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FutuRES-PV

Research Brief

Legal Framework for household PV and electricity storages in Austria

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1 Introduction

This research brief provides an overview of the regulatory framework for household photovoltaic (PV) systems in Austria, both with and without electrical storage. It is assumed that household PV systems typically range from around 400/800 watts (W) to 15-20 kilowatts peak (kW_p) capacity. This overview aims at shedding light on the regulations regarding building permission process, community generation plants and energy communities, barriers for PV in muti-apartment buildings and rental properties, as well as support schemes.

2 Regulatory framework for PV installation in Austria

2.1 Building permission process

In Austria, construction law is a competence of the Federal States, implying nine different regulatory provisions for PV systems. Here, we focus on the provisions related to household scale installations installed on rooftops or walls only.

In four Federal States (Lower Austria, Upper Austria, Salzburg, and Vienna), generally no building permits are required for PV installations; in Burgenland for installations up to 20 kW no building permits are required whereas in Tyrol and Vorarlberg lower limits (module area of 100 m^2 and 10.9 kW_p, respectively) apply for this exemption. In most cases, maximum distances between the PV modules and the roof/façade apply (see Table 1). In Carinthia and Styria, building-integrated PV systems generally require notification with a simplified procedure.

A PV installation obligation for newly constructed buildings and (major) expansions of existing buildings so far has only been implemented in four Federal States: Burgenland, Salzburg, Upper Austria, and Vienna.

In Austria, local municipalities are the responsible building authority in all Federal States. In Vienna, for example, the approval period for building permits for PV systems is a maximum of six weeks (after submission of the complete documentation)[1]. The associated administrative fees range from approximately € 100 to € 200 (Urban Innovation Vienna, 2023). According to Regulation (EU) 2022/2577 on the acceleration of the deployment of renewable energy, until end of June 2024, the permit is considered granted for the installation of PV systems with a capacity of up to 50 kW if the authority does not respond within one month of submission of the complete documentation, provided that the capacity of the PV system does not exceed the existing grid connection capacity.[2] Permitting provisions related to electricity law are also regulated at the level of the Austrian Federal States. Household size PV installations with a capacity of up to 20 kW_p do not require additional permitting by public authorities in all Federal States, except for Vienna. In Vienna, a notification is required for vertical PV installations and PV installations with storage (see Table 3 in the Appendix). In the notification process, the construction of the PV system may begin once the complete documentation has been submitted. However, the authorities can

[1] For other Federal States (Upper Austria and Lower Austria), similar durations are reported (Amt der NÖ Landesregierung, 2023; Amt der OÖ Landesregierung, 2023).

[2] In any case, the approval process for the installation of PV systems must not exceed three months (after submission of the complete documentation) according to the Emergency Regulation.

prohibit the installation within eight weeks if the system does not meet the legal requirements[3]. Vienna's energy law does not require a formal notification after a positive review of the documents, but the authority (MA 64) currently sends out brief information by e-mail following a positive examination. The costs of the notification procedure depend on the number of documents submitted and range approximately between € 30 and € 60.

Moreover, the electricity laws of the Austrian Federal States require applications for grid access to be submitted to the distribution system operators. In Vienna, for instance, grid access to Wiener Netze's distribution grid must be formally applied for by the company installing the PV system. The key data of the PV system serve as the basis for the connection assessment and must be disclosed in the application to Wiener Netze. A grid access fee (flat rate per kW capacity, according to the Renewable Energy Expansion Act, EAG) and metering fees are charged for the connection. The procedure takes around four weeks and varies depending on the type and size of the PV system. For micro-PV systems under 800 W_p, only a registration is required and any objection by Wiener Netze must be made within two weeks.

[3] Also for the notification process for the installation of PV systems with a capacity of up to 50 kW the accelerated permission process according to Emergency Regulation (EU) 2022/2577 applies until end of June 2024.

Table 1. Regulatory Framework for PV installations in Austria (construction law).

