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Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Bulgaria

Note by the expert review team

Summary

According to decision 2/CMP.8, each Party with a quantified emission limitation or reduction commitment inscribed in the third column of Annex B to the Kyoto Protocol, as contained in annex I to decision 1/CMP.8, shall submit to the secretariat a report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol. In accordance with decision 22/CMP.1, annex, paragraph 11, in conjunction with decision 4/CMP.11, the report to facilitate the calculation of the assigned amount is subject to a review. This report presents the results of the technical review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, conducted by an expert review team in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”. The review took place from 10 to 15 October 2016 in Sofia, Bulgaria.

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I. Introduction¹

1. The review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol (hereinafter referred to as the report to facilitate the calculation of the assigned amount) of Bulgaria was organized by the UNFCCC secretariat, in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”.² The review took place from 10 to 15 October 2016 in Sofia, Bulgaria, and was coordinated by Mr. Javier Hanna and Mr. Davor Vesligaj (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of Bulgaria.

2. A draft version of this report was communicated to the Government of Bulgaria, which provided no comments.

Table 1

Composition of the expert review team that conducted the review of Bulgaria

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Mr. Dario Gomez	Argentina
Energy	Ms. Gherghita Nicodim	Romania
IPPU	Ms. Kristina Kaar	Estonia
Agriculture	Ms. Rocio Danica Condor	Italy
LULUCF	Ms. Thelma Krug	Brazil
Waste	Mr. Sabin Guendehou	Benin
Lead reviewers	Mr. Dario Gomez	
	Ms. Gherghita Nicodim	

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry.

II. Summary of the reporting on mandatory elements in the report to facilitate the calculation of the assigned amount

3. Table 2 provides a summary of the ERT’s assessment of the reporting of mandatory elements by Bulgaria in its report to facilitate the calculation of the assigned amount. Key data and elections by the Party are included in table 4.

¹ At the time of publication of this report, Bulgaria had not yet submitted its instrument of ratification of the Doha Amendment, and the amendment had not yet entered into force. The implementation of the provisions of the Doha Amendment is therefore considered in this report in the context of decision 1/CMP.8, paragraph 6, pending the entry into force of the amendment.

² Decision 22/CMP.1 and its annex and any revisions contained in decision 4/CMP.11 and its annex I.

Table 2
Expert review team's assessment of the reporting of mandatory elements by Bulgaria in its report to facilitate the calculation of the assigned amount

<i>Item</i>	<i>Comment</i>	
<i>General Party information</i>		
Date of submission		Original submission: 27 May 2016
Are there any missing categories or issues related to completeness ^a in the reporting of GHG emissions by sources and removals by sinks for the base year or period?	Yes	For further information, see document FCCC/ARR/2016/BGR
Was the GHG inventory recalculated in accordance with decision 4/CMP.7 for all years from 1990 to the most recent year available?	Yes	
Did the Party report the base year for NF ₃ ?	Yes	See annex I, table 4
<i>Information related to agreement by the Party under Article 4 of the Kyoto Protocol to implement commitments jointly</i>		
Has complete information been reported in accordance with decision 3/CMP.11, paragraph 11, by the Party in fulfilment of its agreement under Article 4 of the Kyoto Protocol in relation to the following:		
(a) Application of decision 1/CMP.8, paragraphs 23–26, related to carry-over and the previous period surplus reserve account	Yes	For further information, see ID#6 in table 3
(b) Calculation of base-year emissions	No	See annex I, table 4. For further information, see ID#1 in table 3
(c) Calculation of the assigned amount	Yes	See annex I, table 4. For further information, see ID#1 in table 3
(d) Calculation of the commitment period reserve	Yes	See annex I, table 4. For further information, see ID#2 in table 3
(e) Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	Yes	For further information, see ID#3 in table 3
<i>Information related to the assigned amount and the commitment period reserve</i>		
Was the assigned amount in the original submission calculated in accordance with Article 3, paragraph 8, of the Kyoto Protocol, Article 3, paragraphs 7 bis and 8 bis, as contained in the Doha Amendment, and decision 13/CMP.1 in conjunction with decision 3/CMP.11?	Yes	See annex I, table 4. For further information, see ID#1 in table 3
Has the Party reported in the original submission the difference between the assigned amount for the second	Yes	See annex I, table 4. For further information, see

