

REPORT

on typical mistakes in SEAP templates submitted by the Covenant of Mayors signatories in the Eastern Partnership region



Developed by CoM East Helpdesk Team
2019

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Introduction

A comprehensive analysis of 134 Sustainable Energy Action Plans (SEAPs)¹ submitted by signatories of the Covenant of Mayors (CoM) from six countries of the Eastern Partnership region via the online reporting system ("[My Covenant](#)" platform) was carried out by the Technical Helpdesk Team of the CoM East project back in March 2018, in order to identify and systemize typical mistakes and deviations from CoM requirements made in the online form, as well as to update signatories about the problems found and prevent them from recurring in the future.

As a result of this work, an Excel based database of the most important information submitted by signatories via the online SEAP template was created to facilitate the analysis of collected data and to visualize the identified errors.

Along with its original purpose described above, the database provides the following benefits:

- Direct and fast off-line access to main information obtained from 134 submitted SEAP templates (no need for long page-by-page browsing in the Extranet);
- Fast access to the following information: investment costs, energy consumption in baseline year, selected baseline approach (BEI vs BAU), projected emission for BAU 2020, per capita energy consumption and emission in baseline year, proposed energy saving and renewable energy production, emission reduction costs (€/tCO₂), deadline for monitoring submission, etc.;
- Fast access to information on number of submitted monitoring reports (Activity Reporting and Full Reporting) and achieved GHG emission reductions;
- Basic for the general statistic on Covenant progress in EaP region.

Analysis of the templates served as the base for development of the current report on the typical mistakes and deviations, which can be further used by the signatories together with a brief guide "How to avoid typical mistakes in SEAPs" developed by JRC in 2014².

It should be noted that even though the database is developed for SEAP templates mainly, majority of identified mistakes may be relevant for new SECAP template as well, because of similarity of certain sections of both reporting forms³.

It's also worth mentioning that not all deviations caused by signatories may necessarily have critical impact on overall accuracy of the submitted plans. For instance, application of CO₂ emission factors for electricity different from IPCC coefficients recommended by JRC in the corresponding guidebook⁴ can be justified by application on national (country-specific) coefficients accepted by JRC⁵, while, inconsistency of declared total CO₂ emission reduction

¹ Online SEAP templates "accepted" and "under consideration" by JRC were analyzed.

² Annex to the Guidebook "How to develop a Sustainable Energy Action Plan in the Eastern Partnership and Central Asia Cities", JRC, 2014

³ The recent screening of the online SECAP templates carried showed that some of the mistakes identified in SEAP templates were amended by signatories that moved from CoM2020 to CoM2030 commitments.

⁴ "How to develop a Sustainable Energy Action Plan (SEAP) in the Eastern Partnership and Central Asian Cities - Guidebook: PART II – Baseline Emissions Inventory", JRC, 2014

⁵ Please note that unlike analysis carried out by JRC in "How to avoid typical mistakes in SEAPs" guide, the analysis carried out by CoM East team did not cover SEAP documents, hence, Helpdesk Team was not able to check justification of application of national (country-specific) coefficients. As a result, any case of deviation of applied emission factors for electricity from those recommended by JRC was classified as an error.

target with the sum of CO₂ emission reductions of individual mitigation actions may be caused by a "technical" problem of the online form.

Nevertheless, the purpose of this document is to encourage signatories to avoid typical mistakes, this, increase the accuracy of input information and reliability of online reporting.

See below the analysis of typical mistakes divided into thematic sections as it is foreseen in on-line SEAP template.

Strategy

The following mistakes were identified in this section:

1. Overall CO₂ reduction target

Mistake: The overall CO₂ emission reduction target indicated⁶ in the “**My Overall Strategy**” section of SEAP template is less than minimum commitments of a signatory (i.e. at least 20% till 2020 or at least 30% till 2030).

Part I - My Overall Strategy

My Overall Strategy

1) Overall CO₂ reduction target 2020 target %

Baseline year

For instance, a signatory with CoM2030⁷ commitments indicated 20% as an overall CO₂ reduction target in the corresponding box instead of at least 30%.

Note: Another identified mistake is an inconsistency between overall CO₂ reduction target indicated in the “**My Overall Strategy**” section and the total estimated CO₂ emission reduction effect of all mitigation measures proposed by a signatory and listed in “**My Sustainable Energy Action Plan**” section of the template. This mistake is mentioned in the “Action Plan” chapter of this overview.

Recommendation: Make sure that the overall CO₂ emission reduction target set in the online template corresponds to your actual commitments under CoM (i.e. emission reduction by at least 20% till 2020 and at least 30% till 2030).

The same recommendation applies to Excel based and online SECAP templates (see screenshots below).

Excel based SECAP template: “Commitments” table in “Strategy” section

| Strategy | | | | | |
|----------------|---------------------------------|------|--------------|--------------|----------------|
| | | | | | |
| 2) Commitments | Mitigation | | | | |
| | CO ₂ Target | Unit | Target Year | Base Year | Reduction Type |
| | <input type="text" value="20"/> | % | 2020 | [drop -down] | [drop -down] |
| | <input type="text" value="20"/> | % | 2030 | [drop -down] | [drop -down] |
| | | | [drop -down] | [drop -down] | [drop -down] |

Online SECAP template: “Commitments” table on “My Strategy” page

Commitments

| Mitigation | | | | | |
|---------------------------------|------|-------------|-----------|----------------|-------------------------------------|
| CO2 target | Unit | Target year | Base year | Reduction type | Population estimates in target year |
| <input type="text" value="20"/> | % | 2030 | 1990 ▾ | Absolute ▾ | |
| | % | Long term ▾ | 1990 ▾ | Absolute ▾ | |

⁶ In some cases, no information on the overall CO₂ emission reduction target of a signatory is mentioned in the mandatory field.

⁷ Commitment to reduce CO₂ emission by at least 30% by 2030 and to propose adaptation actions are meant.

