COUNTRY PRACTICE IN ENERGY STATISTICS

Topic/Statistics: Useful energy analysis in manufacturing industries and construction

Institution/Organization: Statistics Austria

Country: Austria

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Abstract

Write a short abstract of the statistics, and try to limit it to one page. The purpose of the abstract is to give the reader a general overview of the statistics/topic. It should therefore include a brief overview of the background and the purpose of the statistics, the population, the sample (if relevant), the main data sources, and the main users of the statistics. The abstract should also mention what is the most important contribution or issue addressed in the country practice (e.g. the practice deals with challenges of using administrative data, using of estimation, quality control, etc.). If there are other elements that are considered important, please feel free to include them in the abstract.

Keep in mind that all relevant aspects of the statistical production will be covered in more detail under the different chapters in the template. Therefore, the abstract should be short and focused on the key elements. What the most important elements are can vary from statistics to statistics, but as a help to write an abstract you can use the table below. The table can either replace a text or can be filled out in addition to writing a short text.

The survey for the useful energy analysis in manufacturing industries and construction is a primary survey, with the objective to divide the final energy use of the energy balance to useful energy categories and industrial sectors.
The useful energy analysis is also used to split the fuel input into traffic on public areas and off-road traffic, and to allocate these fuels to the industrial sectors where they are applied.
The useful energy analysis is a voluntary sample survey with a sample size of 3 000 establishments. The data source used to define the population is the Business Register of Statistics Austria. The survey is conducted every five years.
The results of the useful energy analysis are applied to the final energy use in the energy balance of the current year under report and are published after the finalisation of the energy balance in the same calendar year on the web (http://www.statistik.at/).

Key elements	
Name of the statistics	Useful energy analysis in manufacturing industries and construction
Background and purpose of the statistics	Break down of the final energy use of the energy balance to useful energy categories and industrial sectors. Furthermore to split the fuel input into traffic on public areas and off-road traffic, and to allocate these fuels to the industrial sectors where they are applied.
Population, sample and data sources	Voluntary sample survey with a sample size of 3 000 establishments, drawn from the business register of Statistics Austria.
Main users	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW), Austrian Federal Ministry of Economics, Family and Youth (BMWFJ), Environment Agency Austria, Austrian Institute of Economic Research, E-Control, Austrian Energy Agency, Government of the Laender (federal states), Universities, Statistics Austria, Directorate Spatial Statistics, and other institutions and private users.
Important contribution or issue addressed	Energy balance
Other remarks	Residence principle

1. General information

1.1. Name of the statistics/topic

The statistics/topic could either be a specific energy statistics (e.g. electricity production) or a topic within energy statistics (e.g. energy balances). For more information, please see Section III of the Instructions.

Useful energy analysis in manufacturing industries and construction.

1.2. History and purpose

State when the statistics were first published.

The useful energy analysis was first published for the reference year 2005.

Describe briefly the main purpose of producing the statistics and why it is relevant.

The main purpose of the useful energy analysis is the breakdown of the final energy use of the energy balance to useful energy categories and industrial sectors.
Furthermore, the useful energy analysis is used to split the fuel input into traffic on public areas and off-road traffic, and to allocate these fuels to the industrial sectors where they are applied.

1.3. Reference period

State the time period the data are collected for.

Calendar year

1.4. Frequency

Specify how often the statistics are disseminated (e.g. annually, monthly, quarterly, etc.). If the statistics are not produced at regular intervals, state at what times they have been produced in the past and the main reasons behind the irregularities.

Five yearly

1.5. Dissemination

Describe how the statistics are published (e.g. printed publications, online publications, online databases, etc.). If applicable, include the web address to the main website of the statistics.

The results of the useful energy analysis are published online on the website of Statistics Austria (http://www.statistik.at/web_en/statistics/energy_environment/energy/useful_energy_analysis/index.html).

1.6. Regional level

State the lowest geographical level (e.g. administrative regions, municipalities, etc.) for which the statistics are made available to the public.

NUTS 2

1.7. Main users

Identify the key users of the data and the main applications. Include both internal and external users, and if possible try to distinguish between end users and others.

Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW),
Austrian Federal Ministry of Economics, Family and Youth (BMWFJ),
Environment Agency Austria,
Austrian Institute of Economic Research,
E-Control,
Austrian Energy Agency,
Government of the Laender (federal states),
Universities,
Statistics Austria, Directorate Spatial Statistics, and
other institutions and private users.

