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## 1 Implementation of Tracking Systems

As electricity tracking system Austria uses electricity disclosure, which provides consumers with details about the overall fuel mix of the supplier and the respective environmental impact. This well-functioning system runs on Guarantees of Origin (GOs) for electricity from all types of electricity: renewable, fossil and nuclear power (which is neither produced in nor imported to Austria) as well as high efficiency cogeneration.

### 1.1 Electricity Disclosure

The *österreichische Stromnachweisdatenbank* (Austrian GO database) was installed in 2003. Several adaptations have been made since then. A restricted disclosure scheme, only for small hydropower, in accordance with section 45 *Elektrizitätswirtschafts- und -organisationsgesetz 2000* (Electricity Act 2000), was created in 2000. Since the entry into force of the Electricity (Amendment) Act 2002, a full disclosure system has been in place since 2002 (sections 45 and 45a). The Electricity Act 2010 implements the disclosure regulations of the Internal Market Directive 2009/72/EC into national law (sections 78 and 79). Stipulations relevant for renewable electricity GOs are also contained in the *Ökostromgesetz* (Green Electricity Act), first passed in 2002 and amended several times, in 2006, 2008 and 2009, 2012. Further regulations on the display of disclosure and GOs are taken in the disclosure by law 2011.

GOs are issued on request of the plant operators. The issuing body is the grid operator for the grid zone to which a generation facility is connected.

For Austrian market participants the only purpose of GOs is their use for disclosure. Disclosure is mandatory for electricity suppliers that serve final customers in Austria.

Disclosure information has to be stated transparently on annual bills and on information and advertising materials. Other notes and indicators on electricity bills can only be displayed with a clear distinction from the disclosure information which is based on the legal obligation.

The fuel mix, which consists of known and unknown origin of electricity sources, has been calculated in Austria since 2002. Electricity of known origin is based on cancelled GOs. Electricity of unknown origin must be declared as statistical value referring to ENTSO-E deducted by the renewables (section 79 [3] Electricity Act). The suppliers have accepted the methodology included in the Austrian Electricity Act as reliable and accurate.

Electricity suppliers must document the particulars their disclosure is based on. Documentation must provide conclusive information, broken down by primary energy sources, as how the quantities supplied to final customers are produced.

In Austria the details that have to be disclosed are:

- Share of the energy source in the supplier's fuel mix
- Environmental information: CO<sub>2</sub> emissions (g/kWh) and radioactive waste (g/kWh)

In terms of energy sources, the following are distinguished in disclosure statements:

- Solid biomass
- Liquid biomass
- Biogas
- Landfill and sewage gas
- Geothermal energy
- Wind

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- Solar
- Hydropower
- Natural gas
- Oil and oil products
- Coal
- Nuclear

Except in cases of electricity retailers with less than 100 GWh supply to final customers, the documentation must be audited by a chartered accountant or a publicly certified expert in electrical engineering. The outcome must be published, in an easily readable format and with the auditing body's confirmation attached, in an annex to the company annual report.

Disclosure is done on an annual basis for the calendar year or financial year. Information must be disclosed four months after the end of the calendar/financial year.

Energie-Control Austria (E-Control), the Austrian regulator, is responsible for monitoring whether disclosure information is correct as well as hosting the GO database. The results of this monitoring exercise are published in an annual disclosure report on E-Control's website.<sup>1</sup>

A company's disclosure portfolio is determined solely based on the electricity destined for consumption in Austria. Imports are added and exports are deducted to arrive at a company's disclosure statement.

### 1.1.1 Disclosure Figures

Table 1 summarises the data on the Austrian fuel mix, CO<sub>2</sub> emissions and radioactive waste from 2004 to 2011. These are approximate values due to differences between the calendar and financial year.