2. Overall estimated budget and implementation costs

Mistake: Deviation between the overall estimated budget for the implementation of SEAP, indicated in “Total implementation cost” cell in “**My Overall Strategy**” section of the template, and the total estimated implementation costs of all mitigation activities proposed by a signatory and listed in “**My Sustainable Energy Action Plan**” section of the template⁸.

Part I - My Overall Strategy

6) Overall estimated budget for the implementation of your SEAP

☒ Local authority

☐ Other actors

€

Investment
Non-investment

Investment
Non-investment

Total implementation cost

| Part III - My Sustainable Energy Action Plan | | | | | | |
|--|----------------------|-------------------------------|-------------------|-----------------------------|---------------------------|----------------------|
| Key Actions | Area of intervention | Estimated implementation cost | Estimates in 2020 | | | |
| | | | Energy savings | Renewable energy production | CO ₂ reduction | |
| | | | € | MWh/a | MWh/a | t CO ₂ /a |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| [Name of the action] | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| [Name of the action] | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | |
| TOTAL | | 0 | 0 | 0 | 0 | 0 |
| Sub-total Buildings, equipment/facilities and industries | | | | | | |

Recommendation: Make sure that the value of total estimated cost for implementation of your SEAP indicated in the “**My Overall Strategy**” section of SEAP template matches to the total implementation cost indicated in SEAP document as well as to the total estimated implementation cost of all mitigation activities indicated in “**My Sustainable Energy Action Plan**” section of the SEAP template. Please note that the total budget of SEAP implementation (if indicated) have to include costs from all available sources (local/national budget, International financing institutions, European Union, private investments, etc.)

The same recommendation applies to Excel based and online SECAP templates, where budgets for mitigation and adaptation actions are separated (see screenshots below).

Excel based SECAP template: “Overall budget for implementation and financing sources” table

| Source | Budget foreseen for plan implementation (€) | | | | | |
|---------------------------------|---|----------------|--------------------|------------|----------------|--------------------|
| | Mitigation | | | Adaptation | | |
| | | Investment (€) | Non-investment (€) | | Investment (€) | Non-investment (€) |
| Local Authority's own resources | [Select x] | | | [Select x] | | |
| Other actors: | x | | 0 | [Select x] | 0 | 0 |
| - National Funds & Programmes | | | | [Select x] | | |
| - EU Funds & Programmes | | | | [Select x] | | |
| - Private | | | | [Select x] | | |
| Total | | 0 | 0 | | 0 | 0 |

⁸ It shall be noted that indication of the total implementation cost in “Strategy” section is not mandatory (only local authority's investments must be reported). Neither is it compulsory to indicate estimated implementation costs of SEAP activities in “My Sustainable Energy Action Plan” section. Hence, this deviation and corresponding recommendation are relevant to those signatories only that indicated total costs of SEAP implementation in the both sections of the template.

6

Excel based SECAP template: “Key Actions” table

| Key Actions | Area of intervention | Policy instrument | Origin of the action | Responsible body | Implementation timeframe | | Implementation goal |
|--|----------------------|-------------------|----------------------|------------------|--------------------------|-----|---------------------|
| | | | | | Start | End | |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | |
| | | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | |
| | | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | | |
| TOTAL | | | | | | | 0 |
| | | | | | | | 0 |

Mistake: No data or “zero” data input on local authority’s own resources (mandatory input cell) in the table “Overall budget for implementation and financing sources” in “**My Strategy**” section of online SECAP template.

Overall budget for implementation and financing sources

| Source | | Budget foreseen for plan implementation (€) | | | |
|---------------------------------|-------------------------------------|---|--------------------|-------------------------------------|--------------------|
| | | Mitigation (€) | | Adaptation (€) | |
| | | Investment (€) | Non-investment (€) | Investment (€) | Non-investment (€) |
| Local authority's own resources | <input checked="" type="checkbox"/> | 0 | | <input checked="" type="checkbox"/> | |

Recommendation: Make sure that all mandatory input cells in online SECAP template are filled in with appropriate values matching to the information provided in the SECAP document.

3. Time period

Mistake: Incorrect indication of time period for implementation of SEAP in “My Overall Strategy” section of SEAP template.

For instance, a signatory with CoM2020⁹ commitments indicated 2012-2017 as a time period for implementation of the action plan, while time horizon for the proposed mitigation action covered 2012-2020 period.

Another example is when a signatory with CoM2030 commitments indicated 2020 (instead of 2030) as a deadline for implementation of the proposed activities.

The following mistakes were observed as well:

- Start of actions 2020 and end of actions 2014 (duration -5 years);
- Start of actions 2013 and end of actions 2016 (duration 4 years only);
- Start of actions 2014 and end of actions 2014 (duration 0 year).

Part I - My Overall Strategy

Time period: 2012 to 2017, 6 years

Part III - My Sustainable Energy Action Plan

| Key Actions | Area of intervention | Policy Instrument | Origin of the action | Responsible body | Implementation timeframe | |
|---|----------------------|-------------------|----------------------|------------------|--------------------------|-----|
| | | | | | Start | End |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| <i>[Name of the action]</i> | | | | | | |
| <i>Estimated reduction not associated with any reported actions</i> | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| <i>[Name of the action]</i> | | | | | | |

Recommendation: Make sure that the time period of the implementation of the action plan set in the “My Overall Strategy” section of SEAP template matches to the implementation period indicated in the SEAP document as well as corresponds to implementation timeframe of individual key mitigation actions listed in the “My Sustainable Energy Action Plan” section of SEAP template.

The same recommendation is relevant for Excel and online SECAP template where implementation timeframe is indicated at the bottom of “Overall budget for implementation and financing sources” table on “My Strategy” page (see screenshot below).

Overall budget for implementation and financing sources

| Source | Budget foreseen for plan implementation (€) | | |
|---------------------------------|---|----------------|--------------------|
| | | Mitigation (€) | |
| | | Investment (€) | Non-investment (€) |
| Local authority's own resources | <input checked="" type="checkbox"/> | 848000 | |
| Other actors | | 0.00 | 0.00 |
| - National funds & programmes | <input type="checkbox"/> | | |

Time period: 2014 to 2014, 0 year

⁹ Commitment to reduce CO₂ emission by at least 20% by 2020 is meant.

