

UK Energy Sector Indicators

*Department of
Energy and
Climate Change*

UK Energy Sector Indicators

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The UK Statistics Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. The Statistics Authority is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Statistics Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

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ASSESSMENT AND DESIGNATION

Under the provisions of the Statistics and Registration Service Act 2007, the UK Statistics Authority has a statutory function to assess sets of statistics against the Code of Practice for Official Statistics, with a view to determining whether it is appropriate for the statistics to be designated, or to retain their designation, as National Statistics.

Designation as National Statistics means that the statistics are deemed to be compliant with the Code of Practice. Whilst the Code is wide-ranging, designation may be broadly interpreted to mean that: the statistics meet identified user needs; are produced, managed and disseminated to high standards; and are well explained.

Assessment reports will not normally comment further, for example on the validity of the statistics as a social or economic measure; though reports may point to such questions if the Authority believes that further research would be desirable.

Designation as National Statistics will sometimes be granted in cases where some changes still need to be made to meet fully the requirements of the Code, on condition that steps are taken by the producer body, within a stated timeframe, to address the weaknesses. This is to avoid public confusion and does not reduce the obligation to comply with the Code.

Designation is granted on the basis of the information provided to the Statistics Authority, primarily by the organisation that produces the statistics. The information includes a range of factual evidence and also assurances by senior statisticians in the producer organisation. The views of users are also sought. Should further information come to light subsequently which changes the Authority's analysis, the Assessment report may be withdrawn and revised as necessary.

Once designated as National Statistics, it is a statutory requirement on the producer organisation to ensure that the set of statistics continues to be produced in compliance with the Code of Practice.

1 Introduction

- 1.1 This is one of a series of reports prepared under the provisions of the *Statistics and Registration Service Act 2007*¹. The Act requires all statistics currently designated as National Statistics to be assessed against the Code of Practice for Official Statistics². The Act also allows Ministers or the National Statistician to request an assessment of other official statistics in order for them to gain National Statistics status. This is the first report in response to such a request. It covers the set of statistics included in the *UK Energy Sector Indicators*³ publication produced by the Department of Energy and Climate Change (DECC).
- 1.2 *UK Energy Sector Indicators* is a compendium publication. It gives an overview of energy data, including energy use and supply, emissions, fuel prices, fuel poverty and competition in energy markets. It is published annually in two stages: the main publication covers the key and supporting indicators and is published in July; the set of background indicators is published in October. These are treated as a single product for the purposes of this assessment.
- 1.3 Assessments of compendium publications against the Code of Practice relate to the processes involved in preparing the publication, rather than in producing the statistics that are included. Those sets of statistics will normally be subject to separate assessment. Designation of a compendium publication as National Statistics therefore means that the producer body has, for example: identified and met user needs in terms of the content of the publication; considered the appropriateness of each series for inclusion; and written appropriate commentary.
- 1.4 The Statistics Authority will be inviting comments on both the process for assessment and the presentation of Assessment reports, with a view to further development of the arrangements in the coming months. The forward programme of Assessments is at <http://www.statisticsauthority.gov.uk/assessment/programme-of-assessment/index.html> and further information on the principles and procedures for assessment is at <http://www.statisticsauthority.gov.uk/assessment/principles---procedures/index.html>.

¹ http://www.opsi.gov.uk/Acts/acts2007/pga/ukpga_20070018_en.pdf

² <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf>

³ <http://www.berr.gov.uk/energy/statistics/publications/indicators/page46000.html>

1.5 The report is structured as follows:

Section 2 Summary of findings, highlighting the main strengths and weaknesses in relation to the Code of Practice. This summary includes the UK Statistics Authority's recommendation in relation to designation as National Statistics.

Section 3 Subject of the assessment, an overview of the statistics and their history.

Section 4 Detailed assessment, providing more details about the assessment of compliance against each principle and protocol of the Code of Practice.

Annex 1 Suggestions for improvement

Annex 2 Summary of the assessment process and users' views.

