## Session SBI42 (2015)

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A compilation of questions to - and answers by - Belgium
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Question by Brazil at Tuesday, 31 March 2015

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 of March

Title: AAUs surplus

In page 35 was explained that "At CMP.9 the EU made a declaration when adopting the Doha amendment of the Kyoto Protocol that the European Union legislation on Climate-Energy Package for the implementation of its emission reduction objectives for the period 2013-2020 does not allow the use of surplus AAUs carried over from the first commitment period to meet these objectives".

Does Belgium foresee any other use of surplus AAUs carried over from the first commitment period at the national level? Or in each of the 3 Regions?

Answer by Belgium at Thursday, 28 May 2015

The Report on the individual Review of the annual Submission of Belgium, submitted in 2014, was published only very recently, on April 15, 2015.

As the final figures for the first commitment period are now available, a technical Working Group has started to analyze different options for retirement, cancellation and carry-over of the different types of units (for each regions and Belgium as a whole).

The possible options identified by the technical Working Group will be discussed by the National Climate Commission in June, with the aim to take a final decision before the beginning of the true-up period, in August.

In this context, it is currently not possible to indicate if and how much surplus AAUs will be carried-over to the second commitment period, neither at the national nor at regional level. It is therefore also not possible to indicate how we foresee the use of this potential surplus.

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Question by United States of America at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March

Title: Estimating Mitigation Impacts

To what extent did Belgium attempt to eliminate the double counting of emission reductions in estimating the mitigation impacts of specific policies and measures?

Answer by Belgium at Thursday, 28 May 2015

It is very difficult, if not impossible, to completely avoid double counting when estimating the mitigation impact of individual PAMs. However it is important to try to limit that effect.

The approach used in Belgium consists in grouping measures within "clusters" of measures aiming at common objectives, (eventually adding measures from other clusters which obviously contribute to the same mitigation impact) and estimate a global impact for the whole set of measures.

Clusters of measures are described with more details in Belgium's 6th National Communication on Climate Change under the UNFCCC (Dec 2013); (See Chapter 4, Table 4.3, p 67 and following)

For example, in the residential sector, financial support is being provided by the three regions for investments aimed at reducing households energy consumptions. In parallel, during several years, the Federal State offered a 40% income tax deduction for the same investments. Also, subsidies are available to promote investments in renewable energy sources (RES), while the production of electricity from RES is supported by a green certificates market.

In each case, the mitigation impact of measures is calculated by grouping the different measures aiming at a common objective and using the most documented and most complete statistics available.

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Question by United States of America at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March

Title: KP Units

Could Belgium clarify its expected use of units from Kyoto Protocol mechanisms to reach its 2020 target?

Answer by Belgium at Thursday, 28 May 2015

Since Belgium will very soon re-assess its 2013-2020 compliance situation based on its recently updated national GHG projections, it is at the moment unclear if it will need to use the Kyoto mechanisms in order to fulfill its emission reduction commitment under the KP CP.2.

Emissions from the ETS sector are part of the EU joint objective: one single EU ETS cap covers the EU Member States and the three participating non-EU Member States (Norway, Iceland and Liechtenstein), i.e. there are no further differentiated caps by country. For allowances allocated to the EU ETS sectors, annual caps have been set

for the period from 2013 to 2020; these decrease by 1.74 % annually, starting from the average level of allowances issued by Member States for the second trading period (2008–2012). The annual caps imply interim targets for emission reductions in sectors covered by the EU ETS for each year until 2020.

Regarding the non-ETS sectors, according to the last projections reported by Belgium under the Monitoring Mechanism Regulation (EU) n°525/2013, an indicative comparison of the WEM (with existing measures) projection scenario with the AEAs (Annual Emissions Allocation under the European Effort Sharing Decision) for the entire period 2013-2020 shows an annual AEA surplus in the period 2013-2017 and annual AEA shortage in the period 2018-2020 at the Belgian level. Cumulated in the period 2013-2020 this evaluation indicates a net surplus of about 5 million AEAs. This emission balance will be monitored closely to enable a continuous assessment based on the most recent data.