Baseline Emission Inventory

The following mistake was identified in this section:

4. Emission factors for electricity

Mistake: Application of CO₂ emission factors for electricity different from national IPCC emission factors for electricity recommended by JRC in the guidebook “How to develop a Sustainable Energy Action Plan (SEAP) in the Eastern Partnership and Central Asian Cities - Guidebook: PART II – Baseline Emissions Inventory”, without a reference to “well-recognizes” and JRC accepted alternative sources or calculation methods.

If applied, these factors are indicated in the “CO₂ emissions” table in the “**My Emission Inventories**” section of SEAP template.

Part II - My Emission Inventories

C. CO₂ emissions

C1. Please insert the CO₂ emission factors adopted [t/MWh]:

[Click here to visualise fuel](#)

| Electricity | | Heat/cold | Natural gas | Liquid gas |
|-------------|-------|-----------|-------------|------------|
| National | Local | | | |
| | | | | |

The guidebook defines national IPCC emission factors for electricity (tCO₂/MWh) for eleven countries of EaP and CA region for the period 2000-2012 (see Table 2)¹⁰.

Table 2: National IPCC emission factors for electricity recommended by JRC

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Armenia | 0.609 | 0.652 | 0.375 | 0.336 | 0.374 | 0.357 | 0.265 | 0.254 | 0.252 | 0.221 | 0.219 | 0.218 | 0.222 |
| Azerbaijan | 0.874 | 0.810 | 0.778 | 0.737 | 0.701 | 0.680 | 0.713 | 0.900 | 0.891 | 0.943 | 0.855 | 0.924 | 0.925 |
| Belarus | 0.780 | 0.752 | 0.805 | 0.801 | 0.920 | 0.901 | 0.898 | 0.899 | 0.961 | 0.939 | 0.815 | 0.915 | 0.882 |
| Georgia | 0.201 | 0.215 | 0.074 | 0.090 | 0.121 | 0.135 | 0.282 | 0.211 | 0.174 | 0.112 | 0.066 | 0.070 | 0.074 |
| Kazakhstan | 1.398 | 1.409 | 1.406 | 1.483 | 1.538 | 1.475 | 1.459 | 1.507 | 1.508 | 1.435 | 1.418 | 1.405 | 1.401 |
| Kyrgyzstan | 0.233 | 0.280 | 0.272 | 0.208 | 0.242 | 0.212 | 0.193 | 0.231 | 0.149 | 0.159 | 0.131 | 0.144 | 0.141 |
| Moldova | 0.876 | 0.863 | 0.669 | 0.603 | 0.625 | 0.625 | 0.593 | 0.747 | 0.684 | 0.572 | 0.547 | 0.644 | 0.653 |
| Tajikistan | 0.014 | 0.011 | 0.008 | 0.010 | 0.009 | 0.007 | 0.013 | 0.021 | 0.017 | 0.015 | 0.012 | 0.011 | 0.008 |
| Turkmenistan | 1.369 | 1.398 | 1.397 | 1.397 | 1.397 | 1.397 | 1.396 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 |
| Ukraine | 0.923 | 0.998 | 1.009 | 0.982 | 0.830 | 0.851 | 0.933 | 0.927 | 0.924 | 0.931 | 0.880 | 0.899 | 0.912 |
| Uzbekistan | 0.689 | 0.701 | 0.708 | 0.684 | 0.663 | 0.664 | 0.659 | 0.693 | 0.615 | 0.627 | 0.610 | 0.604 | 0.612 |

However, in some cases, instead of the coefficients recommended by JRC for particular baseline years, different coefficients (see Table 3) were applied in “**My Emission Inventories**” section, without proper justification of the chosen approach indicated in the “Methodological notes” of the SEAP template.

Table 3: National emission factors for electricity applied by signatories

| | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|--|--|
| Azerbaijan | JRC | 0.924 | | | | | | |
| | Signatory | 0.896 | | | | | | |
| Belarus | JRC | 0.815 | 0.882 | 0.882 | 0.815 | | | |
| | Signatory | 0.816 | 0.455 | 0.459 | 0.455 | | | |
| Georgia | JRC | 0.122 | 0.070 | 0.074 | 0.074 | 0.074 | | |
| | Signatory | 0.089 | 0.146 | 0.136 | 0.153 | 0.104 | | |

¹⁰ Updated national CO₂ emissions factors for electricity in CoM East countries are now available in the JRC guidebook “How to develop a SECAP in the Eastern Partnership Countries”, issued in 2018.

| | | | | | | | | |
|---------|-----------|-------|-------|-------|-------|-------|-------|-------|
| Moldova | JRC | 0.547 | 0.644 | 0.653 | 0.653 | | | |
| | Signatory | 0.187 | 0.684 | 0.227 | 0.684 | | | |
| Ukraine | JRC | 0.851 | 0.933 | 0.927 | 0.924 | 0.924 | 0.880 | 0.880 |
| | Signatory | 0.468 | 1.186 | 1.532 | 1.160 | 0.460 | 1.160 | 0.460 |
| | JRC | 0.880 | 0.880 | 0.912 | 0.912 | 0.912 | 0.912 | 0.912 |
| | Signatory | 0.452 | 1.090 | 1.090 | 1.085 | 0.200 | 1.113 | 0.100 |

Recommendation: Make sure that emission factors for electricity (as well as other emission factors) recommended by JRC are applied in BEI calculation. If other (different) values are applied, then a reference to “well-recognizes” and JRC accepted sources shall be made in the “Methodological notes” window of the corresponding section of the SEAP template.

The same recommendation is valid for SECAP template provided that revised national coefficients recommended in the new Guidebook on “How to develop a Sustainable Energy and Climate Action Plan in the Eastern Partnership Countries” are applied (see table below).

