

Reported information on large combustion plants under the Energy Community Treaty

Information on the database structure and use

Version 1.0



Cover design: EEA

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Layout: EEA

Acknowledgments

The compilation of the database and this document was done by the European Environment Agency (EEA)..

The dataflow is managed by Federico Antognazza (EEA), please refer to him for further enquiries (industry.helpdesk@eea.europa.eu).

About the database

This database contains plant-by-plant data on Large Combustion Plants (LCP) for the years 2018 to 2019 reported under the Energy Community Treaty 2006/500/EC. The data include rated thermal input, annual energy input and emissions of SO₂, NO_x and dust. In addition, information on derogations under the provisions of the agreed legislation under the Treaty is provided.

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1 Content of the EEA dataservice entry

The EEA dataservice is the section of the EEA website where datasets are made available to the public. The permanent link to the dataset on large combustion plants is this one:

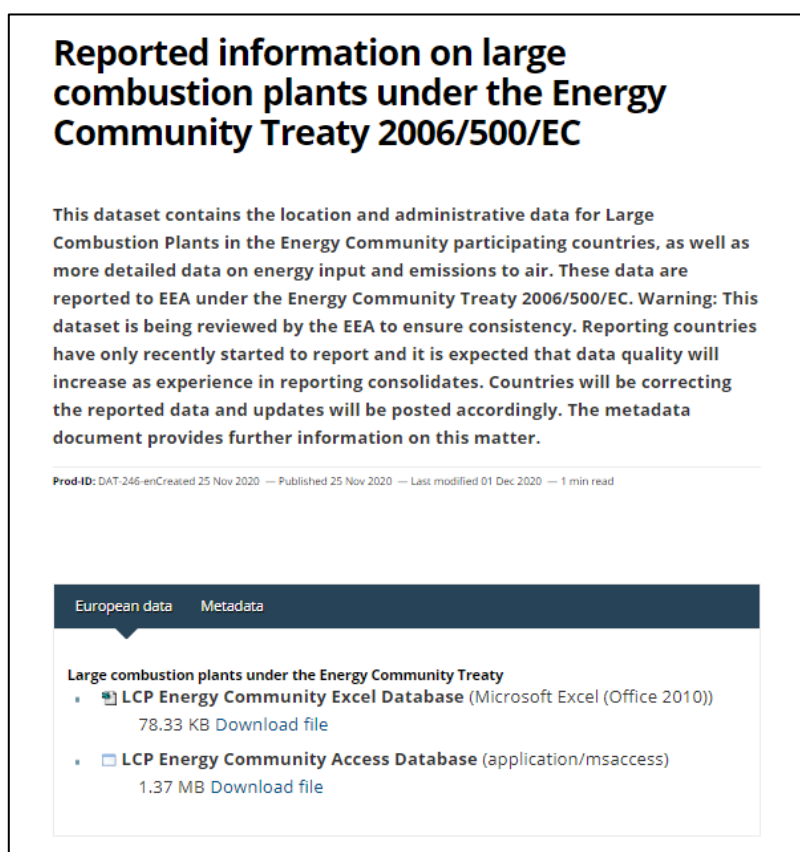
<https://www.eea.europa.eu/data-and-maps/data/reported-information-on-large-combustion/>

The link always presents the latest version available but the user can also navigate to older versions using the relevant option in the fiche (see Figure 1). Figure 2 provides an overview of the various files that are offered in the fiche of the latest version of the dataset.