1.8. Responsible authority

Write the name of the institution and department/office with the main responsibility for disseminating the statistics (e.g.: Statistics Norway, Department of Economics, Energy and the Environment).

Statistics Austria, Directorate Spatial Statistics, Energy & Environment.

1.9. Legal basis and legally binding commitments

State the national legal basis for the data collection. Include a complete reference to the constitutional basis, and web address to an electronic version (e.g.: The Statistics Act of 16 June 1989 No. 54, §§2-2 and 2-3, http://www.ssb.no/english/about_ssb/statlaw/forskrift_en.html).

Federal Statistics Act 2000, as amended,
http://www.statistik.at/web_en/about_us/responsibilities_and_principles/statistics_act/index.html.

If the data collection is not based on a legal basis, give a short description of other agreements or volunteer arrangements.

Five-year contracts with the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) and the Austrian Federal Ministry of Economics, Family and Youth (BMWFJ, formerly BMWA).

If applicable, give reference to national and international commitments that are legally binding (e.g. EU statistical legal acts).

Regulation (EC) No. 1099/2008 of the European Parliament and of the Council of 22 October 2008 on Energy Statistics.

1.10. Resource requirements

Specify how the production of the statistics is financed (e.g. over the ordinary budget, project based support, financial support from other institutions or organization). If applicable, state the contracting entity (e.g.: Ministry, EU Commission, OECD). A contracting entity is any entity which is ordering a survey or the compilation of a statistics, and paying for it

The survey is financed by BMLFUW and BMWFJ, each ministry covers 50% of the implementation costs.

Specify the resource requirements for producing the statistics (e.g. man-labour days, number of workers involved in the statistical production process of the statistics/topic in question).

Resource requirements are about 150 man-labour days, with two workers involved.

1.11. International reporting

List any international organizations and names of reporting schemes that the statistics are reported to. If available, also include the website where the reported data are published (e.g. International Energy Agency, Monthly Oil Statistics, UNSD, etc.).

Not relevant.

2. Statistical concepts, methodology, variables and classifications

2.1. Scope

Describe the scope of the statistics (e.g. the statistics cover supply and use of all energy products in Norway, classified according to International Standard Industrial Classification of All Economic Activities – ISIC).

The useful energy analysis cover the energy consumption in physical and monetary units in the manufacturing industry and construction sector broken down by fuels and useful energy category.

2.2. Definitions of main concepts and variables

Describe the main concepts (e.g.: territory principle, resident principle, net calorific value, gross calorific value).

Residence principle.

Describe the main variables (e.g. how are the different energy products defined in the statistics? How are production, intermediate consumption, final consumption, transformation, feed stock, the energy sector, etc. defined?).

The main variables of the useful energy analysis are:

<u>Fuels:</u>
- Hard coal
- Lignite
- Coke oven coke
- Petroleum coke
- Fuel oil
- Gas oil
- Diesel
- Gasoline
- Petroleum (Kerosene)
- Liquefied petroleum gases (LPG)
- Natural gas
- Electricity
- Heat for district heating
- Fuel wood
- Biofuels

<u>Useful energy categories</u>
with subcategories:
- Space heating and air condition
  - -- space heating
  - -- air condition
  - -- water heating and cooking
- Vapour production
- Industrial furnaces
  - -- industrial furnaces
  - -- drying processes
- Stationary engines
  - -- stationary engines
  - -- cooling processes
- Transport
- Lighting and computing
- Electrochemical purposes

- Wastes
- Ambient and solar heat
- Blast furnace gas
- Coke oven gas
- Peat

2.3. Measurement units

Describe in what unit the data is collected (e.g. physical unit (m3, metric tons), monetary unit (basic prices, market prices)). Describe in what unit the data is presented. Describe if the calorific values are collected (e.g. on a net vs. gross basis) and how they are used.

If applicable, describe the density of the energy product(s) and the estimated thermal efficiency coefficients of different energy products and consumer groups or by appliance. Thermal efficiency coefficient indicates the share of the energy products which is actually usable for end consumption. Descriptions of density and thermal efficiency coefficient could alternatively be put in an annex.

Except for electricity and district heat, fuel quantities can be reported in following units:
- m³ and kWh (natural gas , not for transport)
- litres or kg (gas oil, fuel oil, LPG, gasoline, diesel, biodiesel, natural gas for transport)
- stacked cubic metres or kg (wood pellets, briquettes and chips).

