

The Consumer Voice in Europe

A 'GREEN ELECTRICITY' MARKET THAT WORKS FOR CONSUMERS

Policy recommendations



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Why it matters to consumers

At least 15 million European households have chosen a 'green electricity' tariff. While electricity suppliers sell 'green' tariffs often at higher prices they do not respond to consumers' expectations. With their choice, in many cases consumers neither pay for renewable power plants nor do they foster investments in additional renewable power plants. Consumers are usually not informed that suppliers often build only a green façade with cheap tradable certificates, so-called Guarantees of Origin (GOs), while having no substantial commercial relations with any renewable power plant operator. 'Green' tariffs should meet consumers' expectations and consumers' money should support additional investments in renewable power plants.

Summary

Liberalised electricity markets give consumers not only the opportunity to find a better financial deal. Consumers also have the right to know the environmental footprint related to electricity offered. By switching to a 'green electricity' tariff with a 100% renewable fuel mix, consumers ideally would increase demand and trigger investments in additional renewable power plants. The current system according to which 'green electricity' is certified as such undermines such leverage.¹ The EU should adopt those principles that already remedy 'green electricity' markets in several Member States.

Need to end consumers' disenchantment with 'green electricity' offers

The intention of the Renewable Energy Directive is to allow consumer markets for 'green' electricity to contribute to the construction of new installations. The problem is that BEUC identified serious market deficiencies regarding 'green electricity' offers. First of all, there are few rules on green claims. Consumers have difficulties to identify what exactly is the environmental benefit of a 'green' tariff. Secondly, their 'green' choice until now has no verifiable impact on the amount of renewable electricity generated and provided in the EU. Opting for a 'green' offer mostly remains a symbolic act. It is alarming that consumers unknowingly pay for non-renewable energy sources while the GO-backed fuel mix suggests that they support a 100% renewable supply.²

Need to end market distortions to allow consumers decarbonise the electricity market

What is at stake is decarbonisation of the European energy mix. The consumer's decision to purchase renewable electricity can bring about a substantial incentive to this goal. Future EU legislation should not neglect this chance to engage households in energy markets. Consumers incorporated the logics of demand and supply. Almost one in two consumers is even willing to pay more in order to support investments in new renewable power plants.³

¹ Most GOs are issued for renewable power plants that are already remunerated by national support schemes or that were already amortised for a long period in time. They fail to incentivise new investments. On the background see [BEUC: Current practices in consumer-driven renewable electricity markets](#). BEUC mapping report, BEUC-X-2016-003, January 2016; [BEUC: Trustworthy 'green electricity' tariffs](#). Policy recommendations for more transparency, better choice and environmental benefits, BEUC-X-2016-002; January 2016.

² Mühlenhoff, Jörg: Why most 'green' electricity in Europe isn't green. In: Energy Post, <http://energypost.eu/green-electricity-europe-isnt-green/>, 27 October 2016.

³ European Commission: Energy Consumer Trends 2010 – 2015, SWD(2015) 249 final, November 2015.

Policy principles on how to make 'green electricity' markets work

Based on national solutions developed by BEUC members, on a questionnaire sent to providers of labelling schemes, as well as on interviews and desk research we identified the following **three graded principles to remedy market distortions**:

- **Principle 1: Binding rules for all market participants** established by the National Regulatory Authority (NRA) or by the national energy ombudsman. BEUC's national member initiated this process in Denmark. BEUC welcomes that clear rules were established in the UK and in Denmark with regard to 'green' claims. By these rules, suppliers are obliged to substantiate what is done with consumers' money spent on a 'green' tariff in view of additional benefits. From a consumer perspective, this provides for high comparability and high transparency of tariffs. Energy regulators should take the lead by setting binding rules and supervise the implementation of the other principles described below.
- **Principle 2: Sustainability ranking of all market participants done by independent bodies.** Consumer organisations and environmental NGOs in Belgium and in the Netherlands successfully run sustainability rankings of all suppliers.⁴ Given that a fuel mix based on GOs alone risks to be misleading, this approach looks at the power plants behind the retail electricity tariffs. Suppliers' investment and divestment activities as well as their purchase policies on wholesale markets are analysed. BEUC welcomes this principle as it provides for high comparability and high transparency of all suppliers.
- **Principle 3: Voluntary quality labels for certain market participants.** BEUC member organisations in Austria and Germany have initiated independent quality labels when 'green' tariffs appeared on national markets.⁵ BEUC identified a dozen labelling schemes (or 'Ecolabels') in Europe. They claim to trigger investments in additional power plants and/or certify certain environmental benefits of 'green' tariffs. Labels differ largely with regard to their level of ambition. Since they do not automatically provide valuable guidance to consumers, BEUC recommends that the following five criteria should be met:
 - **ensuring transparency,**
 - **coupling electricity** paid by consumers with GOs from the identical power plant,
 - **establishing environmental criteria,**
 - **excluding non-renewable electricity generation** and
 - **guaranteeing additionality.**

⁴ Consumentenbond/Greenpeace/Natuur&Milieu/WISE: Onderzoek duurzaamheid Nederlandse stroomleveranciers, October 2016.

⁵ See for example the Austrian Ecolabel run by BEUC's Austrian member Verein für Konsumenteninformation (VKI), <https://www.umweltzeichen.at/cms/de/produkte/gruene-energie/content.html>.

What should be improved in future legislation?

- EU legislation should **mandate National Regulatory Authorities (NRAs)** to develop **minimum requirements** so that consumer markets for 'green' electricity contribute to the construction of new installations.
- National minimum requirements should entail **binding rules for all market participants**. Depending on the national context, binding rules should include **sustainability rankings** or **quality labels** that are based on transparency, coupling, environmental criteria, excluding non-renewable generation and additionality. NRAs should ensure this guidance is published in a standardised format in online price comparison tools.
- In their **National Energy and Climate Plans**, Member States should **report on how they address market distortions** regarding retail electricity tariffs backed by renewable Guarantees of Origin.

1. How to substantiate additionality of 'green electricity' tariffs?

'Additionality' means that consumers' demand brings about benefits that would not have occurred without their explicit choice for a 'green' tariff. While more and more consumers opt for such offers, the mere switching to a 'green' tariff backed by Guarantees of Origin (GOs), does not necessarily provide any economic incentive for constructing more renewable power plants. This chapter presents three different principles that can trigger additionality and ensure suppliers go beyond business-as-usual.