<i>Item</i>	<i>Comment</i>	
commitment period and average annual emissions for the first three years of the first commitment period, multiplied by eight?		ID#5 in table 3
Has the Party indicated in the original submission the approach ^b used to calculate average annual emissions for the first three years of the first commitment period?	Yes	See annex I, table 4. For further information, see ID#5 in table 3
Did land-use change and forestry constitute a net source of GHG emissions in the base year, and therefore did the Party include emissions from deforestation in the calculation of the assigned amount?	No	
Was the commitment period reserve in the original submission calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1, the annex to decision 13/CMP.1, paragraph 8 quinquies, and decision 1/CMP.8, paragraph 18?	No	See annex I, table 4. For further information, see ID#2 in table 3
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>		
If the Party identified activities elected under Article 3, paragraph 4, of the Kyoto Protocol, are these elections in accordance with decision 2/CMP.7, annex, paragraphs 6–8?	NA	See annex I, table 4
Do the activities elected under Article 3, paragraph 4, of the Kyoto Protocol for the second commitment period include at least those activities elected for the first commitment period?	NA	See annex I, table 4
Is information reported on how the national system under Article 5, paragraph 1, of the Kyoto Protocol will identify land areas associated with all additional elected activities and how the Party ensures that land that was accounted for in the first commitment period continues to be accounted for in the second commitment period?	Yes	
Has the Party identified for each activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol whether it intends to account annually or for the entire commitment period?	Yes	See annex I, table 4
Did the Party provide information on the forest management reference level, including, if appropriate, information on technical corrections and information on how emissions from harvested wood products originating from forests prior to the start of the second commitment period have been calculated in the reference level?	Yes	See annex I, table 4. For further information, see ID#4 in table 3 and ID#KL.10 in document FCCC/ARR/2016/BGR
Has the Party reported the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF, in the original submission?	Yes	See annex I, table 4. For further information, see ID#3 in table 3
Did the Party indicate whether it intends to apply the	Yes	See annex I, table 4

<i>Item</i>	<i>Comment</i>	
provisions to exclude emissions from natural disturbances for the accounting for afforestation and reforestation and/or forest management and provide the relevant information in accordance with decision 2/CMP.7, annex, paragraph 33?		
<i>Information related to the national system and national registry</i>		
Was a description of the national system provided, in accordance with the guidelines for national systems under Article 5, paragraph 1, of the Kyoto Protocol?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported
Was a description of the national registry provided, in accordance with the requirements contained in the annex to decision 13/CMP.1, the annex to decision 5/CMP.1 and the technical standards for data exchange between registry systems adopted by the CMP?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported

Abbreviations: CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, NA = not applicable.

^a Issues related to missing categories and completeness are only for those categories for which methods are available in the Intergovernmental Panel on Climate Change (IPCC) 2006 *IPCC Guidelines for National Greenhouse Gas Inventories*.

^b Parties may elect to calculate average annual emissions for the first three years of the first commitment period by including either the gases and sources listed in Annex A to the Kyoto Protocol, or the GHGs, sectors and source categories used to calculate the assigned amount for the second commitment period.

III. Technical assessment of the elements reviewed

4. In accordance with decision 22/CMP.1, and in conjunction with decisions 4/CMP.11 and 10/CMP.11, the review of the report to facilitate the calculation of the assigned amount for Bulgaria has been undertaken together with the review of the inventory submission for the first year of the second commitment period.³ Table 3 contains additional information, if any, to support the ERT's assessment included in table 2 of the Party's capacity to account for its emissions and the assigned amount, specifically related to: the calculation of the assigned amount for the second commitment period and any adjustments applied; information related to Article 3, paragraph 7 ter, as contained in the Doha Amendment; information related to reporting of activities under Article 3, paragraphs 3 and 4, of the

³ The annual review report on the 2016 inventory submission of Bulgaria is available at <<http://unfccc.int/resource/docs/2017/arr/BGR.pdf>>, while the annual review report on the 2015 inventory submission of Bulgaria is available at <<http://unfccc.int/resource/docs/2016/arr/BGR.pdf>>.

