



Progress on disaggregation of final energy consumption

InterEnerStat meeting, October 2018

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Legal background

- Article 9 of Regulation (EC) 1099/2008 on energy statistics
- Regulation requests Eurostat and the Members of the European Statistical System to generate more detailed statistics on final energy consumption
- There is the need to establish breakdown keys for final energy consumption:
 - *by sector*
 - Households (Residential sector)
 - Industry sector
 - Transport sector
 - Services
 - *by main energy uses*

Additional data needs

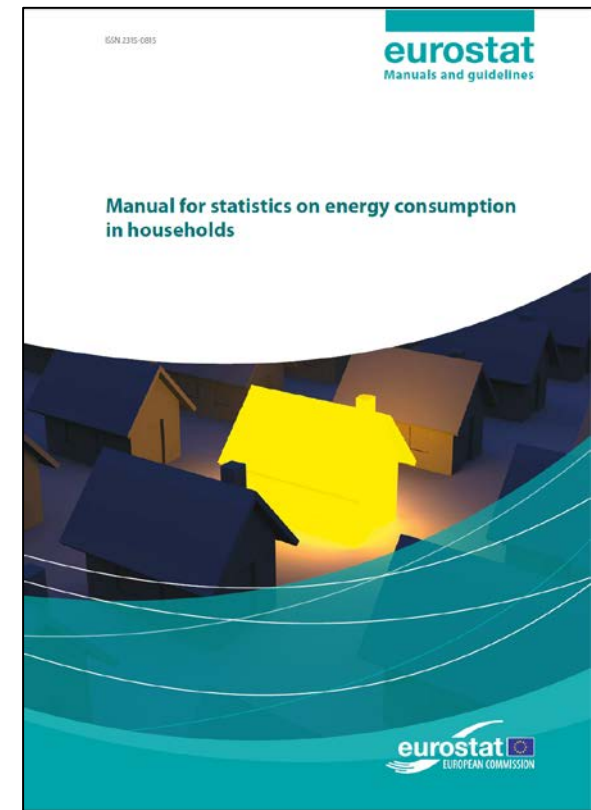
In the proposed *Regulation on the Governance of the Energy Union* new potential data needs could be identified:

- **More detailed data on disaggregation of final energy consumption in transport**
 - > *split between passenger and freight transport*

- **More detailed data for final energy consumption**
 - from space heating (both for households as services)
 - from specific industries ('energy-related CO₂ emissions')

Households

- The work on the disaggregation of the households sector is already complete
- ➔ Commission Regulation (EU) No 431/2014
- Annual mandatory reporting of detailed final energy consumption in households by type of end use
- It started with reference data 2015
- Some countries provide historic data back to 2010



Households data collection

End-use	Space heating	Space cooling	Water heating	Cooking	Lighting and appliances	Other end uses
Product						
● ELECTRICITY						
● DERIVED HEAT						
● GAS						
● SOLID FOSSIL FUELS						
● OIL & PETROLEUM PRODUCTS						
-LPG						
-Other kerosene						
-Total gas/diesel oil						
● RENEW. & WASTES						
-Solar thermal						
-Solid biofuels excluding charcoal						
-Biogases						

