

Chapter 9 - Projections

In May 2019, Germany published its first National Air Pollution Control Programme (NAPCP) under the revised NEC directive (EU) 2016/2284. According to Article 6 (3) of the Directive, the NAPCP must be reported in an updated version at least every four years. In this context, Germany published a draft NAPCP on June 7th, 2023. It covers all up-to-date information on projected air pollutant emissions and mitigation approaches in detail. Corresponding emission projections were reported to the central data repository of the European Environment Agency (EEA) on May 2nd, 2023 under the CLRTAP and the NEC directive, presenting both the “with measures” (WM) and the “with additional measures” (WAM) preliminary scenarios as defined in the draft NAPCP 2023 mentioned above. According to Article 8 (6) of the EU Directive 2016/2284, these projections must be updated and reported every two years. Emission projections under the CLRTAP are therefore fully aligned with the reporting presented in the context of the NEC directive.

As negotiations within the German government on the final NAPCP were still ongoing at the end of 2023, the IIR 2023 presents the projection details of the draft NAPCP from June 2023 consistent with the reported emission projections in 2023.

Based on the emissions inventory submission 2022 these results can be summarized as follows:

kt	NO _x	SO ₂	NM VOC	NH ₃	PM _{2.5}
National Total 2005	1515	473	1180	603	135
National Total 2010	1330	403	1055	614	119
National Total 2015	1219	334	832	639	102
National Total 2020	871	233	737	537	81
Reduction Commitment 2020 [%]	-39	-21	-13	-5	-26
Reduction Reported 2020 [%]	-43	-51	-38	-11	-40
NEC-Compliance	Yes	Yes	Yes	Yes	Yes
Reduction Commitment 2030 [%]	-65	-58	-28	-29	-43
Reduction Commitment 2030 [kt]	530	199	849	428	77
Projected Emissions 2030 WM [%]	-63	-58	-36	-30	-42
NEC-Compliance WM	No	Yes	Yes	Yes	No
Projected Emissions 2030 WAM [%]	-66	-70	-36	-31	-44
NEC-Compliance WAM	Yes	Yes	Yes	Yes	Yes

Notes: This table does not include NO_x and NM VOC emissions from agriculture (NFR 3B and 3D) as they are excluded for compliance checking according to Article 4 (3) of the NEC directive. Projected emissions and historic data are based on submission 2022. All values have been rounded to integer numbers. The calculation for determining the reduction commitment took place with the exact values in 2005. The rounding can lead to slight deviations.