1.6 This report was prepared by the Authority's Assessment team, and approved by the Board of the Statistics Authority on the advice of the Head of Assessment.

2 Summary of findings

2.1 Recommendation for designation as National Statistics

- 2.1.1 The Statistics Authority has determined that *UK Energy Sector Indicators* can be designated as a new National Statistics product, subject to the implementation of the enhancements listed in section 2.4 below.
- 2.1.2 Designation as National Statistics means that the statistics are deemed to be compliant with the Code of Practice, and thus that they meet identified user needs; are produced, managed and disseminated to high standards; and are well explained.
- 2.1.3 Designation also signifies that, subject to any caveats in this report, the Statistics Authority judges that the statistics are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest.

2.2 Summary of strengths and weaknesses

- 2.2.1 The UK's energy data appear to be held in high regard internationally: a recent UN Framework review⁴ audit noted that "the reporting of the energy sector is transparent, complete, comparable and consistent". The *Indicators* publication collects together a wide range of data to present a snapshot of the energy sector.
- 2.2.2 The Authority recognises that this is a compendium publication and we would not expect it to describe the detailed methodology of all the indicators. However we consider that DECC could do more to direct users towards further information, and to include a statement on data quality. The commentary and clarity of some of the charts could also be improved, to enhance the accessibility of the publication.
- 2.2.3 All staff in DECC undertake a set of compulsory training courses, which includes training on energy statistics. The Authority regards this as an excellent way to raise awareness of statistics and improve engagement with statisticians, and we consider this an example of good practice.

2.3 Detailed recommendations

- 2.3.1 The Assessment team identified some areas where DECC could strengthen its compliance with the Code. Those which we consider essential to enable designation as National Statistics are listed in section 2.4 below. Other suggestions, which would improve the statistics and the service provided to users but which are not central to their designation, are listed at annex 1.

⁴ UN Framework on Climate Change - <http://unfccc.int/resource/docs/2007/irr/gbr.pdf>

2.4 Requirements for designation as National Statistics

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|----------------------|---|
| Requirement 1 | Publish a plan for engaging with users outside Government and the energy industry, and document their needs (para 4.3). |
| Requirement 2 | Ensure that the commentary in the <i>Indicators</i> publication remains objective, impartial and policy-neutral (para 4.5). |
| Requirement 3 | Produce and publish a statement on handling of revisions, to cover the indicators that are based on data that are subject to revisions (para 4.6). |
| Requirement 4 | Include more metadata in the publication, or signposting to further information, to make the publication more accessible to a non-specialist audience (para 4.8). |
| Requirement 5 | Include a clear statement on data quality in the publication (para 4.9). |
| Requirement 6 | Improve the presentation of the publication, focussing on making it accessible to all users (para 4.17). |
| Requirement 7 | Publish a Statement of Administrative Sources (para 4.23). |

3 Subject of the assessment

- 3.1 *UK Energy Sector Indicators* is a compendium publication that gives an overview of energy data, including energy use and supply, emissions, fuel prices, fuel poverty and competition in energy markets.
- 3.2 The publication began as a chapter in a larger Energy Report produced by the Department of Trade and Industry in the 1990s. In 1998, following an external consultation, the chapter was produced as a stand-alone publication and thereafter it was published annually.
- 3.3 In 2003 an Energy White Paper was published⁵ and the *Indicators* publication became part of the annual reporting process to measure progress against the White Paper. The publication date of the report was tied to a policy document; it was not fixed and pre-announced according to the National Statistics rules, and so the publication was not put forward for classification as a National Statistic.
- 3.4 In 2008 the publication of the indicators was separated from the accompanying policy document, allowing the release date to be fixed and pre-announced. The responsible Minister wrote to the Authority⁶ to request that the publication be assessed with a view to obtaining National Statistics designation.
- 3.5 The indicators are based on data from a wide range of industry bodies and other Government departments. None of the data in the indicators is collected specifically for the publication. While some of the presentation of the data is new, the data themselves are not, being available from the source organisation prior to publication in *UK Energy Sector Indicators*. It provides a summary picture of the whole energy sector, and is chiefly aimed at less specialist users of energy statistics.
- 3.6 The indicators are split into three types. There are four key indicators which reflect the four key goals of UK energy policy. These are published along with 28 supporting indicators, and 140 background indicators are published three months later.