← Energy consumption and use by households

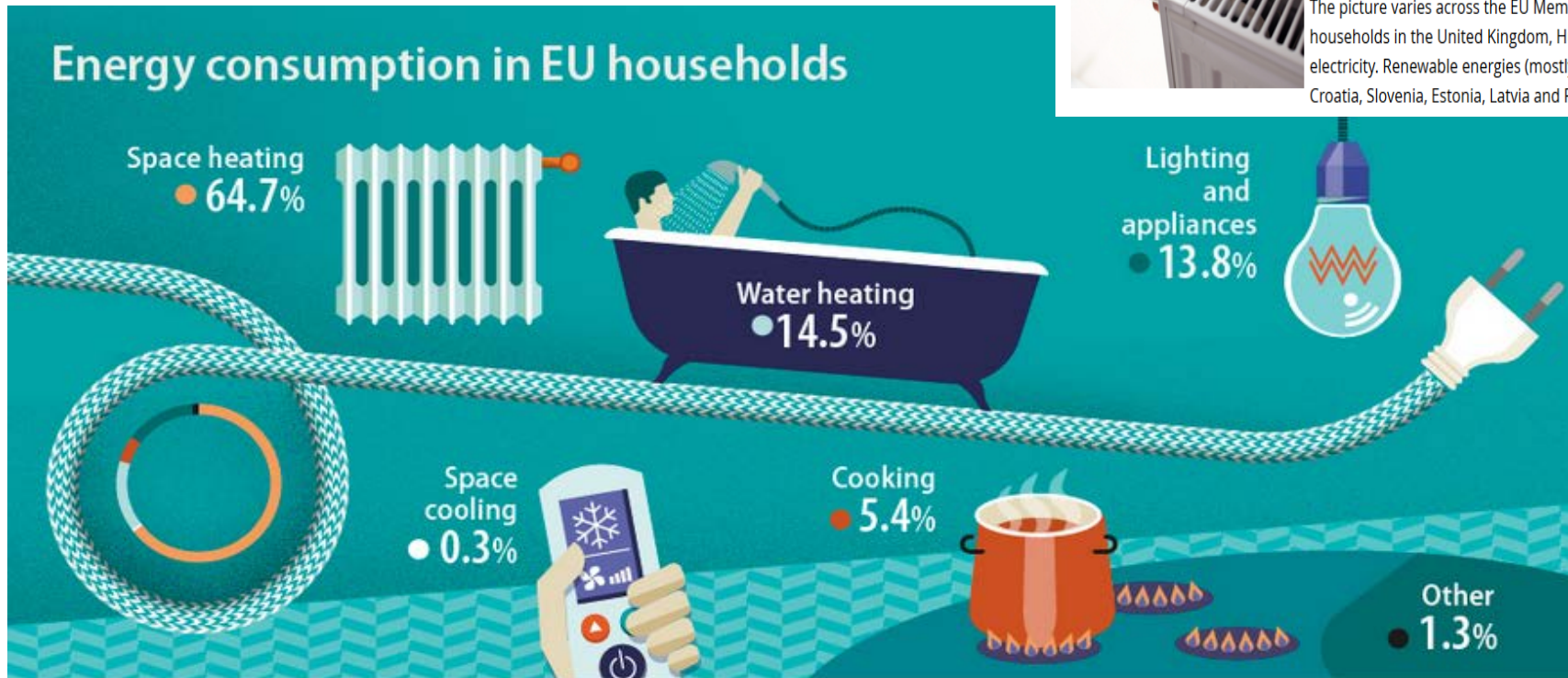
28/03/2017



Mainly gas and electricity...

In 2015, households in the European Union (EU) accounted for 12.7% of total energy consumption. In 2015, energy consumption was covered by natural gas (35.6%) and electricity (35.6%) and other products for 12.7% and derived heat for 7.8%, while a small amount of renewable energy (0.3%) was also used.

The picture varies across the EU Member States. Gas accounts for 35.6% of energy consumption in households in the United Kingdom, Hungary, Slovakia and Lithuania. Electricity is the main source of energy in households in Croatia, Slovenia, Estonia, Latvia and Romania.



ec.europa.eu/eurostat

<http://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/DDN-20170328-1>

https://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_consumption_in_households

Industry: new reporting

New annual collection to be incorporated in the Regulation on energy statistics:

1. breakdown by **NACE division** of the divisions covered by **sections B & C** (Mining and Quarrying (NACE 05-09) and Manufacturing industries (NACE 10-35), excluding division 33, namely Repair and installation of machinery and equipment).
 - **Split of NACE division 24 Manufacture of basic metals** in two branches to be identified as the **24-A Iron and steel** and **24-B Non-ferrous metals industries**
2. Additional breakdown for three **specific NACE divisions (17, 23 & 24-B)**. The proposed disaggregation is linked as much as possible to the NACE list of activities, where the industrial branch will be defined by a NACE group (NACE-3) or class (NACE-4)

The finalisation of the legal process is expected during 2019.