1.1. The problem: Consumers' choice has no measurable impact

Trade in GOs alone does not result in additional investments into renewables

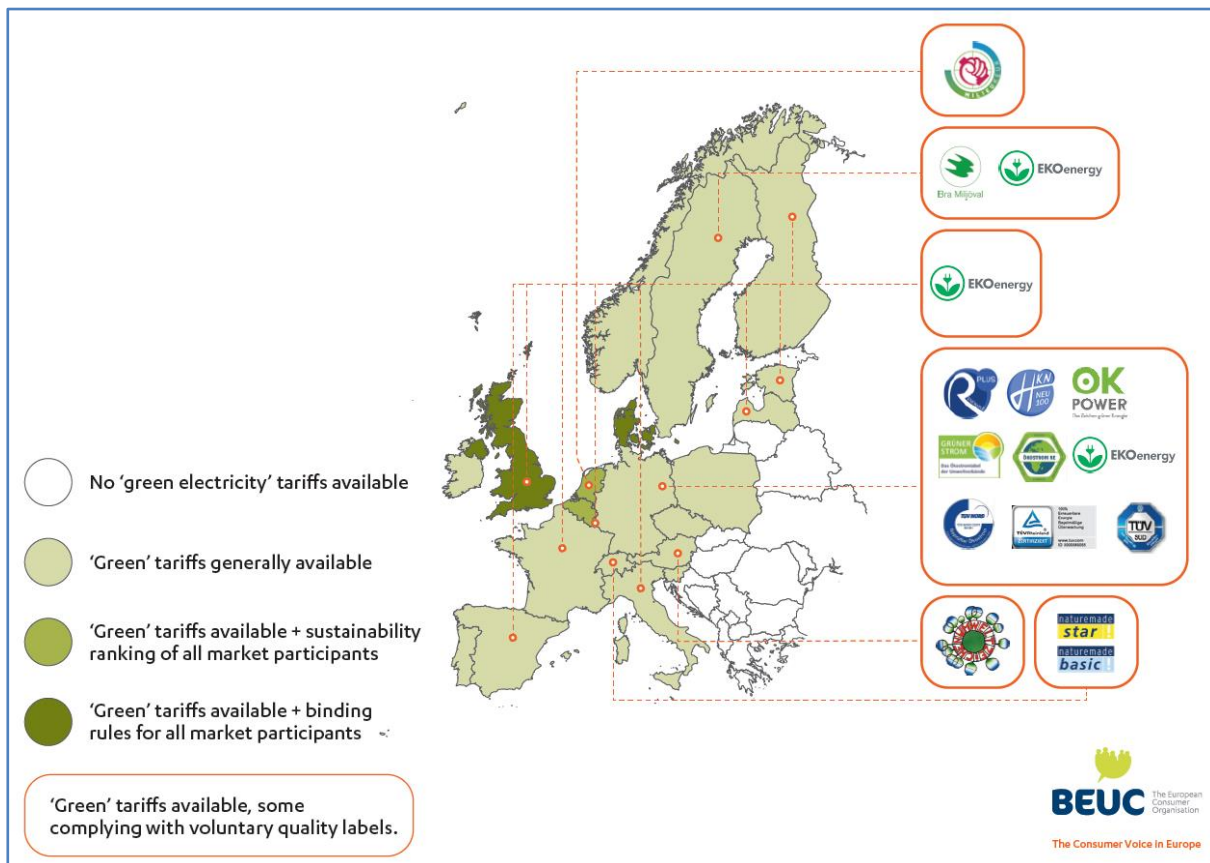
Consumers' expectations regarding the environmental benefit of their choice are not necessarily met. Suppliers can even misuse consumers' willingness to pay more. As a consequence of unbundled purchase of cheap renewable GOs, they mostly channel only marginal parts of consumers' money to renewable power plant operators. The Renewable Energy Directive failed in letting consumers drive investments in new renewable power plants through their 'green' choice. For this reason different approaches to substantiate additionality have been established.

There are different ways to achieve additionality

In a narrow sense, additionality equals additional generation capacities that will make fossil fuels superfluous. If one applies a broader sense of additionality, consumers' demand for 'green electricity' could not only mean additional investments into renewable generation capacities but also consumers' money being used to foster more general environmental benefits such as a fish pass for a hydropower plant or a reforestation project. BEUC is in favour of applying a more robust narrow definition, focussing on investments in renewable power plants.

Fig. 1: How additionality of 'green electricity' tariffs is triggered in Europe

The following infographic provides an overview of how additionality is triggered in 21 countries where 'green' tariffs currently are available. Only in Denmark and in the UK there are yet binding rules for all market participants. Sustainability rankings are in place in Belgium and in the Netherlands. In most of the countries, there are either no guidance tools at all or only voluntary quality labels.



The functioning of binding rules, of sustainability rankings and quality labels is explained in detail in the following subchapter. For details on the different quality labels, please refer to the annexe.

1.2. The solution: Three principles that can trigger additionality of 'green' tariffs

1.2.1. Principle 1: Binding rules for all market participants

Binding rules for all market participants⁶ provide the highest level of reliability. For instance, in Denmark and in the UK, all electricity suppliers marketing electricity with environmental claims have to comply with binding rules. In these two countries, regulating bodies have taken the initiative to define how suppliers have to prove towards their customers that opting for a 'green' tariff leads to measurable effects.

The Danish and British solution aims at comparability with regard to different suppliers' level of ambition while securing fair competition. It establishes a level playing-field for all market participants.

⁶ Ofgem: Standard licence conditions (SLC) 21D.2 to 21D.13, <https://www.ofgem.gov.uk/publications-andupdates/decision-modify-standard-licence-conditions-slcs-electricity-supply-licence-inserting-new-conditionslc-21d>, 30 April 2015.



Binding rules for additionality established in the UK and in Denmark

After a first experience with a voluntary scheme, the UK regulator Ofgem introduced a change in the license conditions for electricity suppliers in 2015. The supplier is legally obliged to report annually to Ofgem and to consumers about environmentally beneficial effects of its tariff. This applies whenever environmental claims are attached to it. If the supplier does not provide such information, a disclaimer must be published. It would state the tariff will not produce any additional environmental benefit.

In Denmark in 2009, a round table including the Danish Consumer Council agreed on the set of binding minimum requirements for additionality. These rules oblige suppliers to either

- put revenues from sale of 'green' tariffs aside in a fund that then provides capital for investments in additional renewable generation capacities;
- or to purchase GOs preferably from recently built renewable power plants;
- or to cancel CO₂ emission rights, meaning that approved reductions within the United Nations' register are deleted.

1.2.2. Principle 2: Sustainability ranking of all market participants

Rankings of energy suppliers provide an excellent guidance to consumers. As a fuel mix backed by 100% renewable GOs does not provide any information about the suppliers' engagement for renewable electricity generation, suppliers are ranked according to their overall business activities.

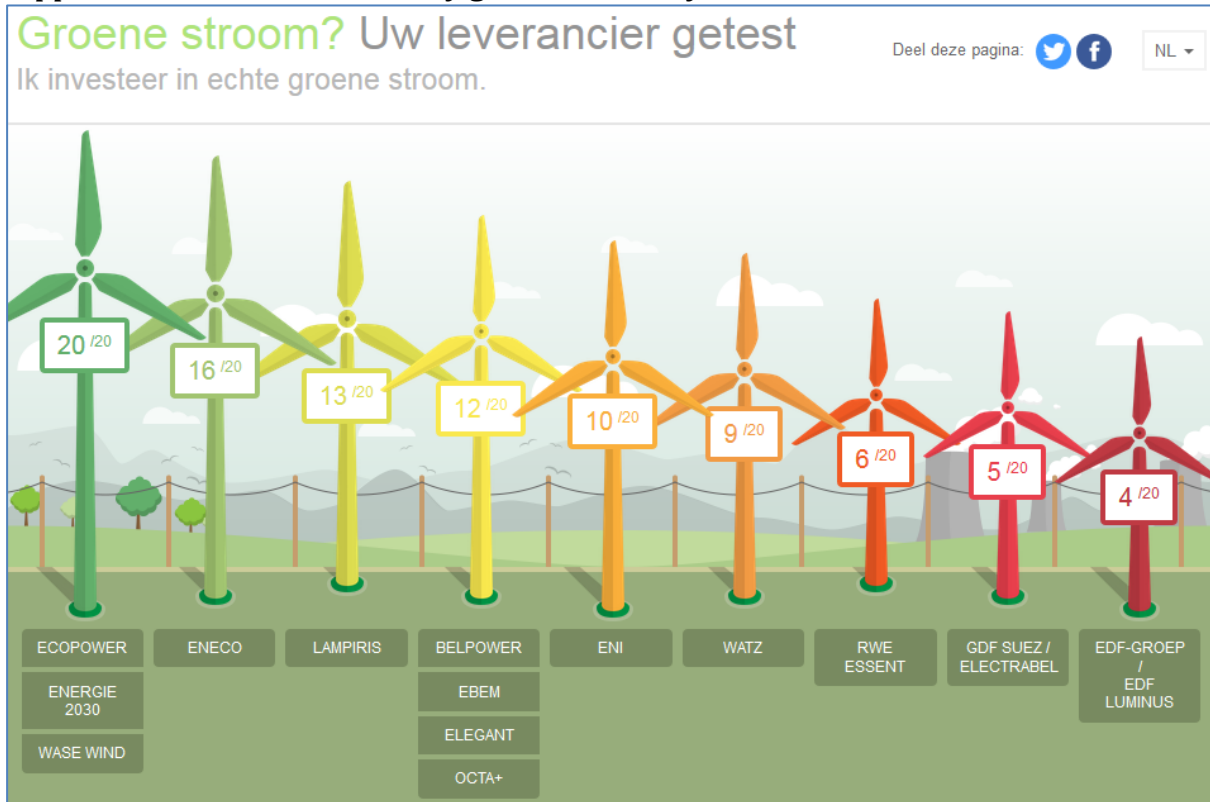
As is illustrated in Figure 2 and 3, environmental NGOs and consumer organisations in the Netherlands and in Belgium are already assessing the environmental performance of suppliers. Together with environmental NGOs they have developed a publicly available methodology to track investments and classify the environmental footprint of each supplier's portfolio. Consumer organisations and environmental NGOs finance the annually updated ranking that is based on data collected from all suppliers by an independent research institute. BEUC's Dutch member Consumentenbond as well as Belgian member Test-Achats/Test-Aankoop have included the ranking results in their online price comparison tools. Consumers automatically see the environmental performance of the supplier next to the price of the offer.

