Appendix B

Republic of Cyprus

MINISTRY OF ENERGY, TRADE AND INDUSTRY

# GENERAL SUPPORT DESIGN FRAMEWORK FOR BUILDING SYSTEMS ENERGY STORAGE IN COMBINATION WITH RENEWABLE PROJECTS ENERGY SOURCES

("Plan")

This document presents the General framework of the Support Plan for the construction of energy storage facilities in combination with Renewable Energy Sources projects, as it is expected to be implemented with its official announcement.

**Paragraph 1: General**

The Plan includes, among others:

1. Application of the new General Exemption Regulation of State Aids (9.3.2023, C(2023) 1712).

2. Implementation of the new Commission Regulation 2023/1315 of 23 June 2023 amending Regulation (EU) no. 651/2014 on the declaration of certain categories of aid as compatible with the internal market.

3. The way to compensate the storage systems that will install existing and new RES projects (Capital Support, Operational Support, combination of the two).

4. Beneficiaries: All RES projects, new and existing, including projects under the Feed In Tariff fixed selling price regime, which will install storage systems, including

   of RES projects for the production and storage of green hydrogen, in accordance with the state aid exemption regulation.

5. The categories of combined RES and storage projects that will participate in the tender are expected to be as follows:

1. Up to 150 kW*.
2. 151kW up to 0.99 MW*.
3. 1MW up to 8 MW*.
4. Greater than 8 MW*.

*The power mentioned above refers to the maximum energy output power of a combined RES project with Storage.

The distribution of the available sponsorship amount will be done by category. In the event that an amount is not allocated during the first tender process, it will be possible to redistribute it to other categories based on the benefit cost for the system.

**Paragraph 2: Technical Requirements**

1. The plan will include technical specifications which will be announced by the Transmission and Distribution System Operators. The technical obligations will aim to partially ensure the security of the Cyprus electricity system, to reduce the power outages from Renewable Energy Sources to the maximum extent possible and to contribute to the performance of the electricity system1, while reducing the carbon footprint of the Cyprus electricity system , as analyzed in the studies accompanying the National Energy and Climate System (ESEK). The pre-requisite general operating principles of the Plan will include, among others, the following:

   a. Determination of minimum required capacity of the facility of storage (2 to 4 hours per MWh/MW, depending on the Plan and its sub-category), provided that the minimum requirements are met based on the application of the General Exemption Regulation, where the storage system installation should absorb at least 75 % of the annual energy produced, from directly connected renewable energy production facilities.

   b. Ramp-rate control of Photovoltaic and Wind Systems electricity production according to the needs of the electrical system, and according to the requirements of the Transmission and Distribution Rules, to normalize the production power. It is possible to request other types of reserves through the technical characteristics of the storage systems (See Appendix C).

[1] TSMC Document: Provisional Arrangement for Defining Mandatory Integrated Production Units (Must-Run Units)

c. The requirements of the technical parameters will aim, among other things, to reduce the operation hours of conventional power plants, and the operation of conventional reserve systems,
while reducing the cost of pollutants and electricity.

d. Shift channeling of energy from RES, which would otherwise have been cut off, from periods of minimum demand to periods of high demand.

2. The proposed technical criteria (indicative requirements) of the storage systems are:

a. Guaranteed import and export capacity, per period (according to DSD/DSMK).
b. Guaranteed capacity.
c. Guaranteed capacity degradation rate.
d. Guaranteed system performance. There will be a possibility of review every year, depending on the condition of the facility
storage, e.g. State of Health in case of batteries, state of electrolytes or existing state of storage systems
heat, etc.
e. Limits of exclusion from the Plan (or forfeiture of the guarantee of faithful execution), in case the applicants do not comply with the specifications, declared production profile and conditions of the DSMK/DSD.
f. The Capital cost grant may be given:
§ Option 1: In two installments: 50% with the acceptance of the final terms of connection and the remaining 50% with the commercial operation of the storage station.
§ Option 2: 100% upon payment of the corresponding faithful performance guarantee which will be released with the Commercial Operation of the Project2.

**Section 3: Funding**

In relation to the financial support of the projects, the following options will be considered:

1. Capital Support for storage facility for existing RES projects: It concerns capital costs of the investment for an energy storage facility, which will also include any potential benefit of the RES producer from reduced outages or failures in energy forecasting

(taking into account that there will be allocation priority in the specific projects at least up to 150 kW3).

[2] With the Commercial Operation of the project, the applicant will submit a compliance bond which will be renewed every year, according to the annual depreciation of the investment that has been granted, deducting 20%
of the grant. 3. Comment: the limit for the priority in the allocation results from the Electricity Directive and Regulation, it does not concern state aid and DG Competition

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The Capital Support will be given to all categories of the Plan even to existing RES stations, which will have the possibility to increase their production (not their maximum power) up to 10-15% to compensate for the loss of energy from the energy storage system. Provided that projects with a fixed selling price will continue to receive the fixed subsidy price
in accordance with the existing contract they have with EAC Supply.

- For those projects whose contract will expire before the end of this plan (e.g. until the end of 2030), then there will be a right to renew the contract until the end of 2030 at the sale price that will be determined by the tender of the selling price.

