



UPM Schongau



Environmental and social responsibility 2024

UPM Schongau

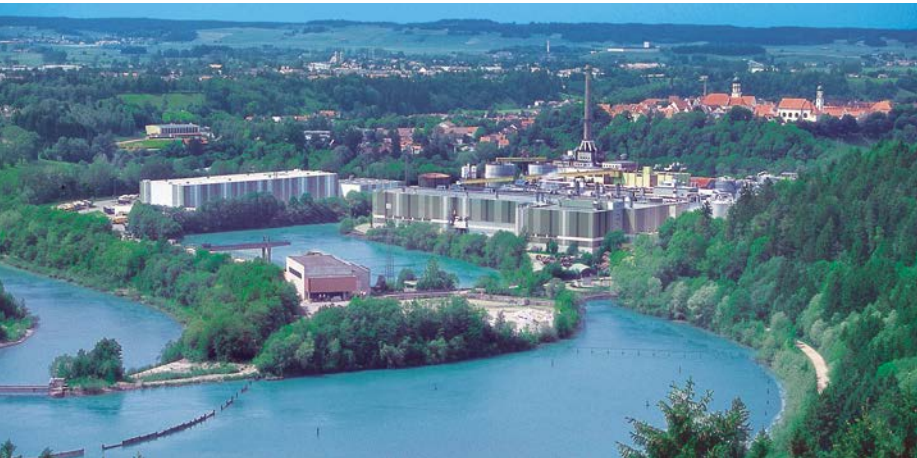
UPM Schongau is located in a meander of the river Lech in the town of Schongau in Southern Germany.

The site was established back in 1887. It was here, in 1962, that the world's first flotation deinking systems was put into operation. This breakthrough enabled recovered graphic paper to be recycled into new printing paper.

Today, the UPM Schongau site operates two paper machines to manufacture rolls of printing paper for newspapers, newspaper supplements, advertising papers, brochures, magazines, paperbacks and catalogs. In terms of volume, recovered paper is the most important raw material at the site. Other raw materials used include waste wood from sawmills, and pigments that are added as fillers. Some of these pigments come from SMI, another company based at the site.

UPM Schongau has two power plants that use the cogeneration principle to produce electricity and steam. In paper production, electricity is needed to drive the machines, while steam is needed to dry the wet paper web. The old gas-fired power plant at the mill site is outside the scope of EMAS as it is operated only on behalf of the Federal Network Agency for stabilising the grid.

The wastewater generated from the production process is treated at the on-site effluent treatment plant.



Production capacity	Up to 535,000 tonnes/year
Personnel	505 (total employees as at 31 December 2024)
Products	Standard and improved newsprint and calendered uncoated paper: UPM Brite UPM News UPM MaxS UPM Eco UPM EcoPrime UPM EcoBasic UPM Book
Certificates	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ISO 9001 – Quality Management System ISO 50001 – Energy Management System DIN ISO 45001 – Occupational Health and Safety Management System PEFC Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council® All certificates can be found in the UPM Certificate Finder (available at www.upm.com/responsibility)
Environmental labels	EU Ecolabel and Blue Angel (RAL-UZ 14a or 72) for UPM News, UPM Eco H/G, UPM ReCat and UPM EcoBasic



UPM Schongau Environmental and Societal Responsibility 2024 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental and societal performance data and trends for the year 2024. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next Updated UPM Corporate Environmental Statement and also this supplement will be published in 2026.

UPM is a material solutions company, renewing products and entire value chains with an extensive portfolio of renewable fibres, advanced materials, decarbonization solutions, and communication papers. Our performance in sustainability has been recognized by third parties, including EcoVadis and the Dow Jones Sustainability Indices. We operate globally and employ approximately 15,800 people worldwide, with annual sales of approximately €10.3 billion. Our shares are listed on Nasdaq Helsinki Ltd.

UPM – we renew the everyday
Read more: upm.com



The mark of responsible forestry
For more information about FSC certification visit fsc.org



For more information about PEFC certification visit pefc.org



EU Ecolabel : FI/011/001



www.blauer-engel.de/uz72

Review of the year 2024

Environmental protection has been an important topic at the Schongau site for many years. The continuous improvement process, which has been controlled by management systems for the environment, quality, energy, and occupational health and safety since the mill was certified in accordance with international standards, focuses on the ongoing reduction of energy and water consumption, a high raw material yield to reduce waste, and the use of eco-friendly chemical additives in the production process.