Like in the case of the abovementioned examples from the UK and from Denmark, this approach intends to trigger measurable investments in new generation capacities. The ranking assesses the overall activities of all electricity suppliers on the market. Depending on their specific investments in renewable capacities and on their purchase policy, suppliers obtain a certain amount of points. Consumers can then compare their achievements and their progress in an annual sustainability ranking.

The advantage of this approach is that it does not limit the analysis to the mere fuel mix of a 'green' tariff product. It looks on the financial flows that favour renewable energy deployment. The more the company invests in additional generation capacities or concludes power purchase agreements with renewable power plant operators, the better the position in the ranking.

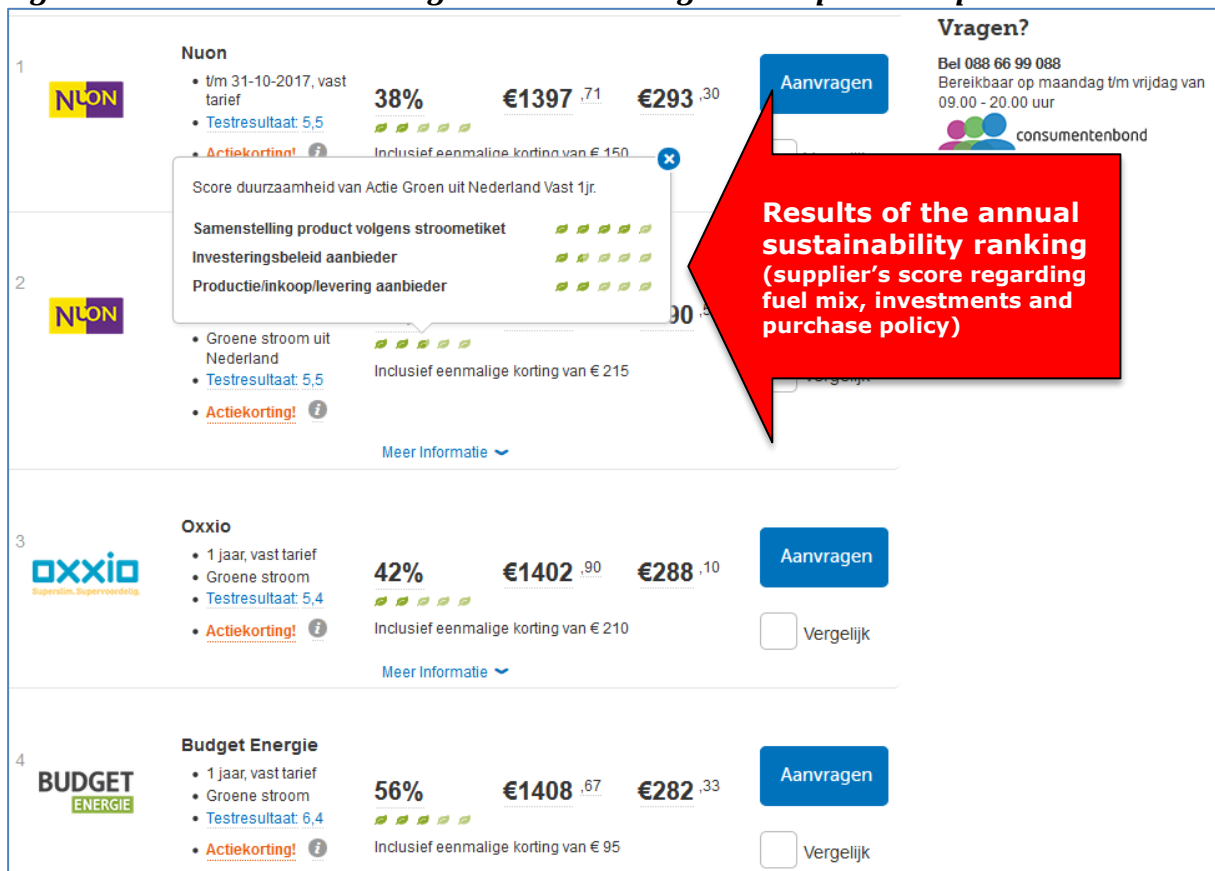
However, in contrast to the first approach, suppliers' ranking does not impose binding rules. The ranking indirectly nudges market participants to support investments in additional renewable power plants.

Fig. 2: Ranking of Belgian suppliers by Greenpeace Belgium: "Green electricity? Your supplier tested – I invest in truly green electricity."⁷



⁷ Greenpeace Belgium: Het klassement van groene stroomleveranciers. <http://www.greenpeace.org/belgium/nl/groene-stroom/>, 11 August 2016.

Fig. 3: Consumentenbond integrates the ranking in their price comparison tool⁸



The screenshot displays a list of energy providers with their sustainability scores and prices. A red callout box points to the sustainability ranking details for the top provider, Nuon.

Rank	Provider	Sustainability Score	Green Energy %	Price (€)	Additional Info
1	Nuon	5,5	38%	€1397,71 (€293,30)	Actiekorting! Inclusief eenmalige korting van € 150
2	Nuon	5,5	38%	€1397,71 (€293,30)	Actiekorting! Inclusief eenmalige korting van € 150
3	Oxxio	5,4	42%	€1402,90 (€288,10)	Actiekorting! Inclusief eenmalige korting van € 210
4	Budget Energie	6,4	56%	€1408,67 (€282,33)	Actiekorting! Inclusief eenmalige korting van € 95

Results of the annual sustainability ranking (supplier's score regarding fuel mix, investments and purchase policy)

1.2.3. Principle 3: Voluntary quality labels for certain market participants

In contrast to binding rules for all market participants (*principle 1*) and rankings of all market participants (*principle 2*), quality labels are purely voluntary on behalf of the electricity supplier. Labels might be controlled by industry stakeholders and serve rather as marketing tool. They can however establish a broad set of qualitative minimum requirements to substantiate additionality. Labels only reward those suppliers of 'green' tariffs that actively apply for labelling. Suppliers have to comply with the label's specific set of minimum requirements. By doing so, labels in principle can provide good guidance to consumers who search for a trustworthy 'green' offer. At the same time, by incentivising, monitoring and certifying such activities, labels trigger a certain benefit beyond companies' business-as-usual. The level of ambition depends on the minimum requirements of each label.

