

Fuel Mix Disclosure by Electricity Suppliers in Great Britain

Guidelines

December 2005

Summary

On 18 March 2005 a new standard licence condition was introduced into electricity supply licences by The Electricity (Fuel Mix Disclosure) Regulations 2005 (SI No. 391). The Regulations implement Article 3(6) of Directive 2003/54/EC concerning common rules for the internal market in electricity (“the Directive”). The new licence condition obliges electricity suppliers to provide customers on their bill with details of the mix of fuels used to produce the electricity supplied to them along with certain environmental information.

In November 2004 Ofgem published a document containing a summary of responses¹ to its consultation on the draft licence condition and a revised draft licence condition. In that document Ofgem undertook to produce non-binding guidance to encourage good practice by suppliers when complying with the licence condition. These guidelines were published in draft form for comment in June 2005 and have been finalised in the light of both comments received by Ofgem on the draft guidelines and experience of disclosure for the first year.

The purpose of the guidelines is to help suppliers with the presentation of the fuel mix information to help customers understand the information. They therefore propose some limited standardisation of certain aspects of fuel mix labelling to aid consumers when comparing the content of the fuel supplied by different suppliers. These guidelines are not intended to prevent suppliers from branding their bills or other material sent to customers or undertaking special initiatives to raise brand awareness.

These guidelines include information on requirements with respect to the calculation and presentation of the fuel mix of electricity supplied and environmental information in respect of that electricity, together with sample labels and calculations.

Ofgem intends to review the need for these guidelines periodically. Further, Ofgem will update any guidelines as necessary. Submissions that refer to provisions of the licence condition itself rather than the guidance have been noted. Ofgem will consider any need for the licence condition to be amended on an ongoing basis and in the context of the current review of supply licences. Such consideration will be in the light of the requirements of the Directive.

¹ *Fuel mix disclosure – summary of responses and revised draft licence condition* November 2004 256/04

It should be noted that the guidelines do not impose any requirements on licensees. It is the relevant licence condition which places obligations on suppliers. The guidelines should be read in conjunction with that licence condition. Anyone in doubt about how they may be affected by the licence condition should seek independent legal advice.

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Introduction

- 1.1 On 18 March 2005 a new standard licence condition (standard condition 30A) was inserted into electricity supply licences by The Electricity (Fuel Mix Disclosure) Regulations 2005 (SI No. 391). These Regulations implement the requirements of Article 3(6) of Directive 2003/54/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (“the Directive”). This obliges Member States to ensure that each supplier is obliged to provide details to its customers of the mix of fuels used to produce the electricity it supplies together with certain other environmental information.
- 1.2 In November 2004 Ofgem published a document containing a summary of responses² to its consultation on the draft licence condition and a revised draft licence condition in which Ofgem undertook to produce non-binding guidance to encourage good practice by suppliers when complying with the licence condition.
- 1.3 Draft guidelines were published for comment in June 2005. Nine responses were received. The list of respondents is included as Appendix 6. In the light of the relatively few submissions received, and the generally favourable response, it was decided to defer finalisation of the guidelines until after the issue of information for the first disclosure year (which was due on 1 October 2005). This would allow consideration of any methodological problems that arose.
- 1.4 The responses made suggestions for improving the usefulness of the guidelines. These have been taken into account in finalising the guidelines. However, certain issues raised relate to the content of the licence condition itself. Changes to the licence condition are beyond the scope of this exercise and the guidelines.

Purpose of this document

- 1.5 This document sets out final guidelines. The purpose of the guidelines is to help suppliers with the presentation of the information they are required to provide under standard condition 30A of their licences in order to maximise consumers’

² *Fuel mix disclosure – summary of responses and revised draft licence condition* November 2004 256/04
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understanding of that information. Accordingly, limited standardisation of certain aspects of fuel mix labelling to aid consumers' comparisons of different suppliers' product is set out in these guidelines. These guidelines are not intended to prevent suppliers from branding their bills or material or undertaking special initiatives to raise brand awareness.

Main features

- 1.6 These guidelines include information on:
- ◆ calculation;
 - ◆ presentation;
 - ◆ evidence; and
 - ◆ auditing.
- 1.7 In this document the information required to be disclosed by suppliers is referred to as a 'label', whether it is on a bill or elsewhere.

Impact Assessment

- 1.8 This document does not include an impact assessment because it is purely advisory and does not impose any new regulatory obligations on suppliers.

