

Data quality checks for the update of the EEA's EU ETS data viewer

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1 Data quality checks of the new EUTL data used for the update of the EEA's EU ETS data viewer

1.1 Key findings

- The EUTL extract provided by the European Commission on April 1st, 2021 contained 17 642 installations-rows. The dataset used for the ETS data viewer includes 17 623 entities:
 - 16 043 stationary and 1 580 aviation operators
 - 12 325 open and 5 298 (30% of total) closed entities
 - 3 357 entities (19% of total) not operating in the third trading period
 - 11 026 stationary installations are currently active
- 90 entities entered the trading system between April 2021 and July 2020.
- Total verified emissions 2020 from stationary installations sum up to 1 303 Mt in the actual dataset (1 530 Mt in 2019).
- To align the dataset with the EU ETS registry, the information on excluded emissions provided since April 2018 has been used: For excluded entities, verified emissions and allocation have been deleted in the year of exclusion. For details see section 1.2.3.
- One aviation operator seems to be included twice and has been deleted (**NL 202792**) (section 1.5.2). As in the years before, 13 rows of double installations in Cyprus, and 5 in Malta have been deleted to allow a correct counting (see section 1.2.1).
- Comparison of the dataset provided by the European Commission to EEA with the public extract published on the Commission's website:
 - There is a discrepancy between the dataset and the public extract: in the dataset, **DE 200696** (Croatia Airlines hrvatska zrakoplovna tvrtka d.d.) belongs to Germany, while it belongs to Croatia in the public extract and on the EUTL website (see section 0). Ronald Velghe states that the country code of the address seems to be wrong as the contact is located in Croatia. Therefore, this entity has been reallocated to Croatia in the dataset for the ETS data viewer.
- 21% of the operators report outdated activity type codes, which correspond to the second trading phase and which have been translated to new activity type codes. The resulting percentage changes in some activity type codes are still high but have been reduced compared to last year (see Table 1-3).
- Six installations from Great Britain were reallocated to Northern Ireland (XI)
- The formatting of cells in the extract sent by the European Commission was not correct. Adaptations were possible for most columns, but not for the one on permit identifiers.
- One installation (FI 444) in Finland has very small changes for verified emissions in the 1st and 2nd trading period.

1.2 Preparation of the data

1.2.1 Data capture from Commission Excel file

The European Commission extracted data from the EUTL on April 1st, 2021 and provided this extract to the EEA (referred to as “extract for EEA” in the text). The data used for the ETS data viewer¹ is based on this extract.

It contained 17 642 installations-rows with detailed information. After joining the rows for installations from CY and MT it ends up in **17 624 entities** (minus 13 for Cyprus, minus 5 for Malta).

In processes before, only two installations have been deleted for Malta (two power stations that are part of the ETS since its start in 2005). Since April 2018, there are two additional LNG fuelled power plants^{2,3} with activity codes 20 that entered the ETS in 2017. Both use the same permit identifier MT-3 but they have different installation IDs: MT 209863 and MT 210138. It seems like the plant is included twice with two different permit identifiers. That is why the latter has been deleted since no additional information is given compared to the first, verified emissions and surrendered allowances are reported only for the first installation mentioned. Since April 2020 the installation MT 210138 was indicated as closed but was nevertheless removed from the dataset again to maintain consistency. For the same reasons the installations MT 210346 and MT 210348 were deleted as well, as they are indicated as closed but do have the same permit identifier as MT-2 and MT-1 respectively.

There is also one aircraft operator which seems to be included twice and which has been deleted (NL 202792, see section 1.5.2)

The dataset used for the ETS data viewer hence includes **17 623 entities**.

1.2.2 Results of plausibility checks

No MS-IDs are doubled.

Compared to the dataset of July 2020, no installation is missing, and 90 new installations were added to EUTL. Installations located in Northern Ireland were reallocated from Great Britain.

In Austria, Germany, France, Italy, Sweden, United Kingdom “Permit Entry dates” are partly showing the start year of the installation operation and not the entry date into the EU ETS.

¹ <https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1>

² <https://www.wartsila.com/twentyfour7/energy/malta-prepares-for-an-lng-powered-future>

³ <https://www.aecom.com/hk/projects/electrogas-malta/?qI%5B0%5D=260&qp=&qt=12>

1.2.3 Changes within the dataset

In April 2018 new columns were inserted into the extract for EEA: From 2013 onwards a column per year states if an entity was excluded from the ETS in that particular year. A reason for annual exclusion of entities can e.g. be low production / emissions or a small number of flights in the scope of the EU ETS. An entity that was excluded in one year can be part of the ETS again in following year(s).

The information on annual exclusion is not directly linked to account status. Most of the entities with closed accounts are marked as "included" which does not seem completely consistent.

Furthermore, there are entities which show ETS information (verified emissions, allocations or surrendered units) in the database provided to EEA by the Commission although these entities have been excluded in that year. In the EU ETS registry, these entities do not show verified emissions if they are excluded in a year. To harmonize the EEA data viewer with the EU ETS registry it has been decided by EEA in May 2018 to delete verified emissions and allocations of all excluded entities. Surrendered units are kept for excluded entities because these units can also be used to cover emissions from earlier years. The amount of deleted verified emissions and allocations can be seen in Table 1-1. Entities with an indication of zero for any ETS information have not been counted here.

