

The Consumer Voice in Europe

TRUSTWORTHY 'GREEN ELECTRICITY' TARIFFS

Policy recommendations for more transparency, better choice
and environmental benefits



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Summary

In the *Energy Union Strategy*¹ it launched in February 2015, the European Commission underlined that citizens should be at the core of the Energy Union so that they can fully participate in the energy transition. In its Communication *Delivering a New Deal for Energy Consumers*², the European Commission stressed the need for consumers to receive more information on the energy sources used by suppliers. Today there is limited transparency in what is provided which makes it difficult for consumers to engage in the energy market and make green choices.

BEUC, the European Consumer Organisation, welcomes the creation of the Energy Union and the focus on citizens. BEUC encourages the European Commission to work towards providing more transparent energy offers, including electricity from renewable sources.

To achieve fundamental and long-lasting structural changes and a higher uptake of renewables, consumers must be reassured that their contributions towards preventing climate change matter. Therefore, consumers need transparent, trustworthy and clear information on 'green' offers so that they can make well-informed choices. Well-designed regulation can easily stop misleading marketing.

In this paper, BEUC analyses existing legislation the situation consumers face when they search for electricity offers from renewable sources. BEUC's mapping report³ provides a set of policy recommendations and calls on EU policy makers and regulators to take these recommendations into account when designing future legislation, including the Renewable Energy Directive and the Market Design Initiative:

- Consumers need **clear, comparable and credible information** about 'green electricity' tariffs which companies advertise. Currently, the reasons a consumer may choose to switch to this type of tariff are not clear enough. BEUC therefore recommends that **misleading 'green' tariffs are stopped** to restore confidence in electricity markets with trustworthy offers.
- Electricity tariffs with **environmental claims should be transparent and deliver exactly what is offered**: consumers should get what they think they pay for, meaning that their money leads to additional investments in renewable generation capacities. Otherwise the whole system has a credibility problem. The future Renewable Energy Directive should address these issues.
- Clear **traceability for measurable impacts of 'green' tariffs** should be established. 'Green' claims should be tied to measurable criteria regarding additional environmental benefits.

¹ A Framework Strategy for a Resilient Energy Union with a Forward Looking Climate Change Policy, European Commission, February 2015

² European Commission: Delivering a New Deal for Energy Consumers, COM(2015)339 final, July 2015.

³ BEUC: Current practices in consumer-driven renewable electricity markets. BEUC mapping report, 6 January 2016, [BEUC-X-2016-003](#).

1. Why trustworthy 'green electricity' tariffs matter

European consumers are willing to support renewables

An increasing number of Europeans wants to subscribe to a tariff that is based on renewable energy sources and is opting for so-called 'green electricity' offers.⁴ Consumers who subscribe to such 'green' tariffs are likely to be environmentally aware consumers who believe that their individual contributions will make a difference for the environment. They also assume that growing demand for renewable electricity will lead to an increase in the total amount of 'green electricity' being produced. However, this is not necessarily the case today.

Consumers' expectations not being met

Consumers might still be paying for fossil fuels even after having opted for a so-called 'green' tariff. This mismatch comes from the way the fuel mix which is used to produce the electricity is disclosed to consumers. Although they have the right to know where the electricity comes from, misleading offers can lead to an enormous loss of consumers' trust.

Current legislation leaves too much space for misleading 'green' tariffs

Current EU legislation provides Guarantees of Origin (GOs), which are tradable certificates, in order to track the renewable share of the fuel mix that consumers are provided. Initially, this should help consumers differentiate between prices and between price and the environmental footprint of an electricity tariff. But because of deficient provisions on the EU level and a lax implementation of these laws in the majority of EU Member States, consumers can not ensure they are making a difference by opting for a 'green' tariff, even if this tariff is backed by 100% renewable GOs. As a consequence, there is a high risk of unsubstantiated environmental claims in the marketing of 'green' tariffs, as well as a low level of transparency.

How BEUC's recommendations were developed and why they matter

Thorough assessment of current national practices

BEUC has compiled a comprehensive mapping report on the different situation consumers face in 12 EU Member States and Norway.⁵ In the report, we assess how countries across Europe regulate tracking, disclosure and marketing of renewable electricity to household consumers. An evaluation overview of all Member States' performance is provided in the annex of this document with the help of a traffic light scale.

Improvement to the future market design and the Renewables Directive

The EU is set to revise the Renewable Energy Directive and hold debates about the design of the future renewable energy market. The European Commission should establish a more ambitious and consistent framework for tracking, disclosing and marketing renewable electricity. Otherwise, the existing loopholes might undermine consumers' trust in liberalised markets. It could also affect their willingness to support energy transition. Only meaningful 'green' tariffs which lead to further investment in additional renewable generation capacity will satisfy consumers and help the EU increase the share of renewables in its electricity consumption. Since national frameworks differ

⁴ Suppliers offered 'green electricity' tariffs to household customers in 15 Member States in 2014. In many countries, they still represent a small market segment, but gain in volume. For an overview, refer to Agency for the Cooperation of Energy Regulators (ACER)/Council of European Energy Regulators (CEER): Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2013, October 2014, p. 42-45.

