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EU-Regulation on guidelines for trans-European infrastructure (TEN-E Regulation)

Response

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About the Initiative Erdgasspeicher e.V.

INES is an association of German gas storage system operators and is based in Berlin. With currently 13 Members, INES represents more than 90% of the German gas storage capacities. Hence, INES Members also operate almost 25% of all gas storage capacities in the EU.

1. Introduction

On December 15, 2020, the European Commission presented a proposal to revise the regulation on guidelines for trans-European energy infrastructure (TEN-E Regulation). With this revision of the TEN-E Regulation, the European Commission implements the Green Deal regarding the further development of effective cross-border energy infrastructures in concrete terms.

In the following, INES response to the proposed revision of the TEN-E Regulation.

2. Funding requirement for the conversion of gas storage systems to hydrogen storage systems

Gas storage facilities generally have very large capacities, which cannot be converted in small steps. If the first customers had to finance the conversion of gas storage facilities completely, prohibitive prices would result. Prohibitive prices could prevent a market-driven conversion of gas storage facilities and thus interfere the ramp-up of the hydrogen market.

INES recommends, to accompany the conversion of gas storage facilities by subsidising in the initial phase of the market development, to avoid prohibitive prices and thus enable initial conversion of gas storage facilities.

The revision of the TEN-E Regulation may create a suitable framework for defining the conversion of gas storage facilities to hydrogen as a "Project of Common Interest" (PCI) and thus possibly also be eligible for funding as an "Important Project of Common European Interest" (IPCEI) in compliance with state aid law.

3. Conversion of gas storage systems to hydrogen storage systems as PCI

Annex II paragraph 3 of revision of the TEN-E Regulation contains the Point b): "underground storage facilities connected to the high-pressure hydrogen pipelines referred to in point (a)".

INES welcomes the fact that hydrogen storage systems are principally covered by the TEN-E Regulation. However, from INES' point of view it is incomprehensible why only those hydrogen storage systems, that are connected to the high-pressure hydrogen pipelines, are covered by the regulation.

It is to be appreciated, that at the end of paragraph 3 is clearly stated that the conversion of gas storage systems to hydrogen will also be the subject of the TEN-E Regulation: "Any of the assets listed in points (a), (b), (c), and (d) may be newly constructed assets or assets converted from natural gas dedicated to hydrogen, or a combination of the two."

To ensure that all current operators of gas storage systems have the option of transforming existing gas storage systems to hydrogen storage systems within the framework of a PCI and also being able to claim subsidies, INES recommends the following modifications or further developments in connection with Article 4 "Criteria for projects of common interest":

- According to Paragraph 1 (a), a PCI must be necessary for at least one of the "Corridors" and "Areas" in Annex I. However, there is no reference to hydrogen storage systems recognizable. INES recommends to create a reference to gas storage systems, for example in the "Areas" section.
- According to paragraph 1 (c), a hydrogen storage facility must have a "significant cross-border impact" in accordance with Annex IV.1. Point (1) (e) is relevant for hydrogen storage systems. According to this, the requirement is: "the project aims at supplying directly or indirectly at least two Member States". In this context the question arises as to when a hydrogen storage system supplies directly or indirectly at least two Member States. INES recommends, that a regulatory authority (e.g. ACER) defines under which requirements storage systems meet this criterion. The definition should consider that it is very hard to track in the Entry-Exit-System whether gas (methane) or hydrogen from a storage system is actually physically transported across the border. Furthermore, the ability of transportation networks to provide exports or transits may depend on a local storage usage. Consequently, such storage systems have a "significant cross border impact" even if the storage amounts do not actually or physically flow to foreign countries. Against this background, the fundamental focus on storages systems "connected to the high-pressure hydrogen pipelines" is even more incomprehensible.

4. Removal of natural gas infrastructures from the TEN-E Regulation

INES has taken note of the removal of natural gas infrastructures out of the TEN-E Regulation. This proposed revision is attributable to the fundamental orientation of the EU Commission by the Green Deal.

The current discussions focus strongly on hydrogen as the promising future energy carrier. Nevertheless, the discussion should keep gas (in the sense of greenhouse gas neutral methane) in mind as an energy carrier.

The transformation of today's gas economy into a greenhouse-gas neutral world will, even with rapidly increasing hydrogen use, still involve gas-based infrastructures for longer periods of time. For example, the use of blue and turquoise hydrogen still enables the use of gas infrastructures, because natural gas could be converted to hydrogen close to the consumer. Moreover, via biomethane, existing gas infrastructure will still be able to play a role even in the context of a completely greenhouse-gas neutral energy supply.

With regard to storage facilities, which do not have the prerequisites to accommodate pure hydrogen in the future, this is an important utilization path. In view of the two-thirds lower calorific value of hydrogen compared to gas (methane), the storage of methane also offers advantages in terms of stored energy volumes. Therefore, hydrogen and gas storage systems will both be important in meeting the enormous storage requirements of a renewable energy system. This should not get out of sight when implementing subsidies. In addition of flanking the conversion of todays' gas storage systems into pure hydrogen, the eligibility of adapting gas storage systems to future greenhouse gas-neutral gas mixtures should also be considered.

INES therefore recommends that in addition to the use of pure hydrogen, the energy potential of storing for example biomethane in gas storage facilities is kept in mind and the transformation is accompanied by subsidies.

Moreover, INES wants to give a thought that the proposed removal of natural gas may hamper the implementation of an economically cost-efficient pan-European coal phase out. Enabling a basic eligibility for subsidies under the TEN-E Regulation could remain important, as there will be a "fuel-switch" from coal to gas, which could result in infrastructure need for natural gas supplies.

Especially in structurally weak regions funding of natural gas-infrastructures may be necessary to secure the coal phase out.

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