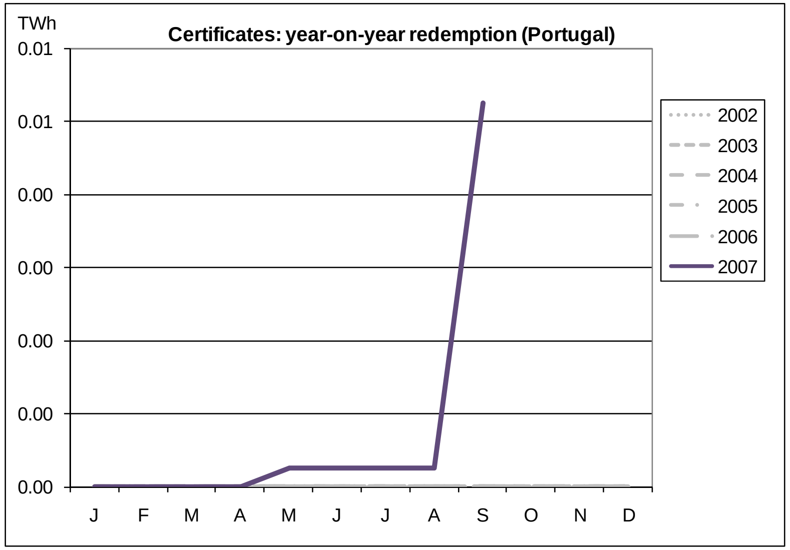


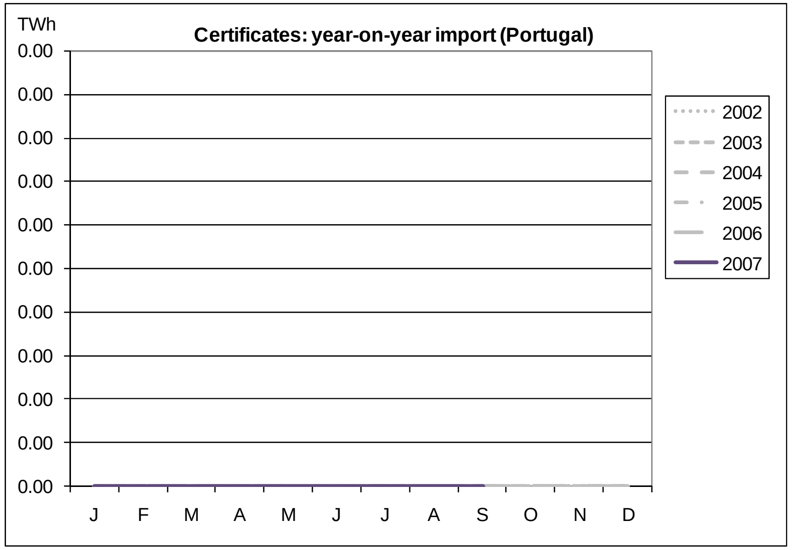




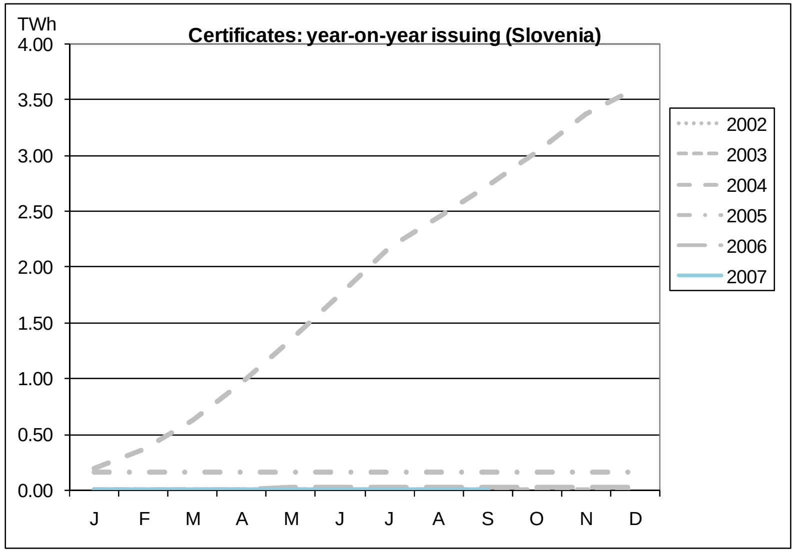
Portugal continues to issue around the same number of certificates than in previous years, and is now redeeming certificates.