Please note that if the proposed baseline year is after 2013, then the emission factor from electricity consumption for the year 2013 year defined in the below table is to be applied or new local / national coefficient shall be calculates based on JRC recommendations.

Table 51. CO₂ emissions from Electricity consumption (IPCC approach, tCO₂/MWh) in CoM East countries

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Armenia | 0.396 | 0.406 | 0.240 | 0.215 | 0.174 | 0.200 | 0.172 | 0.195 | 0.190 | 0.130 | 0.136 | 0.179 | 0.278 | 0.243 |
| Azerbaijan | 0.966 | 0.819 | 0.769 | 0.766 | 0.691 | 0.685 | 0.652 | 0.762 | 0.724 | 0.744 | 0.669 | 0.699 | 0.741 | 0.706 |
| Belarus | 0.462 | 0.466 | 0.457 | 0.444 | 0.533 | 0.516 | 0.517 | 0.503 | 0.556 | 0.513 | 0.862 | 0.477 | 0.433 | 0.441 |
| Georgia | 0.267 | 0.180 | 0.079 | 0.076 | 0.103 | 0.118 | 0.189 | 0.232 | 0.112 | 0.181 | 0.112 | 0.129 | 0.140 | 0.094 |
| Moldova | 0.663 | 0.571 | 0.515 | 0.523 | 0.445 | 0.436 | 0.415 | 0.457 | 0.446 | 0.550 | 0.627 | 0.603 | 0.599 | 0.473 |
| Ukraine | 0.614 | 0.630 | 0.622 | 0.698 | 0.554 | 0.613 | 0.654 | 0.632 | 0.624 | 0.605 | 0.713 | 0.637 | 0.673 | 0.660 |

Table 52. GHG emissions from Electricity consumption (IPCC approach, tCO₂-eq/MWh) in CoM East countries

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Armenia | 0.396 | 0.407 | 0.240 | 0.215 | 0.174 | 0.201 | 0.172 | 0.195 | 0.190 | 0.130 | 0.136 | 0.179 | 0.279 | 0.243 |
| Azerbaijan | 0.969 | 0.821 | 0.770 | 0.768 | 0.692 | 0.687 | 0.653 | 0.763 | 0.724 | 0.745 | 0.670 | 0.700 | 0.742 | 0.707 |
| Belarus | 0.463 | 0.466 | 0.458 | 0.444 | 0.533 | 0.516 | 0.518 | 0.504 | 0.556 | 0.514 | 0.863 | 0.478 | 0.433 | 0.441 |
| Georgia | 0.268 | 0.180 | 0.079 | 0.076 | 0.103 | 0.118 | 0.189 | 0.232 | 0.112 | 0.181 | 0.113 | 0.129 | 0.140 | 0.095 |
| Moldova | 0.664 | 0.571 | 0.516 | 0.523 | 0.445 | 0.437 | 0.415 | 0.458 | 0.446 | 0.550 | 0.628 | 0.603 | 0.599 | 0.473 |
| Ukraine | 0.616 | 0.632 | 0.625 | 0.701 | 0.556 | 0.615 | 0.657 | 0.635 | 0.627 | 0.608 | 0.716 | 0.640 | 0.676 | 0.663 |

Table 53. GHG emissions from Electricity consumption (LCA approach, tCO₂-eq/MWh) in CoM East countries

| Country | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Armenia | 0.471 | 0.483 | 0.285 | 0.255 | 0.206 | 0.238 | 0.204 | 0.231 | 0.226 | 0.155 | 0.161 | 0.213 | 0.331 | 0.289 |
| Azerbaijan | 1.116 | 0.959 | 0.900 | 0.896 | 0.812 | 0.803 | 0.767 | 0.897 | 0.856 | 0.883 | 0.795 | 0.830 | 0.880 | 0.837 |
| Belarus | 0.548 | 0.552 | 0.542 | 0.527 | 0.632 | 0.612 | 0.613 | 0.599 | 0.660 | 0.606 | 1.027 | 0.569 | 0.515 | 0.525 |
| Georgia | 0.315 | 0.213 | 0.093 | 0.090 | 0.121 | 0.138 | 0.224 | 0.275 | 0.132 | 0.214 | 0.133 | 0.153 | 0.166 | 0.112 |
| Moldova | 0.782 | 0.674 | 0.609 | 0.617 | 0.529 | 0.518 | 0.493 | 0.543 | 0.530 | 0.653 | 0.745 | 0.716 | 0.711 | 0.562 |
| Ukraine | 0.660 | 0.682 | 0.670 | 0.752 | 0.598 | 0.655 | 0.697 | 0.675 | 0.666 | 0.644 | 0.769 | 0.679 | 0.715 | 0.702 |

Action Plan

The following mistakes were identified in this section:

5. Projected BAU scenario emissions

Mistake: Incorrect data input on projected BAU scenario emissions in "Business-as-Usual projections by target year (if applicable)" field of the "Action Plan" section.

BAU or reference scenario is defined as a projection of energy demand and CO₂ emissions under the hypothesis of continuing current trends in population, economy, technology and absence of changes in current energy and climate policies.

The corresponding box shall be filled only if a signatory has chosen BAU scenario (not "absolute reduction" or "per capita reduction" options).

However, it was observed that some signatories that chosen "absolute reduction" scenario, filled in the BAU box with irrelevant data.

Part III - My Sustainable Energy Action Plan

3) Decision body approving the plan

4) SEAP webpage

5) Business-as-Usual projections by 2020 (if applicable)

CO₂ emissions t CO₂ (eq) /a

Final energy consumption MWh/a

Coefficient applied for BAU: *

Recommendation: Make sure that in "My Overall Strategy" section of SEAP template (see screenshot below), a proper option is selected for calculation of overall CO₂ emissions reductions target out of the following three approaches:

- BEI: absolute reduction
- BEI: per capita reduction
- BAU scenario

"Business-as-Usual projection by 2020" section shall be filled in only if BAU scenario is checked in "My Overall Strategy" section of SEAP template.