**Table 1: Austrian data on disclosure, CO<sub>2</sub> emissions and radioactive waste, 2004-2011**

	2004	2005	2006	2007	2008	2009	2010	2011
Renewable Sources	58,8%	54,9%	59,4%	60,5%	58,9%	62,1%	67,4%	64,4%
Hydropower	56,4%	50,1%	53,2%	52,7%	51,2%	53,7%	58,8%	56,1%
Solid and liquid biomass	0,6%	1,3%	2,2%	3,3%	3,5%	3,8%	3,9%	3,9%
Wind	1,5%	2,4%	2,9%	3,5%	3,3%	3,6%	3,6%	3,4%
other renewables	0,3%	1,1%	1,1%	1,0%	0,9%	1,0%	1,1%	1,0%
Fossil sources	26,2%	29,3%	24,1%	19,1%	23,2%	20,1%	17,6%	21,4%
Natural gas	15,1%	18,1%	15,0%	11,7%	13,6%	13,2%	14,1%	12,4%
Oil and oil products	1,9%	1,1%	1,2%	0,9%	0,7%	0,6%	0,3%	0,3%
coal	9,2%	10,2%	7,9%	6,5%	8,9%	6,3%	3,2%	8,7%
Nuclear	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Other known energy sources	0,5%	1,1%	0,4%	0,4%	0,4%	0,3%	0,3%	0,3%
Unknown origin (ENTSO-E corr.)	14,6%	14,7%	16,2%	20,0%	17,5%	17,5%	14,7%	13,9%
CO <sub>2</sub> -emissions (g/kWh)		156,00	217,41	207,83	223,27	195,16	154,73	192,50
radioactive waste (mg/kWh)		0,40	0,13	0,16	0,14	0,14	0,11	0,10

Source: E-Control Austria

### 1.1.2 Environmental Information

The provision of environmental information is regulated in the Electricity Act 2010. Since 2006 (Electricity Amendment Act) electricity suppliers of final customers in Austria have been obliged to document the environmental impact of the energy generated as detailed by the supplier mix. The information provided must include at least CO<sub>2</sub> emissions and radioactive waste. In the disclosure by-law the unit of the environmental information has been set with g/kWh for CO<sub>2</sub> emissions and mg/kWh for radioactive waste. It is mandatory for final customers' electricity bills and advertising materials sent to final customers.

<sup>1</sup> [www.e-control.at/de/publikationen/oeko-energie-und-energie-effizienz/berichte/stromkennzeichnungsbericht](http://www.e-control.at/de/publikationen/oeko-energie-und-energie-effizienz/berichte/stromkennzeichnungsbericht) (German only)

In case generators determine power plant specific data and this data is approved (for example by the CO2 emission trading system or other consultants), it has to be used for disclosure purposes.

Where no power plant specific data is available statistical averages should be used. These are provided by Energie-Control and shown in the following table.

**Table 2: Data for the calculation of CO2 emissions and radioactive waste**

Primary Energy Source	Energie-Control GmbH recommends the following data	
	CO <sub>2</sub> -Emissions in g/kWh	Radioactive waste in mg/kWh
Solid or liquid biomass	0	0
Biogas	0	0
Landfill and sewage treatment plant gas	0	0
Geothermal energy	0	0
Wind	0	0
Solar power	0	0
Hydropower	0	0
Natural Gas	440	0
Oil and its products	645	0
Coal	882	0
Nuclear	0	2,7
Others	650	0
ENTSO-E-Mix, Hydropower-share	0	0
ENTSO-E-Mix, Share other renewables	0	0
ENTSO-E-Mix, fossil	840	0
ENSTO-E-Mix, nuclear	0	2,7
UCTE-Mix/ENSTO-E-Mix, Others	840	0

Source: Umweltbundesamt, Energie-Control Austria

Suppliers multiply their fuel disclosure percentage per energy source by the associated CO2 emissions and radioactive waste factors to calculate the required information.

This information is updated by suppliers each year and printed on customers' annual bills. Suppliers must publish fuel mix and environmental impact information no later than four months after the end of the calendar or financial year on annual bills.

### 1.1.3 Suppliers' Fuel Mix Calculations

The suppliers fuel mix for a given disclosure period (calendar or financial year) is calculated based on evidence of the source of energy. The corresponding amount of certificates has to be cancelled in the Austrian GO database. In case a supplier's cancelled certificates for a given period correspond to the total electricity given to its customers during that time, exact assignment to a certain energy source can be made. If it is not, the electricity which cannot be identified with certificates is declared as 'unknown electricity (ENTSO-E mix)' and the statistical values for electricity in the ENTSO-E grid deducted by the renewables part are applied for informing consumers through annual bills and advertising materials.

Suppliers calculate their fuel mix once a year, using aggregate data for the entire disclosure period. Imports and exports of the suppliers are taken into consideration. The suppliers publish their individual supplier mix on annual bills and relevant advertising materials. Potential product mixes are not part of the official information on disclosure. The information can be given, but it must be clear that the product is not corresponding with the supplier mix and the legal obligation to inform customers. E-Control produces an annual review to monitor compliance with disclosure.

E-Control calculates an overall fuel mix for Austria based on the individual supplier mixes. The result is an approximate value for a given calendar year.<sup>2</sup>

The following details are disclosed: share of the energy source in the supplier's fuel mix and environmental information: CO<sub>2</sub> emissions (g/kWh) and radioactive waste (mg/kWh).

The supplier mix and the environmental information of a sample of Austrian suppliers is shown in the following table.

