

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 July 1st, 2021 contained 17 666 installations-rows. The dataset used for the ETS data viewer includes 17 647 entities:
 - 16 058 stationary and 1 589 aviation operators
 - 11 197 open and 6 450 (42% of total) closed entities
 - 3 365 entities (19% of total) not operating in the third trading period
- 7 entities entered the trading system between May 2021 and July 2021.
- Total verified emissions 2020 from stationary installations sum up to 1 355 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).
- Three installations 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- 21% of the operators report outdated activity type codes, which correspond to the second trading phase and which have been translated to new activity type codes.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).
- In 2021 six installations from Great Britain were reallocated to Northern Ireland (XI)
- All stationary installations from Great Britain were closed in July 2020 dataset
- New columns were included due to swiss linking in 2021

1.2 Preparation of the data

1.2.1 Data capture from Commission Excel file

The European Commission extracted data from the EUTL on July 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 17 666 installations-rows with detailed information. After joining the rows for installations from CY and MT it ends up in **17 648 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 **17 647** entities.

1.2.2 Results of plausibility checks

No MS-IDs are doubled.

Compared to the dataset of May 2021, no installation is missing, and 7 new installations were added to EUTL. Installations located in Northern Ireland were reallocated from Great Britain in 2021.

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).

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>

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	1,348	31	197	0	95	25,849	280,875	0	29,041
2014	1,322	1	182	0	82	6,509	166,454	0	155,847
2015	1,281	1	170	0	17	300	165,369	0	3,595
2016	1,325	1	160	0	18	303	164,898	0	7,974
2017	1,050	0	162	0	22	0	161,848	0	2,278
2018	1,059	0	161	0	19	0	161,930	0	1,844
2019	1,070	0	165	0	1	0	161,943	0	15
2020	1,103	0	178	0	1	0	163,143	0	284
Total	9,558	34	1,375	0	255	32,961	1,426,460	0	200,878

Source: EUTL extract July 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 quick comparison between ETS data from the registry as published on the Commission's website⁴, and the extract for EEA directly provided by the Commission on May 3, 2021 was performed but not as deeply as in April 2020.

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

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

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 6 450 entities with a closure date. This is significant higher compared to the last data extract from May 2021 (5 330 entities). This change is mostly since all stationary entities from UK are now indicated as "closed"
- There are 349 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).

Content

- 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 17 647.

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, 3 663 installations (21% of all entities), still report old activity codes (see Table 1-2). These are 10 less than in the dataset of May 2021.

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 - May 2021	Number of installations - July 2021
1	3216	2846	2739	2632	2569	2563
2	48	41	38	38	36	36
3	3	3	3	3	3	3
4	4	4	4	3	3	3
5	74	49	47	44	44	43
6	176	133	129	126	122	121
7	148	112	109	104	102	101
8	579	563	557	543	531	531
9	358	284	274	268	263	262
99						
Total	4606	4035	3900	3761	3673	3663

Source: EUTL extract July 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 34 to 36 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 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.

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

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 May 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). Between the May 2021 and July 2021 Dataset this installation was relocated from activity code 46 to 42.

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_ACTIVITY_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	2.563	51.849.496						
2	36	8.450.284						
3	3	-						
4	3	-						
5	43	4.359.898						
6	121	5.060.652						
7	101	764.570						
8	531	720.233						
9	262	1.880.064						
10	1589	24.917.481	1.589	24.917.481	0	0	0%	0%
20	7706	786.685.068	9907	821.536.445	2.201	34.851.377	22%	4%
21	141	104.806.013	175	113.256.297	34	8.450.284	19%	7%
22	19	9.578.336	29	9.697.442	10	119.106	34%	1%
23	14	2.100.316	14	2.100.316	0	0	0%	0%
24	242	87.985.416	292	105.026.980	50	17.041.564	17%	16%
25	254	10.501.225	291	10.626.101	37	124.876	13%	1%
26	33	8.310.489	40	8.310.489	7	0	18%	0%
27	37	1.163.546	38	1.163.546	1	0	3%	0%
28	89	6.685.929	95	6.685.929	6	0	6%	0%
29	251	110.031.375	335	114.198.236	84	4.166.861	25%	4%
30	276	25.293.058	418	27.344.272	142	2.051.214	34%	8%
31	368	16.492.755	462	17.245.388	94	752.633	20%	4%
32	1205	12.802.805	1741	13.524.396	536	721.591	31%	5%
33	45	1.788.498	66	2.117.653	21	329.155	32%	16%
34	42	1.204.128	42	1.204.128	0	0	0%	0%
35	178	4.783.588	198	5.114.282	20	330.694	10%	6%
36	565	18.092.267	870	20.282.094	305	2.189.827	35%	11%
37	18	1.441.395	18	1.441.395	0	0	0%	0%
38	34	3.446.093	36	3.694.471	2	248.378	6%	7%
39	3	110.945	3	110.945	0	0	0%	0%
40	1	11.818	1	11.818	0	0	0%	0%
41	29	21.014.636	30	21.014.636	1	0	3%	0%
42	360	33.554.115	460	35.679.541	100	2.125.426	22%	6%
43	43	8.420.251	48	8.764.538	5	344.287	10%	4%
44	15	4.097.672	15	4.097.672	0	0	0%	0%
45	3	5.578	3	5.578	0	0	0%	0%
46	0	-	0	-	0	0	0%	0%
99	424	1.649.441	425	887.365	1	-762.076	0%	-86%
Group 1-9	3.663	73.085.197	-	-				
Group 10-99	13.984	1.306.974.237	17.641	1.380.059.434				
Total	17.647	1.380.059.434	17.641	1.380.059.434	3.657	73.085.197	21%	5%

