The RE-DISS project has produced a set of Best Practice Recommendations (BPR) for the implementation of Guarantees of Origin and other tracking systems for disclosure in the electricity sector in Europe.

Diane Lescot of Observ’ER discusses the content and role of the BPR, which are aimed at helping competent authorities in charge of disclosure and guarantees of origin to implement reliable and accurate disclosure framework.

**EECS, and CEN’s GO standard**

CEN / CENELEC is currently developing a standard for electricity guarantees of origin. This draws heavily upon the experience gained by AIB in the development of the European Energy Certificate System (EECS).

But what is the difference between the two; and how might they co-exist?

**Portuguese Electricity**

Last December’s General Meeting was held in Lisbon. Pedro Pereira of REN writes about the Portuguese electricity market.

He identifies the roles of REN, and its co-participant in the Iberian electricity market (MI-BEL) - OMINet, the derivatives exchange, and its subsidiary OMINiclear, the clearing house and central counterparty of market operations.

Pereira also outlines the participation of REN in RECS since 2003, before describing the responsibility for issuing GOs in Portugal.

**RE-DISS Best Practice**

In particular, the AIB has been working hard on simplifying the EECS Rules and revising them to support the new RES Directive, and other forms of energy (such as biogas).

**New Cogen Directive**

It has also been redeveloping the inter-registry Hub.

When are the new Hub and EECS Rules likely to come into operation?

**Inside this issue:**

- RE-DISS: Best Practice 2
- Portuguese electricity 3
- EECS and CEN’s GO standard 4
- Decisions and plans 5
- European activity 6
- 2011 events 10

**AIB Statistics**

*All figures 1MWh certificates*

In 2010 (to end of year):
- ISSUED: 192* million
- TRANSFERRED: 146 million
- CANCELLED: 211 million

In 2009:
- ISSUED: 218 million
- TRANSFERRED: 91 million
- CANCELLED: 151 million

Since 2001:
- ISSUED: 953 million
- TRANSFERRED: 432 million
- CANCELLED: 661 million

* 2010 issued certificates is understated by 20-30m: Swedish certificates for nuclear electricity will be issued in April 2011

**AIB: General Meeting Decisions**

AIB recently held its quarterly General Meeting in Brussels.

What were the major decisions arising out of this meeting; and are there any new faces in the Association?

We look at the outcome of the Brussels General Meeting, identifying the major decisions and (at a high level) their impact on the Association and on the market.
The RE-DISS project has produced a set of Best Practice Recommendations (BPR) for the implementation of Guarantees of Origin and other tracking systems for disclosure in the electricity sector in Europe. These BPR are aimed at helping competent authorities in charge of disclosure and guarantees of origin to implement reliable and accurate disclosure framework. The BPR can be downloaded from the project website (www.reliable-disclosure.org/documents).

The RE-DISS BPR build upon the findings of the E-TRACK project (www.e-track-project.org), these findings have been developed further in the RE-DISS project, and have been discussed during three workshops with competent authorities from 16 countries.

The workshops were co-organised by EPED (European Platform for Electricity Disclosure, www.eped.eu).

The BPR deal with a series of items included in Directive 2009/28/EC that raise questions, and deserve a common approach from competent authorities in order not to disturb the functioning of tracking systems on a European level.

The main items are the following:

- **GOs should be issued for all energy sources**, not only for renewables, and handled in one single registry per domain. The sole purpose of a GO should be disclosure.

- **GOs should eventually become the only accepted tracking tool**.

- **Member states are advised to prevent the use of GOs from countries that have not implemented a reliable disclosure system** (i.e., one that seeks to avoid double counting).

- **Member countries should calculate a residual mix, which should be used for electricity from an unknown origin**.

- **GOs should be implemented according to the EECS standard** and reliable transfers of GOs to and from non-EECS countries should be foreseen (this deserves more elaboration from the RE-DISS team, and from AIB).

- **The project proposes that strict rules be included to regulate contract based tracking** (i.e., the tracking of attributes that are exchanged through bilateral contracts on physical energy). By its nature, this type of tracking is very untransparent, and can lead to difficulties for authorities that are in charge of calculating the residual mix.

- **Finally, the BPR includes advice on how individual suppliers should determine their disclosure figures**.

The Best Practice Recommendations will be refined during the remainder of the project. In particular, they will address the integration of countries that are less advanced in their implementation of disclosure than those that have so far participated in the development of the BPR.

