1 Implementation of Tracking Systems

1.1 Electricity Disclosure

Electricity disclosure in Hungary is implemented by Section 6 of the Decree No. 6/2008 on the data services of the power system control, operation and use of¹:

- 6§ (1-2) The seller of the electricity is required to inform the user “részarányról”, the energy sources, as well as the environmental impacts of primary energy used in the production of all electricity sold by that seller.

The competent body is the Hungarian Energy and Public Utility Regulatory Authority (MEKH) (www.mekh.hu).

1.1.1 Disclosure Figures

Table 1: Hungarian production mixes

<table>
<thead>
<tr>
<th></th>
<th>Renewable %</th>
<th>Nuclear %</th>
<th>Fossil %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungarian Production Mix 2012</td>
<td>7,6</td>
<td>46,5</td>
<td>45,9</td>
</tr>
<tr>
<td>Hungarian Production Mix 2013</td>
<td>6,0%</td>
<td>53,0%</td>
<td>41,0 %</td>
</tr>
<tr>
<td>Hungarian Production Mix 2014</td>
<td>10%</td>
<td>56%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Government decree No. 309/2013 (VIII.16) on Guarantees of Origin requires that:

- Part of the electricity produced from renewable energy sources - that belongs to a guarantee of origin an electricity distributor assigned to a third party – must be deducted from the renewable energy rate of all energy sources combined. renewable energy.

but it is not clear if and how a residual mix is implemented in practice.

1.1.2 Environmental Information

Suppliers need to disclose to their customers the content of CO2 (g/kWh) and radioactive waste (mg/kWh) in the sold electricity.

1.1.3 Suppliers Fuel-Mix Calculations

Electricity disclosure is based on calendar years.

According to MEKH, GOs may be used to prove a renewable origin for the purpose of electricity disclosure.

1.1.4 Acceptance of GOs

Under Article 9 of the Government decree No. 309/2013 (VIII.16), Hungary must recognize GO’s issued in other EU Member States, as well as EEA and Energy Treaty countries, unless there are doubts about the accuracy, reliability or credibility of the GO.

¹http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0800006.KHE
1.2 Guarantees of Origin for Electricity from Renewable Energy Sources and High-Efficient Cogeneration

The guarantee of origin system in Hungary was introduced by the Electricity Act LXXXVI of 2007\(^2\), which requires GOs to be issued for electricity production from renewable energy sources and from high-efficient cogeneration. More exact regulations are given in the Government decree No. 309/2013, (VIII.16.) on the certification of origin of the electricity produced from renewable energy sources and from cogeneration with high efficiency\(^3\). The decree fulfills requirements of the RES Directive 2009/28/EC.

The Regulatory Authority, MEKH (www.mekh.hu) is the Competent Body for RES and CHP GOs in Hungary.

Expiry is implemented as 12 months after the end of the production period of the GO.

The registry for Guarantees of Origin in Hungary was implemented in March 2014, but to-date no GOs have been issued. Hungary is a domain in the cmo.grexel registry (cmo.grexel.com).

Although the registry of Hungary is technically compliant with EECS, Hungary is not an EECS domain and therefore issued certificates are not EECS certificates and can’t be transferred through the AIB Hub. Statistical data is not publicly available.

1.3 RES-E Support Schemes

The regulation setting the Hungarian Feed-in tariff is §11 (3) of the Act LXXXVI of 2007 on Electricity (Electricity Act). Government decree No. 309/2013, (VII. 16) does not forbid issuance of GO for electricity production receiving the feed-in tariff.

2 Proposals for Improvement of the Tracking System

Hungary is already technically compliant with the EECS standard, although not formally, and an electronic database registry exists. However, the implementation of many details is still unknown especially concerning electricity disclosure. All following proposals are made in accordance with the RE-DISS Best Practice Recommendations, which have been agreed by the Participating Domains of the RE-DISS Project.

2.1 Proposals regarding Disclosure

- [BPR 5a]: Cancellations of GO relating to production periods in a given year X which take place until a given deadline in year X+1 should count for disclosure in year X. Later cancellations should count for disclosure in year X+1. (In case that disclosure periods differ from the calendar year (see item [31]), the deadline should be defined accordingly.)
- [BPR 5b]: Deadline is set on 31 March X+1
- [BPR 11c]: Competent bodies should consider to make the use of GOs mandatory for all electricity supplied to final consumers.
- [BPR 16]: In the medium to longer term, GO should be the only “tracking certificate” used. Any other tracking systems of a similar purpose and function as GO should be closely coordinated with GO and eventually converted to GO.
- [BPR 17]: Besides GO, only Reliable Tracking Systems (which may include contract based tracking) and the Residual Mix should be available for usage for disclosure. No other tracking mechanisms should be accepted.
- [BPR 18]: Green power quality labels should use GO as the unique tracking mechanism.
- [BPR 19]: European countries should clarify whether and under which conditions the use of GOs by end consumers is allowed. Such GO use should not be based on ex-domain cancellations performed in other countries. If consumers are allowed to use GOs themselves, a correction

\(^2\) http://www.mekh.hu/gcpdocs/52/Electricity%20Act%20LXXXVI_2007_ENG.pdf

\(^3\) http://njt.hu/cgi_bin/njt_doc.cgi?docid=162575.246803
should be implemented in the disclosure scheme which compensates for any “double disclosure” of energy consumed.

