European Association for Storage of Energy

Conclusions on EASE Reply to the European Commission Public Consultation on the Revision of the Energy Taxation Directive

Brussels, November 2020

What is the revision of the Energy Taxation Directive (ETD)?

In the context of delivering on the European Green Deal, the European Commission has started the revision of the energy taxation rules. The Energy Taxation Directive 2003/96/EC[1] (ETD) will be revised in June 2021 and to collect stakeholder views, the European Commission opened a public consultation[2].

EASE, as the voice of energy storage sector, welcomes the revision of the ETD and has submitted its positions and recommendations to this public consultation[3].

Why is it crucial to include energy storage in the ETD revision?

Energy storage can provide much-needed flexibility across different timescales, which is essential to transition to a system dominated by variable renewables and can increase overall system efficiency by enabling sector integration. Therefore, energy storage has the potential to support decarbonisation and flexibility in many different locations of the grid, and can adapt very well to different energy mixes, demand profiles, and other attributes that differ across the EU Member States.

As demonstrated by the EU decarbonisation strategy for 2050, whatever the scenario, energy storage technologies are playing a valuable role in the transition to a low-carbon energy system. This role is only set to increase, as the EU pursues an upward revision of the 2030 decarbonisation target and an ambitious European Green Deal. This strong increase in energy storage demand raises questions: how will the market evolve to cope with the need for storage, how will the sector develop, and what technologies and applications will be deployed? In order to enable the deployment of energy storage the barriers that hamper a robust storage business case should be avoided.

So, what is one of the main regulatory barriers for energy storage?

The European Commission-tendered study on energy storage[4] comprehensively addressed the current situation about taxation and illustrated the barriers in the legislation. As explained in the European Commission study and acknowledged by the evaluation of the ETD[5] published by the European Commission in 2019, at the time of the approval of the ETD in 2003, most energy storage and sector coupling technologies were not significant yet.

[1] Council Directive 2003/96/EC of 27 October 2003 restructuring The Community framework for the taxation of energy products and electricity.

[2] The public consultation was open from 22 July 2020 to 14 October 2020.

[3] This article is a summary of the statements and positions elaborated among EASE members in the document "EASE reply to the European Commission Public Consultation on the revision of the Energy Taxation Directive (ETD)" and all the statements and positions given in this article should be understood and interpreted in the light of the full statements and positions given in previously referred public consultation reply.

[4] European Commission Study on energy storage – Contribution to the security of the electricity supply in Europe. March 2020.

[5] European Commission (2019) SWD 329. Evaluation of the Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.

Today, in several Member States, **double taxation of energy storage facilities occurs**. This practice leads to a double burden on temporarily stored electrical energy, as the final consumer of stored electricity has also to pay taxes and levies on the same electricity volumes.

Some Member States apply specific exemption or reduction regimes for storage, which can take different forms (exemption under certain conditions like coupling with a renewable energy production facility, technology or size specific, ...).

However, the majority of Member States have not yet addressed double taxation. **This is still an important barrier, and it will also hinder the future development of energy storage**.[6]

How does double taxation occur?

Energy storage devices that are directly connected to the grid, may be considered as both producer (injection) and consumer (offtake). If storage is considered an energy consumer for taxation purposes, energy offtake by storage will constitute a taxable event. Subsequently, if considered also a producer, the discharge energy will be taxed once again when finally consumed by the end-user.

Why is it a barrier for energy storage?

Double taxation has a negative impact on investments in and use of storage. The power sector can decarbonise provided that an investment framework for RES and carbon-neutral firm and flexible capacity, such as storage, is well designed. Consumers and investors need to have proper price signals to perform their investment choices.

In that context the revision of the ETD should:

- Consider the climate impact of different fuels and carriers, and the possibility of removing undue taxes for energy storage.

  In particular, double charging of storage facilities should be avoided, i.e. no double taxes on the part of energy stored to be fed back to the system, especially when storage is providing beneficial services to the grid, e.g. restoration reserve, voltage support, black start etc.[7]

- Consider an evolution of energy taxes for consumption and injection

  In particular, to facilitate the provision of ancillary and flexibility services by energy storage, on a level playing field with other technologies. Currently, energy taxes create a lack of revenue certainty and are a burden for storage developers. Double taxation is highlighted as one of the regulatory barriers in the European Parliament report on energy storage[8]. Point n°14 of the report the European Parliament calls on the European Commission to differentiate between end-use and storage or conversion and to develop an efficient taxation system prohibiting double taxation related to energy storage projects in its upcoming proposal for a revised Energy Taxation Directive.