Next Steps

- 1.9 Ofgem intends to review the need for these guidelines periodically. Further, if these guidelines are considered necessary, Ofgem will review whether it is necessary to update them at that time.
- 1.10 As noted above some submissions on the guidelines refer to the provisions of the licence condition itself. These comments have been noted and Ofgem will consider the need for amending the licence condition on an ongoing basis, including in the context of the current review of supply licences. Under the Supply Licence Review³ it is Ofgem's intention to review the obligations set out in each of the standard conditions of the supply licence. The aim is to establish a set of standard licence conditions that are clear and effectively drafted and

³ *Gas and Electricity Licence Supply Licence Review: Way Forward*, August 2005 (www.ofgem.gov.uk)
Publication No. 187/05.
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which provide a proportionate level of protection for customers, facilitate new entry into the market and allow suppliers to effectively compete and innovate. It will be necessary to consider any changes in the light of the requirements of the Directive.

- 1.11 Any enquiries regarding the guidelines should be directed to::

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Legal status

- 1.12 The guidelines do not impose any requirements on licensees. They are intended to assist suppliers when compiling data and publishing fuel mix information and environmental information to comply with standard condition 30A. They should be read in conjunction with that licence condition. Anyone in doubt about how they may be affected by the licence condition should seek independent legal advice.

2. Information requirements

2.1 This chapter covers the compliance cycle for fuel mix disclosure as well as guidance on content and presentation of the relevant information. The guidelines are designed to help achieve the objective of transparency for consumers by making comparisons between electricity suppliers as straightforward as possible for them. Paragraph numbers in brackets refer to the relevant paragraph in the licence condition.

Compliance cycle

2.2 In summary the key dates in the compliance cycle are:

- ◆ Disclosure period: **1 April–31 March (after 31 March 2004)**.
- ◆ Date and time at which evidence (REGO⁴ or generator declaration) must be held: midday on **1 July** following end of the disclosure period.
- ◆ Publication by DTI of Fuel Mix Disclosure Data Table⁵ to be used for calculation purposes: **1 August** following end of the disclosure period.
- ◆ Date by which data must be updated: **1 October** following end of the disclosure period.

2.3 The first year in which the relevant information must be supplied to customers is from 1 October 2005 to 30 September 2006, referring to electricity supplied from 1 April 2004 to 31 March 2005.

2.4 Suppliers are required to publish fuel mix information at least annually to each customer that receives a bill or a statement, provided that the licensee has supplied electricity for a full disclosure period (paragraph 2).

2.5 The period to which this information relates is known as the disclosure period. This runs from 1 April to 31 March each year and the first period began on 1 April 2004 (paragraph 1).

⁴ Renewable Energy Guarantees of Origin, issued by Member States as a result of the European Renewables Directive (2001/77/EC).

⁵ This table to be published annually by the DTI contains the standard information needed to calculate the fuel mix and environmental information.

- 2.6 The requirement to provide the information for the disclosure period takes effect from 1 October immediately following the end of the disclosure period and lasts for 12 months, unless paragraph 3 of the licence condition is relied on with respect to promotional materials; see paragraph 2.7 below. This is to ensure that suppliers have time to calculate the necessary data (paragraph 2). On every subsequent 1 October information must be updated to reflect the fuel mix of electricity supplied and environmental impact details in the immediately preceding disclosure period.
- 2.7 To allow for suppliers to plan stock levels of promotional material and to allow for some flexibility in the scheme, in the last two months of each publication period (i.e. August and September) suppliers are permitted to use information for the next disclosure period in any item of promotional material (paragraph 3).
- 2.8 The licence condition does not require that customers are provided with the fuel mix information more often than annually. This is consistent with the Directive and also aims to minimise costs to suppliers. Suppliers may provide information on a more regular basis if they wish (paragraph 2 (a)).

Content

Fuel Mix

- 2.9 Fuel mix information must be provided to customers. The following categories of energy sources are to be used for the purposes of fuel mix disclosure (paragraph 1):
- ◆ coal;
 - ◆ natural gas;
 - ◆ nuclear;
 - ◆ renewable; and
 - ◆ other.

- 2.10 The definition of 'renewable' follows the definition in the European Renewables Directive⁶ and includes all renewables, not just those subject to support (e.g. through the Renewables Obligation) (paragraph 1).
- 2.11 Suppliers are free to further sub-divide each category, for example to identify a particular technology or renewable source. This is discussed further in paragraph 2.24 below.
- 2.12 Fuel mix information should be presented in percentage terms to the nearest whole percentage point.. Contributions less than one percent, are to be shown to one decimal point (paragraph 5). For clarity, some adjustment may be required so that percentages add to 100%. If there is no contribution of a particular energy source to the fuel mix, the figure zero must be presented on the label for that energy source.