⁵ BEUC: Current practices in consumer-driven renewable electricity markets. BEUC mapping report, 6 January 2016, [BEUC-X-2016-003](#).

widely, the following aspects have to be kept in mind when comparing Member States' practices:

Market liberalisation increases chances of 'green electricity' markets

Early liberalisation of electricity markets has not necessarily led to higher competition or better choices for consumers. However, according to BEUC's analysis,⁶ markets which were first liberalised are usually more advanced with regards to the availability of 'green electricity' offers. One must bear in mind that, while many suppliers offer 'green' tariffs, these do not automatically contribute to the increase of renewable electricity generation. For instance in 2014, two thirds of Dutch and all Luxemburgish consumers were on a 'green' tariff, and yet renewable electricity production stagnated in these countries.⁷

With regard to investments in new generation capacities, national support schemes for renewables are very important. Some Member States operate support schemes based on tradable certificates but these binding instruments must not be confused with renewable GOs. GOs used for legally binding fuel mix disclosure purposes of 'green' tariffs cannot account for Member States' renewable electricity targets.

No 'one-size-fits-all' approach

Among some of the 15 Member States where consumers can opt for at least one 'green' tariff such as Portugal or the UK, 'green electricity' markets are still small niche segments. However, other countries such as Austria, Belgium, Denmark, Germany or the Netherlands have evolved to become advanced markets with a broad choice of 'green' tariffs. In those Member States, there has been a lively public debate on the choices made by consumers to bring about environmental benefits. Regulators should bear these differences in mind when they are evaluating Member States' specific performance.

'Green' is not necessarily expensive but some consumers are willing to pay more

In advanced markets, 'green' tariffs are not necessarily more expensive than the average retail electricity price. However, environmentally-aware consumers are sometimes ready to pay a higher price for greater environmental benefits. For instance, according to a UK survey, 27% of respondents were willing to pay an average of £6 (ca. €8.50) more per month to fund renewable energy. Other surveys in France and Germany confirmed that consumers accept to pay up to 10% more for a 100% renewable electricity offer, compared to the tariff they currently pay.⁸ A survey of BEUC's Dutch member organisation, Consumentenbond, showed that almost a third of consumers are willing to pay extra for electricity that is produced sustainably; up to €12 per month according to a report of the Dutch regulator ACM.⁹

⁶ BEUC's report on Current practices in consumer-driven renewable electricity markets. BEUC mapping report, 6 January 2016, [BEUC-X-2016-003](#).

⁷ CEER: Advice on customer information on sources of electricity, March 2015, p. 9; European Commission: Renewable energy progress report, June 2015, p. 5.

⁸ Ernst & Young: Energy bills top consumers' worry list of household expenses, EY survey finds. Press release, 13 April 2015; ADEME: Les Français et les Énergies Renouvelables. Baromètre 2010, February 2011; DIW: Ökostrom – starker Rückhalt in der Bevölkerung. DIW-Wochenbericht 7/2012, February 2012; Forsa/VZBV: Erwartungen der Verbraucher an Ökostrom und Konsequenzen für Ökostrom-Labelkriterien, December 2011.

⁹ Consumentenbond: Klantentevredenheidsenquête onder CBI-panel, December 2013 (covering 12 Dutch energy suppliers); Autoriteit Consument & Markt (ACM): Trendrapportage Marktwerving en Consumentenvertrouwen in de energiemarkt. Eerste halfjaar 2013, November 2013, p. 9.

2. Increase the transparency of 'green' tariffs

In most Member States analysed by BEUC,¹⁰ it remains unclear how 'green' is a 'green electricity' offer. The rules at EU level and the way Member States are implementing them do not set a clear definition of 'green' tariffs leaving the door wide open for misleading offers. Still, there are some solutions which help consumers understand how tariffs make a difference. For instance legal frameworks in the UK and a voluntary agreement in Denmark provide guidance on environmental claims to consumers.

What does the existing legislation say about the transparency of 'green' tariffs?

Consumers have the right to know where their electricity comes from

The Internal Electricity Market Directive¹¹ states that consumers should be provided with information about the overall fuel mix of their supplier. The fuel mix and two environmental indicators, the CO₂ emissions and the radioactive waste resulting from the fuel mix, should be available to consumers via promotional materials, bills or suppliers' web pages.

Guarantees of Origin (GOs) function as the information carrier for renewables

In order to inform consumers about the share of renewable electricity in the fuel mix, the Renewable Energy Directive¹² introduced Guarantees of Origin (GOs) as tradable certificates that can be issued for each renewable megawatt-hour. Electricity suppliers solely use renewable GOs as a tracking tool which proves a certain share of the fuel mix was produced from renewable sources.

What experience do consumers have with regard to transparency of 'green' offers?

GOs track attributes of the electricity paid by consumers

In the following infographic (figure 1), an electricity supplier sells 100 megawatt-hours (MWh) of electricity from different power plants to end-users. How does the consumer's right work out in practice to know where the electricity comes from?

The first section of the infographic shows how GOs issued for renewable electricity production accompany the cash flow. The GOs go through the whole value chain from the renewable power plant operator, through the supplier to disclose the fuel mix to the consumer. In order to cover consumers' demand, the supplier purchases electricity from renewable power plants (20 MWh of the total sum of 100 MWh of electricity paid by the end-users). Consequently, the supplier uses 20 GOs equalling the 20 MWh of renewable electricity supplied to its final customers.

In this case, the renewable GOs equal exactly the cash flow related to the electricity sold. In the annual fuel mix disclosure which the supplier has to send to all customers with the bill, a 20% share of renewable energy sources is displayed. What the consumers get to know about the origin of their electricity is a clear fuel mix information because the share of renewable energy sources disclosed matches the share of the renewable electricity purchased and paid for.

