Guarantee of Origin
Germany vs. France

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http://go2-markets.eu/
GO2MARKETS is an independent trading house specialized in environmental commodities worldwide.

- Active since April 2013
- Yearly trading volume for GO's: 30TWh
- European and worldwide network of producers and consumers for climate friendly projects
- Youngest member of the World Energy Council.

Our markets:

- Renewable Energy Guarantees of Origin (GO’s) in Europe
- Renewable Energy Certificates (RECs) in the rest of the World
- Biogas-/Biomethane Certificates
- Energy Efficiency Certificates
- Carbon Offsetting

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1. Definition GO

A Guarantees of Origin is an electronically transferable document and works like a Birth Certificate. It informs about where and how a MWh of renewable electricity was produced. Its purpose is to ensure that the renewable quality is sold or marketed only once. Today it is the only tool of tracking the origin of electricity in Europe, many countries around the World are currently setting up similar systems to track and promote renewable energy production.

2. History of the system

- **September 27th, 2001** was the first step to a unified European Energy Certificate System
- **2001** Adoption of the European Guideline (2001/77/EC) for the promotion of electricity production from renewable sources
- **2002** Creation of AIB (Association of Issuing Bodies): centralized pan European hub allowing transfers and utilization of GO’s
- **2003** Concept of ‘Guarantee of Origin’ was introduced from a technical point of view
- **2007** European interconnected Registry Hub where Certificates are transferable was introduced
- **2009** With the European Guideline 2009/28/EG a standardized EECS based on GO was accepted
- **2011** Implementation of EECS rules and new Hub
- **2013** The UBA (Umwelt Bundesamt) Registry opened for GO’s in Germany and Powernext in France

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3. How does it work?
4. What are the motivation and benefits of the participants?

Private consumer
- Sustainable mindset
- Environmental concerns

Corporate Clients
- Sustainable mindset
- Environmental concerns
- Additional subventions / tax exemptions
- Market pressure (Environmental concerns from costumers)
- Board decision (RE100) GHG Protocol on Balance Sheet

Energy suppliers
- Sustainable mindset
- Environmental concerns
- Renewable energy products
- Strategic market placement
- State obligations
- Fuel mix disclosure

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5. Market overview in Europe

EECS market penetration (Millions)

Source: https://www.aib-net.org

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6. Markets: Germany vs. France

- France is producing more than Germany (50 TWh vs. 16 TWh)
- Germany is consuming more than France (106 TWh vs. 35 TWh)
- Germany is a net importing country whereas France is balanced

Source: https://www.aib-net.org

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>GERMANY</th>
<th>FRANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOMASS</td>
<td>1,872,756</td>
<td>632,978</td>
</tr>
<tr>
<td>SOLAR</td>
<td>6,314</td>
<td>314</td>
</tr>
<tr>
<td>WIND</td>
<td>18,910</td>
<td>169,225</td>
</tr>
<tr>
<td>HYDRO</td>
<td>12,025,767</td>
<td>48,377,626</td>
</tr>
<tr>
<td>UNSPECIFIED &amp; OTHER</td>
<td>2,312,340</td>
<td>603,429</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12,236,087</td>
<td>49,783,572</td>
</tr>
</tbody>
</table>

Source: https://www.aib-net.org

☑ France is producing more hydro power than Germany
☑ Germany is consuming its subsidized power production that doesn’t get GO’s: no cumulation of EEG and GO’s
☑ France is changing its system and auctioning the GO’s in September 2019

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<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nb of registered scheme participants</td>
<td>1,633</td>
<td>56</td>
</tr>
<tr>
<td>Registered production devices</td>
<td>753</td>
<td>354</td>
</tr>
<tr>
<td>- Wind</td>
<td>341</td>
<td>4</td>
</tr>
<tr>
<td>- Hydro</td>
<td>250</td>
<td>333</td>
</tr>
<tr>
<td>- Thermal</td>
<td>40</td>
<td>17</td>
</tr>
<tr>
<td>- Solar</td>
<td>49</td>
<td>-</td>
</tr>
<tr>
<td>Total capacity installed (MW)</td>
<td>13,446</td>
<td>19,791</td>
</tr>
<tr>
<td>- Wind</td>
<td>1,016</td>
<td>32</td>
</tr>
<tr>
<td>- Hydro</td>
<td>4,946</td>
<td>19,618</td>
</tr>
<tr>
<td>- Thermal</td>
<td>47</td>
<td>141</td>
</tr>
<tr>
<td>- Solar</td>
<td>27</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: [https://www.aib-net.org](https://www.aib-net.org)
Thank you.

Garzay Ahmadi

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