Physical Energy Flow Accounts (PEFA)
2019 data collection

	Concept Name	Quality information	Country Reply
1	**Contact**		
	Country name	Country name	Czech Republic
	Contact organisation	Contact organisation	Czech Statistical Office
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2	**Statistical presentation**		
	Time coverage	Do you have estimates available for additional years back to 2008 besides those transmitted to Eurostat?	No
3	**Statistical processing**		
	Source data	Which are the **data sources** you used for compiling PEFA?	*TABLE A,B,B.1,B.2,E* : The primary data source for *residents in the CZ* was five **IEA/Eurostat Annual Energy Statistics Questionnaires**. These questionnaires were imported and processed in the **PEFA Builder**. The data source for *resident enterprises abroad* was the **Foreign trade Statistics**, **survey ZO 1-04** (Quarterly questionnaire on imports and exports of services) and the **internal Foreign Trade Application of the Czech Statistical Office**. The data source for *resident households abroad* and *non-residents in the CZ* was **national account statistics (primarily from the Czech National Bank data) - Balance of payment statistics.** *TABLE C:* The data source was the **Czech Hydrometeorological Institute** (data on emission- relevant use of energy flows). Data related to fuel combustion (except for motor fuels) were provided in TJ by the specific energy product and residual in a breakdown to NACE A*64 and households.
		Please explain, if applicable, which auxiliary data you used to develop 'distribution keys' to assign energy use to the detailed breakdown of production activities (NACE 2-digit divisions) and categories of household consumption?	The auxiliary data source was data from the **Energy companies database** (data in TJ) managed by the Energy Statistics Unit (CZSO) in cooperation with the Ministry of Industry and Trade.In cases where data from the Energy companies database were not available for some energy fuels or products, then another auxiliary data source was used - the **annual Monetary use table** (with a three digit level),data in monetary units (CZK) were filled into the file PEFA NaceBreakdown (distribution key). Monetary use tables for 2016 were used for 2017 data, because tables for 2017 were not available in detailed breakdown (with a three digit level) from department of national accounts.They will be available at the end of 2019. For more detailed data on specific road transport fuel used in NACE A*64 the Annual survey EP 5-01 (Energy survey on fuel and energy consumption in economic entities) was used for data 2017 as the data source (NACE breakdown key based on direct physical information on fuel use). The Energy use census Energo 2015 (data on resident households) was used as the auxiliary source of data on fuel and energy consumption in households by type of fuel and use.

		Which method did you use for the **allocation of road transport** energy use to NACE industries and households?	The primary data source was IEA/Eurostat Annual Oil Energy Questionnaire.The Annual Oil Energy Questionnaire was imported and processed in the PEFA Builder. Only total transport fuel use data in TJ for individual fuels were obtained.Total road transport fuel use data therefore had to be re-allocated into NACE A*64 by the auxiliary data source.The NACE aggregation level A*64 is not publicly available for road transport fuel use in energy statistics, but expert estimates were made in the Energy Statistics Unit (CZSO) for the purpose of PEFA .The estimated data are based on results of the survey EP 5-01. *The obligation to report EP 5-01 applies to economic entities of all activities with a number of 20 or more employees. The survey method is a combination of exhaustive and sample surveys. Respondents are economic subjects with their activity related to CZ-NACE from 01 to 96. Sample size is about 22-23 000 enterprises, companies.* One of the questions in the report EP 5- 01 is on the whole consumption of 3 types of fuels (motor spirit, transport diesel and LPG) and consumption in road transport. The result is the share of fuel (motor spirit, transport diesel and LPG) using in road transport in individual NACE. This share is used as distribution key. The method for estimation of biogasoline and bio road diesel consumption in road transport by NACE group was based on the mandatory shares of biofuels in the fuels sold in the CZ. Households - for the allocation of road transport energy use to households the results from ENERGO survey were used (the same method as in the previous data collection).

