



Ecological sustainability concept for the Vienna Volksoper

October 2025

The Vienna Volksoper GmbH (Volksoper) is committed to a holistic understanding of sustainability that encompasses not only ecological sustainability but also social sustainability and governance. The following statements refer to ecological sustainability.

Aware of its responsibility for intergenerational climate and resource justice, the Volksoper strives to act in an environmentally friendly and sustainable manner in all its fields of activity. We are aware that every premiere and every new production contributes to further resource consumption and the release of emissions through the production of decorations and costumes, transport and travel by artists. This is precisely why it is part of the Volksoper's self-image to anchor the responsible use of resources in its daily operations.

Since April 2024, the Volksoper has held the das "Österreichische Umweltzeichen für Sprech- und Musiktheater" (Richtlinie UZ 209) (Austrian Ecolabel for spoken and musical theatre (guideline UZ 209))



The Volksoper's stated goals are to continuously incorporate the criteria listed therein into its daily operations, to raise awareness among all employees of resource-saving behavior, and to ensure that environmental aspects are automatically taken into account in every action.

The Volksoper is committed to the Paris Climate Goals, the protection of biodiversity, the UN Agenda 2030 and the underlying Sustainable Development Goals (SDG). With regard to environmental sustainability, the Volksoper sees its scope for action primarily in relation to the following sustainability goals:

- SDG 7: affordable and clean energy
- SDG 12: sustainable consumption and production
- SDG 13: climate action

7 BEZAHLBARE UND
SAUBERE ENERGIE



12 NACHHALTIGE/R
KONSUM
UND PRODUKTION



13 MASSNAHMEN ZUM
KLIMASCHUTZ



Our practical measures

- Photovoltaic system on the roof

By installing a photovoltaic system covering the entire roof area of the Volksoper in spring 2023, approximately 20% of the Volksoper's final energy consumption can be covered by self-generated renewable energies. Since commissioning, more than 530 MWh of electricity has already been generated from solar energy (as of 19 September 2025).

Facts about the photovoltaic system:

- 605 modules with a total area of 988 m²
- the amount of energy generated could supply approx. 265 single-person households per year
- around 930 fully grown trees would have the same effect in terms of greenhouse gas savings



Photovoltaic system on the roof of the Volksoper

- **Heat- & Cooling Energy Recovery System**

The installation of a Heat- & Cooling Energy Recovery System for the auditorium will enable a significant proportion of the heating and cooling capacity for the area to be recovered. The system has been in operation since autumn 2024.

- **Energy consumption**

Since 2015, the Volksoper has had a quality-assured energy efficiency audit in accordance with ISO 50001 and is subject to an annual review. Since then, energy consumption at the Volksoper has been significantly reduced and energy efficiency has been continuously optimized. The next external audit will take place in November 2025.



- **LED lighting**

This is also due to the ongoing switch to LED lighting in general and stage lighting. Currently, more than 62% of stage lights have already been converted to LED (as of 19 September 2025). Volksoper gains energy savings not only by taking advantage of LED-sources for general lighting, but with a special focus on entertainment lighting. The connected load of an LED replacement is reduced to a fractional amount. Introducing LED moving lights can even take the tasks of several conventional spotlight and provide progressive color changes while enriching the artistic options. Following key projects contribute to Volksoper's ongoing approach of achieving the most efficient lighting system, while providing highest artistic level:

2016:

LED conversion of auditorium lighting

LED conversion former discharge moving heads in auditorium trusses

2017:

LED-conversion of 2.5kW Fresnel top light on stage

2018:

LED-conversion foot ramps and cyclorama

2021:

LED-conversion of portal bridge and towers

80 conventionals were replaced by 45 LED moving lights

2023-2024:

LED conversion of lighting bridge 1's former discharge moving heads

LED conversion of tungsten profiles in ballet towers

LED conversion of discharge FOH follow spots

2025:

LED-conversion of conventionals in the auditorium boxes

34 tungsten and discharge spotlights were replaced by 18 LED moving lights. The connected load was reduced by 48%.