Note: The total number of translations given in the table (3 663) 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 July 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 **1 589**, so there are **16 058 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 May 2021 and July 2021

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	03. Mai 21	01. Jul 21	Difference May 21 - July 21
AT	292	292	295	296	297	297	0
BE	488	491	498	499	505	505	0
BG	172	172	174	174	174	174	0
CY	26	27	28	29	29	29	0
CZ	466	468	468	469	470	470	0
DE	2689	2725	2768	2785	2794	2794	0
DK	460	460	462	465	465	466	1
EE	66	66	66	66	66	66	0
ES	1468	1481	1495	1515	1529	1530	1
FI	729	732	738	738	745	745	0
FR	1671	1713	1733	1749	1766	1766	0
GB	1838	1927	1986	2021	2027	2027	0
GR	211	212	215	217	220	220	0
HR	59	59	59	62	62	64	2
HU	296	298	301	304	307	307	0
IE	223	228	231	235	239	239	0
IS	41	44	44	44	44	44	0
IT	1593	1610	1628	1643	1646	1648	2
LI	2	2	2	2	2	2	0
LT	125	126	126	129	130	130	0
LU	31	33	34	34	34	34	0
LV	118	120	120	120	120	120	0
MT	8	13	16	15	16	16	0
NL	653	660	663	667	676	677	1
NO	179	183	186	191	194	194	0
PL	1058	1068	1080	1084	1086	1086	0
PT	361	364	369	371	371	371	0
RO	298	300	302	304	307	307	0
SE	945	949	962	976	982	982	0
SI	104	106	106	106	106	106	0
SK	222	222	222	223	225	225	0
XI					6	6	0
Total	16892	17151	17377	17533	17640	17647	7

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

As shown in Table 1-4, the July 2021 dataset includes 7 more entities than the May 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 July 2021, 11 197 entities have been indicated as open, 6 450 (42% of total) have a closure date that lies before the extraction date of the ETS dataset. All stationary installations from UK have been indicated as closed since the July 2021 dataset.

1.6.3 Active installation in 3 TP

3 365 entities – 19% of total – indicated that they are not operating in the third trading period. This number increased by 1 compared to the dataset of May 2021.

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

1.6.4 Verified emissions (stationary installations)

In the following table, data on verified emission is compared between the datasets from May 2021 and July 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 May 2021 and July 2021 data / VE (July 2021))

MS	Percentages related to last available data (+ => increase)						
	total 1st trading period	total 2nd trading period	total 3rd trading period	2017	2018	2019	2020
AT	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%
BG	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%
CZ	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%
DK	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%
ES	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FI	0.0%	0.0%	-0.2%	-0.2%	-0.2%	0.0%	0.0%
FR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
GB	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%
HR			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%
IE	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%
IT	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%
LT	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%
LV	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%
NL	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%
PL	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%
RO	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
SE	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%
SK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
XI	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%	0.1%

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

Source: EUTL extract July 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. One noticeable difference can be observed for 2020

in Romania, which is due to one installation which hadn't reported any Verified Emissions for 202 yet.