		How did you adjust the data for the **residence princple**?	Adjustments to the **residence principle** were made only for air and road transport. There is no maritime transport in the CZ and river transport is negligible. **International air transport – purchases by residents abroad** The *survey ZO 1-04* was used, item fuel purchased by carriers at airports in monetary units. Data in CZK were transferred to liters by using the average price of fuel from the *CZSO survey on Prices of industrial producer*. Simplified assumption - we supposed the price was approximately the same for fuel produced and sold on the territory of the CZ and fuel purchased abroad. Data from *ZO 1-04* are available in the distribution of purchases in the EU and outside the EU. The amount in liters was transferred to kilograms by using the density of non-bio jet kerosene, kg was transferred to TJ by using the Net Calorific Value (NCV) of non-bio jet kerosene. **International air transport – purchases by non residents on the territory** Data were taken from the *internal Foreign Trade Application of the Czech Statistical Office*. Purchases of fuel for air transport are a part of foreign trade – export. Foreign trade - export is recorded in kg. Data on exports are available in the distribution into and out of the EU. The amount in kg was transferred to TJ by using the NCV of non-bio jet kerosene. **Road transport fuel use – resident enterprises abroad** The *survey ZO 1-04* was used, item fuel purchased by carriers at other places than airports and seaports. Data in CZK are available in the distribution of purchases in the EU and outside the EU, were transferred to liters by using the average price of fuel for road transport in the EU. Simplified assumption – we supposed the price was the same for road diesel purchased in the EU and outside the EU.The amount in liters was transferred to kilograms by using the density of road diesel, kg was transferred to TJ by using the NCV of road diesel, biodiesel. **Resident households abroad, non-resident households in the CZ** – data on spended money by Czech households for road fuel purchases abroad and data on money spent by foreign households for fuel purchases in the CZ are taken from the *Balance of payment statistics*. Data are available in the distribution of purchases in the EU and outside the EU. We have obtained data on total fuel payment, but without distribution into fuel types. The distribution of specific fuel consumption of resident abroad was based on the results of the ENERGO 2015. The distribution of specific fuel consumption of non-residents in the CZ was based on the shares of fuels on the car fleet in the EU.Data in CZK for residents abroad were transferred to liters by using the weighted average price of fuels for road transport in the EU, for non-residents in the CZ – data on average annual fuel prices in the CZ are from the *Price statistics (CZSO),* liters were transferred to kg by using the density of fuels.The amount in kg was transferred to TJ by using the NCV of fuels.
		Autoproducers: did you assign all supply of electricity and heat to NACE D35, or did you assign some to other NACE divisions than D35? Is the assigment you did fully aligned to the ESA monetary supply table submitted by your country?	*Data 2015*: All supply of electricity was assigned to NACE D35 (data for the assigment to the other NACE divisions than D35 was not available for data collection 2017). In the case of heat, the bulk was also assigned to NACE D35, only a small part of the heat supply (solar thermal heat) was assigned to the other NACE divisions (NACE P, Q86 and R93). Further details on the heat supply (related to the assigment to the other NACE divisions than D35) were not available. *Data 2016 -2017*: Some electricity and heat supply was assigned to other NACE divisions than D35. Data 2016 -2017 was obtained from the Energy companies database managed by the Energy Statistics Unit (CZSO) in cooperation with the Ministry of Industry.
		Are the PEFA for your country **consistent with AEA** (air emission accounts)?	We started to work on consistency with the AEA during the data collection in 2017.Mainly it was focused on data on fuel consumption by residents abroad and non-residents in our country. During the data collection in 2019, we continued the work on consistency with focus on data on fuel consumption in road transport by individual NACE industries and households on the territory of the CZ. We and compilers of AEA used the same sources from energy statistics (Annual Oil Questionnaire, Energy survey EP 5-01, ENERGO survey - households).