As a company of the Finnish UPM Group, we acknowledge our responsibility towards the environment and are committed to minimizing the impact of our production operations on the environment and our employees.

Production and environment

As one of the first paper recyclers in Germany, we have been contributing to a circular economy for more than 60 years.

We support sustainable forestry when purchasing wood chips for fresh fiber production by working according to PEFC and FSC Standards.

Environmental performance

We report on our environmental performance in a Group-wide database. Here, deviations are recorded according to predefined categories, from 1 (not significant) to 5 (serious environmental damage).

We also record our specific emissions using key figures for water, air and waste. Due to poor utilization, product transfers and

elevated losses in volume (due to tests and missing side runs), the specific consumption figures are at an unsatisfactory level.

In accordance with the specifications of our integrated management system for quality, environment, energy and occupational health and safety, we evaluate environmental impact through internal and external audits.

Paper production requires considerable amounts of energy. For this reason, we have made considerable efforts over the past few years to increase the energy efficiency at the site. The two large gas-fired power plants, DKW and HKW 3, allow us to stabilize the electricity grid in the event of a shortage in southern Germany by feeding electricity into the grid. If there is a surplus of electricity due to excessive availability of renewable energies, the power grid can be relieved by scaling back our power plants, having the required process steam generated by the electric boiler, and operating the energy-intensive production of TMP (fresh fiber from

wood chips) until the semi-finished product silos are filled to capacity.

To pursue continuous improvement in energy efficiency and environmental responsibility, we also set targets and measures for 2024.

Our airborne emissions have been well below the limit values for many years. We have managed to reduce the specific nitrogen oxide load by 39% over the last decade by replacing the steam power plant and implementing other technical measures for the energy generation plants, such as flue gas recirculation.

The absolute quantity of waste and by-products fell, primarily by reducing the operating time of the solid material boiler (CHP 2).

We were also able to recycle 100% of the boiler ash from the combined heat and power plant for use as a product for soil stabilization, as an aggregate for various building materials, and for the use of caustic soda in our own production facilities. ▶



Wolfgang Ohnesorg
General Manager



Ute Soller,
Manager
OHS/Environment & Management Systems



Martin Heinrich,
Senior Specialist
Environment & Management Systems

- We also worked with a filler supplier to develop another way to reuse the ash – as a substitute for some of the burnt lime needed for producing calcium carbonate.

In the wastewater system, we successfully implemented the “Advanced Process Control” project. Artificial intelligence made it possible to increase the stability of system operation and permanently reduce the discharge values, especially the nitrogen concentration.

There were many complaints about noise pollution in the summer of 2024 which were caused by the reduced operation of the systems and the decommissioning of PM6. This resulted in a lack of consistent and uniform steam extraction, which led to unscheduled steam releases and, consequently, to unusual noise levels. A flyer was distributed to inform the surrounding neighborhood about the situation in the mill and about the planned measures.



Contribution to UN Sustainable Development Goals in 2024

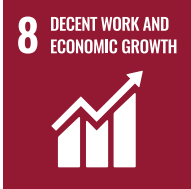


Energy

District heating to the town of Schongau was increased by

6%

between 2015 and 2024



Personnel

Currently

26

trainees at the Schongau mill
7 paper technologists
2 paper technologists on a dual work-study program
8 industrial system electronics technicians
9 industrial mechanics



Certified fiber

In 2024, the proportion of wood chips from certified sustainably managed forests (PEFC + FSC) was at

94%

67%

Proportion of recycled fibers in the paper we produced in 2024



Air

Specific emissions of nitrogen oxides from the power plants have been reduced by

39%

between 2015 and 2024

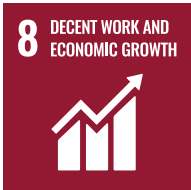


Water

Specific nitrogen load (inorganic) in treated wastewater (kg nitrogen per metric ton of paper) reduced by

88%

in the period between 2015–2024



Safety

Number of accidents with lost time has been reduced by

100%

(4 in 2023; 0 in 2024)

Airborne emissions were kept at a consistently low level in 2024. We were able to replace natural gas with thermally recycled internal production waste and waste wood. Increasing the use of biogenic fuels made it possible to reduce the proportion of fossil CO₂ emissions from 82% to 78%.