Table 1-1 Overview of excluded and therefore deleted verified emissions and allocations from 2013 to 2020

	Number of excluded entities in single years	of which with				Deleted amounts			NOT deleted amounts
		of which with VE	Allocations	Allocated Reserve	Surrendered units	VE	Allocations	Allocated Reserve	Surrendered units
2013	1,346	30	197	0	95	25,715	280,875	0	29,041
2014	1,321	1	183	0	83	6,509	179,612	0	162,216
2015	1,360	2	200	0	25	86	283,142	0	8,046
2016	1,356	0	198	0	19	0	244,739	0	14,293
2017	1,347	0	205	2	28	0	238,482	1,182	6,410
2018	1,356	0	213	2	26	0	1,768,099	644	6,535
2019	1,304	1	221	4	4	5,828	1,885,851	153,664	12,806
2020	1,263	0	239	2	2	0	2,143,608	694	1,994
Total	10,653	34	1,656	10	282	38,138	7,024,408	156,184	241,341

Source: EUTL extract April 1st, 2021, own calculation; Entities with an indication of zero for any ETS information have not been counted here.

1.3 Comparison of the dataset provided by the Commission and the Excel file published on the Commission's website

A comparison has been made between the ETS data from the registry, as published on the Commission website⁴, and the extract for the EEA, which was provided directly by

⁴ https://ec.europa.eu/clima/policies/ets/registry_en#tab-0-1

the Commission on 1 April 2021. The total numbers of entities and the amount of verified emissions are the same for both datasets (after the removal of the data in chapter 1.2).

1.3.1 Comparison of installation-IDs

The first check concerns the included installations. In the extract for EEA, the aircraft operator with the ID “DE 200696” (Croatia Airlines hrvatska zrakoplovna tvrtka d.d.) is allocated to Germany, while it belongs to Croatia in the Excel file published on the Commission’s website. As hence the country code of the address seems to be wrong, this entity has been reallocated to Croatia in the EEA dataset for the ETS data viewer.

1.4 Consistency checks within the dataset

The main findings are:

- There are 5 298 entities with a closure date, two of them have no year of last emissions.
- There are 421 entities with a given year of last emissions and the indication “open” in the field “account closure”.

1.5 Update of the disaggregated database (installation level)

Some changes have been implemented in the disaggregated database (to be used for the EEA EU ETS data viewer), compared to the extract provided by the Commission:

Rows

- One aviation operator has been deleted (NL 202792) (see 1.5.2).

Columns

The following four columns were added to the EUTL extract:

- “MS-ID” as a combination of Country Code and Installation Identifier
- “Entry Year” with only the year of “Permit Entry Date”
- “Closure date” with either only the year of “Account closure” or the note “open”
- “Active installation in 3 TP” with the values yes or no where yes indicates that the given year of last emissions of an entity is either 2013 or after or an empty cell, no indicates that the given year of last emissions is between 2005 and 2012 (see 1.5.6).

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- Due to information in the public dataset, one aviation operator (DE 200696) has been allocated to Croatia instead of Germany (see 0).
- Main activity codes 1-9 have been translated to new codes (see 1.5.5).

The total amount of installations included in the MS Access database is now 17 623.

1.5.1 Integration of missing installations

Not necessary.

1.5.2 Deletion of double installations

Due to the comparison of information on returned allowances from aviation operators for the year 2012, which has been conducted in the April 2015, it became obvious, that one aviation operator is included in the extract which is doubled (NL 202792 and 202833).

NL 202792 has a closure date in 2013 and does not include any ETS information at all but has the same operator name as NL 202833. For the latter ETS information is given including emissions in 2012. Therefore, NL 202792 has been deleted.

It appears as if three Maltese installations are double. This applies to installation MT 210138, MT 210346 and MT 210348. These all have the same Permit Identifiers with other installations, but do not have verified emissions. These installations each have the same Permit Entry Date and have the account status Closed, see chapter 1.2.1.

1.5.3 Adjustment of free allowances for aviation operators for the year 2012

Free allowances for the year 2012 had to be returned by aviation operators if they chose to account for the reduced scope of the stop the clock decision.

The amount which had to be returned is publicly available on operator level. In addition, the Commission sent an excel file with details on amounts which finally had been returned and on the partial adjustment of the numbers in EUTL ("Aviation return before and after deadline.xlsx").

With information in this file, the adjustment of free allowances for 2012 takes place for the update of the EEA data viewer because it seems necessary to reflect the reduced amount of free allowances for the comparison with verified emissions.

The calculation of corrections has been conducted in April 2015.

As there have been no changes to free allocation for aviation in 2012 (see Table 1-9), no update of this correction has to be done.

1.5.4 Consistency check of surrendered units

There is no longer an inconsistency related to the sums of total ERU, CER and EUA compared with total units surrendered, as it has been revealed in the 2013 dataset.

1.5.5 Reallocation of main activity codes

New activity codes from 10-47 are in place since the start of the third trading period, but a lot of installations which already have been part of the EU ETS in the former trading periods did not change their activity codes.

In total, 3 694 installations (21% of all entities), still report old activity codes (see Table 1-2). These are 67 less than in the dataset of July 2020.