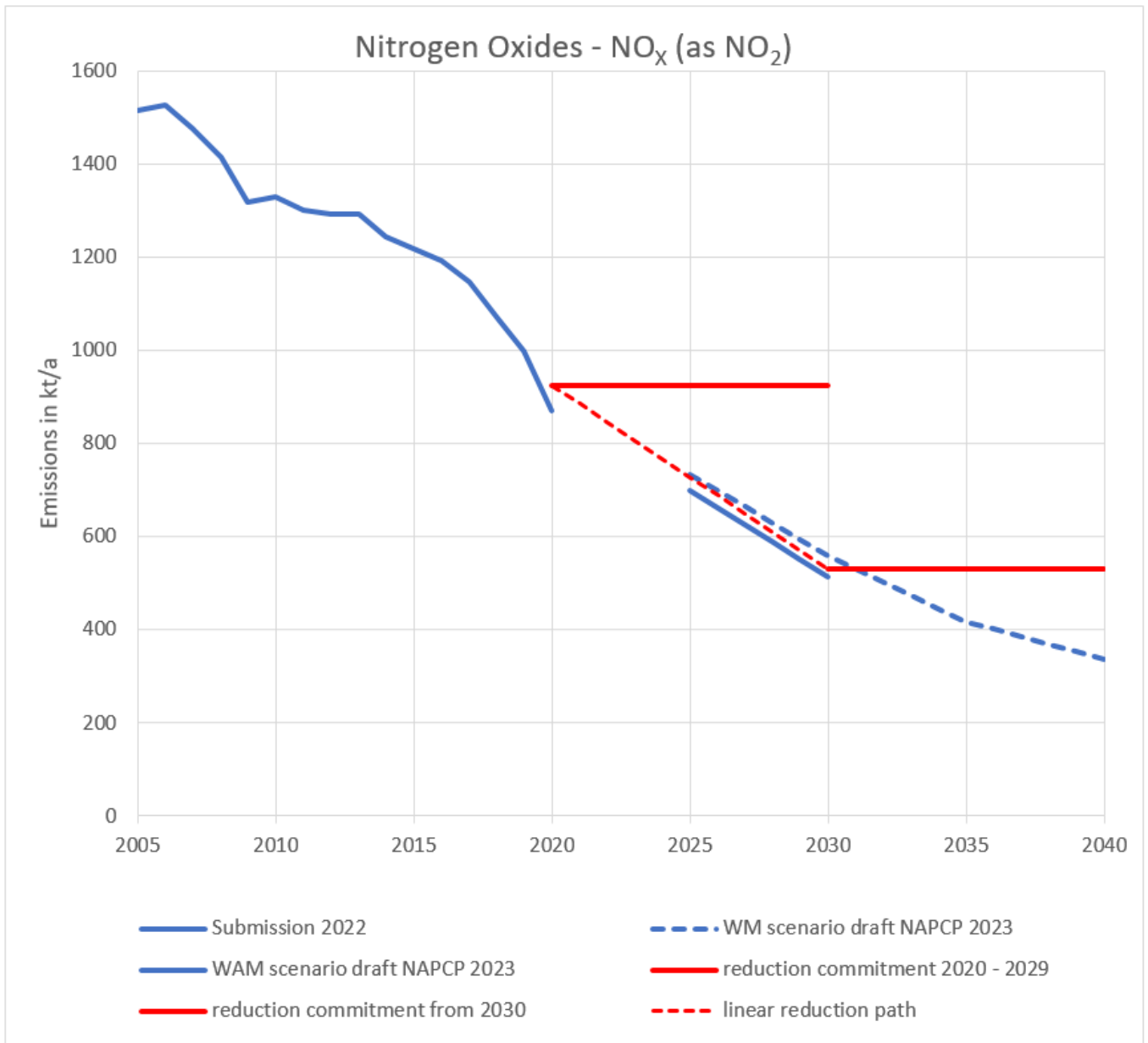
Results

Modelling different scenarios in our database, we finally calculated the following numbers for Germany's emissions in 2030:

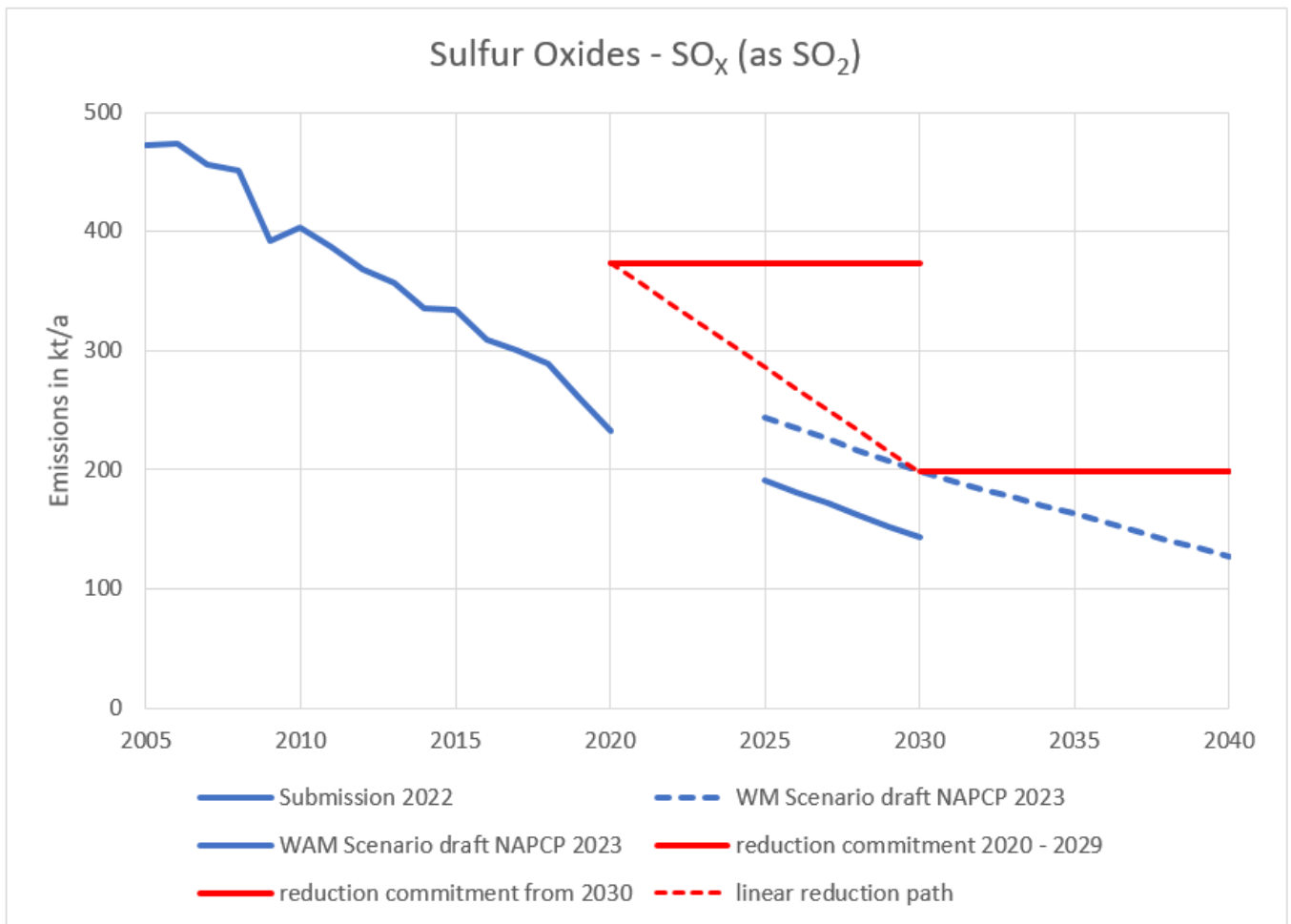
	NO _x	SO ₂	NM VOC	NH ₃	PM _{2.5}
With measures [kt]	559.3	198.1	758.7	420.8	78.6
Accelerated phase-out of coal-fired power generation	-19.6	-55.3		-0.1	-1.2
Amendment of 17 th BImSchV	-2.2				
Amendment of the Building Energy Act (GEG)	7.1	0.7	4.5		1.2
Tightening of the emission limits of the Ecodesign Regulations (EU) 2015/1185 and (EU) 2015/1189					-1.4
Agriculture package				-3.4	
Road Transport package	-28.6	-0.2	-10.3	-2.6	-1.2
[Optional] Amendment of 13 th BImSchV	-3.2				
With additional measures [kt]	512.8	143.3	752.9	414.7	76.0

With these numbers, Germany will meet its reduction commitments for all pollutants in 2030 at least in the WAM scenario.