Kyoto Protocol; calculation of the commitment period reserve; and the national system and national registry.

Table 3

Additional findings of the expert review team, if any, related to Bulgaria's reporting of mandatory elements in its report to facilitate the calculation of the assigned amount

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
1.	Calculation of the assigned amount	<p>The assigned amount submitted by the Party in its report to facilitate the calculation of the assigned amount was calculated in accordance with Article 3, paragraphs 7 bis, 8 and 8 bis, of the Kyoto Protocol, the annex to decision 13/CMP.1 and annex I to decision 3/CMP.11</p> <p>The ERT notes that the European Union, its member States and Iceland stated that they will fulfil their reduction targets under the second commitment period jointly.^a The joint assigned amount for the European Union, its member States and Iceland is calculated pursuant to the quantified emission limitation or reduction commitment listed in the third column of the table contained in Annex B to the Kyoto Protocol, while the assigned amount of each member State is determined in accordance with the terms of the joint fulfilment agreement. Specifically, the assigned amount for Bulgaria is fixed on the basis of annex II to European Commission decision 2013/162/EU and as adjusted by Commission implementing decision 2013/634/EU^b</p> <p>The ERT concludes that the assigned amount reported by Bulgaria is in accordance with the joint fulfilment agreement of the European Union, its member States and Iceland</p> <p>Bulgaria did not report base-year emissions in its report to facilitate the calculation of the assigned amount. During the review, the ERT calculated the base-year emissions to be 114 582 372 t CO₂ eq. The Party submitted revised estimates in response to the list of potential problems and further questions raised by the ERT (see document FCCC/ARR/2016/BGR), which affected the base-year emissions. The revised estimate for the base-year emissions (114 105 323 t CO₂ eq) does not affect the assigned amount for Bulgaria referred to in table 4 because the assigned amount is determined on the basis of the allocations in the European Union decisions referenced above and not calculated using the base-year emission estimates for Bulgaria. The ERT invites Bulgaria to communicate the revised base-year emissions to the European Union with a view to them being considered in the calculation of the joint assigned amount of the European Union, its member States and Iceland</p>	Not a problem
2.	Calculation of the commitment period reserve	<p>The CPR was calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1 and decision 1/CMP.8, paragraph 18</p> <p>The ERT noted that for the calculation of the CPR Bulgaria used the assigned amount determined in accordance with the terms of the joint fulfilment agreement of the European Union, its member States and Iceland. Furthermore, the ERT noted that the assigned amount for Bulgaria was fixed on the basis of annex II to Commission decision 2013/162/EU and as adjusted by Commission implementing decision 2013/634/EU</p>	Not a problem