The specific NO_x emissions have not changed much over the last few years. The minor fluctuations are the result of using gas

and steam turbines in a way that optimizes heat and power.

With the fluidized bed boiler, the average concentrations of nitrogen oxides (NO_x) and particulate matter are at a low level, well below the limit values.

Regarding the emissions from the energy generation plants, a half-hourly average CO value and a half-hourly average NO_x value were minimally exceeded at HKW 2.

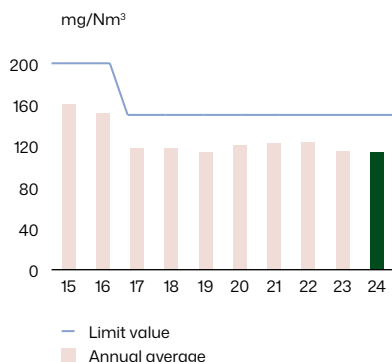
CHP emissions in 2024

	Limit value (Daily average value) (mg/Nm ³)	Mean value of measurements (mg/Nm ³)
Fluidized bed boiler / continuous measurement		
CO	50	9
Particulate matter	5	0.2
SO ₂	50	2
NO _x	150	114
Hg _{total}	0.03	0.01
HCl	10	0.2
C _{total}	10	0.3
Fluidized bed boiler / one-time measurement		
HF	1	ND
Cd, Tl	0.05	ND
Sb, As, Pb, Co, Cr, Cu, Mn, Ni, V, Sn	0.5	0.001
PCDD/F	0.1 ng/Nm ³	0.002
Gas and steam turbine / continuous measurement		
CO ⁽¹⁾	100-50	23
NO _x	75-100	18

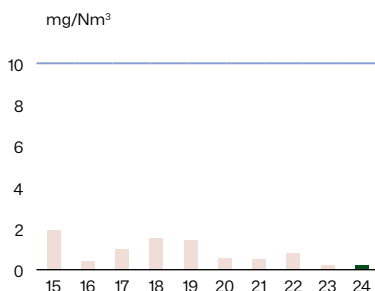
n.d. = not detected

⁽¹⁾ Different limit values are defined for the gas and steam turbine depending on the operating mode. The first value is for the gas turbine; the second value is for the waste heat boiler. A mixed calculation is carried out when both systems are operated.

Nitrogen oxides, NO_x, CHP 2



Particulate matter



Solid fuel is used in the fluidized bed boiler at the Schongau site. Most of the residue (45,453 t) produced during energy generation is categorized as ash product (in accordance with the German Circular Economy Act – Kreislaufwirtschaftsgesetz) and is used in the building materials and cement industries. The recovery rate is, however, affected by seasonal and cyclical fluctuations. In 2024, 100% of the ash was recycled for use as a product. Furthermore, the sawdust produced (1,182 t) is categorized as a by-product and 100% reused.

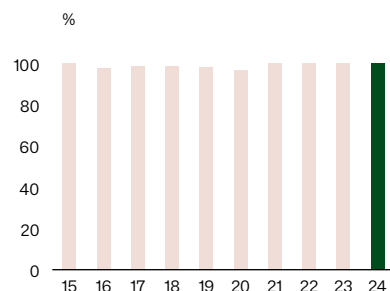
In 2024, the recycling rate for non-hazardous waste and by-products was 99.99%. The bed sand from the combined heat and power plant was 100% recycled. The majority of hazardous waste is fabric filter ash from the CHP plant.

Landfill

The former Rösenau landfill site on the mill premises is on the other side of the river Lech. Until 2009, it was used to remove ash and bed sand from HKW 2. This part of the landfill site is leased, and is used to generate energy using photovoltaics.

The Rösenau landfill has not yet been fully switched over to the after-closure phase. Monitoring of the lysimeter field to assess surface impermeability has not yet been completed. However, the landfill ash bed is impermeable to water. There is no accumulation of seepage water or landfill gas. Several groundwater depth indicators have been installed around the landfill. These are checked for landfill impact on a quarterly basis. The impact on the groundwater has been assessed as non-harmful to the environment.