- **[BPR 21]**: Within the rules set by the respective Directives, Member States should consider to reject the recognition of GO from other countries for disclosure in case that these countries have not implement adequate measures which avoid double counting, e.g. a proper determination of a Residual Mix for disclosure
  - See more details in the BPR document
- **[BPR 22]**: Full disclosure schemes should be implemented, including the disclosure of CO2 emissions and radioactive waste.
- **[BPR 23]**: Other Reliable Tracking Systems (RTS) should be defined where appropriate based on criteria of added value, reliability and transparency. (See BPR 24)
- **[BPR 25]**: All countries should provide a Residual Mix (RM) as a default set of data for disclosure of energy volumes for which no attributes are available based on cancelled GO or based on other Reliable Tracking Systems. The use of uncorrected generation statistics (e.g. on national or UCTE, Nordel etc. levels) should be avoided.
- **[BPR 26a]**: The calculation of the Residual Mix should follow the methodology developed in the RE-DISS project.
- **[BPR 26b]**: As part of this methodology, competent bodies from all countries in Europe should cooperate in order to adjust their Residual Mixes in reflection of cross-border transfers of physical energy, GO and RTS.
- **[BPR 27]**: For purposes of this cross-border adjustment, competent bodies should use data provided by RE-DISS. They should also support the collection of input data for the related calculations by the RE-DISS project team.
- **[BPR 28]**: As a default, the Residual Mix should be calculated on a national level. However, in case that electricity markets of several countries are closely integrated (e.g. in the Nordic region), a regional approach to the Residual Mix may be taken. This should only be done after an agreement has been concluded amongst all countries in this region which ensures a coordinated usage of the regional Residual Mix.
- **[BPR 29]**: If contract based tracking is allowed in a country, it should be regulated clearly. (see BPR 30)
- **[BPR 31]**: In cases that suppliers of electricity intend to use contract based tracking in order to fulfill claims made towards consumers regarding the origin of a certain electricity product (e.g. a green energy product), GO should be used instead of contract based tracking (see also item [36])
- **[BPR 33]**: Electricity disclosure should be based on calendar years.
- **[BPR 34]**: The deadline for cancelling GO for purposes of disclosure in a given year X should be 31 March of year X+1 (see BPR 5b).
- **[BPR 35]**: The timing of the calculation of the Residual Mix should be coordinated across Europe:
  - By 30 April X+1 all countries should determine their preliminary domestic Residual Mix and whether they have a surplus or deficit of attributes.
  - By 15 May X+1, the European Attribute Mix should be determined
  - By 31 May X+1, the final national Residual Mix should be published
  - As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.
- **[BPR 36]**: All countries should clarify the relation between their support schemes for RES & cogeneration on the one side and GO and disclosure schemes on the other side. Where necessary, the support schemes should be defined as RTS
- **[BPR 38]**: All electricity products offered by suppliers with claims regarding the origin of the energy (e.g. green or low-carbon power) should be based exclusively on cancelled GO. No other tracking systems should be allowed, with the exception of mechanisms defined by law, e.g. a pro-
rata allocation of generation attributes to all consumers which is related to a support scheme (see item [22])

- [BPR 39a] As required by Art. 3 (9) of the IEM Directive 2009/72/EC annual disclosure of the supplier mix on or with the bill should be mandatory. This should also include information on environmental impacts.

- [BPR 39b]: Suppliers offering two or more products which are differentiated regarding the origin of the energy should be required to give product-related disclosure information to all their customers, including those which are buying the “default” product of the supplier.

- [BPR 40]: There should be clear rules for the claims which suppliers of e.g. green power can make towards their consumers. There should be rules on how the “additionality” of such products can be measured (the effect which the product has on actually reducing the environmental impact of power generation), and suppliers should be required to provide to consumers the rating of each product based on these rules.

- [BPR 41]: Claims made by suppliers and consumers of green or other low-carbon energy relating to carbon emissions or carbon reductions should also be regulated clearly. These regulations should avoid double counting of low-carbon energy in such claims. A decision needs to be taken whether such claims should adequately reflect whether the energy purchased was “additional” or not.