Table 1-2 Number of installations with old activity type codes

MAIN_ACTIVITY_TYPE_CODE	Number of installations - July 2017	Number of installations - July 2018	Number of installations - July 2019	Number of installations - July 2020	Number of installations - April 2021
1	3216	2846	2739	2632	2583
2	48	41	38	38	38
3	3	3	3	3	3
4	4	4	4	3	3
5	74	49	47	44	44
6	176	133	129	126	125
7	148	112	109	104	102
8	579	563	557	543	533
9	358	284	274	268	263
Total	4606	4035	3900	3761	3694

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

Since 2015 the EU ETS data viewer no longer includes old activity codes except for code 99 which will remain as it is, if no other country specific information is available. For the installations reporting an old code, a correction will be made. Since 2015 the translation procedure follows the methodology explained in the ETC/ACM document "Attribution of new activity codes for installations with old codes in the EEA's EU ETS data viewer" (latest version as of April 2016⁵). The result of this methodology has been amended with country specific information. The translation table will be made publicly available to make the translation of activity codes as transparent as possible.

As highlighted in the methodology document, there is a risk that the number of installations allocated to activity codes 38 to 41 (Production of specific chemicals) are underestimated, because the allocation to these codes is not possible without further detailed knowledge of the activity of single installations. Consequently, there is also a risk that the number of installations allocated to activity code 42 (Production of bulk chemicals) is overestimated.

Looking at verified emissions 2020 (see Table 1-3), emissions of installations with code 42 still increased because of the allocation to new codes (from 33 to 35 Mt). But it can be considered that due to the inclusion of Member State specific information allocated verified emissions due to the translation process have decreased by a high amount of

⁵http://acm.eionet.europa.eu/docs/ETCACM_EU-ETS_translation_of_activity_codes_April_2016_for_publication.pdf

emissions: With the translation of September 2015, verified emissions of sector 42 has been 23 Mt before and 43 Mt after the translation (+20 Mt), whereas the difference has now been reduced to 2.13 Mt for the year 2020.

Similarly, it is not possible to differentiate between the production of primary (code 26) and secondary aluminium (code 27) without more information on single installations. NACE code 24.42 (Aluminium production) has now been completely translated to code 26, leading to possible overestimation and an underestimation in code 27.

In September 2015 11 installations have been translated to code 26, whereas the number of installations which was translated in April 2021 was reduced to 7 (code 26).

Since the April 2018 dataset, there are two installations with activity code 45 (Capture of greenhouse gases under Directive 2009/31/EC) which did not occur in ETS before. These are installations in the United Kingdom which entered the ETS in 2017.

With the dataset of April 2019, an installation with activity code 46 appeared for the first time (Transport of greenhouse gases under Directive 2009/31/EC).

The installation FR 956 SK 150 and CZ 73 were relocated from code 20 to code 24 based on information from the Member States as these plants are foremost steel plants.

For further details, see Table 1-3:

Table 1-3 Allocation of new activity codes to installation with old codes

MAIN_ACTI VITY_TYPE_ CODE	Before Translation		After Translation		Conducted Translation		Percentage of translation to total	
	No of installations	VE 2020	No of installations	VE 2020	No of installations	VE 2020	No of installations	VE 2020
1	2,583	51,752,237						
2	38	8,667,368						
3	3	-						
4	3	-						
5	44	4,383,945						
6	125	4,548,564						
7	102	721,380						
8	533	720,636						
9	263	1,880,064						
10	1580	22,605,854	1,580	22,605,854	0	0	0%	0%
20	7677	753,336,517	9894	796,262,739	2,217	42,926,222	22%	5%
21	139	102,827,639	175	111,495,007	36	8,667,368	21%	8%
22	19	8,355,271	29	8,474,377	10	119,106	34%	1%
23	14	2,100,316	14	2,100,316	0	0	0%	0%
24	241	85,223,930	291	94,096,851	50	8,872,921	17%	9%
25	254	10,323,454	291	10,448,330	37	124,876	13%	1%
26	33	7,808,197	40	7,808,197	7	0	18%	0%
27	37	1,163,546	38	1,163,546	1	0	3%	0%
28	90	6,317,425	96	6,317,425	6	0	6%	0%
29	250	104,570,767	334	108,737,628	84	4,166,861	25%	4%
30	273	24,830,657	427	26,468,183	154	1,637,526	36%	6%
31	367	16,015,080	463	16,724,523	96	709,443	21%	4%
32	1201	12,467,023	1740	13,188,613	539	721,590	31%	5%
33	44	1,750,828	65	2,004,049	21	253,221	32%	13%
34	42	1,174,850	42	1,174,850	0	0	0%	0%
35	179	4,758,700	199	5,089,394	20	330,694	10%	6%
36	561	17,205,990	867	19,395,817	306	2,189,827	35%	11%
37	18	1,441,395	18	1,441,395	0	0	0%	0%
38	34	2,404,037	36	2,652,415	2	248,378	6%	9%
39	3	110,945	3	110,945	0	0	0%	0%
40	1	11,818	1	11,818	0	0	0%	0%
41	29	20,324,204	30	20,324,204	1	0	3%	0%
42	358	32,787,237	462	34,911,544	104	2,124,307	23%	6%
43	43	8,420,251	48	8,764,538	5	344,287	10%	4%
44	15	2,603,165	15	2,603,165	0	0	0%	0%
45	2	202	2	202	0	0	0%	0%
46	1	952	1	952	0	0	0%	0%
99	424	1,649,573	422	887,140	-2	-762,433	0%	-86%
Group 1-9	3,694	72,674,194	-	-				
Group 10-99	13,929	1,252,589,823	17,623	1,325,264,017				
Total	17,623	1,325,264,017	17,623	1,325,264,017	3,694	72,674,194	21%	5%

Note: The total number of translations given in the table (3 694) is not the absolute number of translations, because a small amount of other translations took place in the activity type codes 20-99.