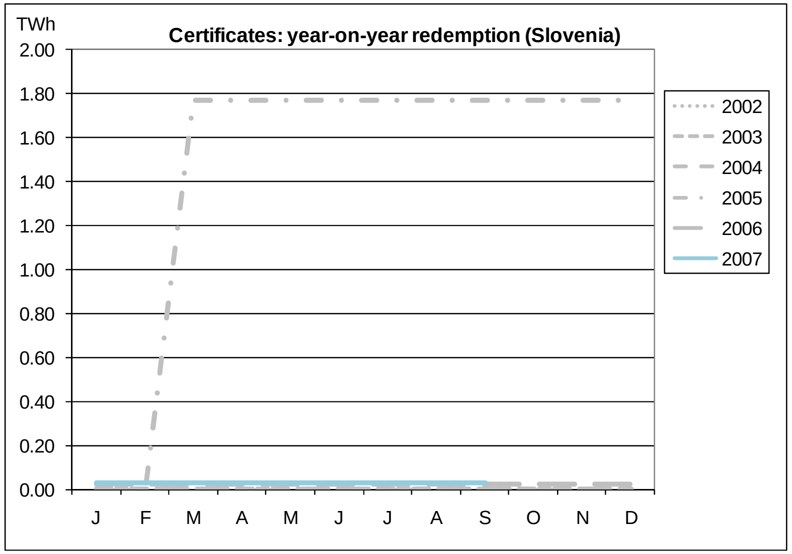


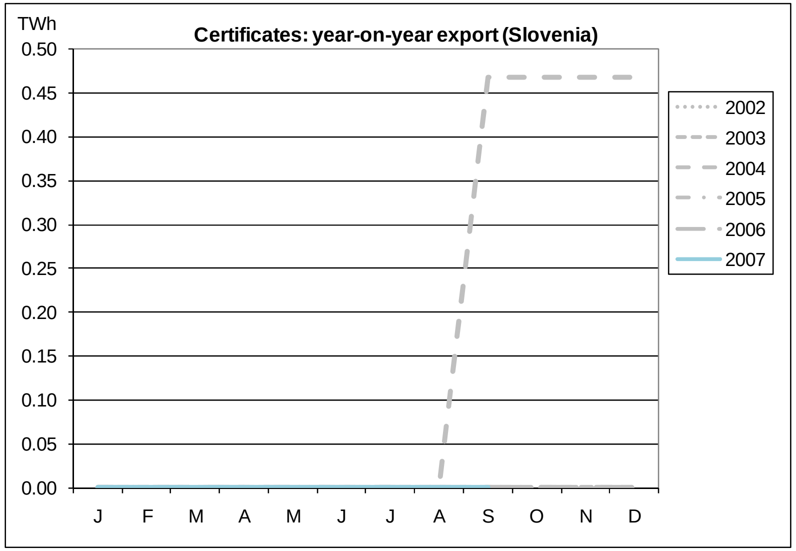


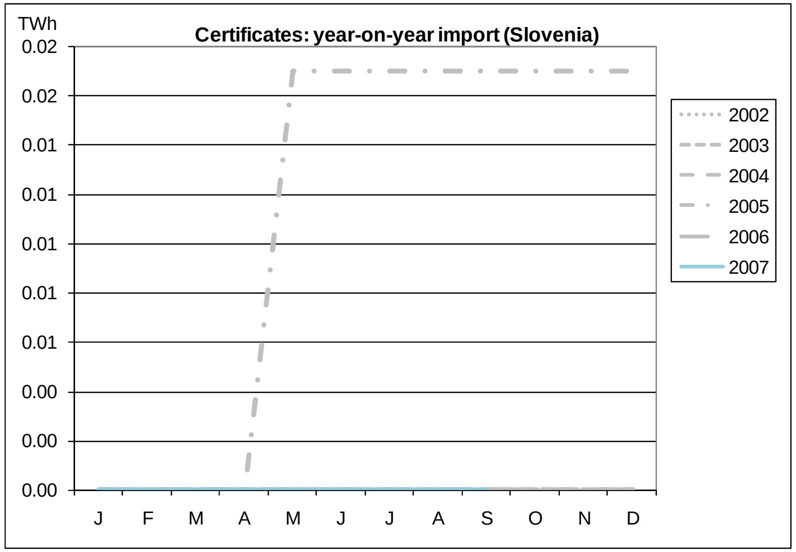


Slovenia has redeemed a small number of certificates, but has otherwise been inactive for the past year.