Environmental information

- 2.13 Suppliers should prepare and make available information on environmental impacts of the electricity supplied in the disclosure period. Information must include (paragraph 11):
- ◆ CO₂ emissions (in grams of carbon dioxide per kilowatt hour), and
 - ◆ radioactive waste generated (in grams per kilowatt hour).
- 2.14 This information should be in the form of a single figure specific to the fuel mix of the supplier for each of the two measures (carbon dioxide and radioactive waste). The calculation of these figures should be based on the use of standardised emission factors provided by the DTI in the Fuel Mix Disclosure Data Table published on the DTI's website. Further to consultation with stakeholders, the DTI has advised that the basis for the radioactive waste factor is to be "fuel burnt in the reactor (to be subsequently discharged as spent fuel)". This is to be based on information provided by generators and averaged across all technologies.
- 2.15 Suppliers must calculate the environmental impact of electricity supplied in the disclosure period and must provide this to customers at least once during the

⁶ Directive 2001/77/EC of the European Parliament and of the Council

compliance cycle to each customer that receives a bill or statement in the period (with or on the bill or statement) and in promotional materials. This may be by means of a reference on the bill, statement or promotional material to a readily accessible source such as a web page. Ofgem's view is that greatest transparency will be achieved by information being provided directly on or with bills, or on the promotional materials.

- 2.16 If a reference source is detailed rather than the actual information, the detail of the source must be clear – and it must be clear that in following up on the reference, information on the environmental impact of the electricity supplied by the particular supplier will be found (paragraph 6).
- 2.17 It is also open to suppliers to provide a wider range of environmental information (e.g. emissions of sulphur dioxide or other pollutants).

Presentation

- 2.18 In order to minimise costs for suppliers, the licence condition does not specify any particular way of presenting the information. However, Ofgem suggests as a minimum standard that suppliers provide the required information in table format. Suppliers could, however, provide the information in other formats too e.g. pie charts. See Appendix 3 for sample designs of tables.
- 2.19 While it is appreciated that suppliers will want to brand their designs, Ofgem encourages suppliers to make tables and charts broadly similar to the examples in Appendix 3 to ensure accuracy and enable easy comparison between suppliers by customers. Inclusion in the table of a comparison of electricity supplied by the supplier with the content of the national average supply is strongly suggested to further assist customers.
- 2.20 Suppliers should ensure that their designs are clear and easy to find and to read. For instance, keeping the same order of fuels as in the licence condition would ensure easy comparison by customers of different suppliers' labels.

Promotional materials

- 2.21 The licence condition requires that fuel mix information is provided in promotional materials (paragraph 2 (b)). These are defined as documents intended to promote the sale of electricity, other than newspapers and magazines, handed out or sent directly to consumers (paragraph 1). Suppliers may also wish to include information on websites.
- 2.22 Promotional materials handed out or sent directly to consumers include, but are not limited to:
- ◆ welcome packs for new customers;
 - ◆ material provided by doorstep sellers and staff seeking to sign up new customers in public places (e.g. supermarkets);
 - ◆ material sent to households encouraging people to sign up to the supplier.
- 2.23 The European Commission guidelines⁷ specifically exclude billboard and television advertisements from the meaning of promotional materials.

Sub-division of energy source categories

- 2.24 Suppliers are free to sub-divide each of the categories of energy source that are required to be disclosed. For example, under natural gas, suppliers may wish to include a sub-category of CHP or under renewable, suppliers may wish to include sub-divisions for wind, solar, etc.
- 2.25 If suppliers use sub-divisions under the renewable category then, to aid comparison and ensure transparency, the categories provided under paragraph 1 of the licence condition should be used.

Product vs. licence

- 2.26 The obligation to provide fuel mix and environmental information is placed on each supply licensee. Therefore, customers subscribing to a certain product must

⁷ Note of DG Energy and Transport on Directives 2003/54 and 2003/55 on the internal market in electricity and natural gas.
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receive information on the fuel mix of all electricity supplied by the licensee (the person that holds the supply licence) as opposed to the particular product or retail brand. The name of the licensee should be made clear in the information.