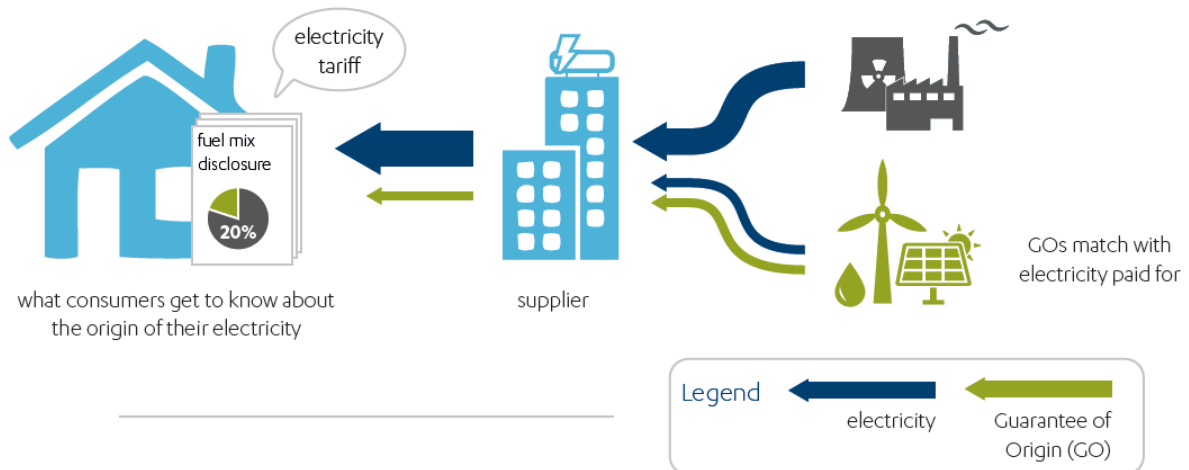
¹⁰ BEUC's mapping report covers Austria, Belgium, Cyprus, Denmark, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain and the United Kingdom.

¹¹ 2009/72/EC, art. 3(9).

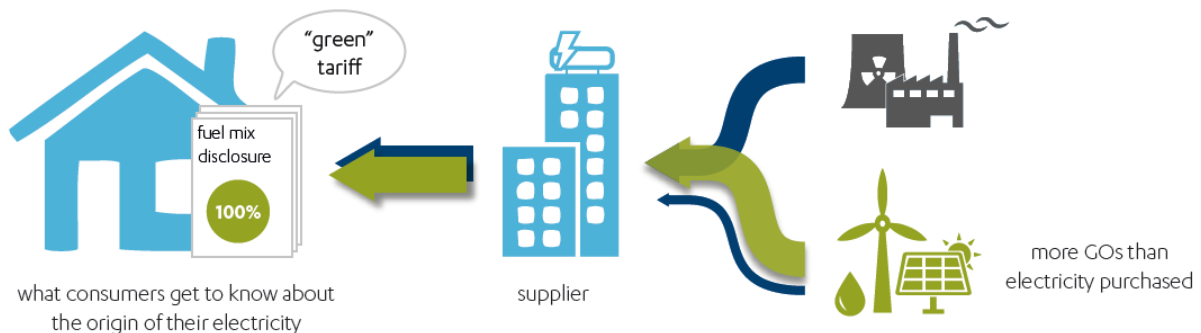
¹² 2009/28/EC, deliberations (54) and art. 2(j).

Fig. 1: The statistical flow of GOs does not necessarily equal the cash flow

Clear fuel mix information



How GOs can “green” dirty electricity



While 100% are renewables disclosed, consumers might still be financing fossil fuels unknowingly

Under existing EU legislation,¹³ consumers could continue paying for fossil fuels after having switched to a tariff with a 100% renewable fuel mix disclosed. The fact that renewable GOs can be traded separately from the megawatt-hours produced in a renewable power plant allows suppliers to market a ‘green’ tariff as being 100% renewable without necessarily entering into any meaningful financial relation with a single renewable power plant. Because of oversupply, prices of renewable GOs have always been extremely low (ca. 0.10 €/MWh) and therefore, GOs do not provide any major support for funding new renewable energy installations.¹⁴

Traded independently, GOs don’t have to match renewable megawatt-hours

Suppliers’ unbundled purchase of GOs for disclosure purposes, as illustrated in the second section of figure 1, leads to misleading ‘green’ offers. The consumer expects that the renewable share expressed in the fuel mix matches a cash flow to renewable power plants. However, in this case, the supplier just bought 100 GOs, covering not only the 20 MWh of renewable electricity, but also the remaining 80 MWh of non-renewable-sourced electricity. Only in Austria, it is made mandatory that the quantity of domestic renewable electricity sold within a ‘green’ tariff matches with GOs from the identical domestic renewable power plants that produced the megawatt-hours sold to the end-users.

¹³ 2009/72/EC, art. 3(9); 2009/28/EC, deliberations (54) and art. 2(j).

¹⁴ Backing a household’s annual electricity consumption of 3 MWh by renewable GOs would cost only 0.30 €.

National fuel mix disclosure often provides little information to consumers

Member States implemented the Internal Electricity Market Directive's minimum requirements for fuel mix disclosure¹⁵ in different ways. In our view, disclosure of information should be presented in an easily understandable and comparable way but this is currently not the case. The energy bill should also include a standardised template with a chart and average values for benchmarking in order to be comprehensible for consumers. Such practices already exist in Austria, Germany and Spain.