The effectiveness of a label however depends on whether its criteria are as transparent as ambitious in triggering additionality. Labels can jeopardise their guidance function if several competing labels compete on one single market. Consumers will be confused and ask themselves which label is the most credible one.⁹ In case there is already a binding regulation established (*principle 1*) or a meaningful ranking of all market players (*principle 2*), the added value of a quality label might also be questionable.

⁸ <https://www.consumentenbond.nl/energie-vergelijken/vergelijker>

⁹ Surveys commissioned by BEUC's German member VZBV and the market analysis of the German Federal Environment Agency UBA confirm this finding, see: Forsa/Verbraucherzentrale Bundesverband (VZBV): Erwartungen der Verbraucher an Ökostrom und Konsequenzen für Ökostrom-Labelkriterien, December 2011; Umweltbundesamt (Federal Environment Agency): Marktanalyse Ökostrom (Market analysis 'green electricity'), March 2014.

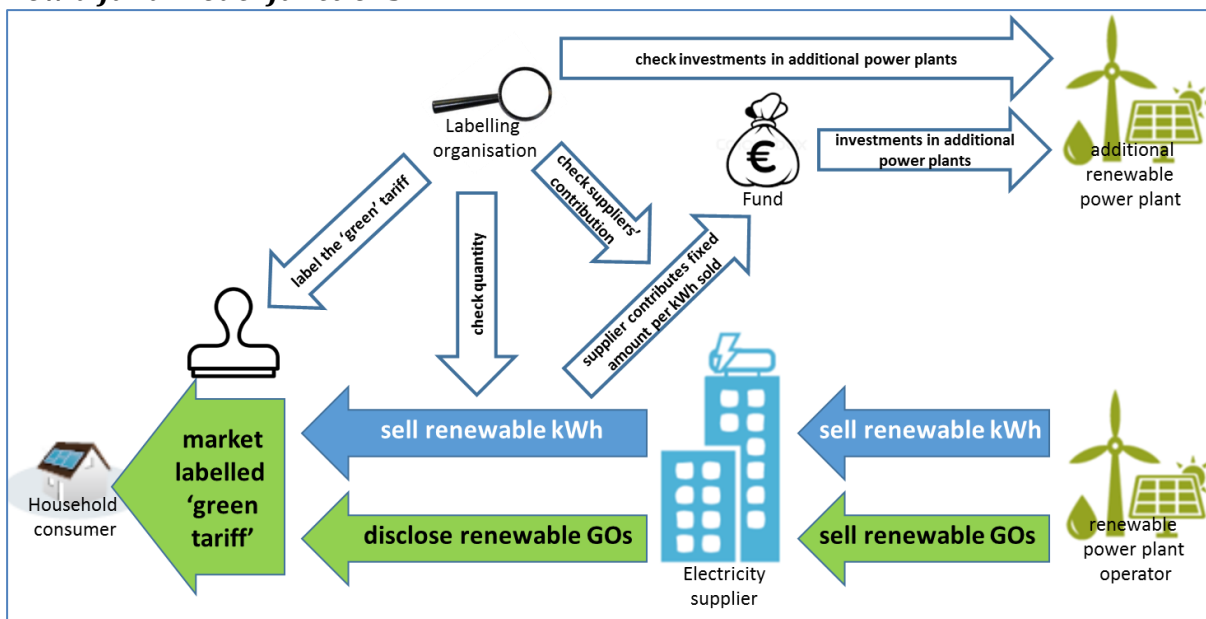
Not surprisingly, there is a multitude of labelling organisations that apply a very broad range of methodologies when it comes to incentivising beneficial effects. Depending on their scope, they may apply highly different schemes for certification. Most of them check certain environmental criteria of the electricity sold or they just check the GOs used for fuel mix disclosure.

In its analysis of current practices, BEUC identified **four models used by labels to ensure additionality**: A fund model (*model 1*) appears to be one of the most simple and effective instruments to collect capital for direct investments in additional renewable power plants. An initiation model (*model 3*) can generate the same effects. BEUC is under current market conditions rather sceptical about the impact of the supply model (*model 2*). The impact of environmental bundles (*model 4*) per se is difficult to compare with other models that focus on investments in additional renewable power plants. In addition, these bundles typically do not provide the kind of benefit consumers expect from a 'green' tariff.

Model 1: Fund model

With every kilowatt-hour sold under a labelled tariff, a certain amount is set aside by the supplier. Revenues are collected in a separate fund that provides capital for investments in additional generation capacities. Depending on the amount of money contributed to the fund and on the conditions for reinvesting it, the fund model can leverage directly additional generation capacities in a very transparent way. BEUC favours this model.

How a fund model functions

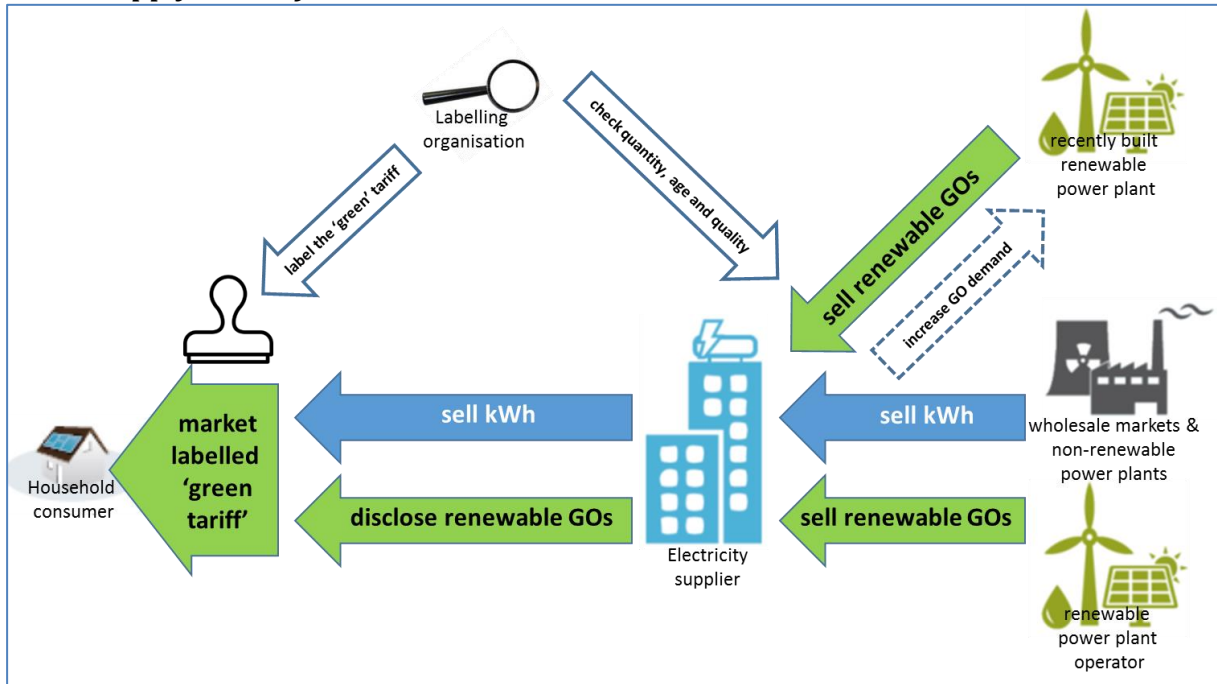


Model 2: Supply model

Under the labelled tariff, a certain share of the fuel mix has to originate from recently built renewable power plants. Power plant operators receive stable revenues from selling their GOs (and eventually their electricity) under the labelled tariff. Thanks to growing demand for GOs (and eventually long-term power purchase), renewable power plant operators could be incentivised to invest in additional generation capacities.