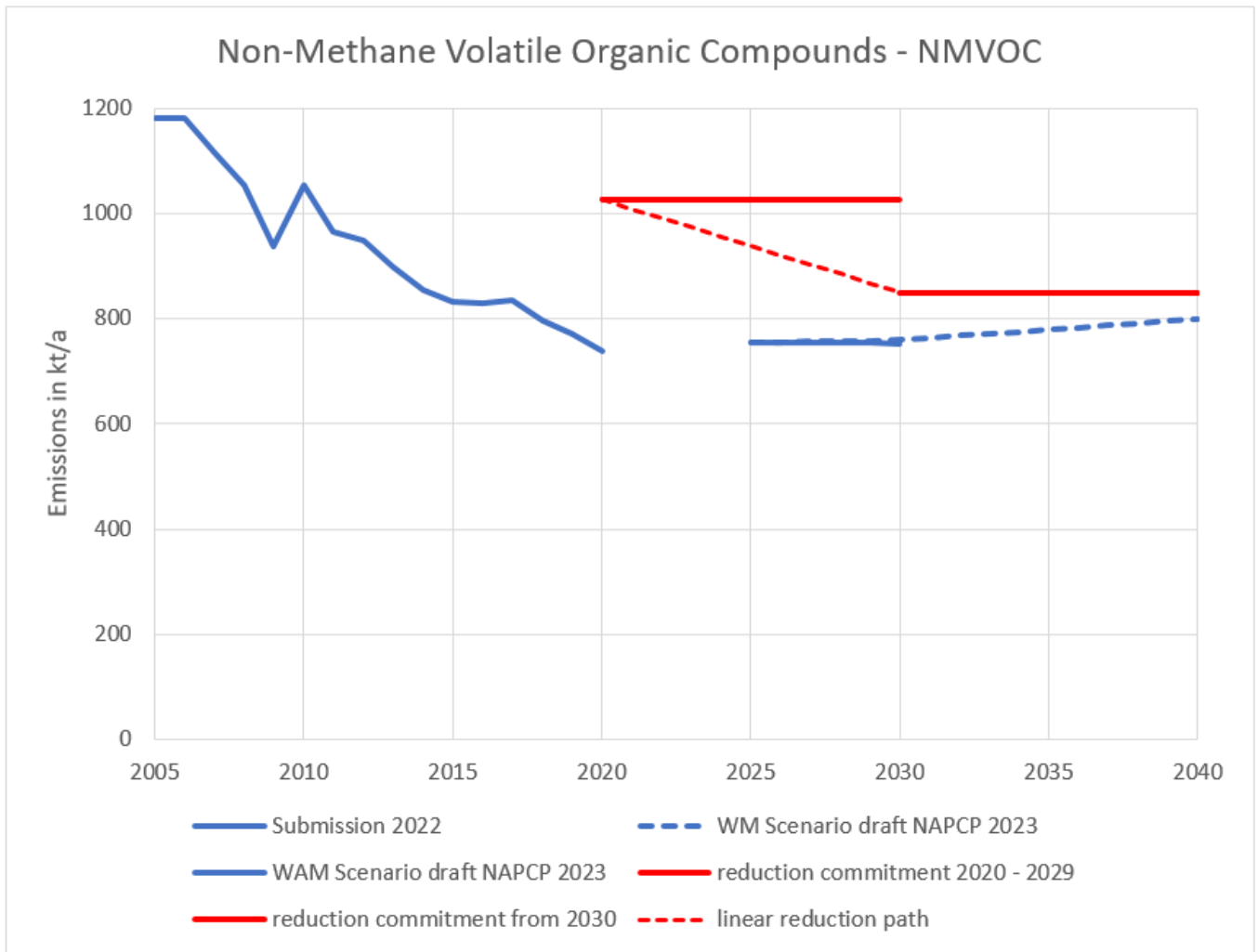
The following figures show the developments for each pollutant in the WM and WAM scenarios. In addition, the reduction commitments for 2020 to 2029 and from 2030 onwards as well as the indicative linear reduction path are shown. Please note that projected emissions were only calculated for the years 2025, 2030, 2035 and 2040. A linear reduction in the years between cannot be assumed but is shown in the graphs just for illustrative reasons.