Part I - My Overall Strategy

My Overall Strategy

1) Overall CO₂ reduction target

2020 target % Long-term target %

Baseline year Target year

in relation to baseline year:

☐ Absolute reduction

☐ Per capita reduction

in relation to Business-as-Usual scenario:

☐ based on JRC's BAU approach

☐ based on other BAU approach (please specify)

Same recommendation applies to online SECAP template, where it was also observed that some signatories that had chosen BAU scenario (for evaluation of emission reduction target in 2020) estimated the impacts of their actions in 2020 in relation to BEI instead of BAU scenario (see screenshot below).

Online SECAP template: "Action plan overview" table of "My Action Plan Documents" section

Methodological note

Emission reduction target is evaluated against Business as Usual (BAU) scenario.

Estimates of the impacts of actions in 2020 in relation to:

BEI

2014

6. Country-specific BAU coefficients

Mistake: Application of BAU coefficient for projection of CO₂ emission in 2020 different from country-specific coefficients recommended by JRC in the guidebook “How to develop a Sustainable Energy Action Plan (SEAP) in the Eastern Partnership and Central Asian Cities - Guidebook: PART II – Baseline Emissions Inventory”.

If applied, these coefficients are indicated in the “Business-as-Usual projections by 2020” table in the “**My Sustainable Energy Action Plan**” section of SEAP template.

Part III - My Sustainable Energy Action Plan

3) Decision body approving the plan

4) SEAP webpage

5) Business-as-Usual projections by 2020 (if applicable)

CO₂ emissions t CO₂ (eq.)/a
 Final energy consumption MWh/a

Coefficient applied for BAU:

The guidebook defines country-specific coefficients for CoM East signatories to estimate their CO₂ or GHG emissions in 2020 (see Table 4).

Table 4: Country-specific BAU coefficients recommended by JRC

| BAU projections | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| ARM | 1.24 | 1.25 | 1.27 | 1.28 | 1.29 | 1.31 | 1.28 | 1.25 | 1.23 | 1.20 | 1.17 | 1.14 | 1.11 | 1.07 | 1.04 | 1.00 |
| AZE | 1.98 | 1.96 | 1.95 | 1.93 | 1.91 | 1.87 | 1.78 | 1.69 | 1.61 | 1.52 | 1.42 | 1.33 | 1.25 | 1.17 | 1.08 | 1.00 |
| BLR | 1.09 | 1.09 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.09 | 1.08 | 1.07 | 1.05 | 1.04 | 1.03 | 1.02 | 1.01 | 1.00 |
| GEO | 1.66 | 1.65 | 1.64 | 1.63 | 1.62 | 1.61 | 1.55 | 1.49 | 1.42 | 1.36 | 1.30 | 1.24 | 1.18 | 1.12 | 1.06 | 1.00 |
| KAZ | 1.11 | 1.10 | 1.09 | 1.09 | 1.08 | 1.07 | 1.06 | 1.06 | 1.05 | 1.04 | 1.04 | 1.03 | 1.02 | 1.01 | 1.01 | 1.00 |
| KGZ | 1.47 | 1.52 | 1.57 | 1.62 | 1.67 | 1.72 | 1.66 | 1.59 | 1.52 | 1.45 | 1.39 | 1.31 | 1.24 | 1.16 | 1.08 | 1.00 |
| MDA | 1.17 | 1.20 | 1.22 | 1.24 | 1.26 | 1.27 | 1.25 | 1.23 | 1.20 | 1.18 | 1.15 | 1.12 | 1.09 | 1.06 | 1.03 | 1.00 |
| TJK | 2.78 | 2.76 | 2.73 | 2.71 | 2.68 | 2.56 | 2.39 | 2.23 | 2.07 | 1.91 | 1.70 | 1.56 | 1.42 | 1.28 | 1.14 | 1.00 |
| TKM | 0.98 | 0.98 | 0.99 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.00 |
| UKR | 0.98 | 0.99 | 0.99 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.00 |
| UZB | 1.54 | 1.50 | 1.46 | 1.42 | 1.38 | 1.32 | 1.29 | 1.26 | 1.22 | 1.19 | 1.15 | 1.12 | 1.09 | 1.06 | 1.03 | 1.00 |

However, in some cases, instead of coefficients recommended by JRC for BAU scenario for particular baseline years, different coefficients were used by signatories. In the table below, some examples of application of on non-JRC BAU coefficients are introduced.

| Georgia | Year | 2014 | 2012 | 2012 | 2012 |
|---------|-----------|------|------|------|------|
| | JRC | 1.36 | 1.49 | 1.49 | 1.49 |
| | Signatory | 1.56 | 1.68 | 1.39 | 1.43 |

Recommendation: Make sure that BAU coefficients recommended by JRC for corresponding baseline years are applied in case of BAU scenario and appropriate BAU projections are made for 2020 (or 2030). If other (different) values of BAU coefficients are applied, then a reference to “well-recognizes” and JRC accepted sources shall be made in the “Methodological notes” window of the corresponding section of the SEAP template.

Same recommendation applies to SECAP template, where BAU coefficients are indicated in “Business-as-Usual projections by 2020” and “Business-as-Usual projections by 2030” boxes in “**Mitigation Actions**” section.

| Mitigation Actions | | |
|---|--|--------------|
| 5) <u>Business-as-Usual projections by 2020</u> (if applicable) | CO ₂ emissions (t CO ₂ (eq.) /a) | Overall 0 |
| | Final energy consumption (MWh/a) | 0 |
| <u>Business-as-Usual projections by 2030</u> (if applicable) | CO ₂ emissions (t CO ₂ (eq.) /a) | 0 |
| | Final energy consumption (MWh/a) | 0 |

Please note that the new Guidebook on “How to develop a Sustainable Energy and Climate Action Plan in the Eastern Partnership Countries” developed by JRC in 2018 provides a table with updated BAU coefficients recommended to apply to BEI emissions in order to assess the 2030 emissions in CoM East countries (see table below).