Recycling rate (non-hazardous waste and by-products)



Water

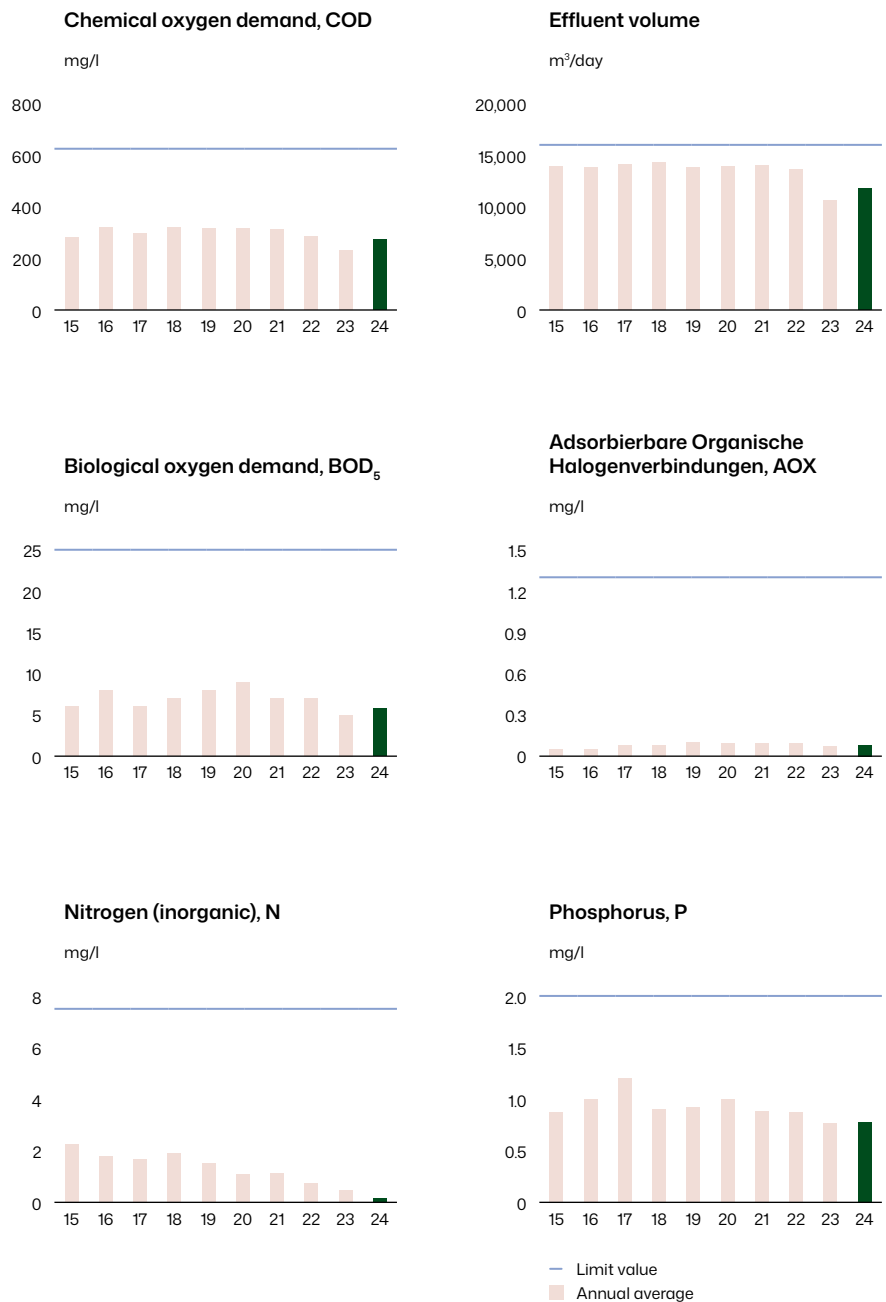


Large volumes of water from the river Lech are required to cool the power plants, steam turbines and machines. This cooling water is not contaminated at all during use and can therefore be discharged directly back into the river. The heat load discharged in this way is constantly monitored. The process water used in the paper production process is bank-filtered water from the river Lech. Only a small proportion of the water, which is used multiple times, leaves the cycle as wastewater.