However, as long as the burden sharing of the ESD target between the three regions and the federal state has not been concluded, no final conclusions can be drawn from a regional or national point of view.

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Question by Canada at Tuesday, 31 March 2015

Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March

Title: Policies and measures in the transport sector

The ERT makes note that "the greatest challenge for Belgium in meeting its target lies in reducing its emissions from the transport sector. Belgium has many PaMs in place for curbing the emissions from road transport." However, the Transport related PaMs listed in Table 3 of Belgium's BR1 were implemented in 2004. Is Belgium planning or considering additional or updated measures in the transport sector and if possible, could you please describe them?

Answer by Belgium at Thursday, 28 May 2015

The year 2004 as starting date for the implementation of measures is indicative. It is chosen by default because it is the year of the decision of the first Belgian burden sharing.

In the last updated PAMs list reported in April 2015 under the Monitoring Mechanism Regulation (EU) n°525/2013, some starting years of implementation have been adapted. In practice most of the measures or parts thereof have been updated over the years, but since these are smaller or larger updates of the original measures which remained continually in effect, the dates in the table were not altered. An additional reason for this was that the timing of updates differs between

the competent entities (federal/three regions), while there is only one date reported for Belgium as a hole for the integrated measures of the National Climate Plan.

Reducing GHG emissions from the transport sector is challenging indeed. Concerning the mitigation of the emissions of this sector, 3 types of action can be envisaged:

- Try to rationalize/reduce the transport demand;
- Induce a modal shift towards lower emission modes of transport (public transport, coaches, cycling or walking for passengers; railways and inland vessels for goods);
- Increase the use of cleaner vehicle technologies and fuels.

The promotion of public transport calls for sets of complementary measures (from the improvement of public transport services to the construction of parking lots and bicycle facilities close to train stations, construction of new train- and tramlines, extension of suburban rail network, ...), measure which are notably implemented through management contracts between authorities and public transport companies.

Several European directives and regulations – such as the emission standards for new passenger cars and for light duty vehicles, fuel quality directive, ... - have a positive impact on the environmental characteristics of the vehicles driven and fuels used in Belgium. Belgium implements several additional actions to further promote cleaner vehicles, for instance by means of subsidies/penalties, fiscal measures, awareness raising campaigns, ... Results were encouraging and a lot of actions are currently upheld, not only for mitigating GHG emissions but also considering their positive impacts on air quality, particularly in urban areas.

Belgium is currently undergoing an institutional reform, with large transfers of responsibilities to the Regions, namely in the domain of fiscal policy. For budgetary reasons and also as a consequence of this institutional reform, federal fiscal measures promoting cleaner vehicles were ended. The regions are currently investigating new (fiscal) measures to compensate.

The regions supports and promotes the Ecoscore methodology and website (www.ecoscore.be) that assess the environmental impact of cars. In order to encourage less-polluting vehicles - and not a technology in particular - the Ecoscore is used in several regional laws, mobility plans for companies and laws on pollution peaks. The Ecoscore is an important criterion in public procurement to acquire new vehicles.

Beyond the initiatives encouraging also the use of alternatives to the private car (carpooling and car sharing), eco-driving and inter-modal transport, sensitization is developed to reinforce the exemplary role of public institutions in the field of efficient management of vehicles: benchmarking, new working methods promoting schedule flexibility, teleworking ...

In the Belgian federal system responsibilities and policy making competences are divided among the Federal Government and the three regions (the Walloon Region, Flemish Region and Brussels Capital Region). The implementation of climate change policies and measures, relating to transport, is based on plans drawn up respectively by the federal and regional governments, which set their own priorities and are free to determine their own goals within the scope of their competences.

The discussion and reflexion forward are held in different levels of authority, for instance, concerning an agreement between the regions for implementing a differentiated kilometer charge for heavy duty vehicles in 2016 (www.viapass.be). The Viapass project also envisages the introduction over time of a mechanism for the effective use of cars. Towards this end, preliminary studies have been conducted on the potential impact of an adaptation of the circulation tax for light vehicles.

The implementation of the Directive "Clean Power for Transport" (2014/94/UE) is also been discussed between the Federal State and the Regions. This directive aims the improvement of energy efficiency of transport infrastructure, equipment and transport management. The objective is to stimulate alternative fuels like CNG and LPG.