Given the huge oversupply and the low price for GOs in almost all 'green electricity' markets, it is questionable if the supply model alone currently leads to relevant effects without coupling the sale of electricity to the sale of GOs. Only with very high prices for GOs, there could be an indirect incentive going out from unbundled purchase of GOs alone.

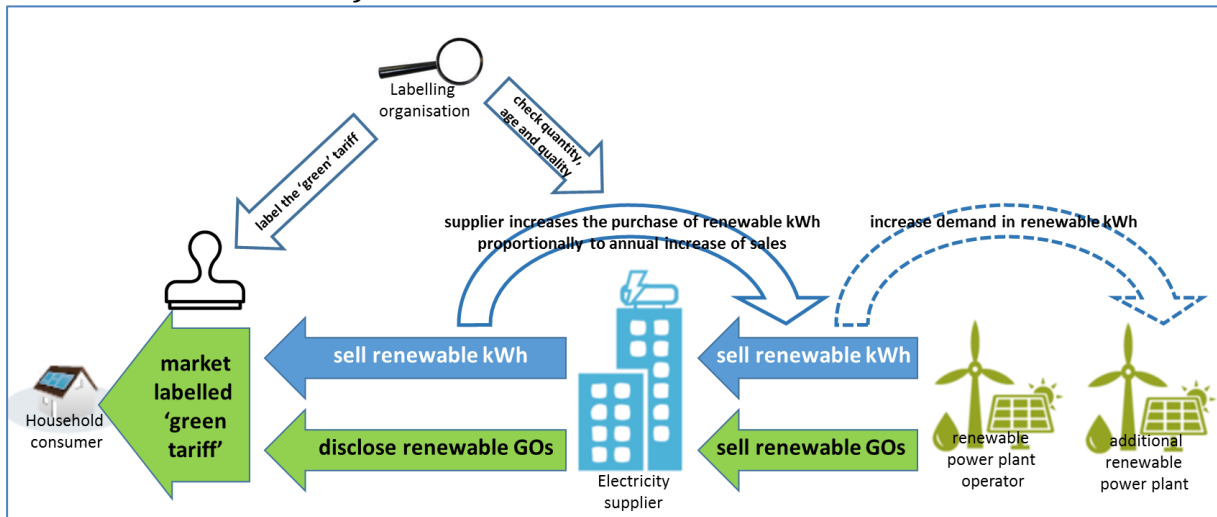
How a supply model functions



Model 3: Initiation model

Depending on the volume of electricity sold under the labelled tariff, the supplier (or the power plant operator) proportionally has to increase the production of renewable electricity. It makes investments mandatory with increasing sale. The level of ambition naturally can vary when it comes to the amount and the time limit for investments. BEUC welcomes this model.

How an initiation model functions

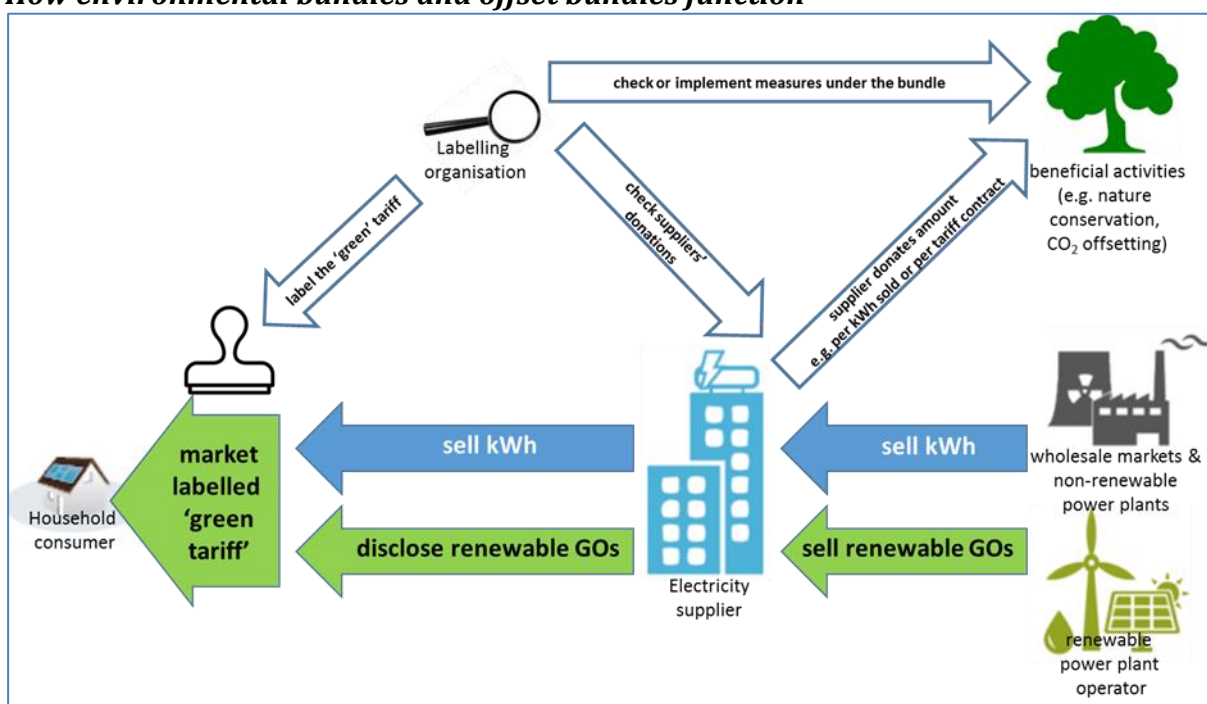


Model 4: Environmental bundles & offset bundles

The labelled tariffs in this model do not incentivise new generation capacities. They create an additional environmental benefit through the suppliers' obligation to donate a certain amount of money to environmentally beneficial activities, for example for nature conservation projects or by compensating greenhouse gas emissions.

The environmentally beneficial activity and the financial volume of such a bundle does not necessarily depend on the volume neither on the origin of electricity sold under the labelled tariff. As a consequence, activities under such a model are more difficult to compare. The additionality might only be reached in a very vague way. Compared to the fund model and to the initiation model, suppliers will not have to change neither their generation capacities nor their purchase policies. BEUC is very reluctant with regard to this model and sees a door wide open for 'green wash' activities.

How environmental bundles and offset bundles function



2. Assessment of 'green electricity' quality labels in Europe

In this chapter we look at labels' trustworthiness by checking five criteria: providing transparency, coupling electricity paid with GOs from the identical power plant, establishing environmental criteria, excluding non-renewable electricity generation and ensuring additionality. Our aim is to identify schemes that offer meaningful guidance to consumers who want to support investments in renewable power plants or create other environmental benefits through their choice. We consequently evaluate how labels make use of the four models to ensure additionality (fund model, supply model, initiation model, environmental bundles), we introduced in the previous chapter.

2.1. Background of quality labels for 'green electricity' in Europe

First quality labels were launched simultaneously with the first 'green electricity' tariffs at the end of the 1990s. Not surprisingly, labels are mainly active in countries with a high share of 'green' tariffs and long experience in switching. In some advanced 'green electricity' markets like in the Netherlands, in Belgium, Denmark and in the UK, labels however don't play any role because the guidance is provided by binding rules (approach 1) or rankings (approach 2). In contrast, a real 'labels jungle' with a dozen different schemes has grown in Germany, Europe's biggest 'green electricity' market.