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Observ’ER (Issuing body for France)
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REN – Redes Energéticas Nacionais, S.A. - is engaged in two principal lines of business:

- electricity transmission, in which it owns and operates the National Transmission Grid; and
- natural gas, in which it is engaged in the reception, storage and regasification of liquified natural gas (LNG); the operation of the national high-pressure gas transmission network, which it owns and operates under respective concessions; and the underground storage of natural gas.

In addition to the construction and operation of the national transmission grid, REN is also the system operator of the national electricity system.

This involves scheduling generation to match, as closely as possible, the demand on the national transmission grid; and to control in real time the facilities to correct imbalances.

As part of managing the national transmission grid, REN is also responsible for controlling the schedule of imports and exports with Spain and manages the mechanisms to cope with interconnection congestions.

MIBEL – Iberian Electricity Market

The Iberian Electricity Market (MIBEL), constitutes a joint initiative from the Governments of Portugal and Spain, with a view to the construction of a regional electricity market.

With the materialization of MIBEL, it becomes possible for any consumer in the Iberian zone to acquire electrical energy under a free competition regime from any producer or retailer that acts in Portugal or Spain.

MIBEL's main goals are:

- To benefit the electricity consumers of both countries, through the integration of the respective electric systems;
- To structure the market organization based on the principles of transparency, free competition, objectivity, liquidity, self-financing and self-organisation;
- To support the development of the electricity market of both countries, with the existence of a single reference price for the whole of the Iberian Peninsula;
- To allow all the participants free access to the market, under equal conditions of rights and obligations, transparency and objectivity; and
- To promote economic efficiency of electrical sector companies, encouraging free competition amongst them.

The management of the Iberian spot electricity market is the responsibility of OMEL – Iberian Energy Market Operator – Spanish division, which has its headquarters in Madrid and began its business in 1998.

On the “spot electricity” market, transactions are executed by the participation of agents in the daily and intra-day markets that aggregate, through market splitting, the Spanish and Portuguese zones of MIBEL.

OMIP is the MIBEL derivatives exchange that ensures the management of the market jointly with OMIClear, a company constituted and totally owned by OMIP, which executes the role of Clearing House and Central Counterparty of operations carried out on the market.


Since 1 December 2003, REN – Rede Elétrica Nacional, S.A. - has been the national issuing body for RECS (“the Renewable Energy Certificate System”) in Portugal. Since then, it has been a full member of the Association of Issuing Bodies (AIB).

The issuing of Portuguese RECS certificates started in 2005. Since then, more than 878,682 certificates were enabled to be transferred in the market, 20,050 certificates were cancelled and 37,000 certificates were exported.

Last year, within the scope of the transposition of the European Directives 2004/8/EC (CHP Directive), REN was appointed as the Issuing Body for CHP Guarantees of Origin and, at the end of last year, has submitted to the approval of DGGE (the Directorate General for Geology and Energy) the corresponding Operations Manual.

In terms of the transposition of the European Directive 2009/28/EC (RES Directive), another Issuing Body was appointed, Laboratório Nacional de Energia e Geologia, L. P, which is currently in the implementation phase.

For more information, contact:
Pedro Pereira
REN (Issuing Body for Portugal)
Email: pedro.pereira@ren.pt
CEN / CENELEC is currently developing a standard for electricity guarantees of origin. This draws upon AIB’s experience developing EECS - the European Energy Certificate System. What is the difference between the two, and how might they co-exist?

EECS was originally developed from the RECS Basic Commitment, which set a framework for a system of internationally transferrable electronic certificates. This required it to provide considerably more than just a standard. In fact, EECS actually contains:

- **A set of standardised terms relating to energy certification.** These are vital, so that competent bodies speak the same technical language, and so have a common understanding.

- **Standard codes for specific items such as energy source and technologies.** This is essential if each member is not to have to manage a cross-reference of its own codes and those of every other member.

- **Common interpretations of provisions of various EU Directives.** A number of aspects of the relevant directives can be construed in different ways. For instance, does “location” refer to a postal address or a map reference? How to deal with refurbished plant?

- **A standard process for the creation, transfer and retirement of certificates.** The cornerstone of EECS: this is vital if the life cycle of certificates is to be coherent and consistent between countries.

- **Best practice guidelines.** These have evolved from many years of experience in the field, and offer advice on how to treat complex issues which might look simple at first sight. The recent adoption of the RE-DISS Best Practice Recommendations is an example of how AIB continually seeks to evolve the system, making use of relevant expertise wherever it is available.

- **Protocols for managing the relationship between members, and managing risk.** These relate to operation of the Association itself, which is not merely an interest group, but acts to provide collective supervision for the market.

- **Protocols for system-to-system linkages.** These are essential if a simple and coherent network of registries is to be operated, and one which is efficient, effective and secure.

