



Response by Energia to CRU/20/066

***Network Charges for Commercial Storage Units
Interim Solution***

7 August 2020

1. Introduction

Energia welcomes the opportunity to respond to the CRU consultation 'Network Charges for Commercial Storage Units Interim Solution'. As a member of the industry groups Energy Storage Ireland (ESI) we have been active in examining the policy and regulatory landscape for commercial storage in Ireland and have been enthused by the steps the CRU has already taken, namely:

- a) CRU's decision in CRU/19/034, confirming that the PSO levy is chargeable only to a storage sites house load consumption
- b) The reservation of up to 400MW for prospective DS3 service providers, including storage, in the ECP1 Process (CRU/18/058), and
- c) The recognition that double charging represents a barrier to commercial energy storage development by virtue of this consultation

These prior decisions and actions by the CRU, recognise that storage technologies represent a new class of 'unit' with unique characteristics that must be accurately reflected within market arrangements. Commercial storage has the potential to vastly enhance Ireland's ability to achieve its climate and energy targets. The same level of ambition that has been outlined in the Climate Action Plan and other recent policy developments, needs however to be mirrored in regulatory decisions if Ireland is to be capable of achieving these targets.

Energia commend the CRU for its pro-active approach to removing the double charging barrier however we wish to clarify that we would not support any of the options provided in the consultation as an enduring measure and that the outcome of the more in-depth charging review should therefore not be based on any solution agreed via this consultation process.

1.1 Preference for a House Load based Interim Solution

While we would agree that an in-depth review is the most appropriate means of determining the charging regime for storage in the medium to longer term, we are disappointed that the options presented in this consultation do not appear to mirror prior decisions. In particular, the decision outlined in CRU/19/034 which established that the appropriate chargeable capacity for a storage site is not the maximum import capacity (MIC), but the amount of electricity consumed on site, i.e. the site's house load.

The consultation paper does not mention whether an interim solution in keeping with this principle was considered by the CRU as an option in this consultation, nor whether any logistical challenges prevented the CRU from proposing such an option. As Energia do not perceive any barriers to charging storage sites for network costs on the basis of their house load in the short term, Energia wish to propose this option for consideration in this consultation.

2. Response to Consultation Question

2.1 Preference for a house load based interim solution

In line with the principle that storage sites are not the final consumer of electricity as per our comments in 1.1 Energia's preference for the interim charging approach would be a solution that is aligned with the principles outlined in CRU/19/034. As we will subsequently outline in section 3 our preference would be that the enduring charging solution align with this decision.

2.2 Preference for G-TUoS of the options under consideration

Of the options the CRU has presented for consideration in this consultation, Energia believe that treating Battery Energy Storage as a generator (G-TUoS Option) is the most appropriate as an interim solution. Our preference for this option is informed by the following:

- a) The locational element associated with G-TUoS is appropriate in terms of the signals it provides to storage developers.
- b) Charging based on G-TUoS has the potential to be better aligned between Northern Ireland and Ireland, removing a potential for a market distortion between the two markets. (Energia note that the Utility Regulator has committed to consulting on this issue in the coming months).

Focusing on a single charge be it G-TUoS or D-TUoS will inherently create a market signal for one type of storage over another. Based on the current levels of curtailment an argument can be made that the most pressing need for storage is to absorb excess power being generated by wind farms overnight.

The CRU has argued that storage units that import at a lower rate over a longer period of time, to be released subsequently during the day, are more appropriate to incentivise in the short term, than storage sites with the opposite configuration (faster to charge slower to release). Energia would counter however that curtailment is largely a function of the grid's inability to absorb power at scale, not it's inability to respond quickly to reduced periods of wind generation (as thermal generators presently have the ability to respond quickly to the need to provide large quantities of power quickly, yet the level of curtailment persists in the market). Opting for a G-TUoS based charging regime for storage would therefore incentivise a level of flexibility in the market that is noticeably absent at present, by contrast the CRU's proposed approach would incentivise the opposite storage configuration which for the reasons we have outline may not lead to any noticeable improvement in curtailment alleviation.