Table 44. BAU coefficients to apply to BEI emissions in order to assess the 2030 emissions in CoM East countries

| BEI Year | AM | AZ | BY | GE | MD | UA |
|----------|------|------|------|------|------|------|
| 2005 | 1.24 | 1.98 | 1.09 | 1.60 | 1.17 | 1.00 |
| 2006 | 1.25 | 1.96 | 1.09 | 1.60 | 1.19 | 1.00 |
| 2007 | 1.27 | 1.94 | 1.09 | 1.60 | 1.21 | 1.00 |
| 2008 | 1.28 | 1.91 | 1.10 | 1.61 | 1.23 | 1.01 |
| 2009 | 1.30 | 1.89 | 1.10 | 1.61 | 1.25 | 1.01 |
| 2010 | 1.31 | 1.87 | 1.10 | 1.61 | 1.27 | 1.01 |
| 2011 | 1.29 | 1.83 | 1.10 | 1.58 | 1.26 | 1.01 |
| 2012 | 1.28 | 1.78 | 1.09 | 1.55 | 1.24 | 1.01 |
| 2013 | 1.26 | 1.74 | 1.09 | 1.52 | 1.23 | 1.01 |
| 2014 | 1.25 | 1.70 | 1.08 | 1.49 | 1.22 | 1.01 |
| 2015 | 1.23 | 1.65 | 1.08 | 1.46 | 1.20 | 1.01 |
| 2016 | 1.22 | 1.61 | 1.07 | 1.43 | 1.19 | 1.01 |
| 2017 | 1.20 | 1.57 | 1.07 | 1.40 | 1.18 | 1.01 |
| 2018 | 1.19 | 1.52 | 1.06 | 1.37 | 1.16 | 1.01 |
| 2019 | 1.17 | 1.48 | 1.06 | 1.34 | 1.15 | 1.01 |
| 2020 | 1.16 | 1.44 | 1.05 | 1.31 | 1.14 | 1.01 |
| 2021 | 1.14 | 1.39 | 1.05 | 1.27 | 1.12 | 1.00 |
| 2022 | 1.12 | 1.35 | 1.04 | 1.24 | 1.11 | 1.00 |
| 2023 | 1.11 | 1.30 | 1.04 | 1.21 | 1.09 | 1.00 |
| 2024 | 1.09 | 1.26 | 1.03 | 1.18 | 1.08 | 1.00 |
| 2025 | 1.08 | 1.22 | 1.03 | 1.15 | 1.07 | 1.00 |
| 2026 | 1.06 | 1.17 | 1.02 | 1.12 | 1.05 | 1.00 |
| 2027 | 1.05 | 1.13 | 1.02 | 1.09 | 1.04 | 1.00 |
| 2028 | 1.03 | 1.09 | 1.01 | 1.06 | 1.03 | 1.00 |
| 2029 | 1.02 | 1.04 | 1.01 | 1.03 | 1.01 | 1.00 |
| 2030 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

7. Key Actions of the SEAP (mandatory information)

Mistake: Incorrect data input in "Key Actions of the SEAP" table in **"My Sustainable Energy Action Plan"** section of the template.

No data input into mandatory and recommended cells:

- "Area of intervention"
- "Policy Instrument"
- "Origin of the Action"
- "Estimated implementation costs" (not mandatory input cell).

As a result, **"Unsuccessful saving"** message generated by the template is observed.

| Part III - My Sustainable Energy Action Plan | | | | | | | |
|--|----------------------|-------------------|----------------------|------------------|--------------------------|-----|-------------------------------|
| Key Actions of the SEAP | | | | | | | |
| Add action Delete action Edit action ☆/★ Select / unselect action as Benchmark of Excellence | | | | | | | |
| Key Actions | Area of intervention | Policy instrument | Origin of the action | Responsible body | Implementation timeframe | | Estimated implementation cost |
| | | | | | Start | End | |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | € |
| [Name of the action] | | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | |
| [Name of the action] | | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | | |
| RESIDENTIAL BUILDINGS | | | | | | | |

Recommendation: Make sure that all mandatory (green) input cells in "Key Actions of the SEAP" table in **"My Sustainable Energy Action Plan"** section are filled in with corresponding information on areas of intervention, policy instruments, origin of action as well as on estimated implementation cost of individual key activities.

Make sure that the total estimated implementation cost of all mitigation activities mentioned in "Key Actions of the SEAP" table in **"My Sustainable Energy Action Plan"** section of the SEAP template (if indicated by a signatory) matches to the overall estimated budget for the implementation of your SEAP defined in the **"Strategy"** section.

The same recommendation is relevant for SECAP template.

| Mitigation Actions | | | | |
|---|----------------------|-------------------|----------------------|---------------------|
| Hide rows as appropriate to the time horizon(s) of your action plan. | | | | |
| Key Actions | | | | |
| Please start by providing your totals by sector and add your key actions afterwards. Add as many rows for your key actions as necessary. | | | | |
| Key Actions | Area of intervention | Policy instrument | Origin of the action | Implementation cost |
| | | | | € |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | |

8. Key Actions of the SEAP (estimates in 2020 and deviations)

Mistakes: Incorrect data input in "Key Actions of the SEAP" table in **"My Sustainable Energy Action Plan"** section of the template. No data input into the following mandatory input cells¹¹:

- "Energy saving, MWh/a"
- "Renewable energy production, MWh/a"
- "CO₂ reduction, tCO₂/a"

| Part III - My Sustainable Energy Action Plan | | | | |
|--|-------------------------------|-------------------|-----------------------------|---------------------------|
| Key Actions of the SEAP | | | | |
| ■ Add action ✕ Delete action ✎ Edit action ☆/★ | | | | |
| Key Actions | Estimated implementation cost | Estimates in 2020 | | |
| | | Energy savings | Renewable energy production | CO ₂ reduction |
| | € | MWh/a | MWh/a | t CO ₂ /a |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES ■ | | | | |
| [Name of the action] | | | | |
| Estimated reduction not associated with any reported actions | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES ■ | | | | |
| [Name of the action] | | | | |
| Estimated reduction not associated with any reported actions | | | | |
| RESIDENTIAL BUILDINGS ■ | | | | |
| [Name of the action] | | | | |
| Estimated reduction not associated with any reported actions | | | | |
| TOTAL ■ | 0 | 0 | 0 | 0 |
| Sub-total Buildings, equipment/facilities and industries | | | | |