Quality labels with different governance are competing across Europe

BEUC's analysis showed that, depending on the national context, labelling organisations differ a lot. In a number of countries, consumer organisations and/or environmental NGOs were at the beginning of the first quality labels around the year 2000 (for example in Austria, Germany, Sweden and Switzerland). In the Netherlands ('Milieukeur') like in Sweden ('Bra Miljöval') a well-established national ecolabel just expanded its activities to the electricity sector. The same applies to the Austrian case ('Umweltzeichen').

This first group of national labels is supervised by boards or steering committees that represent different stakeholders from civil society. They mostly are run as associations or foundations with a not-for-profit character. In parallel, large international auditors like the German TÜV companies who certify 'green' tariffs under such labels launched their own labels. More recently, two German GO traders launched their own labelling schemes.

Most labels exclusively refer to the national regulation of one single country's electricity market, with the exception of some of the German TÜV labels. The label run by the Finnish Society for Nature Conservation also recently started to expand its activities from Finland to other European countries.

2.2. Methodology of BEUC's assessment

BEUC's assessment should not be seen as a European-wide ranking of the best quality labels. It serves as a background information for general principles that should always be reflected in the specific national context.¹⁰

In June 2016, BEUC sent a questionnaire to the twelve European labelling organisations that issue quality labels for electricity tariffs with 'green' claims. All labelling organisations responded. For each of the five following criteria, the practices of the labelling schemes are evaluated. We checked in what regard the labelling organisations respond to the best practice from consumer perspective. When it comes to the financial level of ambition, a

¹⁰ For an in-depth comparison of national 'green electricity' labels, see the study of BEUC's German member organisation VZ Niedersachsen: Ökostrom: Labels und Tarife. Marktuntersuchung zu niedersächsischen Tarifen und Bewertung gängiger Labels, January 2016. Our set of criteria adopted key aspects of their methodology.

certain contribution might be relatively high in one country but rather poor in another one where retail prices or consumers’ willingness to pay more are higher.¹¹

International standards for labelling are the basis of our assessment

BEUC considers that quality labels should meet key principles of those established in the International Organization for Standardization’s standard ISO 14024 Type I ecolabels,¹² in particular:

- **Transparency** in all stages of development and operation of the criteria, including involvement of different interested parties, and in particular of civil society and not-for profit organisations, public access to the requirements addressed by the label and verification of compliance by independent organisations;
- The **ambition level** of the label’s requirements make sure that the characteristics of labelled products go beyond current national and/or EU law;
- The label’s requirements address the **most relevant environmental aspects, are verifiable and reviewed regularly** and revised if necessary.

2.3. Results of BEUC’s assessment

Criterion 1: Providing transparency	Overview of key findings
<p>In those countries where fuel mix disclosure is deficient, labels can help to improve the information provided to consumers. In the questionnaire we asked the labelling organisations to what extent they require improvements in fuel mix disclosure. Furthermore, it is important that a labelling scheme does not only improve transparency of the suppliers or of the labelled tariffs. The way how the label itself works should be clear. Consumers should be able, for instance, to understand which criteria the label applies and to what extent this makes a difference to the status quo of a national market. Against this background, we asked if the labelling organisation’s criteria catalogue is publicly accessible. Consumers need to be able to understand the specific achievement that has been brought about through labelling.</p>	<p>Labelling itself is a competitive market with different stakeholders who act as labelling organisations. Commercial interests and dependencies can influence the level of ambition of a labelling scheme. For these reasons we asked if labels themselves sustain any activities in sale of electricity or Guarantees of Origin (GOs), if they have an independent board and who verifies compliance with the labelling criteria.</p> <p>The majority of assessed labels has an independent board including consumer organisations or environmental NGOs. Labelling schemes run by companies however tend to be less transparent or even do not publish their criteria catalogue online. Labels offered by GO traders blur with mere marketing tools.</p>

¹¹ If a ‘green’ tariff is linked with a fund model through adding a premium of 1 Eurocent per kilowatt-hour sold, this represents a relatively small price increase in a country with high retail electricity prices around 30 Eurocent per kilowatt-hour like Denmark or Germany. In other Member States with regulated prices or average retail electricity price around half of this level, such a premium would have another weight.

¹² International Standardization Organization: Environmental labels and declarations -- Type I environmental labelling -- Principles and procedures, 25 March 1999, http://www.iso.org/iso/catalogue_detail?csnumber=23145. BEUC expects quality labels for ‘green electricity’ to respect this ISO standard that is detailed by the Global Ecolabelling Network (GEN) ISO 14024 Definition and other regulatory documents, see <http://www.globalecolabelling.net/about/iso-14024-definition-and-other-regulatory-documents>. Basic requirements for trustworthy labelling are reflected by GEN rules, see GEN: Introduction to Ecolabelling, <http://www.globalecolabelling.net/assets/Uploads/intro-to-ecolabelling.pdf>, as well as by the ISEAL Alliance: What’s essential for a standards system to deliver positive impact? June 2013, <http://www.isealalliance.org/sites/default/files/Credibility%20Principles%20Brochure%20June%202013%20low%20res.pdf>. This set of rules will be detailed by the upcoming United Nations Environment Programme (UNEP) Guidelines for Providing Product Sustainability Information.

<p>Criterion 2: Coupling electricity paid by consumers with GOs from the identical power plant</p>	<p>Overview of key findings</p>
<p>Unbundled purchase of GOs is a reason for confusion around the fuel mix. When a supplier produces or purchases non-renewable electricity, he should not suggest to offer 100% renewable electricity by covering his offer with renewable GOs. Looking at the fuel mix, consumers expect that they pay for what they see. In the questionnaire we asked labels if they consider this problem.¹³</p>	<p>Approximately half of the assessed labels requires coupling, the rest does not touch upon this criterion.</p>
<p>Criterion 3: Establishing environmental criteria</p>	<p>Overview of key findings</p>
<p>There are many different ways for labels to implement criteria that are meant to boost the most environmentally friendly electricity generation. Criteria can either apply to the attributes of the GOs used by a supplier or on the electricity sold. Labels can also establish certain requirements for newly added generation capacities. We analysed to what extent labels reward those power plant operators that try to cause the least harm to the environment. Again, if only GOs are checked, it doesn't necessarily say a lot about the suppliers' financial engagement.</p>	<p>Most of the assessed labels explicitly provide for environmental criteria. Regarding the ambition, labels run by associations or foundations with a not-for-profit character have established a detailed set of rules and conditions per technology with safeguards to secure enforcement. They mostly apply to the renewable power plants selling electricity and/or GOs.</p> <p>However, environmental criteria can also apply to the new renewable power plants that are to be incentivised through a label. Only a minority of labels focusses on the mere certification of GO use.</p>
<p>Criterion 4: Excluding non-renewable electricity generation</p>	<p>Overview of key findings</p>
<p>Looking on the fuel mix based on GOs alone does not provide reliable information if consumers want to know who receives most of their money. Given the complexity of electricity markets, the ownership, the portfolio and the purchase policy of a supplier would need to be analysed which is often a complex challenge. We asked labels to what extent they scrutinise if a tariff supports a business model based on fossil fuels and nuclear power.</p>	<p>Only a minority of German labels and the Austrian label operate a scheme to check links with non-renewable electricity generation.</p>

¹³ Keeping GOs always tied to the electricity sold to customers alone however does not necessarily lead to environmental benefits. Coupling GOs and power purchase nevertheless helps to make 'green' tariffs more understandable and meaningful. Bundled purchase meets consumers' expectations with regard to what is done with their money. Apart from that, bundled purchase can provide a more stable income for renewable power plant operators.