Source: EUTL extract April 1st, 2021, own calculation

The EU ETS data viewer separates between stationary installations and aviation. The total number of **aviation operators** (activity type code 10) is **1 580**, so there are **16 043 stationary installations** included in the data viewer.

1.5.6 Information on active installations

The indicator “Active installation in 3 TP” has been included in the EU ETS data viewer since 2015. It indicates installations and operators which operate in the third trading period. This indicator is included by the ETC/CME. If the given year of last emission is between 2005 and 2012, the indicator is “no”, if the given year of last emission is higher or equal 2013 or an empty cell, the indicator is “yes”.

This is to give the possibility to align the analysis of data from the EEA data viewer with the dataset published by the Commission.

1.6 Main changes in EU ETS viewer data between April 2021 and July 2020

1.6.1 Number of entities included in the scheme

The number of stationary installations and aviation operators by country is shown in the following table:

Table 1-4 Number of entities by country

MS	20. July 17	10. Jul 18	01. Jul 19	01. Jul 20	01. Apr 21	Difference May 20 - July 19
AT	292	292	295	296	297	1
BE	488	491	498	499	504	5
BG	172	172	174	174	174	0
CY	26	27	28	29	29	0
CZ	466	468	468	469	470	1
DE	2689	2725	2768	2785	2794	9
DK	460	460	462	465	465	0
EE	66	66	66	66	66	0
ES	1468	1481	1495	1515	1523	8
FI	729	732	738	738	745	7
FR	1671	1713	1733	1749	1761	12
GB	1838	1927	1986	2021	2025	4
GR	211	212	215	217	220	3
HR	59	59	59	62	62	0
HU	296	298	301	304	307	3
IE	223	228	231	235	239	4
IS	41	44	44	44	44	0
IT	1593	1610	1628	1643	1646	3
LI	2	2	2	2	2	0
LT	125	126	126	129	130	1
LU	31	33	34	34	34	0
LV	118	120	120	120	120	0
MT	8	13	16	15	15	0
NL	653	660	663	667	675	8
NO	179	183	186	191	194	3
PL	1058	1068	1080	1084	1086	2
PT	361	364	369	371	371	0
RO	298	300	302	304	306	2
SE	945	949	962	976	982	6
SI	104	106	106	106	106	0
SK	222	222	222	223	225	2
XI					6	6
Total	16892	17151	17377	17533	17623	90

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

As shown in Table 1-4, the April 2021 dataset includes 90 more entities than the July 2020 dataset.

As discussed in chapter 0, one entity has been transferred from Germany to Croatia.

1.6.2 Account closures

The indicator “account closure” is included in the dataset since May 2015. In April 2021, 12 325 entities have been indicated as open, 5 298 (30% of total) have a closure date that lies before the extraction date of the ETS dataset.

1.6.3 Active installation in 3 TP

3 357 entities – 19% of total – indicated that they are not operating in the third trading period. This number increased by 43 compared to the dataset of July 2020.

65 of those entities no longer active in the 3rd trading period still have open accounts.

1.6.4 Permit identifier

This check was not conducted this time because the corresponding column in the data set from 2020 was incorrectly formatted.

1.6.5 Verified emissions (stationary installations)

In the following table, data on verified emission is compared between the datasets from July 2020 and April 2021, just for stationary data. Differences are shown as percentages, calculated from the difference related to latest data.

Table 1-5 Changes in VE between datasets (calculated as difference April 2021 and July 2020 data / VE (April 2021))

MS	Percentages related to last available data (+ => increase)					
	total 1st trading period	total 2nd trading period	total 3rd trading period	2017	2018	2019
AT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BG	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CY	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
CZ	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DE	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ES	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FI	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
FR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GB	-2.2%	-1.7%	-2.2%	-2.6%	-2.3%	-2.7%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HR			0.0%	0.0%	0.0%	0.0%
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IE	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
IS			0.0%	0.0%	0.0%	0.3%
IT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LI		0.0%	0.0%	0.0%	0.0%	0.0%
LT	0.0%	0.0%	0.5%	0.0%	0.0%	3.4%
LU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NO		0.0%	0.0%	0.0%	0.0%	0.0%
PL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SE	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
SI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XI	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

Purple: increase, light orange: decrease, green: zero difference

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

In general, there are no major changes for the first and second trading period but changes for the third trading period. The biggest noticeable difference is for Great Brit-

ain. Great Britain left the EU-ETS because of the Brexit from 2021 on. But as Northern Ireland (Country Code: XI) will remain in the EU-ETS, the installations located in Northern Ireland where attributed now from GB to XI. There were also very small changes for Finland in the first and second trading periods due to installation FI444. In each year since 2005, the verified emissions have been adjusted by a few tonnes.

