Electricity Storage Facilities in Austria

Legal and Regulatory Framework

March 2024

Why electricity storage?

Electricity storage facilities are key components of every sustainable and self-sufficient energy system. Since electricity generated from renewable sources fluctuates widely and independently of consumption, storage facilities are important to stabilise the grid or reduce peak loads. Such facilities can also be used to take advantage of favourable spot prices when available.

Nevertheless, the legal framework for electricity storage is far from complete, but at least it is developing rapidly. The EU Green Deal and the European Climate Law are the main drivers of this development through their ambitious targets to reduce greenhouse gas emissions in the EU by 55% by 2030 (established in the "Fit for 55 package") and to 0% by 2050. Additionally, and building on the "Fit for 55 package", the Commission's REPowerEU plan envisions a path towards energy independence in particular from Russian fossil fuels by 2027.

The Austrian government has not been idle, and Austria has committed itself to transforming electricity generation to exclusively renewable sources by 2030.

In this document, CMS provides an overview of the regulatory regime and current policy developments that operators should bear in mind if interested in investing in the Austrian energy storage sector.

For electricity storage in the form of hydrogen or another renewable gas, please see our hydrogen guides and publications.

In Austria, only pumped-storage hydro power plants have a long tradition as a means of storing energy. But additional storage capacity using other technologies such as battery storage will be required for electricity supply, heating/cooling and transport.

Energy law and regulation – What precisely is an "electricity storage facility" under Austrian law?

When the same term has different meanings in different laws or when different terms are used for the same phenomenon in different legal sources, this cannot only be frustrating, but also cause costly confusion.
The Austrian Electricity Industry Organisation Act (*Elektrizitätswirtschafts- und -organisationsgesetz 2010, ElWOG*) uses the term "electricity storage facility" (*Stromspeicher*) without defining it. However, the guidelines for trans-European energy infrastructure[1] define an energy storage facility in a binding way for matters concerning the electricity system and electricity market. Namely, it is a facility where storage occurs, i.e. by which the final use of electricity is deferred to a later moment than when it was generated, or by which the conversion of electrical energy into a form of energy which can be stored, the storing of such energy, and the subsequent reconversion of such energy into electrical energy or use as another energy carrier is done.

So, a storage facility is first supplied with electricity or electricity is produced at the site. Later in time, it feeds electricity into the grid as a producer (*Einspeiser*), and as it supplies the electricity to its customers it is a supplier in the legal sense (*Energielieferant*).

An "electricity storage facility" is differentiated from a pumped-storage facility (*Pumpspeicherkraftwerk*), but both are "energy storage facilities" (Energiespeicheranlage) and market participants (*Marktteilnehmer*).

The exact meaning of "electricity storage facility" is also relevant in connection with renewables subsidies under the Renewables Expansion Act ("*EAG*"). However, the EAG does not define it either. At least one of the implementation ordinances calls a facility that is eligible to receive investment grants an "electricity storage system" and defines it as a stationary system that can absorb electrical energy on an electrochemical basis in accumulators and make it available again for time-delayed use. Obviously, as far as investment grants are concerned pumped-storage facilities and renewable gases are no storage facilities.

For electricity labelling purposes an electricity storage facility is only relevant if its capacity exceeds 250 kWh.

For the purposes of their placing on the market and putting into service, but also the collection and recycling of used electricity storage devices according to the EU Battery Regulation, a "battery" is a device that supplies electricity that is generated by direct conversion of chemical energy, and has an internal or external storage device, and consists of single or multiple non-rechargeable or rechargeable battery cells, battery modules or battery sets. Here, therefore, the term battery includes not only the storage device itself but an entire plant.

[1] Regulation (EU) 2022/869 on guidelines for trans-European energy infrastructure, namely by referring to the definitions of Directive (EU) 2019/944 on common rules for the internal market for electricity as amended on 23/06/2022.

Site acquisition

Energy storage projects can take many forms. There are no specific rules on how to acquire or contractually safeguard the space needed for such a project. For a storage facility that is integrated into a building, renting the specific space is an easy task. For larger projects there are more possibilities, so that considering the experience from renewable energy communities, wind parks or telecommunication networks can be helpful. So, not only are purchases or long-term leases possible but also building rights and superstructures (if the storage is built on the ground).

In many cases, the storage facility will not be a stand-alone project but linked to a generation project or an industrial plant requiring a steady flow of energy like a micro-grid. The storage will then be located on the same land or linked via a direct line or just via the public grid. To the extent possible, the same contractual solutions as for the generation plant should be used.