- 2.27 Suppliers may also wish to provide information on the fuel mix of a particular product. That is a matter for the licensee. The requirement to provide information on the total supply by the licensee would not be displaced. If a supplier takes this option it may wish to display an additional column in its fuel mix disclosure table so that a comparison can be made between the fuel mix of the particular product and that of the licensee's total supply for the disclosure period. This should be made clear on the label (paragraph 7 (b)). An example of such a table can be seen at Appendix 3.
- 2.28 If a supplier chooses to follow this route and differentiates between products on the basis of fuel mix (e.g. distinguishing a green supply offering), it would be good practice to provide fuel mix information for all products. It will then be clear to consumers that the supplier's standard or default tariff product is different in composition to the licensee's total supply.
- 2.29 If a supplier holds a number of different licences then the information on the label should relate to the particular licence that the customer is supplied under.

Audit

- 2.30 The accuracy and reliability of the information provided is the responsibility of suppliers. Suppliers are required to provide Ofgem, on demand, with any information Ofgem reasonably requires to establish whether the licensee is complying or has complied with the requirements of the licence condition (paragraph 12).
- 2.31 There is no requirement for the information to be independently audited, though suppliers are free to use auditors if they wish.

3. Evidence requirements

Transitional arrangements for renewables evidence

First two disclosure periods

- 3.1 The DTI's June decision document⁸ announced that Renewable Energy Guarantees of Origin (REGOs) would be the primary evidence for identification of supply as renewable source and that generator declarations would be the evidence for identification of supply as being from other sources.
- 3.2 As the REGOs scheme was still being implemented at the time of the decision document, it was decided that the licence condition would allow for generator declarations to be the evidence for identification of renewable source supply for the first two periods⁹ in respect of which disclosure is required (paragraph 8 (a)).
- 3.3 REGOs will be available in respect of the first disclosure period and suppliers may choose to use them or generator declarations. More information on the procedures for issue and transfer of REGOs can be found on Ofgem's website (www.ofgem.gov.uk) under the "Renewables" information site.
- 3.4 If suppliers are not in possession of a REGO or a generator declaration then residual fuel mix figures must be used (paragraph 10).

Subsequent disclosure periods

- 3.5 REGOs should be used as evidence for identification of supply as renewable but if they are not available the residual fuel mix percentages in the DTI's Fuel Mix Disclosure Data Table must be used to make the necessary calculation (paragraph 10).
- 3.6 For other sources (i.e. coal, oil, natural gas, nuclear and other) generator declarations must be used unless they are not available (paragraph 8 (b)). In that case, the residual fuel mix percentages in the DTI's Fuel Mix Disclosure Data Table must be used to make the necessary calculation (paragraph 10).

⁸ DTI June 2004 *Conclusions Document Regarding the Department's Consultation on the Directive Concerning Common Rules for the Internal Market in Gas EC/2003/55*

⁹ 1/4/04 – 31/3/05 & 1/4/05 – 31/3/06

Evidence of energy source

- 3.7 It should be noted that evidence of supply from specific generation sources (whether REGOs or generator declarations) should be held by the supplier at midday on 1 July immediately following the end of the disclosure period.
- 3.8 The licence condition sets out specific information that is to be included in a generator declaration (paragraph 1), being:
- ◆ the name and location of the generating station;
 - ◆ the name of the licensee to which the information in the generator declaration relates;
 - ◆ the disclosure period to which the generator declaration relates;
 - ◆ the fuel used in the generating station, and where the generating station uses more than one fuel the proportion of each fuel used according to the calorific value of the fuel used;
 - ◆ the amount of electricity subject to the declaration, expressed in MWh;
 - ◆ a statement that the generator has not issued generator declarations or transferred guarantees of origin (REGOs) in relation to an amount of electricity that exceeds the total output of the generating station in the disclosure period¹⁰; and
 - ◆ the signature of a director of the generation company or person of similar standing where the generation licensee is not a company to verify the above facts.
- 3.9 Suppliers must hold declarations containing all of the above details as evidence of electricity produced from coal, natural gas, nuclear and other and supplied in each disclosure period (Paragraph 8(b)). See Appendix 4 for a *pro forma* generator declaration.

¹⁰ As a protection against double counting, the total electricity covered by all REGOs and/or generator declarations from a particular generator used for fuel mix disclosure must not be greater than the total output of the station.

Evidence of energy source when generation is outside Great Britain

- 3.10 Suppliers may use generator declarations from a generator outside Great Britain. Evidence must be held showing that the electricity referred to in the generator declaration was supplied in Great Britain (paragraph 9 (a)).
- 3.11 The generator declaration used in this case must not have been used as evidence of fuel mix in a country outside Great Britain (Paragraph 9 (b)).
- 3.12 Suppliers may use REGOs from other Member States. However, in addition to such REGOs, suppliers must hold evidence that the electricity referred to in the REGO was supplied in Great Britain. Evidence should be similar to that used to support Levy Exemption Certificates (LECs) sourced from outside Great Britain.
- 3.13 The REGO used in this case must not have been used as evidence of fuel mix by a supplier in another Member State (paragraph 9 (b)).
- 3.14 Suppliers may use figures that have been provided by an electricity exchange or an undertaking outside the Community if those figures identify production from a particular energy source.