Criterion 5: Ensuring additionality	Overview of key findings
<p>We asked the labels how they apply one or several of the four models to ensure additionality as described in <i>chapter 1</i> (see approach 3 for details on the fund model, the supply model, the initiation model and environmental bundles).</p> <p>The labels' levels of ambition differ a lot. They first should be considered in the light of the advancement of national electricity markets and national renewable energy policies.</p>	<p>We found several examples for each of the four models (fund model, supply model, initiation model and environmental bundles). Fund models and supply models are most common but a number of combinations exist that make it difficult to compare the level of ambition. A few labels operate different models in parallel.</p> <p>The national context of electricity market liberalisation and public support schemes for renewable power plants plays a predominant role. For instance, German labels tend to refuse electricity and/or GOs from power plants that are entitled to support schemes such as the German feed-in tariff. They consider that investment security for such renewable power plants is already given. Against this backdrop, accounting their electricity under a quality label would oppose the idea of additionality. On the other side, support schemes for new renewable power are rather deficient in many other countries, so that any additional revenue, even from GO sale, could be an important contribution to realise a project. In this regard, there are good reasons to define the details of additionality requirements on the national level.</p>

3. BEUC recommendations

National Regulatory Authorities (NRAs) should ensure that **meaningful information on tariffs marketed with a green claim is provided to consumers**. This information should be included not only in any pre-contractual documents but also in online price comparison tools (PCTs).

EU policy makers should task NRAs to **put in place binding minimum requirements for 'green electricity' markets** in order to address current market distortions. NRAs should safeguard **effective guidance to households and reward those retail electricity suppliers that can substantiate investments** in additional renewable power plants.

As national circumstances (such as market conditions) differ and consumers often struggle to compare the quality of offers and suppliers, **NRAs should set binding rules for all market participants** that offer a retail electricity tariff with any green claim. The binding rules should at the same time track suppliers' engagement for additionality.

Depending on the national context, binding rules should include

- **independent sustainability rankings of all market participants** that compare suppliers' investment and purchase policies **or**
- **criteria for trustworthy quality labels** that ensure transparency and additionality, coupling electricity paid by consumers with Guarantees of Origin from the identical power plant, establishing environmental criteria and excluding non-renewable electricity generation.

If different guidance tools compete within one country, they tend to lose their guidance function. NRAs **shall opt only for one of the abovementioned measures and give it a binding character**.

In many Member States, there are deficiencies with regard to implementing consumers' right to know where their electricity comes from.¹⁴ 'Green electricity' markets do not fulfil consumers' expectations. In their National Energy and Climate Plans, **Member States should report on how they address market distortions** regarding retail electricity tariffs backed by renewable Guarantees of Origin.








Consumers should know what they pay for

The Internal Electricity Market Directive 2009/72/EC theoretically provides for consumers' right to know where their electricity comes from. Electricity suppliers shall specify the fuel mix with the bill and in promotional materials. Independently from having opted for a 'green electricity' tariff or not, all consumers should have access to transparent information on the environmental footprint of the electricity they pay for. Besides the price, this is an indispensable element of consumers' well-informed choice on liberalised markets. For BEUC's general recommendations on transparent fuel mix disclosure, see BEUC's previously published policy paper on trustworthy 'green electricity' tariffs.


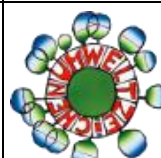



[BEUC: Trustworthy 'green electricity' tariffs](#). Policy recommendations for more transparency, better choice and environmental benefits, BEUC-X-2016-002; January 2016.

¹⁴ [BEUC: Current practices in consumer-driven renewable electricity markets](#). BEUC mapping report, BEUC-X-2016-003, January 2016; [RE-DISS II: Reliable Disclosure in Europe: Status, Improvements and Perspectives](#). Final Report from the project 'Reliable Disclosure Systems for Europe – Phase II' (RE-DISS II), November 2015.




Annex: Assessment of 'green electricity' quality labels in Europe (part 1)

Label name and organisation	Bischoff & Ditze Energy GmbH	Bischoff & Ditze Energy GmbH	EnergieVision e.V./ HIC Hamburg Institut Consulting GmbH	Grüner Strom Label e.V.	KlimaINVEST Green Concepts GmbH
	 Renewable PLUS Availability: Germany Established: 2009 80 tariffs from 50 suppliers 3.2 bn. kWh labelled 2015	 HKNNEU100 Availability: Germany Established: 2013 <10 tariffs from <10 suppliers 0.7 bn. kWh labelled 2015	 OK POWER Das Zeichen grüner Energie ok power Availability: Germany Established: 2000 51 tariffs from 46 suppliers 3.9 bn. kWh labelled 2015	 Grüner Strom ('Green electricity') Availability: Germany Established: 1998 77 tariffs from 76 suppliers 1.1 bn. kWh labelled 2015	 KlimaINVEST Ökostrom RE Availability: Germany Established: 2012 77 tariffs from 61 suppliers Amount of labelled kWh was not communicated
1 Transparency	The labelling organisation sustains activities in sale of GOs, thus is not fully independent. No independent board but transparent criteria. Doesn't oblige suppliers to publish detailed fuel mix.	The labelling organisation sustains activities in sale of GOs, thus is not fully independent. No independent board but transparent criteria. Doesn't oblige suppliers to publish detailed fuel mix.	The label is steered by an independent non-profit association. Independent board uniting scientist and consultants. Obliges suppliers to publish detailed fuel mix and power plants from which GOs are purchased.	The label is steered by an independent non-profit association. Independent board uniting environmental and consumer organisations. Obliges suppliers to publish detailed fuel mix.	The labelling organisation sustains activities in sale of GOs, thus is not fully independent. No independent board of supervisors. Criteria catalogue only accessible on request.
2 Coupling	No	No	No	Yes	No
3 Environmental criteria	No	No	Detailed and transparent criteria on wind power, solar power, hydropower and use of biomass applied to existing power plants of which GOs are used for labelled tariffs.	Detailed and transparent criteria on wind power, solar power, hydropower and use of biomass, applied to newly built power plants.	No assessment possible. Aerothermal, hydrothermal and ocean energy, biomass, landfill gas, sewage treatment plant gas and biogases excluded according to questionnaire response but no provisions or explanations in criteria catalogue mentioned.
4 Excluding non-RES	Optionally GOs can be chosen from power plant owners that are not linked to fossil and nuclear power industry.	Optionally GOs can be chosen from power plant owners that are not linked to fossil and nuclear power industry.	Suppliers' corporate upstream and downstream ownership structure is verified. Possession of owners and operators of coal-fired power plants and nuclear power plants is limited to 50%. Downstream shareholding limited to below 1%.	Suppliers' links to direct ownership in nuclear power plants is excluded. Direct ownership in coal-fired power plants is excluded if the supplier has gained ownership later than the new criteria catalogue took effect (2015/16).	No assessment possible. Suppliers that in parallel own and/or sell electricity from fossil or nuclear power plants are excluded according to the answer to the questionnaire but in the criteria catalogue no provisions are mentioned.
5 Ensuring additionality	Supply model without limits to the age of the power plant, combined with supplier investments in additional generation capacities, relatively low financial contribution from the perspective of the German market. Combined with offsetting mechanism for carbon emissions.	Supply model obliging suppliers to purchase all GOs from recently built power plants (maximum age: six years). Combined with offsetting mechanism for carbon emissions.	Supply model obliging suppliers to purchase GOs from recently built power plants.	Fund model only with very high financial contribution. Funds collected with this contribution have to be fully reinvested after two years. High transparency with regard to the additional power plants that have been installed thanks to the fund.	Fund model with low contribution. Funds collected with this contribution have to be fully reinvested after three years.
			Initiation model with requirement for minimum increase of renewable electricity generation. A third model allows suppliers to pay a regular contribution to an innovation fund.		The labelling organisation offers two other labels with similar names and logos that do not ensure additionality through the fund model.