⁵ Energy White Paper 2003: Our Energy Future - Creating a Low Carbon Economy
<http://www.berr.gov.uk/energy/whitepaper/2003/page21223.html>

⁶ Mike O'Brien QC MP, DECC Minister of State to Sir Michael Scholar KCB, 30 March 2009

4 Detailed assessment

Principle 1: Meeting user needs

The production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public.

- 4.1 DECC statisticians have told us of the wide range of users of energy statistics, which includes policy-makers in Government, the energy industry, international organisations and academics. A range of energy statistics publications cater for these users' needs. The *Indicators* publication has a clear purpose: to monitor progress towards the key goals of UK energy policy, as set out in White Papers published in 2003 and 2007.
- 4.2 DECC statisticians meet regularly with user organisations within the energy industry. However, there is no clear means for users from outside Government and the energy industry to voice their views. The last formal consultation on this product was in 1998. DECC statisticians do keep a log of user enquiries but there has been no recent published information about users and their experience of using the *Indicators* publication. DECC statisticians have the opportunity to improve this engagement through their plans for a user consultation in the forthcoming *Indicators* publication. Their intention is that the consultation will provide input to the future development of the publication.
- 4.3 As part of the designation as National Statistics, DECC should publish a plan for engaging with users outside Government and the energy industry, and document their needs⁷ (Requirement 1).

⁷ In relation to Principle 1 Practice 1 of the Code of Practice

Principle 2: Impartiality and objectivity

Official statistics, and information about statistical processes, should be managed impartially and objectively.

- 4.4 *UK Energy Sector Indicators* is published in an orderly and timely manner, via the UK Statistics Publication Hub, and is free-of-charge for all.
- 4.5 The introduction to last year's publication, which was not a National Statistics publication, was policy-focussed, reflecting its close ties with the annual report on the Energy White Paper. As part of the designation as National Statistics, DECC should, when reviewing the presentation of the publication, ensure that the commentary is objective, impartial and policy-neutral and focuses on the targets and progress towards them, avoiding other policy statements⁸ (Requirement 2).
- 4.6 As this is a compendium publication, we do not expect the publication to include detailed methodological notes for each indicator. However, the publication could usefully indicate whether provisional or final data are being used, and when any updates will be available. As part of the designation as National Statistics, DECC should produce and publish a statement on revisions, to cover the indicators that are based on data that are subject to revisions⁹ (Requirement 3). We also suggest that DECC investigates the costs and benefits of setting up formal agreements with the data owners, so that information on unscheduled corrections and revisions to source data is passed on to DECC and can be reflected in the publication.

⁸ In relation to Principle 2 Practice 1 and Principle 8 Practice 2 of the Code of Practice.

⁹ In relation to Principle 2 Practice 6 of the Code of Practice

Principle 3: Integrity

At all stages in the production, management and dissemination of official statistics, the public interest should prevail over organisational, political or personal interests.

- 4.7 Until 2008 the *Indicators* publication was published with the annual report on the Energy White Paper. However, in 2008 the two publications were separated. The publication date is now pre-announced, and only a very limited number of officials outside the statistics team are given 24 hours pre-release access.

Principle 4: Sound methods and assured quality

Statistical methods should be consistent with scientific principles and internationally recognised best practices, and be fully documented. Quality should be monitored and assured taking account of internationally agreed practices.