Federal state	Free	Subject to notification	Subject to authorisation	Obligation
Burgenland	PV with a capacity of up to 20 kW, integrated in or installed parallel to the roof or wall surfaces of buildings in building classes 1, 2 and 3, and batteries with a capacity of up to 20 kWh (§1v Para. 1 Z 7 B-BauG)			For new buildings and major renovations, structural and electrotechnical measures for the subsequent installation of solar collectors or PV systems must be provided (§34 Para. 9 B-BauVO) For new buildings, PV systems with a nominal capacity of at least 2 kWp per 100 m² of conditioned gross floor area must be installed (§34 Para. 10 B-BauVO)
Carinthia		PV systems on the roof or integrated in or installed directly parallel to the façade (§7a Para. 1a Z 13 K-BO) PV systems up to 100 m² if constructed as an extension to a building (§7 Para. 1a Z 14 K-BO)	Installations not subject to notification (§6 Para. 2 K-ELWOG)	
Lower Austria	PV outside of protection zones or old village areas (§17 NÖ-BO)	PV systems in protection zones or old village areas - if publicly visible (§ 15 Para. 3b NÖ-BO)		When installing an air conditioning system with more than 12 kW: 2 m² module area/kW (§16 Para. 2 NÖ BO, §66a Para. 3 NÖ-BO) New buildings and extensions over 300m²: PV system with a module area of at least 25% of the built-up or superstructure area or design of the building so that a PV system later can be installed on at least 50% of the roof area suitable for solar technology (§66a Para. 1 NÖ-BO)
Upper Austria	PV systems that protrude above the surface of the building by a maximum of 1.5 m (OÖ-BO §25 Para. 1 Z 7a)[1]	PV systems that protrude more than 1.5 m above the surface of the building (OÖ-BO §25 Para. 1 Z 7a)[1]		
Salzburg	PV systems with less than 30 cm distance to the roof (§2 Para. 4 Z 1 S-BauPolG)[2]		PV systems that cannot be erected without a permit in accordance with BauPolG §2 Para. 4 Z 1 & Z 2 BauPolG and PV systems in townscape protection areas (§2S-Altstadterhaltungsgesetz, §11 Para. 1&2 S-Ortsbildschutzgesetz) or in buildings with monument protection (§ 59 S-ROG 2009)	

Styria		PV systems with a gross area of up to 400 m² (§21 Para. 1 lit o ST-BauG)	PV systems with an installed capacity of more than 500 kWp (§19 Z 5 ST- BauG)	For new buildings with a gross floor area of more than 100 m²: one PV system with a gross area of at least 3 m² for every 100 m² of gross floor area (§80b Para. 2 Z 1 ST-BauG)
Tyrol	PV systems with a collector area of less than 100 m² and less than 30 cm distance to roof/wall (§28 Para. 3 Z f T-BO)	PV systems more than 100 m² collector area and less than 30 cm distance to roof/wall (§28 Para. 2 lit h,i T-BO) [3]	PV installations that do not fall under §28 para. 2 & Para. 3 according to §28 Para. 1 T-BO	
Vorarlberg	PV systems with less than 30 cm distance to roof/wall (§20 Para. 2 lit a V-BaugG) [4] Special regulation: Municipality can impose a permit requirement (§17 Para. 4 V-BaugG) Systems up to 10.9 kWp (§62 Para. 4 V-BauG)	PV on ancillary buildings with a built-up area of up to 25 m² and a building height of up to 3.5 m and with the designation "building area" (§19 V-BaugG)	PV for (ancillary) buildings with a built-up area of more than 25 m² and a building height of more than 3.5 m or without a "building area" designation (§18 V-BaugG) PV systems of more than 500 kWp (§5 Para. 1 V-ELWOG)	
Vienna	PV systems on buildings outside grassland protection area, protection zones and areas with a construction ban (§62a Para. 1 no. 24 W-BO)		PV systems in grassland protection areas, protection zones and areas with a construction ban PV systems over 15 kWp (§60 Para. 1 lit j W-BO)[4]	PV obligation for new residential buildings of at least 1 kWp per characteristic length of the building and for every 150 m² of conditioned gross floor area, for extensions analogously for every newly created 150 m² (§118 Para. 3b Z 2 W-BO)

Source: Adapted from PV-Austria (2023). Only provisions applying to household size installations are included. [1] More than 1 MW authorization required according to ElWOG. [2] Ridge height must not be exceeded; on flat roofs: modules must be set back at least 1 m and module height must not exceed flat roof by more than 1 m. [3] For flat roofs, the angle of inclination of the PV system must not exceed 15° (TBO §28 Para. 2 Z i) [4] For flat roofs, max. height 1.2 m and minimum distance to the edge of the roof. [4] PV systems that are subject to a notification or authorization requirement according to electricity law (see Table 3 in the Appendix) are exempt from approval procedures according to construction law.

