# Session SBI42 (2015)

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A compilation of questions to - and answers by - Greece Exported 29-5-2015 by the UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE 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: Metrics

The quantified economy-wide emission reduction target by Greece is expressed using the GWP values from the IPCC AR4, while emission levels are assessed using the values from the IPCC Second Assessment Report as per the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories". This makes the comparison of figures more difficult. Will Greece use the same set of GWP values?

Answer by Greece at Wednesday, 27 May 2015

According to the reporting guidelines for National Communications of Annex I Parties: "Emission projections shall be presented relative to actual inventory data for the preceding years" and "In addition, projections shall be provided in an aggregated format for each sector as well as for a national total, using global warming potential (GWP) values agreed upon by the Conference of the Parties". The agreed GWPs of the time that NC6 was submitted for national inventories were the GWPs from the IPCC Second Assessment Report, which were applied.

In the next BR submission the GHG inventory and projections, along with the quantified economy-wide emission reduction target will be expressed using the GWP values from the IPCC AR4.

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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: Base year

According to the Guidelines and to footnote (a) to Table 1 in "grc\_2014\_v2.0\_formatted.pdf", the column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. Why does Greece use this column?

Answer by Greece at Wednesday, 27 May 2015

We confirm that the column "base year" in Table 1 of BR tables refers to the year 1990.

Please consider that CTF Table 1 was generated automatically by the Biennial report CTF application.

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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: Correction

Greece should label the final column of Table 3 to show the year it refers to.

Answer by Greece at Wednesday, 27 May 2015

The last column of CTF Table 3 refers to year 2020.

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Question by Brazil at Tuesday, 31 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: Biofuels

One of Greece's implemented mitigation actions is the use biofuel in transportation, since 1996. What is the main biofuel used in Greece?

Answer by Greece at Wednesday, 27 May 2015

The only biofuel distributed currently in the Greek market is biodiesel according to EN 14214 standard, blended in transport diesel.

According to latest national energy balance, in 2013, 137 kt of biodiesel were used in road transport sector of Greece.

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Question by Brazil at Tuesday, 31 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: Biofuels 2 NC6, page 140, states "According to the directive 2003/30/EC, 5.75% of the total quantity of diesel and gasoline consumed in road transportation in Greece up to 2010, based on the energy content, has to be biofuel. The target for 2020 is 10% as in the rest European countries according to the directive 2009/28/EC. Greece has approved the target with the law L3851/2010." What biofuel is used in gasoline?

Answer by Greece at Wednesday, 27 May 2015

The Greek legal framework provides that bioethanol (ethanol of biological origin) according to EN 15376 standard, can be blended in gasoline. However, no blends of gasoline with bioethanol are distributed / used in the Greek market.

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Question by Brazil at Tuesday, 31 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: Biofuels 3

Is Greece importing Brazilian bioethanol from sugar cane? If yes, how the Greenergy Brazilian Bioethanol verification programme (NC6 page 161) is being applied?

Answer by Greece at Wednesday, 27 May 2015

No bioethanol for blending with transport fuels is imported from Brazil.

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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: Renewable Energy Target

Is Greece on track to meet its 2020 renewable energy target?

Answer by Greece at Wednesday, 27 May 2015

The progress of Greece to meet the 2020 renewable energy target in transport can be overviewed in the progress reports submitted every two years under article 22 of Directive 2009/29/EC.

(http://ec.europa.eu/energy/en/topics/renewable-energy/progress-reports)

In the period 2011-2012, RES penetration in the gross final energy consumption (GFEC) has exhibited a remarkable increase (Figure 1), surpassing the respective projected penetration of the National Renewable Energy Action Plan (NREAP). According to provisional data, the RES penetration in GFEC for 2013 is 15%, which is also higher than the projected penetration of RES of the NREAP (9.9% in 2013).

The main parameter shifting the overall share of RES in GFEC higher than expected was the use of RES for heating purposes in the final energy consumption, and, in specific, the residential sector. Specifically, in the last years a significant increase in the use of biomass has been observed. However, this increase in RES share for heating should not be ascribed only to the economic recession, but also to the effectiveness of various measures taken to improve energy efficiency at end use level (e.g. program for energy savings at households). In addition, solar thermal systems have steadily attained an important position in RES applications for domestic hot water, while the use of heat pumps for space heating has exhibited a significant growth rate in the last years. The penetration of RES for heating in 2013 already stands at 26.5%, surpassing even the corresponding indicative target for 2020, presented at the NREAP (20%). It should be noted that the above surpassing relates not only to the actual increase of RES use for heating but also to a lower final gross energy consumption for heating than the one projected at NREAP (i.e. for years 2011 and 2012 the actual gross final energy consumption for heating purposes was 6.8Mtoe and 6.1Mtoe, substantially lower than the projected consumption at NREAP which was at the level of 8.4Mtoe for both years).

