1 Implementation of Tracking Systems

1.1 Electricity Disclosure

Electricity disclosure in Estonia is implemented by the law “Elektrituruseadus – Electricity Market Act” (into force 01.07.2003; amended by legal instruments regarding directives 2009/72/EC and 2009/28/EC on 8.7.2012) and supplemented by the regulation “Võrgueskirik – Grid Code” (into force 01.07.2003) and the law “Mõõteseadus” - Metering law (into force 01.05.2004). All versions in force are published in the State Gazette.

Electricity Market Act Chapter 7 “SALE” § 75 “Information to be submitted together with invoice” (entry into force 01.01.2013) states that

“A seller shall, together with the invoice and the information offered to the consumer, present the consumer with the following information:

1) the distribution of energy sources which were used for the generation of electricity by the producer or which were purchased from the producer during the financial year preceding the period of the sale;

2) the proportion of electricity purchased from a power exchange in the financial year preceding the period of the sale;

3) a reference to a website which sets out information concerning the environmental impact caused by emissions of CO2 and SO2, the oil shale ash that must be deposited, and radioactive waste, which were released in the course of producing the electricity supplied by the seller during the financial year preceding the period of the sale;

4) information concerning the rights of the consumer and the possible ways of resolving disputes.”.

The distribution of energy sources is done on more specific level than RES, NUC, FOS i.e. hydro, wind, natural gas, coal etc.

No residual mix is calculated for Estonia.

1.1.1 Disclosure Figures

Suppliers are obligated to disclose their energy sources by attaching their energy source distribution to the sent invoice.

Statistics Estonia publishes statistics about production mix (FE032: Capacity and production of power plants) on their website.

2 https://www.riigiteataja.ee/akt/129122012061
3 https://www.riigiteataja.ee/akt/131122010026
4 www.riigiteataja.ee
5 http://www.stat.ee/en
Summary of findings for Estonia

Table 1: Estonian production mix 2007 - 2012

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil shale</td>
<td>93.55%</td>
<td>91.02%</td>
<td>87.41%</td>
<td>85.19%</td>
<td>84.54%</td>
<td>81.05%</td>
</tr>
<tr>
<td>Peat</td>
<td>0.18%</td>
<td>0.14%</td>
<td>0.71%</td>
<td>0.94%</td>
<td>0.67%</td>
<td>0.82%</td>
</tr>
<tr>
<td>Wood</td>
<td>0.00%</td>
<td>0.00%</td>
<td>3.22%</td>
<td>5.45%</td>
<td>5.74%</td>
<td>7.96%</td>
</tr>
<tr>
<td>Heavy fuel oil</td>
<td>0.01%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Shale oil</td>
<td>0.24%</td>
<td>0.35%</td>
<td>0.44%</td>
<td>0.32%</td>
<td>0.33%</td>
<td>0.48%</td>
</tr>
<tr>
<td>Natural gas</td>
<td>2.87%</td>
<td>3.99%</td>
<td>1.22%</td>
<td>2.35%</td>
<td>1.93%</td>
<td>1.03%</td>
</tr>
<tr>
<td>Other renewable sources</td>
<td>0.30%</td>
<td>0.36%</td>
<td>0.35%</td>
<td>0.28%</td>
<td>0.33%</td>
<td>0.40%</td>
</tr>
<tr>
<td>Shale oil gas</td>
<td>1.93%</td>
<td>2.62%</td>
<td>4.06%</td>
<td>3.14%</td>
<td>3.37%</td>
<td>4.27%</td>
</tr>
<tr>
<td>Hydro</td>
<td>0.18%</td>
<td>0.26%</td>
<td>0.36%</td>
<td>0.21%</td>
<td>0.23%</td>
<td>0.35%</td>
</tr>
<tr>
<td>Wind</td>
<td>0.75%</td>
<td>1.26%</td>
<td>2.22%</td>
<td>2.14%</td>
<td>2.85%</td>
<td>3.63%</td>
</tr>
</tbody>
</table>

Source: Statistics Estonia

Notes:
Other renewable sources are black liquor, biogas and animal waste.