Electricity lines between generation plant and storage unit, to an end user, or to the grid must, however, be contractually agreed. The good news is that landowners cannot successfully reject any form of agreement because the operator of the line and/or storage can apply for a binding decision on a power line easement against compensation by the public authority of the state in question. This authority will grant the line rights to the extent needed but in a manner that causes the least interference with the landowner's interests.

In the case of joint energy production facilities, all electricity lines between generation, storage and end user must be separated from the public grid. In the case of renewable energy communities, the generation, storage and use of electricity must be located within the same low voltage distribution network or medium voltage network.

If the project is debt financed, the interests of the financing banks must also be considered when acquiring the site. In typical non-recourse project financing arrangements, the banks will want to be in a position to continue the project without the operating company in the event of default. To allow this, banks typically require the right to enter into the leases. This must be implemented in the underlying land lease contracts. A right to enter into the underlying contracts is also possible for building rights and superstructures. Separate ownership of electricity lines, even for sub-surface lines, is possible in Austria (independently of land ownership) and can thus be used as collateral for debt financing.

Access to the grid

Being an electricity supplier from the regulatory point of view, the operator of a storage facility is entitled (and obliged) to grid access through the local DSO. An operator is also a market participant meaning that it is subject to the respective market rules. Gaining access to the grid in Austria is a fairly swift process compared to other markets. The capacities available are published and can be reserved (for a fee). Grid operators use non-discriminatory standard contracts with reasonable terms and conditions (approved by the regulator) including technical requirements. However, very large or exceptional requests require more time and careful contract negotiation.

For the physical grid connection, operators of storage facilities have to compensate the DSO's costs (see below).

Permits for establishing storage infrastructure

Building and installing storage facilities may require permits under energy law, building permits, and/or permits for industrial plants and/or other special regimes like the protection of natural habitats, water etc. Battery storage facilities as such do not need environmental impact assessments, except when considered part of a generation plant that requires such an assessment. Pumped-storage plants usually need an assessment and permit if they exceed thresholds for generation capacity (15MW), size or storage volume (e.g. 10 million m^3).

Energy law in Austria is highly fragmented into federal laws and state laws owing to the constitutional division of competences, including energy law permits. Based on the already discussed definition of a storage plant as one in which the use of already generated energy is deferred to a later point in time, or where it is stored and later re-converted but not newly generated, energy law permits are only needed in some cases.

If a grid operator builds a hydrogen electrolyser or another production plant for renewable gas as storage, it has to apply for a permit by the energy regulator if the facility is only used for balancing services (*Regelenergie*) and neither the market nor a tender by the grid operator provide sufficient storage capacity. Investors in storage facilities should watch out for such tenders.

When building your own high-voltage grid connection, check whether you need a permit on the federal or state level under the High Voltage Current Line Act (*Starkstromwegerecht*).

Planning law

Unfortunately, some states' zoning plans still try to prevent the construction of photovoltaic plants and wind parks to appease objections for aesthetic reasons. This is not the case for energy storage facilities. Nevertheless, make sure that the land on which you want to build your storage facility is zoned for construction activities.

The construction of a high-voltage line to a storage facility (most likely to a power plant or industrial plant) would require a specific permit under energy law and in some cases an environmental assessment.

Permits for the operation of storage businesses

Buildings and structures requiring a building permit do not need an additional operation permit. Permits under industrial law or energy law include the permit for operation. Because of noise, heat and other emissions some battery storage facilities do need permits under industrial law.

Energy steering measures

Although these are not permits in the legal sense, energy steering measures for fighting disturbances of the energy supply in Austria or in cases of solidarity measures pursuant to EU Regulation 2017/1938, can influence the operation of storage facilities. Since the beginning of the war against Ukraine, such steering measures have become realistic. They can consist of a call to save electricity but also of mandatory instructions concerning operation of the storage facility or a compulsory sale of electricity to end-users. Obtaining legal advice in advance is better than having to take remedies afterwards.

Electricity storage and network charges

In Austria, there are eight different network charges, two renewable energy charges and an electricity tax. There are network charges payable either for taking electricity from the grid, for feeding it in, or for both. You should take a closer look or get expert advice on this. The new ElWG (Electricity Market Act) will bring simplifications.