[6] In addition, in some Member States, storage is not properly defined in the national legislation, which leads to the situation where the rules applicable regarding taxation and surcharges are not clearly defined and remain vague and subject to diverging interpretation. For some cases, a few national authorities are providing tax discounts (on taxable income) for the purchase of energy storage equipment, in particular batteries. This support is usually implemented within the broader framework addressing the climate and energy objectives.

[7] Please find in the EASE Energy Storage Applications Summary the detailed of the different energy storage applications of the many services energy storage can provide.

[8] European Parliament resolution of 10 July 2020 on a comprehensive European approach to energy storage (2019/2189(INI)).

[9] Buildings with solar PV can benefit from installing energy storage (e.g. batteries) in order to maximise renewable self-consumption and provide grid flexibility. Thermal energy storage can help support renewable or low-carbon heating and cooling solutions such as heat pumps or solar-thermal panels, increasing efficiency and facilitating the provision of flexibility services. Another important aspect of energy storage is its ability support the roll-out of electric vehicle charging infrastructure in buildings. Stationary storage co-located with charging infrastructure can reduce peaks in demand and facilitate smart charging in response to signals from the grid.

More specifically, what is energy storage's contribution?

In the context of social policies:

Energy storage plays an important role in reducing citizens' energy costs. Energy storage technologies installed behind-the-meter (e.g. batteries, thermal storage, and others) can provide many benefits to building owners, tenants, and users. It can help maximise self-consumption of distributed renewables, which can support decarbonisation of energy use in residential and commercial buildings[9].

What are the regulatory barriers? Levies and taxes apply to all electricity consumed regardless of whether that energy comes from the grid or from an own production or storage facility behind-the meter. Such a framework disincentivises both local production and storage. It also creates a situation where maximising energy efficiency with the aim of lowering energy costs would be considered as a high-cost investment and would be unreachable to many households.

<u>The solution to prevent double taxation of energy storage for network and market usage:</u>

Double charging, taxation wise, of storage generally comes from the fact that generation is charged for delivering power to the grid; that is the arrangement that must be reviewed rather than requesting special treatment for storage as being different to other assets. In order to favour energy storage for network and market usage, the ETD should:

- establish a clear definition to avoid double taxation of stored energy (e.g. if an active consumer stores electricity from the grid at a time of excess generation and feeds electricity back into the grid at a later time);
- ensure a fair contribution to system costs to avoid consumers' divide.

In the context of tax treatment(s) of electricity used in electric vehicles:

In order to favour the uptake of electric vehicles and maximise their potential, additional efforts are essential to remove the barriers that currently hamper vehicle-to-grid deployment. Vehicle-to-grid is not regulated yet at EU level even though it supports greater integration of RES in the system and can **provide numerous grid services** and **non-frequency ancillary services**, e.g. voltage control or synthetic inertia.

> Vehicle-to-grid integration technologies and processes, including smart charging, will enable mitigating peaks created by a high number of electric vehicles charging simultaneously. Electric vehicle batteries could actively work as storage systems and solve this issue by managing electricity loads across infrastructure assets and time. That way, electric vehicle or a plug-in hybrid electric vehicle can provide Vehicle-to-Grid (V2G) functions to contribute to grid balancing, i.e. they can help to stabilise the grid.

Currently, fiscal rules and energy taxes create a lack of revenue certainty and are a burden for storage developers. In order to favour the uptake of electric vehicles and maximise their potential, the ETD should:

- avoid double-charging of taxes on electricity generated from storage facilities on the EU level;
- consider an evolution of fiscal rules and energy taxes for consumption/injection in order to facilitate storage development and then the provision of ancillary and flexibility services by energy storage, on a level playing field with other technologies;
- the above-mentioned measures should also be supported by adequate metering schemes, to facilitate vehicle to grid integration.

Appropriate taxes and levies placed on energy storage facilities are key to allow for a robust storage business case. In particular, double taxation of storage facilities should be avoided. Owners pay taxes once when charging their storage asset (e.g. battery buffered and/or mobile chargers, BEVs or FCEVs) and should not pay again when they feed electricity back into the grid or for other purposes.

[9] Buildings with solar PV can benefit from installing energy storage (e.g. batteries) in order to maximise renewable self-consumption and provide grid flexibility. Thermal energy storage can help support renewable or low-carbon heating and cooling solutions such as heat pumps or solar-thermal panels, increasing efficiency and facilitating the provision of flexibility services. Another important aspect of energy storage is its ability support the roll-out of electric vehicle charging infrastructure in buildings. Stationary storage co-located with charging infrastructure can reduce peaks in demand and facilitate smart charging in response to signals from the grid.