Scenic lighting in „Killing Carmen“

Besides reduced energy consumption, there are also savings in resources. Scroller rolls and lamps no longer need to be replaced on a regular term. Faster focusing provides additional resources for other tasks, more time can be spent on artistic and quality improvements.

The Volksoper is also committed to the 'Climate-Fit Cultural Institutions' initiative. The projects implemented between 2023 and 2025 are co-financed by the European Union – NextGenerationEU in cooperation with the Climate and Energy Fund.



Finanziert von der
Europäischen Union
NextGenerationEU



In addition, the Volksoper purchases contractually certified **electricity from renewable energy sources** (in accordance with eco-label requirements).

A further external energy consultation was carried out as part of funding applications for 'climate-friendly cultural institutions' in order to analyze the potential for greater energy efficiency in even greater depth.

- **Mobility of vehicle fleet and employees**

The company's own vehicle fleet has largely been converted to electric drive. The daily distribution of props, stage sets, etc. is carried out by ART for ART Theaterservice GmbH. This is a subsidiary of all stage companies and the Bundestheater Holding. The corresponding operational influence of the Volksoper is therefore limited.

Furthermore, since autumn 2024, Volksoper employees have been offered an income-based job ticket from Wiener Linien GmbH & Co KG, which has been very well received. With this measure, the Volksoper is promoting the use of public transport by its employees.

- **Business trips by employees**

Air travel by employees with a total flight distance of less than 500 km will not be booked. When choosing a mode of transport, rail or bus should be given priority.

- **Visitor travel**

Our visitors are encouraged on our website to choose environmentally friendly travel options.

- **Greenhouse gas emissions control (CO₂-eq)**

The Volksoper is currently evaluating its greenhouse gas emissions. This is necessary in order to define further efficient decarbonization levers.

- **Greening**

The inner courtyard has been greened with native, non-invasive and bee-friendly plant species. The green area in front of the main entrance has also been planted with native, non-invasive and bee-friendly plants and vegetation.

- **Storage space in the immediate vicinity** (Stadtbahnbögen 125-130)

In order to create storage space in the immediate vicinity and thus save on transport costs, Stadtbahnbögen (tram arches) 125-130, which are located in the immediate vicinity of the Volksoper, are currently being renovated. Additional storage space for costumes (costume collection) has been created in tram arches 125 and 126.

- **Our Opera Production**

The materials used for stage construction are sourced from ART for ART Theaterservice GmbH. The Volksoper therefore does not have complete operational control over this aspect.

Productions are shown several times during a season and are usually included in the program for subsequent seasons. This means that the sets and costumes are often used for years in hundreds of performances (e.g. *Hänsel and Gretel*, *My Fair Lady*, *La bohème*, *Die Fledermaus*). Artists are encouraged to consider ecological sustainability aspects in their creative process from the very beginning. We believe that there are thousands of ways to integrate environmentally conscious processes into the creation of musical theatre, and we want our teams to use their creativity to help us develop new ideas for more ecological productions every time.

Where possible, components from scrapped productions (skartierte Produktionen) are stored and reused (e.g. the aluminium spiral staircase from *Der Konsul* in *Die lustige Witwe*, the revolving ring from *Kiss Me, Kate* in *La Rondine*). *La Rondine* (premiere in April 2024) was assembled almost entirely from upcycled stage and costume elements. In *Spring Awakening* (premiere in February 2026), the floral elements from the production of *Le nozze di Figaro* will be reused.

Furthermore, all our costume designers are invited to use items from the costume collection for their costume creations. For example, the costume collection was used in the productions *Carmen*, *Orpheus in the Underworld*, *Lass uns die Welt vergessen – Volksoper 1938* (*Let Us Forget the World – Volksoper 1938*), *Die Dubarry* and *La Rondine*.

In addition, a props and costume flea market is held regularly, where items from the collection are sold. Wood is also used for set design and props. The primary wood used comes from certified forest management (e.g. PEFC, FSC). In addition, a stage set was created that can be used for two productions simultaneously, namely *Die Zauberflöte* (*The Magic Flute*) and *Ronja Räubertochter* (*Ronia, the Robber's Daughter*). The main focus of these productions is on the individual video

productions, which means that the stage set is minimalist in design, recedes into the background and can therefore be used for both productions at the same time.