The CEN/CENELEC standard represents only part of this; but it is a vital component in that, within the EU, such a standard must be employed nationally, wherever a standardised approach is required.

The CEN/CENELEC GO standard does not replace EECS: rather, by seeking to adopt a common standard with CEN/CENELEC and embedding this within its heart, the position of EECS becomes far stronger.

Indeed, the two are symbiotic: the CEN/CENELEC GO standard strengthens the incentive for EU Member States to adopt a standardised approach that integrates well with EECS; therefore removing barriers to AIB membership. Conversely, the presence of EECS provides a framework in which such a standard can be implemented successfully; and encourages a constructive relationship between the users and the standards body.

Naturally, the fairly reactive nature of the market may lead to AIB adopting non-standard solutions to market issues as an expedient. The challenge will then be to work with CEN/CENELEC to adjust the standard so that it addresses such issues effectively.

AIB looks forward to working with CEN/CENELEC in the continued development of the GO standard for electricity; and in future cooperations relating to other energy products such as (perhaps in future) biogas GOs, and heating & cooling GOs.
The Brussels GM, being the first of the year, dealt with a number of items relating to annual reporting, in particular approving the auditor’s report and the annual report. Also, expenditure was approved on consultancy support for revision of the EECS Rules, and to enable the new Hub to support the specific provisions of the new EECS Rules.

**Officials**

Regarding officials, the current Board bade farewell to Thierry van Craenenbroeck, who also retires as Treasurer; and reappointed the members of the current Board whose term of office had expired. The returning Board members are Louise Ronne Christensen, who will become the new chairman in place of Gineke van Dijk (who also returns); and Lukas Groebke, who takes over Treasurer duties.

Pierre-Yves Cornelis has resigned chairmanship of the policy workgroup, Internal Affairs, and this role has been taken over by Rolf Jorgensen; while Diane Lescot returns as chairman of the workgroup External Affairs, replacing Claudia Delmirani.

**RE-DISS Best Practice Recommendations**

The RE-DISS Best Practice Recommendation is now formally supported by AIB.

**EECS Rules implementation**

The meeting supported the proposals of Workgroup Internal Affairs for change to the EECS Rules, such that EECS certificates will now indicate whether they are eligible: as a GO, for support, for an Independent Criteria Scheme and or for high-efficiency cogeneration; and energy sources and technologies will reflect a new coding scheme, which has been revised to better support the new RES Directive.

The meeting approved the high-level implementation plans, agreeing that the new Hub will come into operation on 1st September 2011; and that the new EECS Rules would be implemented in a phased manner between 1st September 2011 and 31st December 2013.

In the interests of expediency and practicality, the new EECS Rules will be frozen from 1st September 2011 until 31st December 2012; and that the domain protocol process would be streamlined.

The meeting agreed in principle with the proposed rules for addressing the co-existence (for a transitional period) of certificates issued under the existing system, as set out in the PRO; and those issued under the new EECS Rules.

This is being addressed in such a way as to minimise the impact on the market wherever possible and sensible.

Details of the implementation plan will be set out in the next edition of this AIB Newsletter.

**Audits and Domain Protocol revisions**

Concerning operational audits of members, all members who remain unaudited are to be so by the end of the year or their membership will be terminated: from 2013, members will be audited every 5-years.

The General Meeting accepted the revised Danish Domain Protocol, which had been revised to support cogeneration GOs.

AIB has been redeveloping the inter-registry Hub and simplified the EECS Rules, revising them to support the new RES Directive and other forms of energy. Implementation is now just months away...
Summary of Activity

Over the past year market activity has continued to increase.

Certificates are increasingly used by suppliers to prove the source of electricity, and this has again led to significant increases in internal trade and cancellation; indeed, cancellation has risen by 39% in the past year.

This means that more and more certificates are finding a value. The number of certificates cancelled was 110% of the number produced in 2009, compared with 69% the previous year, and a fairly constant 52% over the preceding five years.

We have yet to finalise the number of issued certificates for electricity produced during 2010 (this will be virtually complete by mid-2011), and we anticipate a materially higher final number of certificates issued for this production year than that shown in the graph. However, but it looks certain that less certificates will have been issued in 2010 than in previous years, probably due to reduced rainfall leading to lower reservoir levels in hydroelectricity schemes.

While the issue of 2010 Swedish nuclear certificates in April will to some extent mitigate this; it seems to indicate that market parties are using up their stocks of certificates, perhaps in response to the requirement under the EU Renewable Energy Directive (2009/28/EC) for certificates to expire within 12 months of production of the associated energy.