The charges are fixed by the regulator E-Control based on actual costs by means of an ordinance. The tariffs in the ordinance are revised and adjusted annually. Grid operators may want to seek legal protection to ensure all costs were considered correctly. Storage facility operators may not want to pay all these charges. They may not consider themselves as off-takers or as not being responsible for certain costs, in particular to the extent they provide balancing energy.

From the grid operator's point of view, taking electricity from the grid and storing it as well as feeding it back into the grid from the storage facility are considered a use of the grid. So, both actions can trigger system usage fees (*Systemnutzungsentgelte*).

The arguments for the position of the grid operator have been supported by the administrative court. Any use of the grid, no matter the name given to it, can trigger charges if those charges relate to grid usage and cause costs for the DSO. Definitions in the law may focus on other aspects. This would mean that when taking electricity from the grid, commercial storage facilities use the grid, and when feeding electricity in, they use it again. However, the wording of the ElWOG may well suggest something else.

Note: if you operate pumped-storage facilities (in hydropower plants) or plants for transforming electricity into hydrogen or synthetic gas, your facilities are exempt from some network charges. Other operators criticise this as not technology-neutral, i.e., discriminatory.

The **network usage charge** (*Netznutzungsentgelt*) is payable by every user with a meter but only for taking electricity from the grid. It covers the costs for building, extending, maintaining and operating the grid. Storage facilities connected to a generation facility behind the meter do not have to pay the charge. So, it can make a difference if no separate meter is required.

The **network provision charge** covers grid extension costs and is charged to all users taking electricity from the grid depending on the level of their grid connection.

Both ways of using the grid incur the **network losses charge**, which is designed to cover the costs of balancing energy. Providers of balancing power argue that they do not cause such costs. On the one hand, operators of storage facilities clearly supply electricity to their customers (*Einspeiser*). There is, however, no consensus among stakeholders about whether the operator of a storage facility (of any technology) also takes electricity from the grid in the functional sense of the law (*Entnehmer*) because pursuant to the ElWOG only end consumers or grid operators do that. Finally, storage facilities are not included in the explicitly foreseen categories of grid users for grid access.

The **grid access charge**, which is self-explanatory, is only payable once and by every user.

The **system services charge** covers costs for secondary balancing power and is paid by all users feeding electricity into the grid.

The remaining charges, namely the measuring charge, the service charge for additional services and the charge for international services, are also payable by all users and usually not disputed.

Renewables charges

For supporting the transformation of Austria's energy system to renewable sources, a renewables-support lump sum (Erneuerbaren-Förderpauschale) and a renewables support fee (Erneuerbaren-Förderbeitrag) are payable by end-users of electricity. Pumped-storage facilities are exempt from these charges – but battery storage facilities or electrolysers for producing hydrogen or renewable gases are not. Renewable gas facilities can at least apply for an exemption subject to EU state aid rules and are hoping for an E-Control regulation to be passed.

End-consuming that triggers both fees can be interpreted in the same way as for electricity tax. Storage operators can argue that there is no final consumption that triggers both levies, but rather a conversion of energy into a storable form, e.g. chemical energy in a battery or hydrogen, instead of an energetic use (operation of machines, heating, etc.), which would be a final consumption. This is why, for example, an explicit exemption for pumped storage power plants was required in the EAG.

Electricity tax

Finally, the supply of electricity from the storage facility to customers triggers electricity tax. Customers, meaning end users, producing physical goods as well as any non-energetic use (see above) are entitled to have electricity tax returned.

Subsidies for installation or operation of electricity storage

On the federal level, the Renewable Energy Expansion Act (EAG) provides for investment subsidies in battery storage facilities and for facilities to produce hydrogen and other renewable gases. Further subsidies may be granted by the respective federal state and municipality where a facility is located.

A total budget of EUR 300 million is available for the expansion of such photovoltaic systems and electricity storage in 2022. Funding under the EAG can be combined with subsidies on the state and municipal levels. In October 2022, the Austrian government presented a EUR 5.7 billion package of R&D subsidies and support schemes, but unfortunately energy storage of any kind only plays a minor role. For 2023, the number of calls and the value of subsidies per capacity remained unchanged. New regulations are expected annually.

However, battery storage facilities with a capacity of up to 50 kWh can apply for investment subsidies under the EAG and an implementing ordinance as secondary legislation, but only if built in combination with newly built or enlarged PV plants.