And finally, to sum up

The aforementioned is not only leading to different treatment for energy storage across the EU but also creates distortions in the internal energy market. Energy markets, such as electricity, gas and oil are to a large extent integrated at the EU level with the exception of energy taxation policy. In addition to the barriers of double taxation **EASE sees the following as the main recommendations relevant for energy storage for the review of ETD**, many of which were also raised in the European Commission study on energy storage:

- Update minimum tax rates for energy products considering technology neutrality. Energy taxation should in general be technology neutral, stimulate processes that increase overall efficiency, and internalise the externalities of the different technologies. The latter refers especially to negative environmental externalities such as emissions of greenhouse gases and local pollutants, when not internalised through other mechanisms such as the Emissions Trading Scheme.

- End-use and intermediate processes. A distinction needs to be made between on the one hand energy use for intermediate processes, for example storage and conversion technologies such as power-to-gas or gas-to-power, and on the other hand energy end-use. Energy taxation should only apply to end-use of energy products, as is the stated objective of the current ETD.

- Energy losses. Energy losses in the storage cycle could be subject to energy taxation if considered end-use. However, the current ETD states in art. 21(3) that energy consumption in an establishment producing energy products does not give rise to a chargeable event (e.g. electricity consumption in power plants). Following this and to treat storage equally vis-à-vis other energy producers, losses in the storage cycle should not be subject to energy taxation either.

- Update of energy products. The use in the ETD of static references to Common Nomenclature codes and the lack of reference to products not significant at the time of the approval of the ETD leads to an outdated harmonised scope for certain energy products, such as hydrogen, produced from carbon neutral energy sources. Energy products scope should be updated to include products supporting cross-sectoral integration, such as power-to-gas. In the process of revision of the energy products EASE would like to emphasise that hydrogen should be classified with reference to its carbon footprint and the nature of the electricity used for its production[10];

- Define taxation levels based on the energy and GHG content. The ETD does not treat energy products equally, as taxes are not required to be based on the carbon content, nor energy content in the case of fuels. Defining minimum taxation levels based on energy and carbon content is a central step in providing an equal playing field for all energy products;

- Clarify whether the conditional exclusion of electricity from the ETD scope applies to hydrogen electrolysis. The ETD scope does not cover electricity, when it accounts for more than 50 % of the cost of a product (considering purchased goods, personnel and fixed capital costs). This could be the case of hydrogen produced from electrolysis but would also depend on electricity prices and electrolyser costs. The threshold could provide perverse incentives to increase the cost share of purchased electricity;

- Consider including smart sector integration, including electricity heat and cold, in the scope of the ETD. There is a need to introduce additional multi-sectorial elements in the ETD to further support energy efficiency and decarbonisation goals. Heat or cold networks are not significantly integrated at the moment. However, competition between alternative energy carriers for heating, increased sector coupling and integration of heat networks could require minimum harmonization of taxation for heat and other energy carriers (considering energy and GHG content). This includes any potential exemptions for all energy carriers. For example, Liquid Air Energy Storage could provide a means to support electricity and cooling networks, providing an alternative to solutions relying on refrigerant gases with high GWP.

[10] For further information please find EASE recommendations on the classification and definition of the renewable and low-carbon gases in the position paper "EASE Recommendations on Certification of Renewable and Low-Carbon Hydrogen".

***

About EASE:

The European Association for Storage of Energy (EASE) is the leading member - supported association representing organisations active across the entire energy storage value chain. EASE supports the deployment of energy storage to further the cost-effective transition to a resilient, low-carbon, and secure energy system. Together, EASE members have significant expertise across all major storage technologies and applications. This allows us to generate new ideas and policy recommendations that are essential to build a regulatory framework that is supportive of storage.

For more information please visit www.ease-storage.eu

***

Disclaimer:

This response was elaborated by EASE and reflects a consolidated view of its members from an energy storage point of view. Individual EASE members may adopt different positions on certain topics from their corporate standpoint.

***

Policy Contact: Anneli Teelahk | Senior Policy Officer | a.teelahk@ease-storage.eu |+32 (0)2 743 29 82

Avenue Adolphe Lacomblé 59/8
1030 Brussels | Belgium
Tel: +32.2.743.29.82
@EASE_ES

www.ease-storage.eu
info@ease-storage.eu