Fuel wood, wood waste and other fuels can be specified individually by the respondents.
Solar heat and ambient heat can be reported in m² collector area and kW installed capacity of heat pumps, respectively.

The reported fuel quantities are converted into compatible units with following factors:

Fuel	Quantity		kWh
Natural gas	1 000 m³		11 110
Gas oil	1 000 litre	841 kg	10 011
Fuel oil	1 000 litre	931 kg	10 742
LPG	1 000 litre	580 kg	7 411
Wood pellets	1 bcm*)	652 kg	3 130
Wood briquettes	1 bcm	761 kg	3 624
Wood chips	1 bcm	256 kg	812
Fuel wood	1 bcm	308 kg	1 224
	1 scm**)	615 kg	2 445
	1 stere***)	523 kg	2 079
Wood waste	1 scm	600 kg	2 827
Gasoline	1 000 litre	746 kg	8 745
Diesel	1 000 litre	834 kg	9 883
Biodiesel	1 000 litre	883 kg	8 997
Hard coal		1 000 kg	7 778
Coke		1 000 kg	7 833
Sewage sludge gas	1 000 m³		7 500
Biogas	1 000 m³		6 500

*) bulk cubic meter, **) solid cubic meter, ***) wood pieces with a length of about 30 cm

2.4. Classification scheme

Include references to relevant international and national standard classifications. If national, give a brief description of the standards. If available, include web addresses to the electronic version of the standards).

Classifications used are:
- OENACE 2003 or OENACE 2008 - classification of economic activities,
- Sectoral classification of the IEA/ECE/EUROSTAT-Joint Questionnaires aggregated from NACE categories, and
- NUTS-classification for statistics on regional representation.

2.5. Data sources

Give an overview of the different data sources used in the collection and compilation of the statistics/topic (e.g. household survey, enterprise/establishment survey, administrative data/registers, foreign trade statistics, production statistics and other primary/secondary data sources).

Examples of administrative sources/registers are: business register for enterprises and establishments, population register, land register, housing and building registers, tax registers, international trade registers, etc.

The data source used to define the universe is the business register of Statistics Austria.

2.6. Population

Describe the entire group of units which is the focus of the statistics (the population).

Industrial establishments with more than three employees in OENACE 2008 categories B to F.

Specify the following statistical units:

- *Reporting unit*
- *Observational unit*
- *Analytical unit*

Examples of different kind of statistical units include: enterprise, enterprise group, kind-of-activity unit (KAU), local unit, establishment, homogeneous unit of production.

In most cases the reporting unit, observational unit and analytical unit are identical, but there are examples where this is not the case. In electricity statistics, you may find that energy companies (the reporting unit) provide data about different consumers like the individual household or manufacturing company (the observational unit). The analytical unit may be a group of energy consumers, defined by the ISIC.

Reporting unit = observational unit = analytical unit = industrial establishments with more than three employees in OENACE 2008 categories B to F.

2.7. Sampling frame and sample characteristics

Describe the type of sampling frame used in the collection and compilation of the statistics (e.g. list, area or multiple frames). A sampling frame is the source material or device from which a sample is drawn. Note that the sampling frame might differ from the population.

Business register of Statistics Austria.

For each survey(s) used for the compilation of the statistics, specify the sampling design (e.g. random, stratified, etc.). Describe the routines employed for updating the sample. Include information about the sample size, and discuss to what extent the sample covers the population (e.g. energy consumption in the sample compared to total energy use by the population).

Note that chapter 2.7: Sample frame and sample characteristics may overlap with chapter 3.4: Grossing up procedures.

Concentrated random sample of 3 000 establishments in NACE categories B to F establishments with more than three employees in the survey period.

2.8. Collection method

For each survey used for the compilation of the statistics/topic, describe how the data are collected (e.g. face-to-face, telephone, self-administered, paper and internet-based questionnaires, or administrative data and registers).

By post and electronically, that is to say, the survey forms are sent by post but the respondents have the option of obtaining and returning the questionnaire electronically by e-mail. Since 2010 a web-based questionnaire (eQuest) is available. The questionnaires are self-explanatory, so no additional explanations were necessary, but a covering letter explaining the purpose of the survey to the respondents was attached. The questionnaires of all surveys are shown in the Annexes.