**Table 3: Supplier mix and environmental information Austrian suppliers (sample)**

Supplier	Renewables	Fossil Fuels	Nuclear	Others known	ENTSO-E Mix	Sum	Environmental impact	
							g/kWh CO <sub>2</sub>	mg/kWh Rad. Waste
<b>Austrian Disclosure 2011</b>	<b>64,43%</b>	<b>21,41%</b>	<b>0,00%</b>	<b>0,27%</b>	<b>13,89%</b>	<b>100%</b>	<b>192,5</b>	<b>0,1002</b>
AAE Naturstrom Vertrieb GmbH	100%	0%	0%	0%	0%	100%	0	0,000
AAE Wasserkraft GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Alfenzwerke Elektrizitätserzeugung GmbH	81%	19%	0%	0%	0%	100%	164	0,000
Anton Kittel Mühle Plaika GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Bad Gleichenberger Energie GmbH	88%	12%	0%	0%	0%	100%	93	0,000
Burgenländische Elektrizitätswirtschafts-AG	100%	0%	0%	0%	0%	100%	0	0,000
Dipl.Ing. Georg Clam-Martinic'sches Elektrizitätswerk	100%	0%	0%	0%	0%	100%	0	0,000
E-Werk Fernitz Ing. Franz Purkarthofer GmbH&Co KG	30%	11%	0%	0%	59%	100%	330	0,429
E-Werk Gösting Stromversorgungs GmbH	89%	11%	0%	0%	0%	100%	86	0,000
E-Werk Mariahof GmbH	26%	9%	0%	0%	65%	100%	341	0,471
E-Werk Piwetz	100%	0%	0%	0%	0%	100%	0	0,000
E-Werk Schöder GmbH	32%	11%	0%	0%	58%	100%	326	0,416
E-Werk Schwaighofer GmbH	100%	0%	0%	0%	0%	100%	0	0,000
E-Werk Sigl GmbH & Co KG	100%	0%	0%	0%	0%	100%	0	0,000
E-Werk Stadler GmbH	10%	0%	0%	0%	90%	100%	370	0,646
E-Werk Wüster KG	100%	0%	0%	0%	0%	100%	0	0,000
EDN Energieversorgung und Dienstleistung Marktgemeinde Neuberg/Mürz GmbH	100%	0%	0%	0%	0%	100%	0	0,000
EHA Energie-Handels-GmbH&CO.KG DI Breuss Peter	100%	0%	0%	0%	0%	100%	0	0,000
ENERGIE ALLIANZ Austria Vertrieb GmbH	19%	81%	0%	0%	0%	100%	718	0,000
EVN Energievertrieb GmbH & Co KG	60%	39%	0%	1%	0%	100%	312	0,000
EVU der Marktgemeinde Eibiswald	100%	0%	0%	0%	0%	100%	0	0,000
EWA St. Anton GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Ebner Strom GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Elektrizitätswerk Bad Hofgastein Ges.m.b.H.	100%	0%	0%	0%	0%	100%	0	0,000
Elektrizitätswerk Eisenhuber GmbH & Co KG	9%	0%	0%	0%	91%	100%	374	0,654
Elektrizitätswerk Gries am Brenner	90%	10%	0%	0%	0%	100%	46	0,000
Elektrizitätswerk Gröbming KG	30%	10%	0%	0%	60%	100%	332	0,433
Elektrizitätswerk Kematen	90%	10%	0%	0%	0%	100%	46	0,000
Elektrizitätswerk Lechner August KG	100%	0%	0%	0%	0%	100%	0	0,000
