

Resubmission of Annex II of Gothenburg protocol and national emission projections for Republic of Macedonia

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Background

31st EB session - Republic of Macedonia was required to forward the revised proposal for its 2010 emission ceilings in Annex II in line with Art. 13 of the Gothenburg Protocol for consideration by the EMEP Steering Body



WHY????

Inconsistency between IIASA proposal, reported values and proposed emission ceilings

Comparison on 1990 and 2010 data

Source	SO ₂		NO _x	
	1990	2010	1990	2010
Verbal Note	97.42	130	35.84	39
IIR, 2012	97.42	83??	34.4	29
GAINS	136.1	113	47.8	34

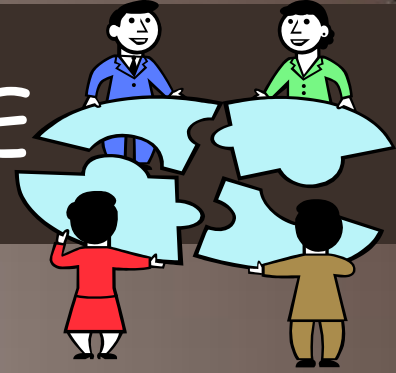
Source	NMVOC		NH ₃	
	1990	2010	1990	2010
Verbal Note	17.31??	30	9.7	17
IIR, 2012	31.6	20	9.7	7
GAINS	25.5	20	10.5	9

CORRECTION OF 1990 DATA

- ❑ *LCP submit 1990 data on fuel consumption and LHV;*
- ❑ *Data on the liquid fuels consumption for 1990 and the share of the sulphur content;*
- ❑ *Recalculations for amount of SO_2 emissions were performed;*
- ❑ *Activity data received from the National Statistical office were detail checked corrected;*
- ❑ *Not estimated emissions for NMVOC from agriculture were calculated;*
- ❑ *NH_3 emissions for 1990 from NFR sector - 4 D 1 a calculated by the method of extrapolation.*