Figure 1 Option in the navigation panel to browse dataset versions



Figure 2 Overview of the content of the fiche of this dataset entry



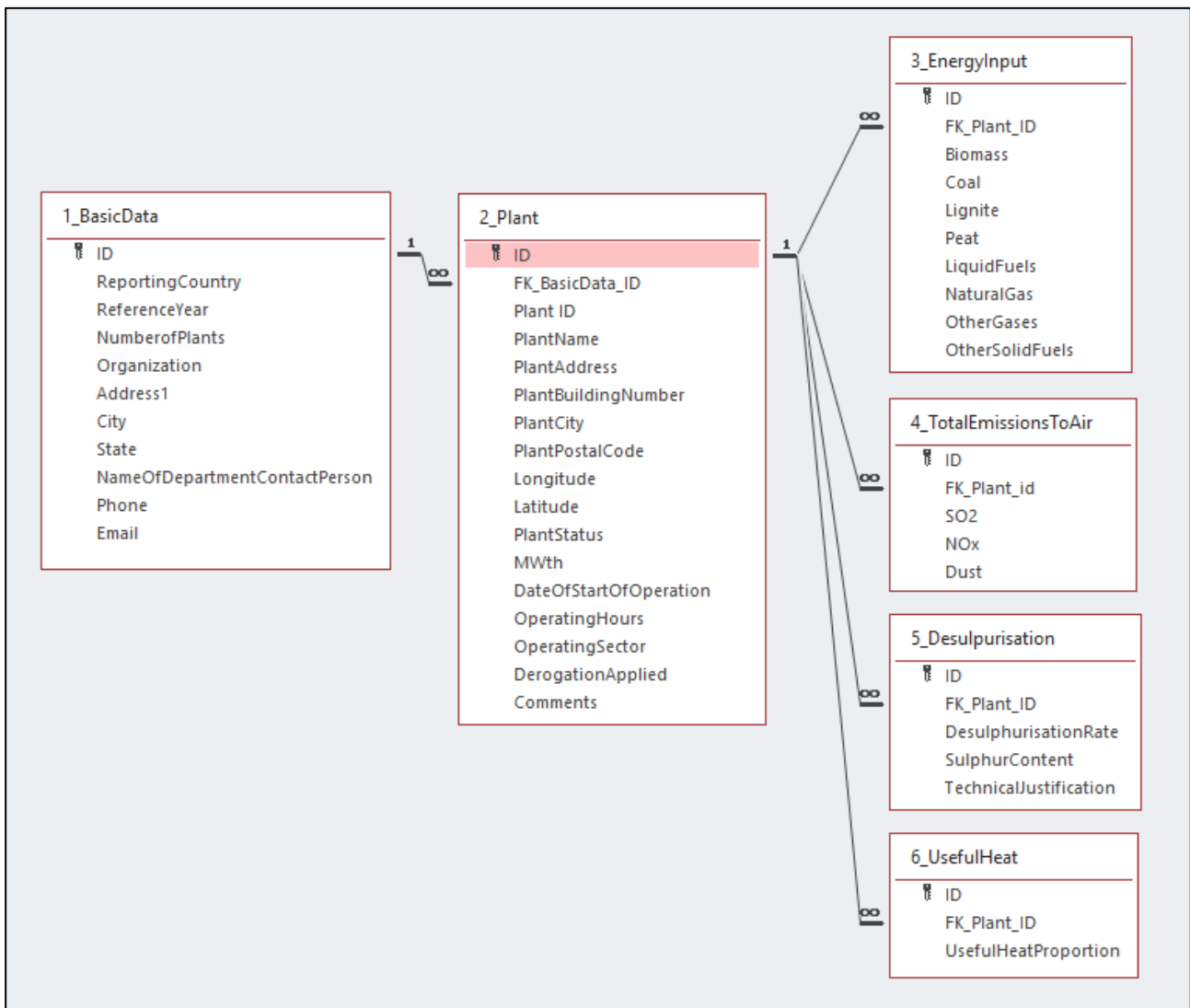
2 Complete MS Access database

The European dataset is provided in its complete version in Microsoft Access data format. This section outlines the structure of the data, the interpretation of the data fields and the metadata of the file.

The data model

The database consists of 6 tables. Its structure is shown in the figure below. The table 1_BasicData contains one entry for each Member State and each year. The table 2_Plant contains entries for each individual plant and year. Tables 3 to 6 contain corresponding entries for each plant and year included in table 2_Plant.

Figure 3: Structure of the LCP database v1



The field "ID" in table 1_BasicData is the foreign key for table 2_Plant. The field "ID" in table 2_Plant is the foreign key for tables 3 to 6. All fields in the various tables are described below.

Tables and fields

The LCP database contains the following tables and fields:

Fields in Table 1_BasicData

Field	Data Type	Description
ID	Autonumber	Key for this Table
Member State	Short Text	Two-letter ISO2 country code
Reference Year	Number	Year which the inventory refers to
NumberOfPlants	Number	Number of plants reported by reporting country in a given year
Organization	Short text	Name of the organization reporting the data
Address	Short text	Address of the organization reporting the data
City	Short text	City of the organization reporting the data
State	Short text	State or region address of the organization reporting the data
NameOfDepartmentContactPerson	Short text	Department name or contact person at the organization reporting the data
Phone	Short text	Phone number of the organization reporting the data
Email	Short text	Email address of the organization reporting the data

Fields in Table 2_Plant

Field	Data Type	Description
ID	Autonumber	Key for table
FK_BasicData_ID	Number	Foreign Key linking each entry in Table 2_Plant to the corresponding year and Reporting County in Table 1_BasicData
PlantID	Short Text	Identifier of the plant which stays the same over time.
PlantName	Short Text	Name of the Plant
PlantAddress	Short Text	Address of the Plant
PlantBuildingNumber	Short Text	Building number of the Plant
PlantCity	Short Text	City of the Plant
PlantPostalCode	Short Text	Postal code of the Plant
Longitude	Short Text	Geographical longitude of the Plant (in decimal degrees)