A lot of actions are also taking place in cities and municipalities, with support from the regional governments: several cities are expanding their car free zones, increasing investments in cycle paths by both regional and local governments (depending on which government is responsible for the road in question), local mobility plans, ...

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Question by United States of America at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 31 of March Title: Non-ETS Sectors

The Expert Review Team noted that Belgium's Biennial Report does not report on emissions from non-ETS sectors or progress toward its national target under the EU Effort Sharing Decision. Could Belgium provide additional clarity on this issue?

Answer by Belgium at Thursday, 28 May 2015

According to the last projections reported by Belgium under the Monitoring Mechanism Regulation (EU) n°525/2013, an indicative comparison of the WEM (with existing measures) projection scenario with the AEAs (Annual Emissions Allocation under the European Effort Sharing Decision) for the entire period 2013-2020 shows an annual AEA surplus in the period 2013-2017 and annual AEA shortage in the period 2018-2020 at the Belgian level. Cumulated in the period 2013-2020 this

evaluation indicates a net surplus of about 5 million AEAs. This emission balance will be monitored closely to enable a continuous assessment based on the most recent data.

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Question by Brazil at Tuesday, 31 March 2015

Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March

Title: Mitigation actions

In regard to Table 3, does Belgium plan to estimate the impact of mitigation actions that have not being estimated (NE)? If not, what are the main reasons? If possible, give the explanation by mitigation action or by cluster/sector (in particular Agriculture and forestry and Waste).

Answer by Belgium at Thursday, 28 May 2015

The feasibility to estimate the mitigation impact of PAMs mainly depends upon the availability of information. Generally, where the impact of measures has not been estimated (NE), necessary information is lacking.

In some cases, estimates have not yet been made, it may notably be the case for measures which have been applied in the framework of policies which are different from climate change considerations, but can have a favourable influence on GHG emission levels.

It is in particular the case for measures in agriculture and forestry, where initiatives taken in the framework of the new European Common Agriculture Policy and sustainable management of forests, yielding the production of world-wide recognized certified wood. A recent document develops several PAMs in LULUCF, but still without estimating their potential impact on GHG emissions, see http://cdr.eionet.europa.eu/be/eu/mmr/art04-13-

14\_lcds\_pams\_projections/envvk5kbg/LULUCF\_Actions\_in\_Belgium\_art\_10\_goedge k\_NKC\_7-Jan-2015.pdf/manage\_document.

Waste management is not a major contributor to Belgian GHG emissions anymore. In application of the European Directives on waste management, relevant PAMs have been implemented with the following results:

- Organic municipal waste is not allowed in landfills anymore;
- All recent landfills are equipped with biogas capture systems and use it to produce electricity;
- Former closed landfills are supervised and equipped with gas flaring when necessary (generally for security reasons);

- Municipal waste is now incinerated or transformed by biomethanisation or composting;
- All municipal waste incinerators produce energy.

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Question by Brazil at Tuesday, 31 March 2015

Category: Progress towards the achievement of its quantified economy-

wide emission reduction target

Type: Before 31 of March

Title: CERs

In Table 4(b), the amount of CERs in 2012 increased significantly compared to 2011. Can this trend be explained? Is there any kind of division between the 3 Regions (i.e. any particular Region has being more active in acquiring such units)?

Answer by Belgium at Thursday, 28 May 2015

Table 4(b) refers to the surrendered Kyoto units by Belgian operators under the EU ETS only.

Under the second phase of the EU ETS (2008-2012) operators received most of their allocations for free. Moreover allocations were received in the year of emissions (by the end of February), whilst the compliance for that year only needed to be fulfilled by the end of April the year afterwards.

In the second year of the phase (2009, first time to fulfil compliance obligations for this phase) operators hence had already received twice an allocation (2008 & 2009) before they actually needed to fulfil their compliance obligations a first time. In the first years of the period there was hence no real need for them to use other units than their allocations (EUAs, backed by AAUs).

As such it is only by the end of the phase that operators started using CERs/ERUs for their compliance obligations, once they got a clearer sight on their actual emissions during the complete phase.

