
## *Part 2: Other technical information*

### 1. Overview of EU climate targets

Table 1: Overview of EU climate targets.

|  | **International commitments** | **EU domestic legislation** |
| --- | --- | --- |
|  | **Kyoto Protocol** | **Paris Agreement** | **2020 Climate and Energy Package** | **2030 Climate and Energy Framework** |
| **EU ETS** | **Effort Sharing Decision (ESD)** | **EU ETS**  | **Effort Sharing Regulation (ESR)** |
| **Target year of period** | Second commitment period (2013-2020)(target for EU-28) | Already in force – covers the period post 2020 | 2013-2020 | 2013-2020 | 2021-2030 | 2021-2030 |
| **Emission reduction target** | -20 % | at least -40 % in 2030 | -21 % in 2020 compared to 2005 for ETS emissions | Annual targets by MS. In 2020 -10 % compared to 2005 for non-ETS emissions | -43 % in 2030 compared to 2005 for ETS emissions | Annual targets by MS. In 2030 -30 % compared to 2005 for non-ETS emissions |
| Overall target: -20 % GHG emissions reduction vs 1990" | Overall target: at least -40 % domestic GHG emissions reduction vs 1990 |
| **Further targets** | - | • limiting global warming to well below 2°C.; • every 5 years to set more ambitious targets as required by science;• report on implementation/ track progress towards the long-term goal through a robust transparency and accountability system.• balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century. | Renewable Energy Directive: 20 % share of renewable energy of gross final energy consumption; | At least 32 % share of renewable energy in EU energy consumption (with an upward review by 2023); |
| Energy Efficiency Directive : Increase energy efficiency by 20 %. | At least 32.5 % improvement in energy efficiency (with an upward review by 2023). |
| **Base year** | 1990, but subject to flexibility rules. 1995 or 2000 may be used as its base year for NF3 | 1990 | 1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions. | 1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions  |
| **LULUCF** | Included ARD and forest management, other activities if elected(new accounting rules)  | Included | Excluded  | Included: The LULUCF regulation (Regulation (EU) 2018/841) includes a "no debit rule", i.e. emissions from LULUCF must be compensated by carbon uptake after specified rules.  |
| **Aviation[[1]](#footnote-1)** | Domestic aviation included. International aviation not attributed.  | Economy-wide action encouraged | EU ETS: Domestic and some international aviation included.  | ESD:Aviation generally excluded | EU ETS:Domestic and some international aviation included. | ESR:Aviation generally excluded |
| **Use of international credits** | Use of KP flexible mechanisms subject to KP rules | The EU will not use international credits (according to its NDC) | Upper limit for credit use for period 2008-2020 at a maximum of 50 % of the reduction effort below 2005 levels  | Annual use of carbon credits is limited to up to 3 % of each Member State's ESD emissions in 2005[[[2]](#footnote-2)](file:///C%3A/Users/veragsi/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.MSO/E0DB9A89.xlsx#RANGE!C25)  | No  | No |
| **Carry-over of units from preceeding periods[[3]](#footnote-3)** | Subject to KP rules including those agreed in the Doha Amendment | No | EU ETS allowances can be banked into subsequent ETS trading periods since the second trading period | No carry over from previous period | Indefinite validity of allowances not limited to trading periods, no need to carry over. | No |
| **Gases covered** | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 | CO2, N2O, PFCs,  | CO2, CH4, N2O, HFCs, PFCs, SF6 | CO2, N2O, PFCs,  | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 |
| **Sectors included** | Energy, IPPU, agriculture, waste, LULUCF | Energy, IPPU, agriculture, waste, LULUCF | Energy, IPPU, agriculture, waste, LULUCF | Power & heat generation, energy-intensive industry sectors, aviation | Transport (except aviation), buildings, non-ETS industry, agriculture (non-CO2) and waste | Power & heat generation, energy-intensive industry sectors, aviation | Transport (except aviation), buildings, non-ETS industry, agriculture (non CO2) and waste |
| **GWPs used** | IPCC SAR | IPCC AR4 | IPCC AR4 | IPCC AR4 | IPCC AR4 |
| **Applicable to number of MS** | 15 (additional KP targets for single MS) | EU-28 and Iceland | 28 Member States + possibly Iceland and Norway | 28[[4]](#footnote-4)  | 28  |

