Italian White Certificates Market: main results and experience gained

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GME’s role outlined by Ministerial Decrees 20 July 2004 (as modified and integrated) is:

- to establish and manage a REGISTRY
  (WhC emissions, bilateral transactions registration, WhC redemption)
- to establish and manage an organized MARKETPLACE
Registry

- Each Participant opens an account in the Registry
- WhC are issued upon Regulator communication and deposited on owner’s account
- WhC are transferred from seller’s account to buyer’s account after a transaction (bilateral or market based)

Market

- Continuous trading (one market session a week)
- One trading book for each WhC type (electricity, gas, primary energy certificates)
- Guarantee deposit requested to buyers
- Real-time link with Registry (no short selling or double selling allowed)
Operators and WhC issued

Registry Operators up to now: 250
Markets Operators up to now: 198

<table>
<thead>
<tr>
<th></th>
<th>From 2006</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>type I</td>
<td>1,733,411</td>
<td>742,790</td>
</tr>
<tr>
<td>type II</td>
<td>419,279</td>
<td>197,636</td>
</tr>
<tr>
<td>type III</td>
<td>77,365</td>
<td>37,059</td>
</tr>
<tr>
<td>Total</td>
<td>2,230,055</td>
<td>977,485</td>
</tr>
</tbody>
</table>

WhC issued

From 2006

From 2008
Since January 2008, percentage of WhC **traded in the market** is equal to **39%** of total volume (bilateral + market)

If we do not consider bilateral contracts between companies belonging to the same industrial group, the percentage rises to **63%**.
GME market prices

WhC prices on GME marketplace
March 06 – Sept 08

- Difference between type I and type II WhC for obligation purpose (type II limited to max 50% of electricity obligation, type I vice versa)
- Oversupply for WhC type I
- Type I and type II WhC can be used either for electricity obligation or for gas obligation without limits
- If supply exceeds demand of more than 5%, the difference is given as an additional target for obliged parties the year after
## GME market prices

### Year 2008

<table>
<thead>
<tr>
<th>WhC type</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum price (€/toe)</td>
<td>35,00</td>
<td>35,00</td>
<td>10,00</td>
</tr>
<tr>
<td>Maximum price (€/toe)</td>
<td>77,00</td>
<td>84,00</td>
<td>40,00</td>
</tr>
<tr>
<td>Weighted average price (€/toe)</td>
<td>63,02</td>
<td>66,13</td>
<td>21,00</td>
</tr>
<tr>
<td>n. WhC traded</td>
<td>278,240</td>
<td>81,419</td>
<td>6,440</td>
</tr>
</tbody>
</table>

Since 19 Feb 2008:

| Weighted average price (€/toe) | 65,78 | 65,27 |
Market prices volatility

Difference (%) between average market price of one session compared to the previous session

Type I

Type II
Obliged parties GME market share

Main Electricity Distributors
Market share (1st half 2008)

Main Gas Distributors
Market share (1st half 2008)
## WhC Supply/Demand analysis

### Electricity Distributors

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Target</th>
<th>Gas Distributors Annual Target</th>
<th>Total Annual Target Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2005</td>
<td>97,854</td>
<td>58,057</td>
<td>155,911</td>
</tr>
<tr>
<td>Year 2006</td>
<td>191,949</td>
<td>117,062</td>
<td>309,011</td>
</tr>
<tr>
<td>Year 2007</td>
<td>385,558</td>
<td>247,824</td>
<td>633,382</td>
</tr>
<tr>
<td>Year 2008</td>
<td>1,200,000</td>
<td>1,000,000</td>
<td>2,200,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,875,361</td>
<td>1,422,943</td>
<td>3,298,304</td>
</tr>
</tbody>
</table>

### Gas Distributors

| Total WhC issued so far | 2,230,055 |
Once a market mechanism has been adopted to support energy efficiency, it is important to have an organized market.

It helps liquidity and information disclosure. Prices are more efficient from an economic point of view, new investments are stimulated.

In the Italian experience, market signals have been useful to amend the rules and re-establish market equilibrium.

A price corridor (cap and floor) could be useful to maintain stability in the mechanism. A price floor can guarantee a minimum return of investment and a cap price can limit overall cost of incentivization. The market sets the price level within the corridor.
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