Latitude	Short Text	Geographical latitude of the Plant (in decimal degrees)
PlantStatus	Short Text	StatusOfPlant
MWth	Number	Rated thermal input of the Plant (megawatts thermal – MWth)
DateOfStartOfOperation	Short Text	Date when the Plant started operating
OperatingHours	Number	Number of hours of the Plant
OperatingSector	Short Text	Name of the sector the Plant operates within
DerrogationApplied	Short Text	If the plant is subject to a derogation
Comments	Short Text	Comments by the reporting authority

Fields in **Table 3_EnergyInput**

Field	Data Type	Description
ID	Autonumber	Key for this Table
FK_Plant_ID	Number	Foreign key, linking each entry in Table 3_PlantDetails to the corresponding plant in Table 2_Plant
Biomass	Number	Total biomass energy input of the plant in the reporting year (TJ)
Coal	Number	Total coal energy input of the plant in the reporting year (TJ)
Lignite	Number	Total lignite energy input of the plant in the reporting year (TJ)
Peat	Number	Total peat energy input of the plant in the reporting year (TJ)
LiquidFuels	Number	Total liquid fuels energy input of the plant in the reporting year (TJ)
NaturalGas	Number	Total natural gas input of the plant in the reporting year (TJ)
OtherGases	Number	Total other gases energy input of the plant in the reporting year (TJ)
OtherSolidFuels	Number	Total other solid fuels input of the plant in the reporting year (TJ)

Fields in **Table 4_TotalEmissionsToAir**

Field	Data Type	Description
ID	Autonumber	Key for this table
FK_Plant_ID	Number	Foreign key, linking each entry in Table 4 to the corresponding plant in table 2_Plant
SO2	Number	Total of SO2 emissions of the plant in the reporting year (t)
NOx	Number	Total of NOX emissions of the plant in the reporting year (t)
Dust	Number	Total of dust emissions of the plant in the reporting year (t)

Fields in **Table 5_Desulphurisation**

Field	Data Type	Description
ID	Autonumber	Key for this table
FK_Plant_ID	Number	Foreign key, linking each entry in Table 5 to the corresponding plant in table 2_Plant
DesulphurisationRate	Number	Desulphurisation rate (between 0 and 1).
SulphurContent	Number	SulphurContent of the fuel (between 0 and 1).
TechnicalJustification	Text	Technical justification of the non-feasibility of applying with the limit values.

Fields in **Table 6_UsefulHeat**

Field	Data Type	Description
ID	Autonumber	Key for this table
FK_Plant_ID	Number	Foreign key, linking each entry in Table 6 to the corresponding plant in table 2_Plant
UsefulHeatProportion	Number	Proportion of useful heat (between 0 and 1).

Overview query

The database also contains a query which combines tables 1, 2, 3 and 4, in order to allow for a display of data from several tables. The query can be found under “Queries” – “Overview”. It combines the following fields: Member State – Reference year – Plant ID – PlantName – Rated Thermal Input (“MWth”) – Energy inputs (biomass, coal, lignite, peat, liquid fuels, natural gas, other gases, other solid fuels) – Emissions (SO2, NOX, dust) .

Metadata

Reporting obligation: Summary of reporting on large combustion plants (LCP), Council Decision 2006/500/EC of 29 May 2006 on the conclusion by the European Community of the Energy Community Treaty <https://rod.eionet.europa.eu/obligations/794>

Temporal coverage: 2018-2019

Geographic coverage: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Georgia, Moldova, Montenegro, Serbia and Ukraine.

Units:

Total energy input, related to net calorific value (TJ/year)

SO₂, NO_x and dust emissions (t/year)

Rated thermal input (MWth)

3 User friendly tables with yearly data

The user-friendly tables are an extract of the database containing the most relevant fields and provided in Excel format. It extracts the data for each year in an independent sheet. This presentation of the data is meant to help those users who are not familiar with Microsoft Access. As depicted in Figure 4, the tab control at the bottom of the Excel window allows to browse the different years. The columns are filtered so that the user can e.g. define a specific set of countries or restrict the sizes of the plants presented.