Elektrizitätswerk Mathe Alois	100%	0%	0%	0%	0%	100%	0	0,000
Elektrizitätswerk Perg GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Elektrizitätswerk Prantl Ges.m.b.H. & Co. KG	90%	10%	0%	0%	0%	100%	46	0,000
Elektrizitätswerk Reutte GmbH	73%	0%	0%	0%	27%	100%	112	0,196
Elektrizitätswerk Winkler	90%	10%	0%	0%	0%	100%	46	0,000
Elektrizitätswerk der Gemeinde Mürzsteg	9%	0%	0%	0%	91%	100%	377	0,660
Elektrizitätswerk der Gemeinde Schattwald	48%	0%	0%	0%	52%	100%	215	0,376
Elektrizitätswerk der Stadtgemeinde Kindberg	88%	12%	0%	0%	0%	100%	91	0,000
Elektrizitätswerke Frastanz Gesellschaft m.b.H.	81%	19%	0%	0%	0%	100%	170	0,000
Elektrowerk Assling reg. Gen.m.b.H.	100%	0%	0%	0%	0%	100%	0	0,000
Elektrowerkgenossenschaft Hopfgarten	100%	0%	0%	0%	0%	100%	0	0,000
Enamo Ökostrom GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Energie AG Vertrieb GmbH & Co KG	71%	28%	0%	2%	0%	100%	195	0,000
Energie Graz GmbH & Co KG	83%	17%	0%	0%	0%	100%	77	0,000
Energie Klagenfurt GmbH	14%	10%	0%	0%	76%	100%	376	0,551
Energie Ried GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Energieversorgung Kleinwalsertal GmbH	10%	0%	0%	0%	90%	100%	371	0,648
Energieversorgungs Gm.b.H	100%	0%	0%	0%	0%	100%	0	0,000
Energieversorgungsunternehmen der Florian Lugitsch	88%	12%	0%	0%	0%	100%	94	0,000
Energy Services Handels- und Dienstleistungs GmbH	89%	11%	0%	0%	0%	100%	91	0,000
Envesta Energie- und Dienstleistungs GmbH	96%	4%	0%	0%	0%	100%	24	0,000
Ewerk der Marktgemeinde Unzmarkt	9%	0%	0%	0%	91%	100%	376	0,657
Feistritzthaler Elektrizitätswerk	76%	24%	0%	0%	0%	100%	195	0,000
Forstverwaltung Langau	100%	0%	0%	0%	0%	100%	0	0,000
Friedrich Pölsler	29%	11%	0%	0%	60%	100%	337	0,434
Getzner Mutter & Cie.	84%	16%	0%	0%	0%	100%	135	0,000
Heinrich Polsterer & Mitgesellschafter GesnBR	10%	0%	0%	0%	90%	100%	373	0,653
Herescherwerke Energie GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Innsbrucker Kommunalbetriebe AG	90%	10%	0%	0%	0%	100%	46	0,000
Johann Dandler GmbH & Co KG	10%	0%	0%	0%	90%	100%	372	0,651
K.u.F. Drack Gesellschaft m.b.H. & Co.KG	100%	0%	0%	0%	0%	100%	0	0,000
KARLSTROM e.U.	100%	0%	0%	0%	0%	100%	0	0,000
Kelag - Kärntner Elektrizitäts-AG	46%	0%	0%	0%	54%	100%	221	0,387
Klausbauer Holzindustrie Ges.m.b.H. & Co. KG	69%	13%	0%	0%	18%	100%	185	0,132
Kneidinger Liegenschaftsverwaltungsges. mbH.	100%	0%	0%	0%	0%	100%	0	0,000