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
3.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	According to decision 6/CMP.9, paragraph 12, Bulgaria shall report in its report to facilitate the calculation of the assigned amount the value that is 3.5% of the base-year GHG emissions. The ERT noted that decision 2/CMP.7, paragraph 13, indicates that the additions to the assigned amount of a Party are equal to 3.5% of the base-year GHG emissions, excluding LULUCF, multiplied by the duration of the commitment period. Bulgaria reported a value of 34 058 393 t CO ₂ eq, estimated as the base-year GHG emissions times 3.5% times eight. In response to the list of potential problems and further questions raised by the ERT, the base-year GHG emissions were recalculated (see ID#1 above). Taking into account the revised estimate of the base-year emissions (114 105 323 t CO ₂ eq), the final calculated value for 3.5% of the base-year emissions, multiplied by eight, is 31 949 490 t CO ₂ eq. This translates to an annual value of 3 993 686 t CO ₂ eq	Not a problem
4.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	Bulgaria provided values and explanatory information for the FMRL and the technical correction in the initial report and in the NIR. The ERT agrees with the technical correction made, but noted that the technical correction also needs to address the treatment of natural disturbances and harvested wood products (see ID#KL.10 in table 5 of document FCCC/ARR/2016/BGR). The ERT also noted that FMRL value reported in the initial report equals -8.168 Mt CO ₂ eq, which is in accordance with the appendix to decision 2/CMP.7, while in the CRF information table on accounting for activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, Bulgaria reported an FMRL value equal to -8.169 Mt CO ₂ eq (see ID#KL.11 in table 5 of document FCCC/ARR/2016/BGR)	Accuracy
5.	Reporting pursuant to Article 3.7 ter of the Doha Amendment	In line with the terms of the joint fulfilment agreement of the European Union, its member States and Iceland under Article 3 of the Kyoto Protocol, and as described in the report to facilitate the calculation of the assigned amount of the European Union, Article 3, paragraph 7 ter, of the Kyoto Protocol is applied to the joint assigned amount of the European Union, its member States and Iceland for the second commitment period. In its report, the European Union included the value for the difference between the joint assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period for the member States and Iceland, multiplied by eight. The report of the European Union also clarifies that the approach used to calculate average annual emissions for the first three years of the first commitment period includes the gases and sources listed in Annex A to the Kyoto Protocol	Not a problem
6.	National registry	In its report to facilitate the calculation of the assigned amount, the Party noted that it will establish a previous period surplus reserve account. The ERT notes that the 2016 standard independent assessment report for Bulgaria indicates that the implementation of functions related to the second commitment period of the Kyoto Protocol is planned under the European Union Emissions Trading System to take place as soon as technically possible	Not a problem
7.	Adjustments	The ERT has not identified the need to apply any adjustments to the estimate for the assigned amount for the second commitment period as reported by Bulgaria in its report to facilitate the calculation of the assigned	Not a problem

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
		amount	

Abbreviations: CPR = commitment period reserve, ERT = expert review team, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a The report to facilitate the calculation of the assigned amount for the European Union is available at <http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/second_commitment_period_2013-2020/items/9499.php>.

^b At the time of publication of this report, the European Union had not yet submitted its instrument of ratification of the Doha Amendment or information on the joint implementation of such an amendment.

IV. Questions of implementation

5. No questions of implementation were identified by the ERT during the review.

Annex I

Key relevant data for Bulgaria

1. Table 4 provides key data and parameters for, and elections by, Bulgaria relevant for the implementation of the second commitment period of the Kyoto Protocol. The information included in table 4 is as given by the Party in its report to facilitate the calculation of the assigned amount, unless otherwise specified.

Table 4

Key relevant data for Bulgaria^a

<i>Key information or parameter provided</i>	<i>Comment</i>
<i>General Party information</i>	
Did the Party have a QELRC in the first commitment period?	Yes
Bulgaria's QELRC in the second commitment period	Bulgaria will implement its reduction target under the second commitment period jointly with the European Union, its member States and Iceland, as described in ID#1 in table 3 of this report. The QELRC for the European Union, its member States and Iceland is 80% of the base-year emissions
Has the Party reached an agreement under Article 4 of the Kyoto Protocol to fulfil its commitments jointly with other Parties?	Yes
Base year	1988
Base year for HFCs, PFCs and SF ₆	1995
Base year for NF ₃	1995
Base-year emissions, final, as reported by the Party	114 105 323 t CO ₂ eq
<i>Information related to the calculation of the assigned amount and the commitment period reserve</i>	
Assigned amount, as reported by the Party and agreed by the ERT	222 945 983 t CO ₂ eq
Approach used to calculate the average annual emissions for the first three years of the first commitment period	This difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the Kyoto Protocol
Difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period, multiplied by eight, as reported by the Party and agreed by the ERT	This difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the Kyoto Protocol