For this reason, alongside those mentioned in a) and b) Energia consider that there are as many if not more arguments in favour of a G-TUoS based charging regime as an interim solution rather than a D-TUoS one. We would once again reiterate however the importance that the enduring charging regime support as wide a range

of flexible storage units as possible and that basing network charges on neither a storage sites' MEC nor their MIC should be perceived as the enduring solution.

3. Comments in relation to the need to conduct a full review of network charging for Commercial Storage

As we have laid out in the prior sections of this paper, Energia believe the appropriate capacity amount upon which network and capacity charges should be levied is the house load of the storage unit. In this section we discuss some of the benefits of such an approach in addition to examining the potential for storage sites to receive compensated for the network costs they offset.

We note however that alternative models exist across Europe whereby commercial storage providers are provided with discounts or exemptions from electricity network charges, in addition to in some cases receiving remuneration for the service they provide to the grid.

3.1 European Examples

In Germany, grid-connected storage facilities are exempted from the grid charges for storage for 20 years after commissioning. This applies for pumped hydro storage plants commissioned from August 2011 (or for 10 years when existing plants increased electrical capacity by at least 7,5% or storage capacity by at least 5% after August 2011. Storage providers in Germany also do not have to pay network charges in respect of electricity that provides upward balancing energy in the balancing market, i.e. there are no grid fees for both the injection and the withdrawal.

In Italy, ARERA regulation 574/2014/R/eel, extended network tariff discounts, that formerly applied only to pumped storage, to all electricity storage technologies, as long as the power is not intended for final consumption. Separately, power consumed by both generation and storage assets for the purposes of providing system services is also exempt from grid charges (ARERA regulation 345/2019/R/EEL). The approach used is to treat all electricity drawn from the grid and intended to power the storage systems for subsequent re-injection in the network and / or the auxiliary generation services as negative electricity input for determining tariffs.

Further details in relation to the treatment of network costs for storage are described in the European Commission's recent paper "Study on energy storage – Contribution to the security of the electricity supply in Europe"¹.

3.2 Non-discriminatory on a unit of electricity-basis

Under the current charging arrangements each unit of electricity that is generated before passing through a storage unit and consumed by a final customer, is charged for network charges four times in its lifespan. Once when it is generated, once when it is "consumed" by the storage site, once when it is released back to the grid by the storage site and once more when it is consumed by the final customer. In deciding to remove double charging by levying only one charge on storage users the CRU's

¹ <https://op.europa.eu/en/publication-detail/-/publication/a6eba083-932e-11ea-aac4-01aa75ed71a1/language-en>

interim solution will still result in the electricity passing through a storage unit being charged for network costs three times in its lifetime. This is a welcome improvement however each unit of electricity that doesn't flow via a storage unit is charged only twice.

By charging storage sites on the basis of their house load for network charges, this approach ensures that each unit of electricity passing through storage between a generator and a final demand consumer is treated equally to each unit of electricity that is supplied by a generator and then consumed by a final demand customer.

3.3 Technology Neutral

Building on the points we've raised in prior sections, Energia would advocate for an enduring storage charging regime that is technology neutral to the greatest extent possible. In essence the enduring regime should ensure, that the most important price signals that developers of storage projects respond to are dynamic market prices, not static network charges. An enduring solution must recognise the unique nature of storage as a market unit and not result in storage being corralled under the definition of either demand or supply in the name of convenience.

Of the options Energia is aware of, adopting a house load based approach for network charging seems the most effective means of upholding the principle of a technology neutral charging regime. A storage site's house load is a function of how efficient the unit is being operated and should not be influenced by the configuration of the unit in terms of the rate at which it can charge and discharge. The incentive would therefore be for developers to build efficient units, rather than a particular type of unit.

Adhering to either an MEC or MIC based charging regime in the future will not achieve this objective and will incentivise particular types of storage over others. Such an approach inhibits the ability of market signals to determine the most appropriate investment signals which will ultimately undermine the ability of Ireland to achieve its decarbonisation targets at least cost.

3.4 Storage as a service

The charging review should also recognise the potential for storage to offset network reinforcement costs. This speaks once again to the uniqueness of storage as a unit as in this capacity a storage site is essentially a kin to a service rather than a demand or generation unit. Remunerating storage units for locating in areas where they alleviate constraints or offset network costs should therefore be a factor considered in determining a more enduring solution to network charging for storage sites.