Set design with video projection in *The Magic Flute*

The Volksoper is aware that there is further potential here for a more sustainable production method and is evaluating possible measures.

- **Gradual introduction of modular frame systems**

The gradual conversion from wooden platforms to the modular frame system from HOAC has further contributed to greater flexibility and sustainability in stage operations. The system allows different heights to be constructed using just a few standardized components and has proven itself both in rehearsals and performances. In the meantime, concrete measures have already been successfully implemented: existing wooden structures have been replaced by frames for events in the foyer areas and on the forestage. In addition, a separate pool of frames in different heights has been purchased for the newly created rehearsal stage.

Employees report noticeably faster assembly and disassembly as well as significantly less physical strain due to easier handling. Experience to date fully confirms the advantages of the system and shows that the changeover not only makes everyday work easier, but also forms the basis for more resource-efficient materials management. Transport volumes and external storage space can be reduced, while at the same time a compact, production-standardized materials pool can be established. The changeover is being consistently continued and established as 'best practice' for future production processes.

- **3D theatre – Virtual Volksoper**

Performances can be prepared and edited in a three-dimensional computer model of the Volksoper. The 3D theatre is what is known as a functional digital twin. In addition to the architecture, the entire stage machinery, spotlights and video projections are also replicated. The stage design is also modelled and can be changed without the use of materials or physical labour. The screen acts as a real-time stage replacement. The leading teams and operators work on a new production without the power consumption of motors or light sources. This saves energy, which would amount to several hundred kWh in a real lighting rehearsal. Depending on the scope of the production, this could also exceed 500 kWh/day. By integrating the Virtual Volksoper into a video conference, preparations can already begin without the director, lighting designer or set designer having to travel by plane. This approach enhances artistic output while simultaneously conserving resources.

- **Water consumption**

Water consumption in the opera house is measured. To reduce consumption, dual-flush systems have been installed in all toilets in the stage and auditorium areas. In addition, most of the opera house's taps are equipped with automatic water shut-off devices.

- **Cleaning products**

Where technically possible, facility management is continuously switching to cleaning products with certification (EU Eco-Label).

- **Waste**

Waste volumes are measured and documented annually in the waste management concept. This applies in particular to waste from stage decorations of discarded productions. Here, too, the Volksoper sees further potential for more sustainable practices and is evaluating possible measures to this end. In order to establish waste separation for employees and visitors, waste separation bins have been set up in the Volksoper (residual waste, waste paper, yellow bin).

- **Cooperation with Wert:Stoff**

For several months now, the Volksoper has been cooperating with the Wert:Stoff materials initiative. The aim is to pass on materials that can no longer be directly reused by the Volksoper to Wert:Stoff. Wert:Stoff keeps the materials in the material cycle and uses them for other purposes.

- **Paper**

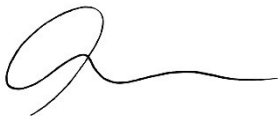
Various colored paper and copy paper carry the ISO Type 1 eco-label.

- **Raising awareness in society**

Environmental issues are also communicated to society on stage. We attach great importance to communicating environmental issues to the outside world in our performances, as demonstrated by Offenbach's *Die Reise zum Mond* (Le voyage dans la lune). Do you have any further ideas on how to implement sustainability? We warmly invite you to share your suggestions for making your theatre visits greener with us. Simply write to nachhaltigkeit@volksoper.at. We value your feedback and look forward to your suggestions for improving our sustainability efforts.

- **External auditing of environmental performance**

In accordance with the requirements of Directive UZ 209 ("Österreichisches Umweltzeichen") and certification according to ISO 50.001 (energy management), the Volksoper maintains a list of measures and an action plan for the ongoing optimization of its environmental performance. This is also subject to regular external auditing. In addition, the Volksoper is seeking certification of an environmental management system in accordance with EMAS (Eco-Management and Audit Scheme).



Lotte de Beer



Mag. Christoph Ladstätter