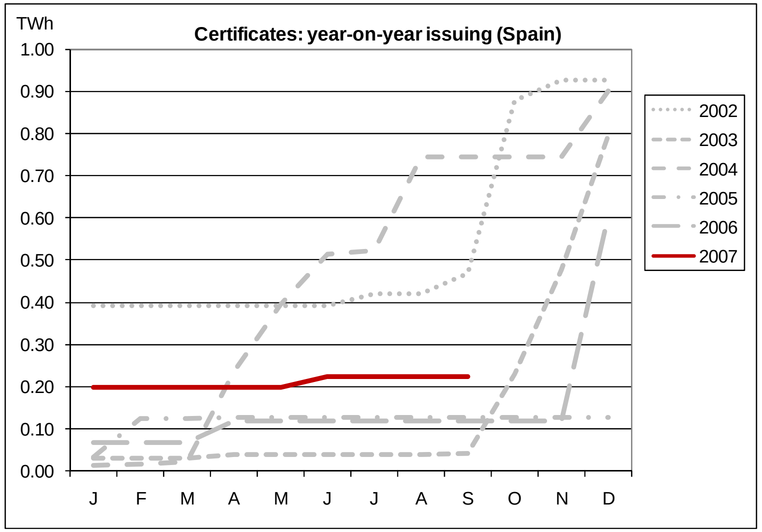


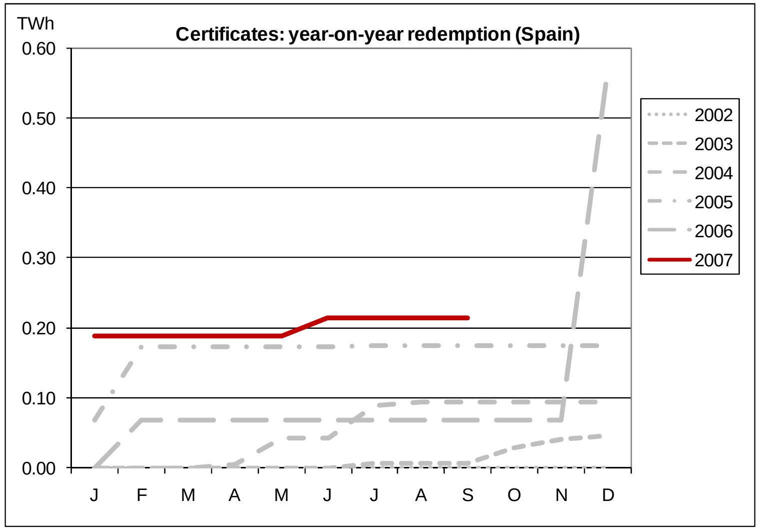


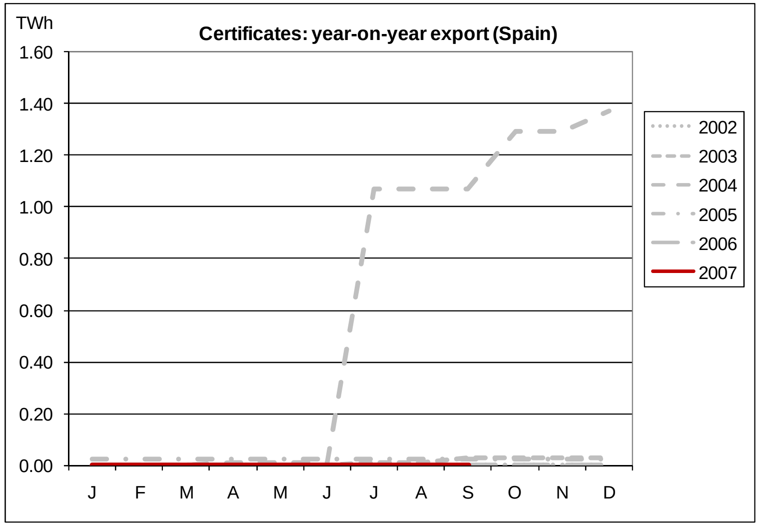


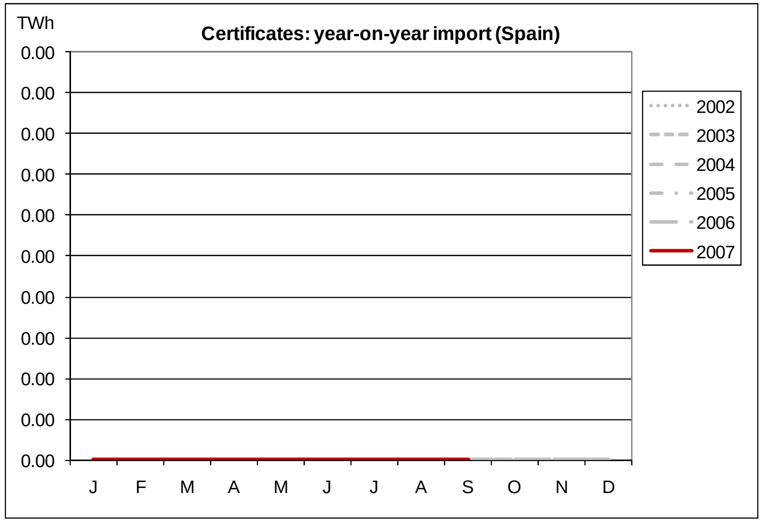


Spain. Issuing and redemption continue in a limited manner. International transfer now awaits development and approval of the revised Spanish Domain Scheme (note that Spanish activity was suspended on 16 June 2006 in the absence of a PRO-compliant Domain Protocol). Note that RED Electrica has indicated that it will withdraw from AIB at the end of the year, due to the appointment of the Spanish Regulator (CNE) as issuer of guarantees of origin.

