

2022 TFEIP: Projections expert panel agenda

2 – 2:10pm – Opening remarks (PEP chairs – Nadine and Melanie)

2:10 – 2:40 - Emission projections for waste management cycle: regional case study (Carlo Trozzi)

2:40 – 2:55 - Swedish GHG scenarios for road traffic - effect on NOx emissions (Tomas Gustafsson)

2:55 – 3:05 – 10 minute break

3:05 – 3:30 Presentation on proposed revisions to the Annex IV reporting template and discussion (PEP chairs / all)

3:30 – 3:45 – AOB and Meeting Close

9th May 2022

Proposed changes to the Annex IV reporting template



The current situation

2 aspects to be discussed:

- Further clarity required surrounding the “most recent historic year”
- More detailed information to be provided

2014 reporting guidelines – Projections Reporting Template

1	ANNEX IV A-WM: Emission projections reporting template - With Measures								
2	NFR 2014-1								
3	ANNEX IV B-WM: Template for reporting national projection Activity Data(a) - With Measures								
4	NFR 2014-1								
5	Version: 3								
6	COUNTRY: (as ISO2 code)								
7	DATE : (as DD.MM.YYYY)								
8	Version: (as v1.0 for the initial submission)								
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'Annex IV A' – Projections Reporting Template – most recent historic year

1	ANNEX IV A-WM: Emission projections reporting template - With Mea							
2	NFR 2014-1							
3								
4	COUNTRY:		(as IS 2 code)					
5	DATE:		(as D MM.YYYY)					
6	Version:		(as v for the initial submission)					
7								
8			Projected emissions (kt)					
9			NOx					
10								
11	NFR Code	Longname	most recent historic year	2020	2025	2030	2040 where available	2050 where available
12	1A1	Energy industries (Combustion in power plants & Energy Production)						
13	1A2	Manufacturing Industries and Construction (Combustion in industry including Mobile)						
14	1A3b	Road Transport						
15	1A3bi	R.T., Passenger cars						
16	1A3bii	R.T., Light duty vehicles						
17	1A3biii	R.T., Heavy duty vehicles						
18	1A3biv	R.T., Mopeds & Motorcycles						
19	1A3bv	R.T., Gasoline evaporation						
20	1A3bvi	R.T., Automobile tyre and brake wear						
21	1A3bvii	R.T., Automobile road abrasion						
22	1A3a,c,d,e	Off-road transport						

2014 reporting guidelines – ‘Annex IV A’– Projections Reporting Template

ANNEX IV A-WM: Emission projections reporting template - With Measures																									
NFR 2014-1																									
COUNTRY: (as ISO2 code)																									
DATE: (as DD.MM.YYYY)																									
Version: (as v1.0 for the initial submission)																									
NFR Code	Longname	most recent historic year	Projected emissions (kt)					Projected emissions (kt)					Projected emissions (kt)					Projected emissions (kt)							
			NOx					NMVOC					SOx (as SO ₂)					NH ₃							
Guidelines Reporting Years																									
Guidelines Reporting Years																									
Guidelines Reporting Years																									
Guidelines Reporting Years																									
2020	2025	2030	2040	2050	where available	most recent historic year	2020	2025	2030	2040	2050	where available	most recent historic year	2020	2025	2030	2040	2050	where available	most recent historic year	2020	2025	2030		
1A1	Energy industries (Combustion in power plants & Energy Production)																								
1A2	Manufacturing Industries and Construction (Combustion in industry including Mobile)																								
1A3b	Road Transport																								
1A3bi	R.T., Passenger cars																								
1A3bii	R.T., Light duty vehicles																								
1A3biii	R.T., Heavy duty vehicles																								
1A3biv	R.T., Mopeds & Motorcycles																								
1A3bv	R.T., Gasoline evaporation																								
1A3bvi	R.T., Automobile tyre and brake wear																								
1A3bvii	R.T., Automobile road abrasion																								
1A3a,c,d,e	Off-road transport																								
1A4	Other sectors (Commercial, institutional, residential, agriculture and fishing stationary and mobile combustion)																								
1A5	Other																								
1B	Fugitive emissions (Fugitive emissions from fuels)																								
2A,B,C,H,I,J,K,L	Industrial Processes																								
2D, 2G	Solvent and other product use																								
3B	Animal husbandry and manure management																								
3B1a	Cattle Dairy																								
3B1b	Cattle Non-Dairy																								
3B2	Sheep																								
3B3	Swine																								
3B4a	Buffalo																								

Pollutants: NO_x, NMVOC, SO₂, NH₃, PM_{2.5}, BC

Scenarios: With Measures (WM) and With Additional Measures (WaM), where relevant

2014 reporting guidelines – Annex I and Annex IV – comparison on emissions reporting