The capacity of the multi-stage operational treatment plant is the same as a plant for 420,000 residents. Water is first treated chemically and mechanically, and then anaerobically in the IC reactor. Further aerobic treatment takes place in activation and secondary treatment tanks.

The high quality of the treated wastewater is constantly checked, both internally and by the authorities.

All limit values were complied with in 2024. Some of the aeration systems in the aeration tanks were replaced with new aeration systems. Gradual renewal is planned for the coming years.



Organizational structure and emergency organization

Operators in charge are appointed for environmentally relevant production plants and ancillary facilities.

Statutory representatives advise the mill management and the specialist departments in the following areas: immission control, water protection, waste, hazardous goods, radiation protection, and internal rail operations.

There are also designated representatives responsible for the integrated management system (quality, environment, energy) and for occupational health and safety, fire protection and data protection.

Comprehensive emergency plans have been defined for emergencies of all kinds, such as fire, industrial accidents and environmental incidents. From alerting to

immediate action and follow-up, there are guidelines to minimize the effects of an emergency to the greatest extent possible. At the emergency center (factory gate), detailed flow charts are available for different types of emergencies. For large-scale emergencies, there are emergency staff who decide on any further action to be taken.

Social responsibility

Effective stakeholder dialogue is a key component for success for UPM. We are committed to developing the vitality of the communities close to our operations through active cooperation and open dialogue with various stakeholders, as well as through sponsorships and employee volunteering.

We impact local communities and societies in many ways. Understanding the impact that we have is an essential component of our business success. In many locations, we are a significant employer, taxpayer and partner to local entrepreneurs, making a positive contribution to the local economy. We take precautionary measures to mitigate or prevent any negative environmental and social impacts on our surrounding communities.

Occupational health and safety

At UPM, we aim to be an industry front-runner in occupational health and safety. Our clear goal is: Zero fatal and serious accidents. We are working to reduce or eliminate accidents in our sphere of influence through continuous improvement and effective risk management. Dealing with occupational health and safety issues is part of our management culture and is continuously refined through training and day-to-day conversations.

Over the past year, we increasingly focused on reporting positive events and were able to highlight seven outstanding examples from mill operations. That means we have achieved 140% of the UPM target.

Five key focus areas of UPM's current occupational health and safety program were addressed and worked on in 2024, which included minimizing haste and the hectic pace of production. This topic was discussed in occupational health and safety dialogues with management, as well as during regular meetings with safety officers. A stress seminar entitled "Stress is history" (Stress war gestern) was offered to both commercial and office staff members and was attended by many employees.

For the first time in years, we recorded zero accidents in Schongau, although there were a few incidents involving minor injuries without lost time, which did have the potential to result in time off.

Occupational healthcare

Workplace health promotion (WHP) focused on nutrition in 2024. A concept for healthier company catering was developed together with a new canteen operator. During the health day held in the canteen,

information on healthy eating was provided, along with engaging talks, activities, and a healthy food offering.

In cooperation with the company medical team, UPM Schongau created a check-up program that focuses on essential vitamin levels and cholesterol. Around 40 employees made use of the offer by the end of 2024. Bowel cancer screening was also offered in the spring.

Our wide range of ergonomics courses, including yoga sessions, back training, and hiking meetups, were very well received. We have also been offering a corporate fitness program since January 2023.

The support services provided under workplace integration management (BEM) were utilized by many employees, which led to the implementation of a number of measures to promote good health.

Engaging with communities

UPM Schongau supports numerous cultural and sporting activities and clubs throughout the region.

In 2024, UPM Schongau was once again able to make a contribution to youth work at the music school, Musikschule Pfaffenswinkel. UPM Schongau is a long-standing partner of the Schongau Triathlon, which takes place every year in the immediate



Fire drill on Occupational Health and Safety Day, which was carried out with the help of our on-site fire department



Kita Sankt Michael receives funding for a nest swing: Nursery School Director Manuela Otschik (center), Deputy Director Andrea Weber (center back), children and volunteers who helped with the installation, along with Michael Heinemann, 2nd full-time works council member at UPM Schongau

vicinity of the mill. The paper mill sponsors various sports clubs in Schongau and the surrounding area. UPM Schongau also supports schools and nursery schools in the region.

