



**An
Phríomh-Oifig
Staidrimh**

Central
Statistics
Office

Standard SIMS Report: Fossil Fuel Subsidies



Single Integrated Metadata Structure (SIMS) Report

For

Fossil Fuel Subsidies

This documentation applies to the reporting period:
2000-2023

Last edited: 14/04/2025



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2. Introduction

Eurostat has developed a series of legal and voluntary environmental accounts modules based on the SEEA. The CSO has published statistical releases on the Eurostat Environmental Taxes and Environmental Subsidies and Similar Transfers modules.

This new release complements those two releases as it enables users to compare the amount raised through environmental taxes with the amount spent or forgone on environmental subsidies and on fossil fuel subsidies.

Effective Carbon Rate

In this release we calculated the average effective carbon rates of different fossil fuels in different sectors of the Irish economy. The average effective carbon rate for a fuel is defined as total energy taxes paid divided by the total amount of carbon dioxide emitted through combustion of the fuel. The energy taxes included were Excise Duty, Carbon Tax, Electricity Tax, the PSO (Public Service Obligation) Levy, the NORA (National Oil Reserves Agency) Levy and emission permit purchases under the EU Emissions Trading Scheme.

Fossil Fuel Subsidies

This release presents data on direct and indirect fossil fuel subsidies. Direct subsidies include direct payments from the government budget, while indirect subsidies are tax reliefs or revenue forgone due to reduced tax rates for certain sectors, as well as price supports and other government revenue forgone. Fossil fuel activities include exploration, extraction, manufacturing, refining and distribution of fossil fuels, research and development supporting any of the above, and fossil fuel consumption by all sectors of the economy.

This CSO release also provides data for Sustainable Development Goal (SDG) 12, specifically Indicator 12.c.1: Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels.

3. Contact

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4. Metadata Update

4.1. Metadata last certified

16/04/2025

4.2. Metadata last posted

14/04/2025

4.3. Metadata last update

16/04/2025



5. Statistical Presentation

5.1. Data Description

Effective carbon rates by sector and fuel were calculated using Revenue data on Excise receipts and volumes in conjunction with SEAI Energy Balance data on energy use by sector and fuel; and are presented for the years 2000-2023. Data on direct and indirect fossil fuel subsidies are presented for the years 2000-2023.

5.2. Classification System

Effective carbon rates are classified by sector and fuel. Fossil fuel subsidies are classified as direct or indirect supports.

5.3. Sector Coverage

Road Transport, Rail Transport, Air Transport, Water Transport, Electricity Generation, Industry, Services, Households, Electricity Consumption, Fossil Fuel Production.

5.4. Statistical Concepts and definitions

The OECD defines a **subsidy** as the result of a government action that confers an advantage on consumers or producers, in order to supplement their income or lower their costs. A subsidy is a **fossil fuel subsidy** if it is likely to incentivise fossil fuel activities.

The **average effective carbon rate for a fuel** is defined as total energy taxes paid divided by the total amount of carbon dioxide emitted through combustion of the fuel. This definition includes tax expenditures (such as tax exemptions, tax repayments and reduced tax rates), price supports, and other government revenue forgone, as well as direct subsidies. Tax expenditures are estimated using the revenue forgone method.

The OECD maintains a database of national energy taxes called the Taxing Energy Use database and uses it to report effective carbon rates for different sectors and fuels in OECD countries. We used similar concepts to the OECD for this release.

5.5. Statistical Unit

Data refer to fossil fuel subsidies to economic units in Ireland, including households; and on effective carbon rates paid by economic units in Ireland, including households.

5.6. Statistical Population

The statistical population consists of all economic units in the national economy that produce or consume fossil fuels, including households.

5.7. Reference Area

State.

5.8. Time Coverage

2000-2023



5.9. Base period

Not applicable.

6. Unit of Measure

The appropriate units of measure are specified in the release tables. The main two units of measure used are:

- Euro per tonne of carbon emitted (Effective carbon rates)
- Euro (Fossil Fuel supports)

7. Reference Period

2023

8. Institutional Mandate

8.1. Legal Acts and other agreements

Not applicable.