Fuel mix disclosure data table

- 3.15 If a supplier does not hold a generator declaration, a REGO, or figures provided by an electricity exchange for use as evidence of energy source for the purpose of fuel mix disclosure, it must apportion the amount of electricity for which evidence is not held in accordance with the residual fuel mix percentages in the DTI's Fuel Mix Disclosure Data Table (paragraph 10).
- 3.16 The Fuel Mix Disclosure Data Table will be compiled and updated annually by the DTI and will be published on its website by 1 August each year (paragraph 1). This table includes the table for the residual mix, which is compiled by the DTI based on the best available information on the actual mix of electricity not subject to generator declarations or REGOs after consulting major suppliers. A sample table can be found at Appendix 2.

Environmental information

- 3.17 In addition to providing residual fuel mix information the DTI's Fuel Mix Disclosure Data Table also provides the emission rates for use in calculating the environmental impact of total electricity supplied by the licensee. This includes:
- ◆ the CO₂ emission rate for each energy source, and
 - ◆ the amount of radioactive waste for nuclear generation.
- 3.18 Suppliers should follow the methodology found in the licence condition (paragraph 11) when calculating environmental impact for the purpose of paragraph 4(b).

Losses

- 3.19 The DTI's Fuel Mix Disclosure Data Table includes a factor to be used to adjust the total amount of electricity supplied to calculate the "amount of electricity purchased for supply" to be used in calculations by the licensee to account for losses on the transmission and distribution systems (paragraph 1). The application of this factor as stated in the Fuel Mix Disclosure Data Table should not be applied to embedded generation.

4. Enforcement

- 4.1 The Electricity Act 1989 gives power to the Authority to enforce licence conditions. As stated in Chapter 1, while these guidelines refer to the licence condition (and, therefore, enforceable provisions) they do not in themselves impose enforceable obligations on licensees. Rather, the purpose of the guidelines is to provide for a set of minimum standards for the presentation of information that must be disclosed by suppliers.

Appendix 1 Standard Supply Licence

Condition 30A

A1.1 This is the text of the new licence condition (30A) inserted in all supply licences by The Electricity (Fuel Mix Disclosure) Regulations 2005 (SI No. 391).

Condition 30A

1. In this condition:

"disclosure period" means each period of 1 April to 31 March after 31 March 2004.

"energy source" means the fuel used for the generation of the electricity supplied by the licensee being coal, natural gas, nuclear, renewable or other.

"fuel mix disclosure data table" means a table published by the Department of Trade and Industry on its website which will be available by 1 August each year after 31 July 2005 and identified as being for use by suppliers for the provision of: the factor referred to in the definition of the total amount of electricity purchased for supply by the licensee in this paragraph, the percentages for the calculation of the amount of each energy source in the residual fuel mix for the purposes of paragraph 10, and the information about environmental impact for the purposes of paragraph 11.

"generator declaration" means a declaration including details of:

- (a) the name and location of the generating station;
- (b) the name of the licensee to which the information in the generator declaration relates;
- (c) the disclosure period to which the generator declaration relates;
- (d) the fuel used in the generating station, and when the generating station uses more than one fuel the proportion of each fuel used according to the calorific value of the fuel used;
- (e) the amount of electricity subject to the declaration, expressed in MWh;
- (f) a statement that the generator has not issued generator declarations or transferred guarantees of origin in relation to an amount of electricity that exceeds the total output of the generating station in the disclosure period; and

(g) the signature of a director of the generation company or person of similar standing where the generation licensee is not a company to verify the facts referred to in sub-paragraphs (a) to (f).

"guarantee of origin" means a certificate issued by the Authority or issued by another competent body and recognised by the Authority under The Electricity (Guarantees of Origin of Electricity Produced from Renewable Energy Sources) Regulations 2003.

"other" means an energy source other than coal, natural gas, nuclear or renewable.

"promotional materials" means documents intended to promote the sale of electricity, other than newspapers and magazines, handed out or sent directly to consumers.

"renewable" means wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.

