



Checklist for quality control (QC) checks for MS' national GHG projections under MMR Art. 14

1. Check whether all mandatory and available recommended reporting requirements are included

- ✓ Excel template ('Table 1') includes GHG emissions:
 - organised by sectors (incl. LULUCF) and memo items (mandatory)
 - organised by gases: CO₂, CH₄, N₂O, HFC, PFC, NF₃, SF₆, (mandatory)

Please note: LULUCF is reported only under Total GHG/CO₂, CH₄ and N₂O; Memo Items are only reported under Total GHG and not for ETS/ESD; No emissions for 1A3a domestic aviation reported under ETS. A guidance document on reporting ETS/ESD emissions is available in the MMR help folder: <http://cdr.eionet.europa.eu/help/mmr> (file: MMR Article 14 Guidance for reporting on ETS and ESD projections)

- years: Reference year, 2015, 2020, 2025, 2030, 2035 (mandatory) and intermediate years (good practice), 2040 (voluntary)

Please note: the reference year needs to be reported for all gases and sectors. If no projections are available for a certain sector, please do NOT report the reference year.

- for all scenarios: WEM (mandatory), WAM (where available), WOM (where available)
- EU ETS/ESD split for sectors, years and scenarios (mandatory).
- notation keys in case of missing emissions data (good practice)

Please note: In 2019 an extended template for 'Table 1' is available which includes four sheets with automatic quality checks (sum check, sector sum check, WEM vs WAM, and completeness check). The guidance are integrated in the file. These checks can be applied as a pre-submission quality check by the MS expert. The template can be downloaded from the MMR help folder: <http://cdr.eionet.europa.eu/help/mmr>

In 2019 the 'Table 1' should be uploaded in an excel to the CDR and XML will be generated automatically as part of the submission process.

- ✓ Excel template ('Table 2-3-4') includes:
 - indicators to monitor and evaluate projected progress of policies and measures
 - model factsheets
 - projection parameters: report used in the projections (input parameters) for mandatory years (including reference year) and scenarios (mandatory)



Please note: Only report those parameters that are used as input to the modelling of scenarios; Units are reported according to the default units as indicated in the reporting template. If this is not possible, please indicate the applied unit; Reference year and reference year value for the parameters need to be reported as well. In case output parameters are reported, please indicate this. For parameters not used, please use a notation key. A guidance on reporting projections parameters is available in the MMR help folder: <http://cdr.eionet.europa.eu/help/mmr> (file: MMR Article 14 Guidance for reporting on projection parameters)

- ✓ Report including:
 - description of methodologies/models used (model factsheet) (mandatory)
 - underlying assumptions (mandatory)
 - results of sensitivity analysis (mandatory)
 - the impact of policies and measures identified pursuant to Article 13 and a statement if such PaMs are not included (Art 14.1.c of the MMR)

2. Check whether GHG were reported in the correct unit

- ✓ CO₂ in Gg CO₂; CH₄ in Gg CH₄, N₂O in Gg N₂O
- ✓ F-Gases in Gg CO₂eq
- ✓ Total GHG in CO₂eq = Gg CO₂ + Gg CH₄*25 + Gg N₂O *298 + Gg CO₂eq F-Gases

3. Check whether the reference year (= starting year, base year) of projections is consistent with the historic emissions of the latest available inventory

- ✓ Total GHG emissions (Gg CO₂eq)
- ✓ Total ETS emissions (Gg CO₂eq)
- ✓ Sectoral level on main source category level of total GHG from latest GHG inventory

Please note: the sectoral difference between emissions in the reference year of the projections and historic emissions of the same year should be lower than the sector specific uncertainty reported in the NIR for emission inventories

4. Checking that disaggregated emission projections equal the total sum as reported

- ✓ by gas
- ✓ by sector (Total GHG, ETS and ESD) : e.g. Sector 1 = 1A1+1A2+1A3+1A5+1A5 etc.
- ✓ Please note: the sectors should add up correctly especially when notation keys are used (IE)
- ✓ ETS/ESD: ESD+ETS+CO₂ domestic aviation + NF₃ =Total GHG