1.6.6 Free allocation to existing installations from 2005 to 2019 (stationary installations)

In the same structure, the data on free allowances to existing installations allocated under Article 10a(1) has been compared:

Table 1-6 Changes in free allocation to existing installations (10a, 2005-2019) between datasets (calculated as difference between April 2021 and July 2020 data / allowances (April 2021))

MS	Percentages related to last available data (+ => increase)					
	total 1st trading period	total 2nd trading period	total 3rd trading period	2017	2018	2019
AT	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
BE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BG		0.0%	0.0%	0.0%	0.0%	0.0%
CY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CZ	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DE	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
DK	0.0%	0.0%	-1.6%	-2.8%	-3.0%	-3.2%
EE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ES	0.0%	0.0%	-0.1%	-0.2%	-0.3%	-0.3%
FI	0.0%	0.0%	-0.1%	0.0%	-0.7%	0.0%
FR	0.0%	0.0%	-0.1%	-0.2%	-0.2%	-0.2%
GB	-2.4%	-2.1%	-1.2%	-0.3%	-0.3%	-0.4%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HR			0.0%	0.0%	0.0%	0.0%
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IS			0.0%	0.0%	0.0%	0.0%
IT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LI		0.0%	0.0%	0.0%	0.0%	0.0%
LT	0.0%	0.0%	-0.9%	-2.2%	-2.3%	-3.3%
LU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LV	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.2%
MT	0.0%	0.0%				
NL	0.0%	0.0%	-0.2%	0.0%	0.0%	-0.1%
NO		0.0%	-0.2%	-0.4%	-0.4%	-0.4%
PL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XI	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	0.0%	0.0%	-0.2%	-0.1%	-0.1%	-0.2%

Purple: increase, light orange: decrease, green: zero difference

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

Due to reattribution of the installations from Great Britain to Northern Ireland, there are changes in total free allowances for all years.

For the third trading period, free allowances changed for several countries for the years 2013-2019. The biggest changes can be observed for Denmark and Lithuania.

There are no free allowances for Malta in the third trading period.

1.6.7 Surrendered units from 2005 to 2019 (stationary installations)

The changes in surrendered units are shown in Table 1-7.

Table 1-7 Changes in surrendered units between datasets (calculated as difference between April 2021 and July 2020 data / allowances (April 2021))

MS	Percentages related to last available data (+ => increase)									
	total 1st trading period	total 2nd trading period	total 3rd trading period	2013	2014	2015	2016	2017	2018	2019
AT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BG		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CZ	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ES	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GB	-2.1%	-1.7%	-2.3%	-1.8%	-2.0%	-2.3%	-2.8%	-2.6%	-2.4%	-2.4%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HR			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IS			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LI		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NO		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XI	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Purple: increase, light orange: decrease, green: zero difference

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

Changes in surrendered units are because of the reattribution of Northern Irish installations.

1.6.8 Free allocation from 2018 to 2020 (stationary installations)

At this point, a look into the allocations until the end of the trading period is usually taken. As the third trading period ended in 2020, the check was not carried out this time.

1.6.9 Comparison of allocated amounts under Article 10a(1), 10a(7) and 10c for the years 2013 to 2019

The comparisons of allocated amounts focussed only on those allocated under Article 10a. With the data sets from 2015 on, allocated amounts for new entrants (also called NER – new entrants reserve or just “reserve”; see Article 10a(7)) / and the transitional free allocation (10c) are separately shown by installations for the years from 2013 onwards.

Data quality checks for the dataset used for the EEA's EU ETS data viewer

Table 1-8 Allocated amounts for the years 2013 to 2019 for stationary installations