"total amount of electricity purchased for supply by the licensee" means the sum of the figures determined by the licensee under article 6(3) of the Renewables Obligation Order 2002 and article 6(3) of the Renewables Obligation (Scotland) Order 2004 (or equivalent determinations under any amendments to those Orders or re-enactments of the renewables obligation on revocation of those Orders) multiplied by a factor provided in the fuel mix disclosure data table to allow for transmission and distribution losses.

2. Provided that the licensee has supplied electricity for a full disclosure period, and subject to paragraph 3, it shall during the 12 month period commencing on 1 October immediately following the end of the disclosure period, provide the information referred to in paragraph 4:

(a) at least once in the period, to each customer that receives a bill or a statement in that period, either with or on the bill or the statement; and

(b) in promotional materials.

3. The licensee may, during the final two months of each period commencing on 1 October mentioned in paragraph 2, use in any item of promotional material the information required for the next following such period, instead of the information required by paragraph 2.

4. In respect of each disclosure period the information referred to in paragraph 2 is:

(a) the contribution of each energy source, even where the contribution is necessarily expressed as zero, to the total amount of electricity purchased for supply by the licensee; and

(b) the environmental impact per kWh of electricity supplied resulting from the total amount of electricity purchased for supply by the licensee in terms of emissions of carbon dioxide and the production of radioactive waste.

5. The contribution referred to in sub-paragraph 4(a) must be expressed as a percentage of the total amount of electricity purchased for supply by the licensee, rounded to the nearest whole percentage point or, where the contribution is less than one percent, to one decimal place.

6. The information referred to in sub-paragraph 4(b) may be provided by means of a reference to an existing reference source such as a web page, provided that such reference is sufficiently clear to enable the source to be readily accessible and that the purpose for which the reference is provided is stated on or with the bill or statement and on promotional materials.

7. The licensee shall indicate clearly with the information referred to in paragraph 4:

(a) the disclosure period to which the information relates; and

(b) that the information relates to the total amount of electricity purchased for supply by the licensee.

8. Subject to paragraphs 9 and 10, the licensee shall claim a contribution referred to in sub-paragraph 4(a) where the following evidence is held at midday on 1 July immediately following the end of the disclosure period:

(a) in the case of renewable, a guarantee of origin relating to generation in the disclosure period or, until 1 July 2006 only, a generator declaration relating to that period indicating a renewable energy source; or,

(b) in the case of coal, natural gas, nuclear or other, a generator declaration relating to that period indicating the particular energy source; or

(c) in the case of electricity obtained via an electricity exchange or imported from an undertaking outside the Community, where aggregate figures are provided by the electricity exchange or undertaking, such of those figures as identify the amount of electricity produced from a particular energy source.

9. The licensee shall only rely on a guarantee of origin issued outside Great Britain or a generator declaration from a generator outside Great Britain where:

(a) it holds evidence of supply in Great Britain of the electricity referred to in the guarantee of origin or generator declaration, and

(b) the guarantee of origin or generator declaration has not been used as evidence of fuel mix outside Great Britain.

10. Where the licensee does not hold the evidence required under paragraph 8 in respect of an amount of electricity purchased for supply by the licensee, the licensee shall apportion the amount of electricity in respect of which evidence is not held to each energy source according to the percentages detailed in the fuel mix disclosure data table.

11. For the purpose of sub-paragraph 4(b), the licensee shall refer to information expressed in terms of grams per kWh in the case of carbon dioxide and grams per kWh in the case of radioactive waste, where the figures are calculated:

(a) for carbon dioxide emissions, by multiplying the percentage of each energy source as calculated according to sub-paragraph 4(a) by the CO₂ emission rate for each energy source as appears in the fuel mix disclosure data table and totalling the result obtained for each energy source; or

(b) for radioactive waste, by multiplying the percentage of nuclear as calculated according to sub-paragraph 4(a) by the rate of radioactive waste as appears in the fuel mix disclosure data table.

12. The licensee shall upon request by the Authority provide to the Authority such information in such form and within such time as the Authority may reasonably require for the purpose of establishing whether, in the Authority's opinion, the licensee is complying or has complied with the requirements of this licence condition."