1.1.2 Environmental Information

As stated in the Electricity Market Act Chapter 7 “SALE” § 75 the suppliers are obligated to submit a reference to a website with information "concerning the environmental impact caused by emissions of CO2 and SO2, the oil shale ash that must be deposited, and radioactive waste, which were released in the course of producing the electricity supplied by the seller during the financial year preceding the period of the sale" together with the invoice.

1.1.3 Suppliers Fuel-Mix Calculations

Suppliers are required to disclose their energy source distribution as attached documentation to the sent invoice. Suppliers may use GOs to verify the origin of their electricity products but it is not mandatory.

No residual mix is calculated for Estonia.

1.1.4 Acceptance of GOs

The Electricity Market Act Chapter 5 “GENERATION” § 58 (amended 08.07.2012) subsection (12) states that

“(12) In order to prove the origin of the electricity consumed, guarantees of origin issued in Estonia or in another member state of the European Union shall be used. A guarantee of origin can be bought separately from the electricity generated.

[RT I, 28.06.2012, 1 - entry into force 08.07.2012].”

According to subsection (12) GOs from another member state of EU are accepted as proof of origin of energy.

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1.2 Guarantees of Origin for Electricity from Renewable Energy Sources and High-Efficient Cogeneration

The Electricity Market Act Chapter 5 “GENERATION” § 58 “Generation from renewable energy sources and efficient cogeneration” (into force 01.07.2003) and the amendment to § 58 “Guarantees of origin” describe the use of guarantees of origin as proof of origin for produced/consumed energy.

The Authorised Issuing Body and Competent Authority in Estonia is Elering AS.

1.2.1 RE-GO System

Estonia has an operational RE-GO system. Electricity Market Act Chapter 5 “GENERATION” § 58 sets premises for the national RE-GO system in amendment § 58 “Guarantees of origin” (into force 08.07.2012) subsections (2) and (3) as follows

“(2) A transmission network operator shall elaborate and publish on its website the conditions and procedure for the issue of guarantees of origin.

(3) A transmission network operator shall create a database for the administration of guarantees of origin and shall publish information regarding the issued guarantees of origin on its webpage.”

The current transmission network operator (TSO) Elering AS has published information about issued guarantees of origin on their website. Instructions for application for the “Certificate of Origin” are also available on registry website.

Registry is currently very limited. However more advanced system is under development by Elering AS.

Estonia (Elering AS) has applied for AIB membership and drafted a Domain Protocol (currently under review) for Estonia which is designed to ensure robustness and transparency in the facilitation of the EECS Scheme for Estonian domain.

1.2.2 CHP-GO system

Electricity Market Act Chapter 5 “Generation” § 58 amendment “Guarantees of origin” (into force 08.07.2012) states that

“(1) A guarantee of origin is an electronic document which is issued by the transmission network operator to a producer on the basis of the producer’s application and which certifies that the electricity is generated from renewable energy sources or in an efficient cogeneration process.

[RT I, 28.06.2012, 1 - entry into force 08.07.2012]”.

Thus the basic legislation for implementing CHP-GO system is identical to RE-GO system.

There has been no interest toward CHP-GOs yet but the functionalities required for robust CHP-GO system are developed by Elering AS as required by the Electricity Market Act. The foreseen adoption of the EECS standard will facilitate the issuing and handling of CHP-GOs in Estonia.

1.2.3 EECS

Estonia has prepared a domain following EECS rules and applied for AIB membership. The current national GO system is built based on the EECS standard, which will facilitate the joining.

Estonia is not yet connected to AIB Hub.

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7 http://elering.ee/information-regarding-the-certificates-of-origin-issued/
1.3 RES-E Support Schemes

Electricity Market Act Chapter 5 “GENERATION” § 59 “Support” outlines the support schemes available for producers of energy.