In addition to a graphic showing the share of renewables, fossils and nuclear in the fuel mix used, the layout of the energy bill should also highlight the different renewable sources used as well as the country of origin of the (renewable) GOs used for disclosure, as is already the case in Austria.

Although mandatory for disclosure, environmental indicators are often hidden

Although disclosure of environmental information such as CO₂ emissions and radioactive waste is mandatory, many Member States have not put in place rules for this to happen and suppliers often can hide this information on their websites.

No accuracy without differentiation of the supplier's mix and the product mix

Along with the supplier's overall fuel mix, the specific product mix must be published when a supplier offers a 'green' tariff among other tariff products. This can help prevent double-counting and incoherence but only a few Member States do this.

If a supplier offers a 'green' tariff backed by 100% renewable GOs issued for his renewable power plants, the supplier has to deduct the amount of renewable GOs sold under the 'green' tariff from his overall fuel mix. Otherwise, the renewable GOs would be counted twice, thus 'double-disclosed': The customers who stick to the suppliers' standard tariff would find a renewable share in their fuel mix which was already sold and disclosed separately to those customers who voluntarily opted for the 'green' tariff.

Using GOs for all fuels could improve the coherence of the data disclosed

The calculation of the fuel mix data is not always coherent.¹⁶ While some Member States leave it to suppliers to provide unchecked data, others calculate the suppliers' fuel mixes in a more accurate way by tracking suppliers' specific electricity production and/or trade. Some just apply a default mix. This means that different suppliers may disclose the same national average mix. In the latter case, consumers naturally lack information to differentiate suppliers' environmental performance.

These different approaches are not always consumer-friendly and still allow inaccuracy like double-counting. Against this backdrop, BEUC supports the concept of 'full disclosure' which means that only GOs are used for calculating the renewable *and* the non-renewable shares in the fuel mix, like in Austria, Switzerland and (voluntarily) in Sweden.

¹⁵ 2009/72/EC, art. 3(9).

¹⁶ The RE-DISS projects have identified deficiencies of the calculation methodologies and initiated improvement of national practices with regard to coherence and accuracy, see RE-DISS Best Practice Recommendations: RE-DISS II project: RE-DISS Guidelines for the Regulation of the Front-Side Disclosure of Electricity. Version 1.0, http://www.reliable-disclosure.org/upload/175-RE-DISSII_Disclosure-Guidelines_Regulation_Compent-Bodies_v1.pdf, 22 July 2015; RE-DISS II project: RE-DISS Disclosure Guidelines for Electricity Suppliers, http://www.reliable-disclosure.org/upload/174-RE-DISS_II_Disclosure-Guidelines_Suppliers_v1.pdf, 22 July 2015.

Info box: 'Full disclosure' for a more accurate fuel mix disclosure

From a consumer point of view, full disclosure can be regarded as good practice:

- The calculation of the fuel mixes becomes more coherent, accurate and reliable. The risk of double-disclosure of electricity's attributes could be reduced.
- Comparability of suppliers and offers improves. The 'anonymous' national average mix ('residual mix') could be phased out and suppliers with a fuel mix dirtier than the average would be unable to hide behind the disclosure of the 'anonymous' national average mix anymore.

There are further advantages of 'full disclosure' from a more general point of view of competition:

- It could contribute to a level playing-field with regard to the tracking duties for renewable and non-renewable sources. It is not fair to commit only renewable power plant operators to the GO tracking scheme.
- Given the incomplete GO market, the trade in GOs generally could increase and eventually contribute overshooting demand in renewable GOs. This would lead to higher prices for renewable GOs. Overshooting demand would make it more appealing to invest in new generation capacities thanks to increased revenues from higher prices for renewable GOs.

On the other side, 'full disclosure' is not a silver bullet:

- GOs could remain unclaimed by suppliers, especially unpopular ones issued for nuclear or coal-fired power plants. In this case, an average mix or another methodology would have to be applied to provide a fuel mix to the consumer. In the end this would not necessarily enhance transparency.
- GOs would still not be tied to the exact megawatt-hour produced, traded and sold. The GO would not automatically go along the whole value chain from the plant operator, through the trader and the supplier to the consumer (see figure 1). Consumers might still pay for other energy sources than the ones that are disclosed to them.

Consumers could know how they refinance public support schemes


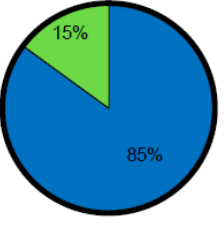
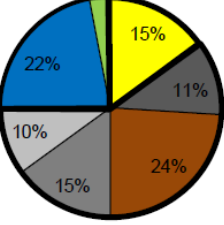
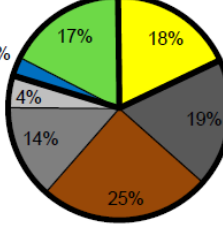


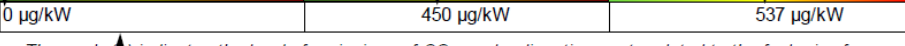
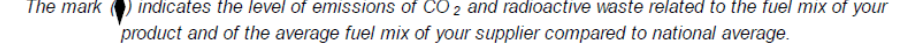
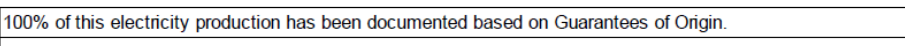
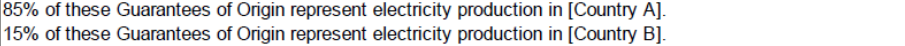

Consumers in most Member States refinance the public support schemes for renewable electricity through levies on the electricity price or as taxpayers. Providing this information will help consumers understand how they contribute to the expansion of renewable energy. For instance, German consumers receive separate information about the share of supported renewable electricity. It is difficult to disclose the direct and indirect public support granted to non-renewable energy sources however.