Facilities for producing H_2 and renewable gases could be subsidised under the EAG. However, the implementing government ordinance required for granting such subsidies has not yet been passed. For 2024, the Hydrogen Support Act (Wasserstoffförderungsgesetz) will bring a one-time-opportunity to participate in the next tender of the EU Innovation Fund for operation subsidies and the concurrent tender of an additional Austria-package.

Pumped-storage facilities are not entitled to investment subsidies.

In any case, investors must make sure to apply before starting to instal the storage facility and not to miss the time windows for participating in the subsidy calls and for installing the subsidised capacities.

Green vs fossil electricity labelling

Only storage facilities with a capacity **exceeding 250 kWh** are subject to the labelling rules of the ElWOG and a federal government ordinance (*Stromkennzeichnungsverordnung* 2022). Above this threshold, the storage operator has to use its own account in the national database for certificates of origin.

The electricity taken from the storage is labelled **according to the electricity used to charge it**. For this purpose, the supplier transfers the certificates of origin to the storage operator. Only these specific certificates can be used for the electricity later taken from the storage facility. The quantity evidenced by certificates is reduced to take account of the efficiency of the storage facility. A percentage of the certificates for the stored energy equal to the facility's losses due to its inefficiency must be deleted. However, storage operators are not allowed to use average figures: specific certificates must be used on a first-in/first-out basis.

Under a special rule, pumped-storage facilities may certify additional electricity as green when it arises from the natural inflow (precipitation, inflows such as rivers).

The storage operator must provide technical reports evidencing the **efficiency** (or use average values for the technology used) and forward those documents and rates to the database for certificates of origin (*Stromnachweisdatenbank*). It must ensure that its Austrian facility can comply with the detailed procedure.

Renewable gases made from renewable electricity are treated like stored electricity. When the gas is reconverted into electricity, the green certificates of origin for the (percentage of) green electricity used for producing the gas must be used and the electricity taken from the storage is classified accordingly.

Hydrogen is labelled according to two Delegated Regulations supplementing Directive (EU) 2018/2001 by the Commission in the context of the REPowerEU plan. As regulations, they are directly applicable in Austria. They deal with establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and specifying a methodology for assessing greenhouse gas emissions as well as establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels[2].

[2] When this document was compiled, no final versions were in place.

Balancing power from electricity storage facilities

One of the most lucrative business models for electricity storage facilities is operating them as balancing services providers. This can be done irrespective of whether the storage is physically linked with a generation facility.

In Austria, the balancing market is operated by APG which procures balancing capacity and balancing energy in tenders for primary, secondary and tertiary reserves (within the meaning of the guidelines on electricity balancing of Regulation 2017/2195).

You may prefer selling balancing energy either in the **secondary balancing market**, i.e. for frequency restoration reserves with automatic activation (aFRR), or the **tertiary balancing market**, i.e. for manual frequency restoration reserves (mFRR).

Both markets are organized in three steps via a **tendering** platform. The first step is a prequalification open to all interested parties. In the second step, APG conducts daily tenders for balancing capacity in 4-hour blocks with the respective price bids. The third step is a tender for balancing energy (again with prices) in 15-minute packages.

Operators of storage facilities are well advised to carefully assess whether they have the technical capabilities to participate and whether those market rules fit their facility and any other commitments they have undertaken, for example PPAs or offtake agreements with other renewables producers. Not every storage facility will be designed to provide capacity (continuously charge or discharge) in four-hour blocks in stand-alone mode. For some facility operators, cooperation with other operators or producers, or services of virtual power plant providers are a solution. The latter require careful contract drafting. Others need a back-up via open markets or need to consider seeking other remedies.

The Austrian APG is a member of PICASSO and the international imbalance netting of the International Grid Control Cooperation (IGCC) as well as of MARI.

Public procurement law and battery storage

As from 18 February 2024, Art 85(1) of the EU Batteries Regulation[3] requires contracting authorities and sectoral contracting entities to take into account – when procuring batteries – the environmental impact of batteries (of all types) or products containing batteries over their entire life cycle to ensure that this impact is kept to a minimum. For the time being, contracting authorities have a wide margin of discretion as to how they do this, e.g. via minimum requirements or award criteria, technical specifications in tender specifications or contractual obligations. However, within 12 months of the entry into force of a relevant delegated act of the European Commission, the award criteria specified in such act must be used in procurement procedures in accordance with the Federal Procurement Act (Bundesvergabegesetz, BVergG), but not in procedures in accordance with the Federal Procurement Act for Concessions (BVergGKonz) or the Federal Procurement Act for Defence and Security (BVergGVS).