Moreover, in the last years of the phase, the prices of CERs/ERUs fell significantly lower than the prices of EUAs, hence making it very beneficial for the operators to use CERs/ERUs up to their limits set by the legislation instead of EUAs (backed by AAUs) for their compliance obligations.

For sure this meant at the same time that the operators had to use less EUAs to fulfil their compliance obligations; table 4(b) shows indeed a significant decrease of the use of EUAs (backed by AAUs) by operators under the EU ETS in 2012 in comparison to 2011.

In regards to any regional differences, we can see some differences in use of CERs by the operators under the EU ETS:

- Nor in 2011, nor in 2012 CERs where used by operators of the Brussels Capital Region;
- In the Flemish region a significant increased use of CERs from 2011 to 2012 was noticed:
  - only 0,76% of the compliance obligations were fulfilled with CERs in 2011, whilst this raised to 15,72% in 2012;
- In the Walloon region a small increase of use of CERs was noticed: from 1.97% in 2011 to 4.94% in 2012.

Some possible explanations for these differences might be that:

- The Brussels Capital region only has a very small number of installations under the EU ETS in comparison to the two other regions;
- ETS operators were allowed a maximum percentage of CERs/ERUs to fulfil their surrendering obligations over the whole CP1 period. This limit was 9,17% in the Flemish region but only 4% in the Walloon region.

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Question by United States of America at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March Title: 2030 Projections

Will Belgium provide 2030 projections by sector, as recommended by the Expert Review Team?

Answer by Belgium at Thursday, 28 May 2015

Belgium has reported projections by sectors up to 2035 under the Monitoring Mechanism Regulation (EU) n°525/2013 (MMR), in April 2015.

A copy of the total GHG emissions projections in a With Existing Measures scenario as reported under the MMR is presented below:

CRF format (kton CO <sub>2</sub> -eq)	2012	2015	2020	2025	2030	2035
1 Energy	85198	87069	85615	89470	94307	94914
1A fuel combustion	84647	86519	85087	88943	93782	94390
1A1 Energy industries	20308	22823	21057	25142	29595	29442

Total excluding LULUCF	115799	119742	117895	120701	124774	124882
5 Waste	2299	2251	1892	1620	1453	1381
4 Land-Use Change and Forestry	-461	-670	-777	-529	915	915
3 Agriculture	9918	10492	10453	10481	10446	10383
2 Industrial processes	18384	19930	19935	19131	18568	18203
1B Fugitive emissions from fuels	551	550	528	527	526	524
1A5 Other	0	0	0	0	0	0
1A4 Commercial / residential / agriculture	24763	24299	23150	22260	21389	20841
1A3 Transport	24941	24741	25618	26170	27090	27943
1A2 Manufacturing industries and construction	14635	14657	15262	15371	15708	16164
1A2 Manufacturing						

Hence, Belgium is committed to report 2030 projections by sector in its next Biennial Report, as recommended by the Expert Review Team.

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Question by Brazil at Tuesday, 31 March 2015

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 of March

Title: Market based mechanisms

In page 35, it is explained that "In the sectors not covered by the ETS, annual use [of units from market mechanism] shall not exceed to 3 % of each Member State's non-ETS greenhouse gas emissions in 2005. According to art. 5 (5) of Decision 406/2009/EC (ESD) a limited number of Member States may use an additional 1%, from projects in LDCs or SIDS subject to specific conditions. Belgium benefits of the use of this additional 1% as listed in Annex III of the decision".

It is also explained that "The exact number of units that can be used during the period 2013-2020 can only be determined following the availability of final data concerning the use of these units during the period 2008-2012 and relevant greenhouse gas emissions data".

Is Belgium planning/foreseeing to use the total (3% + 1%) in the first commitment period? For the period 2013-2020, what procedures Belgium have (or plan to have) to acquire such units (if necessary)? Any of the 3 Regions have (or will have) specific procedures?

Answer by Belgium at Thursday, 28 May 2015

Since Belgium will very soon re-assess its 2013-2020 compliance situation based on its recently updated national GHG projections, it is at the moment unclear if it will need to use units from the KP mechanisms in order to fulfill its emission reduction commitment under the KP CP.2.