Regarding the penetration of RES in gross final electricity consumption, a steady increase has undoubtedly been observed; although a small offset from the projected figures for 2012 in the NREAP is evident (Figure 1). According to the latest energy balance, in 2013 the penetration of RES in gross final electricity consumption was 21.2%, which is very close to the projected target in the NREAP (21.8%).

The total installed capacity surpassed the installed capacity projected in NREAP and this trend continued in 2013, the RES electricity mix was differentiated significantly from the NREAP projections, with the main share in the RES installed capacity being attained by photovoltaic stations instead of wind farms. The installed capacity in June 2014 was 4721.2MW, very close to the target for 2014 according to NREAP (5052 MW). Moreover, a power purchase agreement, i.e. a 20-year contract for selling the produced electricity, was issued for another 2074MW of RES technologies in June 2014. The status of RES projects is described in the Table 1.

(Attachment: Q by USA Renewable Energy Target.pdf)

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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: Market based mechanisms

Greece is not planning to use market-based mechanisms under the Convention to achieve its quantified economy-wide emission reduction target. Considering that Greece reported the use of units from market-based mechanisms as 63,661.02 kt CO2eq in 2010, 59,925.87 kt CO2eq in 2011, and 54,460.96 kt CO2 eq in 2012 (KP-CP1), how sure is Greece not to use market-based mechanisms again?

#### Answer by at Wednesday, 27 May 2015

As concerns the KP Target of Greece during the 1st CP:

The EU target (EU-15) under the 1st commitment period of the Kyoto Protocol is the reduction of emissions at 8% for the period 2008-2012

EU has stated that this will be achieved jointly by EU Member-States under the provisions of Article 4 of the Protocol.

The Burden-Sharing agreement between all Member States was finalized during the Environment Council in June 1998 and entered into force with Decision 2002/358/EC concerning the approval, on behalf of the European Community, of the Kyoto Protocol.

According to this agreement, Greece was committed to limit its GHG emissions increase for the period 2008 – 2012 to +25% compared to base year emissions (1990 for CO2, CH4 and N2O emissions – 1995 for F - gases).

This target was translated to an Assigned Amount of Greece of 668,669.81 kt. The estimated RMUs (removals from forestry activities under Article 3.3 and elected 3.4 activities) according to the latest reviewed inventory (submitted in 2014) are 2,052.03 kt CO2 eq for the period 2008-2012.

The total GHG emissions of Greece (excluding LULUCF) for 2008-2012 are 598,504 kt CO2eq.

Consequently, the Assigned Amount of Greece + the generated RMUs from 3.3 and 3.4 activities exceed by more than 10% the total GHG emissions of Greece during the CP1 of KP.

### Therefore:

Greece meets its Kyoto Protocol target for the 1st CP with the existing implemented and adopted policies and measures, including the implementation of EU-ETS. Greece does not need and will not use market-based mechanisms (e.g. JI or CDM units) to reach its target.

However, JI and CDM credits have been utilized by the installations subject to the EU-ETS.

According to the National Allocation Plan 2008-2012, installations were allowed to use for compliance credits from these two mechanisms up to 9% of their allocated allowances.

According to SEF tables (2015 submission), the use of CERs and ERUs during 1st CP of KP was around 27.88 MtCO2, which corresponds to 8.6% of allocated allowances.

It should be clarified that the quantities reported at the column entitled: "Quantity of units from market based mechanisms under the Convention" of CTF Table 4 are the annual quantities of Kyoto Protocol units which have been included in the retirement account in the respective years for Greece. These units correspond to the amount of units surrendered annually by the EU ETS operators. The majority of them are AAUs as explained above (ETS installations were allowed to use credits from CDM and JI up to 9% of their allocated allowances during CP1).

Please also refer to section A.I.4.2.2 of the BR1 and CTF Table 4(b).

Concerning the 2020 non-ETS target of Greece pursuant to European legislation (2013/162/EU and its amendment 2013/634/EU), by comparing the annual emissions allocation for the years 2013-2020 (Annex 1 of 2013/162/EU and 2013/634/EU) with the projected emissions from non-ETS sectors (Table 5.5 of NC6), it is concluded that it is anticipated that Greece will meet this target, on the basis of the domestic policies and measures.

Under the EU-ETS and for the period 2013-2020, a limited entitlement to use international credits was given to operators. For example according to COMMISSION REGULATION (EU) No 1123/2013: "Each operator of a stationary installation which received a free allocation or an entitlement to use international credits in the period from 2008 to 2012 shall be entitled to use international credits during the period 2008 to 2020 up to the amount allowed in the period from 2008 to 2012, or to an amount corresponding to a maximum of 11 % of its allocation in the period from 2008 to 2012, whichever is the higher."

