

Methodology

The Sustainable Energy Authority of Ireland (SEAI) was established as Ireland's national energy authority under the Sustainable Energy Act 2002¹. SEAI is the official source of energy data for Ireland and the Energy Statistics Unit is SEAI's specialist statistics team.

The scope and detail of the statistics collected and processed are determined by several factors, including international reporting obligations, informing, and supporting evidence-based policy, providing data to help guide government infrastructure investment, and to educate and update the public to promote active citizenship on climate change and sustainability.

Collection

Energy data are collected based on EU Regulation 1099/2008 on energy statistics² and, as such, conform to the standards, definitions, units, and classifications laid down in the Regulation. Similarly, electricity and gas prices conform to the requirements of the EU Regulation 2016/1952 on natural gas and electricity prices³ and are comparable between Member States. Survey and administrative data can be collected in physical and/or energy units. SEAI aligns its classification and categorizations systems to national and international systems.

Large sample surveys are not carried out by the Energy Statistics Unit. Questionnaires are designed and agreed internally, involving any relevant industry experts where possible. Feedback may be sought from data suppliers before finalising the structure for a new questionnaire. Questionnaire designs are regularly reviewed and revised as appropriate.

New data sources are identified in several ways, including industry bodies, media publications and relevant energy events. Where a new data supplier is identified, surveys and requests are designed to limit the response burden on the data providers. Best practices are followed when determining any new methodologies, often drawing on discussions and experiences of other Member States.

The Energy Statistics Unit regularly assesses the statistical soundness of the selected data sources, collection modes and methodology, to identify any gaps or weaknesses. When a data source needs to be replaced, processes are implemented to ensure a continuity in reporting quality.

The Energy Statistics Unit runs over 600 dedicated surveys per year in order to collect the data required to produce official national energy statistics. These include:

- Solid Fuel Survey – Monthly & Annual
- Electricity Generator Survey – Monthly & Annual
- Fuel Cost Comparison Survey - Quarterly
- Energy Prices & Taxes Survey - Quarterly
- Electricity & Gas Price Survey – Twice Yearly
- Electricity Final Consumption
- Oil Consumption – Annual
- Biogas Survey – Annual
- Landfill Gas Survey – Annual
- Biomass Survey – Annual
- Wood Fuel Supplier Survey – Annual
- Wind Auto generation Survey – Annual
- Combined Heat & Power Plant Survey – Annual

The survey data is supplemented by the following administrative data sources:

- Electricity Generation – Monthly & Annual
- Electricity Final Consumption - Annual
- Oil Supply - Monthly
- Natural Gas Supply & Consumption – Monthly & Annual
- Solid Fuel Carbon Tax - Annual
- Tallow – Annual
- Emission Trading Scheme – Annual
- Biofuel Consumption – Annual
- Solar & Heat Pumps – Annual

Processing

- Data Entry – Data entry is usually done manually from the survey to a central database, though steps are underway to modernise these practices going forward.
- Data Coding - Data coding is carried-out, where possible, such that data points can be uniquely identified and forms the basis of all the referencing of the data. This allows the automation of the population of the annual questionnaires required under EU Regulation 1099/2008 on energy statistics. This also reduces the risk or errors when accessing this data from another source.
- Editing - The main statistical data are held in Excel spreadsheets. The coding and referencing scheme mentioned above overcomes the limitations and risks of using Excel.
- Imputation - Imputation is done manually, with checks in place, where possible, to ensure that data are transferred correctly.
- Estimation – In the event of a supplier not returning survey information, an estimation may be made. This estimation is usually either based on previous submission by this supplier or on data from other sources. Estimation techniques are regularly reviewed and revised where possible.
- Secondary Data Use - Survey gathered for one purpose may be used for another.
- Revisions - When better data becomes available, or an error in published data is discovered, revised data are then included in the next statistical release. Details of these revisions are documented in EPSSU's annual report, Energy in Ireland.

More detailed information on data sources, methods and procedures used is available upon request.

Dissemination

The main statistical release of the Energy Statistics team is the National Energy Balance, which is publicly available from the SEAI website. It is openly accessible and used by multiple stakeholders, both within the national statistical system and externally.

Statistics are disseminated on the SEAI website according to agreed methodology and internal best practices, ensuring to always respect any statistical confidentiality rules.

For further information please see our Dissemination Policy.

Quality

The SEAI is committed to quality and continuously strives to improve and ensure accurate, precise, and detailed statistics.

For further details please see our Quality Commitment Statement.

Code of Practice

SEAI is committed to ensuring that all data is compiled to the highest standard. In particular, the organisation adheres to the principles set out in the 'Irish Statistical System Code of Practice' and is committed to ISSCoP.

www.isscop.ie/codeofpractice

Release Calendar

A release calendar is published on the SEAI website detailing the dates for upcoming statistical publications from the SEAI Statistics team.

<https://www.seai.ie/data-and-insights/seai-statistics/release-calendar/>

¹ <https://www.irishstatutebook.ie/eli/2002/act/2/enacted/en/pdf>

² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1099>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1952>