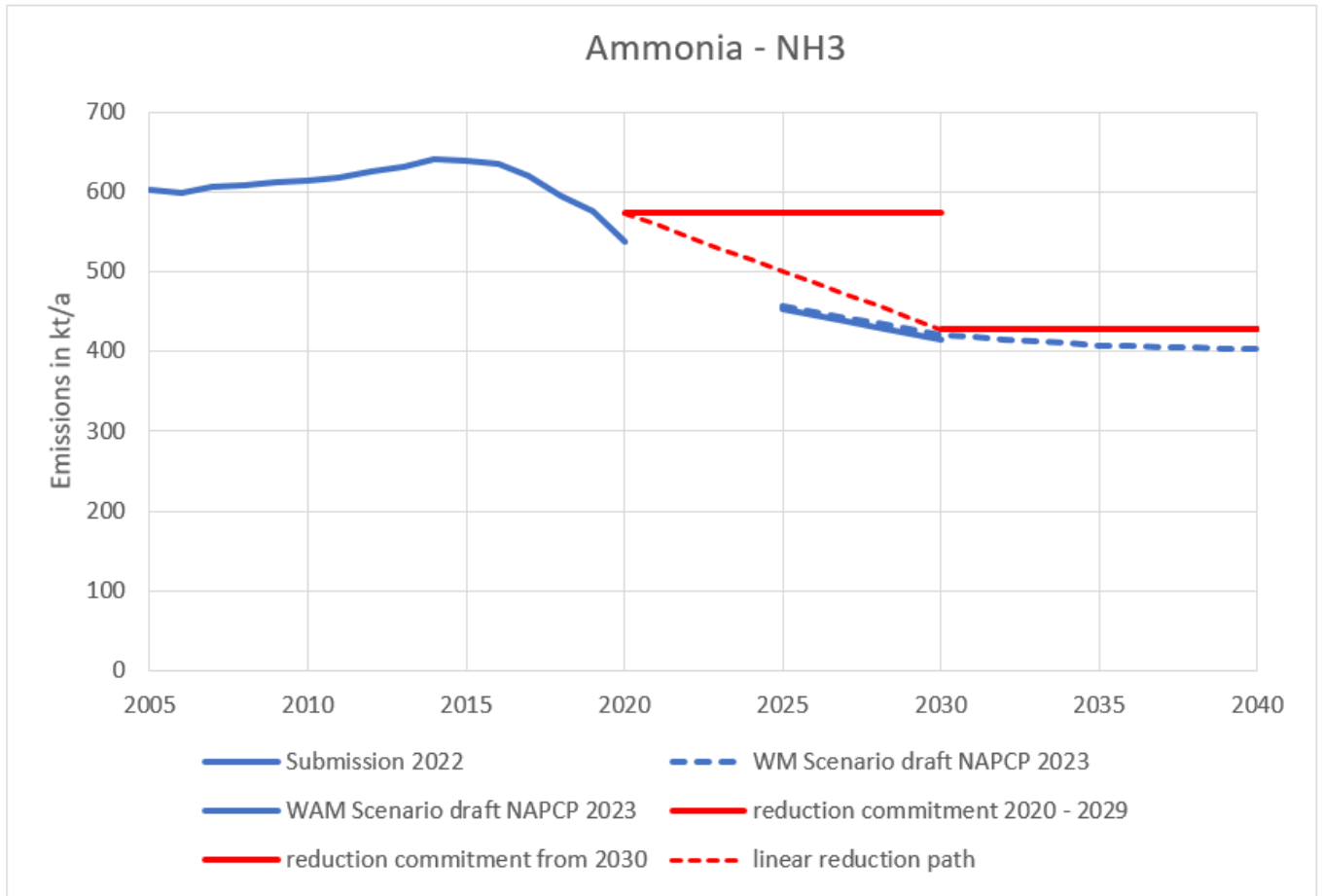
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