### 2. Greenhouse gas emissions covered by the Kyoto Protocol and the EU Climate and Energy package

Table 2: Emissions covered by the EU Climate and Energy Package and by the Kyoto Protocol, second commitment period 1990, 2005, 2016 and 2020 (Mt CO2-eq.)[[5]](#footnote-5)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Mt. CO2-eq.**  | **1990** | **2005** | **2016** | **2020 projections (WEM)** | **2020 targets (-20 % compared to base year)** |
| Total GHG emissions covered by EU Climate and Energy Package | 5 720 | 5 351 | 4 441 | 4 218 | 4 576 |
|  *of which domestic aviation* | *14* | *20* | *16* |  |  |
|  *of which international aviation* | *69* | *131* | *148* | *146* |  |
| Total GHG emissions covered by the Kyoto Protocol 2nd commitment period | 5 650 | 5 220 | 4 293 | 4 071 | 4 701[[6]](#footnote-6) |
|  *of which international aviation* | *69* | *131* | *148* | *146* |  |

### 3. EU greenhouse gas emissions by sector

Figure 1: EU greenhouse gas emissions by sector, historical data (1990-2017) and projections (2017-2030).[[7]](#footnote-7)

Figure 2: EU greenhouse gas emissions by sector 2017 (in % of total emissions).[[8]](#footnote-8)

The sectors used in the figures correspond to the following IPCC sectors:

* Energy supply: 1A1, 1B and 1C,
* Energy use in manufacturing industries: 1A2,
* Industrial processes and product use: 2,
* Transport: 1A3,
* Other energy use: 1A4, 1A5 and 6,
* Agriculture: 3,
* Waste: 5,
* International aviation: memo item.

### 4. Greenhouse gas intensity in the EU and its Member States

Figure 3: Greenhouse gas emissions intensity (i.e. the ratio between emissions and GDP) in the EU and its Member States 1990, 2005 and 2017 (g CO2-eq./ EUR).[[9]](#footnote-9)

### 5. Greenhouse gas emissions per capita in the EU and its Member States

Figure 4: Greenhouse gas emissions per capita in the EU and its Member States 1990, 2005 and 2016 (tonnes CO2-eq. per capita).[[10]](#footnote-10)

### 6. EU ETS emissions

Table 3: Verified ETS emissions (Mt CO2-eq.) and percentage change from year x-1.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** |
| Verified total emissions  | 1 904 | 1 867 | 1 908 | 1 814 | 1 803 | 1 751 | 1 754 |
| Change to year x-1 | -1.8% | -2.0% | 2.2% | -4.9% | -0.6% | -2.9% | 0.2% |
| Verified emissions from power sector  | 1 155 | 1 153 | 1 101 | 1 011 | 1 005 | 957 | 949 |
| Change to year x-1 |   | -0.2% | -4.5% | -8.1% | -0.6% | -4.8% | -0.8% |
| Verified emissions from industrial installations  | 749 | 714 | 807 | 803 | 798 | 794 | 805 |
| Change to year x-1 |   | -4.7% | -13.1% | -0.6% | -0.6% | -0.5% | -1.4% |
| [[11]](#footnote-11)Real GDP growth rate EU-28[[12]](#footnote-12) | 1.7% | -0.5% | 0.2% | 1.7% | 2.2% | 1.9% | 2.4% |



Figure 5: Development of the surplus in the European carbon market 2013-2017.