At the end of the life cycle

In order to support the creation of recycling markets for all categories of batteries and markets for secondary raw materials derived from used batteries, Regulation 2023/1542 creates a separate and comprehensive system in the Union for placing on the market and putting into service as well as collection and recycling of all types of batteries. It requires manufacturers, distributors, and importers of electricity storage devices to take extensive organisational precautions, and introduces documentation and reporting obligations as well as an extended producer responsibility. A battery that meets the requirements of the Regulation may not be subject to any further restrictions for distribution in Austria.

Regulation 2023/1542 entered into force on 17 August 2023, but does not apply to economic operators before 18 February 2024. The conformity assessment procedures for batteries and the obligations of producers apply from 18 August 2024. There are further transition periods, e.g., 18 August 2025 for waste management.

Batteries may only be offered or put into service if they meet the requirements for sustainability, safety, labelling and information. Under no circumstances may they pose a risk to human health and safety, to material goods or to the environment. To reach this goal, a technical documentation must be prepared for each battery, and it must be demonstrated before an accredited conformity assessment body that it complies with the applicable requirements. In 2023, there were no conformity assessment procedures or bodies yet accredited for this purpose in Austria. The organisations to which producers can transfer the end-of-life management of their batteries as part of the extended producer responsibility for collection, treatment and recycling are also only emerging.

[3] Regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC.

Rechargeable industrial batteries must include a statement of their carbon footprint and labelling by performance class. Included recycled content, durability and safety of batteries must be documented. Investors and operators can also find instructions and a wealth of information on them. The electronic battery management system serves to facilitate operation but also to determine the state of conservation and residual value. The battery passport also contains information that is important for electricity storage systems, namely about the operation of the battery and its subsequent dismantling.

From 18 August 2025, economic operators with a net turnover of at least EUR 40 million who place batteries on the market or put them into service will have to establish and implement a battery due diligence policy and have it continuously audited by notified bodies. The Commission will publish guidance on this by 18 February 2025.

Significant for manufacturers is the required internal management system for monitoring the battery due diligence policy, the system of controls and transparency regarding the supply chain and identifying upstream actors in the supply chain and finally a grievance mechanism, including an early-warning risk-awareness system and a remediation mechanism.

In addition, there are risk management obligations in the supply chains, which are implemented through a management plan. The complexity and time required for the upstream coordination processes should not be underestimated in Austria due to the federal structures and limited experience of the regulator and advising experts.

CMS Vienna
Thomas Hamerl
Partner | Co-Head of the regional CMS RRH Energy & Climate Change Sector Group
T +43 1 40443 2700
E thomas.hamerl@cms-rrh.com

CMS Vienna
Marco Selenic
Lawyer
T +43 1 40443 3516
E marco.selenic@cms-rrh.com

Facts & Figures

Staff

> 9,000

59,8% female

Lawyers

> 5,800

51,5% female

EUR 1.862bn

turnover for 2022

62 new partners in 2022, taking the total to over 1,250

79 cities

47 countries

19 Practice and Sector Groups working across offices

CMS Law-Now™

Your free online legal information service.

A subscription service for legal articles on a variety of topics delivered by email.
cms-lawnow.com

CMS locations:
Aberdeen, Abu Dhabi, Amsterdam, Antwerp, Barcelona, Beijing, Belgrade, Bergen, Berlin, Bogotá, Bratislava, Brisbane, Bristol, Brussels, Bucharest, Budapest, Casablanca, Cologne, Cúcuta, Dubai, Dublin, Duesseldorf, Edinburgh, Frankfurt, Funchal, Geneva, Glasgow, Gothenburg, Hamburg, Hong Kong, Istanbul, Johannesburg, Kyiv, Leipzig, Lima, Lisbon, Liverpool, Ljubljana, London, Luanda, Luxembourg, Lyon, Madrid, Manchester, Maputo, Mexico City, Milan, Mombasa, Monaco, Munich, Muscat, Nairobi, Oslo, Paris, Podgorica, Poznan, Prague, Reading, Rio de Janeiro, Riyadh, Rome, Santiago de Chile, São Paulo, Sarajevo, Shanghai, Sheffield, Singapore, Skopje, Sofia, Stavanger, Stockholm, Strasbourg, Stuttgart, Tel Aviv, Tirana, Vienna, Warsaw, Zagreb and Zurich.

Further information can be found at **cms.law**