

Environmental product declaration for electrical energy products.

Gerhard Emch, Management Systems
June 22nd 2010



Environmental product declaration for electrical energy products.

Topics of the presentation.

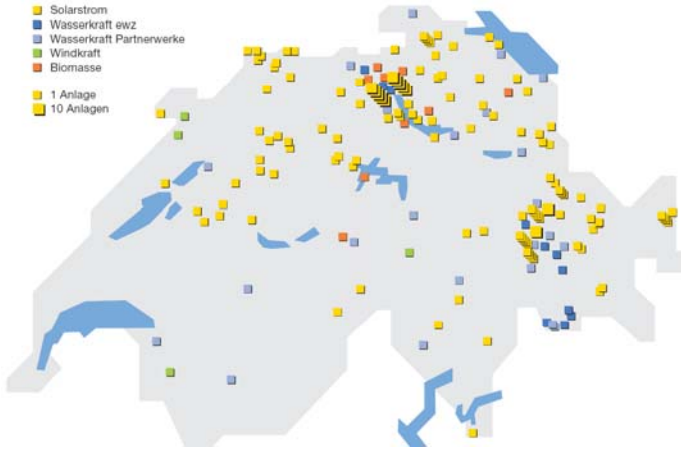
- Our Intentions.
- Content of the declaration.
- Creating the declaration.
- Using of the declaration.



Environmental product declaration for electrical energy products.

Produktionsanlagen für erneuerbare Energie.

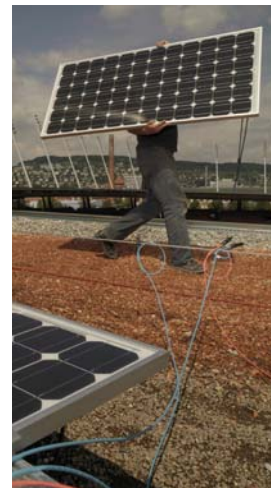
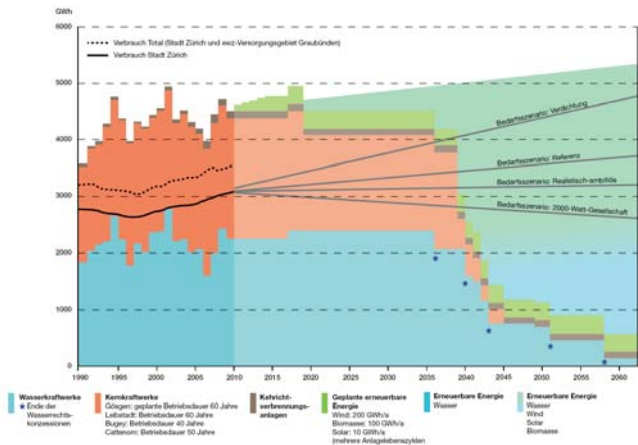
- Solarstrom
- Wasserkraft ewz
- Wasserkraft Partnerwerke
- Windkraft
- Biomasse
- 1 Anlage
- 10 Anlagen



Ein Unternehmen der Stadt Zürich

Environmental product declaration for electrical energy products.

Entwicklung Stromversorgung der Stadt Zürich mit erneuerbaren Energien.



Ein Unternehmen der Stadt Zürich

Environmental product declaration for electrical energy products.

Our Intentions.

We care about our customers wishes and needs.

- Customers asking for environmental indicators:
 - 10 to 20 times per year.
 - Primary energy factors, UBPs (Swiss ecological scarcity method), CO₂, ...
 - Universities, Banks, NGOs, Companies, Consultants, ...



Environmental product declaration for electrical energy products.

Our Intentions.

Our communication with all stake holders is reliable, sincere and comprehensive.

- All customers should get the same information for the same product.
- The information should use the same methodology over time.
- The information should cover all aspects of ecologically produced energy.



Environmental product declaration for electrical energy products.

Content of the declaration.

What are the information most required?

- Emissions of CO₂.
- Primary energy factors.
- UBP.
- Emissions of NO_x.



Ein Unternehmen
der Stadt Zürich

Environmental product declaration for electrical energy products.

Content of the declaration.

This however covers only partly the relevant aspects of electrical energy products labelled either *naturemade basic* or *naturemade star*.

- Renewability.
- Fund for ecological improvements.
- Support model for the renewables.
- Availability.



Ein Unternehmen
der Stadt Zürich

Environmental product declaration for electrical energy products.

Content of the declaration.

We provide one declaration per product.
The values given are per kWh.

- Mix of the product.
- LCA indicators most used in Switzerland.
- Selected environmental indicators.
- Additional environmental information.
 - Fund for ecological improvements.
 - Support model.
- Examples of measures.
- Information on the methodology.



Environmental product declaration for electrical energy products.

Creating the declaration.

We balance our products according to the rules of the Swiss energy certificate system:

- SKN, Stromkennzeichnung, SR 730.01
- HKN, Herkunftsnachweise, SR 730.010.1
- We use a complete product strategy.
- All products with an ecological value are certified either *naturemade star* or *naturemade basic*.
- Balancing is done on a yearly base.
- Certificates reflect the financial flows for the ecological value.