### 7. Emissions covered by the effort-sharing legislation

Table 4: Member States targets, emissions and distance to targets under the effort-sharing legislation in percentage change from 2005 base year emissions. For distance to targets, negative values indicate overachievement while positive values indicate underachievement.

| **Member State** | **2016** **(final)** | **2017 (preliminary)** | **2020 (projections)** | **2030 (projections)** |
| --- | --- | --- | --- | --- |
| **Austria** |  |  |  |  |
| Target | -10% | -13% | -16% | -36% |
| Emissions | -11% | -10% | -14% | -21% |
| Distance to target | -1% | 3% | 2% | 15% |
| **Belgium** |  |  |  |  |
| Target | -8% | -10% | -15% | -35% |
| Emissions | -8% | -10% | -12% | -14% |
| Distance to target | 0% | 0% | 3% | 21% |
| **Bulgaria** |  |  |  |  |
| Target | 25% | 17% | 20% | 0% |
| Emissions | 16% | 18% | -2% | 1% |
| Distance to target | -10% | 1% | -22% | 1% |
| **Croatia** |  |  |  |  |
| Target | 16% | 7% | 11% | -7% |
| Emissions | -8% | -8% | -12% | -8% |
| Distance to target | -24% | -15% | -23% | -1% |
| **Cyprus** |  |  |  |  |
| Target | 42% | 0% | -5% | -24% |
| Emissions | -2% | 3% | 7% | 23% |
| Distance to target | -43% | 3% | 12% | 47% |
| **Czech Republic** |  |  |  |  |
| Target | 5% | 6% | 9% | -14% |
| Emissions | 2% | 4% | 0% | -12% |
| Distance to target | -3% | -2% | -9% | 2% |
| **Denmark** |  |  |  |  |
| Target | -15% | -13% | -20% | -39% |
| Emissions | -17% | -19% | -22% | -24% |
| Distance to target | -2% | -5% | -2% | 15% |
| **Estonia** |  |  |  |  |
| Target | 17% | 9% | 11% | -13% |
| Emissions | 15% | 10% | 11% | 13% |
| Distance to target | -3% | 1% | 0% | 26% |
| **Finland** |  |  |  |  |
| Target | -11% | -11% | -16% | -39% |
| Emissions | -8% | -9% | -15% | -22% |
| Distance to target | 3% | 2% | 1% | 17% |
| **France** |  |  |  |  |
| Target | -5% | -10% | -14% | -37% |
| Emissions | -12% | -11% | -20% | -28% |
| Distance to target | -7% | -1% | -6% | 9% |
| **Germany** |  |  |  |  |
| Target | -5% | -10% | -14% | -38% |
| Emissions | -5% | -3% | -11% | -22% |
| Distance to target | 0% | 7% | 3% | 16% |
| **Greece** |  |  |  |  |
| Target | -4% | -5% | -4% | -16% |
| Emissions | -28% | -29% | -22% | -23% |
| Distance to target | -24% | -24% | -18% | -7% |
| **Hungary** |  |  |  |  |
| Target | 12% | 4% | 10% | -7% |
| Emissions | -12% | -9% | -19% | -18% |
| Distance to target | -24% | -13% | -29% | -11% |
| **Ireland** |  |  |  |  |
| Target | -8% | -13% | -20% | -30% |
| Emissions | -7% | -6% | 0% | 1% |
| Distance to target | 1% | 7% | 20% | 31% |
| **Italy** |  |  |  |  |
| Target | -10% | -11% | -13% | -33% |
| Emissions | -19% | -20% | -21% | -25% |
| Distance to target | -9% | -9% | -8% | 8% |
| **Latvia** |  |  |  |  |
| Target | 12% | 14% | 17% | -6% |
| Emissions | 7% | 8% | 8% | 13% |
| Distance to target | -5% | -6% | -9% | 19% |
| **Lithuania** |  |  |  |  |
| Target | 6% | 7% | 15% | -9% |
| Emissions | 5% | 7% | 2% | 6% |
| Distance to target | -1% | 1% | -13% | 15% |
| **Luxembourg** |  |  |  |  |
| Target | -12% | -14% | -20% | -40% |
| Emissions | -16% | -15% | -17% | -20% |
| Distance to target | -4% | -1% | 3% | 20% |
| **Malta** |  |  |  |  |
| Target | 4% | 5% | 5% | -19% |
| Emissions | 19% | 28% | 16% | 27% |
| Distance to target | 15% | 23% | 11% | 46% |
|  |  |  |  |  |
|  |  |  |  |  |
| **Netherlands** |  |  |  |  |
| Target | -9% | -11% | -16% | -36% |
| Emissions | -21% | -21% | -26% | -31% |
| Distance to target | -12% | -10% | -10% | 5% |
| **Poland** |  |  |  |  |
| Target | 10% | 11% | 14% | -7% |
| Emissions | 10% | 14% | 6% | 3% |
| Distance to target | 1% | 3% | -8% | 10% |
| **Portugal** |  |  |  |  |
| Target | 3% | -1% | 1% | -17% |
| Emissions | -14% | -14% | -17% | -24% |
| Distance to target | -18% | -13% | -18% | -7% |
| **Romania** |  |  |  |  |
| Target | 7% | 11% | 19% | -2% |
| Emissions | -3% | -2% | 1% | 10% |
| Distance to target | -11% | -13% | -18% | 12% |
| **Slovakia** |  |  |  |  |
| Target | 9% | 9% | 13% | -12% |
| Emissions | -14% | -14% | -12% | -12% |
| Distance to target | -23% | -23% | -25% | 0% |
| **Slovenia** |  |  |  |  |
| Target | 5% | 3% | 4% | -15% |
| Emissions | -5% | -7% | -9% | -15% |
| Distance to target | -10% | -10% | -13% | 0% |
| **Spain** |  |  |  |  |
| Target | -6% | -8% | -10% | -26% |
| Emissions | -16% | -15% | -20% | -16% |
| Distance to target | -10% | -8% | -10% | 10% |
| **Sweden** |  |  |  |  |
| Target | -9% | -13% | -17% | -40% |
| Emissions | -25% | -25% | -32% | -40% |
| Distance to target | -16% | -12% | -15% | 0% |
| **United Kingdom** |  |  |  |  |
| Target | -17% | -14% | -16% | -37% |
| Emissions | -20% | -21% | -26% | -30% |
| Distance to target | -3% | -7% | -10% | 7% |