2.9. Survey participation/response rate

For each survey used for the compilation of the statistics/topic, specify the average response rate, or refer to response rates for specific surveys conducted.

The participation in this voluntary survey was 21% or 616 of the 3 000 establishments contacted in 2005, and 42% or 1 266 of the 3 000 establishments contacted in 2010. The participation in the reference year 2010 was twice as high as in 2005. For the reference year 2005 Statistics Austria tried to analyse the construction sector in detail to get confidential information concerning the off road traffic within construction activities. Therefore, a detailed questionnaire for industrial establishments in the construction sector was prepared and the share of this establishments in the sample was increased. Due to insufficient information, despite telephone contact with the respondents, it was impossible to analyse the construction sector in detail. Because of this experiences, the questionnaire for the reference year 2010 was simplified and the construction sector was treated equally to the other industrial sectors. The simplified questionnaire was potentially the main reason for the increased response rate in the reference year 2010.

3. The statistical production process

3.1. Data capture and storage

Describe how the data is captured and stored (e.g. if the respondent replies using Internet-based questionnaire, the received data are electronically transferred to the production database. Paper questionnaire responses are keyed manually to the production database).

Manual data capture by the department and electronically submitted data.

3.2. Data editing

Describe the regular routines employed for detecting and correcting errors. This may include:

- *Manual routines for detecting and correcting errors*
- *Automatic error-detection (and correction)*
- *Micro- and macro editing procedures*
- *Data validation procedures*
- *Outlier identification*
- *Processes and sources used for quality controls*

Plausibility checks of the stated quantities with reference to the stated values and annual average prices. In addition, respondents were contacted by telephone if data were implausible.

3.3. Imputation

Describe the principles for imputation and the assumptions that these principles are based on. Note that this chapter may overlap with chapter 3.2: Data editing and chapter 5.2: Accuracy

Missing quantities or values are calculated with reference to the corresponding datum, using the average price.

3.4. Grossing up procedures

Describe how the population is divided into strata and what statistical models the estimations in the strata are based on. Describe how sub-indices are combined into aggregate indices and how uncertainty is estimated.

Free projection by weighting the individual cases according to their share of the universe broken down by 13 sectors at national level.

3.5. Analytical methods

Give a description of any analytical methods used to adjust the data (e.g.: seasonal adjustment and temperature adjustment). A more detailed description of the analytical method can also be included as an annex.

Not relevant.

4. Dissemination

4.1. Publications and additional documentation

Describe the form of dissemination of the statistics/topics in question (e.g. printed publications, website, etc.). Please provide relevant website link(s) if available.

The results of the useful energy analysis are published since the reference year 2005 online on the website of Statistics Austria (http://www.statistik.at/web_en/statistics/energy_environment/energy/useful_energy_analysis/index.html).

Give a complete reference to publicly available statistics databases where data from the statistics can be extracted. Include web addresses if available online.

Not relevant.

Indicate whether you charge users for access to the statistics at any level of aggregation.

Not relevant.

4.2. Revisions

Describe the current revision policies. E.g.: Is historical data revised when new methodology, new definitions, new classifications etc. are taken into use? Is the data continuously revised, or is the data revised at certain points in times (e.g. every third year, annually, etc.)?

Not relevant.

If applicable, describe any major conceptual or methodological revisions that have been carried out for this statistic/topic in the past.

Not relevant.

4.3. Microdata

Describe how microdata are stored.

As MS EXCEL files

Specify if microdata are available for scientific and/or public use. If so, describe under what conditions these are made available.

Not relevant.

4.4. Confidentiality

Describe the legal authority that regulates confidentiality, and what restrictions are applied to the publication of the statistics.

Not relevant.

Describe the criteria used to suppress sensitive data in statistical tables (cell suppression).

Not relevant.

Describe how confidential data are handled.

Not relevant.

Describe any confidentiality standards that go beyond what is legally required.

Not relevant.

5. Quality

5.1. Relevance

State to which degree the statistical information meet the real needs of clients/users.

The main purpose of the useful energy analysis is the breakdown of the final energy use of the energy balance to useful energy categories and industrial sectors.
Furthermore, the useful energy analysis is used to split the fuel input into traffic on public areas and off-road traffic, and to allocate these fuels to the industrial sectors where they are applied.
Therefore the useful energy analysis is to improving the quality of energy balances.