COUNTRY CODE	2021 April data																				
	SummevonALL OCATED_2013	SummevonAL LOCATED_RES ERVE_2013	SummevonALLO CATED_TRANSIT IONAL_2013	SummevonALL OCATED_2014	SummevonAL LOCATED_RES ERVE_2014	SummevonALL OCATED_TRANSIT IONAL_2014	SummevonALL OCATED_2015	SummevonAL LOCATED_RES ERVE_2015	SummevonAL LOCATED_TRA NSITIONAL_20 15	SummevonALL OCATED_2016	SummevonAL LOCATED_RES ERVE_2016	SummevonAL LOCATED_TRA NSITIONAL_20 16	SummevonALL OCATED_2017	SummevonAL LOCATED_RES ERVE_2017	SummevonAL LOCATED_TRA NSITIONAL_20 17	SummevonALLO CATED_2018	SummevonAL LOCATED_RES ERVE_2018	SummevonAL LOCATED_TRA NSITIONAL_20 18	SummevonAL LOCATED_201 9	SummevonAL LOCATED_RES ERVE_2019	SummevonAL LOCATED_TRA NSITIONAL_20 19
	AT	22,314,317	139,836	-	21,729,285	179,283	-	20,897,099	195,038	-	20,304,382	189,272	-	19,705,989	221,067	-	19,058,470	305,957	-	18,447,167	329,181
BE	36,987,882	100,607	-	35,749,767	362,331	-	33,857,606	496,651	-	33,277,664	869,398	-	32,431,977	943,261	-	31,184,209	1,059,614	-	30,945,203	1,111,793	-
BG	10,477,130	156,115	11,173,278	9,640,429	234,593	9,779,243	9,169,919	328,050	8,160,589	9,097,819	650,682	6,528,467	8,685,511	707,024	3,812,436	8,275,447	707,011	2,787,615	7,853,874	705,128	1,584,836
CY	895,638	317,509	2,519,077	852,370	311,984	2,195,195	837,126	306,460	1,907,302	818,441	300,935	1,583,420	808,569	295,410	1,259,538	803,998	453,325	935,657	784,160	523,382	575,789
CZ	25,276,664	170,123	26,825,970	23,784,842	230,688	22,993,688	22,575,435	354,113	19,161,409	21,436,791	408,889	15,329,126	19,872,620	472,726	11,494,886	19,411,667	413,766	7,661,840	18,504,934	394,924	3,830,905
DE	168,280,726	1,252,848	-	163,156,362	1,839,431	-	156,541,501	2,329,351	-	151,412,888	3,284,151	-	146,632,131	3,509,943	-	142,227,353	3,789,343	-	137,088,874	4,028,234	-
DK	12,180,767	45,561	-	10,969,069	103,798	-	9,525,437	111,906	-	8,781,111	136,130	-	8,125,109	165,983	-	7,503,977	220,151	-	6,933,855	205,981	-
EE	3,076,541	584,403	5,135,166	2,860,744	754,632	4,401,568	2,269,966	1,068,346	3,667,975	1,794,800	1,151,929	2,934,380	1,677,508	1,177,042	2,055,614	1,870,956	1,373,979	38,939	1,778,183	1,353,989	19,471
ES	65,202,365	2,061,983	-	58,964,220	2,252,598	-	57,931,692	2,437,145	-	57,351,685	2,536,940	-	55,888,319	2,814,067	-	54,089,673	3,163,064	-	54,257,971	3,576,857	-
FI	22,560,320	336,611	-	21,223,206	383,485	-	19,488,364	601,654	-	18,070,605	890,191	-	17,002,249	1,029,895	-	15,863,662	1,025,488	-	15,052,728	940,908	-
FR	82,273,093	236,637	-	80,021,627	368,288	-	76,993,027	502,802	-	74,786,764	536,773	-	70,300,202	611,701	-	66,963,075	645,193	-	65,531,506	737,381	-
GB	65,609,980	1,078,837	-	63,903,628	1,333,729	-	59,570,873	1,492,789	-	53,135,147	1,785,400	-	50,912,873	1,962,762	-	49,256,355	2,100,777	-	47,483,436	2,139,549	-
GR	13,885,293	1,144,800	-	13,126,421	1,527,223	-	13,010,636	1,578,709	-	12,743,674	1,552,657	-	12,699,878	1,514,317	-	12,478,595	1,480,573	-	12,261,534	1,443,807	-
HR	5,268,253	-	-	5,079,562	9,319	-	4,826,293	13,638	-	4,698,559	13,392	-	4,580,337	-	-	4,434,782	-	-	4,325,443	23,423	-
HU	11,498,851	396,306	6,134,625	9,553,664	420,907	-	9,871,791	488,582	-	9,638,078	549,614	-	9,406,715	630,787	-	9,125,227	727,405	-	8,809,601	737,024	-
IE	5,222,237	42,219	-	4,682,891	51,290	-	5,269,356	51,326	-	5,140,237	131,265	-	5,003,118	121,723	-	4,867,278	118,831	-	4,737,769	117,415	-
IS	1,536,345	-	-	1,509,661	-	-	1,482,664	-	-	1,455,382	-	-	1,427,808	-	-	1,399,965	-	-	1,371,777	110,769	-
IT	86,309,051	505,043	-	77,323,438	990,997	-	70,592,399	1,940,667	-	68,733,421	2,131,238	-	66,595,823	2,331,698	-	64,899,442	2,566,305	-	61,871,425	2,741,460	-
LI	2,077	-	-	1,859	-	-	1,647	-	-	1,441	-	-	1,241	-	-	1,048	-	-	861	-	-
LT	6,532,876	27,407	322,449	6,224,962	46,479	297,113	5,954,919	139,918	269,475	5,687,632	233,725	237,230	5,312,016	273,864	200,379	5,046,140	289,139	158,922	4,556,538	296,696	94,432
LU	1,352,075	20,589	-	1,278,011	27,062	-	1,281,921	25,958	-	1,251,578	26,070	-	1,221,259	24,794	-	1,190,993	24,731	-	1,160,702	23,321	-
LV	2,567,577	107,118	-	2,313,591	106,363	-	2,014,186	64,003	-	1,831,076	58,861	-	1,698,490	54,030	-	1,551,688	48,309	-	1,426,759	50,116	-
MT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	48,996,953	466,474	-	47,584,924	571,745	-	45,990,907	756,004	-	43,907,652	751,805	-	43,837,832	626,779	-	42,780,075	811,875	-	41,531,102	905,520	-
NO	17,594,132	90,411	-	17,169,574	210,874	-	16,736,450	333,895	-	16,441,884	660,231	-	15,897,507	344,188	-	15,624,419	496,318	-	15,286,334	569,751	-
PL	63,394,350	723,669	71,582,255	58,976,684	897,471	60,789,404	54,673,748	1,308,622	43,568,800	51,110,701	1,724,408	32,160,799	48,115,296	2,392,053	21,257,038	44,794,167	2,605,812	18,981,528	42,423,058	3,058,648	16,299,721
PT	11,867,317	650,629	-	11,479,980	644,726	-	10,956,532	521,094	-	10,687,623	527,996	-	10,414,614	524,757	-	10,202,996	530,927	-	9,976,084	804,053	-
RO	23,746,268	542,685	15,748,011	21,078,703	681,585	8,591,461	19,671,744	794,683	9,210,797	21,461,881	835,185	7,189,961	20,188,332	817,233	6,222,255	16,365,778	880,127	3,778,439	18,161,453	1,104,618	1,723,016
SE	28,676,640	404,810	-	26,793,799	608,040	-	24,983,038	607,742	-	23,644,655	795,061	-	22,259,026	900,346	-	20,894,245	889,472	-	19,846,498	865,121	-
SI	2,284,557	-	-	2,367,424	-	-	2,136,638	-	-	1,893,352	524	-	1,794,445	6,055	-	1,725,765	11,901	-	1,660,160	17,424	-
SK	16,385,346	80,990	-	15,674,222	147,093	-	14,904,201	125,233	-	14,433,933	92,810	-	13,719,276	130,438	-	13,543,368	202,952	-	13,154,054	260,109	-
XI	4,947	-	-	4,428	-	-	3,923	-	-	3,433	-	-	2,960	-	-	2,501	-	-	2,058	-	-
Total	862,260,568	11,684,220	139,440,831	815,079,347	15,296,014	109,047,672	774,021,038	18,974,379	85,946,347	745,034,289	22,825,532	65,963,383	716,199,030	24,603,943	46,302,146	687,437,314	26,942,345	34,342,940	667,225,101	29,176,582	24,128,170