Table 5: Annual emissions allocations[[13]](#footnote-13), emissions and gap to targets under the Effort Sharing Decision (Mt. CO2-eq.). Positive gap to target indicate overachievement, negative values indicate underachievement.

| **Member State** | **2005**  | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Base year emissions** | **Final data 2013-2016** | **Preliminary data** | **Projections 2018-2020** |
| **Austria** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 52.6 | 52.1 | 51.5 | 51.0 | 49.5 | 48.9 | 48.3 | 47.8 |
| Emissions | 56.8 | 50.1 | 48.2 | 49.3 | 50.6 | 51.3 | 49.4 | 49.3 | 49.1 |
| gap to target |   | 2.5 | 3.9 | 2.2 | 0.4 | -1.8 | -0.5 | -1.0 | -1.4 |
| **Belgium** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 78.4 | 76.9 | 75.3 | 73.8 | 72.5 | 71.1 | 69.7 | 68.2 |
| Emissions | 80.3 | 74.3 | 70.1 | 72.7 | 74.1 | 72.4 | 71.7 | 71.5 | 71.0 |
| gap to target |   | 4.1 | 6.8 | 2.6 | -0.3 | 0.1 | -0.7 | -1.8 | -2.8 |
| **Bulgaria** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 26.9 | 27.2 | 27.5 | 27.7 | 25.9 | 26.1 | 26.3 | 26.5 |
| Emissions | 22.1 | 22.2 | 22.9 | 25.4 | 25.6 | 26.1 | 22.2 | 22.0 | 21.7 |
| gap to target |   | 4.7 | 4.3 | 2.1 | 2.1 | -0.2 | 3.9 | 4.4 | 4.8 |
| **Croatia** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 19.6 | 19.8 | 20.0 | 20.2 | 18.7 | 18.9 | 19.1 | 19.3 |
| Emissions | 17.4 | 15.1 | 14.7 | 15.6 | 16.0 | 16.1 | 15.2 | 15.2 | 15.2 |
| gap to target |   | 4.5 | 5.1 | 4.4 | 4.2 | 2.6 | 3.7 | 3.9 | 4.1 |
| **Cyprus** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 5.9 | 5.9 | 5.9 | 5.9 | 4.2 | 4.1 | 4.0 | 4.0 |
| Emissions | 4.2 | 3.9 | 3.9 | 4.1 | 4.1 | 4.3 | 4.3 | 4.4 | 4.5 |
| gap to target |   | 2.0 | 2.0 | 1.9 | 1.8 | -0.1 | -0.2 | -0.3 | -0.5 |
| **Czech Republic** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 62.5 | 63.2 | 64.0 | 64.7 | 65.2 | 65.9 | 66.5 | 67.2 |
| Emissions | 61.7 | 61.5 | 57.6 | 61.3 | 62.8 | 64.0 | 60.2 | 61.1 | 61.9 |
| gap to target |   | 1.0 | 5.6 | 2.7 | 1.9 | 1.2 | 5.7 | 5.5 | 5.3 |
| **Denmark** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 36.8 | 35.9 | 35.0 | 34.1 | 34.8 | 33.9 | 33.0 | 32.1 |
| Emissions | 40.1 | 33.7 | 32.6 | 32.5 | 33.1 | 32.6 | 31.8 | 31.5 | 31.1 |
| gap to target |   | 3.1 | 3.3 | 2.5 | 1.0 | 2.2 | 2.1 | 1.5 | 0.9 |
| **Estonia** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 6.3 | 6.3 | 6.3 | 6.4 | 5.9 | 6.0 | 6.0 | 6.0 |
| Emissions | 5.4 | 5.8 | 6.1 | 6.1 | 6.2 | 6.0 | 6.0 | 6.0 | 6.0 |
| gap to target |   | 0.5 | 0.2 | 0.2 | 0.2 | 0.0 | -0.1 | 0.0 | 0.0 |
|  |  |  |  |  |  |  |  |  |  |
| **Finland** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 31.8 | 31.3 | 30.8 | 30.3 | 30.2 | 29.6 | 29.1 | 28.5 |