<sup>2</sup> As stated in the Electricity Act disclosure can refer to either a calendar or a financial year. The overall Austrian fuel mix is calculated for a calendar year. Therefore only approximate values are possible.

Supplier	Renewables	Fossil Fuels	Nuclear	Others known	ENTSO-E Mix	Sum	Environmental impact	
							g/kWh	mg/kWh
							CO <sub>2</sub>	Rad. Waste
Kommunalbetriebe Hopfgarten GmbH	10%	0%	0%	0%	90%	100%	371	0,650
Kommunalbetriebe Rinn GmbH	90%	10%	0%	0%	0%	100%	46	0,000
Kraftwerk Glatzing-Rüstorf reg.Gen.mBH.	100%	0%	0%	0%	0%	100%	0	0,000
Kraftwerk Haim KG	90%	10%	0%	0%	0%	100%	46	0,000
Licht- u. Kraftstromvertrieb der Marktgemeinde Göstling/Ybbs	100%	0%	0%	0%	0%	100%	0	0,000
Licht- und Kraftstromvertrieb der Gemeinde Opponitz	100%	0%	0%	0%	0%	100%	0	0,000
Licht- und Kraftvertrieb der Gemeinde Hollenstein	100%	0%	0%	0%	0%	100%	0	0,000
Lichtgenossenschaft Neukirchen, reg.Gen.mBH	100%	0%	0%	0%	0%	100%	0	0,000
Linz Öko - Energievertriebs GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Linz Strom Vertrieb GmbH & Co KG	55%	45%	0%	0%	0%	100%	200	0,000
Ludwig Polsterer	100%	0%	0%	0%	0%	100%	0	0,000
Marktgemeinde Neumarkt Versorgungsbetriebsges.mBH	39%	9%	0%	0%	52%	100%	287	0,374
Montafonerbahn AG	81%	19%	0%	0%	0%	100%	169	0,000
Murauer Stadtwerke GmbH	100%	0%	0%	0%	0%	100%	0	0,000
MyElectric Energievertriebs- und -dienstl. GmbH	56%	16%	0%	0%	29%	100%	225	0,270
Naturkraft Energievertriebsgesellschaft m.b.H.	100%	0%	0%	0%	0%	100%	0	0,000
ÖBB Infrastruktur AG	0%	0%	0%	0%	100%	100%	413	0,722
Ökoenergie Tirol GmbH	100%	0%	0%	0%	0%	100%	0	0,000
PW Stromversorgungsgesellschaft m.b.H.	69%	31%	0%	0%	0%	100%	254	0,000
Revertera'sches Elektrizitätswerk	100%	0%	0%	0%	0%	100%	0	0,000
Salzburg AG für Energie Verkehr und Telekommunikation	91%	9%	0%	0%	0%	100%	40	0,000
Salzburg Ökoenergie GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Schwarz Wagendorfer & Co. Elektrizitätswerk GmbH	22%	78%	0%	0%	0%	100%	344	0,000
Stadtbetriebe Mariazell Gesellschaft m.b.H.	10%	0%	0%	0%	90%	100%	372	0,650
Stadtwerke Bad Radkersburg	100%	0%	0%	0%	0%	100%	0	0,000
Stadtwerke Feldkirch	82%	18%	0%	0%	0%	100%	162	0,000
Stadtwerke Hall in Tirol GmbH	90%	10%	0%	0%	0%	100%	45	0,000
Stadtwerke Hartberg Energieversorgungs-Ges.m.b.H.	100%	0%	0%	0%	0%	100%	0	0,000
Stadtwerke Imst	90%	10%	0%	0%	0%	100%	46	0,000
Stadtwerke Judenburg AG	90%	10%	0%	0%	0%	100%	84	0,000
Stadtwerke Kapfenberg GmbH	65%	0%	0%	0%	35%	100%	143	0,250
Stadtwerke Kitzbühel	90%	10%	0%	0%	0%	100%	46	0,000
Stadtwerke Köflach	88%	12%	0%	0%	0%	100%	92	0,000
Stadtwerke Kufstein GmbH	90%	10%	0%	0%	0%	100%	45	0,000
Stadtwerke Schwaz	90%	10%	0%	0%	0%	100%	46	0,000
Stadtwerke Wörgl Ges.m.b.H.	90%	10%	0%	0%	0%	100%	45	0,000
Städtische Betriebe Rottenmann GmbH	10%	0%	0%	0%	90%	100%	371	0,649
Steweag-Steg GmbH	76%	24%	0%	0%	0%	100%	211	0,000
TIWAG-Tiroler Wasserkraft AG	90%	10%	0%	0%	0%	100%	46	0,000
Unsere Wasserkraft GmbH & Co KG	100%	0%	0%	0%	0%	100%	0	0,000
VERBUND - AG (Haushalt)	100%	0%	0%	0%	0%	100%	0	0,000
VKW-Okostrom GmbH	100%	0%	0%	0%	0%	100%	0	0,000
Verbund Sales GmbH (Industrie)	14%	0%	0%	0%	86%	100%	455	0,820
Vorarlberger Kraftwerke AG	80%	20%	0%	0%	0%	100%	162	0,000
WIEN ENERGIE Vertrieb GmbH & Co KG	55%	45%	0%	0%	0%	100%	198	0,000
Wasserkraft Sölden eGen	100%	0%	0%	0%	0%	100%	0	0,000
Wels Strom GmbH	87%	13%	0%	0%	0%	100%	61	0,000
oekostrom Vertriebs GmbH	100%	0%	0%	0%	0%	100%	0	0,000
switch Energievertriebsgesellschaft m.b.H.	10%	90%	0%	0%	0%	100%	791	0,000

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

Austria was the very first country in Europe to introduce a mandatory scheme for disclosure of generation details in 2001. Electricity suppliers in Austria were required to disclose the shares of the different primary energy sources in their overall output, and to print this information on customers' electricity bills. Legally, the disclosure system was originally at home in the legislation of the federal provinces, and so, the schemes differed across Austria.<sup>3</sup> A harmonisation was achieved in July 2002 with the Green Electricity Act and the Electricity (Amendment) Act 2000, which introduced a nationwide disclosure scheme (sections 45 and 45a). Since 1 July 2004, all electricity suppliers have been obliged to identify the primary energy sources their electricity is generated from, meaning that the supplier mix must be included on electricity bills.

E-Control, the competent body by virtue of the Electricity Act, is in charge of supervising disclosure and published a by-law on disclosure.

The current legislation in place for disclosure and GOs consists of:

- Section 10 Green Electricity Act 2012 on GOs for renewables (RE-GO)

<sup>3</sup> In some provinces electricity suppliers could choose whether to use portfolio disclosure or product disclosure, while in others they had to use portfolio disclosure

- Sections 78 and 79 Electricity Act 2010 on disclosure
- Section 6 CHP Act (111/2008) on GOs for CHP (CHP-GO)
- Disclosure by-law 2011

### 1.2.1 RE-GO System

The Austrian system has been fully implemented since 2003.

