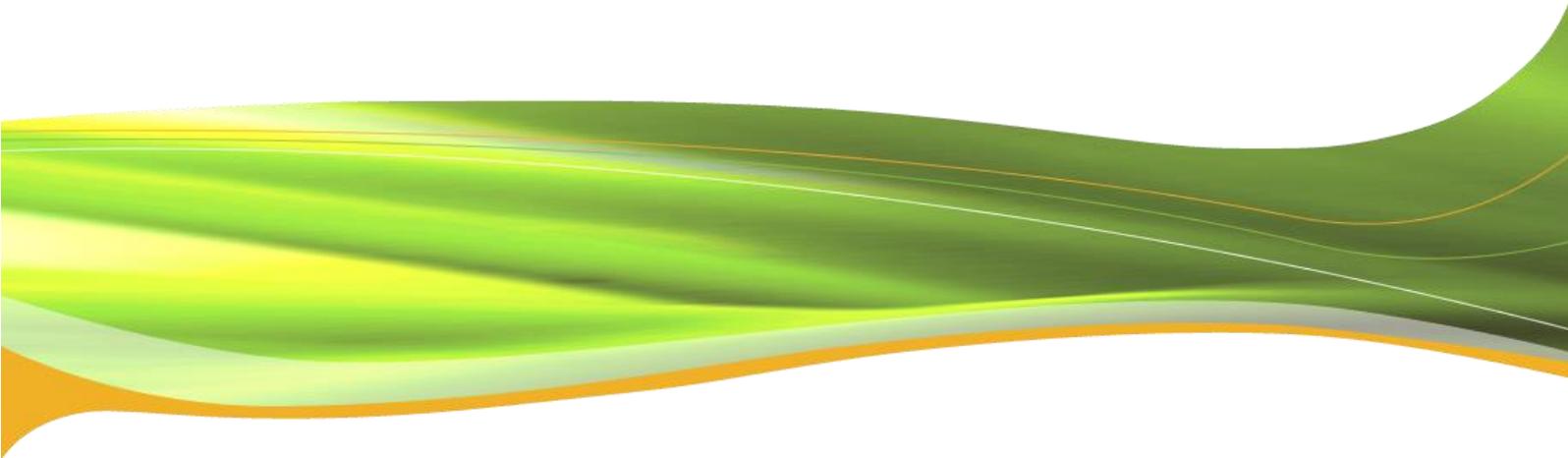




# **EDSO comments to the Public Consultation on EASE-EERA Energy Storage Technology Development Roadmap**

**February 2017**



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EDSO welcomes the opportunity to comment on the updated Energy Storage Technology Development Roadmap prepared by EASE and EERA. Electricity storage is a key technology that can be used by DSOs to defer grid expansion by making more efficient use of the existing capacity and improving the reliability, quality and affordability of the existing local distribution service.

EDSO advocates the right of DSOs to be able to use and operate own battery based storage applications for the purposes of an efficient grid management, and not only under particular exemptions and circumstances. Our comments refer most notably to the ownership of storage facilities as reflected in 'Chapter 7 Market Design and Policy Recommendations', in particular:

## Recommendation 2:

**Establish clarity on the rules under which energy storage can access markets – in particular, the perceived inability of transmission system operators (TSOs) and distribution system operators (DSOs) to own and operate energy storage.**

## General comments:

Conventional and large-scale storage (hydropower) is already contributing to facilitating the growing amounts of renewables in the electricity system. Nevertheless, the integration of decentralized energy resources into the low-voltage and medium-voltage grids asks for more small-scale, grid-connected electricity storage. Therefore, our comments refer to the latter technology, and more particularly battery-based storage which is of most direct concern for DSOs' operations.

Grid-scale battery-based storage can be used by the DSOs as an important grid management tool to enabling flexibility by means of active system management. It can serve multiple technical purposes to ensuring DSOs' safe, secure, economic and reliable operation of distribution systems, and for matching specific requirements (location, dimension, availability, quality and, most important of all, controllability.)