| Emissions | 33.9 | 31.6 | 30.1 | 29.9 | 31.4 | 30.8 | 29.4 | 29.1 | 28.8 |
| gap to target |   | 0.2 | 1.1 | 0.9 | -1.0 | -0.6 | 0.2 | 0.0 | -0.3 |
| **France** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 394.1 | 389.5 | 384.4 | 379.4 | 358.2 | 352.9 | 347.7 | 342.5 |
| Emissions | 398.2 | 366.1 | 353.5 | 353.0 | 351.9 | 354.7 | 332.1 | 325.2 | 318.2 |
| gap to target |   | 28.0 | 35.9 | 31.4 | 27.5 | 3.5 | 20.8 | 22.5 | 24.3 |
| **Germany** |   |  |  |  |  |  |  |  |  |
| AEAs |   | 472.5 | 465.8 | 459.1 | 452.4 | 432.3 | 425.2 | 418.1 | 410.9 |
| Emissions | 477.8 | 460.2 | 436.8 | 444.1 | 454.2 | 464.7 | 436.3 | 431.2 | 426.5 |
| gap to target |   | 12.3 | 29.0 | 15.1 | -1.7 | -32.4 | -11.1 | -13.1 | -15.6 |
| **Greece** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 59.0 | 59.3 | 59.6 | 59.9 | 59.1 | 59.4 | 59.7 | 60.0 |
| Emissions | 62.6 | 44.2 | 44.4 | 45.4 | 44.9 | 44.3 | 48.2 | 48.7 | 48.9 |
| gap to target |   | 14.8 | 14.9 | 14.2 | 15.0 | 14.9 | 11.2 | 11.1 | 11.1 |
| **Hungary** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 50.4 | 51.5 | 52.6 | 53.8 | 50.1 | 51.0 | 51.9 | 52.8 |
| Emissions | 48.0 | 38.4 | 38.4 | 41.4 | 42.1 | 43.8 | 40.0 | 39.5 | 39.1 |
| gap to target |   | 12.0 | 13.1 | 11.2 | 11.7 | 6.3 | 11.0 | 12.4 | 13.7 |
| **Ireland** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 46.9 | 45.8 | 44.6 | 43.5 | 40.9 | 39.8 | 38.7 | 37.7 |
| Emissions | 47.1 | 42.2 | 41.7 | 43.0 | 43.8 | 44.0 | 45.9 | 46.4 | 46.8 |
| gap to target |   | 4.7 | 4.1 | 1.6 | -0.3 | -3.1 | -6.1 | -7.7 | -9.2 |
| **Italy** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 308.2 | 306.2 | 304.2 | 302.3 | 298.3 | 295.8 | 293.4 | 291.0 |
| Emissions | 334.5 | 273.3 | 265.3 | 273.3 | 270.7 | 268.9 | 267.5 | 265.1 | 262.7 |
| gap to target |   | 34.8 | 40.9 | 31.0 | 31.6 | 29.3 | 28.4 | 28.3 | 28.3 |
| **Latvia** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 9.3 | 9.4 | 9.4 | 9.5 | 9.7 | 9.8 | 9.9 | 10.0 |
| Emissions | 8.5 | 8.8 | 9.0 | 9.0 | 9.1 | 9.2 | 9.1 | 9.2 | 9.2 |
| gap to target |   | 0.5 | 0.3 | 0.4 | 0.4 | 0.5 | 0.7 | 0.7 | 0.8 |
| **Lithuania** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 12.9 | 13.3 | 13.7 | 14.0 | 14.1 | 14.5 | 14.9 | 15.2 |
| Emissions | 13.3 | 12.4 | 12.9 | 13.3 | 13.9 | 14.2 | 13.5 | 13.6 | 13.6 |
| gap to target |   | 0.5 | 0.4 | 0.4 | 0.1 | -0.1 | 1.0 | 1.3 | 1.7 |
| **Luxembourg** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 9.5 | 9.3 | 9.1 | 8.9 | 8.7 | 8.5 | 8.3 | 8.1 |
| Emissions | 10.1 | 9.4 | 8.9 | 8.6 | 8.5 | 8.7 | 8.4 | 8.4 | 8.4 |
| gap to target |   | 0.2 | 0.5 | 0.5 | 0.4 | 0.1 | 0.2 | 0.0 | -0.3 |
|  |  |  |  |  |  |  |  |  |  |