Therefore, during the period 2013-2020, a limited use of market-based mechanisms is expected from EU-ETS operators, which will be lower than the use of market-based mechanisms during the period 2008-2012. On the other hand, no use of market-based mechanisms is anticipated for meeting the non-ETS target.

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: Additional PaMs

Under WAM scenario, the emission reduction amount for 976 KtCO2e, which is only 1% of the emission level in 1990. Could you please provide further information regarding the use of additional measures, as well as additional mitigation potential?

Answer by at Wednesday, 27 May 2015

Please refer to the first paragraph of Section 5.1 of the NC6. Greece reported in the NC6 two emission projection scenarios. A "with measures" (WM) or "with existing

measures" scenario and a "with additional measures" (WAM) scenario concerning the national projections of greenhouse gas emissions by sources and their removal by sinks for the years 2015, 2020, 2025 and 2030. The "with measures" scenario assumes that no additional emission reduction policies and measures are adopted than the existing ones (implemented and adopted). The "with additional measures" scenario assumes the implementation of additional policies (planned), **while their GHG reduction effect will be mainly materialized after 2020**. For that reason, the additional emission reduction amount under the WAM compared to WM scenario for the year 2020 is limited to 976 KtCO2eq.

As reported in page 185 of NC6, The "with additional measures" (WAM) scenario contains the following additional measures that they will mainly materialize reduction of GHGs after 2020:

- Installation of insulation in buildings built before 1980 that will result in 50% reduction of the demand for heating in existing buildings by 2030.
- Penetration of electric vehicles with a share of at least 5% in total passenger for short-distance journeys by 2030.
- 20% share of the fixed rail transport in total passenger for shortdistance journeys by 2030.
- 30% share of the fixed rail transport in total freight transport by 2030.
- o 10% share of the fixed rail transport in total passenger-km by 2030.

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: national mitigation target

As a member of EU bubble, Greece doesn't pledge a national mitigation target under the UNFCCC. According to the BR, for those sectors not covered by EU-ETS, the emission reduction target for Greece is 4% compared with the verified emissions from the 2005. However, it is not clear how much effort Greece is going to make on sectors covered by EU-ETS, nor the effort as a whole, compared with its base year level. What additional information would Greece provide in order to make its effort transparent? What is the emission volume of those entities covered by EU-ETS in the base year, and in the target year?

### Answer by at Wednesday, 27 May 2015

The effort of Greece to mitigate GHG emissions is reflected to the quantified individual and total effect of policies and measures, which is reported in Tables 4.19 and 5.8 of the NC6 and CTF Table 3.

The aggregate effect of currently implemented and adopted policies and measures (that is incorporated in the "with measures" projections scenario) has been estimated to be around 40 MtCO2eq in 2020. The mitigation impact of EU-ETS sector is around 32.5 Mt CO2eq in 2020 and mainly results from the following policies and measures: (1) the use of RES for electricity production; (b) the gradual decommissioning of old inefficient thermal power units and commissioning of new ones which are mainly NG-fired; and (c) the substitution of solid and liquid fuels by NG in industrial units covered by EU-ETS.

The mitigation impact of non-ETS sectors is around 7.5 MT CO2eq in 2020 and results from policies and measures related to transport, residential and commercial sector; agriculture; waste management; and use of fluorinated gases. The individual effect of each policy and measure has been reported in CTF Table 3. Given that the entities covered by EU-ETS started having reporting obligations for year 2005 onwards, the emission volume of EU-ETS in the base year (1990) cannot be calculated directly from operator's reports, however, it can be approximated by taking some assumptions. Thus, it is estimated to be around 56 MT CO2 eq (excluding aviation). For 2020, the emission volume of EU-ETS is projected to be around 45 Mt CO2 eq (under WM scenario, Table 5.6 of NC6). Therefore, the EU-ETS emissions are projected to decrease by about 20% in 2020 compared to 1990.

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: completeness of GHG emission

According to the IRR, 4 categories of mandatory reporting information are missing, could you please provide further clarification?

#### Answer by at Wednesday, 27 May 2015

According to Table 3 of ARR (FCCC/ARR/2014/GRC), the Annex A sources and KP LULUCF inventories of Greece are complete. However, there is a small number of categories under LULUCF that were not estimated in the 2014 inventory submission, namely: (1) carbon stock change in mineral soil for cropland remaining cropland and cropland converted to forest land; (2) carbon stock change in living biomass of cropland converted to settlements; (3) areas of lands and carbon stock change in living biomass and dead organic matter pools of grassland converted to forest land. At the moment, Greece is making efforts to estimate and report these emission sources / sinks in the next inventory submissions. However, it should be stated that the reporting of this information does not affect the Multilateral Assessment of the progress of Greece towards achieving its economy-wide target, because LULUCF

emissions / removals are not included in the committed target of EU and its MS under the convention (please refer to CTF Table 2(b)).