What should be improved in future legislation?

- Electricity tariffs must be **meaningful and comparable**, especially with regard to the informative value of the fuel mix. Therefore, future legislation on public service obligations and consumer protection must define **key parameters to be published in a template layout** by all suppliers. A standardised format should include the supplier's average mix as well as the tariff product mix. Different renewable and fossil fuel sources should be disclosed. The RE-DISS II project has provided an example for a complete and meaningful disclosure of the fuel mix (see figure 2 below).
- Consumers must be able to **understand that GOs alone do not prove any cash flow but serve as a statistical tracking tool** only. They need to be able to differentiate between meaningful and misleading offers. For this reason, the relevant information must be published in advertising and on the bill. The country of origin of the GOs used for disclosure purposes must be published in the standard format.
- **GOs should be the only tracking tool for all energy sources** ('full disclosure'). This would help create a level-playing field for all energy sources and help calculating all fuel mixes in an accurate and consistent manner across Europe.
- GOs – which are nothing more than a statistical tracking instrument – should **not be applicable to national renewable energy target fulfilment**, meaning that electricity suppliers still must build real new power plants. Buying GOs is not enough to comply with binding national targets.

Fig. 2: How to display the fuel mix to consumers

The RE-DISS II project provided an example of a meaningful and comparable fuel mix disclosure. It includes all key parameters and could serve as a template layout.¹⁷

| | Your Product "Green" | Average of your "Sample Supplier" | For comparison: [National] production mix |
|---|---|---|---|
|  |  |  |  |
| Nuclear | 0,0% | 15,0% | 17,9% |
| Hard Coal | 0,0% | 11,0% | 18,6% |
| Lignite | 0,0% | 24,0% | 24,9% |
| Natural gas | 0,0% | 15,0% | 13,7% |
| Other fossil | 0,0% | 10,0% | 4,5% |
| of which oil | 0,0% | 0,0% | 1,1% |
| of which unspecified & other | 0,0% | 0,0% | 3,3% |
| Hydro power | 85,0% | 22,0% | 3,0% |
| Other renewable | 15,0% | 3,0% | 17,4% |
| of which wind | 5,0% | 1,0% | 8,1% |
| of which biomass | 10,0% | 2,0% | 5,0% |
| of which photovoltaic | 0,0% | 0,0% | 3,2% |
| of which geothermal | 0,0% | 0,0% | 0,5% |
| of which unspecified & other | 0,0% | 0,0% | 0,6% |
| High-efficient cogeneration of electricity and heat | 5,0% | 7,0% | 8,5% |
| CO ₂ emissions |  0 g/kWh |  494 g/kWh |  529 g/kWh |
| Radioactive waste |  0 µg/kWh |  450 µg/kWh |  537 µg/kWh |
| <i>The mark  indicates the level of emissions of CO₂ and radioactive waste related to the fuel mix of your product and of the average fuel mix of your supplier compared to national average.</i> | | | |
| Additional information with respect to your product "Green" | 100% of this electricity production has been documented based on Guarantees of Origin. | | |
| | 85% of these Guarantees of Origin represent electricity production in [Country A]. | | |
| | 15% of these Guarantees of Origin represent electricity production in [Country B]. | | |
| 0% of this electricity production has received public support. | | | |

¹⁷ RE-DISS II project: RE-DISS Guidelines for the Regulation of the Front-Side Disclosure of Electricity. Version 1.0, http://www.reliable-disclosure.org/upload/175-RE-DISSII_Disclosure-Guidelines_Regulation_Compentent-Bodies_v1.pdf, 22 July 2015; RE-DISS II project: RE-DISS Disclosure Guidelines for Electricity Suppliers, http://www.reliable-disclosure.org/upload/174-RE-DISS_II_Disclosure-Guidelines_Suppliers_v1.pdf, 22 July 2015.

3. Enable consumers to make a well-informed choice

Since GOs can be traded independently from the electricity sold to consumers, suppliers may still market non-renewable energy sources behind a dazzling '100% green' façade. This makes it difficult for consumers to verify the environmental performance of their 'green' choice.

What does the existing legislation say about the information relevant for choice?

No clear references to improving consumer choice

While the 2001 version of the Internal Electricity Markets Directive stated that the GO tracking scheme should increase transparency for the consumer,¹⁸ there is no clear reference in the current version. Aside from the minimum requirements on fuel mix disclosure (see chapter 2), there are no rules when it comes to offering GO-backed renewable electricity to end-users. Likewise, the Unfair Commercial Practices Directive¹⁹ does not touch upon the way electricity suppliers use environmental claims when marketing 'green' tariffs that are backed by 100% renewable GOs.

Differences in the way fuel mix is disclosed in Member States

A recent CEER Advice document²⁰ compares implementation of the legislation on fuel mix disclosure in Member States. The document provides a very valuable overview of the challenges of a reliable and coherent fuel mix disclosure system. It gives recommendations to Member States on how to improve implementation of the Directive's minimum requirements in a more consumer-friendly manner, but these are not binding.