| **Malta** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Emissions | 1.1 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 |
| gap to target |   | -0.1 | -0.1 | -0.1 | -0.2 | -0.3 | -0.1 | -0.1 | -0.1 |
| **Netherlands** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 122.9 | 120.7 | 118.4 | 116.1 | 114.1 | 111.8 | 109.6 | 107.4 |
| Emissions | 127.8 | 108.3 | 97.9 | 101.1 | 101.3 | 101.1 | 96.9 | 96.0 | 94.6 |
| gap to target |   | 14.7 | 22.8 | 17.3 | 14.8 | 13.0 | 14.9 | 13.6 | 12.8 |
| **Poland** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 193.6 | 194.9 | 196.1 | 197.4 | 200.0 | 201.7 | 203.4 | 205.2 |
| Emissions | 180.0 | 186.1 | 181.5 | 186.8 | 198.7 | 204.8 | 189.5 | 189.8 | 190.1 |
| gap to target |   | 7.5 | 13.3 | 9.4 | -1.3 | -4.8 | 12.2 | 13.6 | 15.1 |
| **Portugal** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 49.3 | 49.6 | 49.9 | 50.1 | 47.9 | 48.3 | 48.7 | 49.1 |
| Emissions | 48.6 | 38.6 | 38.8 | 40.6 | 41.6 | 41.7 | 41.4 | 41.0 | 40.5 |
| gap to target |   | 10.7 | 10.8 | 9.2 | 8.6 | 6.2 | 6.9 | 7.7 | 8.6 |
| **Romania** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 75.6 | 77.5 | 79.3 | 81.1 | 84.1 | 86.0 | 87.9 | 89.8 |
| Emissions | 75.5 | 72.7 | 72.5 | 74.6 | 73.1 | 74.2 | 75.6 | 76.0 | 76.5 |
| gap to target |   | 2.9 | 4.9 | 4.7 | 8.0 | 9.9 | 10.4 | 11.8 | 13.3 |
| **Slovakia** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 24.0 | 24.4 | 24.7 | 25.1 | 25.0 | 25.3 | 25.6 | 25.9 |
| Emissions | 23.0 | 21.1 | 19.8 | 20.1 | 19.8 | 19.7 | 20.0 | 20.1 | 20.2 |
| gap to target |   | 2.9 | 4.6 | 4.7 | 5.3 | 5.3 | 5.3 | 5.6 | 5.8 |
| **Slovenia** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 12.3 | 12.4 | 12.4 | 12.4 | 12.2 | 12.2 | 12.3 | 12.3 |
| Emissions | 11.8 | 10.9 | 10.5 | 10.7 | 11.2 | 11.0 | 10.7 | 10.7 | 10.7 |
| gap to target |   | 1.4 | 1.9 | 1.7 | 1.2 | 1.2 | 1.5 | 1.5 | 1.6 |
| **Spain** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 227.6 | 225.6 | 223.7 | 221.8 | 218.3 | 216.3 | 214.3 | 212.4 |
| Emissions | 236.0 | 200.3 | 199.8 | 196.2 | 198.5 | 199.9 | 191.2 | 190.4 | 189.1 |
| gap to target |   | 27.3 | 25.9 | 27.6 | 23.3 | 18.4 | 25.1 | 23.9 | 23.3 |
| **Sweden** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 41.7 | 41.0 | 40.4 | 39.8 | 37.8 | 37.2 | 36.7 | 36.1 |
| Emissions | 43.5 | 35.3 | 34.5 | 33.9 | 32.6 | 32.7 | 31.4 | 30.5 | 29.7 |
| gap to target |   | 6.4 | 6.5 | 6.5 | 7.2 | 5.1 | 5.9 | 6.1 | 6.4 |
| **United Kingdom** |  |  |  |  |  |  |  |  |  |
| AEAs |   | 358.7 | 354.2 | 349.7 | 345.2 | 360.4 | 357.2 | 354.1 | 350.9 |
| Emissions | 417.8 | 339.5 | 324.4 | 326.0 | 333.9 | 331.9 | 316.7 | 314.4 | 309.4 |
| gap to target |   | 19.3 | 29.8 | 23.7 | 11.3 | 28.5 | 40.6 | 39.7 | 41.5 |