2.2 Community generation plants and energy communities

To further develop the concept of self-consumption of (renewable) energy and place end consumers at the center of the energy transition, the EU first introduced the concept of "collective self-consumption" (within a building) and subsequently created the concept of "energy communities" (European Commission, 2019). The concepts allow for sharing of self-generated PV electricity within one building or an entire community.

In Austria, these concepts are defined in the National Renewable Expansion Act (Erneuerbaren-Ausbau-Gesetz, EAG) and the Federal Act Providing New Rules for the Organisation of the Electricity Sector (Elektrizitätswirtschafts- und -organisationsgesetz, ElWOG) (RIS, 2021). Table 2 shows the three options to collectively generate, store, and consume self-produced electricity from PV. Community generation plants enable collective self-consumption within multi-family houses, whereas energy communities enable sharing of (PV) electricity by using the public electricity grid.

Table 2: Options to collectively generate, store, and consume PV electricity in Austria.

Community generation plant, §16a ElWOG	**Renewable Energy Community, §79 EAG, §16c ElWOG**	**Citizen Energy Community, §16b ElWOG**
• Use of electricity from a communal PV system on the roof within jointly used wiring systems (main lines) in multi-family houses. • No use of the public electricity grid. • Notification to the grid operator needed. • Grid operator allocates electricity to the participating households (static or dynamic allocation key). • No legal entity needed.	• Enables the collective generation, consumption, storage, and sale of renewable energy. • For PV electricity, the community (minimum 2 participants) must be connected to the low or medium voltage grid in the concession area of a network operator. • Additional financial incentives for shared electricity (reduction of network tariffs, exemption from the electricity levy, and the renewable energy levy). • Participants: natural persons, municipalities, legal entities of authorities in relation to local offices, and other legal persons under public law or SMEs. • Legal entity needed.	• Enables the collective generation, consumption, storage, and sale of electricity. • No geographical limitation: Possible nationwide across all of Austria. • Control within the community limited to: Natural persons, municipalities, small enterprises (but no utilities); otherwise, no limitation of members. • Legal entity needed.

2.3 Barriers for PV installation in multi-apartment buildings

Although individual and collective self-consumption of PV electricity is legally possible in Austria, residents and especially tenants of multi-apartment buildings still face challenges regarding the installation of solar PV (and storage) systems.

Tenants need the consent of the property owner to install PV systems on the roof, apart from “balcony PV systems” where tenants are allowed to install small PV systems up to 800 W, for example, on the balcony. However, for a fixed installation, such as on the balcony railing or on the facade, the consent of the owner is required – unless the rental contract states otherwise (this consent is presumed if the owner does not object to the measure within two months). In any case, the installation must be carried out professionally and in accordance with the state of the art (GBV, 2022).

Further challenges for PV systems above 800 W arise in multi-apartment buildings with various apartment owners (condominium owners’ association). Concerning the decision-making and allocation of costs, the following cases can be distinguished:

1. In the first case, **several apartment owners want to establish and operate a PV system as a community generation plant**. All owners have the option to participate in the system and use the electricity. The distribution and use of the electricity can be carried out according to the model of a "Community Generation Plant" (as per § 16a ElWOG). A **simple majority** of the apartment owners is sufficient to make decisions (usually a case of extraordinary administration according to § 29 Condominium Act, WEG). In case not all owners actively participate, the costs will only be divided among those owners who participate in the PV system. For this, a separate unanimous decision according to §§ 32, 33 WEG is necessary.
   Since the amendment to the Condominium Act in 2022 (§ 24 para. 4 WEG), there is **another option for decision-making**, which may facilitate finding a majority at an owners' meeting. Majorities are determined based on the co-ownership shares of the property. There are two variants for a valid decision. Either it requires i) a simple majority of votes (50% plus 1) based on all co-ownership shares, or ii) the approval of more than two-thirds of the votes cast if these votes correspond to at least one-third of the total co-ownership shares. These regulations also apply when a contracting company constructs and/or operates the PV system.
2. In the second case, **individual apartment owners want to install and use a PV system** and want to bear the construction and operating costs themselves (not a community generation plant as in Case 1). Thereby, the **consent of all apartment owners is required** (according to § 16, WEG). A single co-owner can prevent the (extrajudicial) decision-making; however, the lack of consent from individual co-owners can be judicially replaced. This essentially depends on a balancing of interests, meaning if the co-owner refuses consent for an important reason and if the reason of the co-owner seeking the change is not at least equally important, the court will not replace the consent (see OGH 17 March 2022, 5 Ob 137/21i). These regulations also apply when a contracting company constructs and/or operates the PV system.
3. In the third case, individual **apartment owners in their individually owned row house or single building within a residential complex** want to install a PV system (and bear the construction and operating costs themselves). In this case, the so-called "**approval fiction**" applies (according to § 16 WEG). The apartment owners planning the project must inform the other apartment owners in the residential complex