Historic inventory / Projections

1A1a }
1A1b } 1A1 (energy industries)
1A1c }

1A4a }
1A4b } 1A4
1A4c }

1A2a }
1A2b }
1A2c } 1A2 (Manufacturing industries and construction)
1A2d }
1A2e }
1A2f }

1A3b / 1A3b (Road Transport)

Also, no further breakdown in:
- Fugitive emissions
- Industrial processes, Solvents
- Waste

1A3a }
1A3c }
1A3d } 1A3a,c,d,e (other transport)
1A3e }

2014 reporting guidelines: Paragraph 27

27. Projections of emissions should be estimated and aggregated to the relevant source sector set out in annex IV to these Guidelines. Parties to the Gothenburg Protocol within the geographical scope of EMEP have a mandatory obligation to report such projections under article 7, paragraph 1 (b). Parties should provide a “with measures” and, where relevant, a “with additional measures” projection for each pollutant in line with the guidance given in the EMEP/EEA Guidebook. Calculated projections should be consistent with the latest inventory. Methodologies and assumptions for projections should be transparent and should allow for an independent review of data. For Parties within the EU, reported projections should, as far as appropriate, be consistent with those compiled under Regulation No. 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

2014 reporting guidelines – ‘Annex IV – B’ – Projections Reporting Template – activity data

1	ANNEX IV B-WM: Template for reporting national projection Activity Data(a) - With Measures								
2	NFR 2014-1								
3									
4	COUNTRY:		(as ISO2 code)						
5	DATE :		(as DD.MM.YYYY)						
6	Version:		(as v1.0 for the initial submission)						
7									
8		Latest Historic Year		Projected Activity Data					
9	Activity	Reference Year 2000	Most recent historic year	2020	2025	2030	2040 2050 where available	Units (energy units are in NCV)	Notes on Measures included excluded
10	Assumptions for general economic parameters:								
11	1. Gross Domestic Product (GDP)							10 ⁹ €	
12	2. Population							Thousand People	
13	3. International coal prices							€ per tonne or GJ (Gigajoule), Other please specify	
14	4. International oil prices							€ per barrel or GJ	
15	5. International gas prices							€ per m3 or GJ	
16	Assumptions for the energy sector:								
17	Total gross inland consumption								
18	1. Oil (fossil)							Petajoule (PJ)	
19	2. Gas (fossil)							Petajoule (PJ)	
20	3. Coal							Petajoule (PJ)	
21	4. Biomass without liquid biofuels (e.g. wood)							Petajoule (PJ)	
22	5. Liquid biofuels (e.g. bio-oils)							Petajoule (PJ)	
23	6. Solar							Petajoule (PJ)	
24	7. Other renewable (wind, geothermal etc.)							Petajoule (PJ)	
25	Total electricity production by fuel type								
26	8. Oil (fossil)							GWh	
27	9. Gas (fossil)							GWh	
28	10. Coal							GWh	
29	11. Renewable							GWh	
30	Assumptions for Industry: (for industrial sectors contributing more than 1% of the national total for the base or target year)								
31	<i>For Parties using macroeconomic models:</i>								
32	12. The share of the industrial sector in GDP and growth rate (e.g. iron & steel, other metals, cement, coke production, pulp and paper, petroleum refining)								
33	... Please insert a row for each industrial sector ...							% share	
34	<i>For Parties using other models:</i>								
	13. The physical production index (e.g. iron & steel, other metals, cement, coke production,								
	Introduction ANNEX IV A-WM ANNEX IV B-WM ANNEX IV A-WaM ANNEX IV B-WaM +								

The proposal...

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The proposal...

- Change “most recent historic year” to “projections base year”
- Add a reference to it in the reporting guidelines
- Delete 2020 and add 2035