Environmental product declaration for electrical energy products.

Creating the declaration.

Amount of electricity product sales.

→ Amount of electricity qualities needed.

- naturemade star: water, solar, wind, biomass.
- naturemade basic: water.

Amount of electricity qualities sold to a third party.

Total electricity qualities sales.

Amount of electricity qualities produced.

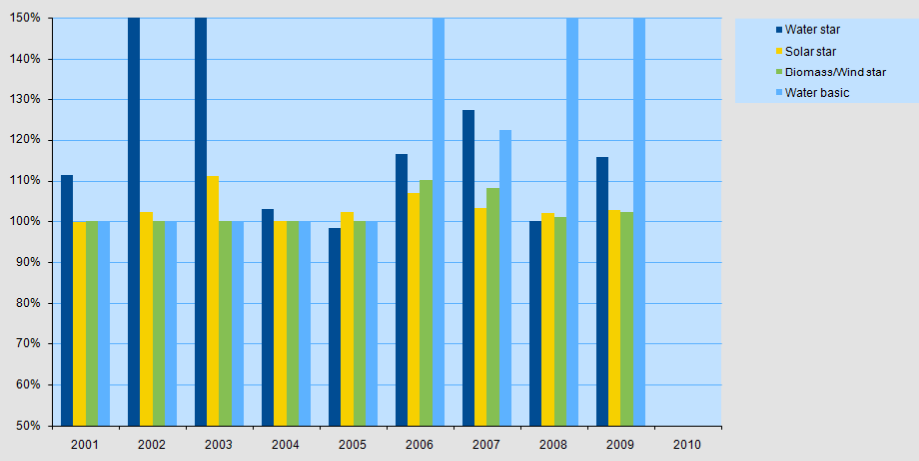
Amount of electricity qualities bought.

Total of electricity qualities procured.



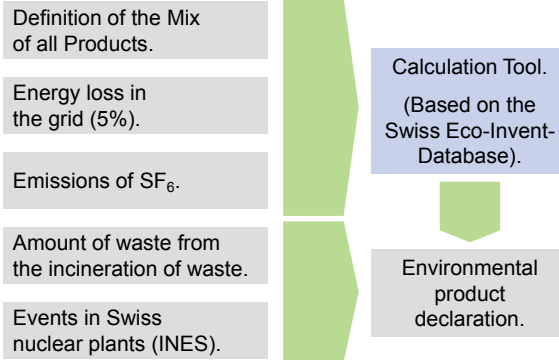
Environmental product declaration for electrical energy products.

Procurement versus Sales of naturemade Qualities



Environmental product declaration for electrical energy products.

Creating the declaration.



Environmental product declaration for electrical energy products.

Creating the declaration

GWh 2009	Winter	Summer	Year
Production	2'119.8	2'348.5	4'468.3
Trades	521.3	402.3	913.5
Total	2'641.1	2'750.8	5.391.9
Sales	1'951.6	1'788.2	3'739.7
Trades	689.5	962.7	1'652.2
Total	2'641.1	2750.8	5'391.9



Environmental product declaration for electrical energy products.

Creating the declaration.

- Since the mix of some of the products may change from year to year, the declarations are valid for the indicated year only.
- Due to the various information sources the declarations are available by end of June of the following year.



Stromprodukte. 1. Januar 2009 bis 31. Dezember 2009.

	2009	2008
	Absatz * MWh	Absatz * MWh

Verkauf Stromprodukte.

ewz.solartop (naturemade star)	6 484	5 391
Premium Solar (naturemade star) **	61	134
ewz.wassertop (naturemade star)	291 786	200 681
Premium Water (naturemade star) **	602	748
ewz.ökopower (naturemade star)	35 334	29 943
ewz.naturpower (naturemade basic)	1 723 759	1 662 873
ewz.mixpower	1 247 320	1 119 225

* Basis: Abgerechnete Mengen im Kalenderjahr

** Ersatz Premium-Produkte durch ewz-Produkte bis 2011 vorgesehen



Environmental product declaration for electrical energy products.

Using of the declaration.

Due to the outlined sensitivity of the data in the declaration, the use of this declaration requires a number of rules:

- The declarations are available on the intranet in a restricted area only.
- Access is granted to trained employee only.
- Declarations may be given to an interested party as PDF for the interested products.
- A personal contact is required and must be complemented with explanations.



Environmental product declaration for electrical energy products.

Using of the declaration.

The interpretation remains difficult:

- The difference between a certification according to *naturemade star* or *naturemade basic* has mainly no effect on the emission of CO₂. The advantages of a *naturemade star* product must be explained in detail.
- New renewables have usually higher emissions of CO₂ than hydro electricity. The amount of hydro electricity however is limited in Switzerland.
- New applications require new energy source, e. g. ewz.solartop or ewz.ökopower for electric driving.



Environmental product declaration for electrical energy products.

