



Ambient Air Quality Directive AAQD Position & Background

Austrian Federal Economic Chamber (WKO)
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FAQS ON THE REVISION OF THE AMBIENT AIR QUALITY DIRECTIVE

Main position points towards policy level

- **New EU limit values should be set in such a way that they can be achieved in the foreseeable future with existing tools**

The interactive maps of the Air Study 2022 made for the Austrian Federal Economic Chamber (WKÖ Air Study 2022) show what is realistic and what is not. The limit value concept included by the European Commission in the current directive proposal contains very ambitious targets. Since the preparation of future air quality plans is complex and will also require lead time, implementation and enforcement by 2030 seems hardly achievable.

Position: Target values by 2030, limit values from 2040 at the earliest.

- **Flexibilities are essential**

Weather extremes are increasing - warm winters make it much easier to reach the target, cold winters have the opposite effect. Inverse weather conditions make it impossible to meet targets in some places. EU targets need more flexibility where humans cannot intervene. Because of the Ukraine crisis, energy prices and the fear of cold winters, among other things, tens of thousands of private emergency stoves have been bought or reactivated - particulate matter will rise again, not fall. The same applies, for example, to the forced use of biomass in the economy for reasons of decarbonisation.

Position: The extended flexibilities proposed by the EC must be maintained in the further process. In addition, a situation-dependent fuel-switch flexibility should be built in.

- **Restrict or avoid new barriers to approval procedures**

In the past, domestic companies have invested a lot in air pollution control, and we have only recently achieved the targets of the current directive. However, all these efforts will be out of order as soon as the stricter limit values are applied and new measures have to be taken. In addition, there are the new regulations on extended access to justice, compensation for health damages and the implementation of penalties in the Member States.

Demands:

- *Legal anchoring that installations that comply with the European state of the art remain eligible for authorisation even if the air quality limit values are exceeded, unless the installation makes a significant emission contribution of more than x % (amount still to be defined) to the exceeding of an air quality limit value (a kind of de minimis rule).*
- *Clarification of Article 27 concerning access to justice with regard to paragraph 2 (participation of NGOs prior to the review procedure) as well as to national NGO criteria and to the primacy of competent authorities with regard to the selection and adoption of certain air pollution control measures.*
- *Deletion of Article 28 concerning compensation for health damage by public authorities, as this makes decisions by public authorities massively more difficult or impossible.*
- *Penalties should be integrated into the criminal law structure in a balanced way, primarily at national level, according to the WKÖ position for the*

currently revised Directive on the protection of the environment through criminal law (Proposal COM(2021) 851 final).

- **Local health protection is important, but must be properly managed to be effective**

Around e.g. hospitals, schools or old people's homes, the protection of vulnerable groups is essential. Better differentiation in locally effective measures is necessary in order not to systematically paralyse the economy and transport in conurbations. *Position: As in the EC proposal, a more harmonised framework for monitoring and modelling is needed. A clearer allocation of polluter shares on a scientific basis is also necessary, also with regard to diffuse pollution. This is a sovereign task.*

FAQs

1. Where does Austria currently stand with regard to air pollutant emissions?

Since 1995, air pollutant emissions have been significantly reduced in Austria, not least due to extensive investments in the economy. According to Statistics Austria ([Zahlenspiegel für November 2022](#)) the current reductions by 2020 include the following:

Sulphur dioxide (SO ₂)	- 76,0 %
Particulate matter (PM _{2.5})	- 44,5 %
Particulate matter (PM ₁₀)	-32,9 %
Methane (CH ₄)	-38,0 %
Nitrogen oxides (NO _x)	-34,8 %