Proposed 'Annex IV A' – Projections Reporting Template

9									
10	XX: 05.02.2023: 2005	NFR sectors to be reported			Main Pollutants (from 1990)				
11					NOx (as NO ₂)	NMVOOC	SOx (as SO ₂)	NH ₃	
12	NFR Aggregation for Gridding and LPS (GNFR)	NFR Code	Long name	Notes	kt	kt	kt	kt	
13	A_PublicPower	1A1a	Public electricity and heat production						
14	B_Industry	1A1b	Petroleum refining						
15	B_Industry	1A1c	Manufacture of solid fuels and other energy industries						
16	B_Industry	1A2a	Stationary combustion in manufacturing industries and construction: Iron and steel						
17	B_Industry	1A2b	Stationary combustion in manufacturing industries and construction: Non-ferrous metals						
18	B_Industry	1A2c	Stationary combustion in manufacturing industries and construction: Chemicals						
19	B_Industry	1A2d	Stationary combustion in manufacturing industries and construction: Pulp, Paper and Print						
20	B_Industry	1A2e	Stationary combustion in manufacturing industries and construction: Food processing, beverages and tobacco						
21	B_Industry	1A2f	Stationary combustion in manufacturing industries and construction: Non-metallic minerals						
22	L_Offroad	1A2gvii	Mobile combustion in manufacturing industries and construction (please specify in the IIR)						
23	B_Industry	1A2gviii	Stationary combustion in manufacturing industries and construction: Other (please specify in the IIR)						
24	H_Aviation	1A3ai(i)	International aviation LTO (civil)						
25	H_Aviation	1A3aii(i)	Domestic aviation LTO (civil)						
26	F_RoadTransport	1A3bi	Road transport: Passenger cars						
27	F_RoadTransport	1A3bii	Road transport: Light duty vehicles						
28	F_RoadTransport	1A3biii	Road transport: Heavy duty vehicles and buses						
29									

Pollutants: NO_x, NMVOC, SO₂, NH₃, PM_{2.5}, BC

Year:; 2025, 2030, 2040, 2050

Scenarios: With Measures (WM) and With Additional Measures (WaM), where relevant

Proposed 'Annex IV B' – Projections Reporting Template

10 11 12	XX: 05.02.2023: 2005	NFR sectors to be reported			Activity Data (from 1990)											
					Liquid Fuels	Solid Fuels	Gaseous Fuels	Biomass	Other Fuels	Other activity (specified)	Other Activity Units					
					TJ NCV	TJ NCV	TJ NCV	TJ NCV	TJ NCV							
13	NFR Aggregation for Gridding and LPS (GNFR)	NFR Code	Long name	Notes												
14	A_PublicPower	1A1a	Public electricity and heat production													TJ NCV
15	B_Industry	1A1b	Petroleum refining													TJ NCV
16	B_Industry	1A1c	Manufacture of solid fuels and other energy industries													TJ NCV
17	B_Industry	1A2a	Stationary combustion in manufacturing industries and construction: Iron and steel													TJ NCV
18	B_Industry	1A2b	Stationary combustion in manufacturing industries and construction: Non-ferrous metals													TJ NCV
19	B_Industry	1A2c	Stationary combustion in manufacturing industries and construction: Chemicals													TJ NCV
20	B_Industry	1A2d	Stationary combustion in manufacturing industries and construction: Pulp, Paper and Print													TJ NCV
21	B_Industry	1A2e	Stationary combustion in manufacturing industries and construction: Food processing, beverages and tobacco													TJ NCV
22	B_Industry	1A2f	Stationary combustion in manufacturing industries and construction: Non-metallic minerals													TJ NCV
23	L_Offroad	1A2gvii	Mobile combustion in manufacturing industries and construction (please specify in the IIR)													TJ NCV
24	B_Industry	1A2gviii	Stationary combustion in manufacturing industries and construction: Other (please specify in the IIR)													TJ NCV
25	H_Aviation	1A3ai(i)	International aviation LTO (civil)													TJ NCV
26	H_Aviation	1A3aiii(i)	Domestic aviation LTO (civil)													TJ NCV
27	F_RoadTransport	1A3bi	Road transport: Passenger cars													TJ NCV
28	F_RoadTransport	1A3bii	Road transport: Light duty vehicles													TJ NCV
29	F_RoadTransport	1A3biii	Road transport: Heavy duty vehicles and buses													TJ NCV
30	F_RoadTransport	1A3biv	Road transport: Mopeds & motorcycles													TJ NCV

Pollutants: NO_x, NMVOC, SO₂, NH₃, PM_{2.5}, BC

Year:; 2025, 2030, 2040, 2050

Scenarios: With Measures (WM) and With Additional Measures (WaM), where relevant

Summary:

- Further clarity will be provided in the Annex IV reporting template and guidelines to ensure that Countries are providing the correct year

A small working group was set up following last year's PEP meeting to discuss options. The following conclusions were made:

- Currently the emission projection estimates provided in the 'Annex IV – A' reporting templates are not very transparent due to the merging of NFR codes.
- The projected activity data reporting in 'Annex IV-B' is not thought to be useful by projection reviewers.
- We are proposing to have the same reporting template for projections as for historic both for emissions and activity.
- If this is agreed, the EMEP SB meeting in September will provide the final sign off and then this would be used by countries for reporting in March 2023



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Expert Panel on Projections

Aether The logo for Aether, featuring the word "Aether" in a bold, white, sans-serif font. To the right of the text is a graphic consisting of three white circles of varying sizes, arranged in a cluster.