Appendix 2 Fuel mix disclosure data table 2005

A2.1 Fuel mix disclosure table for the disclosure period 2004-05, on the DTI website (http://www.dti.gov.uk/energy/consumers/fuel_mix/)

Fuel Mix Disclosure Data Table	
<p>The information below constitutes the 'fuel mix disclosure data table' as defined in The Electricity (Fuel Mix Disclosure) Regulations 2005. The data is for the disclosure period 01/04/2004 – 31/03/2005. The Regulations are available for download here and draft guidance from Ofgem about Fuel Mix Disclosure is available here. Final guidance will be issued in the future.</p>	
1. Transmission and distribution loss factor (not to be applied to embedded generation)	
1.09	
2. Residual fuel mix (relevant to Paragraph 10 of the Regulations)	
Energy Source	%
Coal	26.7
Natural Gas	36.4
Nuclear	29.6
Renewables	0.9
Other	6.4
3. Environmental impact (relevant to Paragraph 11 of the Regulations)	
Carbon Dioxide Emissions	
Energy Source	g/kWh
Coal	910
Natural Gas	360
Nuclear	0
Renewables	0
Other	500
High-level radioactive waste	
0.012 g/kWh	
4. UK fuel mix (for comparison)	
Energy Source	%
Coal	33.4
Natural Gas	39.3
Nuclear	20.6
Renewables	3.8
Other	2.9

Appendix 3 Examples of label design

A3.1 The following examples illustrate the various label options that suppliers might want to use. These are not intended to constrain suppliers from branding their labels appropriately or supplementing with graphical information.

Option 1 – Label with contact details for environmental information

SupplierEnergy disclosure label (relates to electricity supplied in the period April 2005 to March 2006)		
Electricity supplied has been sourced from the following fuels:	% of total	
	Electricity supplied by SupplierEnergy	Average for UK (for comparison)
Coal	x%	33.4%
Natural gas	x%	39.3%
Nuclear	x%	20.6%
Renewable	x%	3.8%
Other	x%	2.9%
Total	100%	100%
Environmental Impact		
For information on the environmental impact of your electricity supply visit www.xxxxx.xx.xx or call 0845 XXX XXX		

Option 2 – Label with environmental information included

SupplierEnergy disclosure label (relates to electricity supplied in the period April 2005 to March 2006)		
Electricity supplied has been sourced from the following fuels:	% of total	
	Electricity supplied by SupplierEnergy	Average for UK (for comparison)
Coal	x%	33.4%
Natural gas	x%	39.3%
Nuclear	x%	20.6%
Renewable	x%	3.8%
Other	x%	2.9%
Total	100%	100%
Environmental Impact		
CO ₂ emissions	X g per kWh	430 g per kWh
Radioactive waste	X g per kWh	0.0030 g per kWh
For more information on the environmental impact of your electricity supply visit www.xxxxx.xx.xx or call 0845 XXX XXX		

Option 3 – Label with individual product information and environmental information

SupplierEnergy disclosure label – Greenproduct (relates to electricity supplied in the period April 2005 to March 2006)			
Fuel Mix	% of total		
	Your electricity (Greenproduct)	Electricity supplied by SupplierEnergy	Average for UK (for comparison)
Coal	X%	x%	33.4%
Natural gas Including CHP: x%	X%	x%	39.3%
Nuclear	X%	x%	20.6%
Renewable Including: Hydro x% Wind x% Landfill gas x% Other x%	X%	x%	3.8%
Other	X%	x%	2.9%
Total	100%	100%	100%
Environmental Impact			
CO ₂ emissions	x g per kWh	x g per kWh	430 g per kWh
Radioactive waste	x g per kWh	X g per kWh	0.0030 g per kWh
for more information on the environmental impact of your electricity supply visit www.xxxxx.xx.xx or call 0845 123 456			

Option 4 – Label with product information and contact details for environmental information

SupplierEnergy disclosure label – Greenproduct (relates to electricity supplied in the period April 2004 to March 2005)			
Fuel Mix	% of total		
	Your electricity (Greenproduct)	Average for SupplierEnergy	Average for UK (for comparison)
Coal	X%	x%	33.4%
Natural gas Including CHP: x%	X%	x%	39.3%
Nuclear	X%	x%	20.6%
Renewable Including: Hydro x% Wind x% Landfill gas x% Other x%	X%	x%	3.8%
Other	X%	x%	2.9%
Total	100%	100%	100%
Environmental Impact			
For information on the environmental impact of your electricity supply visit www.xxxxx.xx.xx or call 0845 123 456			

Appendix 4 Sample generator declaration

A4.1 The text below shows a sample generator declaration.