As a first step together with market participants, accrediting bodies and NGOs, E-Control developed guidelines on disclosure. They were first published in 2004 and then revised in 2007 and 2009. The Electricity Act 2010 requires E-Control to publish a by-law instead of guidelines for disclosure. The disclosure by-law came into force in September 2011.

Certificates generated on a national basis are primarily national GOs. As soon as they are traded internationally, and if they fulfil the criteria by AIB, they become EECS certificates. If certificates are traded only on a national level, they remain national certificates.

The system in place is handled via the Austrian GO database, an electronic registry hosted by E-Control (appointed body by law). It is maintained by E-Control and special technical support is given by ATOS Origin.

Imports of GOs are accepted for use in disclosure under certain conditions stated in the by-law 2011. They include the electronic import, an existing disclosure system in place in the country of origin of the certificate and the fulfilment of Art. 15 directive 2009/28/EC.

An Austrian GO expires after one year of the production unit.

In the past GOs were imported and exported from and to other AIB-member states. The exports concerned AIB member countries.

For disclosure in Austria it is irrelevant if the electricity produced in a certain power plant is supported or not. Supported and non-supported certificates are accepted for disclosure purposes.

The tracking systems for CHP-GOs, fossil certificates and RE-GOs are based on the same registry. Responsibilities are the same for all types of GO.

### 1.2.2 CHP-GO System

So far, no CHP-GOs have been issued in the Austrian system because there is currently no need from market participant side. The tracking system for CHP-GOs is based on the same registry and responsibilities are the same as for RE-GOs.

### 1.2.3 EECS

In Austria EECS is used for the issuing, transfer (import and export) and cancellation (use) of EECS certificates. About 15 major Austrian market participants (out of around 160) have currently signed the Standard Terms and Conditions (STC) which allow them to transfer EECS certificates internationally.

The certificates in the Austrian GO database are issued as national GOs. As soon as they are transferred internationally by market participants that fulfil certain conditions (STC signed) they receive the additional quality 'EECS'.

The Austrian system can transfer and cancel EECS-GOs which are primarily used for disclosure purposes. Other qualities of certificates (like RECS or TÜV) can be transferred as well, but they are not accepted for Austrian disclosure purposes.

### 1.2.4 GO Statistics

The following table shows the Austrian EECS transactions (issued, transferred and cancelled) for 2009 to 2012 (preliminary), for EECS-GOs and EECS-RECS certificates.

**Table 4: Austrian EECS transactions, 2009 -2012, MWh**

	Issued	Export	Import	Cancelled
<b>2012 (preliminary, Jan-mid Nov.)</b>	2.271.832	9.427.801	3.661.310	10.601.716
<b>2011</b>	8.351.182	9.895.907	9.904.395	11.870.389
<b>2010</b>	9.006.277	8.361.540	10.736.277	8.670.451
<b>2009</b>	1.150.107	1.192.505	10.230.884	1.948.056

Source: GO database, E-Control Austria

National statistics are shown in the next table. Figures refer to 2011, i.e. were presented on the annual bills of suppliers in spring 2012. The accordance between produced electricity in the public grid and the disclosure results is visible.