Industry – voluntary reporting

- Eurostat will continue *to support and facilitate the reporting of even more detailed data* than what will be legally required
- Hence Eurostat is planning to include in the questionnaire **a non-mandatory section** covering in particular:
 - Further sub-sectors (e.g. Textile & Leather, Transport equipment)
 - Disaggregation by end-uses (so called “3rd layer”)
- Eurostat has already awarded grants to some countries to support the development of a more disaggregated data collections for industry (Bulgaria, Croatia, Latvia, Lithuania, the Netherlands, Austria, Slovenia)
- The first voluntary data collection could be done **during 2019**

Transport & Services

- In the Eurostat's working group established in May 2018 **2 Task Forces** focusing on the disaggregation of final energy consumption in Services and Transport
- The first meetings of these new Task Forces will take place during **October 2018**
- Key users of data for European policy making will participate in the Task Forces
- The first results and conclusions are expected during 2019
- Voluntary data collections expected to start in 2020
- Mandatory/Legislative approach to follow

Services: proposals for disaggregation

DG Energy expressed the following needs in terms of disaggregation in final energy consumption in Services

- **Disaggregation according to the categories of buildings (offices, educational buildings, hospitals, hotels, restaurants, sports facilities, trade service buildings etc)**
- **Disaggregation by end use (heating, cooling, hot water, ventilation, lighting, electrical appliances, cooking)**
- **Disaggregation according to technology used (boilers, heat pumps, resistance heaters, solar heat, cogeneration, district heating)**

→ To be taken into account during the discussions of the TF

Transport: proposals for disaggregation

DG Energy and DG Climate Action expressed the following needs in the terms of disaggregation in final energy consumption in transport:

- **Transport by mode and by vehicle type**
- **Passengers transport vs freight transport**
- **Public transport vs private transport**
- **Urban transport vs non-urban transport**

→ To be taken into account during the discussions of the TF

Disaggregation summary

- **Households (Residential sector)**
 - *Implemented*
- **Industry sector**
 - *Under finalization*
- **Transport sector**
 - *Work starting*
- **Services**
 - *Work starting*



Thank you!

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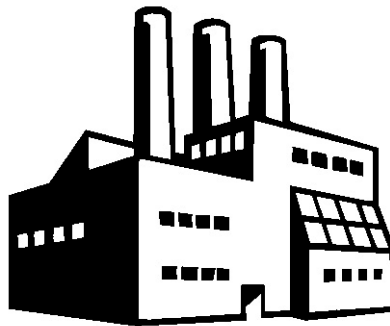


Annex – back-up slides

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Further disaggregation of the energy statistics on final energy consumption in industry





Introduction – Task Force

- A Task Force in charge of proposing the most suitable breakdown keys for a more disaggregated data collection was established- Three meetings were held.
- Based on Task Force conclusions, Eurostat made a proposal, following a flexible approach, trying to offer a compromise solution, meant to answer most needs while limiting the increase in burden and costs.
- Eurostat proposed that the further disaggregation follows a multi-layer approach:
 1. The 1st layer being based on a breakdown by NACE economic sector ['NACE-2 digit'/'division' for all industrial branches covered within NACE sections B, C, D and F;
 2. The subsequent 2nd layer 'product based' disaggregation, meaning practically a NACE-3 (groups) or -4 (classes) subdivision];
 3. The 3rd layer being focused on breaking down some specific sub-sectors by type of energy use.

Eurostat's Working Group meeting: May 2017

- The flexible approach was presented during the ESWG in May 2017.
- The comments and suggestions received from countries were generally positive concerning the first two layers but globally negative as regards the third layer.

As a result:

- Eurostat sent a revised proposal by email on the 1st February 2018 to all reporting countries.

→ focus for the time being only on the first two layers of disaggregation and not to discuss any formal (mandatory) breakdown by type of energy use (third layer).