Which problems do consumers face searching and comparing "green" tariffs?

Consumers are neither engineers nor electricity traders

The Consumer Markets Scoreboard deplors the low level of comparison in electricity offers.²¹ Not surprisingly, it turns out to be rather difficult for many consumers to identify environmental advantages or disadvantages when it comes to electricity tariffs.

Few rules on suppliers marketing 'green' tariffs

While some 'green' tariffs combine a limited share of renewables and other 'low carbon' sources, other tariffs pretend to only make use of renewable energy sources. BEUC's assessment of suppliers' advertising showed that the companies frequently use terms like "sustainable" or "clean" energy, often accompanied by attributes such as "environmentally friendly", "carbon neutral" or "ecological".

'Green' tariffs regulation leads to flawed environmental claims in other areas

The issue of reliable 'green' offers also relates to the broader fields of product policy and unfair commercial practices: consumers may be exposed to product-related environmental claims made by companies due to the use of flawed 'green electricity' offers. Once a manufacturer has virtually offset his CO₂ emissions with the help of renewable GOs, his goods could be marketed as being "carbon-free" and 100% renewable.²²

¹⁸ 2001/77/EC, deliberations (10).

¹⁹ 2005/29/EC.

²⁰ CEER: Advice on customer information on sources of electricity, March 2015.

²¹ European Commission: Consumer Markets Scoreboard. 10th edition, June 2014, p. 32.

²² The current methodology adopted within the Greenhouse Gas Protocol, an international standard for carbon footprinting, in principle allows for such crediting of GO-backed electricity tariffs.

Lax national implementation of minimum requirements hinders transparency

A recent EU-wide survey confirmed that consumers estimate their knowledge about how their electricity is produced as quite low.²³ According to the Internal Electricity Directive,²⁴ consumers must be able to find at least both the supplier mix and the mandatory environmental indicators (CO₂ emissions and radioactive waste) in any advertisement for electricity tariffs. But only some Member States force suppliers to communicate the fuel mix and the environmental indicators at such an early stage.

Consumers do not know what is done with the money they spend on 'green' tariffs

Only some Member States oblige suppliers to communicate what they do with consumers' money to bring about environmental benefits. Consumers should have the right to know what activities are undertaken thanks to their 'green' choice. But there are few legally binding provisions in the Member States analysed in the mapping report. Only Denmark, Norway and the UK apply an advanced framework on the use of environmental claims and wording related to marketing of electricity offers.

Only some regulators increase consumers' awareness of 'green' tariffs

National Regulatory Authorities play an important role in ensuring clear and meaningful information is provided to consumers. A limited number of regulators also provide annual disclosure reports that compile the fuel mixes of all suppliers. Austria and Belgium (Flanders) provide a transparent comparison of suppliers' fuel mixes, including the country of origin of the GOs used.

The Austrian regulator and the German Federal Environment Agency, which issue GOs, provide consumer-friendly and balanced background information on the functioning of 'green electricity' markets. As part of the legal fuel mix disclosure, Austrian suppliers may also include supplementary voluntary information, explaining that 100% of the renewable GOs used for disclosure have been purchased as tied to the renewable electricity. This refers to the Austrian rule on bundled purchase of GOs and megawatt-hours, meaning that the quantity of domestic renewable electricity sold within a 'green' tariff always has to match with GOs from the identical domestic renewable power plants that produced the megawatt-hours.

Many online price comparison tools fail to deliver what is required

Access to independent online price comparison tools (PCTs) is key to enabling European consumers to search and switch their electricity tariff.²⁵ PCTs also guide consumers to reliable 'green' tariffs. But in many Member States these websites fail to explain what is the actual fuel mix and what are the environmental impacts of electricity tariffs. Austria and Denmark are exceptions. Some PCTs run by consumer organisations fill the gap in other Member States.

²³ Ipsos/London Economics/Deloitte: Functioning of retail electricity markets for consumers in the EU. Presentation, Citizens' Energy Forum, London, 13 March 2015.

²⁴ 2009/72/EC, art. 3(9)b.

²⁵ European Commission/ECME Consortium: The functioning of retail electricity markets for consumers in the European Union. Final report, November 2010; CEER: Guidelines of good practice on price comparison tools, July 2012.

What should be improved in future legislation?

- Member States must **fully meet the minimum requirements on fuel mix disclosure** in a consumer-friendly manner, including the mandatory publication of the fuel mix and environmental indicators (CO₂ emissions, radioactive waste) in any pre-contractual information.
- Misleading 'green' tariffs must be stopped. The supplier must **prove the environmental bonus that accrues from the consumer's choice**. Only under this condition could a tariff be legitimately marketed with a 'green' claim (see also chapter 4 on criteria for measurable environmental benefits).
- Member States must enforce properly the Unfair Commercial Practices Directive and adopt more ambitious regulations **against the use of misleading wording** in relation to 'green' claims. This could help restore confidence in electricity markets with trustworthy offers.
- Electricity market regulators must develop **binding rules on how to present the fuel mix** and information related to the environmental performance of electricity tariffs in **price comparison tools**, based on a standardised format (see chapter 2).

4. Ensure consumer money creates environmental benefits

When opting for a 'green' tariff, consumers expect that their choice contributes financially to an increase in renewable electricity generation. Apart from the negligible price paid for the transfer of GOs, this is not necessarily the case for all 'green' tariffs offered on retail markets. This last chapter analyses possible ways consumers' money could really contribute to bring about an energy transition.