EXCHANGE OF EXPERIANCE

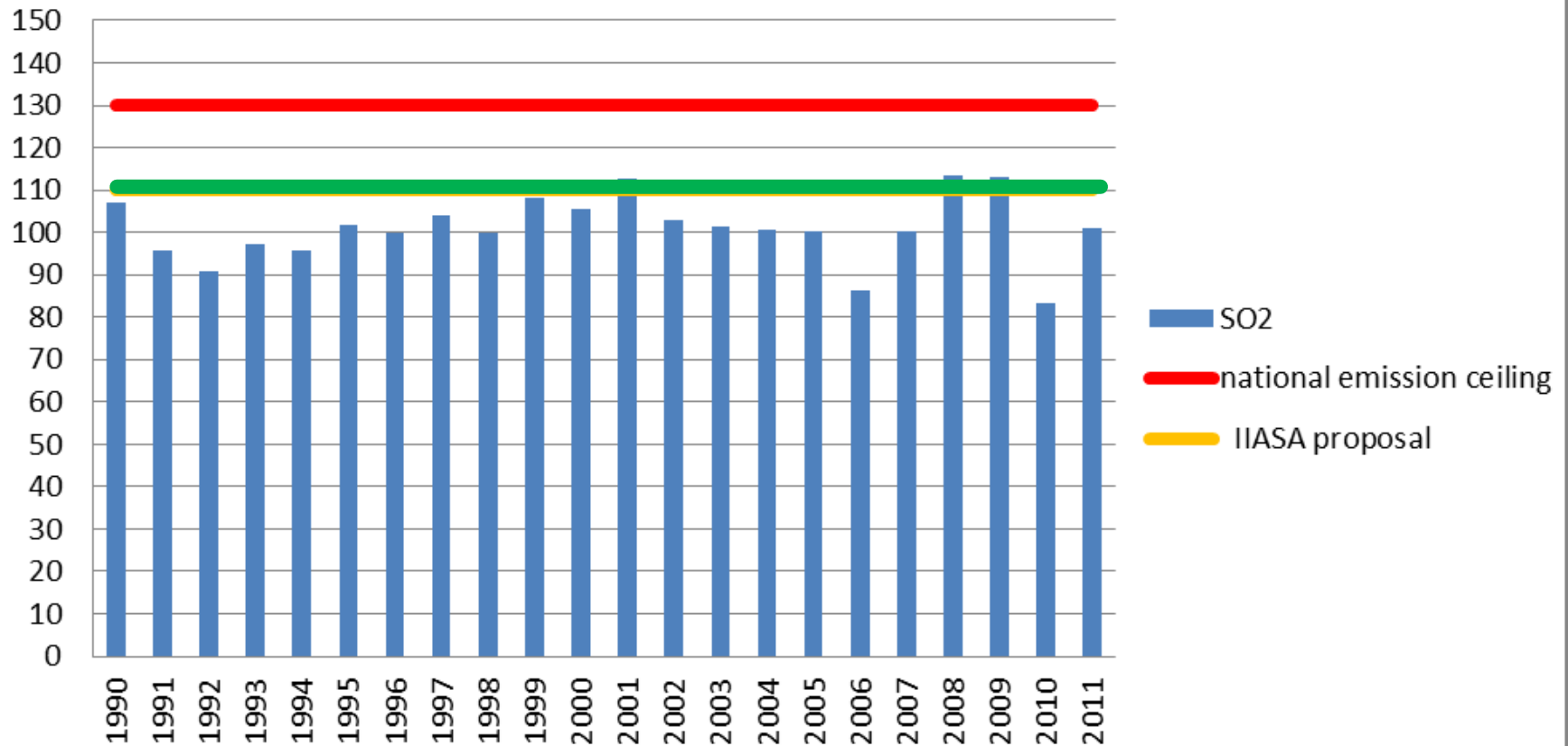


- ❑ *Consultations during TAEIX mission with Austrian emission experts*
- ❑ *Bilateral meeting with Serbian emission experts for review of 1990 emission data and manners for estimation of the historical data*
- ❑ *Meeting of the working group for identification and review of the national emission ceilings (consisted of representatives from relevant ministries and industries)*