about their project adequately, and they can proceed if no apartment owner objects within two months of receiving the relevant information (Urban Innovation Vienna, 2023).

3 Support schemes in Austria

In Austria, households can generally sell their generated PV electricity (or surplus from a community generation plant/energy community) to a chosen energy supplier or to the Austrian Renewable Electricity Settlement Agency (OeMAG) at defined market prices. Existing household PV systems often have a subsidized feed-in tariff, which is no longer granted for new installations. To receive support through a market premium (see below), PV electricity must be sold to a direct marketing company.

In Austria, there exist support schemes for household PV systems with and without electricity storages at national level as well as at the level of individual federal states and partly even at the regional or municipal level. In this research brief, only the national support systems are listed. Support at the federal state or municipal level are partially possible in addition to national support, depending on the support scheme.

3.1 National subsidies

Since January 1, 2024, a simplified support system has been in place in Austria for PV systems up to 35 kW_p, as well as associated electricity storage, if they are implemented together as part of one project: The zero-tax rate (no value-added tax) applies. This means that no further support applications are necessary, and value-added tax is not calculated at the time of purchase.

The value-added tax exemption applies provided that the PV system is operated on or near the following types of buildings:

- buildings used for residential purposes,
- buildings used by public law corporations, or
- buildings used for charitable, benevolent, or religious purposes.

The Austrian Climate and Energy Fund (Klima- und Energiefonds) is planning to support energy storage systems that store electricity from existing PV systems up to a usable storage capacity of 50 kWh. The funding guidelines for this are currently being developed, and the call for proposals from the Climate and Energy Fund is expected to start in the second quarter of 2024 (BMK, 2024).

For systems where the value-added tax exemption does not apply (for example, systems with installed capacities of more than 35 kW_p or systems on commercial buildings), a support application can still be submitted through the EAG during the next funding calls by the "EAG Abwicklungsstelle" (OeMAG). The dates for the 2024 funding calls have not yet been determined. Additional national support can be granted through special tenders of the Climate and Energy Fund.

The EAG support scheme is divided into investment support or operational support. Investment support is granted to PV plants of capacity sizes of up to 1,000 kW_p (divided into different capacity classes with different funding in €/kW_p, see for private households below). The operational support (as market premiums in €-ct/kWh fed into the public electricity grid) is granted to PV plants with capacity sizes of 10 kW_p and more, within an auction scheme. A combination of operational and investment support is not possible.

Investment support (currently not granted for systems that fall under the value-added tax exemption)

For investment support for PV systems up to 20 kW_p, the funding scheme follows a first come, first served principle. Newly constructed and expansions of PV systems can be funded. The funding rates for 2023 (funding reduction of 25% is applied for stand-alone/free-field PV systems and funding increase of up to 30% is applied for innovative and building-integrated PV systems) was 285 €/kW_p for category A (0-10 kW_p) and 250 €/kW_p for category B (>10-20 kW_p).

The investment support for battery storage systems of up to 50 kWh is 200 €/kWh and will be granted only in combination with a new PV system (RIS, 2023).

