Department for Business, Energy & Industrial Strategy

INTEGRATING ENERGY AND CLIMATE CHANGE STATISTICS – UK CASE STUDY

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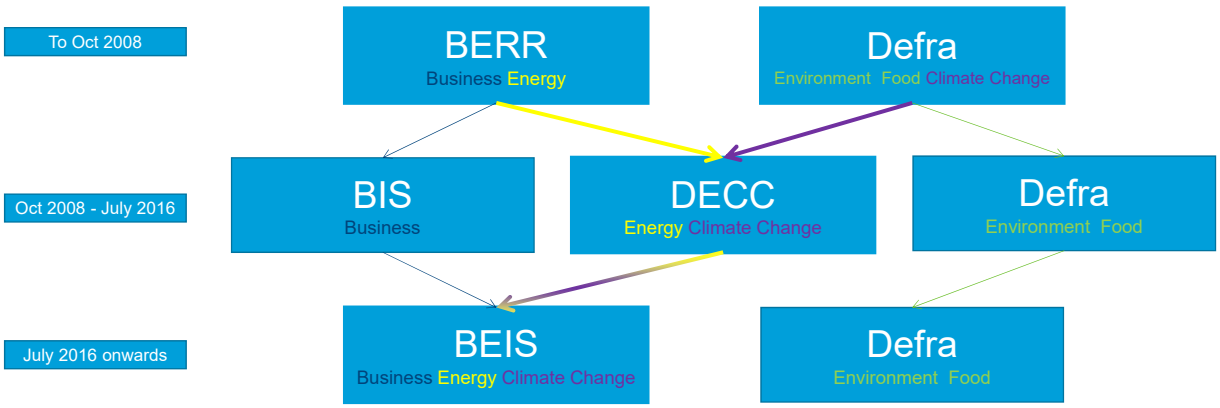
Responsible Government Departments in the UK



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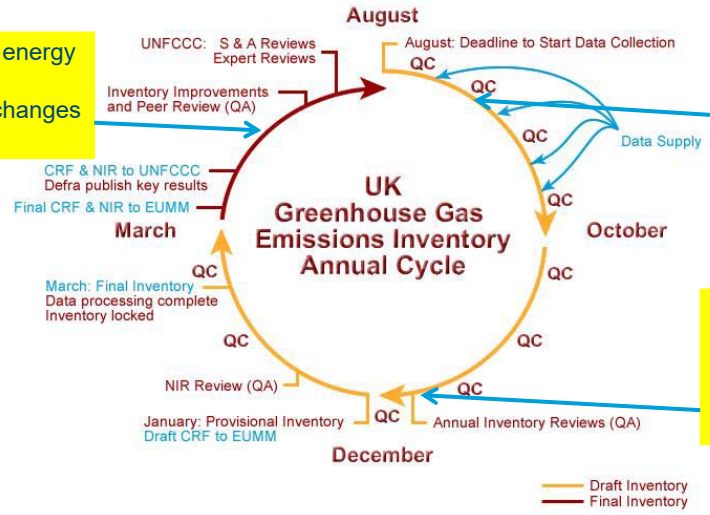
Flow of information between Energy and Climate Change teams

Discussion on energy end emissions methodology changes for next year



Early meeting to discuss latest years energy data

Meeting to review how energy data used in inventory

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The Use of Energy Statistics in the UK Greenhouse Gas Inventory

The UK Greenhouse Gas Inventory uses national (top down) and facility-level (bottom up) statistics to estimate UK GHG emissions from energy.

- The Digest of UK Energy Statistics (DUKES) provides UK activity data for use of different fuels and the overall UK energy balance. DUKES uses the underlying data used to produce the Joint Annual Energy Questionnaires provided to the IEA and Eurostat
- Supplemented by facility-level data on activity and emissions factors from: the EU Emissions Trading System; UK Pollution Inventories from the Regulators; and Industry Bodies.
- Where facility-level data from the Emissions Trading System include 100% of the sector and where UK Energy data are based on periodic surveys rather than annually reported data, reported emissions or activity data from the ETS are used.
- Where facility-level data cover less than 100% of the sector the data are used to generate country-specific emissions factors; activity data for specific processes and as a check on the underlying energy data.

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Benefits and Challenges with this System

- Facility-level data, particularly Emissions Trading System (ETS) data, provides additional information on specific fuels and processes that are unavailable in UK national energy statistics data collection.
- However, where facility-level data are used instead of or to supplement energy data, being transparent about the differences between the datasets is complicated and time consuming. It also affects comparability with other datasets based on UK energy data, such as emissions estimate made by the IEA and Eurostat.
- ETS data require a lot of pre-processing due to gaps in the data and inconsistency of returns from one year to the next. This makes the data difficult to quality assure
- As different data have become available since 1990, many assumptions must be made to ensure a consistent time series of energy use - and emissions - from 1990 to the present day. These assumptions must be defensible in an Inventory Review. Energy data is not revised back that far, even for methodological changes.

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Potential and Future Improvements to the System

- There are no plans to fully incorporate ETS data into UK national energy statistics; energy data are collected and produced on a “top down” basis, rather than a “bottom up” approach.
- The UK Inventory compiler provides an analysis of the ETS dataset to UK energy statisticians. This is used to verify the energy consumption sectoral data with the aim of greater consistency between national energy statistics and ETS data.
- The UK Inventory compiler and UK energy statisticians meet several times a year to discuss and make improvements to both the energy data and the UK GHG Inventory; recent joint work has helped improve the underlying marine bunker and shipping energy data.

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THANK YOU FOR YOUR ATTENTION