2. How did the air quality develop in Austria?

The study carried out by Joanneum Research 2022 for the Austrian Federal Economic Chamber (WKÖ) shows that the valid EU limit values for PM₁₀ and PM_{2.5} were fully complied with in the years 2018-21. For NO₂, there were only very sporadic higher values at certain measuring points in conurbations. Due to these developments, many areas of [particulate matter remediation](#) and [nitrogen dioxide remediation areas](#) (both links to the Joanneum study interactive maps commissioned by the WKÖ) would no longer be necessary - Austria was able to meet the European requirements. The current annual report of the Federal Environment Agency (Umweltbundesamt, UBA) "Air Quality Measurements in Austria 2021 - Annual Report" also confirms these findings: *"The measurement results show: For the pollutants NO₂, PM₁₀ and PM_{2.5}, the second lowest pollution level to date (after 2020) was measured. Ozone pollution was below the level of recent years. The IG-L limit value for the annual mean value for nitrogen dioxide was exceeded at seven measuring points, and the sum of the limit value and the tolerance margin was complied with for the first time."*¹

3. What is contained in the European Commission's proposal for the revision of the air quality directive of 26. October 2022?

In September 2021, the World Health Organisation (WHO) revised its recommendations for setting limit values, including a stepwise target achievement. Depending on the

¹ German Version: [publikationsdetail \(umweltbundesamt.at\)](#)

pollutant, there are 3 to 4 interim targets (IT) and a best ambition level (AQG = Air Quality Guidelines). In its proposed directive of 26.10.2022, the EU Commission is guided by these recommendations and proposes the following limit values to be achieved by 2030:

Yearly mean values (links lead to maps with indicated exceedances at measuring points from the Joanneum Research Study on behalf of the WKÖ - WKÖ Air Study 2022)

- [PM10: 20 µg/m³ corresponds to WHO Interim Target 4](#)
- [PM2.5: 10 µg/m³ corresponds to WHO Interim Target 4](#)
- [NO2: 20 µg/m³ corresponds to Interim Target 3 \(IT4 non-existent\)](#)

Daily mean values (links lead to maps with indicated exceedances at measuring points from the Joanneum Research Study on behalf of the WKÖ - WKÖ Air Study 2022)

- [PM10: 45 µg/m³ corresponds to WHO AQG, only with 18 exceedance days p.a.](#)
- [PM2.5: 25 µg/m³ corresponds to WHO Interim Target 4, only with 18 exceedance days p.a.](#)
- [NO2: 50 µg/m³ corresponds to WHO Interim Target 2, only with 18 exceedance days p.a.](#)

Note: An area-wide exposure to NO2 is very unlikely; in this case, an impact in the red zones along traffic axes with a comparable traffic load as at the relevant measuring points would be conceivable.

WHO recommendations and EU limit values PM10, PM2.5 and NO2

	PM10		PM2,5		NO2	
	YMV	DMV	YMV	DMV	YMV	DMV
interim target 1		150	35	75	40	120
interim target 2	50	100	25	50	30	50
interim target 3	30	75	15	37,5	20	
interim target 4	20	50	10	25		
AQG level	15	45	5	15	10	25
EU limit values 2008/50	40	50	25		40	
EU limit values 2030	20	45	10	25	20	50

Explanations to the table:

WHO-Recommendations: interim targets 1-4 und AQG level: 3-4 days of exceedance for daily mean values

EU limit values in the current Directive 2008/50: 35 days of exceedance for daily mean values

EU limit values 2030 in the current proposal: 18 Überschreitungstage für Tagesmittelwerte

Theoretical exceedances of the values between 2018 and 2021 are marked in yellow in the table.

The limit values in the current Commission proposal are marked in red (YMV = yearly mean value, DMV = daily mean value).

Simulation: Application of the EU Commission's limit value proposals to the air quality measurement data of Austrian monitoring stations in the years 2018-2021 (cumulative effects over all four years)²

Table 1 Overview of the results of the Joanneum Study 2022 (WKO Air Study 2022)

PM10-annual mean value (IT4)	PM2,5-annual mean value (IT4)	NO2-annual mean value (IT3)
39,1% measuring points exceeded	90,5% measuring points exceeded	44,6% measuring points exceeded

² German Version: [Studie: Auswirkungen der WHO-Luftqualitätsrichtlinien 2021 auf produzierende Unternehmen in Österreich - WKO.at](#)