5.2. Accuracy

State the closeness of computations or estimates to the exact or true values that the statistics were intended to measure.

Whereas the sampling error, as a whole, is within acceptable limits for the manufacturing industries and construction sector, the uncertainty with respect to individual energy sources in some sectors is very high. This is due to the high variance in the energy source quantities consumed in combination with low numbers of cases.
The only way to improve is a higher or full coverage combined with more intensive respondent follow up in order to improve the response rate. However, due to cost considerations this is currently not realistic.
The sampling errors for the useful energy analysis in the reference years 2005 and 2010 are shown in the Annexes.

Measurement and processing errors

Discuss the measurement and processing errors that are relevant for the statistics. Try as far as possible to give an estimation of the size and scope of the errors.

None known.

Non-response errors

State the size of the unit non-response and the item non-response, distributed by important variables in the population (e.g. region, industry). Consider if the non-response errors are systematic, and if so, describe the methods used to correct it. Indicate whether the effects of correcting non-response errors on the results have been analysed, and, if so, describe them.

Unit non-response: 79% in 2005 and 58% in 2010.
Item non-response: not relevant, because missing individual data were calculated with the respective average price.

Sampling errors

Discuss the size of the sampling errors. Compare the population and sample with regards to important properties (e.g. coefficient of variance).

No effects of the sample are observable, the representativeness is high.

Other sources of error

Discuss other sources of errors that might be relevant for the statistics. E.g.: Model assumption errors, coverage errors

Concentration of imputed cases with the average prices used is likely.

5.3. Timeliness and punctuality

Specify the time between the end of the reference period and publication.
If the statistics are published both as preliminary and final figures, specify the time between publication of preliminary and final figures. You should also point out whether the publication date is set according to certain rules (e.g. advance release calendar, a specific day or prior to other publications).

The results are available for the final energy balances of the respective year under review.

Point out if there have been any major discrepancies between the planned publication date and the actual publication date in recent years. If so, state the length of this discrepancy and its cause.

Not relevant.

5.4. Accessibility

Describe how easily accessible the statistics are. In particular, is there an advance release calendar to inform the users about when and where the data will be available and how to access them?

Are metadata and other user support services easily available? Are there particular groups that don't have access to the published statistics (e.g.: visually disadvantaged)?

Not relevant.

5.5. Comparability

Discuss the comparability of the statistics over time, geographical areas and other domains.

Comparability over time
Discuss comparability over time and include information about whether there have been any breaks in the time series of the statistics and why. Also describe any major changes in the statistical methodology that may have had an impact on comparability over time.

The surveys for 2005 and 2010 are not fully comparable due to the change of the sampling criterion "number of employees" from more than 9 to more than 3 employees. Due to the fundamental revision of the economic statistical classifications from OENACE 2003 to OENACE 2008 the direct comparability at the level of OENACE-divisions (NACE 2-digit) does no longer exist.

Comparability over region
Discuss comparability over geographical areas, and include information about whether the statistics are comparable to relevant statistics published by other countries and/or international organisations.

The comparability over region with other EU and IEA Member States in the context of energy reporting is given.

Comparability over other domains
Discuss comparability over domains, and include information about whether the statistics are comparable between different industries, different types of households etc.

Not relevant.

5.6. Coherence and consistency

Discuss the coherence/consistency between preliminary and final figures.

Not relevant.

Discuss the coherence/consistency between monthly, quarterly or yearly statistics within the same subject area. Can the results of different frequencies for the same reference period be combined in a reliable manner?

Not relevant.

Discuss the coherence/consistency with other related statistics (also those produced by other institutions/organisations on the same subject).

Coherence with comparable primary statistics used as data sources for energy balances (material input statistics, sample survey on energy consumption in the service sector as well as the manufacturing industries and construction sector, sample survey on energy consumption of households) is fulfilled.

6. Future plans

Are there any current or emerging issues that will need to be addressed in the future? These could include gaps in collection, timeliness issues, data quality concerns, funding risks, confidentiality concerns, simplifications to reduce respondents' burden etc.?

It is planned to maintain the future survey frequency at 5 years.

Annexes

Sampling errors in the useful energy analysis

Table x: Sampling errors (in %) at a 95% confidence level for the reference years 2005 and 2010, broken down by fuels and useful energy categories.