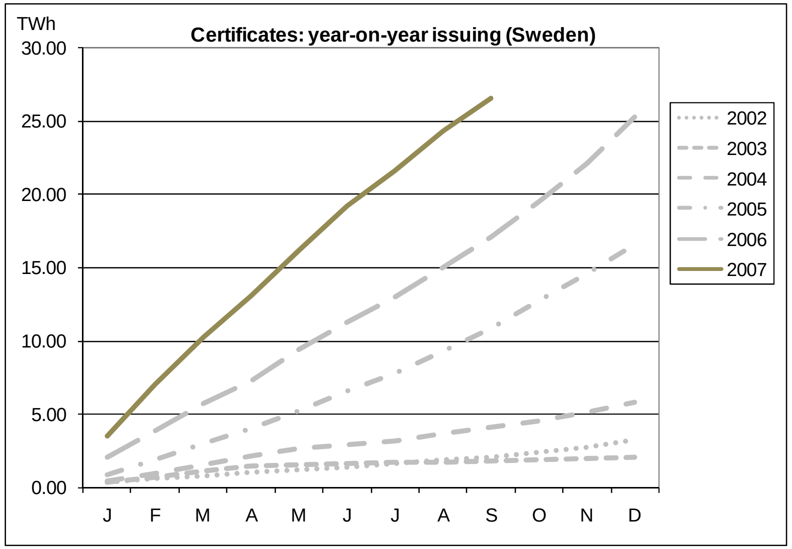


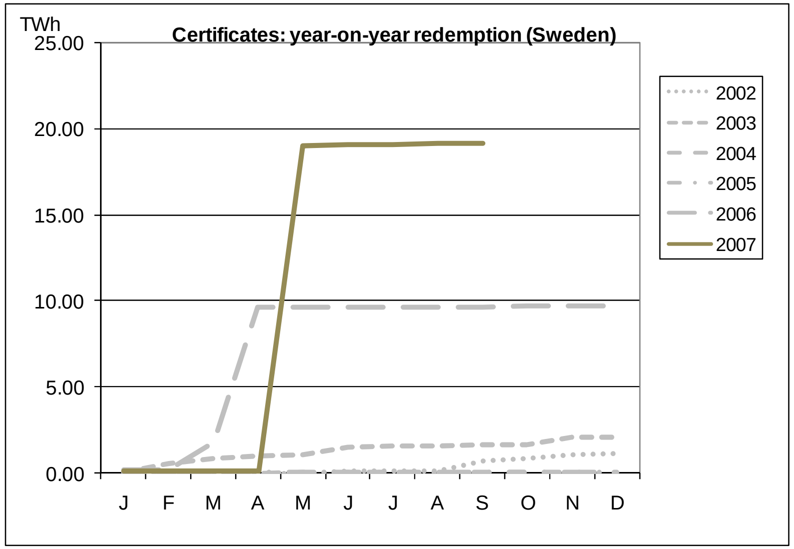


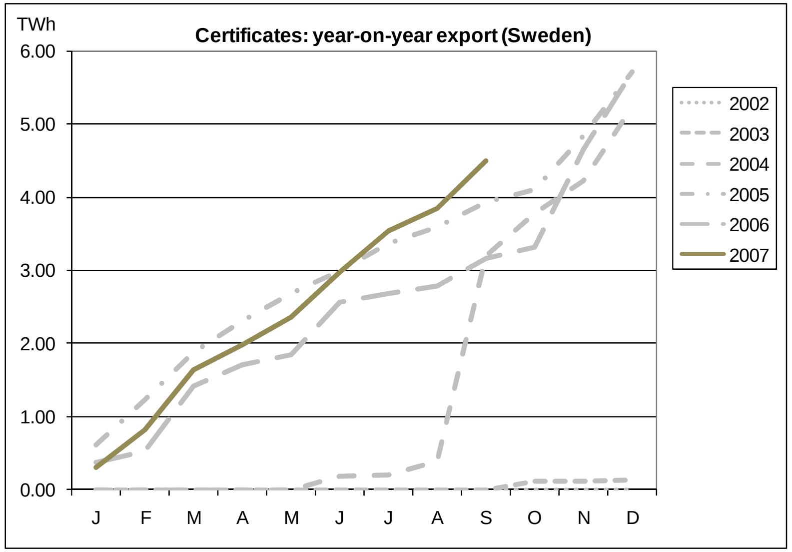


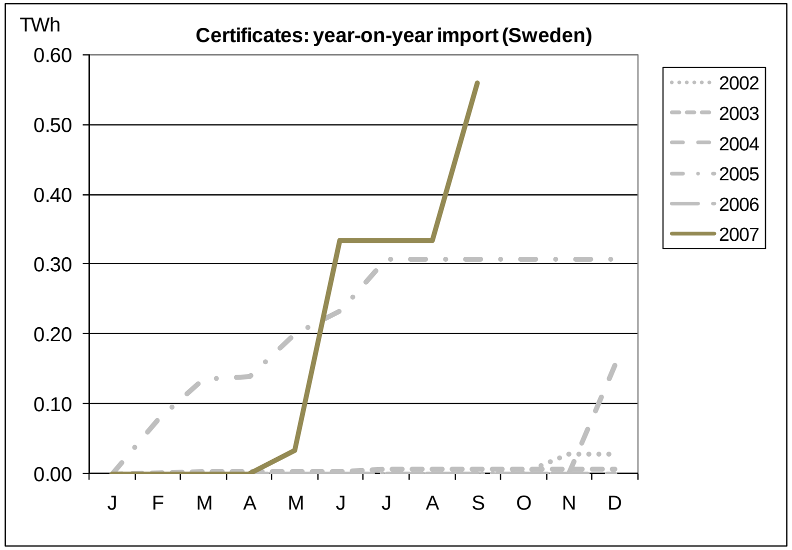


Sweden continues to issue and redeem more certificates than ever before, exporting about the same amount as in previous years but recently importing far more. In particular, redemptions during May were higher than any other country since AIB records began.