### 8. Use of revenues from auctioning of ETS allowances

Table 6: Member States' revenues from auctioning of ETS allowances and amounts of the revenues spent on climate and energy purposes, 2017 (EUR 1000).

|  |  |  |
| --- | --- | --- |
| **Member State** | **Total revenues from the auctioning of allowances from EU ETS (EUR 1000)** | **Total revenues used (or planned to be used) for climate related purposes (EUR 1000)** |
| Austria[[14]](#footnote-14) | 157 380 |   |
| Belgium | 145 100 | 133 097 |
| Bulgaria | 130 418 | 138 240 |
| Croatia | 27 152 | 18 920 |
| Cyprus | 6 393 | 788 |
| Czech Republic | 199 775 | 199 775 |
| Denmark | 71 723 | 71 723 |
| Estonia | 39 354 | 15 905 |
| Finland[[15]](#footnote-15) | 95 260 | 9 530 |
| France | 313 402 | 313 402 |
| Germany | 1 146 818 | 1 130 840 |
| Greece | 198 028 | 198 028 |
| Hungary | 85 129 | 0 |
| Ireland | 53 560 | 53 560 |
| Italy | 549 806 | 383 692 |
| Latvia | 15 391 | 3 790 |
| Lithuania | 31 513 | 31 513 |
| Luxembourg | 6 875 | 3 471 |
| Malta | 5 952 | 6 878 |
| Netherlands | 190 706 | 190 706 |
| Poland | 505 994 | 290 378 |
| Portugal | 100 350 | 95 096 |
| Romania | 260 752 | 0 |
| Slovakia | 87 064 | 40 873 |
| Slovenia[[16]](#footnote-16) | 25 093 | 25 093 |
| Spain | 493 551 | 445 466 |
| Sweden | 52 572 | 28 808 |
| United Kingdom | 614 758 | 614 758 |
| EU 28 | 5 609 868 | 4 444 330 |