**Table 5: Austrian disclosure check in 2010, disclosure figures for 2009, GWh**

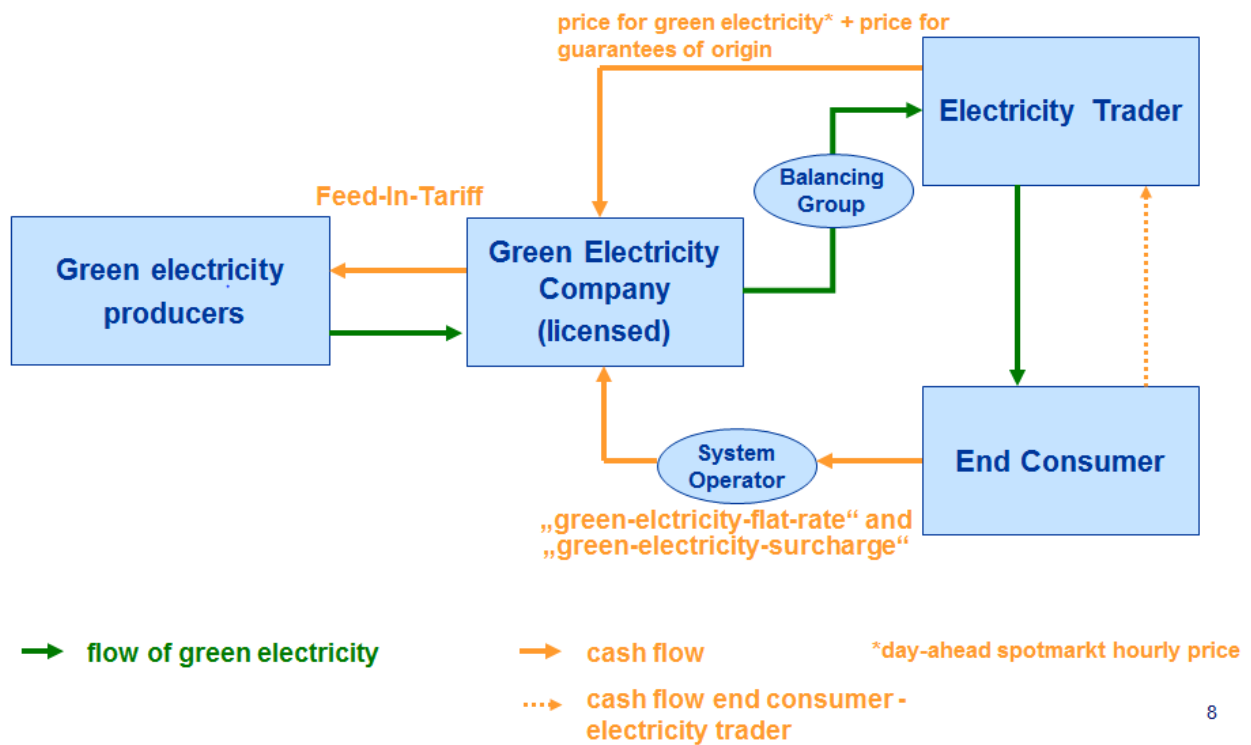
<b>2011</b>		
<b>Source</b>	<b>Total production public grid</b>	<b>Disclosure results</b>
Renewables	67,4%	64,4%
Fossil	32,6%	21,7%
Nuclear	-	-
Unknown Origin		13,9%
<b>Sum</b>	<b>100,0%</b>	<b>86,1%</b>
Source: E-Control Austria		

### 1.3 Other RES-E Relevant Support Schemes

Austria has been supporting renewable generation since the entry into force of the Green Electricity Act 2002 (Federal Law Gazette [FLG] I no 149/2002 as amended several times, currently in force FLG I no 75/2011).

The diagram below shows the workings of the current support scheme.

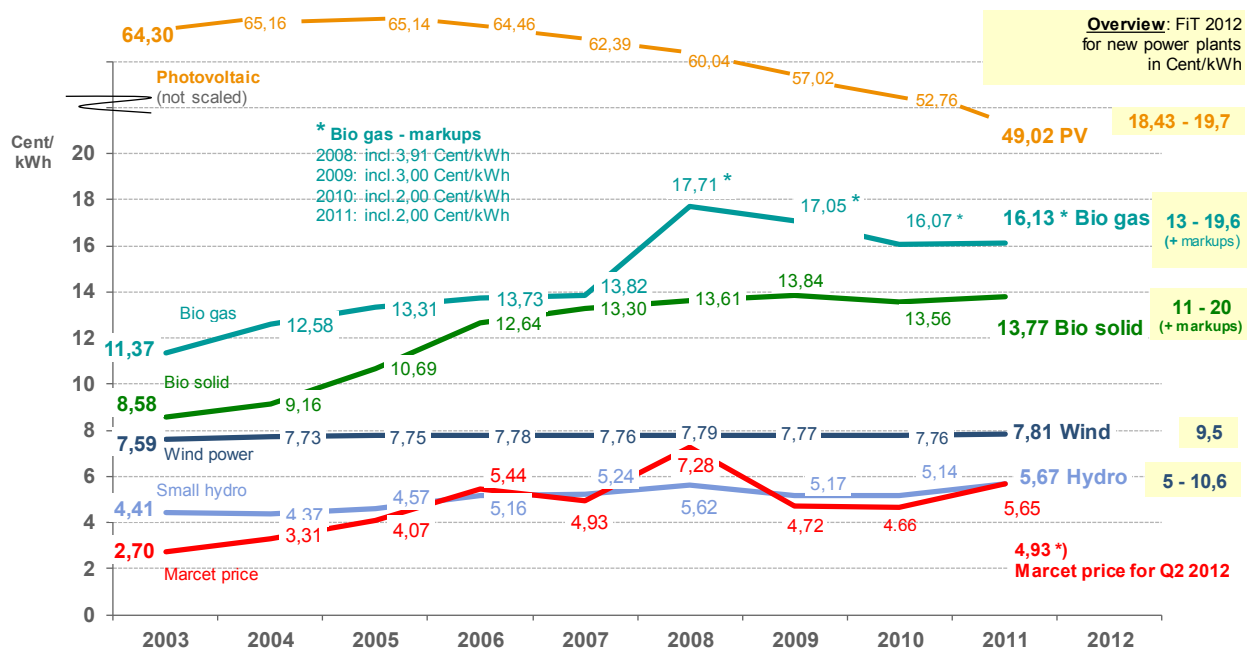
**Figure 1: Schematic diagram of the renewable electricity support scheme under the Green Electricity Act 2012**