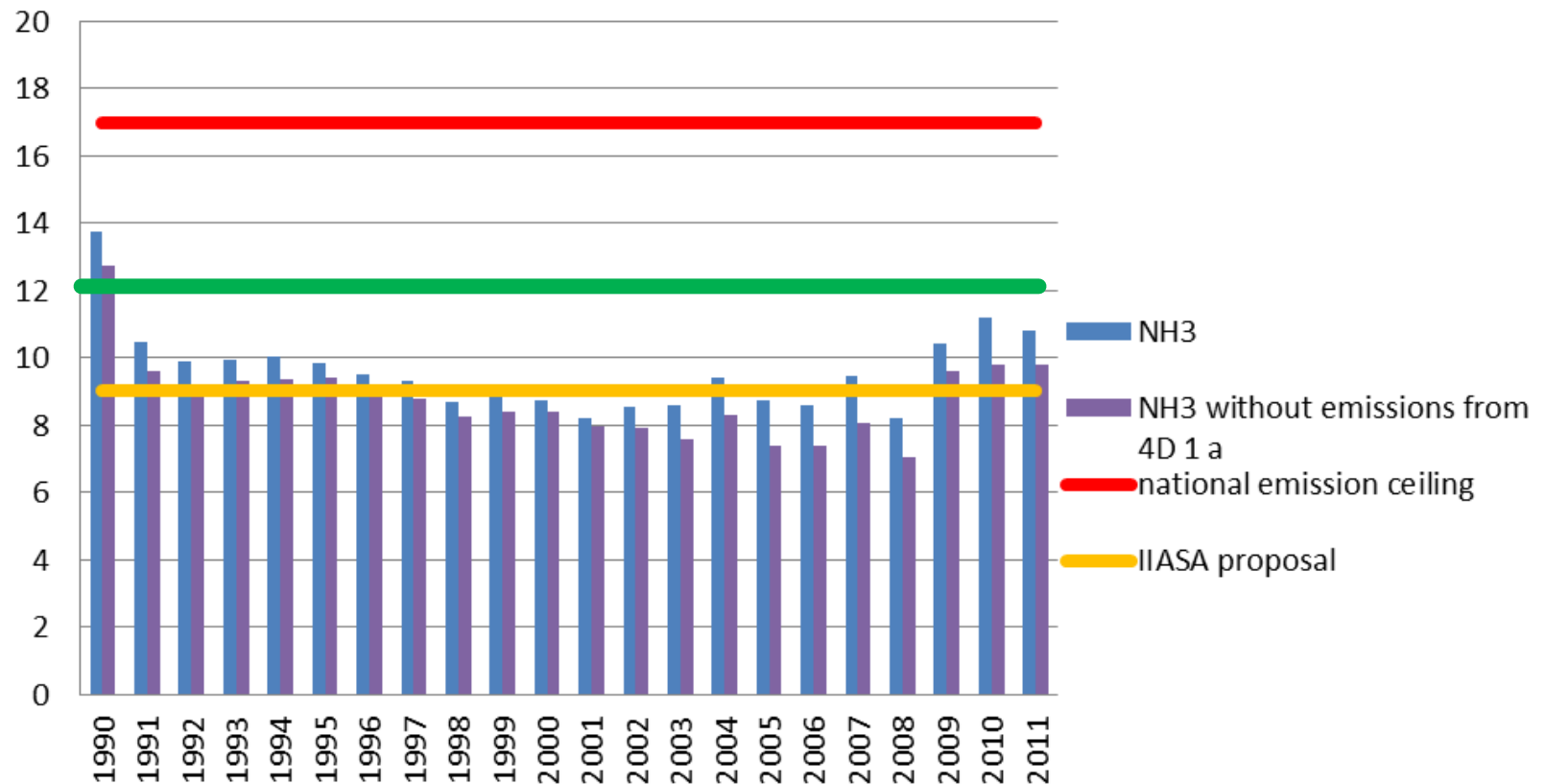
National emission ceiling for SO₂

SO₂ emissions (Gg)