8.2. Data Sharing

Not applicable.

9. Confidentiality

9.1. Confidentiality – policy

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes. Further details are outlined in the CSO's Code of Practice on Statistical Confidentiality.

For more information on the CSO confidentiality policy please visit:
<https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/statisticalconfidentiality/>

9.2. Confidentiality – data treatment

All confidential data are treated in accordance with Part V of the Statistics Act 1993.

10. Release Policy

10.1. Release Calendar

The date of dissemination of all statistics released by CSO can be found in the Release Calendar published in CSO.ie. This calendar is regularly updated.



10.2. Release calendar access

The release calendar can be accessed via the CSO website, www.cso.ie, or directly from this link: <https://www.cso.ie/en/csolatestnews/releasecalendar/>

10.3. User access

In accordance with Principle 6 of the European Statistics Code of Practice all users of CSO statistics have equal access via the CSO website at the same time of 11 am. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.

The CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege and a strict CSO pre-release access policy is adhered to for these special requests. The full pre-release access policy can be accessed at <https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/csopolicyonpre-releaseaccess/>

The various results are published nationally in statistical release format as well as on the CSO website (www.cso.ie). Selected extracts from the results are posted on the CSO's data dissemination database, PxStat.

11. Frequency of Dissemination

Annual.

12. Accessibility and clarity

12.1. News release

Not applicable.

12.2. Publications

The data are published to the CSO website. The latest publication can be accessed from the following link: <https://www.cso.ie/en/statistics/environmentaccounts/fossilfuelsubsidies/>

12.3. On-line database

Data are available through CSO's dissemination database, PxStat via the following link: <https://data.cso.ie/product/FFES>

12.3.1. AC 1. Data tables - consultations

Not applicable.

12.4. Micro-data Access

Not applicable.

12.5. Other

12.5.1. AC2. Metadata consultations

Not known.



12.6. Documentation on Methodology

The UN System of Environmental-Economic Accounting (SEEA) is a statistical system that brings together economic and environmental information into a common framework to measure the condition of the environment, the contribution of the environment to the economy, and the impact of the economy on the environment. The SEEA contains an internationally agreed set of standard concepts, definitions, classifications, accounting rules and tables to produce internationally comparable statistics.

Further documentation on the methodology used can be obtained through the following link:

<https://www.cso.ie/en/methods/environmentaccounts/fossilfuelsubsidies/>

12.6.1. AC3 – Metadata completeness – rate

Not applicable.

12.7. Quality Documentation

Quality information relating to the Fossil Fuel Subsidies can be obtained from the CSO website via the following link: <https://www.cso.ie/en/methods/environmentaccounts/fossilfuelsubsidies/>

13. Quality Management

13.1. Quality Assurance

Quality Management Framework

The CSO avails of an office wide Quality Management Framework (QMF). This framework allows all CSO processes and outputs to meet the required standard as set out in the European Statistics Code of Practice (ESCOP). The QMF foundations are based on establishing the UNECE's Generic Statistical Business Process Model (GSBPM) as the operating statistical production model to achieve a standardised approach to Quality Management. All and any changes implemented to CSO processes and outputs require adherence to the QMF.

The data will be published to the CSO website and on the CSO PxStat database.

13.2. Quality Assessment

This is a developing area with new contributions from international and national organisations being produced regularly. These developments and their relevance for this release are considered in advance of the publication of each annual release and have resulted in improvements to the methodology and coverage.

14. Relevance

14.1. User Needs

The data are used mainly by Eurostat and national policy makers to inform policy on fossil fuel reform.

14.1.1. Main National Users

National users include the environment sector, the government, the media, educational institutions and the public.

14.1.2. Principal External Users

International users include Eurostat, the European Environment Agency and the OECD.



14.2. User Satisfaction

Not measured.

14.3. Data Completeness

Not applicable.

14.3.1. Data Completeness rate

Not applicable.

15. Accuracy and reliability

15.1. Overall accuracy

Data are collected directly from government accounts and Revenue and are considered to be of good quality and accuracy.

15.2. Sampling Error

Not applicable.

15.2.1. A1. Sampling error indicator

Not applicable.