Renewable electricity injected into the grid by supported generating stations attracts subsidies in the form of the feed-in tariffs paid by *Abwicklungsstelle für Ökostrom AG* (the green power settlement agent, OeMAG) at the rates in force when the contracts with it were concluded. This electricity is allocated to electricity retailers via the balancing groups in accordance with their shares of final consumption.

The *Ökostromverordnung 2012* (Green Electricity Order 2012, FLG II no 307/2012) was published on September 2012. It determines the feed-in tariffs for new renewable generating stations. The table below shows the development of the average feed-in tariffs since 2003 in comparison to the market price.



**Figure 2: Feed-in Tariffs 2003-2012 in comparison to the market price**

[October 2012 | Source: Energie-Control Austria, Öko-BGV, OeMAG]

## 2 Proposals for Improvements of the Tracking System

### 2.1 General Proposals on Tracking Systems

The tracking system of electricity is based on GOs and under control of the regulator. Austria has a full system in place which allows the issuing, transfer and cancellation of certificates from all types of electricity sources, including renewables, fossil and nuclear resources. The system in Austria is accurate, reliable and transparent. The one-year lifetime after the production period has been implemented, the size of a certificate has been changed to 1 MWh instead 1 kWh and the additional information required on the renewables GO has been collected in line with Art. 15 EU-directive 2009/28/EC. Only electronically transferred RE-GOs are accepted for disclosure. In Austria no other reliable tracking systems are in place and no contract based tracking is done.

### 2.2 Proposals Regarding Disclosure

Austria has a fully developed GO system in place, including CO2 emissions and radioactive waste. The system is in line with EU-directive 2009/72/EC.

Supported and non-supported GOs can be used for disclosure. Only non supported GOs can be transferred internationally. There is awareness and traceability of supported GOs, as recommended by RE-DISS.

The following are recommendations for Austria to improve its disclosure system:

1. There is no concept of residual mix, so that ENTSO-E figures have to be used (BPR [17, 25, 26]).
2. The Austrian government should reflect the timing of disclosure and in the light of transparency only allow the disclosure period based on the calendar year (BPR [31]).
3. The timing of the disclosure process should be thought of, as currently the proposed deadline for cancelling GOs for the purposes of disclosure is 31 March of year X+1 whereas Austria uses 4 month after the end of the calendar or fiscal year to finalise disclosure (BPR [32]).

4. Austria does not support the display of products under the section “disclosure” on the annual bills and advertising materials as the experience shows that this only leads to confusion on customer’s level. Therefore Austria proposes to concentrate on the disclosure requirements given by the EU-directive 2009/72/EC (BPR [37]).
5. Clear rules should be established for claims made by suppliers (BPR [40, 41]).

Currently no revisions of the disclosure law are planned in Austria.

## 2.3 Proposals Regarding GOs

### 2.3.1 Proposals Regarding the RE-GO System

The Austrian RE-GO system and the CHP-GO system are advanced and only small adaptations are required in the perspective of RE-DISS:

6. Certificates currently only expire without a flag in the database. “Real” expiry should be implemented (BPR [6]).
7. The residual mix calculated by RE-DISS can currently not be used as the Austrian Electricity Act stipulates the application of the ENTSO-E mix corrected by the renewables share to electricity of unknown origin (BPR[25,26,28]).
8. Set clear regulations on the basis period for disclosure (BPR [31]).

### 2.3.2 Proposals regarding the CHP-GO System

The proposals for RE-GO are the same as for CHP-GO.

## 2.4 Matrix of disclosure related problems and country-specific proposals

Problem	Country-specific proposal
Possible double counting in different explicit tracking instruments	1,2,3,4,7
Double counting of attributes in explicit and implicit tracking mechanisms	1,3,6,7
Double counting within individual supplier's portfolio	
Loss of disclosure information	5
Intransparency for consumers	5
Leakage of attributes and/or arbitrage	1,2,6,7
Unintended Market Barriers	