Storage has manifold benefits for the society, for the market itself and for the grids, as it can help not only to reduce system risks and to facilitate market operation, but also to defer or even avoid network investments. Taking into consideration these specific requirements, it makes economic sense that battery based storage facilities can be considered as part of the regulated asset base of the DSO. Moreover, given the current uncertain business case for storage, DSOs also need to foster innovation and to start deploying storage which can help bring down technology costs and leverage smart grids operations.

Apart from using storage for network management purposes, in all other use cases, which are, indeed, the vast majority of them, storage should remain a market-based activity that will provide flexibility to market parties and to system operators.

Specific comments:

- One cannot talk about ownership of energy storage by regulated entities in the abstract; instead, positions can be expressed only relative to energy storage applications, or services.

We agree that a differentiation can be made between ‘storage applications’ and ‘storage services’. In line with this, DSOs should be allowed not only to buy storage services, but also to deploy and operate their own storage facilities, as regular network assets connected to the distribution grid. Both – storage services and storage facilities – can only be used by DSOs for network management purposes. DSOs should however not get involved in selling storage services. Therefore, the DSOs cannot offer flexibility services to customers, nor can they engage in trading.

- Regarding the ownership of energy storage by regulated entities (e.g., for the provision of system services) in the absence of competitive supply, i.e. if shown that a market-based service procurement is not feasible, such ownership should be exceptional and on a temporary basis, subject to a periodic review of the situation. Unjustified market barriers for energy storage should be removed.
- And, as a general rule, regulated entities could be allowed to own energy storage in this context only upon the approval of the relevant national regulatory authority (NRA). In the longer term, the underlying reason for the market failure should be identified and properly addressed.

These recommendations condition the development of storage facilities by imposing such strong limits to its ownership, development and operation.

If the market were capable of attending all requirements, the DSOs, who must ensure security of supply and quality of service at all times, would in fact buy the service if the offer were economically attractive. As a potential buyer of flexibility services however, the DSOs, although regulated entities, are customer of services themselves. Moreover, as DSOs are also responsible for the cost effective distribution of electricity at the least societal cost, they must have a free choice to buy or not to buy.

But on the contrary, taking into consideration the exceptional situation where DSOs would be allowed to temporarily own and operate the installation, stranded costs would be something to consider, not to mention the need to find out the right technical conditions to give up operational control of an asset that is crucial to the operation of the system. The possibility of a tender needs to be carefully considered too, as its outcome might not be the most desirable nor the most cost-efficient, and must comply with the national regulators’ guidance for prudent costs and cost allowance criteria.

All in all, excluding the situation of grid-scale storage installations, we can agree that the provision of storage services must remain a market-based activity. However, the DSOs, as customers of flexibility services, should also be allowed to fulfil their needs themselves if circumstances dictate this.

DSOs who are responsible for a cost-efficient distribution of electricity, must be able to choose the best option available to them at the lowest societal cost. They should therefore be able to develop, manage and operate their own storage facility, as a regular network asset connected to the distribution grid. This should be used for network management purposes only, which is needed to ensure adequate service level and system operation. DSOs should not engage in providing commercial storage services which is clearly not a role of the DSO. This estimation will also apply to the ownership assessment.

Recommendation 3:

**Eliminate unwarranted/double charging, in particular the application of final consumption fees to energy storage given that it does not constitute final use of the energy**

EDSO agrees that storage facilities should not be taxed twice. EDSO encourages NRAs to apply fair taxes on storage and not jeopardize its economic viability. As for network tariffs, the decision to charge electricity storage facilities should be left to the national regulator.

Further readings:

- Joint statement on battery-based storage – CEDEC, EDSO, GEODE, EUROBAT
- Integrating electricity storage in distribution grids – EDSO paper



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**EDSO for Smart Grids** is gathering leading Distribution System Operators, covering more than 70 percent of the EU points of electricity supply, and cooperating to bring Smart Grids from vision to reality.