Recommendation: Make sure that all mandatory input cells in "Key Actions of the SEAP" table in **"My Sustainable Energy Action Plan"** section are filled in with corresponding information on expected energy saving, renewable energy production and CO₂ emission reduction. Make sure that indicated values match with information in SEAP document. Make sure that sum of values of individual actions match with the corresponding total amounts indicated in the mandatory (green) cells¹². The same recommendation is relevant for SECAP template.

| Estimates in 2020 | | | Estimates in 2030 | | | Estimates in long-term target year | | |
|-------------------|-----------------------------|---------------------------|-------------------|-----------------------------|---------------------------|------------------------------------|-----------------------------|---------------------------|
| Energy savings | Renewable energy production | CO ₂ reduction | Energy savings | Renewable energy production | CO ₂ reduction | Energy savings | Renewable energy production | CO ₂ reduction |
| MWh/a | MWh/a | t CO ₂ /a | MWh/a | MWh/a | t CO ₂ /a | MWh/a | MWh/a | t CO ₂ /a |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹¹ According to "The Covenant of Mayors for Climate and Energy Reporting Guidelines" issued by JRC in 2016, "Key Actions of the SEAP" table aims at summarizing information concerning the mitigation actions planned in an action plan, both short and long term. In case the plan contains a large number of actions, a signatory can report only those actions that are defined by a signatory as key actions. However, the **totals per sector should include all the actions foreseen in the action plan**. This means that signatories are obliged to indicate total estimated energy saving, renewable energy production and emission reduction effects of their action plans.

¹² This recommendation is applicable only when all (not only the KEY) SEAP actions are shown in "Key Actions of the SEAP" table. In such cases the system will inform signatories about mismatch between total amounts and the sum of values of individual activities in the windows "Estimated reduction not associated with any reported actions".

The picture below demonstrates a screenshot of a “Mitigation actions” tab of the online SECAP template with missing mandatory data and mismatch in total and individual values.

| <div><</div> | | | | | | | | Estimates in 2020 | | |
|--|------------------|--------------------------|------------------|----------------------|--------------------------|----------------------------------|---------------------|-------------------|-----------------------------|---------------|
| Origin of the action | Responsible body | Implementation timeframe | | Affecting adaptation | Status of Implementation | Implementation cost spent so far | Implementation cost | Energy savings | Renewable energy production | CO2 reduction |
| | | Start | End | | | € | € | MWh/a | MWh/a | CO2/a |
| | | | | | | | | 0 | 0 | 0 |
| Local authority <div></div> | Administrative | 2014 <div></div> | 2020 <div></div> | <div></div> | Ongoing <div></div> | 0 | 5103 | 100 | | 89 |
| Estimated reduction not associated with any reported actions | | | | | | 0.00 | -5103.00 | -100.00 | 0.00 | -89.00 |

9. Key Actions of the SEAP (double-counting of mitigation effect)

Mistake: Double-counting of energy saving and renewable energy production measures in "Key Action of the SEAP" table. The same CO₂ emission reduction effect of renewable energy production is indicated twice: both as “energy saving” and as “renewable energy production”. This leads to double-counting of the same mitigation effect and overestimation of total mitigation commitment.

| Part III - My Sustainable Energy Action Plan | | | | | | |
|--|----------------------|-------------------|-------------------------------|-------------------|-----------------------------|---------------------------|
| Key Actions of the SEAP | | | | | | |
| <input type="button" value="Add action"/> <input type="button" value="Delete action"/> <input type="button" value="Edit action"/> <input type="button" value="Select / unselect action as Benchmark of Excellence"/> | | | | | | |
| Key Actions | Area of intervention | Policy instrument | Estimated implementation cost | Estimates in 2020 | | |
| | | | | Energy savings | Renewable energy production | CO ₂ reduction |
| | | | € | MWh/a | MWh/a | t CO ₂ /a |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| [Name of the action] | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| [Name of the action] | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | |
| RESIDENTIAL BUILDINGS | | | | | | |
| [Name of the action] | | | | | | |
| Estimated reduction not associated with any reported actions | | | | | | |

Recommendation: Make sure that mitigation effect of an individual action is not counted twice. For instance, if it is expected that a PV system to be installed on the roof of a city hall will generate annually 100 MWh/a, then this value shall be indicated only once in “Renewable energy production” column of the corresponding tab. Indication of the same value in the “Energy saving” column leads to double-counting and shall be avoided.

The same recommendation is relevant for SECAP template.

| Estimates in 2020 | | | Estimates in 2030 | | | Estimates in long-term target year | | |
|-------------------|-----------------------------|---------------------------|-------------------|-----------------------------|---------------------------|------------------------------------|-----------------------------|---------------------------|
| Energy savings | Renewable energy production | CO ₂ reduction | Energy savings | Renewable energy production | CO ₂ reduction | Energy savings | Renewable energy production | CO ₂ reduction |
| MWh/a | MWh/a | t CO ₂ /a | MWh/a | MWh/a | t CO ₂ /a | MWh/a | MWh/a | t CO ₂ /a |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

The picture below demonstrates a screenshot of a “Mitigation actions” tab of the online SECAP template with an example of a double-counting of an expected mitigation effects of two renewable energy production actions.