Assessment of 'green electricity' quality labels in Europe (part 2)

Label name and organisation	1 Transparency	2 Coupling	3 Environmental criteria	4 Excluding non-RES	5 Ensuring additionality
<p>Naturskyddsforeningen (Swedish Society for Nature Conservation)</p>  <p>Bra Miljöval Bra Miljöval ('Good environmental choice')</p> <p>Availability: Sweden Established: 1996 100 tariffs from 53 suppliers ca. 8 bn. kWh labelled 2015</p>	<p>The label is steered by an independent non-profit association. Obliges suppliers to publish detailed in pre-contractual information.</p>	<p>Yes</p>	<p>Detailed and transparent criteria on wind power, solar power, hydropower and use of biomass. Newly built hydropower plants are excluded for environmental reasons.</p>	<p>No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.</p>	<p>Fund model with graded financial contribution to environmental bundles, efficiency or additional power plants. Aims at improving environmental quality of power production and reducing consumption. Investments in efficiency are mandatory, but not in additional power plants.</p>
<p>Österreichisches Umweltzeichen (The Austrian Ecolabel)</p>  <p>"Grüner Strom" (green electricity label)</p> <p>Availability: Austria Established: 2001 10 tariffs from 10 suppliers ca.1.3 bn. kWh labelled 2015</p>	<p>The label is steered by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management together with the Austrian Consumers' Association. Obliges suppliers to publish detailed in pre-contractual information.</p>	<p>Yes</p>	<p>Detailed and transparent criteria on hydropower and use of biomass, applied to existing power plants that produce electricity sold under labelled tariffs. Landfill gas and sewage treatment plant gas are excluded.</p>	<p>Suppliers that in parallel own and/or sell electricity from fossil or nuclear power plants are excluded. Only suppliers that exclusively trade in electricity from renewable power plants are labelled.</p>	<p>Initiation model limiting the age of certain power plants, combined with a minimum share for electricity produced by solar PV and a maximum share for electricity produced by big hydropower plants.</p>
<p>Stichting Milieukeur (Foundation for the Dutch environmental quality label)</p>  <p>Milieukeur</p> <p>Availability: The Netherlands Established: 2005 4 tariffs from 4 suppliers Amount of labelled kWh was not communicated</p>	<p>The label is steered by an independent non-profit association. Criteria are approved by committees of experts from companies and government, from academia and civil society. Obliges suppliers to publish detailed fuel mix including the country of origin of GOs.</p>	<p>Yes</p>	<p>Detailed and transparent criteria on hydropower and use of biomass applied to electricity sold under labelled tariffs.</p>	<p>No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.</p>	<p>Supply model, obliging suppliers to offer electricity from domestic renewable power plants, meeting environmental criteria for biomass. The criteria catalogue states that a harmonised EU definition of additionality is missing.</p>
<p>Suomen luonnonsuojeluliitto ry (Finnish Association for Nature Conservation)</p>  <p>EKOenergy</p> <p>Availability: Estonia, Finland, Germany, Italy, France, Latvia, Luxemburg, Spain, Sweden, UK Established: 2013 21 tariffs, 50 'licensed sellers' 1 bn. kWh labelled 2015</p>	<p>The label is steered by an independent non-profit association and a board of not-for-profit environmental organisations. Advisory group uniting NGOs, suppliers and GO traders. Obliges suppliers to publish detailed fuel mix. Self-declaration for starters.</p>	<p>No</p>	<p>Detailed and transparent criteria on wind power, hydropower and use of biomass applied to existing power plants of which GOs are used for labelled tariffs.</p>	<p>No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.</p>	<p>Fund model with graded financial contribution to environmental bundles. Funds until now used for river restoration and solar electrification projects in the Global South. No direct incentives for suppliers to increase renewable electricity generation.</p>
<p>TÜV NORD CERT GmbH</p>  <p>„Geprüfter Ökostrom“ nach dem ("Certified Eco Power" according to) TÜV NORD CERT Standard A75-S026-1</p> <p>Availability: Germany Established: 2001 300 tariffs from 250 suppliers ca. 1 bn. kWh labelled 2015</p>	<p>The labelling organisation is a private auditor without independent board of supervisors. No special provisions on fuel mix disclosure going beyond low standards of EU legislation.</p>	<p>No</p>	<p>No</p>	<p>No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.</p>	<p>Contributions to fund model to be reinvested after three years in new power plants, of which benefits also have to be reinvested in case of public support. Supply model requiring minimum share of GOs from recently built power plants.</p>

Assessment of 'green electricity' quality labels in Europe (part 3)

Label name and organisation	TÜV Rheinland Energy GmbH	TÜV SÜD Industrie Service GmbH	Verein für umweltgerechte Energie (Association for Environmentally Sound Energy)
	 <p>TÜV Rheinland Standard 1304 Availability: Germany</p>	 <p>TÜV SÜD EE01 (EE02) Availability: Germany (Germany, France) Established: 1998 20 tariffs from 20 suppliers 5.3 bn. kWh labelled 2015</p>	 <p>naturemade star (basic) Availability: Switzerland (Switzerland) Established: 1999 106 tariffs (29 tariffs) 5.9 bn. kWh labelled 2014</p>
1 Transparency	No assessment possible. TÜV Rheinland is an auditor. The company highlights that its activities are limited to certification of 'green' tariffs, for instance according to other labelling schemes. TÜV Rheinland applies a common certification standard established by TÜV companies.	The labelling organisation is a private auditor with an independent certification board. Obliges suppliers to publish detailed fuel mix.	The label is steered by an independent non-profit association. Independent board uniting industry, environmental and consumer organisations. Obliges suppliers to publish detailed fuel mix in pre-contractual information.
2 Coupling	The logo of the TÜV Rheinland Standard can be used by some German 'green electricity' suppliers in order to suggest that their tariff is labelled. TÜV Rheinland however does only generally demand the "support of a sustainable energy system (...) e.g. by the promotion of construction and operation of additional renewable energy capacities or the promotion of energy efficiency measures." For German consumers, there is a risk of confusion due to the similarity of logos and names used by different TÜV companies.	No	Yes
3 Environmental criteria		No	Very detailed and transparent criteria on wind power, solar power, hydropower and use of biomass applied to existing power plants that produce electricity sold under labelled tariffs.
4 Excluding non-RES		No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.	No exclusion of tariffs offered by suppliers that in parallel own and/or sell electricity from fossil and nuclear power plants.
5 Ensuring additionality		Contributions to fund model under EE01 label to be reinvested after three years in new power plants. In case of retail price increases not caused by legislation, 75% of the increase must be invested in new power plants.	Supply model obliging suppliers under the 'basic' label to include at least 2.5% of electricity from newly built wind turbines, solar or biomass power plants. 6% of electricity of labelled tariffs has to originate from power plants that comply with the higher criteria of the 'star' label. Hydropower plants selling electricity under tariffs with the complementary 'star' label have to finance environmental bundles through a very high contribution to improve the environmental quality of the certified hydropower plants.
		Supply model obliging suppliers under EE01 label to purchase GOs from recently built power plants or offset bundle incentivising renewable energy use under international emissions reduction standards.	
		The labelling organisation offers another label EE02 with a similar logo that does not ensure additionality. It guarantees simultaneous production according to the consumers load profile.	

Evaluation scale:

Good practice; issue showing good solutions regarding the specific criterion.	
Average performance; issue with some problems and some solutions regarding the specific criterion.	
Bad practice; issue with relevant problems regarding the specific criterion.	
No assessment possible.	



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