International Trade

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

Norway, Sweden and Finland - continue to be the major exporters, although Austria and Belgium continues to make their presence felt.

Regarding imports, these continue to be Belgium, followed by Germany and the Netherlands; while other countries play a lesser part.

Some countries (Norway, Denmark and Sweden) figure in both exports and imports, suggesting trading activity.

Other trade exists in the form of the cancellation of certificates in one country for use in another; the new EECS Rules will discourage this, except where the affected report provide such information for inclusion in this report (this accounts for about ten percent of cancellations).
The pie charts on this page show the certificates issued and cancelled this last year, in summary.

These charts clearly demonstrate the large role that the Nordic region had in this market, where it is mandatory to use GO as proof of renewable supply; and the rising interest in renewable products elsewhere in Europe, in particular Germany and Belgium.

They also demonstrate where certificates come from; and where they eventually end up: originating mostly from the Nordic region, they travel to the Netherlands, Belgium, Germany, France and Italy.

From the perspective of energy sources, a different picture emerges.

Hydropower remains by far the prevalent renewable energy source, followed by onshore wind and biomass; while nuclear power provides the major contribution of the non-renewable energies - note that these certificates were issued late in 2009 but cancelled in 2010: this year, they will be issued in April.

Detailed national activity can be found by going to the AIB website at: www.aib-net.org, clicking OPERATIONS, then MARKET INFORMATION, and then MARKET ACTIVITY.
### EUROPEAN ACTIVITY

#### The Raw Data - by Country - as at mid-February 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>TOTAL</th>
<th>2010</th>
<th>Cancelled</th>
<th>2009</th>
<th>Cancelled</th>
<th>2009</th>
<th>Cancelled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issued</td>
<td>Transferred</td>
<td>Cancelled</td>
<td>Issued</td>
<td>Transferred</td>
<td>Cancelled</td>
<td>Issued</td>
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<td>Austria</td>
<td>22,841,675</td>
<td>14,941,844</td>
<td>12,968,131</td>
<td>43,939,909</td>
<td>28,344,195</td>
<td>9,995,277</td>
<td>8,215,776</td>
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<td>Belgium Brussels</td>
<td>5,924</td>
<td>881</td>
<td>2,146,332</td>
<td>3,067,920</td>
<td>2,444</td>
<td>821</td>
<td>3,948,468</td>
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<td>Belgium Flanders</td>
<td>8,297,453</td>
<td>18,070,299</td>
<td>8,749,320</td>
<td>77,410,209</td>
<td>51,611,890</td>
<td>1,762,996</td>
<td>13,896,405</td>
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<tr>
<td>Belgium &amp; Lux RFS</td>
<td>113,390</td>
<td>2,031,496</td>
<td>2,048,355</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Belgium Wallonia</td>
<td>2,210,256</td>
<td>4,839,069</td>
<td>3,872,740</td>
<td>25,513,609</td>
<td>20,338,733</td>
<td>1,214,386</td>
<td>2,860,492</td>
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<td>Switzerland</td>
<td>3,308,428</td>
<td>102,015</td>
<td>3,334,972</td>
<td>6,312,282</td>
<td>3,850,393</td>
<td>139,675</td>
<td>1,009,859</td>
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<tr>
<td>Germany</td>
<td>69,252</td>
<td>15,603,181</td>
<td>4,132,735</td>
<td>71,516,774</td>
<td>52,643,729</td>
<td>10,385,055</td>
<td>2,841,972</td>
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<tr>
<td>Denmark</td>
<td>12,912,930</td>
<td>1,563,793</td>
<td>8,008,442</td>
<td>3,051,701</td>
<td>2,080,018</td>
<td>4,685,748</td>
<td>974,376</td>
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<td>Spain</td>
<td>6,713,394</td>
<td>1,429,816</td>
<td>1,451,359</td>
<td>822,027</td>
<td>822,027</td>
<td>795,776</td>
<td>1</td>
</tr>
<tr>
<td>Finland</td>
<td>73,949,600</td>
<td>5,030,511</td>
<td>9,946,453</td>
<td>32,564,228</td>
<td>21,215,412</td>
<td>9,643,028</td>
<td>2,772,021</td>
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<tr>
<td>France</td>
<td>16,004,263</td>
<td>6,110,775</td>
<td>105,105</td>
<td>16,360,410</td>
<td>27,697,072</td>
<td>6,497,233</td>
<td>1,951,210</td>
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<tr>
<td>Ireland</td>
<td>162,414</td>
<td>10,051</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Italy</td>
<td>26,801,268</td>
<td>7,434,156</td>
<td>1,610,942</td>
<td>16,939,088</td>
<td>7,580,137</td>
<td>4,374,934</td>
<td>1,254,836</td>
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<tr>
<td>Luxembourg</td>
<td>10,916</td>
<td>217,707</td>
<td>180,669</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>51,490,694</td>
<td>29,989,278</td>
<td>2,860,891</td>
<td>91,568,734</td>
<td>127,513,741</td>
<td>8,758,785</td>
<td>7,953,900</td>
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<tr>
<td>Norway</td>
<td>457,506,330</td>
<td>126,618,517</td>
<td>233,924,830</td>
<td>14,522,582</td>
<td>106,851,245</td>
<td>102,042,044</td>
<td>37,873,703</td>
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<tr>
<td>Portugal</td>
<td>847,664</td>
<td>25,001</td>
<td>7</td>
<td>20,089</td>
<td>211,099</td>
<td>25,000</td>
<td>7</td>
</tr>
<tr>
<td>Sweden</td>
<td>283,594,696</td>
<td>8,843,318</td>
<td>79,824,448</td>
<td>42,123,912</td>
<td>170,387,311</td>
<td>49,754,685</td>
<td>2,041,814</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4,002,668</td>
<td>866,003</td>
<td>117,917</td>
<td>1,927,200</td>
<td>100,000</td>
<td>35,652</td>
<td>35,652</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>953,981,740</td>
<td>248,882,834</td>
<td>411,035,774</td>
<td>432,420,065</td>
<td>641,661,917</td>
<td>192,521,364</td>
<td>92,130,570</td>
</tr>
<tr>
<td><strong>Percentage Cancelled</strong></td>
<td>67%</td>
<td>110%</td>
<td>69%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 Energy Source - as at mid-February 2011