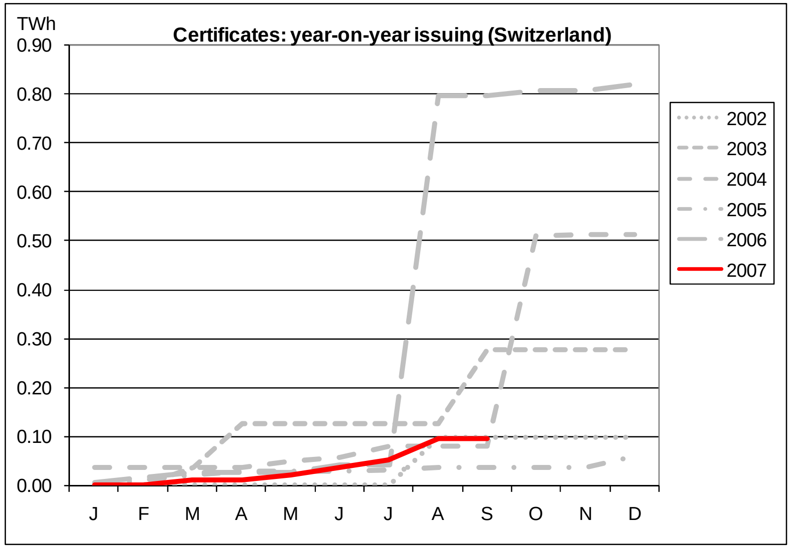


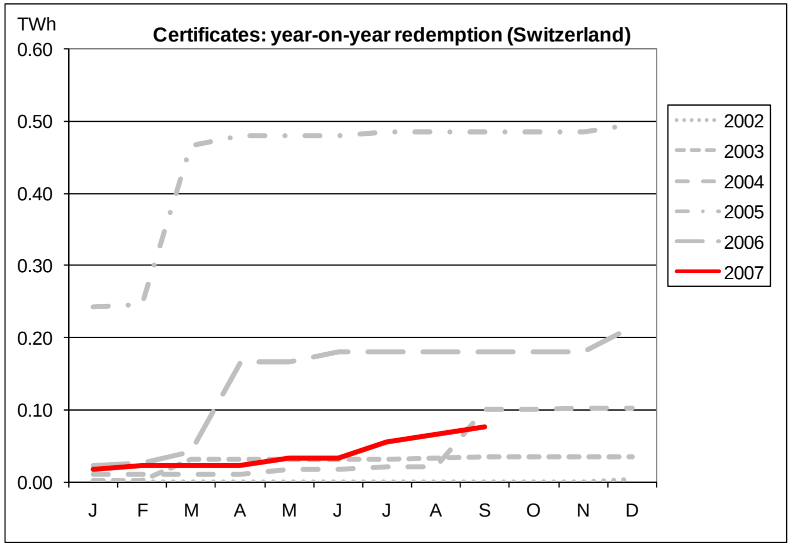


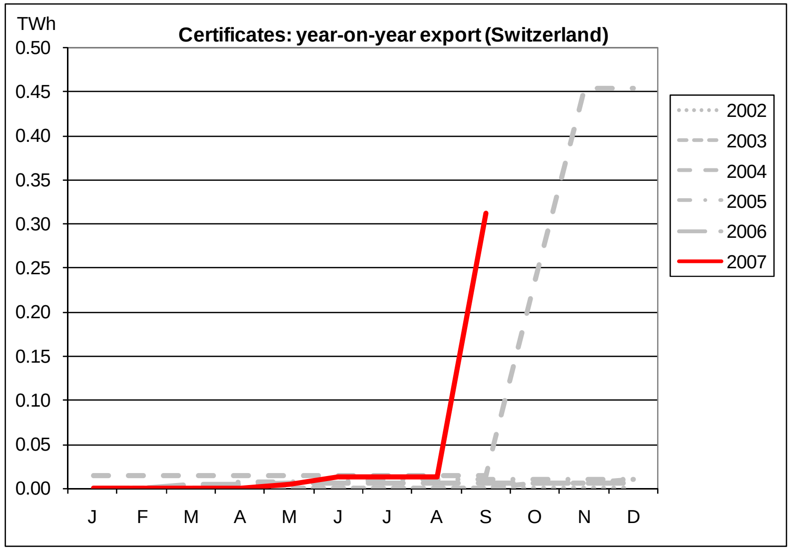


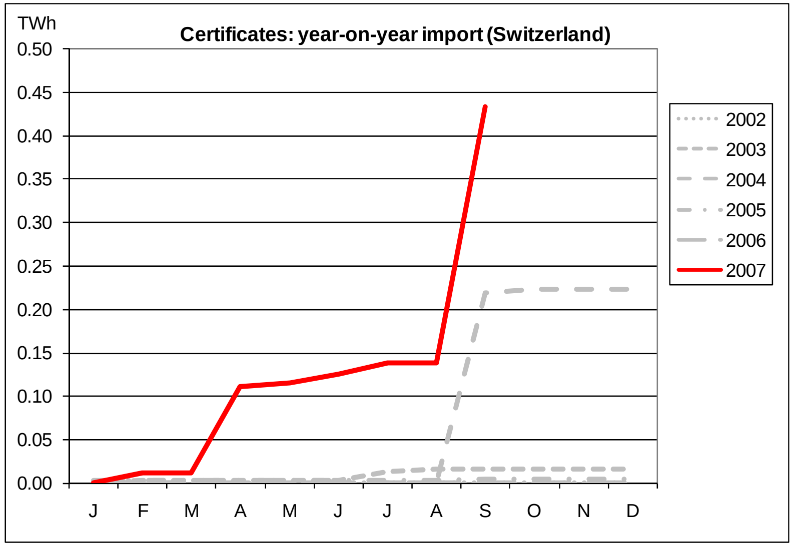


Switzerland has been relatively quiet this year, perhaps while it awaits the arrival of guarantees of origin later in the year, but has been transferring significantly more certificates than in the past.

