



**Österreichisches
Umweltzeichen**

Eco-label Guideline UZ 46

Green Electricity

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Eco-Label

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Introduction

The liberalisation of the electricity market enables final consumers to choose a type of electricity supply which, due to its energetic composition, mitigates environmental stress during generation.

The present Guideline serves as a basis for the eco-labelling of the tariff schemes or electricity products of eco-electricity providers which are entirely generated from renewable energy sources and thus contribute vitally to sustainable energy supply.

Green Electricity, i.e. electricity holding the Eco-label, is subject to clear definitional provisions and transparent criteria.

Customers are thus in a position to identify at a glance electricity products which are guaranteed not to comprise nuclear power or fossil fuels.

Green Electricity has to contain a minimum share of electricity from photovoltaic technology and, apart from that, can be derived from biomass, geothermal sources, solar, wind, or hydroelectric power.

Only eco-electricity providers can offer Green Electricity; any potential admixture of non-renewable sources of energy is therefore excluded.

To complement the sustainable aspect of the supply, eco-electricity providers also have to offer information on the possibility of energy consulting which is offered to make consumers aware of all the savings potentials available in the field of electricity consumption.

The requirement of transparency in electricity trade guarantees consumers that, by purchasing Green Electricity, they reduce the Europe-wide pool of electricity from fossil and nuclear sources and thus contribute substantially both to environmentally benign power supply and to climate protection.

1 Definition of the product groups

Green Electricity is electricity generated from the renewable energy sources biomass (solid, liquid and gaseous), geothermal energy, sun, water and wind, which fulfils the requirements of the present Guideline.

Definitions:

- **Eco-electricity:** Eco-electricity is electricity in compliance with the renewable primary energy carriers listed in the Austrian Eco-Electricity Act [1].
- **Eco-electricity provider:** Only electricity providers that neither trade in nuclear power or electricity from fossil sources nor supply or sell electricity of unknown origin using guarantees of origin separately obtained can become Eco-label licensees.
- **Final consumer:** A consumer purchasing electricity for own consumption.
- **Product:** Tariff scheme of the electricity provider for final consumers, defined by a name and a price.
- **Labelling:** Graphical and tabular representation of the provider's annual electricity mix which depicts all primary energy carriers that were sold to final consumers.
- **Guarantee of origin:** Certificate that confirms from which energy source the electrical energy fed into the public grid and supplied to final consumers is derived.

2 Environmental criteria

2.1 Guarantees of origin & labelling

For the electricity sold, guarantees of origin as provided for in section 10 of the Eco-electricity Act [1] have to be presented (labelling).

For the labelling, the guarantees of origin from the GoO (Guarantee of Origin) Database (called: "Stromnachweisdatenbank") of Energie-Control Austria¹ have to be used.

The expert opinion has to state from which power plants the energy produced or sold by the eco-electricity provider is derived.

For this purpose, the type of the power station, the site as well as the quantities of energy obtained have to be stated.

For the energy purchased, the pertaining guarantees of origin have to be obtained as well.

The separate trading of certificates and electricity is not permitted.

If final consumers are supplied with imported electricity, guarantees of origin from an accredited testing institute or guarantees issued by a system equivalent to the Austrian GoO Database have to be used.

It has to be ensured that no double marketing of guarantees of origin is possible.

2.2 Green Electricity mix

Green Electricity is electricity generated from the renewable energy sources biomass (solid, liquid and gaseous), geothermal energy, sun, wind, and water which has the following characteristics:

- The basic share is defined as the quantity of eco-electricity allocated by OeMAG² which is automatically assigned to all Austrian electricity providers. The basic share allocated has to be distributed proportionately in quantitative terms to each of the electricity provider's tariffs. The share of electricity allocated by OeMAG alone cannot be awarded the Eco-label.
- Eco-electricity purchased at the eco-electricity exchange must not be derived from hydropower plants.

¹ Energie-Control Austria: <http://www.e-control.at> or <http://www.stromnachweis.at>

² OeMAG: Abwicklungsstelle für Ökostrom in Österreich

- Photovoltaic and hydro-power:
The overall share of hydropower can amount to a maximum of 79%, with the share of photovoltaic having to be at least 1 percent above the quantity of photovoltaic power allocated by OeMAG.
The total share of hydropower can also be higher than 79 percent; in this case one additional percentage point of photovoltaic power has to be contained for each additional percent of hydropower. ³
- The Green Electricity portfolio must contain at least 10% electricity from plants which are not more than fifteen years old (as from initial start-up) or which were revitalised or extended in the course of the past fifteen years with an obligatory increase in the electricity capacity of at least 15%.
- Tolerance range for the primary energy carriers used:
10 % deviation within 12 months and 5 % deviation within 24 months are permissible.
However, after the expiry of this period, this has to be balanced in quantitative terms in the product.