1.6.5 Free allocation to existing installations from 2005 to 2020 (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, 2005-2020) between datasets (calculated as difference between May 2021 and July 2021 data / allowances (July 2021))

MS	Percentages related to last available data (+ => increase)					
	total 1st trading period	total 2nd trading period	total 3rd trading period	2017	2018	2020
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%
CY	100.0%	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%	0.0%
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%	0.0%
FR	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%
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%	0.0%	0.0%	0.0%	0.0%
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	100.0%	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%	0.0%
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	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%

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

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

Between the July 2021 and May 2021 dataset a change in free allocations for the first trading period can be observed. This is due to the consolidated data for Cyprus. In the May 2021 dataset 13 previously double installations were not part of the dataset anymore. In earlier work, the duplicate installations were merged. The plants that were no longer present had information on free allocations. Since these were no longer available, the information on free allocations was also missing. With the July 2021 dataset these installation were included again.

The change in allocations for Malte is due to two installations (MT1 & MT2) which previously had no allocations in the 1st trading period.

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

1.6.6 Surrendered units from 2005 to 2020 (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 May 2021 and July 2021 data / allowances (July 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	2020
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	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%
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%	-0.1%
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	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%

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

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

There is only one minor change in Latvia in surrendered units between the datasets.

1.6.7 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.

1.6.8 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.

Table 1-8 Allocated amounts for the years 2013 to 2020 for stationary installations

COUNTRY CODE	Total Allocated Amounts July 2021 data							
	2013	2014	2015	2016	2017	2018	2019	2020
AT	22,454,153	21,908,568	21,092,137	20,493,654	19,927,056	19,364,427	18,776,348	18,172,825
BE	37,088,489	36,112,098	34,354,257	34,147,062	33,375,238	32,243,823	32,056,996	31,172,434
BG	21,806,523	19,654,265	17,658,558	16,276,968	13,204,971	11,770,073	10,143,838	8,006,145
CY	3,732,224	3,359,549	3,050,888	2,702,796	2,363,517	2,192,980	1,883,331	1,285,776
CZ	52,272,757	47,009,218	42,090,957	37,174,806	31,840,232	27,487,273	22,730,763	17,989,524
DE	169,533,574	164,995,793	158,870,852	154,697,039	150,142,074	146,016,696	141,109,449	136,375,779
DK	12,226,328	11,072,867	9,637,343	8,918,360	8,291,092	7,726,416	7,141,898	6,449,596
EE	8,796,110	8,016,944	7,006,287	5,881,109	4,910,164	3,283,874	3,151,643	2,982,844
ES	67,264,348	61,216,818	60,369,500	59,891,701	58,690,428	57,261,367	57,862,740	57,125,772
FI	22,896,931	21,606,691	20,090,018	18,960,796	18,065,869	16,958,267	16,068,596	15,251,607
FR	82,509,730	80,389,915	77,495,829	75,323,537	70,911,903	67,608,268	66,268,887	64,148,167
GB	66,688,817	65,237,357	61,063,662	54,920,547	52,875,635	51,357,132	49,622,985	48,058,253
GR	15,030,093	14,653,644	14,589,345	14,296,331	14,214,195	13,959,168	13,705,341	13,351,992
HR	5,268,253	5,088,881	4,839,931	4,711,951	4,580,337	4,434,782	4,348,866	4,265,324
HU	18,029,782	9,974,571	10,360,373	10,187,692	10,037,502	9,852,632	9,554,457	9,243,335
IE	5,264,456	4,734,181	5,320,682	5,271,502	5,124,841	4,986,109	4,855,184	4,729,305
IS	1,536,345	1,509,661	1,482,664	1,455,382	1,427,808	1,399,965	1,482,546	1,405,547
IT	86,814,094	78,314,435	72,494,400	70,862,229	68,925,428	67,463,979	64,594,519	57,962,123
LI	2,077	1,859	1,647	1,441	1,241	1,048	861	681
LT	6,882,732	6,568,554	6,364,312	6,158,587	5,786,259	5,494,201	4,947,666	4,600,903
LU	1,372,664	1,305,073	1,307,879	1,277,648	1,246,053	1,215,724	1,184,023	1,152,564
LV	2,674,695	2,419,954	2,078,189	1,889,937	1,752,520	1,599,997	1,476,875	1,301,552
MT	-	-	-	-	-	-	-	-
NL	49,463,427	48,156,669	46,746,911	44,659,457	44,464,611	43,591,950	42,453,678	40,894,446
NO	17,684,543	17,380,448	17,070,345	17,102,115	16,246,118	16,171,846	15,906,220	15,526,763
PL	135,700,274	120,663,559	99,551,170	84,995,908	71,764,387	66,381,507	61,781,427	43,277,976
PT	12,517,946	12,124,706	11,477,626	11,215,619	10,939,371	10,733,923	10,781,518	10,489,565
RO	40,036,964	30,351,749	29,677,224	29,487,027	27,227,820	21,024,344	20,989,087	18,686,285
SE	29,081,450	27,401,839	25,590,780	24,439,650	23,159,316	21,783,685	20,711,593	19,189,269
SI	2,284,557	2,367,424	2,136,638	1,893,876	1,800,500	1,737,666	1,677,584	1,611,625
SK	16,466,336	15,821,315	15,029,434	14,526,743	13,849,714	13,746,320	13,414,163	13,048,220
XI	4,947	4,428	3,923	3,433	2,960	2,501	2,058	1,630
Total	1,013,385,619	939,423,033	878,903,761	833,824,903	787,149,160	748,851,943	720,685,140	667,757,827