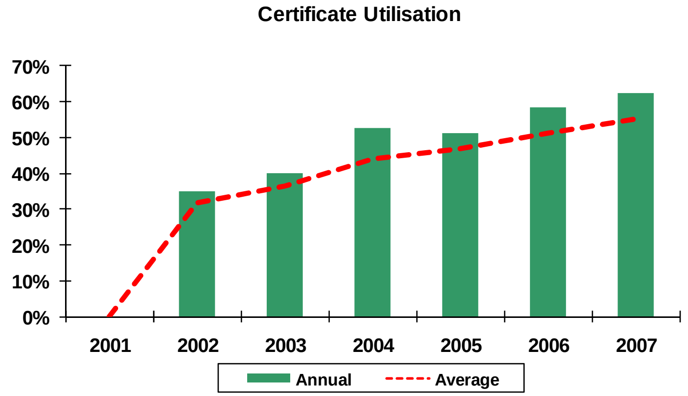


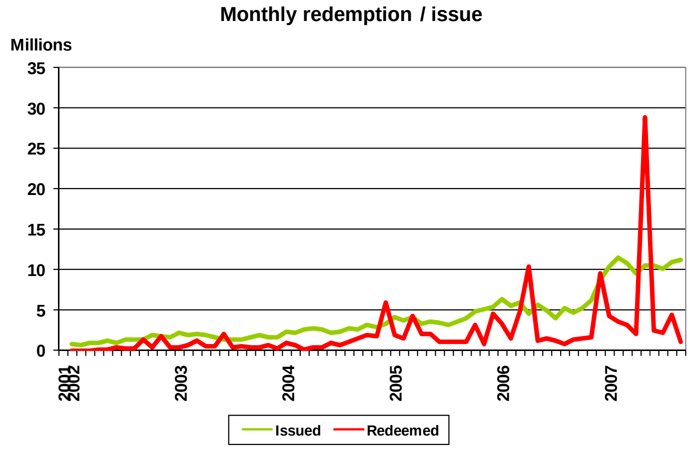




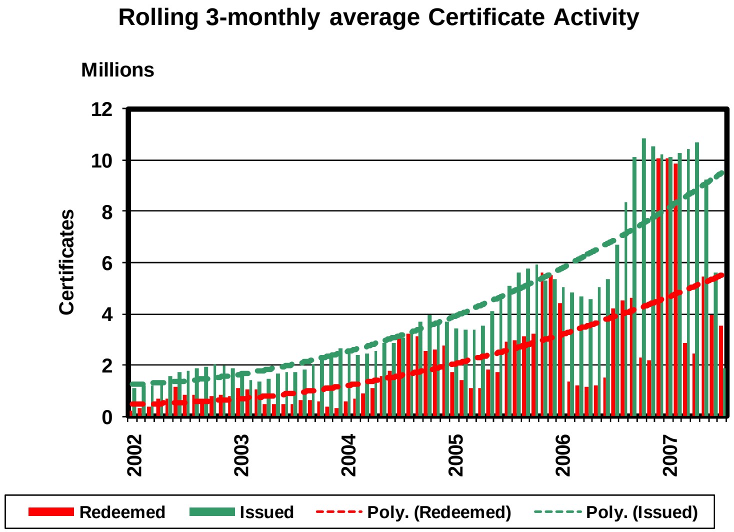


Realisation of value: The proportion of certificates that are redeemed has continued to rise to 55% overall, and 63% this year.

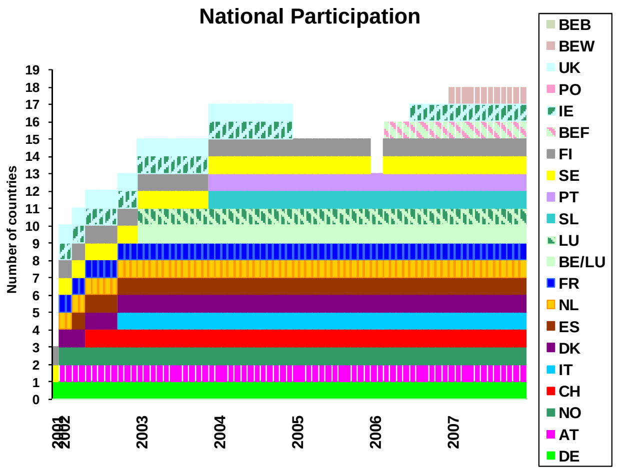




Rolling three-month averages show that the market continues to grow at a cyclical, increasing, rate.



Membership continues to grow, with Wallonia having applied for membership. Note that there was a short gap between Fingrid and Svenska Kraftnat ceasing membership, and Grexel taking over their roles; and a further gap as Ireland temporarily ceased membership.



Growth. Concerning the growth in issuing, transfers and redemption, it is interesting to see that transfers are now rising significantly, having remained fairly consistent for the last three years, at a time while issuing and redemption have grown 30-50% growth per annum.