Fuels	SH	VP	IF	SE	TR	LI	EP
reference year 2005							
Hard coal	*186*	*177*	*186*				
Lignite		*177*	*169*				
Brown coal briquettes							
Coke	*193*		*141*				
Petroleum coke			*136*				
Fuel oil	*114*	*90*	*68*				
Gas oil	*127*	*75*	*70*	*134*	*179*		
Diesel				*62*	*109*		
Gasoline		*194*		*98*	*88*		
Petroleum (Kerosene)							
LPG	*158*	*187*	*149*	*194*	*173*		
Natural gas	*24*	*60*	*39*	*176*	*111*		
Electricity	*43*	*78*	*78*	*75*	*54*	*123*	*142*
District heat	*70*	*193*	*152*				
Fuel wood	*93*	*177*	*194*				
Biofuels	*72*	*175*	*90*		*190*		
Waste	*124*	*177*	*181*				
reference year 2010							
Hard coal	*126*		*195*				
Lignite							
Brown coal briquettes							
Coke			*196*				
Petroleum coke							
Fuel oil	*53*	*167*	*158*	*177*			
Gas oil	*28*	*89*	*77*	*132*			
Diesel		*193*		*54*	*21*		
Gasoline		*193*		*70*	*50*		
Petroleum (Kerosene)							
LPG	*56*	*185*	*138*	*189*	*95*		
Natural gas	*21*	*165*	*60*	*110*	*93*		
Electricity	*24*	*79*	*52*	*45*	*116*	*38*	*142*
District heat	*36*	*129*	*104*				
Fuel wood	*64*	*192*	*194*				
Biofuels	*63*	*116*	*75*	*99*	*156*		
Waste			*193*				

SH…space heating and air condition; VP…vapour production; IF…industrial furnaces, SE…stationary engines, TR…transport (traffic), LI…lighting and information technology (IT), EP…electrochemical purposes

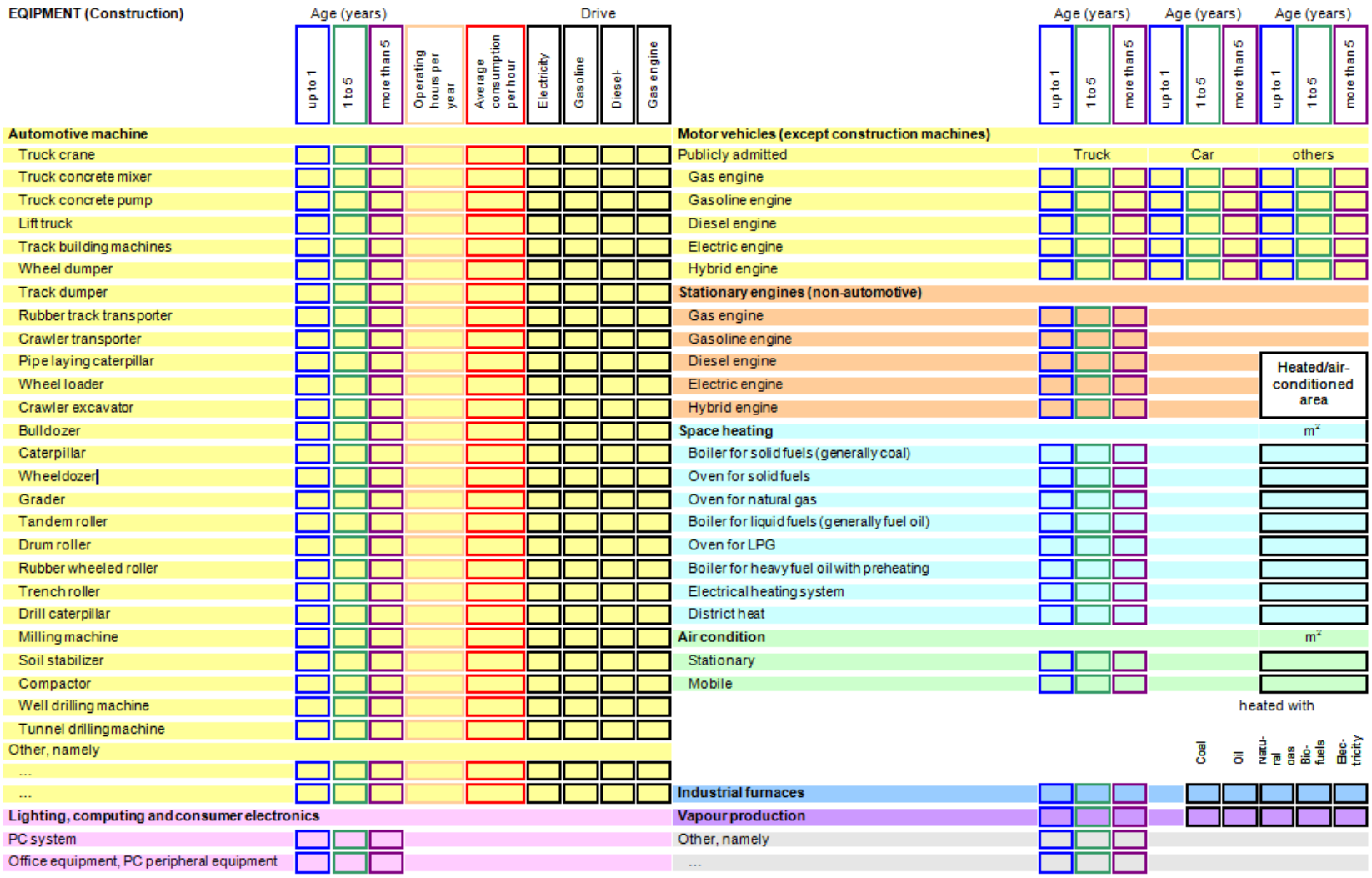
Questionnaires to the useful energy analysis