Operational support as market premiums (currently not granted for systems that fall under the value-added tax exemption)

The market premium is granted on top of a reference market value (roughly comparable to the average electricity price traded on the market) for PV systems larger than 10 kW_p in an auction. In the auction, bids (that typically represent the PV electricity generation costs) are ranked in ascending order based on €-ct per kWh. Bids that both fall below the predetermined maximum ceiling price and do not exceed the auction's total allocation volume will be awarded. Newly constructed installations and expansions of PV systems can be funded. A funding reduction of 25% applies for stand-alone/free-field PV systems. The maximum ceiling price of PV auctions in 2023 was 9.33 €-ct/kWh (RIS, 2022).

4 Conclusions

Construction law and energy law are competences of the Federal States of Austria, therefore different regulations exist. Concerning permitting provisions related to energy law, only Vienna requires a notification; in all other Federal States PV systems up to 20 kW_p do not require additional permitting.

Barriers concerning the implementation of PV systems on a household level exist especially for tenants, since – except for small balcony PV systems – the consent of the owner is required for the installation. An additional barrier is the decision-making in multi-apartment buildings, where different provisions according to the ownership structure exist. Simplification of decision-making for the installment of PV systems and storages in multi-apartment buildings would be desirable.

PV systems and storages at household level (up to 35 kW_p) are currently only supported by an exception from the value added tax. Additional support schemes exist at the level of federal states and certain municipalities. The concepts of community generation plants, renewable energy communities and citizen energy communities allow sharing (and storing) of PV generated electricity with neighbors, including financial benefits (like exceptions or reduction of grid fees) associated with that. Those concepts act as further enabler and driver for an enhanced uptake of PV systems at household level.

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Construction regulations

Bgld. BauG – Burgenland Building Act 1997

Bgld. BauVO – Burgenland Building Ordinance 2008

K-BO – Carinthian Building Ordinance 1996

NÖ-BO – Lower Austrian Building Ordinance 2014

OÖ-BO – Upper Austrian Building Ordinance 1994

S-BauPolG – Salzburg Construction Police Act 1997

S-ROG – Salzburg Spatial Planning Act 2009

S-Altstadterhaltungsgesetz – Salzburg Old Town Preservation Act 1980

S-Ortsbildschutzgesetz – Salzburg Townscape Protection Act 1999

ST-BauG – Styrian Building Act

T-BO – Tyrolean Building regulation 2022

V-BauG – Building Act Vorarlberg

W-BO – Building regulations for Vienna

Electricity law

B-ELG – Burgenland Electricity Act 2006

K-ELWOG – Carinthian Electricity Industry and Organization Act 2011

NÖ-ELWG – Lower Austrian Electricity Act 2005

OÖ-ELWOG – Upper Austrian Electricity Industry and Organization Act 2006

S-LELG – Salzburg Provincial Electricity Act 1999

St-ELWOG – Styrian Electricity Industry and Organization Act 2005

T-ELG – Tyrolian Electricity Act 2012

V-ELWG – Electricity Industry Act Vorarlberg

W-ELWG – Vienna Electricity Industry Act 2005

Appendix

Table 3. Regulatory Framework for PV installations in Austria (electricity law).

Federal state	Free	Subject to notification
Burgenland	PV installations up to 100 kWp	
Carinthia	PV installations integrated into the building envelope or directly attached to it (§6 Abs 2 lit c K-ELWOG) PV installations with a module area of less than 100m² (§6 Para. 2 lit d K-ELWOG)	
Lower Austria	PV installations with less than 1.000 kWp, provided that they were erected by authorised companies (§5 Para. 2 lit 3 NÖ-ELWG)	
Upper Austria	PV installations with less than 1.000 kW (§6a Para. 2 lit 1a OÖ-ELWOG)	
Salzburg	PV installations that are erected by authorised companies (§45 Para. 3 S-LELG)	
Styria	PV installations with less than 1.000 kWp (§5 Para. 2 Z5 St-ELWOG)	
Tyrol	PV installations with less than 50 kW (§1 T-ELG)	
Vorarlberg	PV installations with less than 500 kWp (§5 Abs 1 V-ELWG)	
Vienna	PV installations with less than 15kW - unless mounted vertically or with batteries (§6 Abs 1 Z5 W-ELWG)	Vertical PV installations or PV installations with batteries up to 15 kWp (§6 Para. 1 Z5 W-ELWOG) PV installations from 15 kWp (§6a Para. 1 W-ELWOG)

Source: Adapted from PV-Austria (2023). Only provisions applying to household size installations are included.