Data quality checks for the dataset used for the EEA's EU ETS data viewer

COUNTRY CODE	Total Allocated Amounts April 2021 data						
	2013	2014	2015	2016	2017	2018	2019
AT	22,454,153	21,908,568	21,092,137	20,493,654	19,927,056	19,364,427	18,776,348
BE	37,088,489	36,112,098	34,354,257	34,147,062	33,375,238	32,243,823	32,056,996
BG	21,806,523	19,654,265	17,658,558	16,276,968	13,204,971	11,770,073	10,143,838
CY	3,732,224	3,359,549	3,050,888	2,702,796	2,363,517	2,192,980	1,883,331
CZ	52,272,757	47,009,218	42,090,957	37,174,806	31,840,232	27,487,273	22,730,763
DE	169,533,574	164,995,793	158,870,852	154,697,039	150,142,074	146,016,696	141,117,108
DK	12,226,328	11,072,867	9,637,343	8,917,241	8,291,092	7,724,128	7,139,836
EE	8,796,110	8,016,944	7,006,287	5,881,109	4,910,164	3,283,874	3,151,643
ES	67,264,348	61,216,818	60,368,837	59,888,625	58,682,386	57,252,737	57,834,828
FI	22,896,931	21,606,691	20,090,018	18,960,796	18,032,144	16,889,150	15,993,636
FR	82,509,730	80,389,915	77,495,829	75,323,537	70,911,903	67,608,268	66,268,887
GB	66,688,817	65,237,357	61,063,662	54,920,547	52,875,635	51,357,132	49,622,985
GR	15,030,093	14,653,644	14,589,345	14,296,331	14,214,195	13,959,168	13,705,341
HR	5,268,253	5,088,881	4,839,931	4,711,951	4,580,337	4,434,782	4,348,866
HU	18,029,782	9,974,571	10,360,373	10,187,692	10,037,502	9,852,632	9,546,625
IE	5,264,456	4,734,181	5,320,682	5,271,502	5,124,841	4,986,109	4,855,184
IS	1,536,345	1,509,661	1,482,664	1,455,382	1,427,808	1,399,965	1,482,546
IT	86,814,094	78,314,435	72,533,066	70,864,659	68,927,521	67,465,747	64,612,885
LI	2,077	1,859	1,647	1,441	1,241	1,048	861
LT	6,882,732	6,568,554	6,364,312	6,158,587	5,786,259	5,494,201	4,947,666
LU	1,372,664	1,305,073	1,307,879	1,277,648	1,246,053	1,215,724	1,184,023
LV	2,674,695	2,419,954	2,078,189	1,889,937	1,752,520	1,599,997	1,476,875
MT	-	-	-	-	-	-	-
NL	49,463,427	48,156,669	46,746,911	44,659,457	44,464,611	43,591,950	42,436,622
NO	17,684,543	17,380,448	17,070,345	17,102,115	16,241,695	16,120,737	15,856,085
PL	135,700,274	120,663,559	99,551,170	84,995,908	71,764,387	66,381,507	61,781,427
PT	12,517,946	12,124,706	11,477,626	11,215,619	10,939,371	10,733,923	10,780,137
RO	40,036,964	30,351,749	29,677,224	29,487,027	27,227,820	21,024,344	20,989,087
SE	29,081,450	27,401,839	25,590,780	24,439,716	23,159,372	21,783,717	20,711,619
SI	2,284,557	2,367,424	2,136,638	1,893,876	1,800,500	1,737,666	1,677,584
SK	16,466,336	15,821,315	15,029,434	14,526,743	13,849,714	13,746,320	13,414,163
XI	4,947	4,428	3,923	3,433	2,960	2,501	2,058
Total	1,013,385,619	939,423,033	878,941,764	833,823,204	787,105,119	748,722,599	720,529,853