The current legislation (subsection (1)) groups support-entitled production methods in a following manner:

1) for electricity if it is generated from a renewable energy source. Since 1 July 2010, for electricity if it is generated from a renewable energy source, except from biomass;

2) since 1 July 2010, for electricity if it is generated from biomass in an efficient cogeneration process, except where electricity is generated from biomass in a condensation process, in which case no support is paid. Detailed guidelines for cogeneration shall be established in a regulation of Government of the Republic on the proposal from the Minister of Economic Affairs and Communications. The Minister of Economic Affairs and Communications shall formulate its proposal to the Government regarding detailed guidelines for cogeneration on the basis of a proposal of the Competition Authority;

3) for electricity if it is generated in an efficient cogeneration regime from waste within the meaning of the Waste Act, from peat or carbonisation gas obtained as a result of oil shale processing;

4) for electricity if it is generated in an efficient cogeneration process with a cogeneration installation which has the electric capacity not exceeding 10 MW;

5) for the availability of the installed net capacity of an oil shale-based generating installation if the generating installation started operation in the period from 1 January 2013 to 1 January 2018.”

The above-mentioned groups are entitled to an amount of support set in subsection (2) of § 59 from the transmission network operator.

The support scheme type is feed in tariff (FIT).

According to subsection (3) the Competition Authority may however approve a rate of support deviating from amounts set in subsection (2) for a producer mentioned in subsection (1).

Amendments to § 59 “Conditions of support” and “Funding the support” supplement the original paragraph in named topics.

1.3.1 New Electricity Market Act amendment

The currently proposed amendment to Electricity Market Act focuses strongly on § 59. The amendment sets out to change and further clarify the premises and requirements for production support schemes in Estonia. The amendment introduces new division of production methods as basis for updated amounts of support received by the producer.

2 Proposals for Improvement of the Tracking System

2.1 Proposals regarding general regulation on tracking systems

The following section provide RE-DISS BPR for improvement of the tracking system in place in Estonia.

2.2 Proposals regarding Disclosure

- BPR [15]: 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. Deadline should be set on 31 March X+1.

- 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.
Summary of findings for Estonia

- BPR [26]: The calculation of the Residual Mix should follow the methodology developed in the RE-DISS project.
- BPR [28]: For purposes of 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 [29]: 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 [31]: In cases that suppliers of electricity intend to use contract based tracking in order to fulfil 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.
- 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.
- 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 Mixes should be published.
  - As of 1 July X+1 the disclosure figures relating to year X can be published by suppliers.

2.3 Proposals regarding RE-GO

- BPR [1a]: Metered production periods for issuing GOs should not be longer than a calendar month.
- BPR [1b]: Metered production periods for issuing GOs should not run across the start and end of disclosure periods.
- BPR [4]: An extension to GO 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 [7b]: The registry system for GOs should be further developed to enable transfers via AIB Hub.
- BPR [11]: The GO system should be extended beyond RES & cogeneration to all types of electricity generation.
- BPR [15b]: Only one GO should be issued per unit of electricity. This GO should combine the functionalities of a RES-GO and a cogeneration GO.
- 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 should be implemented in the disclosure scheme which compensates for any “double disclosure” of energy consumed.

2.4 Proposals regarding CHP-GO

CHP-GO system is not separately implemented in Estonia and is thus subject to relevant Best Practice Recommendations listed for RE-GO.
2.5 Proposals regarding Acceptance of GO

- 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 implemented adequate measures which avoid double counting, e.g. a proper determination of a Residual Mix for disclosure.

2.6 Further proposals regarding Disclosure

- 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.

- BPR [39]: 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.

2.7 Matrix of disclosure related problems and country-specific proposals

<table>
<thead>
<tr>
<th>Problem</th>
<th>Country-specific proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible double counting in different explicit tracking instruments</td>
<td>BPRs: [7b], [11], [29], [31], [38]</td>
</tr>
<tr>
<td>Double counting of attributes in implicit tracking mechanisms</td>
<td>BPRs: [11], [21], [25], [26a], [28], [29]</td>
</tr>
<tr>
<td>Double counting within individual supplier's portfolio</td>
<td>BPRs: [39]</td>
</tr>
<tr>
<td>Loss of disclosure information</td>
<td>BPRs: [11], [15], [19]</td>
</tr>
<tr>
<td>Intransparency for consumers</td>
<td>BPRs: [11], [39]</td>
</tr>
<tr>
<td>Leakage of attributes and/or arbitrage</td>
<td>BPRs: [1a], [1b], [5b], [19], [28], [33], [34], [35], [40], [41]</td>
</tr>
<tr>
<td>Unintended market barriers</td>
<td>BPRs: [4], [7b]</td>
</tr>
</tbody>
</table>

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