Eurostat's revised proposal

- Annual mandatory data reporting to be included into the Annex B of the ESR (complementing the current list of final energy consumption sub-sectors of the Industry sector).
- Deadline would be of 15 months after the end of the reference year.





Mandatory reporting

The reporting will include the following layers:

1. **breakdown by NACE division** of the divisions covered by **Section B and C of the NACE** (Mining and Quarrying (NACE 05-09) and Manufacturing industries (NACE 10-35), excluding division 33, namely Repair and installation of machinery and equipment).
 - **Split of NACE division 24 Manufacture of basic metals** in two branches to be identified as the **24-A (Iron and steel)** and **24-B (Non-ferrous metals industries)**
2. **Breakdown by product for three specific divisions (17, 23 and 24-B)**, (the proposed disaggregation is linked as much as possible to the NACE list of activities, where the industrial branch will be defined by a NACE group (NACE-3) or class (NACE-4))

1st layer

- Mining of metal ores [NACE Div. 07; excludes Mining of uranium and thorium ores 07.21]
- Other mining and quarrying [NACE Div. 08; excludes Extraction of peat 08.92]
- Mining support service activities [NACE Div. 09; excludes Support activities for petroleum and natural gas extraction 09.1]
- Manufacture of food products [NACE Div. 10]
- Manufacture of beverages [NACE Div. 11]
- Manufacture of tobacco products [NACE Div. 12]
- Textile and Leather [NACE Div. 13, 14 and 15; includes the *Manufacture of textiles*, the *Manufacture of wearing apparel* and the *Manufacture of leather and related products*]
- Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials [NACE Div. 16]
- Manufacture of paper and paper products [NACE Div. 17]
- Printing and reproduction of recorded media [NACE Div. 18]
- Manufacture of chemicals and chemical products [NACE Div. 20]
- Manufacture of basic pharmaceutical products and pharmaceutical preparations [NACE Div. 21]
- Manufacture of rubber and plastic products [NACE Div. 22]
- Manufacture of other non-metallic mineral products [NACE Div. 23]
- Manufacture of basic metals [NACE Div. 24 – A: *Iron and Steel*: NACE Groups 24.1, 24.2, 24.3 and Classes 24.51 and 24.52]
- Manufacture of basic metals NACE [Div. 24 – B: *Non-ferrous metals industries*; NACE Group 24.4 and Classes 24.53 and 24.54]
- Manufacture of fabricated metal products, except machinery and equipment [NACE Div. 25]
- Manufacture of computer, electronic and optical products [NACE Div. 26]
- Manufacture of electrical equipment [NACE Div. 27]
- Manufacture of machinery and equipment n.e.c. [NACE Div. 28]
- Transport Equipment: Industries related to the equipment used for transport [NACE Div. 29 and 30; includes the *Manufacture of motor vehicles, trailers and semi-trailers* and the *Manufacture of other transport equipment*]
- Manufacture of furniture [NACE Div. 31]
- Other manufacturing [NACE Div. 32]

2nd layer

- Div. 17 – Manufacture of paper and paper products
 - **Of which: Pulp [class 17.1.1]**
 - **Of which: Other paper and paper products**
- Div. 23 – Manufacture of other non-metallic mineral products
 - **Of which: Cement (incl. Clinker) [group 23.5]**
 - **Of which: Glass [gr. 23.1]**
 - **Of which: Others**
- Div. 24B – Manufacture of basic metals (Non-ferrous metals industries)
 - **Of which: Aluminium [cl. 24.4.2]**
 - **Of which: Others**

Additional voluntary reporting:

- Eurostat will continue to **support and facilitate the reporting of even more detailed data** than what is proposed to be implemented in the ESR
- Hence proposes to be included in the annual reporting a **non-mandatory section** covering in particular:
 - Further sub-sectors (e.g. *Textile and Leather* and *Transport equipment* for Layer 1)
 - Disaggregation by end uses (*3rd layer*)



-> **Grants** have already been awarded to support the development of a more disaggregated data collection: the outcomes of the ongoing projects are expected to be presented in future ESWG meetings