What does existing legislation say about environmental benefits?

Consumers who opt for 'green' tariffs should enable more generation of renewable electricity

The Renewable Energy Directive states that emerging consumer markets for renewable electricity offers would be appropriate to contribute to the construction of new installations for energy from renewable sources.²⁶ The directive allows renewable GOs to be traded independently from the electricity produced.

Unbundled purchase of GOs is expected to incentivise additional capacities

In line with the concept of overshooting demand, consumers' increasing demand in GO-backed 'green' tariffs was expected to cause a rise in GO prices. As a consequence, these revenues then could incentivise investments in new renewable generation capacity.

²⁶ 2009/28/EC, deliberations (53).

What are the problems of 'green' tariffs for delivering environmental benefits?


Renewable GOs are too cheap to incentivise meaningful investments

Until now, demand in renewable GOs used for fuel mix disclosure purposes has not yet outstripped the offer. Due to oversupply, renewable GOs remain cheap. Expectations with regard to overshooting demand in GOs have not been met. Poor revenues from GOs do not provide renewable project developers with investment security, thus GOs failed to refinance additional renewable generation capacities.

Consumers' perception of 'green' tariffs does not match reality

An informed consumer would expect that his/her choice for 'green electricity' actually increases demand for renewable electricity. There should therefore be added renewable generation capacity. Research and surveys in several Member States show that, when they opt for 'green' tariffs, consumers expect their supplier to boost renewable energy generation. In other words, consumers expect that their decision leads to additional benefits further down the road.²⁷

However, the disconnection between renewable GO trading and the actual delivery of renewable electricity undermines this narrative. Suppliers can just pretend to offer 100%



"Consumers expect that the 'extra' that they are paying for the green element must be clear; it must be transparent what this premium is being spent on, and [...] that it should be spent on investing in renewables."

UK regulator Ofgem: Improving Consumer Protection in the Green and Renewable Energy Offers Market, December 2013.

renewables, based on the mere disclosure of a GO-backed fuel mix. This alone does not yet entail any relevant impact on investment decisions. We assume that most consumers searching and/or opting for 'green' tariffs are not aware of the trade in GOs within complex statistics of fuel mix disclosure. Consequently, there is a risk that consumers' expectations are not being met by many suppliers.

Additionality is key

The concept of additionality describes suppliers' action that creates additional environmental benefits, as expected by consumers. These benefits would not have occurred without the consumers' choice, thus they go beyond the suppliers' business-as-usual.

Member States develop solutions which could answer consumers' expectations

The fact that suppliers need to report on the additionality of any 'green' offer in the UK shows that regulators can help substantiate environmental claims.²⁸ The Danish approach is voluntary and nudges suppliers to offer tariffs that include additionality. Slovenia also introduced such rules. In other advanced 'green electricity' markets, where legally binding provisions are missing, environmental NGOs and consumer organisations have set up rankings with regard to suppliers' engagement on renewables to guide consumers (e.g. Belgium, the Netherlands).

²⁷ Ofgem: Green tariffs: additionality and messaging. Research summary, June 2014; Forsa/VZBV:

Erwartungen der Verbraucher an Ökostrom und Konsequenzen für Ökostrom-Labelkriterien, December 2011.

²⁸ Modification of the standard conditions of electricity supply licenses granted under section 6 of the electricity act 1989. Licence conditions 21D.6, 21D.7, December 2014.

From a Member State's perspective, additionality is key because 'green' tariffs can contribute to the fulfilment of national targets on renewable energy through additional investment in new, renewable energy generation capacity. Consumers' spending on 'green' tariffs could help to achieve renewable electricity targets, or even go beyond them.

Private quality labels can contribute to additionality

Besides national regulators, private 'green electricity' quality labels could help establish and make it possible to verify environmental minimum

criteria related to additionality. BEUC welcomes joint approaches from national regulators, electricity market stakeholders, consumer organisations and environmental NGOs, especially in Austria, Denmark and Germany. In these countries, specific national quality labels (or standards) have been developed in order to define minimum criteria for 'green' tariffs. Private quality labels could provide an appropriate approach to tackle highly diverse stages of national 'green electricity' markets. However, voluntary labels alone cannot replace a coherent and reliable tracking of the renewable share, nor an understandable disclosure of the fuel mix.

In practice, additionality of an offer could be verified and reached by:

- Surcharging 'green' tariffs with a certain amount per kilowatt-hour which is channelled to third-party supervised funds. Capital would then be directed into new, additional generation capacities, independent of the suppliers' investment strategy; or
- Investing 'green' tariffs' revenues in new efficient generation capacity which would not have been launched otherwise.

What should be improved in future legislation?