- 4.8 Compendium publications draw together data from a variety of sources. Users do not expect them to provide detailed methodology for all the data, but there should be adequate signposting to further information. The *Indicators* publication does include a detailed contacts list, which enables the interested user to get in touch with the relevant statistician. However, individual indicators are usually sourced to an organisation, and no further. As part of the designation as National Statistics, DECC should include some more detailed metadata or signposting in the publication, to aid accessibility¹⁰ (Requirement 4).
- 4.9 DECC statisticians collect the data for the publication from Government Departments and industry bodies. The sources are reputable, and DECC statisticians quality assure the data, on the basis of their statistical experience and knowledge of the energy sector. We feel that this is a reasonable approach to quality assurance for a compendium publication, but it is important that users are informed about data quality. As part of the designation as National Statistics, DECC should include a clear statement on data quality in the publication¹¹ (Requirement 5). We also suggest that DECC produces written guidelines on the data quality assurance process.
- 4.10 As outlined under Principle 2, we consider that DECC should produce and publish a statement on revisions and we suggest that formal agreements with data suppliers might help DECC pick up corrections and revisions to the underlying data and handle these systematically.

¹⁰ In relation to Principle 4 Practice 1 of the Code of Practice

¹¹ In relation to Principle 4 Practice 4 of the Code of Practice

Principle 5: Confidentiality

Private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential, and should be used for statistical purposes only.

- 4.11 The *Indicators* publication meets the requirements of the Code for confidentiality. None of the data in the indicators are collected specifically for the publication. While some of the presentation of the data is new, the data themselves are not, being available from the source organisation prior to publication in *UK Energy Sector Indicators*. As such, there are no new confidentiality issues with the publication.
- 4.12 We suggest that DECC produces an organisation-wide statement of compliance with the data confidentiality requirements of the Code.

Principle 6: Proportionate burden

The cost burden on data suppliers should not be excessive and should be assessed relative to the benefits arising from the use of the statistics.

- 4.13 *UK Energy Sector Indicators* is a compendium of existing sources. Where the statistics team does not already hold the data, the team either collates them from websites or asks them to be emailed by the supplier (from existing sources). This places minimal burden on data suppliers.
- 4.14 As outlined under Principle 2, we suggest that DECC investigates the costs and benefits of setting up formal agreements with data suppliers to ensure that corrections and revisions to the underlying data are handled systematically. Such agreements might imply a small increase in burden compared with existing practices, but would put the data supply on a formal footing and enable suppliers to timetable data submissions. DECC would need to monitor the burden on data suppliers.

Principle 7: Resources

The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.

- 4.15 The production of these statistics appears to be sufficiently resourced.
- 4.16 The Assessment team was impressed that all staff in DECC undertake a set of compulsory training courses, which includes training on energy statistics. There are also a range of other optional training courses, which include further statistics training. We regard this as an excellent way to raise awareness of statistics and improve engagement with statisticians, and consider this an example of good practice.

Principle 8: Frankness and accessibility

Official statistics, accompanied by full and frank commentary, should be readily accessible to all users.

- 4.17 DECC views the *Indicators* publication as part of a suite of outputs that, taken together, meet the user need for energy statistics as a whole. The *Indicators* publication is aimed at the less specialist user, and provides a picture of the whole industry. On this basis we think that the commentary in the publication could be improved, for example by removing jargon and providing clear, non-technical explanations to ensure that the publication is accessible to all users. In addition to the recommendation at para 4.5 that commentary be impartial, objective and policy-neutral, we think that the clarity of some of the charts could be improved, to enable users to interpret them more easily. As part of the designation as National Statistics, DECC should review and improve the presentation of the publication, focussing on making it accessible to all users¹² (Requirement 6). We have been told that DECC plans to implement improvements in the July 2009 publication, in order for this publication to be designated. We have also noted above that there are issues regarding the availability of metadata and quality information (Principle 4).
- 4.18 We note that the DECC website is still being developed, and that users are linked to the Business, Innovation and Skills (BIS - formerly Business, Enterprise and Regulatory Reform) website for much of the statistics content. This link only presents problems when users want to access background material regarding statistics: while the publications are available on the main department website, the Economics and Statistics website for BIS is a separate entity. We think that it would help users if DECC's website carried over the content of the BIS Economics and Statistics website, but improved the accessibility, preferably through a statistics link on the Department's homepage.