Figure 4 Overview of the Excel sheet

State	Reference	Year	PlantID	PlantName	MWth	Biomass	Coal	Lignite	Peat	LiquidFuels	NaturalGas	OtherGases	OtherSolidFuel
BA	2018	T-4	TPP Tuzla - 4	600.000	0.000	4245.700	8107.800	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	T-5	TPP Tuzla - 5	600.000	0.000	3819.500	7252.300	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	T-6	TPP Tuzla - 6	615.000	0.000	13380.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	K-5	TPP Kakanj - 5	330.000	0.000	6677.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	K-6	TPP Kakanj - 6	330.000	0.000	6677.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	K-7	TPP Kakanj - 7	670.000	0.000	14773.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	UKO-4	ICHPP Natron Hayat UKO4	100.000	0.000	480.000	1532.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	LUKO-4	ICHPP Natron Hayat LUKO4	84.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1833.000
BA	2018	G-1	TPP Gacko - 1	800.000	0.000	0.000	16782.740	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	U-1	TPP Ugljevik - 1	800.000	0.000	20034.590	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BA	2018	T-3	TPP Tuzla - 3	330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GE	2018	GE0001	LLC Georgian International Energy Corporation	837.000	0.000	0.000	0.000	0.000	0.000	0.000	2182.220	0.000	0.000
GE	2018	GE0002	Mtkvary Energy LLC	825.000	0.000	0.000	0.000	0.000	0.000	0.000	6158.366	0.000	0.000
GE	2018	GE0003	GPower LLC	315.000	0.000	0.000	0.000	0.000	0.000	0.000	575.397	0.000	0.000
GE	2018	GE0004	LLC Gardabani TPP	500.000	0.000	0.000	0.000	0.000	0.000	0.000	8437.611	0.000	0.000
KK	2018	KK0001	TC Kosova A3	770.000	0.000	0.000	9353.000	0.000	0.000	0.000	0.000	0.000	0.000
KK	2018	KK0002	TC Kosova A4	770.000	0.000	0.000	7960.000	0.000	0.000	0.000	0.000	0.000	0.000
KK	2018	KK0003	TC Kosova A5	807.000	0.000	0.000	8104.000	0.000	0.000	0.000	0.000	0.000	0.000
KK	2018	KK0004	TC Kosova B1	997.000	0.000	0.000	11362.000	0.000	0.000	0.000	0.000	0.000	0.000
KK	2018	KK0005	TC Kosova B2	997.000	0.000	0.000	22394.000	0.000	0.000	0.000	0.000	0.000	0.000
ME	2018	MK0001	Thermal power plant "Dijevlja"	520.000	0.000	0.000	15027.000	0.000	0.000	0.000	11.920	0.000	0.000
MK	2018	MK0001	ESM AD Skopje - REK Bitola (B1 + B2)	1350.000	0.000	0.000	19751.000	0.000	0.000	0.000	297.000	0.000	0.000
MK	2018	MK0002	ESM AD Skopje - REK Bitola (B3)	675.000	0.000	0.000	10818.000	0.000	0.000	0.000	75.000	0.000	0.000
MK	2018	MK0003	ESM AD Skopje - REK Oslomej	375.000	0.000	0.000	954.000	0.000	0.000	162.000	0.000	0.000	0.000
MK	2018	MK0004	TEC Negotino	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MK	2018	MK0005	BEG - Toplana Istok	294.000	0.000	0.000	0.000	0.000	0.000	0.000	497.000	0.000	0.000
MK	2018	MK0006	BEG - Toplana Zapad	116.000	0.000	0.000	0.000	0.000	0.000	0.000	303.000	0.000	0.000
MK	2018	MK0007	Rafinerija OKTA - Procesna Instalacija	102.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MK	2018	MK0008	Rafinerija OKTA - Energetika	188.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RS	2018	RS0001	EPS, Termoelektrane Nikola Tesla A, A1-A3	2252.000	0.000	0.000	41080.800	0.000	0.000	354.100	0.000	0.000	0.000
RS	2018	RS0002	EPS, Termoelektrane Nikola Tesla A, A4-A6	2811.000	0.000	0.000	52037.700	0.000	0.000	335.100	0.000	0.000	0.000
RS	2018	RS0003	EPS, Termoelektrane Nikola Tesla B, B1-B2	3635.000	0.000	0.000	83644.900	0.000	0.000	722.500	0.000	0.000	0.000
RS	2018	RS0004	Termoelektrane Nikola Tesla B, Pomocna kotlarnica	93.000	0.000	0.000	0.000	0.000	0.000	4.300	0.000	0.000	0.000
RS	2018	RS0005	EPS, Termoelektrane i kopovi Kostolac A, A1	358.000	0.000	0.000	8003.800	0.000	0.000	42.200	0.000	0.000	0.000
RS	2018	RS0006	EPS, Termoelektrane Kostolac A, A2	689.000	0.000	0.000	16700.600	0.000	0.000	28.800	0.000	0.000	0.000
RS	2018	RS0007	EPS, Termoelektrane Kostolac B, B1-B2	2155.000	0.000	0.000	47965.000	0.000	0.000	211.200	0.000	0.000	0.000
RS	2018	RS0008	EPS, Termoelektrane toplana Novi Sad	878.000	0.000	0.000	0.000	0.000	0.000	3266.500	0.000	0.000	0.000