Biodiversity

The Schongau mill continues to take part in the “Lebensraum Lechtal” biodiversity project to protect habitats in the Lech valley and maintains spawning grounds in the Lech and nesting boxes for birds and bats on the mill site. It also has an initiative to reduce light pollution in order to promote biodiversity.

Collaboration with schools and training

UPM Schongau offers apprenticeships in the following professions: paper technologists, electronics technicians for industrial systems and industrial mechanics. Eight apprentices started their careers at the mill in September 2024.

In 2024, UPM offered more than 20 school students the opportunity to com-

plete taster internships and was represented at a number of training fairs in the region. The training team was also involved in career exploration projects, supporting students with application writing, conducting mock interviews, and organizing plant tours for school classes.

Environmental parameters

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental and Societal Responsibility Statement.

		2022	2023	2024
Production capacity	Paper (2 paper machines)	Up to 740,000 t	Up to 740,000 t	Up to 535,000 t
Raw materials	Recovered paper Wood chips Fillers Process chemicals Operating supplies	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Energy³⁾	Renewable fuels Fossil fuels Purchased power Hydropower	15% 85% See UPM Corporate Environmental and Societal Responsibility Statement for more information	18% 82% See UPM Corporate Environmental and Societal Responsibility Statement for more information	22% 78%
Emissions to air	Carbon dioxide, CO ₂ (on-site fossil emissions, scope 1) Carbon dioxide, CO ₂ (fossil emissions from purchased energy, scope 2) Nitrogen oxides, NO _x Sulphur dioxide, SO ₂ Particulate matter Carbon monoxide, CO	113,236 t 358,423 t 132 t 1.3 t 2.1 t 45 t	97,477 t 260,322 t 106 t 3.6 t 0.1 t 23 t	83,043 t 275,969 t 90 t 0.9 t 0.1 t 16 t
Water intake	Process, cooling and drinking water of which cooling water of which drinking water	24,894,617 m ³ 19,295,720 m ³ 19,212 m ³	22,737,125 m ³ 18,469,850 m ³ 20,594 m ³	19,431,487 m ³ 14,691,534 m ³ 19,469 m ³
Discharges to water	Effluent volume Chemical oxygen demand, COD Biological oxygen demand, BOD ₅ Phosphorus, P Nitrogen (inorganic), N Adsorbable organic Halogen compounds (AOX) TOC TNb	4,960,824 m ³ 1,413 t 31 t 4.4 t 4.9 t 0.5 t 430 t 25 t	3,870,814 m ³ 882 t 21 t 3.0 t 2.4 t 0.3 t 252 t 13 t	4,292,940 m ³ 1,137 t 25 t 3.3 t 0.9 t 0.4 t 353 t 16 t
Waste and by-products²⁾	By-products – Ash – Saw dust Waste for recycling – Bed sand – Metal – Construction waste – Paper and board – Other – Sludge (AVV [Abfallverzeichnis-Verordnung – German Waste Catalogue Ordinance] 030305+030310) – Rejects (AVV 030307) Waste for disposal – Bed sand – Construction waste/rubble Recycling rate (non-hazardous waste and by-products) Hazardous waste	64,977 t 1,377 t 3,526 t 600 t 1,027 t 263 t 353 t 2,106 t 477 t 0 t 0 t 100% 1,608 t	49,098 t 513 t 2,936 t 504 t 1,687 t 77 t 345 t 0 t 232 t 0 t 0 t 100% 1,259 t	45,453 t 573 t 2,733 t 751 t 2,410 t 164 t 322 t 47 t 245 t 0 t 0 t 100% 858 t
Land use	Total use of land Total sealed area Total nature-oriented area on site Total nature-oriented area off-site	38 ha 23 ha 8.5 ha 42 ha	38 ha 23 ha 8.5 ha 42 ha	38 ha 23 ha 8.5 ha 42 ha

¹⁾ The gas and steam plant is operated in line with electricity prices and feeds the electricity generated into the public grid. This mode of operation helps to stabilise the German electricity grid. The site's electricity requirements are largely covered by the public grid. The CO₂ quantity reported here for UPM Schongau for Scope 1 does not include emissions from electricity fed into the grid, as these are attributed to the grid. The CO₂ emissions including the electricity fed into the grid amount to 91,677 tonnes (2022), 63,388 tonnes (2023), 34,284 tonnes (2024).