15.3. Non-sampling Error

Not applicable.

15.3.1. Coverage error

Not applicable.

15.3.1.1. A2. Over coverage rate

Not applicable.

15.3.1.2. A3. Common units – proportion

Not applicable.

15.3.2. Measurement error

Not applicable.

15.3.3. Non-Response Error

Not applicable.

15.3.3.1. Unit non-response rate

Not applicable.



15.3.3.2. Item non-response rate

Not applicable.

15.3.4. Processing error

Not applicable.

15.3.5. Model assumption error

Not applicable.

16. Timeliness and punctuality

16.1. Timeliness

In 2025, results for reference year 2023 were published within 16 months of the reference year.

16.1.1. TP1. Time lag – First results

Not applicable.

16.1.2. TP2. Time lag – Final results

16 months.

16.2. Punctuality

Published on 30 April 2025, 11am.

16.2.1. TP3. Punctuality – Punctuality - delivery and publication

Delivered in advance of deadline.

17. Comparability

17.1. Comparability – Geographical

Effective carbon rates (ECRs) can be compared internationally. ECRs are not measured against benchmarks of the national tax system, unlike tax expenditures, hence they are suitable for international comparison.

17.1.1. CC1. Asymmetry for mirror flow statistics

Not applicable.

17.2. Comparability over time

Data have been collected for the years 2000-2023 so a time series is available for comparison across years.

17.2.1. Length of Comparable Time series

24 Years.

17.3. Coherence – cross domain

The inclusion or exclusion of certain programmes has been compared with the approaches taken in international reports on environmentally harmful subsidies.



17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

17.3.2. Coherence with National Accounts

Not applicable.

17.4. Coherence – internal

Not applicable.

18. Cost and Burden

Not available.

19. Data Revision

19.1. Data Revision Policy

Revisions refer to changes made to published statistical data when the information used in its production has been updated or corrected. This information includes all data used in compiling the statistic e.g. respondent data, administrative data, weights and factors, methodology, classifications, definitions, modifications to survey questionnaires, survey scope and data collection methods.

19.2. Data Revision Practice

Effective Carbon Rates

Minor revisions were made to excise volumes for road diesel, marked gas oil, and fuel oil to align with the most recent Revenue data.

Fossil Fuel Subsidies

Minor revisions were made to some of the data used to calculate tax expenditures to align with the most recently published figures.

19.2.1. Data Revision – Average size

See above.

20. Statistical processing

20.1. Source Data

Revenue Excise volumes and receipts were the primary data source, along with SEAI Energy Balances on energy use by sector and fuel. Data on fossil fuel subsidies were also collected from the publicly available annual accounts of government departments and organisations, as well as through direct requests to Revenue and other organisations.

20.1.1. Population and sampling frame

Not applicable.

20.1.2. Sampling design

Not applicable.



20.1.3. Survey size

Not applicable.

20.1.4. Survey technique

Not applicable.

20.2. Frequency of data collection

Annual.

20.3. Data Collection

The process involves data collection from Revenue and from the annual accounts of government departments and organisations, estimation of certain tax expenditures, and classification according to type of support and activity supported.

The CSO uses the revenue forgone approach to calculating tax expenditures in this release. A number of tax expenditures are due to reduced Excise Duty rates on certain fuels or on fuels used by certain sectors of the economy.

20.3.1. Type of Survey/Process

Administrative data.

20.3.2. Questionnaire (including explanations)

Not applicable.

20.3.3. Survey Participation

Not applicable.

20.3.4. Data Capture

Not applicable.

20.4. Data Validation

Where possible, estimates have been checked against figures available from parliamentary questions or research studies. The inclusion or exclusion of certain programmes has been compared with the approaches taken in a number of international reports on environmentally harmful substances.

20.5. Data Compilation

Not applicable.

20.5.1. Imputation (for Non-Response or Incomplete Data Sets)

Not applicable.

20.5.1.1. A7. Imputation rate

Not applicable.



20.5.2. Grossing and Weighting

Not applicable.

20.6. Adjustment

Not applicable.

20.6.1. Seasonal Adjustment

Not applicable.

21. Comment