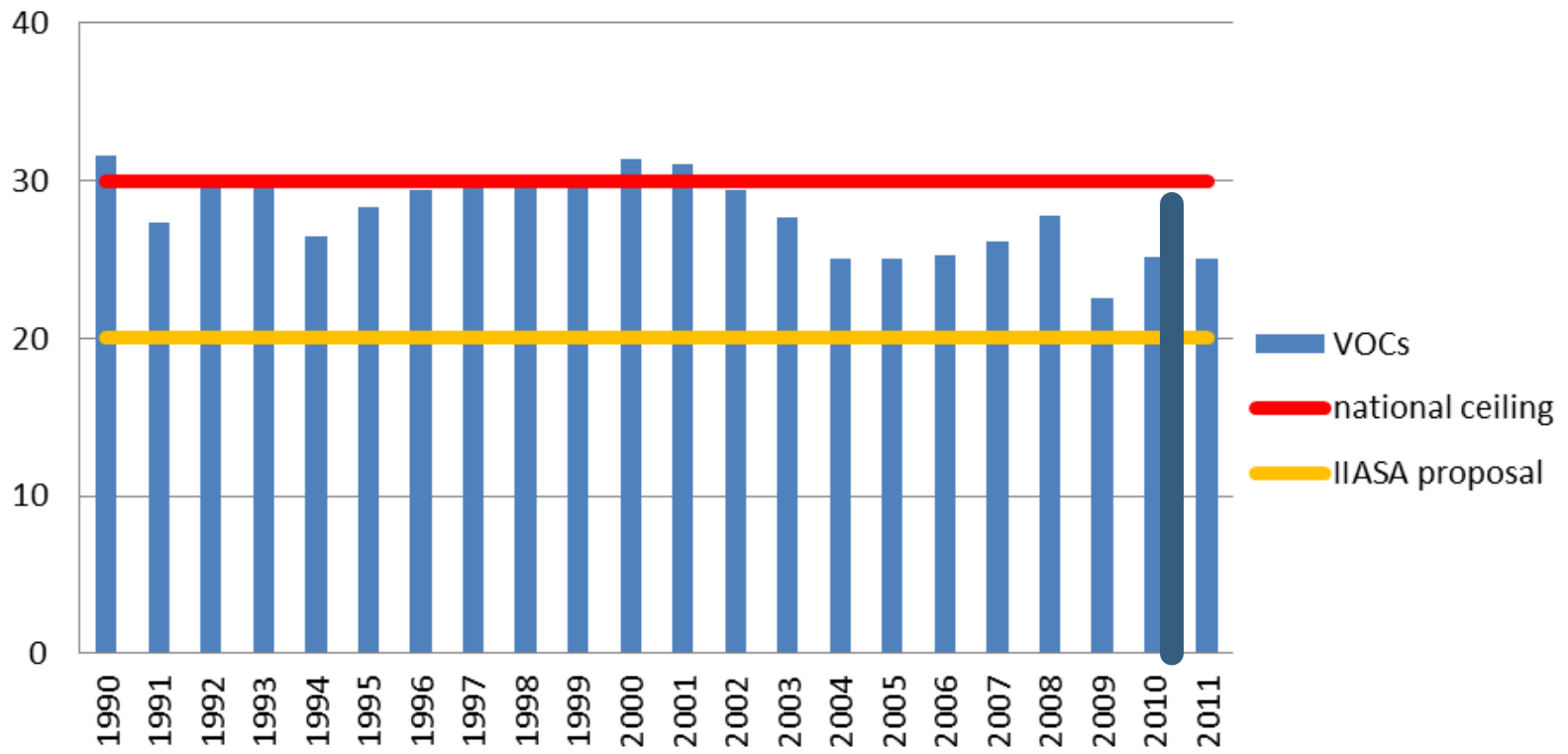
National emission ceiling for NH₃

Ammonia emissions (Gg)



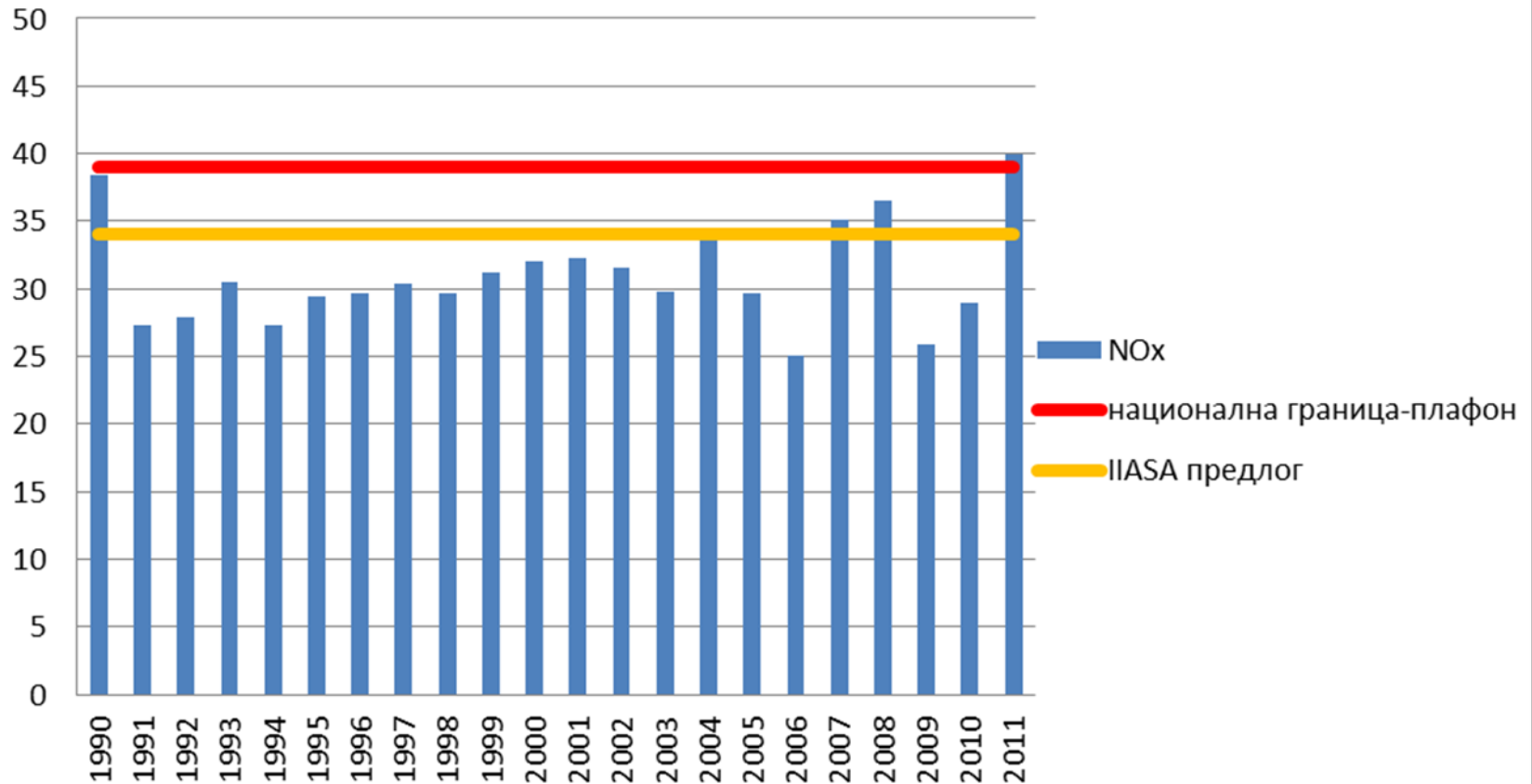
National emission ceiling for NMVOC

NMVOCs emissions (Gg)



National emission ceiling for NO_x

Тренд на емисии на NO_x



New proposal

Year/Pollutant	SO ₂ kilotons	NO _x kilotons	VOC kilotons	NH ₃ kilotons
1990	107	38.4	34	13.7
2010	110	39	30	12

IIASA proposal

Year/Pollutant	SO ₂ kilotons	NO _x kilotons	VOC kilotons	NH ₃ kilotons
1990	136	47	25	10.5
2010	110	34	20	9

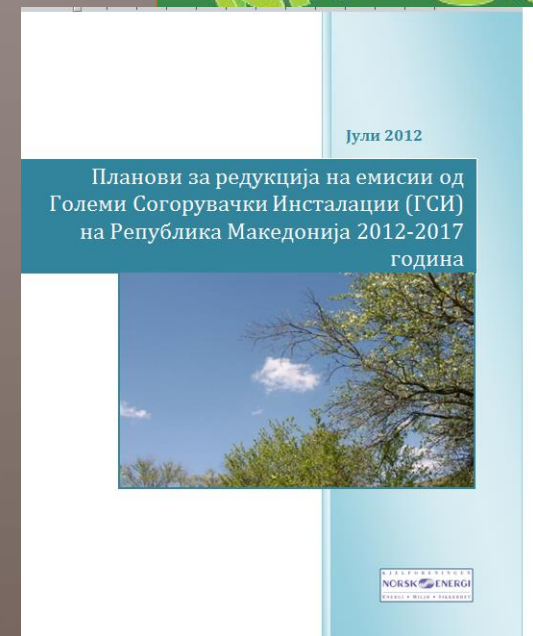
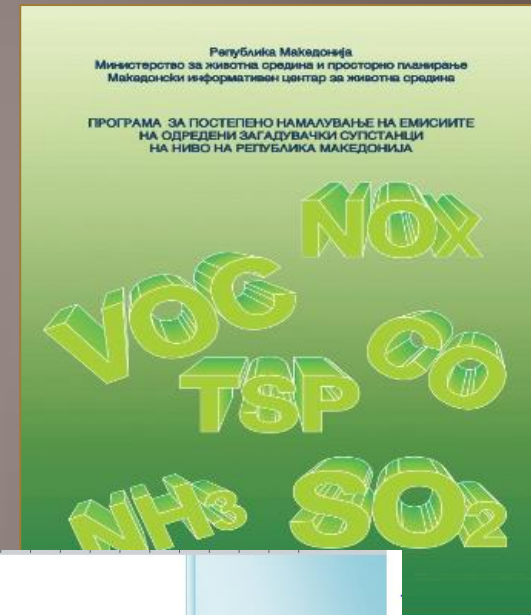
PROJECTIONS



NERP

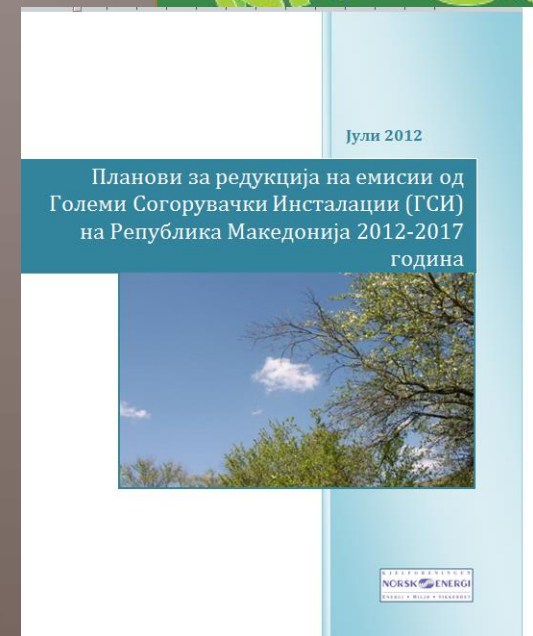
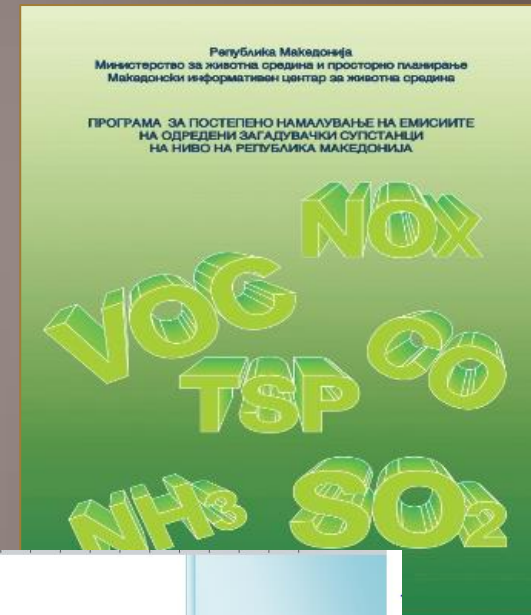
- *National Program for Progressive Reduction of Emission (July 2012)*
- *7 from 11 LCP prepared Plans for emission reduction (December 2012):*

www.airquality.gov.mk



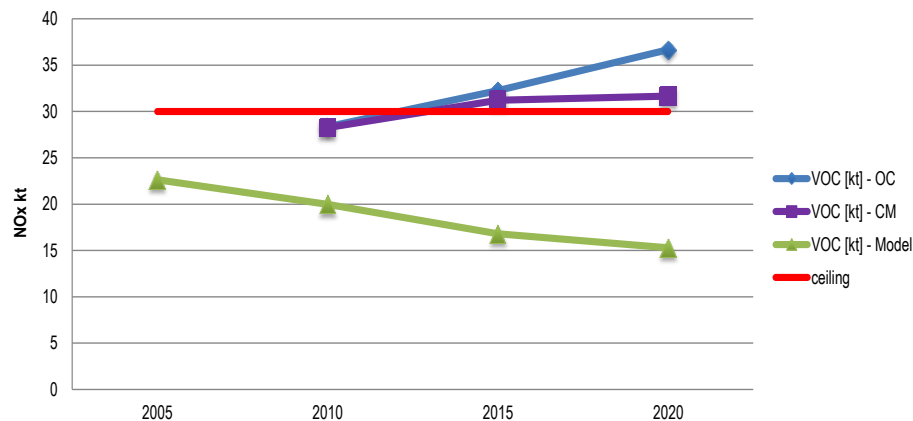
DATA SOURCES

- *Strategy for Energy Development in the Republic of Macedonia by 2030;*
- *Energy Balance of the Republic of Macedonia for the period 2012 to 2016;*
- *Strategy for Energy Efficiency Promotion in the Republic of Macedonia by 2020;*
- *Baseline Study on Renewable Energy Sources in the Republic of Macedonia;*
- *National Strategy for Transport;*
- *Common core program for livestock farming (2012-2019);*
- *Code on good agriculture practice.*

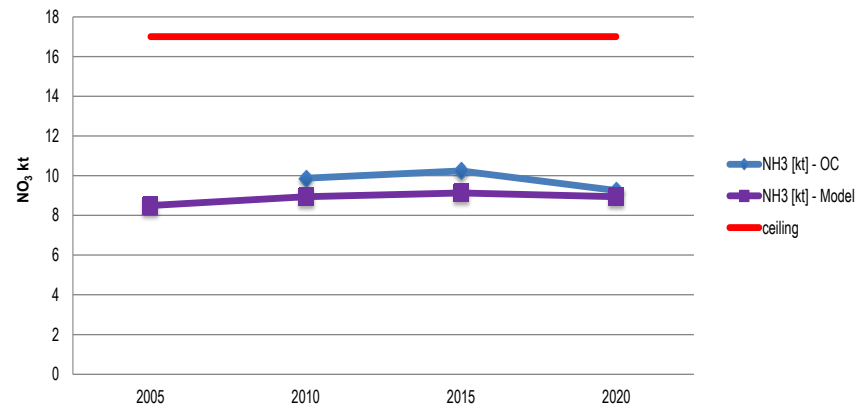


National emission projections

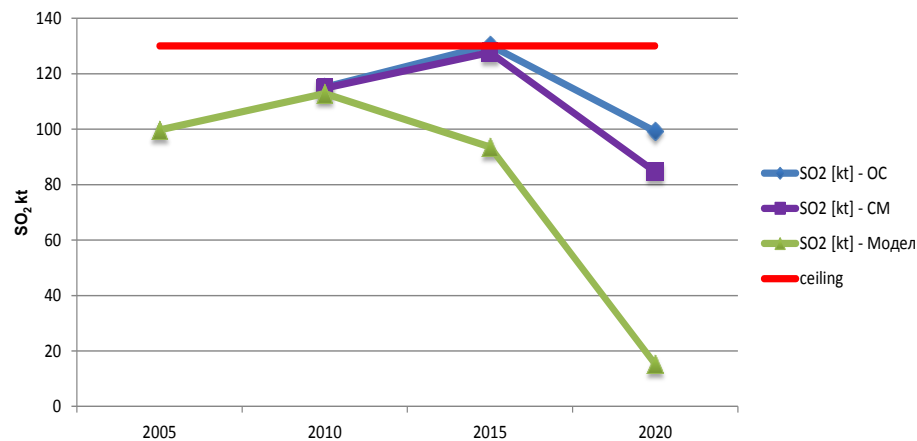
Total quantities of VOC emissions- comparison among the three scenarios and emission ceiling



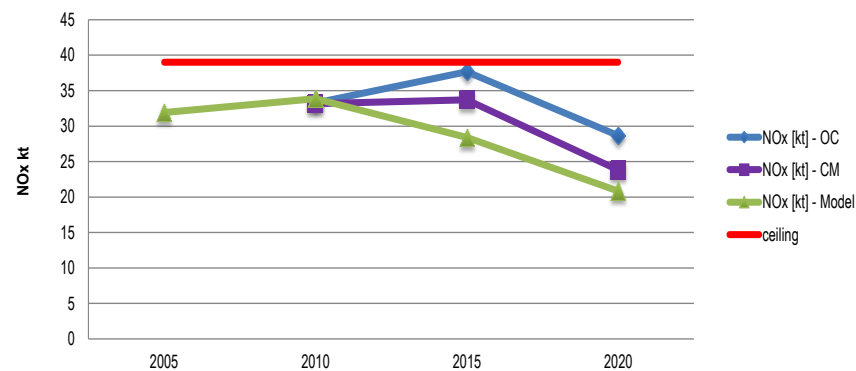
Total quantities of ammonia emissions by comparison of the two scenarios and emission ceiling



Total quantities of sulphur dioxide emissions by comparison of the three scenarios and emission ceilings



Total quantities of NO_x emissions – comparison of the three scenarios and emission ceiling



CONCLUSIONS



- 1990 data were corrected with all available additional gathered information, still IIASA estimations are different
- National ceilings for SO_2 and ammonia corrected for NMVOC and NO_x same
- Are the new figures for Annex II acceptable?
- Prepared projections are based on national strategies no models applied, no scenario with additional measures
- Projections should be revised and rechecked before we apply for ratification of the amended Gothenburg protocol
- Technical support for review of the existing projections and HM and POPs projections is needed



Thank you for your attention