Data quality checks for the dataset used for the EEA's EU ETS data viewer

COUNTRY CODE	Comparison 2015 Allocation April 2021 with July 2020 data			Comparison 2016 Allocation April 2021 with July 2020 data			Comparison 2017 Allocation April 2021 with July 2020 data			Comparison 2018 Allocation April 2021 with July 2020 data			Comparison 2019 Allocation April 2021 with July 2020 data		
	ALLOCATE D	ALLOCATE D_RESERVE	ALLOCATE D_TRANSITIONAL	ALLOCATE D	ALLOCATE D_RESERVE	ALLOCATE D_TRANSITIONAL	ALLOCATE D	ALLOCATE D_RESERVE	ALLOCATE D_TRANSITIONAL	ALLOCATE D	ALLOCATE D_RESERVE	ALLOCATE D_TRANSITIONAL	ALLOCATED	ALLOCATE D_RESERVE	ALLOCATE D_TRANSITIONAL
AT	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	-0.1%	5.6%	-
BE	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	3.1%	-	0.0%	8.2%	-
BG	0.0%	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%	0.9%	0.0%	0.0%	1.9%	0.0%	0.0%	3.5%	0.0%
CY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%
CZ	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
DE	-0.1%	0.3%	-	-0.1%	0.2%	-	0.0%	0.2%	-	0.0%	0.3%	-	-0.1%	6.2%	-
DK	-2.5%	0.0%	-	-2.7%	0.3%	-	-2.8%	2.7%	-	-3.0%	1.7%	-	-3.2%	6.2%	-
EE	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	3.0%	0.0%	0.0%	9.6%	0.0%	0.0%	9.5%	0.0%
ES	0.0%	0.5%	-	-0.2%	0.2%	-	-0.2%	0.9%	-	-0.3%	4.3%	-	-0.3%	8.7%	-
FI	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	-0.7%	0.0%	-	0.0%	0.0%	-
FR	-0.1%	1.8%	-	-0.2%	3.7%	-	-0.2%	7.8%	-	-0.2%	13.1%	-	-0.2%	27.2%	-
GB	0.0%	0.0%	-	-9.0%	0.0%	-	-0.3%	2.3%	-	-0.3%	8.7%	-	-0.4%	20.8%	-
GR	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-
HR	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	-	-	0.0%	-	-	0.0%	0.0%	-
HU	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.3%	-	0.0%	5.1%	-
IE	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	1.2%	-
IS	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	100.0%	-
IT	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.1%	-	0.0%	2.7%	-	0.0%	9.2%	-
LI	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-
LT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.2%	0.0%	0.0%	-2.3%	0.0%	0.0%	-3.3%	0.0%	0.0%
LU	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-
LV	0.0%	0.0%	-	-0.1%	0.0%	-	-0.1%	0.0%	-	-0.1%	0.0%	-	-0.2%	0.0%	-
MT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	0.0%	0.0%	-	-1.2%	0.0%	-	0.0%	0.6%	-	0.0%	2.5%	-	-0.1%	18.4%	-
NO	-0.1%	0.0%	-	-0.1%	0.0%	-	-0.4%	0.0%	-	-0.4%	34.5%	-	-0.4%	37.0%	-
PL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	5.9%	0.0%
PT	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	1.0%	-	0.0%	4.0%	-
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	10.8%	0.0%
SE	-0.1%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	4.1%	-
SI	0.0%	-	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-
SK	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.3%	-
XI															
Total	-0.1%	0.2%	0.0%	-0.8%	0.2%	0.0%	-0.1%	0.7%	0.0%	-0.1%	3.4%	0.0%	-0.2%	9.0%	0.0%

Purple: increase, light orange: decrease, green: zero difference

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

In total, NER allowances (Column: "Allocated_Reserve") decreased by about 0.2% in 2015, 0.2% in 2016, 0.7% in 2017, 3.4% in 2018 and 9.0% in 2019.

1.6.10 Aviation

For aviation a comparison of verified emissions, free allocation and surrendered units has been conducted together for the years 2012-2019.

Table 1-9 Changes in VE, free allocation and surrendered units to aviation operators (2015-2019) between datasets (calculated as difference between April 2021 and July 2020 data / allowances (April 2021))

MS	Percentages related to last available data (+ => increase)														
	VERIFIED_E MISSIONS_2015	VERIFIED_E MISSIONS_2016	VERIFIED_E MISSIONS_2017	VERIFIED_E MISSIONS_2018	VERIFIED_E MISSIONS_2019	Allocation 2015	Allocation 2016	Allocation 2017	Allocation 2018	Allocation 2019	SURRENDE RED_UNITS_2015	SURRENDE RED_UNITS_2016	SURRENDE RED_UNITS_2017	SURRENDE RED_UNITS_2018	SURRENDE RED_UNITS_2019
AT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BG	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CY	0.0%	0.0%	0.0%	0.0%	0.0%	0%	0%				0%	0%	0%	0%	0%
CZ	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
DE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					0.0%	0.0%	0.0%	0.0%	
ES	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
FR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
IE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
IS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
IT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		
LU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
MT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
NL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
PL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
PT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
SE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	
SK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Purple: increase, light orange: decrease, green: zero difference

Source: EUTL extract April 1st, 2021 and former extracts, own calculation

For aviation operators, there are only very small changes for verified emissions.

2 Aggregated database

Updated data for 2005 to 2020 on free allowances, for 2005-2020 on verified emissions and for 2005-2020 on surrendered units for all installations has been aggregated and integrated in the aggregated database.

3 Auctioning

Auctioning data has not changed qualitatively between April 2021 and July 2020. Most actual information on auctioning data is included in the background document (see on the EEA homepage below the ETS data viewer).