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

COUNTRY CODE	Comparison 2016 Allocation May 2021 with July 2021 data			Comparison 2017 Allocation May 2021 with July 2021 data			Comparison 2018 Allocation May 2021 with July 2021 data			Comparison 2019 Allocation May 2021 with July 2021 data			Comparison 2020 Allocation May 2021 with July 2021 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%	-	0.0%	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%	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%	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%	-0.1%	-	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%	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	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%	-
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%	-
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%	-	-
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%	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	0.0%	-	0.0%	1.8%	-	0.0%	2.1%	-
NO	0.0%	0.0%	-	0.0%	1.3%	-	0.0%	9.3%	-	0.0%	8.1%	-	0.0%	8.1%	-
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%	-
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%	-
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	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-
Total	-0.8%	0.2%	0.0%	-0.1%	0.9%	0.0%	-0.1%	3.8%	0.0%	-0.1%	3.8%	0.0%	-0.2%	9.6%	0.0%

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

COUNTRY CODE	Comparison total Free Allocation with data of May 2021					
	2015	2016	2017	2018	2019	2020
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%	0.0%
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%	0.0%	0.0%	0.0%	0.1%
EE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ES	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
FI	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
FR	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%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%
HR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
IE	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%
IT	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%
LT	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%
LV	0.0%	0.0%	0.0%	0.0%	0.0%	-0.2%
MT	-	-	-	-	-	-
NL	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NO	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%
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	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

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

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

In total, NER allowances (Column: "Allocated_Reserve") decreased by about 0.2% in 2016, 0.9% in 2017, 3.8% in 2018, 3.8% in 2019 and 9.6% in 2020.

1.6.9 Aviation

For aviation a comparison of verified emissions, free allocation and surrendered units has been conducted together for the years 2012-2020.

Table 1-9 Changes in VE, free allocation and surrendered units to aviation operators (2015-2019) between datasets (calculated as difference between May 2021 and July 2021 data / allowances (July 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 2012	Allocation 2013	Allocation 2014	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%	0.0%	0.0%	0.0%	0.0%
BE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-2.1%	-2.0%	-2.2%	-2.3%	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%	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%	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%	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%	0.0%	0.0%	0.0%	0.0%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-27.7%	0.0%	0.0%	0.0%	0.0%	-13.5%	-13.5%	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%	-2.6%					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%	-0.9%	-0.9%	0.0%	-0.9%	-0.9%	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%	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%	-0.1%	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%	0.0%	0.0%	0.0%	0.0%
GR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	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%	0.0%	0.0%	0.0%	0.0%	0.0%
HU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	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%	-1.8%	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%	0.0%	0.0%	0.0%	0.0%	0.0%
IT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-10.4%	-10.4%	-14.5%	-14.5%	-15.0%	-10.8%	-10.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
LT	18.7%	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%
LU	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-6.3%	-6.3%	-6.3%	-10.6%	-10.6%	-10.6%	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%	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%	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%	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%	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%	0.0%	0.0%	0.0%	0.0%	0.0%
PT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.4%	0.0%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	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%	0.0%	0.0%	0.0%	0.0%	0.0%
SE	0.0%	0.0%	0.0%	0.0%	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.4%	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%	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%	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%	-0.8%	-0.5%	-0.7%	-0.7%	-0.7%	-0.8%	-2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%

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

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

Allocations have changed significantly between the April and May datasets. Allocations have increased from April to May. An analysis of the countries involved showed that these are smaller operators that had not yet received allocations in the corresponding years. These had received smaller amounts of free allocations. What was notable, however, is that some of these are accounts that had already been closed, or accounts of operators that no longer exist. Likewise, the emissions have not changed in the respective years or there were simply no verified emissions. From May to July dataset this development has been reversed again. Hence the changes are shown in Table 1-11.

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 May 2021 and July 2021. Most actual information on auctioning data is included in the background document (see on the EEA homepage below the ETS data viewer).