<i>Key information or parameter provided</i>	<i>Comment</i>
Commitment period reserve, as reported by the Party and agreed by the ERT	200 651 385 t CO ₂ eq
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>	
LULUCF parameters	Minimum tree crown cover: 10% Minimum land area: 0.1 ha Minimum tree height: 5 m
Elections under Article 3, paragraphs 3 and 4, of the Kyoto Protocol:	
(a) Afforestation/reforestation	Commitment period accounting
(b) Deforestation	Commitment period accounting
(c) Forest management	Commitment period accounting
(d) Cropland management	Not elected
(e) Grazing land management	Not elected
(f) Revegetation	Not elected
(g) Wetland drainage and rewetting	Not elected
FMRL	-8.168 Mt CO ₂ eq/year
Technical corrections to the FMRL as reported in the original submission and agreed by the ERT	-8.207 Mt CO ₂ eq/year
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions	Not reported in the original submission
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, final value, as calculated by the ERT	3 993 686 t CO ₂ eq*
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by eight, as reported by the Party in the original submission	34 058 393 t CO ₂ eq
3.5% of total base-year GHG emissions, excluding LULUCF, multiplied by eight, final value, as reported by the Party and agreed by the ERT	31 949 490 t CO ₂ eq
Will the Party exclude emissions from natural disturbances in accounting for:	
(a) Afforestation and reforestation	Yes
(b) Forest management	Yes

Abbreviations: ERT = expert review team, FMRL = forest management reference level, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, QELRC = quantified emission limitation or reduction commitment.

^a An asterisk is included next to the “key information or parameter” in all cases where the information was not submitted by the Party in its report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, because the Party had already submitted this information in the report to facilitate the calculation of the assigned amount for the first commitment period of the Kyoto Protocol or because the information was not otherwise required.

2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals as submitted by Bulgaria. Where a Party has decided to voluntarily report indirect carbon dioxide emissions, this is noted in the relevant table.

Table 5
Total greenhouse gas emissions for Bulgaria, base year^a–2014^b
(kt CO₂ eq)

	<i>Total GHG emissions excluding indirect CO₂ emissions</i>		<i>Total GHG emissions including indirect CO₂ emissions^c</i>		<i>Land-use change (Article 3.7 bis as contained in the Doha Amendment)^d</i>
	<i>Total including LULUCF</i>	<i>Total excluding LULUCF</i>	<i>Total including LULUCF</i>	<i>Total excluding LULUCF</i>	
Base year	98 830.64	114 105.32	NA	NA	NA
1990	88 541.25	103 440.59	NA	NA	
1995	60 874.55	74 224.24	NA	NA	
2000	48 980.05	59 111.22	NA	NA	
2010	50 999.04	60 249.31	NA	NA	
2011	55 974.27	65 567.22	NA	NA	
2012	50 817.42	60 434.07	NA	NA	
2013	45 176.19	55 284.61	NA	NA	
2014	46 206.72	57 470.45	NA	NA	

Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, NA = not applicable.

^a “Base year” refers to the base year under the Kyoto Protocol, which is 1988 for CO₂, CH₄ and N₂O and 1995 for HFCs, PFCs, SF₆ and NF₃.

^b Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions.

^c The Party has not reported indirect CO₂ emissions in common reporting format table 6.

^d The value reported in this column refers to 1990.

Table 6

Greenhouse gas emissions by gas for Bulgaria, excluding land use, land-use change and forestry, 1988–2014^a(kt CO₂ eq)

<i>Year</i>	<i>CO₂^b</i>	<i>CH₄</i>	<i>N₂O</i>	<i>HFCs</i>	<i>PFCs</i>	<i>Unspecified mix of HFCs and PFCs</i>	<i>SF₆</i>	<i>NF₃</i>
1988	86 868.16	17 096.78	10 132.16	NO	NO	NO	3.30	NO
1990	78 187.69	16 430.84	8 818.37	NO	NO	NO	3.69	NO
1995	57 187.02	12 051.21	4 977.78	3.33	NO	NO	4.90	NO
2000	44 877.15	10 189.34	4 005.22	33.02	NO	NO	6.49	NO
2010	47 672.78	7 782.64	4 118.31	663.05	0.06	NO	12.47	NO
2011	53 016.71	8 015.20	3 768.25	752.81	0.06	NO	14.19	NO
2012	48 114.22	7 643.92	3 833.32	823.27	0.05	NO	19.29	NO
2013	42 531.99	7 526.89	4 237.59	968.38	0.04	NO	19.72	NO
2014	45 137.96	7 420.51	3 807.67	1 088.66	0.03	NO	15.62	NO
Per cent change 1988–2014	–48.0	–56.6	–62.4	NA	NA	NA	373.2	NA