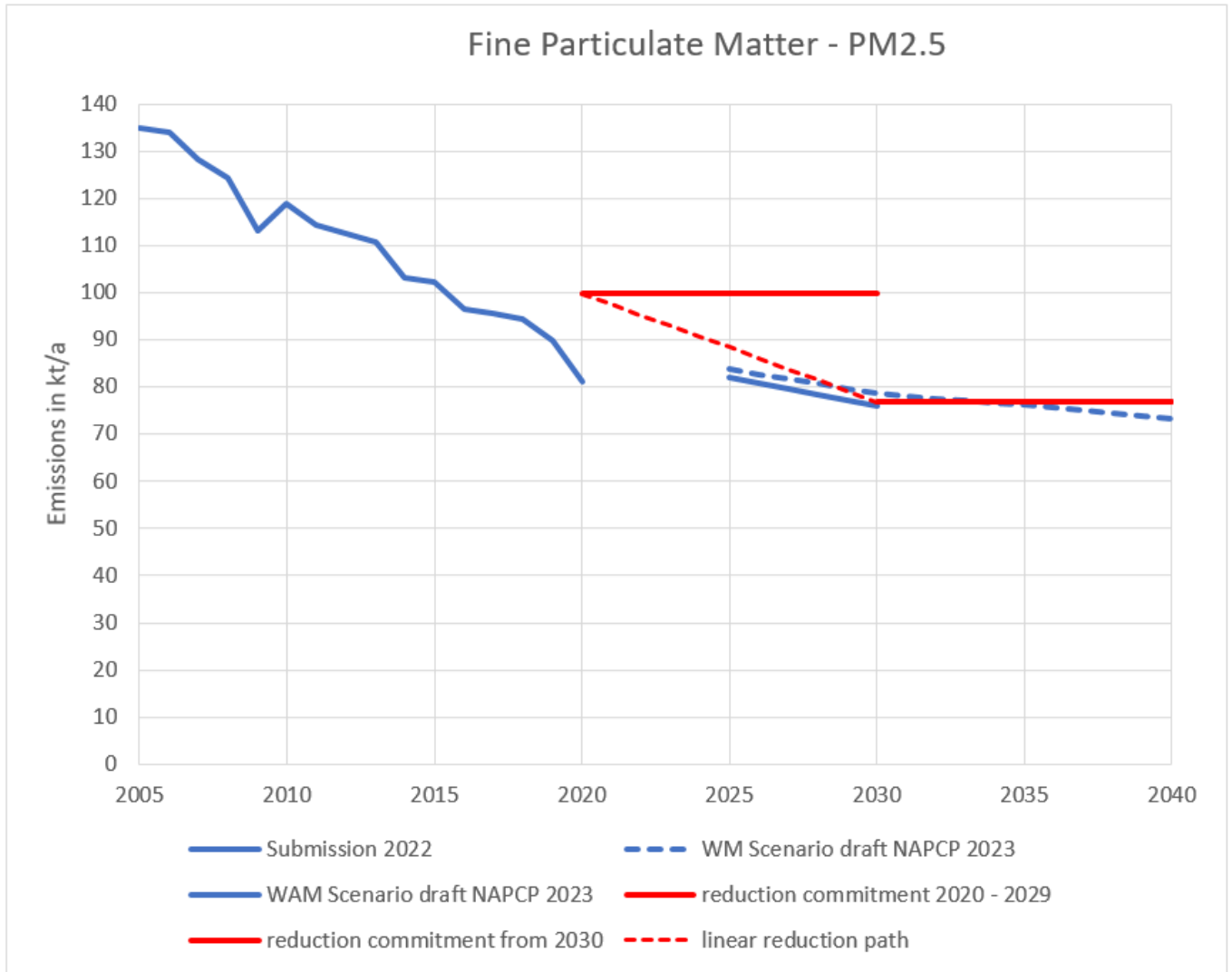
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