¹² In relation to Principle 8 Practice 2 of the Code of Practice

Protocol 1: User engagement

Effective user engagement is fundamental both to trust in statistics and securing maximum public value. This Protocol draws together the relevant practices set out elsewhere in the Code and expands on the requirements in relation to consultation.

4.19 As set out above, we think that DECC should establish a means for engaging with users outside Government and the energy industry (Requirement 1).

Protocol 2: Release practices

Statistical reports should be released into the public domain in an orderly manner that promotes public confidence and gives equal access to all, subject to relevant legislation.

- 4.20 DECC's release practices comply with the requirements of the Code of Practice. The statistics are pre-announced on the Publication Hub, and appear to be published in an orderly and timely manner. Comprehensive contact details for the statistics team are included in the *Indicators* publication, giving the name and telephone number of statisticians responsible for each topic area.
- 4.21 During the assessment process, we discussed with DECC statisticians the possibility of moving forward the publication date of the background indicators, which are published three months after the key and supporting indicators (see para 1.2). On balance we agree with DECC that bringing forward the publication date may adversely impact on data quality.
- 4.22 When it is developed, we think that it would help users if DECC's website provided clear and easy access to background information about statistics releases, including the pre-release access lists for each National Statistics publication.

Protocol 3: The use of administrative sources for statistical purposes

Administrative sources should be fully exploited for statistical purposes, subject to adherence to appropriate safeguards.

4.23 *UK Energy Sector Indicators* is based on existing data sources, and does not require any new data collection. However, as part of the designation as National Statistics, DECC should publish a Statement of Administrative Sources¹³ (Requirement 7).

¹³ In relation to Protocol 3 Practice 5 of the Code of Practice

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to the *UK Energy Sector Indicators* publication, in the interest of the public good. These are not formally required for re-designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

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| Suggestion 1 | Investigate the costs and benefits of setting up formal agreements with the data suppliers, so that information on unscheduled corrections and revisions to source data is passed on to DECC and can be reflected in the publication (para 4.6, 4.14) |
| Suggestion 2 | Produce written guidelines on the data quality assurance process (para 4.9) |
| Suggestion 3 | Produce an organisation-wide statement of compliance with the data confidentiality requirements of the Code (para 4.12) |
| Suggestion 4 | In developing the new DECC website, aim to carry over the content of the BIS Economics and Statistics website, but improve the accessibility and functionality (paras 4.18, 4.22) |

Annex 2: Summary of assessment process and users' views

A2.1 This assessment was conducted from March to June 2009.

A2.2 The Assessment team met representatives of DECC at an initial meeting in March 2009. Background information was provided by DECC during March and May 2009, and Written Evidence for Assessment was provided on 15 May 2009.

Summary of users contacted, and issues raised

A2.3 As part of the assessment, questionnaires were sent to almost 50 users and other interested parties. The Assessment team received six responses from users. There were also three respondents who viewed themselves as potential users, but currently do not use the data. The respondents were grouped as follows:

Internal DECC	1
Other Government	3
Academic	2
Trade bodies	2
Other	1

A2.4 The main uses of the publication are for research, monitoring trends, policy research & development, and education. In general users were satisfied with the publication. One user was dissatisfied with presentation issues around the publication (discussed in the report under Principle 8) while two users queried the timeliness of the publication (discussed in the report under Protocol 2). The potential users highlighted poor accessibility and a lack of local/regional data as the reasons for not currently using the data. We acknowledge that the *Indicators* publication is not the best place for local-level information and that other DECC products go some way to meeting this need.

Key documents/links provided

Written Evidence for Assessment document
UK Energy Sector Indicators 2008

<http://www.berr.gov.uk/energy/statistics/publications/indicators/page46000.html>