²⁾ Quantity t oven-dry.

³⁾ In 2022, the calculation of renewable and fossil CO₂ shares was changed from metric tons of CO₂ to metric tons of CO₂ per MWh



Performance against targets in 2024

Targets	Achievement
1 Energy and fossil CO₂ savings - Develop pre-engineering for the energy efficiency project "Surplus steam heat storage in existing DKW tanks" (potential savings 2,500 MWh/a) and submit investment request - Technological concept development for high-temperature heat storage for excess steam. Steam to be drawn directly from CHP 2 (450°C; 45 bar) - Optimized hot water production at PM 7 and 9 (saving of 2,300 MWh/year) - Project to utilize hood condensate at PM 7; carry out detailed planning and apply for investment (potential to save approx. 1,700 MWh/year)	- AL EN / WETW achieved - AL EN / WETW achieved - AL EN / WETW achieved - AL EN / WETW achieved
2 Wastewater: Reduction in specific wastewater volume (2024 max. 9 m³/t paper on average based on capacity utilization of 500,000 t/a; 2023 average was 10.3 m³/t paper)	AL HST / AL P / WETW partially achieved, 9,68 m³/t altered framework conditions led to significant improvements visible in the second half of the year;
3 Waste Start a pilot project on the material recycling of wet felt and pressed felt	Sourcing project starts in Q1 2025
4 Airborne emissions Increase the amount of recovered paper delivered by rail (to at least 10%)	AL Lg / Sourcing partially achieved, 5% improvement
5 Clean Run category 3 Reduction of air emissions and wastewater discharge incidents -> stabilization/optimization/adaptation to the operation of the production facilities, type variants and mill shutdowns	Not achieved 2023: 2 / 2024: 2

Targets for 2025

Targets and measures	Deadline	Department responsible
1 Energy and fossil CO₂ savings - Implement online cleaning system for HKW2 first pass and baffle-type evaporator – 2% efficiency increase and reduction of quench water volume by 2,000 l/h - Condensate heat exchanger concept development Connection of HKW2 to heating rail - Investigation of TMP LC secondary refining capacity to reduce energy consumption of TMP main refining (SOG9 UPM Max / UPM Smart S) - Use of waste heat from PM 7 condensate for the heating network Savings target per year: 5,800 MWh	December 31, 2025 December 31, 2025 December 31, 2025 December 31, 2025	AL EN AL EN / WETW AL PM / WETW AL PM
2 Wastewater Continuation of the target to reduce specific wastewater volume from 2024 level of 9.0 l/kg	December 31, 2025	AL HST / AL P / WETW
3 Waste Start a pilot project on the material recycling of wet felt and pressed felt – continued from 2024	December 31, 2025	Sourcing
4 Airborne emissions Installation of 12 electric charging stations for employees -> Motivation to switch to electromobility -> Reduction of air emissions	December 31, 2025	AL T
5 Clean Run category 3 Reduction of air emissions and wastewater discharge incidents -> stabilization/optimization/adaptation to atypical operating conditions	December 31, 2025	AL HST /AL EN



Environmental verifier's declaration on verification and revalidation activities

Environmental verifier Astrid Günther (DE-V-0357), acting for TÜV NORD CERT Umweltgutachter GmbH, licensed for the scope NACE Code 17.12 (papermaking), declares to have verified whether the site UPM GmbH, Schongau mill in 86956 Schongau, Friedrich-Haendl-Strasse 10, Germany, as indicated in the updated UPM Corporate Environmental and Societal Responsibility Statement 2024 of the mentioned site (registration no. FI-000058), meets all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 as amended by Regulation (EU) 2017/1505 and Regulation (EU) 2018/2026 of the commission on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).

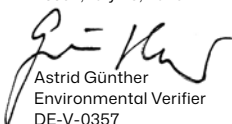
By signing this declaration, I declare that:

- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,

- the data and information of the updated Environmental Statement 2024 of UPM GmbH, Schongau mill, reflect a reliable, credible and correct image of all the activities of UPM GmbH, Schongau mill, within the scope mentioned in the updated Environmental Statement 2024.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Essen, July 23, 2025


Astrid Günther
Environmental Verifier
DE-V-0357
TÜV NORD CERT Umweltgutachter GmbH



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