		Did you use the **PEFA builder?** If yes: for populating the PEFA Tables, or for control only?	Yes, for populating the PEFA Tables.
	Data validation	Did you compare different data sources or performed other checks? If yes, please precise!	No
		Did you check the equivalence of supply / use (rows) and input / output (columns)?	Yes
4	**Quality management**		
5	**Relevance**		
	User Needs	Please add references to the use and relevance of PEFA at national level e.g. main users, national indicator sets, quantitative policy targets etc.	The Ministry of Industry and Trade of the CZ uses the resulting PEFA Tables for internal needs (data analysis).
	User Satisfaction	Does the PEFA produced for transmission to Eurostat satisfy the needs of national users?	Yes
6	**Accuracy and reliability**		
	Accuracy - overall	How do you ensure a high level of accuracy for the data reported? For which items would you assume a lower data quality? Which steps are planned to increase quality?	For the allocation of road transport energy use to NACE industries and households we assume an improving data quality against previous data collections. In 2019 data collection due to unfinished negotiations with the Ministry of Transport, the survey EP 5-01 has been used (described in Section Statistical processing - allocation of road transport energy use). In 2019 data collection the planned method with the inclusion of the vehicle register and technical inspection stations data could not be used yet. At present, negotiations with the Ministry of Transport are still going on. We suppose that it could lead to further quality improvement.
	Data revision - policy	Please indicate if there were any revisions of previously released data. If yes, please indicate size of revisions. Please explain if you have a revision policy.	*Table A,B*: Revisions have been made for some data in 2015 and 2016. Revisions mainly concerned data for supply (2016) and use (2015,2016) of energy product P26, P27and R30 for most of NACE divisions. These revisions have been made in connection with changes of data in the IEA/Eurostat Annual Energy Statistics Questionnaires. All revisions were made in cooperation with the Energy Statistics Unit (CZSO). There is no revision policy for PEFA, revisions are in connection with energy statistics revisions. *Table B,C*: Revisions have been made for some data of energy product R29 in 2015 and 2016 data.
7	**Timeliness and punctuality**		
	Timeliness	By when are the results disseminated nationally?	The Czech Republic transmitted the data 2015 -2017 to the Eurostat on 30.9.2019. After Eurostat validation, the data is also available on the national level.
8	**Coherence and comparability**		
	Comparability - over time	Please indicate any breaks in series and reasons for them e.g. changes of methodology.	No breaks
	Coherence - cross domain	How do you ensure coherence of PEFA results with AEA and ESA supply and use tables?	We started to work on consistency with AEA during data collection 2017, during the data collection 2018 and 2019 we continued the work on this consistency. Mainly it is focused on data on fuel consumption by residents abroad and non-residents in our country. Common data sources for residents abroad and non-residents in our territory were used from different areas of statistics (foreign trade statistics, tourism and transport statistics, NA data). For residents in our territory we used common sources from energy statistics (Annual Oil Questionnaire, Energy survey EP 5-01, ENERGO survey - households). ESA use tables we used as one of the auxiliary data source to obtain NACE A*64 and households distribution key for *Table B* (in case that data from the Energy companies database were not available for some energy fuels or products).

9	**Accessibility and clarity**		
	Publications	Do you publish PEFA data nationally? Do you have news releases on PEFA?	The results for data 2014-2016 were published nationally on the CZSO website (*https://www.czso.cz/csu/czso/environmental_accounts*) as soon as possible after Eurostat checking.The results for data 2017 we are planning to publish on the same website at the beginning of 2020.
	Online database	Are you using the same data structure in your database as Eurostat? If you publish online, please provide URL.	No database
	Documentation on methodology	Do you have a description of your national PEFA methodology or metadata? If yes, please provide it.	No
	Quality documentation	Do you have national quality documentation? If yes, please provide it.	No
10	**Cost and Burden**		
	Cost and Burden	How many full time equivalents work for the production of PEFA?	0,9 person a year
11	**Confidentiality**		
	Confidentiality - policy	Are there confidential figures? Which are your national rules to define confidentiality in tabulated data?	No
12	**Comment**		