As a result of this, and also since the burden sharing of the ESD target between the three regions and the federal state has not been concluded, no modalities have officially been determined, it is not possible to indicate at this stage if Belgium and/or any of the 3 Regions will need to acquire units from the KP mechanisms, nor if any specific procedure will need to be launched in this regard.

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Question by New Zealand at Monday, 30 March 2015

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 of March

Title: Sustainable transport policies and measures

What methodologies does Belgium use to estimate the mitigation effects of policies and measures (PaMs) to encourage sustainable transport, in particular PaMs to encourage walking, cycling and multimodal transport? What are the projected effects of these PaMs on future greenhouse gas emissions?

Answer by Belgium at Thursday, 28 May 2015

A global cluster of measures covers different measures aiming at promoting the use of public transport (trains, metro, trams and busses), measures include not only improvements of the public transport services and free access to public transports for employees, but also the restriction of parking places in urban areas, the implementation of new parking lots close to train or bus stations, reserved bus lanes and parking places for bicycles, increased investments in cycling paths, ... The expected mitigation impact of all those initiatives considered as a group is calculated on the basis of the expected (and indeed observed) increase of passengers in public transport.

The mitigation impact of the set of measures is estimated assuming that the growth of passengers is only due to the measures. The calculation is based on estimates of the average distance covered to shuttle from home to work, the average occupancy rate and fuel consumption of passenger cars, and specific GHG emissions linked to a unit distance covered by car, bus or train. For more information please refer to table 4-11 of the 6th National Communication.

Data exist on the use of public bicycles made available by local authorities and on income tax exemptions offered to employees using bicycles to shuttle from home to work.

For more details on the methodology in general, see: VITO & ECONOTEC: Evaluation of the impact of policy instruments and measures implemented in the context of the federal climate policy. Study commissioned by the Belgian Federal Public Service of Public Health, Food Chain Safety and Environment, 2015 (in English), <a href="https://www.climat.be/evaluation-PAMs">www.climat.be/evaluation-PAMs</a> or <a href="https://www.klimaat.be/evaluatie-PAMs">www.klimaat.be/evaluatie-PAMs</a>

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Question by China at Monday, 30 March 2015

Category: Progress towards the achievement of its quantified economywide emission reduction target

Type: Before 31 of March

Title: national climate commission

Who will be on the National Climate Commission? Will the members obtain sufficient authorization to execute "the National Climate Plan" at both federal and regional levels?

Answer by Belgium at Thursday, 28 May 2015

The National Climate Commission has been established by the Cooperation Agreement of 14 November 2002 between the federal state and the three regions and was put into place at the end of 2003. Its objective is to curb CO2 emissions and other GHG, as planned at European and international levels, through two main instruments: a national climate plan and the fulfillment of European and international reporting obligations. The Agreement fixes cooperation rules for the execution of the National Climate Plan. In this regard, the National Climate Commission's role is to perform annual evaluations of the cooperation between parties' to the Agreement and of the National Climate Plan itself, as well as to issue recommendations. In addition, the National Climate Commission has to perform annual evaluations of the need to reexamine the whole or parts of the National Climate Plan.

Each party to the Cooperation Agreement appoints eight representatives (four full and four alternate member). Most often those representatives are advisers to the ministers of environment, energy, development cooperation, economy and the Prime ministers. Upon approval of a burden sharing of the ESD target between the three regions and the federal state for the period 2013-2020, members of the National Climate Commission should agree to revise the National Climate Plan (2009-2012) and adopt a new plan covering the period 2015-2020.

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Question by China at Monday, 30 March 2015

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 of March

Title: specific projection information

As Belgium is a member state of EU, please provide further information regarding the analysis on whether its projection shows that emissions from ETS-sectors and ESD-sectors are in line with respective emission reduction targets, particularly for the transportation sector?