- [BPR 42]: In case that suppliers are serving final consumers in several countries rules must be developed and implemented consistently in the countries involved on whether the company disclosure mix of these suppliers should relate to all consumers or only to those in a single country.

- [BPR 44]: Suppliers should apply the following steps in order to determine their disclosure figures. Check the steps in the BPR.

2.2 Further proposals regarding GOs

- [BPR 1] The metered production periods for purposes of issuing GOs should not be longer than a calendar month and where possible should not run across the start and end dates of the disclosure periods. Longer intervals up to one year are acceptable for very small plants.

- [BPR 2]: If possible, issuing of GOs should be done without delay after the end of each production period.

- [BPR 4]: An extension to this lifetime can be granted if a GO could not be issued for more than [six] months after the end of the production period for reasons which were not fully under the control of the plant operator. In this case, the lifetime of the GO might be extended to [six] months after issuing the GO.

- [BPR 7]: The implementation of GO in all countries in Europe should be based on the European Energy Certificate System (EECS) operated by the Association of Issuing Bodies (AIB). In case that national GO systems are established outside the EECS, then EECS should at least be used for transfers between registries.

- [BPR 8]: In case that not all European countries are members of EECS, appropriate connections between the EECS system and non-EECS members as well as in between different non-EECS members will need to be established. These include inter alia procedures for assessing the reliability and accuracy of the GO issued in a certain country and interfaces for the electronic transfer of GO.

- [BPR 9a]: Market participants of the respective domain should be provided the possibility to export their GOs and thus participate in the European internal market for electricity.

- [BPR 10,2]: Verification mechanisms should be implemented for ongoing control of registered data (e.g.reaudits, random checks, etc.).

- [BPR 10,3]: Correct accounting of RES share of combustion plants should be assured by adequate measures such as those recommended by the EECS Rules (cf part N5.3.2).

- [BPR 10,4]: The competent body can correct errors in GOs it has issued before they are exported, and is the only one with this competence.
• [BPR 11a]: The GO system should be extended beyond RES & cogeneration to all types of electricity generation.

• [BPR 11b]: GOs should be issued for all electricity production, unless an RTS applies for that production, e.g. for the disclosure of supported electricity.

• [BPR 12.2]: Technical changes to plants need to be registered as soon as is reasonably practicable.

• [BPR 13,7]: Registries should be audited on a regular basis.

• [BPR 15a]: This also applies to CHP plants which are using RES as the energy source: Only one GO should be issued per unit of electricity.

• [BPR 15b]: This GO should "ideally" combine the functionalities of a RES-GO and a high efficiency cogeneration GO.

• [BPR 20]: Any rejection should only relate to the actual use of cancelled GO for disclosure purposes in the respective country and should not restrict the transfers of GO between the registries of different countries.
  
  o [BPR 20a]: a) European countries should choose one of the two following options and apply it consistently for all foreign GO:
    
    ▪ Rejection of GOs only relates to the cancellation of GOs and subsequent use for disclosure purposes in the respective country and should not restrict the transfers of GOs between the registry of the considered country and the registries of their countries. This means that the decision about the recognition of a GO should not hinder its import into the considered country.
    
    ▪ Rejection of GOs implies blocking their import to the national registry.
  
  o [BPR 20b]: The choice of one or the other option should be transparent for all market parties and clearly communicated.

2.3 Matrix of disclosure related problems and country-specific proposals

<table>
<thead>
<tr>
<th>Problem</th>
<th>Country-specific proposal</th>
</tr>
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<tbody>
<tr>
<td>Possible double counting in different explicit tracking instruments</td>
<td>BPRs: [7], [8], [10.2], [10.3], [10.4], [11a], [12.1], [13.7], [15a], [16], [17], [18], [23], [24], [29], [30], [31], [32], [36], [38]</td>
</tr>
<tr>
<td>Double counting of attributes in implicit tracking mechanisms</td>
<td>BPRs: [5a], [5b], [11a], [21], [23], [24], [25], [26a], [26b], [27], [28], [29], [30], [32], [43]</td>
</tr>
<tr>
<td>Double counting within individual supplier's portfolio</td>
<td>BPRs: [39b], [42], [44]</td>
</tr>
<tr>
<td>Loss of disclosure information</td>
<td>BPRs: [11a], [15b], [19], [22], [39a]</td>
</tr>
<tr>
<td>Intransparency for consumers</td>
<td>BPRs: [11a], [11b], [11c], [23], [39a], [39b], [40], [41], [42]</td>
</tr>
<tr>
<td>Leakage of attributes and/or arbitrage</td>
<td>BPRs: [1] [2], [5a], [5b], [19], [28], [33], [34], [35]</td>
</tr>
<tr>
<td>Unintended market barriers</td>
<td>BPRs: [4], [7], [8], [9a], [11b], [11c], [20], [20a], [20b]</td>
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