2.3 Hydropower

2.3.1 General requirements

Green Electricity from hydropower may exclusively be generated by run-of-river power stations and storage power stations complying with the below criteria as well as by diversion hydropower plants that do not lead to a deterioration of the ecological status of waters as set out in the EU Water Framework Directive, Directive 2000/60/EC [2], and therefore do not require an exemption permit as set out in section 104 a of the Water Rights Act [3].

New hydropower plants may be constructed only outside areas protected under the Water Framework Directive, Directive 2000/60/EC, Annex IV (1), item v, and must not have a harmful effect on such protected areas.

2.3.2 Run-of-river power stations

2.3.2.1 Diversion hydropower plants

- Construction measures or continuous measurements ensure that minimum water quantities ensuring the maintenance of the good ecological status pursuant to the Quality Target Ordinance - Ecological Status of Surface Waters ("QZV Ökologie") [4] are delivered throughout the year.

³ E.g. 85% water power and 7% PV share above the quantity allocated by OeMAG.

- Construction measures have to guarantee the passability for fish in compliance with the quality requirements set out in the guideline for the construction of fish ladders ("FAH", Chapter 3) [5] throughout the year.
- Power stations with subterranean constructions (drinking water power plants) and hydropower plants at sites outside natural fish habitats do not require construction measures to ensure the passability for fish.

2.3.2.2 Hydraulic power stations

- Construction measures have to guarantee the passability for fish in compliance with the quality requirements set out in the guideline for the construction of fish ladders, Chapter 3).
- The reservoir has to be designed in line with ecological criteria as regards form, bank line and depth variance.

2.3.3 Storage power stations

- Only the amount of electricity originating from water which reaches the reservoir in free flow can be credited as Green Electricity.
Pumped electricity has to be deducted from the amount of electricity produced.
- For feeders and waters below the impoundment (storage), there is a minimum water level which corresponds at least to the smallest daily minimum flow (NQ_t), guarantees the viability of waters and ensures the passability for fish according to section 13 of the Quality Target Ordinance - Ecological Status of Surface Waters, Annex G.
- In the case of power-plant-related discharge fluctuations (swell-downsurge) a maximum swell/downsurge rate of 0.2 cm/min has to be observed.
- Storage reservoirs have to be emptied in at least ten-year intervals, taking into account the ecological criteria set forth in section 50, para. 8, of the Austrian Water Rights Act.
Depending on ecological requirements and operational necessity, sediment has to be released from the storage reservoir into the downstream stretch.

2.4 Biomass

2.4.1 *Solid biomass*

The solid biomass which may be used to generate Green Electricity has been defined according to the Austrian standard ÖNORM EN ISO 17225-1 [6] and the Austrian standard ÖNORM EN ISO 16559 [7] and as follows:

- **Primary biomass:**
Plants and parts of plants which are directly used to generate energy without undergoing chemical transformation (e.g. wood-, cellulose-, oil-containing).
- **Secondary biomass:**
Residues of a first utilisation of organic substances – above all in human and animal nutrition – or of a utilisation in household or industry where the organic substances have undergone a chemical change (e.g. liquid manure, muck, waste from central kitchens and catering waste).
- **Agricultural biomass:** Agricultural plantings, crop residues and by-products in raw and processed form (e.g. crop residues, straw, oilseeds etc.).
- **Forestry biomass, not containing halogenated organic compounds:**
Stem wood, brushwood and twigs, secondary products from sawmills for energetic use.
- **Products from biomass:**
By-products of sawing which come as a result of sawnwood, fuelwood, wood chips for energy production, compressed wood or bark, wood gas, charcoal, chopped straw, biodiesel, biogas⁴, etc.

2.4.2 *Liquid biomass*

Liquid biomass has to comply with the sustainability criteria set out in Article 17 of EU Directive 2009/28/EC [8].

2.4.3 *Biomass co-generation*

The overall efficiency in combustion processes must be at least 60%; in the case of agricultural co-generation systems the waste heat has to be used as efficiently as possible.