Reference year 2005, main table (equal for all industrial establishments)

MAIN TABLE		Total input	purposes							
Fuel	Quantity unit *)	in the year 2005	Space-heating	Air-condition	Lighting and computing	Vapour-production	Industrial furnaces	Stationary engines	Transport	Other **) purposes
Hard coal	t									
Lignite	t									
Brown coal briquettes	t									
Coke	t									
Petroleum coke	t									
Fuel oil	☐ 1 000 l ☐ t									
Gasoil	☐ 1 000 l ☐ t									
Diesel	☐ 1 000 l ☐ t									
Gasoline	☐ 1 000 l ☐ t									
Petroleum (Kerosene)	☐ 1 000 l ☐ t									
LPG	☐ 1 000 l ☐ t									
Natural gas	☐ 1 000 m³ ☐ MWh									
Electricity	MWh									
District heat	MWh									
Fuel wood	☐ rm ☐ t									
Biofuels ***)										
namely	☐ rm ☐ t									
namely	☐ rm ☐ t									
Waste (non-renewable)										
namely	☐ t ☐									
namely	☐ t ☐									
Other fuels										
namely	☐ t ☐									
namely	☐ t ☐									
namely	☐ t ☐									

*) t...tons (1 000 kg), l...litre, m³...cubic meter, MWh...Megawatt hours, rm...stere (stacked cubic meter)
**) water heating and cooking, cooling and drying processes, etc.
***) Wood chips; wood pellets; sawdust; bark, black liquor from paper industry; biogas; landfill gas; sewage sludge gas; methyl esters of vegetable oils; animal fat, meat and bone meal; etc.

Reference year 2005, equipment (industrial establishments, construction sector):



Reference year 2005, equipment (industrial establishments, non-construction sector):

EQUIPMENT	Age (years) <1	Age (years) 1-5	Age (years) > 5	Heated/air-conditioned area
Space heating				m²
Boiler for solid fuels (generally coal)				
Oven for solid fuels				
Oven for natural gas				
Boiler for liquid fuels (generally fuel oil)				
Oven for LPG				
Boiler for heavy fuel oil with preheating				
Electrical heating system				
District heat				
Air condition				m²
Stationary				
Mobile				
Lighting, computing and consumer electronics				
PC system				
Office equipment, PC peripheral equipment				
Vapour production				
Boiler for solid fuels				
Boiler for liquid fuels				
Boiler for gaseous fuels				
Electrically heated boilers				
Boiler for heavy fuel oil with preheating				
Industrial vessels				
Coal heated vessels				
Natural gas heated vessels				
Fuel oil heated vessels				
Electrically heated vessels				
Fuel wood heated vessels				
Vessels for other biofuels				
Stationary engines(non-automotive)				
Gas engine				
Gasoline engine				
Diesel engine				
Electric engine				
Hybrid engine				