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>TOTAL</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issued</td>
<td>Transfer</td>
<td>Cancelled</td>
</tr>
<tr>
<td></td>
<td>Internal</td>
<td>Export</td>
<td>Import</td>
</tr>
<tr>
<td>Offshore wind</td>
<td>3,122,295</td>
<td>814,671</td>
<td>126,512</td>
</tr>
<tr>
<td>Photovoltaic</td>
<td>51,831</td>
<td>1,056</td>
<td>38</td>
</tr>
<tr>
<td>Thermal</td>
<td>102,754</td>
<td>51,369</td>
<td>22,483</td>
</tr>
<tr>
<td>Hydropower</td>
<td>778,907,375</td>
<td>210,694,793</td>
<td>383,723,180</td>
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<tr>
<td>Offshore tidal</td>
<td></td>
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</tr>
<tr>
<td>Offshore wave</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Offshore wave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geothermal</td>
<td>2,167,947</td>
<td>212,562</td>
<td>688,519</td>
</tr>
<tr>
<td>Energy crops</td>
<td>2,180,040</td>
<td>1,430,012</td>
<td>39,866</td>
</tr>
<tr>
<td>Nuclear power</td>
<td>45,257,395</td>
<td>15,230,363</td>
<td>13,409,692</td>
</tr>
<tr>
<td>Landfill gas</td>
<td>2,443,952</td>
<td>1,099,441</td>
<td>27,297</td>
</tr>
<tr>
<td>Sewage gas</td>
<td>36,205</td>
<td>3,363</td>
<td>3,363</td>
</tr>
<tr>
<td>Other biomas</td>
<td>2,391,223</td>
<td>1,442,767</td>
<td>22,365</td>
</tr>
<tr>
<td>MSW</td>
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<td>2,778,549</td>
<td>585,634</td>
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<td>4,923,050</td>
<td>465,629</td>
</tr>
<tr>
<td>Nuclear</td>
<td>55,185,634</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fossil</td>
<td>3,640</td>
<td>3,640</td>
<td>3,640</td>
</tr>
</tbody>
</table>

**Total** | 953,961,740 | 245,982,634 | 411,035,774 | 432,420,056 | 641,661,517 | 152,521,364 | 92,129,570 | 143,634,963 | 146,169,757 | 211,427,941 | 218,895,247 | 74,064,973 | 84,697,081 | 91,052,696 | 151,576,332 |

**NOTE**

The tables above display issue and cancellation statistics for the last two years, and for 2001-10 in total. These, and the following charts, show that volumes issued have ceased to grow recently, but that volumes transferred and cancelled continue to increase at a greater rate than in previous years.
2011 : EVENTS

FORTHCOMING MEETINGS

16-17 June  
Oslo  
AIB General Meeting

23 September  
Amsterdam  
AIB General Meeting

08-09 December  
Paris  
AIB General Meeting