The share of fossil primary energy carriers required as start-up aid or in maintenance services must not exceed 5% in the annual electricity generation of a plant and must not be accounted for as Green Electricity.

⁴ Gas from purification plants and landfill gas are not considered renewable.

2.5 Energy consulting

The user of the label must inform the final consumer in an appropriate way about any savings potentials in electricity consumption.

3 Tariffs

Tariffs have to be designed in a transparent, traceable way; it has to be clear what are the costs per kWh electricity (in sale).

4 Declaration

4.1 Labelling

The tariff awarded the eco-label has to be advertised in a way that any confusion with other tariffs can be excluded.

4.2 Obligation to issue a prospectus

The following details have to be provided in suitable media (e.g. internet, printed matter) as well as on request:

- Data describing the enterprise such as ownership structure, business units, participations, turnover, etc.;
- All power plants with which purchasing contracts have been concluded, provided the power plant operator agrees;
- Annual electricity mix broken down by the individual sources of energy (chart and table);
- Quantity of direct CO₂ emission saved per kWh of the annual electricity mix compared to the direct CO₂ emission of one kWh of electricity according to the current national generation mix⁵).

⁵ For Austria, this figure is calculated and published by E-Control, see www.e-control.at.

4.3 Consumption bill Green Electricity

The following data have to be provided on the consumption bill or at least once per year:

- Indication of all primary sources of energy or energetic sources used
- Electricity mix broken down by the sources used (chart and table). If this is in line with the relevant legal provisions, the electricity provider can mention the composition which cannot be influenced by him and the quantity of electricity allocated by OeMAG.
- Electricity mix tariff "Green Electricity"
- Direct CO₂ emission in g/kWh as well as radioactive waste in mg/kWh
- All countries from which the guarantees of origin are derived and the indication that the guarantees of origin have been obtained together with the electricity quantities

5 Self-monitoring and external control

A monitoring contract has to be concluded with a qualified inspection agency. Synchronisation according to point 2.2 is required once every year.

The following items have to be checked annually by the reviewer:

- Guarantees of origin concerning the purchasing and reselling of electricity (b2b), own consumption and selling to final consumers
- Trade balance of the electricity turnover by disclosure of all supply and sales contracts
- Annual balance sheet of purchasing and selling of the electricity quantities

6 Normative standards, acts and other regulations

The documents referred to hereinafter contain provisions which are part of this Eco-label Guideline. Legal provisions shall always be applied as amended. Dated references to other documents do not cover later modifications or revisions of the publication.

In the case of undated references the most recent version of the referenced document shall apply.

Austrian acts can be consulted in a binding way at <http://www.ris.bka.gv.at>⁶.

The current versions of European Union Regulations and Directives are electronically retrievable at:

<http://eur-lex.europa.eu/de/index.htm>

- [1] Ökostromgesetz 2012 - ÖSG 2012 (Eco-Electricity Act 2012), Federal Law Gazette I 75/2011, of 1 July 2012, and the accompanying implementation acts
- [2] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.
- [3] Wasserrechtsgesetz (WRG), Federal Law Gazette 215, issued on 8 September 1959
- [4] Qualitätszielverordnung Ökologie - Oberflächengewässer (Quality Target Ordinance - Ecological Status of Surface Waters), Federal Law Gazette II No. 99/2010, of 30 March 2010.
- [5] Guideline for the construction of fish ladders, Federal Ministry of Agriculture, Forestry, Environment and Water Management 2012 (https://www.bmlfuw.gv.at/wasser/wasser-oesterreich/plan_gewaesser_ngp/massnahmenprogramme/leitfaden_fah.html)
- [6] ÖNORM EN ISO 17225-1, "Biogene Festbrennstoffe - Brennstoffspezifikationen und -klassen - Teil 1" (Biogenic solid fuels - Fuel specifications and classes - Part 1), of 1 September 2014.
- [7] ÖNORM EN ISO 16559, "Feste Biobrennstoffe - Terminologie, Definitionen und Beschreibungen" (Solid biofuels - Terminology, definitions and descriptions), of 15 October 2014.
- [8] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources, Article 17.

⁶ No responsibility is accepted for the correctness and completeness of the legal information system. It is exclusively the wording of the legal provisions published in the Federal Law Gazette, in a Provincial Law Gazette or in another publication medium that is decisive.