It is noted that based on the application of the General Exemption Regulation, the investment should concern the installation of a storage system that will absorb at least 75% of the annual energy produced, from directly connected energy production facilities from renewable sources.

Up to 20% of the storage system capacity will be able to be managed by the network operator, with additional operation and maintenance costs reflected in applicants' bids.

2. Capital and Operational Support for new hybrid stations that will participate in the tender and will be contracted with EAC Supply. The
export Rate for Variable Payment, in EUR/MWh concerning the final sale price in the system every 30 minutes (simulation of sale price in the market under ideal conditions).

The Scheme will cover capital support on the applicants' bidding basis (in terms of cost per kW) 4, while the sale price of the energy from the hybrid plant should be ensured taking into account the cost
of the Station's production (LCOE + reasonable profit) which should be lower than the system marginal cost (system marginal cost per half hour), so as to ensure that the electricity prices of the energy system will be reduced.

3. The maximum selling price will take into account the needs of the system for cheap energy for certain periods of time, while the total average price of the Plan will not exceed the System Marginal Cost, as calculated by the Energy Models and the studies prepared for ESEK.

4 The amount of aid is independent of production. The eligible expenses are the total investment cost.

4. The number of applications that will be selected, per category will be automatically calculated by a model that will be designed in a transparent and automated way. (Appendix)

   a. The amount of money that will be allocated per category of the plan will be determined with the provisions of the State Aid Rules.

5. In the category of the Scheme where applicants will submit bids for capital and operational support (CfDs), both bids may be submitted simultaneously. Capital support in this category will also be the result of a tender. The category will not be able to be financed by the Just Transition Fund. Regarding the issue of operational support, it will be decided by the Competition Commission whether EAC Supply itself will be able to finance the CfDs or the RES and EXE Fund.

6. For the projects that will submit bids and be financed by the TDM, they will only receive the purchase cost (as determined by CERA based on decision 122/2023), while at the same time the maximum price (cap price) will be determined through a tender process. It is noted that in this category of the Plan, up to 100% capital support will be given for the cost of energy storage, in order to reduce the risk of future low

   electricity purchase prices.

7. Investors will only be aware of the price of the maximum limit (strike price) in the sale price of the energy and the capital cost. A tender will be held by all the companies that participated in the process for the energy sale price (it will not be possible to submit a bid above the CAP). The award model (bidding platform), will choose

   the cheapest combination that will reduce the final selling price of energy in relation to the amount of energy that can be made available from each station every 30 minutes.

**Section 4:** Procedure for Submission of Bids for Participation

1. For the purposes of submitting the application, an estimate of the total capital cost and bidding for the price of exported energy for 1 year per 30 minutes (8760 hours * 2) will be required to evaluate the techno-economic proposal.

2. There will be simplified bidding procedures as well as technical requirements for small and large projects (Differentiation in accordance with the Renewable Energy Directive, 2018/2001).

**Section 5:** Ensuring Competition

The terms of participation of the project will be in accordance with the exempting regulation (GAK 09/2023).

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The basic provisions of the Plan will include the following:

1. Limitation on applications per business and per natural person, according to the conditions of state aid.
2. Possibility of increasing or decreasing the projects to be selected, depending on the interest in submitting applications. Allow up to 50% of submitted applications to be selected, taking into account the total budget of the Scheme

For existing RES projects participating under the Fixed Subsidy (FiT) projects only capital support will be given (proportionality principles will be taken into account). For existing projects there will also be the possibility to extend the contracts in time, provided that they renew their stations (in accordance with the provisions of the Renewable Energy Directive, provided that the subsidy contract based on CfDs (Contracts for Difference) will be modified accordingly for the extra time, without being able to increase the average selling price of the energy.Example if a contract expires in 2028 and the duration of the plan is until

2030 then it will be possible to renew the contract until 2030 with a new lower price for the remaining two years.

**Section 6:** Choice of Proposals.

1. As long as the proposals will meet the technical specifications (to be determined in collaboration with the Administrators) they will then be able to participate in the competitive bidding process, by category.

2. It is noted that the technical conditions have been made in order to meet the technical specifications required by the Just Transition Fund, in order to be able to gradually replace some of the existing power generation units of Dekelia which will gradually be placed in reserve until 2032, while for the category that also contains operational support (CfDs), the above requirement will not exist (e.g. a minimum requirement for energy storage of 75% of the station's annual production, as long as this scheme is approved by the Competition Directorate).

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Software Tool Description

As a part of the envisioned storage scheme, an optimization tool shall be developed for classifying and selecting of the applications in a fair and automated way. As mentioned, the scope of the scheme is to ensure the reduction of the short-term and long-term energy prices. To this end, the optimization tool shall assess the submitted investment price (Euro/kW) and selling price (Euro/kWh) by each applicant, considering the current avoidance cost (or market price) and a cap price introduced by the Regulator. The investment cap price shall be differentiated according to the respective renewable energy technology and size of the project used within the hybrid RES plant. The final average selling price of the scheme shall not exceed the system marginal cost as calculated by the Cyprus' Energy Models. The price will be announced once the scheme will be publicly available.

*(The reference price equals the LCOE of each individual project, considering IRR of 8 % (predefined). The reference price takes into account the costs, energy performance data and the individual WACC of each project. Any investment aid is deducted from the total investment amount when calculating the LCOE.)*