43,7% of state area affected by exceedances	49,9% of state area affected by exceedances	6,5% of state area affected by exceedances
24.279 manufacturing companies are affected, which are 36,8% of all production companies in Austria	54.769 manufacturing companies are affected, which are 82,9% of all production companies in Austria	21.304 manufacturing companies are affected, which are 32,3% of all production companies in Austria
PM10-Daily mean value (AQG and 18 exceedance days/a)	PM2,5-Daily mean value (IT4 and 18 exceedance days/a)	NO2-Daily mean value (IT2 and 18 exceedance days/a)
21,1% measuring points exceeded	82,5% measuring points exceeded	22,3% measuring points exceeded
3% of state area affected by exceedances	25,4% of state area affected by exceedances	4,7% of state area affected by exceedances
14.839 manufacturing companies are affected, which are 22,5% of all production companies in Austria	36.125 manufacturing companies are affected, which are 54,7% of all production companies in Austria	10.529 manufacturing companies are affected, which are 15,9% of all production companies in Austria

4. What would these proposals mean for Austria from today's perspective?

The Federal Environment Agency (Umweltbundesamt, UBA) assesses the current initial situation as follows:

"The limit and target values for particulate matter (PM2.5, PM10), nitrogen dioxide (NO2) and ozone (O3), which would have to be complied with from 2030, are currently still exceeded at some measuring points in Austria."³

The evaluation by Joanneum Research (cf. question 3), on the other hand, shows that larger areas of Austria would have been affected by exceedances due to the Commission proposal between 2018 and 2021 - and this despite a decrease in emissions due to the known Covid effects.

The current events surrounding the Ukraine conflict and the upheavals on the energy markets currently do not allow for a serious forecast of whether the values can be met by 2030. Both the **economic development** and the **composition of energy sources** in the individual sectors cannot be estimated at present. According to statements made in November 2022 by the Austrian Federal Environment Agency (Umweltbundesamt, UBA), the UBA itself is also not planning to develop any new scenarios due to the uncertainties. We therefore limit ourselves to the presentation of possible emission-reducing and emission-increasing influencing factors:

Possible emission-reducing factors until 2030

- Natural fleet switch of cars and trucks (SNF, LNF) to Euro 6/VI and possibly Euro 7 (under negotiation at EU level)
- Higher energy standards in new buildings combined with use of heat pumps
- Milder winter temperatures due to ongoing climate change

Emission-increasing factors

- Possible increased use of solid fuels and liquid fuels in the energy sector for security of supply reasons, especially in electricity and district heating production as a result of the replacement of natural gas.

³ German Version: [Überarbeitung der EU-Luftqualitätsrichtlinien \(umweltbundesamt.at\)](https://www.umweltbundesamt.at/ueber-uns/berichterstattung/luftqualitaet/luftqualitaetsrichtlinien)

- Increased use of solid fuels in the household sector in the form of pellet and log stoves, especially at low temperatures in the winter months.
- Possible increased use of biomass and more emission-intensive alternatives to natural gas in the manufacturing sector - due to a permanent shortage of natural gas beyond 2022 and to achieve decarbonisation targets. Amplification of effects the more sluggish the expansion of renewable electricity production progresses
- Slowdown in car fleet replacement due to lack of willingness to invest among the population due to inflation, rising interest rates and possible economic downturns in the coming years; increase in price of new cars and increase in related levies and taxes.

Conclusion: Assuming a stagnant development of air pollution until 2030 (increasing and decreasing factors cancel each other out), the measurement data between 2018 and 2021 could provide a good indication for the assessments of whether the new limit values of the EU Commission can be met. Thus, the following developments could be observed:

- Large-scale exceedances of the PM2.5 annual limit value outside the Alpine region, exceedances of the PM2.5 daily mean values in the inner Alpine valleys, the Alpine foothills and eastern Austria.
- Exceedances of the PM10 annual limit value in the conurbations of southern and eastern Austria, in the Vienna Basin and in Burgenland, regional exceedances of the PM10 daily mean value in the Vienna Basin, in Linz, Graz and very selectively in the rural areas of the east.
- Exceedances of the annual NO2 limit value and the daily mean values in alpine valley and basin locations and in the conurbations of the Alpine foothills and in Vienna, here in particular only along roads with increased traffic frequency and depending on dispersion conditions at individual point sources.