1. May be reviewed in the light of the implementation of ICAO's global measure. [↑](#footnote-ref-1)
2. Member States that do not use their 3 % limit for the use of international credits in any specific year can transfer the unused part of their limit to another Member State or bank it for their own use until 2020. Member States fulfilling additional criteria (Austria, Belgium, Cyprus, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain and Sweden) may use credits from projects in Least Developed Countries (LDCs) and Small Island Developing States (SIDS) up to an additional 1 % of their verified emissions in 2005. These credits are not bankable and transferable. A maximum of approximately 750 Mt of international credits can be used during the period from 2013 to 2020 in the ESD. [↑](#footnote-ref-2)
3. For the CP2 it refers to carry over from CP1. For the ETS it refers to carry-over from previous trading period under the scheme itself. [↑](#footnote-ref-3)
4. In addition to the 28 MS, Iceland, Liechtenstein and Norway are also covered under the EU-ETS. [↑](#footnote-ref-4)
5. Emissions from international aviation are covered by the EU climate and energy package, but not by the EU's obligations under the Kyoto Protocol. For further information about the scope of the EU 2020 targets, see <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/459381_european_union-nc7-br3-1-nc7_br3_combined_version.pdf> p. 227-235. [↑](#footnote-ref-5)
6. Kyoto base year emissions differ from 1990 inventory emissions. Kyoto base year emissions have been set to 5 876 Mt CO2-eq., including deforestation and including Iceland. [↑](#footnote-ref-6)
7. Sources: EU greenhouse gas inventory 1990-2016. EU approximated greenhouse gas inventory 2017 (EEA). Member States projections reviewed by EEA (2018). [↑](#footnote-ref-7)
8. Source: EU approximated greenhouse gas inventory 2017 (EEA). [↑](#footnote-ref-8)
9. Sources: EU greenhouse gas inventory 1990-2016, EU approximated greenhouse gas inventory 2017 (EEA). GDP data from Ameco database (European Commission, DG ECFIN). [↑](#footnote-ref-9)
10. Sources: EU greenhouse gas inventory 1990-2016, EU approximated greenhouse gas inventory 2017 (EEA). Average population (total) (Eurostat (1990 value gap-filled for France by EEA)). [↑](#footnote-ref-10)
11. [↑](#footnote-ref-11)
12. GDP data as reported on: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115> (accessed in July 2018). [↑](#footnote-ref-12)
13. AEAs for the years 2017-2020 have been recalculated for all Member States to reflect updates in methodologies for reporting of GHG inventories. This recalculation ensures maintaining of the originally intended effort of each Member State (in % of 2005 emissions). [↑](#footnote-ref-13)
14. Austria reported the following: Revenues are not ear-marked. Actual climate-related spending exceeds the total amount of revenues. [↑](#footnote-ref-14)
15. Finland does not ear mark revenues for specific uses, including the auctioning revenues from the operation of EU ETS in Finland. Finland’s total spending in 2017 on the purposes specified under Article 10 (3) of the EU Emission Trading Directive 2003/87/EC is higher than the equivalent financial value of auction revenues in 2016 but is not reported here. [↑](#footnote-ref-15)
16. Slovenia reported billion EUR 25.093. In the table it is assumed that the correct figure is 1000 EUR 25 093. [↑](#footnote-ref-16)