Generator declaration for the purposes of Electricity Supply Licence Condition 30A			
(a) Name of generating station:			
(b) Location of generating station:			
(c) Supply licensee to which this declaration relates:			
(d) This generator declaration relates to the disclosure period: 1 April 200X to 31 March 200X.			
(e) Amount of electricity subject to this declarationMWh			
(g) Fuel(s) used to generate electricity:			
(h) (For multifuel stations) The proportion of each fuel used according to the calorific value of the fuel used:			
	<u>Fuel</u>	<u>Proportion (%)</u>	<u>MWh</u>
1)
2)
3)
I declare on behalf of [the generating station operator] that [the generating station operator] has not issued generator declarations or transferred guarantees of origin in relation to an amount of electricity produced by [name of generating station] for the disclosure period referred to above which in total exceeds the total output of [insert generating station] in that disclosure period.			
I declare that I am duly authorised to sign this form for and on behalf of [generating station operator] and I confirm that the information provided is complete, true and accurate to the best of my knowledge and belief.			
Signature _____		Printed name _____	
Position in company:			
Date:			

Appendix 5 Worked example

A5.1 To illustrate how the figures in a supplier's fuel mix table are derived a worked example is provided in this appendix. Step 1 shows a fictional supplier's data for a disclosure period. Step 2 shows how the residual fuel source data is combined with the evidenced fuel source data to reach the percentage of each energy source in the total supplied by the licensee in the disclosure period. Step 3 shows how the carbon dioxide emissions are calculated and step 4 shows a completed fuel mix disclosure table.

Step 1

Amount supplied

Total supplied as determined under renewables obligation orders: = 1000 MWh
of which embedded generation: = 100 MWh
Losses factor: = 1.09
Total purchased for supply = $(900 \times 1.09) + 100$ = 1081 MWh

Evidence held on 1 July

REGOs:		50	MWh
Generator declarations	Coal:	300	MWh
	Natural gas:	350	MWh
	Nuclear:	160	MWh
	Renewable:	10	MWh
	Other:	40	MWh

Residual

Residual $[1081 - (50 + 300 + 350 + 160 + 10 + 40)] = 171$ MWh

Step 2

In the table below the first column shows the fuel, the second column shows the amount of electricity supplied that has been evidenced through REGOs and generator declarations. The third column shows the residual amount of electricity (171 MWh) which is apportioned according to the percentages in the fuel mix disclosure data table published by DTI. For example, to calculate the residual amount for coal multiply 0.267 by 171 which equals 45.7. This is repeated for each fuel type. Column 4 is the sum of columns 2 and 3. Column 5 gives the percentages for column 4.

Fuel	MWh with evidence	Residual	Total	Percentage
Coal	300	45.7	345.7	32
Natural gas	350	62.2	412.2	38
Nuclear	160	50.6	210.6	19
Renewables	60	1.5	61.5	6
Other	40	11.0	51.0	5
Total	910	171	1081	100

Step 3

Step 3 uses the percentage figures from column 5 above to calculate carbon dioxide emissions for each fuel type and radioactive waste for nuclear power. The multiplication factor is taken from table 2 in the fuel mix disclosure data table.

Carbon dioxide calculations

Coal	0.32 x 910	=	291.2	g/kWh
Natural Gas	0.38 x 360	=	136.8	g/kWh
Nuclear	0.19 x 0	=	0	g/kWh
Renewables	0.06 x 0	=	0	g/kWh
Other	0.05 x 500	=	25	g/kWh
Total		=	453.0	g/kWh

Radioactive waste calculations

$$0.19 \times 0.012 = 0.00228 \text{ g/kWh}$$

Step 4

Step 4 shows a complete fuel mix disclosure table using the figures calculated above.

Energy disclosure label (relates to electricity supplied in the period April 2006 to March 2006)		
Electricity supplied has been sourced from the following fuels:	% of total	
	Electricity supplied by SupplierEnergy	Average for UK (for comparison)
Coal	32%	33.4%
Natural gas	38%	39.3%
Nuclear	19%	20.6%
Renewable	6%	3.8%
Other	5%	2.9%
Total	100%	100%
Environmental Impact		
CO ₂ emissions	453 g per kWh	460 g per kWh
Radioactive waste	0.00228 g per kWh	0.00247 g per kWh
For more information on the environmental impact of your electricity supply visit www.xxxxx.xx.xx or call 0845 XXX XXX		

Appendix 6 Respondents to consultation on draft guidelines

The following organisations responded to the draft guidelines. In accordance with its usual practice, non-confidential responses are available through the Ofgem library and website (www.ofgem.gov.uk)

- ◆ E.ON UK
- ◆ Energywatch
- ◆ Good Energy Limited
- ◆ Ikea Trading and Design AG
- ◆ Lower Carbon Futures (Oxford University)
- ◆ RWE npower (2 responses)
- ◆ Scottish Power
- ◆ Statkraft Markets B.V.