5. What would change organisationally - apart from the discussion on limit values - as a result of the Commission's proposal for a directive?

Air quality plans

The time interval in which exceedances may take place must be kept as short as possible in future; under no circumstances may it last longer than three years. The plans themselves will be more extensive and more time-consuming to prepare.

Will the responsible authorities manage to identify polluters within the ambitious targets, develop and coordinate measures, enforce them, monitor the effect, make improvements, adequately consider the rights of objection and document and report everything in conformity with EU law?

Flexibilities and deadline extensions

Deadline extensions of up to five years from 2030 are possible if compliance with limit values is impeded by local dispersion conditions, orographic circumstances as well as unfavourable climatic conditions or transboundary inputs.

The extension of flexibilities is positive. However, it is unclear which areas in Austria could make use of them.

Modelling and monitoring

Obligation to model pollution when exceedances occur. Harmonisation of measuring points through binding compliance with the Directive (so far only a recommendation).

Harmonisation should always be seen as positive; modelling can help to identify health-relevant hotspots.

6. What public participation measures does the proposed directive contain?

According to the Commission's ideas, members of the public and NGOs should in future have **extended possibilities for review in court** with regard to air quality plans ("decisions, acts, omissions"), even if they were **not involved in the participation phase** of the decision-making process.

Furthermore, persons who suffer damage to their health as a result of violations of the Directive will be able to **claim compensation from the competent authority**. In future, NGOs may represent these natural persons and file class actions for compensation. Possible consequences from the perspective of the WKÖ:

Companies

- ➔ In recent years, domestic companies have invested heavily in active and passive air pollution control. This means that in most cases the state of the art has been exhausted. Additional requirements are usually out of proportion to the environmental effect. Electrification of processes has great air quality potential, but is dependent on the sufficient provision of renewable electricity.
- ➔ Reduced air quality limits cap total emissions in the area of consideration used for assessment in plant procedures. This makes the expansion or even continued existence of sites more difficult.

National Authorities

- Due to the ever-present threat of legal action for damages, it is questionable whether authorities will still be able to approve installations related to air emissions in the future if liability issues are unresolved or if liability is shifted directly to representatives of the authorities.
- In the case of plant approval, authorities would be forced to impose conditions that make it technically, organisationally and financially impossible to realise the project.

7. What is the potential impact of the EU Commission's focus on the health aspects of air quality legislation?

One thing is clear: Nobody wants to be exposed to bad air and get sick. With the present amendment, the EU Commission's Directorate-General for the Environment sets a new level of ambition in the name of health protection, but in recent years has failed to tell the population which measures and personal consequences are necessary to improve health (e.g. largely abandoning the car in conurbations, the cost of changing heating, changing consumption and mobility patterns, etc.). According to the Commission in dialogue with the business community, this would be the task of regional policy and regional administration.

Links

- **Ambient Air Quality Directive „AAQD“** EC proposal 26.10.2022, COM(2022) 542 ([Link](#) with various additional papers such as Impact Assessment etc.): Revision of the Ambient Air Quality Directive „AAQD“ (Ambient Air Quality Directive) 2008/50 ([Link](#)) and Fusion with fourth air subsidiary Directive 2004/107 ([Link](#))
- **Zero Pollution-Ambition** EC homepage press corner 26.10.2022 ([Link](#))
- **WKO-Press release 25/10/2022** (German version: [Link](#))
- **WHO-Guidelines 2021** ([Link](#))

Air Study 2022 Joanneum Research on behalf of the WKO (WKO Air Study 2022):

- **Air Study 2022** Joanneum Research ([Link](#))
- **Interactive Maps** from the Air Study 2022 ([Link](#))

Air Study 2019 Joanneum Research on behalf of the WKO (WKO Air Study 2019):

- 11/6/2019 [Link](#) (German Version)



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