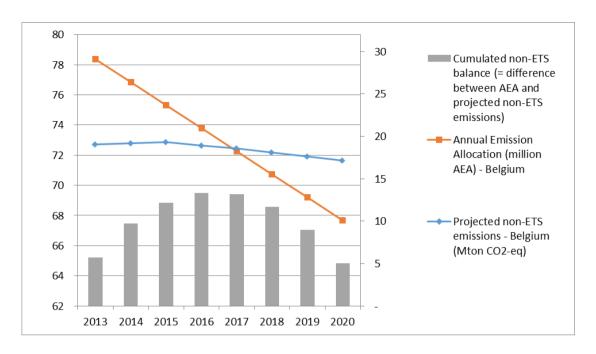
Answer by Belgium at Thursday, 28 May 2015

Emissions from the ETS sector are part of the EU joint objective: one single EU ETS cap covers the EU Member States and the three participating non-EU Member States (Norway, Iceland and Liechtenstein), i.e. there are no further differentiated caps by country. For allowances allocated to the EU ETS sectors, annual caps have been set for the period from 2013 to 2020; these decrease by 1.74 % annually, starting from the average level of allowances issued by Member States for the second trading period (2008–2012). The annual caps imply interim targets for emission reductions in sectors covered by the EU ETS for each year until 2020.

Regarding the non-ETS sectors, according to the last projections reported by Belgium under the Monitoring Mechanism Regulation (EU) n°525/2013, an indicative comparison of the WEM (with existing measures) projection scenario with the AEAs (Annual Emissions Allocation under the European Effort Sharing Decision) for the entire period 2013-2020 shows an annual AEA surplus in the period 2013-2017 and annual AEA shortage in the period 2018-2020 at the Belgian level. Cumulated in the period 2013-2020 this evaluation indicates a net surplus of about 5 million AEAs. This emission balance will be monitored closely to enable a continuous assessment based on the most recent data.

However, as long as the internal Belgian burden sharing of the ESD targets has not been adopted, no final conclusions can be drawn from a regional or national point of view.

Regarding transport, no specific target is assigned under the ESD, so no conclusion can be drawn towards a target. The projected evolution of the transport emissions differ in the different regions but are projected to increase until 2030 for Belgium as a whole. Therefore, depending on their specific situation and on the actual emission levels in the coming years, the different authorities will have to consider whether specific/additional attention should be paid to the transport sector when developing new PAMs.



Comparison of the WEM projection scenario with the AEAs for the period 2013-2020

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Question by China at Monday, 30 March 2015

Category: All emissions and removals related to its quantified economywide emission reduction target

Type: Before 31 of March

Title: SF6

The mandatory reporting information for SF6 emissions and the carbon stock change of LULUCF sector is missing in the Inventory, please explain and elaborate plans for further improvement regarding this issues.

Answer by Belgium at Thursday, 28 May 2015

Mandatory: SF6 emissions from electrical equipment manufacturing (for the period 1990–2008) have been incorporated in the 2014 submission (16/09/14). The SF6 emissions from electrical equipment disposal (for the period 1990–2009) do not occur because the equipment lifetime is assumed to be 40 years (emissions are not expected before 2015, except for those of one significant plant in the transport sector that has been dismantled in 2011) – see NIR 2014 page 136.

Mandatory: Carbon stock change in living biomass in cropland (orchards) are estimated and reported in the 2014 submission. Carbon emissions from organic soils in cropland and grassland are estimated and reported in the 2014 submission. See NIR 2014, pages 192 - 196.

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Question by China at Monday, 30 March 2015

Category: All emissions and removals related to its quantified economy-

wide emission reduction target

Type: Before 31 of March

Title: QAQC process

How will Belgium improve the QAQC process of the development of national GHG inventory, particularly for the waste sector?

Answer by Belgium at Thursday, 28 May 2015

Belgium applies the procedure described in the NIR 2014 section 8.2.4 page 213 and section 8.4.4 page 223. This procedure has led to a recalculation in the submission 2014 as described on pages 214 in the NIR 2014.

General QA/QC procedures applied in the 3 regions in Belgium can be found on p. 35 in the NIR 2014.

IPCC 2006 guidelines will be used from the 2015 submission on. After intensive discussion between the 3 regions, the decision was taken to harmonize the use of the IPCC 2006 methodologies in Belgium. Therefore, the waste sector will be completely revised and harmonized as far as relevant.