	Age (years) <1	Age (years) 1-5	Age (years) > 5	Age (years) <1	Age (years) 1-5	Age (years) > 5	Age (years) <1	Age (years) 1-5	Age (years) > 5
Motor vehicles									
Publicly admitted	Truck			Car			others		
Gas engine									
Gasoline engine									
Diesel engine									
Electric engine									
Hybrid engine									
not publicly admitted	Traction engines			Lift trucks			others		
Gas engine									
Gasoline engine									
Diesel engine									
Electric engine									
Hybrid engine									
Other purposes (please specify)									
Water heating and cooking									
Gas stove									
Gas water heater									
Electric stove									
Electric water heater									
District heat water heater									
Water heating with solar thermal and/or ambient heat									
Cold storage room capacity	less than 100m³			100m³ to 500m³			more than 500m³		
Cooling units (without air condition)									
Drying room capacity	less than 100m²			100m² to 500m²			more than 500m²		
Coal burner									
Natural gas burner									
Fuel oil burner									
Biofuel burner									
Electric furnace									
Electrochemical purposes									
Electrolysis without heat generation									
Electrolysis with heat generation									
others, namely									
.....									

Reference year 2010, industrial establishments of all sectors:

- For grid-bound fuels (electricity, natural gas, district heat), please use the last available annual account.
- Please fill in the total input in the specified quantity units and the corresponding gross- or net expenditure for the defined fuels.
- Please estimate the share of the respective purpose on the total input of each fuel. Attention: the total of all purposes in a line must be 100%.
- Automotive machines, which are not publicly admitted, should be reported under "other purposes"
- Please specify at least one fuel for space heating.
- If you use waste heat, e.g. from vapour production or industrial furnaces, please mark the box provided.
- Please note, that the input of natural gas and LPG (liquefied petroleum gas) for transport (cars, trucks, automotive machines) have to be indicated in separate lines.
- If you use other fuels than the indicated ones (last three lines of the table), please specify individually.

						Estimated shares of the total fuel input (%)								
Fuel	Quantity unit	Total input 2010	Value (€)	gross	net	Space heating	Air condition	Lighting, information technology	Vapour production [1]	Industrial furnaces [2]	Stationary engines [3]	Transport	other purposes [4]	specification for "other purposes"
Electricity	kWh			☐	☐									
Natural gas	m³ ☐ kWh ☐			☐	☐									
District heating / cooling	kWh			☐	☐									
Gas oil for heating	Litre ☐ kg ☐			☐	☐									
Fuel oil	Litre ☐ kg ☐			☐	☐									
LPG	Litre ☐ kg ☐			☐	☐									
Wood pellets, briquettes	bcm ☐ kg ☐			☐	☐									
Wood chips	bcm			☐	☐									
Fuel wood	.....			☐	☐									
Wood residuals, namely ..... [5]	.....			☐	☐									
Waste heat		☐												
Solar thermal system	collector surface	..... m²												
Heat pump	Installed capacity	..... kW												
Gasoline	Litre			☐	☐									
Diesel	Litre			☐	☐									
Biodiesel (pure)	Litre			☐	☐									
Natural gas for transport	kg			☐	☐									
LPG for transport	Litre ☐ kg ☐			☐	☐									
Other fuels, namely [6]	.....			☐	☐									
Other fuels, namely	.....			☐	☐									
Other fuels, namely	.....			☐	☐									

[1] Including power and heating plants
[2] Main purpose is not space heating, e.g. backing oven, ceramic furnace, incineration oven, sinter- and debinding furnace, etc.
[3] Drive of non-automotive machines, e.g. conveyor belt, hydraulic press, band saw, planing machine, emergency power generator, centrifugal pump, fans, cranes, etc.
[4] Water heating, cooking, cooling, drying, welding, household appliances (refrigerators, dish washers, etc.), etc.
[5] Bark, slabs, trimmings and sawdust from sawmills, construction timber, demolition waste wood, masts, track sleepers, etc.; please specify quantity units!
[6] Hard coal, lignite, coal briquettes, coke, sewage sludge gas, other biogas, etc.; please specify quantity units!

Thank you for your cooperation! Please return the filled questionnaire **at the latest until DD.MM.JJJJ** via internet or using the enclosed envelope to STATISTICS AUSTRIA (Energy Division, for the attention of Mr./Mrs. ...)

Contact for inquiries:
Name: E-mail: Telephone: