



Rijksinstituut voor Volksgezondheid
en Milieu
*Ministerie van Volksgezondheid,
Welzijn en Sport*

Dutch projections 2017

Update of the NEV2015

Benno Jimmink with courtesy of Winand Smeets
RIVM-MIL PBL



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2020 and 2030 projected emissions of SO₂, NO_x, NMVOC, NH₃ and PM_{2.5}

- Annually updated
- by PBL together with RIVM



Why?

- used by RIVM as tool for monitoring & planning in the National Cooperation Programme Air Quality (NSL) and the Programmatic Approach for Nitrogen (PAS).
- to produce large-scale concentration- and deposition maps for the Netherlands (GCN and GDN) (Velders et al., 2017; RIVM, 2017).
- Furthermore projections are used to evaluate the emission reduction targets from the EU NEC Directive.



What?

- light update (annually):
 - latest historical data
 - latest policy developments
 - no updated activity or energy projections (except transport)
- once in three years a thorough update
 - with updated economic scenario
 - with update of activity and energy projections
 - with detailed study on elaboration of policy developments

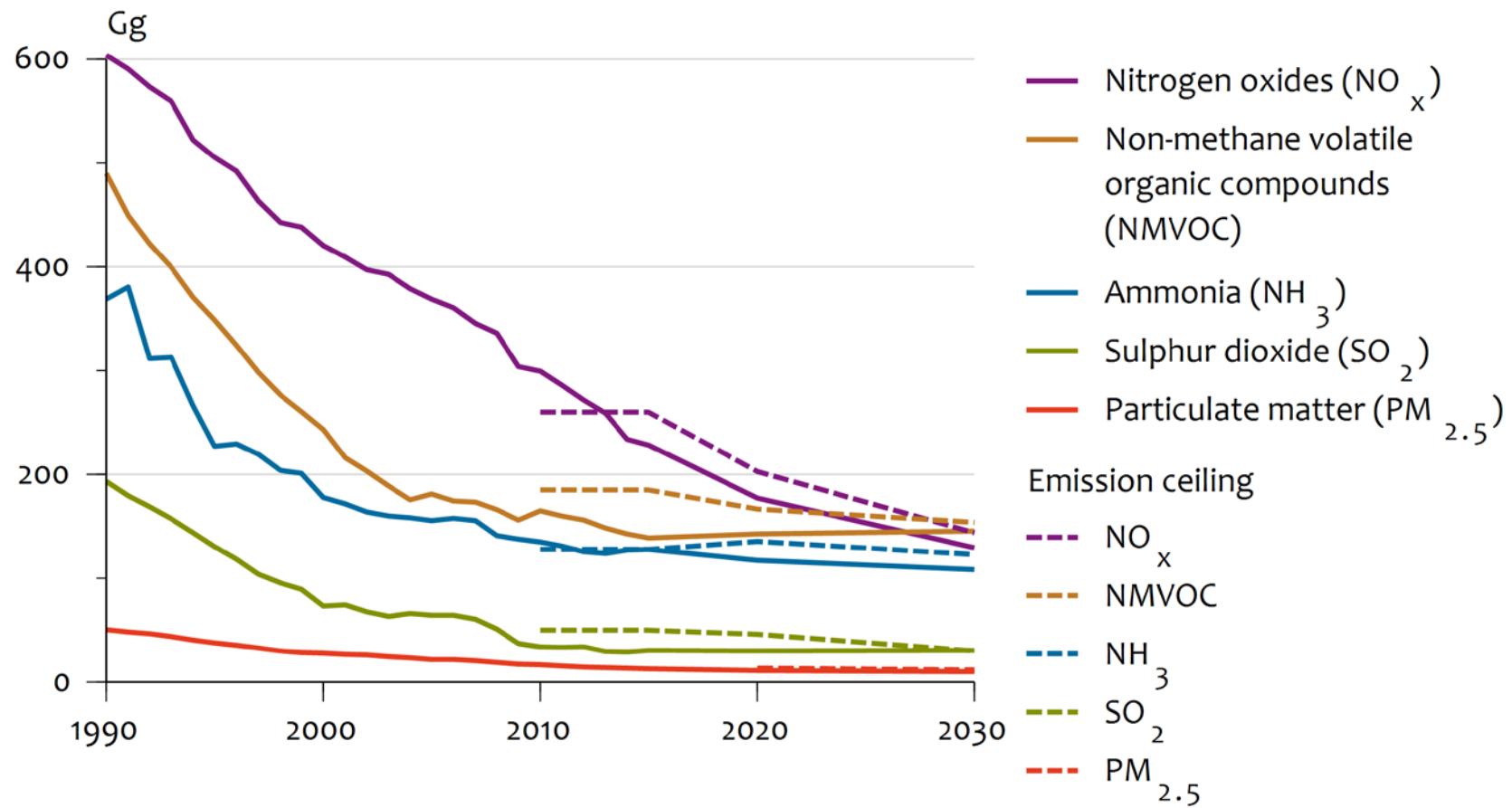


How?

- 2 policy scenarios
 - existing policy: “with measures” V
 - intended policy: “with additional measures” VV
- Based on projected fuel sales
- Projected energy and activity data from Central Planning Bureau (CPB) and
- [Dutch National Energy Outlook \(NEV2015\)](#)
- Background report in Dutch: [Smeets et al. \(2016\)](#)



Dutch trend of emissions compared to NEC ceilings



Source: The Netherlands Pollutant Release & Transfer Register.

RIVM/may17



Projections for Sulphur dioxides (SO₂)

Sector	Realisation (Gg)			Projection (Gg)			
	2005	2010	2015	2020-V	2020-VV	2030-V	2030-VV
Industry	14.9	12.1	9.2	10.3	10.3	11.6	11.5
Energy ¹	10.2	7.0	8.9	6.1	5.9	6.3	6.3
Refineries	32.2	12.7	11.1	12.8	12.8	11.4	11.4
Transport	6.3	1.3	0.4	0.4	0.4	0.5	0.5
Agriculture	0.0	0.1	0.1	0.2	0.2	0.2	0.2
Consumers	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TSG/Construction	0.3	0.1	0.1	0.2	0.2	0.2	0.2
Total	64.2	33.9	30.3	30.3	30.1	30.5	30.4
Shipping NCP and inland waters ²	63.8	38.4	13.2	3.5	3.5	3.7	3.7
Emission ceiling				46.2	46.2	30.2	30.2



Projections for Nitrogen oxides (NO_x)

Sector	Realisation (Gg)			Projection (Gg)			
	2005	2010	2015	2020-V	2020-VV	2030-V	2030-VV
Industry	34.2	29.4	24.2	26.4	26.4	27.1	26.5
Energy ¹	48.6	30.7	26.2	23.4	23.1	22.4	22.2
Refineries	9.1	5.6	5.2	5.7	5.7	4.4	4.2
Transport	235.8	192.5	142.7	101.9	101.9	59.7	58.8
Agriculture	14.5	17.5	14.4	7.1	7.3	6.6	6.6
Consumers	16.0	13.9	8.2	7.7	7.7	7.0	6.8
TSG/Construction	10.5	10.2	7.2	5.3	5.1	4.9	4.5
Total	368.9	299.7	228.2	177.5	177.2	132.1	129.6
Shipping NCP and inland waters ²	123.8	112.4	111.0	109.1	109.1	104.0	79.5
Emission ceiling				202.9	202.9	143.9	143.9



Projections for ammonia (NH_3)

Sector	Realisation (Gg)			Projection (Gg)			
	2005	2010	2015	2020-V	2020-VV	2030-V	2030-VV
Industry							
Energy ¹	2.9	2.0	1.6	1.9	1.9	2.1	2.1
Refineries							
Transport	5.3	5.1	4.2	3.4	3.4	3.5	3.6
Agriculture	136.3	117.8	111.0	100.5	100.5	91.2	91.2
Consumers ²	10.4	9.4	10.2	11.1	11.1	11.3	11.3
TSG/Construction	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total	155.5	134.9	127.6	117.4	117.4	108.5	108.6
Shipping NCP and inland waters ²	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emission ceiling				135.3	135.3	122.9	122.9



Projections for NMVOC

Sector	Realisation (Gg)			Projection (Gg)			
	2005	2010	2015	2020-V	2020-VV	2030-V	2030-VV
Industry	40.6	40.3	33.4	35.6	36.3	38.1	39.0
Energy ¹	8.6	8.1	7.5	7.5	6.7	6.0	5.0
Refineries	11.8	7.1	5.5	7.3	6.6	6.7	6.7
Transport	54.0	43.5	31.9	28.3	28.2	26.0	25.2
Agriculture	1.7	2.2	21.8	1.7	1.7	1.7	1.7
Consumers	35.3	34.3	33.5	35.9	35.9	39.5	39.5
TSG/Construction	29.2	29.7	25.6	27.4	27.4	28.1	28.1
Total	181.3	165.2	139.0	143.6	142.9	146.1	145.3
Shipping NCP and inland waters ²	3.9	3.1	3.6	3.1	3.1	2.6	2.6
Emission ceiling				166.8	166.8	154.1	154.1



Projections for Particulate Matter (PM_{2.5})

Sector	Realisation (Gg)			Projection (Gg)			
	2005	2010	2015	2020-V	2020-VV	2030-V	2030-VV
Industry	3.6	3.4	2.9	3.2	3.2	3.4	3.4
Energy ¹	0.4	0.2	0.3	0.2	5.9	6.3	6.3
Refineries	0.9	0.2	0.2	0.2	0.2	0.2	0.2
Transport	11.7	8.0	5.0	3.2	3.2	2.0	2.0
Agriculture	0.6	0.6	0.6	0.6	0.6	0.5	0.5
Consumers	3.8	3.6	3.2	3.0	3.0	2.9	2.9
TSG/Construction	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total	21.5	16.5	12.8	11.0	10.9	9.9	9.9
Shipping NCP and inland waters ²	7.2	4.7	3.9	2.8	2.8	2.8	2.8
Emission ceiling				13.5	13.5	11.8	11.8



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Thank you!