| | | | | | | | Estimates in 2020 | | | |
|--|-------------------|----------------------|------------------|--------------------------|--------|--------------------------|---------------------|----------------|-----------------------------|---------------|
| Area of Intervention | Policy Instrument | Origin of the action | Responsible body | Implementation timeframe | | Affecting adaptation | Implementation cost | Energy savings | Renewable energy production | CO2 reduction |
| | | | | Start | End | | | € | MWh/a | MWh/a |
| Renewable energy for space heating ... | Other | Not possible to say | 21209.4 | 21209.4 | 4284.3 | <input type="checkbox"/> | 620516 | 21209.4 | 21209.4 | 4284.3 |
| Energy efficient electrical appliances | Other | Local authority | 478.8 | 0 | 390.22 | <input type="checkbox"/> | 24646 | 478.8 | 0 | 390.22 |
| Renewable energy for space heating ... | Other | Local authority | 11.2 | 11.2 | 9.13 | <input type="checkbox"/> | 85 | 11.2 | 11.2 | 9.13 |

10. Key Actions of the SEAP (estimates of CO₂ emission reduction)

Mistake: Deviation between CO₂ reduction target (in %) indicated in the “My Overall Strategy” section and the total CO₂ reduction effect (in tCO₂/a) of all mitigation measures proposed by a signatory in "Key Actions of the SEAP" table.

For instance, a signatory with the GHG emissions in baseline year equal to 1000 tCO₂/a declares 20% emission reduction target in the “Overall CO₂ reduction target” section, while total effect of the mitigation actions defined by a signatory in "Key Actions of the SEAP" table is equal to 230 tCO₂/a, i.e. 23%.

Part I - My Overall Strategy

My Overall Strategy

1) Overall CO₂ reduction target 2020 target %

Baseline year

Part III - My Sustainable Energy Action Plan

| Key Actions of the SEAP | | | | | | | |
|--|----------------------|-------------------|-------------------------------|-------------------|-----------------------------|---------------------------|--|
| Key Actions | Area of intervention | Policy Instrument | Estimated implementation cost | Estimates in 2020 | | | |
| | | | | Energy savings | Renewable energy production | CO ₂ reduction | |
| | | | € | MWh/a | MWh/a | t CO ₂ /a | |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | | |
| RESIDENTIAL BUILDINGS | | | | | | | |
| PUBLIC LIGHTING | | | | | | | |
| INDUSTRY | | | | | | | |
| TRANSPORT | | | | | | | |
| LOCAL ELECTRICITY PRODUCTION | | | | | | | |
| LOCAL HEAT/COLD PRODUCTION | | | | | | | |
| OTHERS | | | | | | | |
| TOTAL | | | | | | | |
| Sub-total Buildings, equipment/facilities and industries | | | | | | | |

Recommendation: Make sure that the overall CO₂ emission reduction target set in the “Strategy” section of the SEAP template matches to the overall estimated CO₂ emission reduction effect indicated in the “TOTAL” output cell in the "Key Actions of the SEAP" table of “My Sustainable Energy Action Plan” section.

The same recommendation applies to SECAP template.

Excel based SECAP template: “Commitments” table in “Strategy” section

| Strategy | | | | | | |
|------------------------|------|--------------|--------------|----------------|-------------------------------------|--|
| 2) Commitments | | | | | | |
| Mitigation | | | | | | |
| CO ₂ Target | Unit | Target Year | Base Year | Reduction Type | Population estimates in target year | |
| | % | 2020 | [drop -down] | [drop -down] | | |
| | % | 2030 | [drop -down] | [drop -down] | | |
| | | [drop -down] | [drop -down] | [drop -down] | | |

Excel based SECAP template: “Estimates in 2020” and “Estimates in 2030” tables in “Mitigation Actions” section

| Mitigation Actions | | | | | | |
|---|-------------------|-----------------------------|---------------------------|-------------------|-----------------------------|---------------------------|
| Key Actions | Estimates in 2020 | | | Estimates in 2030 | | |
| | Energy savings | Renewable energy production | CO ₂ reduction | Energy savings | Renewable energy production | CO ₂ reduction |
| | MWh/a | MWh/a | t CO ₂ /a | MWh/a | MWh/a | t CO ₂ /a |
| MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| TERTIARY BUILDINGS, EQUIPMENT/FACILITIES | | | | | | |
| <i>Estimated reduction not associated with any reported actions</i> | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 |

Below a screenshot of online SECAP template is shown where incorrect CO₂ emission reduction commitment input can be seen (20% up to 2030).

Online SECAP template: “Commitments” table on “My Strategy” page

Commitments

| Mitigation | | | | | |
|------------|------|-------------|-----------|----------------|-------------------------------------|
| CO2 target | Unit | Target year | Base year | Reduction type | Population estimates in target year |
| 20 | % | 2030 | 2015 | Absolute | 23900 |
| 40 | % | Long term | 2015 | Absolute | |

Summary of typical mistakes and deviations identified in SEAP templates

| N | Typical mistakes and deviations identified in SEAP templates | TOTAL |
|------------------------------------|---|------------|
| Strategy | | |
| 1 | Incorrect indication of overall CO ₂ reduction target | 2 |
| 2 | Inconsistency between overall estimated budget for the implementation of SEAP and estimated total implementation costs | 10 |
| 3 | Incorrect indication of time period for implementation of SEAP | 18 |
| Baseline Emission Inventory | | |
| 4 | Application of non-JRC emission coefficient for electricity | 61 |
| Action Plan | | |
| 5 | Incorrect data input on projected BAU scenario emissions | 34 |
| 6 | Application of non-JRC BAU coefficient for projection of CO ₂ emission in 2020 | 7 |
| 7 | Incorrect data input in "Key Actions of the SEAP" table: no data input into mandatory fields | 12 |
| 8 | No data input on estimated implementation cost in "Key Actions of the SEAP" table | 57 |
| 9 | No data input in mandatory fields of "energy saving" and/or "renewable energy production" and/or "CO ₂ emission reduction" | 46 |
| 10 | Double-counting of energy saving and renewable energy generation measures in "Key Action of the SEAP" table | 23 |
| 11 | Deviations in summary and individual data on proposed mitigation activities | 48 |
| 12 | Inconsistency between CO ₂ reduction target indicated in the "Overall Strategy" and total CO ₂ reduction effect of all individual actions | 70 |
| | TOTAL BY COUNTRIES | 338 |