- When evaluating the current Renewable Energy Directive, policy-makers need to recognise that trade in GOs has hardly ever contributed to the construction of new installations. **A statistical tracking tool should not be burdened with the role of a refinancing scheme.**
- The future Renewable Energy Directive should address that offers with environmental claims must match consumers' expectations: consumers' money should verifiably lead to **additional investments** in renewable generation capacities.
- Electricity market regulators must establish and/or improve **criteria for measurable impacts** of 'green' tariffs e.g. that a certain amount per kilowatt-hour is channelled to third-party supervised funds that refinance additional generation capacities. This is key to help consumers to differentiate and compare such offers. In this context, suppliers should engage in substantiating the additional environmental benefits achieved with consumers' money.
- Private 'green electricity' quality labels can provide valuable guidance to consumers in case regulators fail to establish criteria for measurable impacts of 'green' tariffs. It is indispensable that these **quality labels are credible, well-designed and remain fully independent** from suppliers. The criteria applied should be as transparent as ambitious, going **beyond mandatory minimum requirements.**

**Annex: Overview of Member States' practices
(status at the editorial deadline of 26 November 2015)**

| | Definition of 'green electricity' offers | How 'green' tariffs are offered to consumers | How 'green' tariffs and the fuel mix are disclosed on the bill | How environmental benefits of 'green' tariffs are proven to consumers | How 'green electricity' quality labels guide consumers |
|--------------------|---|---|---|---|---|
| Austria | Legally anchored: use of 100% renewable GOs matching with electricity purchased. | Suppliers are allowed to market 'green' tariffs only according to the legal definition. | Forerunner of full disclosure, meaningful and transparent, beyond minimum EU criteria. | No binding information on additionality, only voluntary supplier information on the bill. | Voluntary quality label, run by ministry and consumer organisation, incentivises new generation capacities. |
| Belgium | Only 100% renewable GOs tariffs can be marketed as 'green', but no qualitative criteria. | No binding provisions, but understandable and meaningful disclosure reports. | No provisions that go beyond minimum criteria, environmental indicators on website only. | No provisions or obligations existing, but informative annual supplier ranking by NGOs. | Informative annual supplier ranking by NGOs. |
| Cyprus | No definition existing. | No provisions or obligations existing. | A fuel mix disclosure system is in preparation but not yet fully implemented. | No provisions or obligations existing. | No 'green electricity' quality labels exist. |
| Denmark | Voluntary agreement for tariff products marketed with claims on environmental effects. | Suppliers have to comply with one of three categories for qualitative minimum criteria. | No differentiation between suppliers' fuel mixes, informative value remains low. | Clear rules for additionality, but purchase of GOs without age limit is allowed. | A to D class labelling guides consumers to trustworthy offers with additional benefits, discourages unlabelled. |
| Germany | No definition existing. | No clear provisions existing, risk of misleading advertising. | Transparent and advanced fuel mix disclosure. | No provisions or obligations existing. | Many labels offer guidance but competing schemes make consumer's orientation difficult. |
| Greece | No definition existing. | No provisions or obligations existing. | PPC changed from monthly to annual disclosure, environmental information lacks. | No provisions or obligations existing. | No "green electricity" quality labels exist. |
| Italy | No definition existing. | No clear provisions existing, no differentiation in the official price comparison tool. | Lack of minimum information, risk of double-counting and incoherence of supplier mixes. | No provisions or obligations existing. | Little activities and relevance of labels. |
| Netherlands | Only 100% GO-backed tariffs to be marketed as renewable. | No sufficient provisions existing, risk of misleading advertising. | Partially advanced, but fuel mix calculation is not necessarily meaningful and transparent. | No provisions or obligations, but NGOs and consumers organisation's elaborate annual ranking. | Consumer organisation ranks suppliers and products, competing private label certifies product mixes. |
| Norway | Only 100% GO-backed tariffs to be marketed as renewable, but comparison of tariffs missing. | Strict rules avoiding misleading environmental claims, but no unified communication. | Misleading disclosure of the production mix. | Strict rules avoiding misleading marketing. | Strict rules for the role of quality labels, but no labels active on the market. |
| Portugal | No definition existing. | No binding information, informative online fuel mix comparison tool. | Contract-based disclosure of the fuel mix, GO tracking scheme not fully implemented. | No provisions or obligations, information can vary from supplier to supplier. | No 'green electricity' quality labels exist. |

| | Definition of “green electricity” offers | How “green” tariffs are offered to consumers | How “green” tariffs and the fuel mix are disclosed on the bill | How environmental benefits of “green” tariffs are proven to consumers | How “green electricity” quality labels guide consumers |
|-----------------|--|--|--|--|--|
| Slovenia | No clear definition, but reference to additionality of environmental effects. | Relatively transparent offers and unambiguous PCT. | Information slightly beyond the Directive’s minimum requirements. | Mandatory information on additionality on supplier’s website just introduced. | Little activities and relevance of labels. |
| Spain | No binding definition, but de facto only 100% renewable GOs tariffs are marketed as ‘green’. | No binding provisions, thin information from the regulator. | Meaningful and understandable template, but no product mix developed. | No provisions or obligations existing. | Little activities and relevance of labels. |
| UK | No clear definition but binding minimum requirements targeting environmental claims. | Suppliers are obliged to communicate on environmental benefits but renewable GOs do not necessarily match electricity. | No provisions that go beyond minimum criteria, environmental indicators on website only. | Binding report on additionality of the tariff but unclear criteria question comparability. | Mandatory reporting on additionality replaces voluntary quality label. |

Evaluation scale:

| | |
|---|--|
| Good practice; issue showing good solutions related to transparency and/or market access from the point of view of consumers’ rights | |
| Average performance; issue with some problems and some solutions related to transparency and/or market access from the point of view of consumers’ rights | |
| Bad practice; issue with relevant problems related to transparency and/or market access from the point of view of consumers’ rights | |

For a detailed explanation of the ranking methodology, please refer to the BEUC mapping report, chapter 4, and to the report’s annex for the catalogue of research questions and references.



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