

The use of solar energy on monuments

Five points for a sustainable use of solar systems on and at monuments.

(Translation by Wolfgang Karl Göhner, Chair European Heritage Legal Forum [EHLF])

The manifold consequences of the climate crisis show how massively climate change also affects our natural and cultural heritage. To protect both, we must achieve greenhouse gas neutrality as quickly as possible. This requires a fundamental restructuring of the energy system. Electricity from renewable energies will be the most important form of energy in the future. The monument authorities see it as their task to work constructively and in a goal-oriented manner on the energy turnaround. At the same time, the generation of renewable energies must always be carried out with consideration for the valuable architectural and garden monuments, sites and cultural landscapes. The resource monument is non-renewable if its values are lost. Through responsible, fiduciary handling, natural and cultural resources are preserved for future generations and their quality of life. Only in this way can we fulfil the intergenerational contract in a holistic way. The preservation of monuments is part of the solution:

1. First, the monument value must be determined

As with any planned alteration to a monument, it must first be examined whether and how it will change the monument's value. The value of a monument is determined by the criteria of significance listed in the monument protection laws of the federal states. The monument inventory makes a decisive contribution by describing and identifying the monument value in a legally secure manner.

2. Making the tailored possible

The monument authorities check according to the respective applicable monument protection law of the German States ("Länder") whether a planned change can be technically approved or authorised. This applies to solar installations as well as to all other measures. The inspection criteria relate to the protection of the substance, appearance and spatial effect of the monument. They examine on a case-by-case basis which customised solutions are possible on the monument with the aim of avoiding significant impairment. An impairment is considered "significant" if it clearly limits the monument's value in one of its criteria of significance.¹

3. To ensure Sustainability

Whenever a change is made to a monument, it must be examined whether it is integrated into the substance or added to the substance. On the one hand, the appearance must be taken into account in the decision-making process. On the other hand, the principles of conservation of resources, reversibility and reparability must be adequately taken into account in order to ensure sustainability.

4. Optimise Efficiency

For the energy transition to succeed, we must generate energy sustainably and use it efficiently. In the case of overall refurbishment measures, every monument should therefore benefit from competent advice from an energy consultant.² This is the only way to find the most efficient solutions for a monument that make ecological, economic and socio-cultural sense.

5. Think about alternatives

Solar installations on and around monuments can only be one contribution to the necessary transformation of the energy system. In order to achieve more, we have to think beyond the individual building and our own property in overall contexts and use all available alternatives: If a monument is not suitable for the generation of solar energy, renewable energy generated externally in the neighbourhood should be creditable to the monument.³ Monument-specific solar registers can help to identify compensation areas for this. In addition to citizens, municipalities are also responsible for a successful energy transition. A major contribution is made by municipal energy networking through central technical systems.⁴ Such neighbourhood solutions are usually more economically efficient and ecologically effective than individual solutions and can help to preserve the distinctive appearance of historic town and village centres.

With its resource-conserving care and maintenance, heritage conservation extends the life of the listed building fabric. With its repair culture, it minimises economic and ecological costs. The methods of monument preservation are thus ideal models of a preserving circular economy in the use of resources in all areas of life. Thus, heritage conservation promotes the change from a throwaway society to an ecologically sustainable repair society.

¹ Examples from case law on materiality: Bavarian Administrative Court (BayVGH), decision of June 12th, 2019 - 2 ZB 17.67 - [BeckRS 2019, 13783](#) (margin no. 12); decision of January 24th, 2013 - 2 BV 11.1631 – [NVwZ-RR 2013, 545](#); Administrative Court of Baden-Württemberg (VGH BW), decision of October 10th, 1988 - 1 S 1849/88, [ESVGH 39, 42](#).

² With the "Energy Advisor for Listed Buildings", an exemplary strategy of further training and advice on "monument protection and energy efficiency" has been established in the context of the federal funding programmes of the Reconstruction Loan Corporation (KfW) and the Federal Office of Economics and Export Control (BAFA).

³ For example, through citizen energy cooperatives, energy pools and tenant electricity models.

⁴ E.g. based on geothermal energy, large-scale solar thermal systems or large-scale heat pumps.