Abbreviations: NA = not applicable, NO = not occurring.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b Bulgaria did not report indirect CO₂ emissions in common reporting format table 6.

Table 7
Greenhouse gas emissions by sector for Bulgaria, 1988–2014^{a, b}
 (kt CO₂ eq)

<i>Year</i>	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other</i>
1988	81 276.22	10 976.74	13 350.90	–15 274.68	8 496.54	NO
1990	73 613.31	9 472.80	12 089.20	–14 899.34	8 265.28	NO
1995	51 369.31	9 961.69	5 712.77	–13 349.69	7 180.47	NO
2000	40 958.82	6 743.00	4 983.11	–10 131.17	6 426.29	NO
2010	46 185.16	4 174.19	5 232.82	–9 250.27	4 657.15	NO
2011	51 300.15	4 764.04	4 882.47	–9 592.94	4 620.55	NO
2012	46 438.84	4 521.32	5 001.08	–9 616.64	4 472.83	NO
2013	40 725.19	4 570.75	5 476.32	–10 108.41	4 512.34	NO
2014	43 153.39	4 903.91	5 054.58	–11 263.72	4 358.57	NO
Per cent change 1988–2014	–46.9	–55.3	–62.1	–26.3	–48.7	NA

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable, NO = not occurring.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b Bulgaria did not report indirect CO₂ emissions in common reporting format table 6.

Annex II

Documents and information used during the review

A. Reference documents

“Guidelines for national systems for the estimation of anthropogenic greenhouse gas emissions by sources and removals by sinks under Article 5, paragraph 1, of the Kyoto Protocol”. Annex to decision 19/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=14>>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex to decision 15/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf>>.

“Guidelines for review under Article 8 of the Kyoto Protocol”. Annex to decision 22/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf>>.

“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”. Annex I to decision 24/CP.19. Available at <<http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf#page=4>>.

“Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”. Annex to decision 13/CP.20. Available at <<http://unfccc.int/resource/docs/2014/cop20/eng/10a03.pdf#page=6>>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part I: Implications related to accounting and reporting and other related issues”. Decision 3/CMP.11. Available at <<http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=5>>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part II: Implications related to review and adjustments and other related issues”. Decision 4/CMP.11. Available at <<http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=30>>.

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Intergovernmental Panel on Climate Change. 2014. *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*. Available at <www.ipcc-nggip.iges.or.jp/public/kpsg>.

Intergovernmental Panel on Climate Change. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. Available at <www.ipcc-nggip.iges.or.jp/public/wetlands/index.html>.

B. Additional information provided by the Party

Responses to questions during the review were received from Ms. Detelina Petrova (Emissions Inventory Department, Monitoring and Assessment of Environment Directorate, Executive Environment Agency), including additional material on the methodology and assumptions used.

Annex III

Acronyms and abbreviations

CH ₄	methane
CPR	commitment period reserve
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
ERT	expert review team
FMRL	forest management reference level
GHG	greenhouse gas
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
kt	kilotonne
LULUCF	land use, land-use change and forestry
Mt	million tonnes
NA	not applicable
NE	not estimated
NF ₃	nitrogen trifluoride
NO	not occurring
N ₂ O	nitrous oxide
PFC	perfluorocarbon
QELRC	quantified emission limitation or reduction commitment
SF ₆	sulphur hexafluoride
UNFCCC	United Nations Framework Convention on Climate Change
