



# State Aid: Overview of Greek Scheme to Support the Development of Electricity Storage Facilities

March 2024



# **State Aid: Overview of Greek Scheme to Support the Development of Electricity Storage Facilities**

# Table of Content

- 1. Background ..... 4**
- 2. Analysis of the Measure ..... 5**
  - 2.1. Duration of the Measure .....5
  - 2.2. Aid Offered.....5
  - 2.3. Budget and Financing .....6
  - 2.4. Competitive Tendering Process.....6
  - 2.5. Requirements for Ensuring Competitive Conditions.....7
  - 2.6. Timeline of Competitive Processes.....8
  - 2.7. Conditions for Participation .....8
  - 2.8. International Participants .....9
  - 2.9. Selection of Beneficiaries .....9
  - 2.10. Compatibility with the EU Legislation .....10
- Sources ..... 12**

# 1. Background

On 5 September 2022, the European Commission approved with the decision [SA.64736](#) a Greek state aid scheme for supporting investments in storage facilities under the Recovery and Resilience Facility (RRF). The measure aims to promote the development of electricity storage facilities and consequently, facilitate the decarbonisation of Greece's electricity system. The introduction of electricity storage capacity is an essential element allowing for the cost-efficient and effective integration of a large volume of new Renewable Energy Sources (RES) generating capacity into the Greek electricity system. This capacity enables also the country to meet the targets of its National Energy and Climate Plan (NECP). According to the [draft updated NECP](#), Greece aims to achieve an 80% share of renewable energy in electricity generation by 2030, along with a 3.1 GW capacity for battery storage systems and 2.2 GW for pumped storage systems by 2030.

The Greek Ministry of Environment and Energy, along with the Ministries of Finance, and of Development and Investments, is responsible for setting the main elements and conditions of the support scheme with a Joint Ministerial Decision. The Regulatory Authority for Energy, Waste and Water (RAAEY, formerly RAE) organises the tenders for the selection of beneficiaries and evaluates the offers of the participants. Currently, RAAEY has conducted two of the three tender processes.

# 2. Analysis of the Measure

The state aid scheme intends to support investments in standalone energy storage technologies connected to Greece's high-voltage electricity transmission system for a total capacity of up to 900 MW. While the scheme is open to all storage technologies that meet the minimum technical requirements, the Greek authorities, at the time of notification of the measure to the Commission, expected investments primarily in grid-scale Battery Electricity Storage (BES) facilities. The supported projects are selected through a competitive tendering process conducted in three rounds.

## 2.1. Duration of the Measure

- The initial date communicated to the European Commission for the completion of the project selection was 31 December 2023. This date was extended by Greek legislation (amending Ministerial Decision of 08.11.2023) to 31 March 2024.
- The selected projects have to be constructed and be operational by 31 December 2025.

## 2.2. Aid Offered

The scheme offers 2 types of support, which can be jointly granted:

(1) The selected projects will be granted *investment aid*, covering approximately 40–50% of a project's capital expenditure (CAPEX). It will be disbursed during the construction phase of each project, up until the end of 2025. All supported projects will receive an equal amount of investment grant (in EUR/MW) to help bridge their funding gap. The investment grant amounts to **200,000 Euros per MW** (EUR/MW) for projects selected in the first round of the tendering process and **100,000 Euros per MW** (EUR/MW) for projects selected in the second round.

(2) The selected projects will also receive *operational aid*, called *annual support*, through two-way *Contracts of Difference* (CfDs) with a 10-year duration. The annual support, expressed in EUR/MW, will be disbursed over a period of 10 years, starting from the commencement of project operation until 2035 at the latest. The CfDs cannot be terminated earlier. An important prerequisite for the payment of the operational aid is the conclusion of an Operational Support Contract for electricity storage facilities between the owner of the supported project, and the Renewable Energy Sources Operator & Guarantees of Origin (DAPEEP SA).

The CfDs will cover the balance of any residual funding gap after the investment grant is paid. The amount of the annual support will be calculated on an annual basis, as the difference between the revenues needed for a project's financial viability (Base Revenues), and the revenues earned by each project from participating in the electricity markets, i.e. the day-ahead, intraday and balancing market (Market Revenues). If the Market Revenues fall below the Base Revenues, the CfD will provide the necessary top-up to meet the Base Revenues. Any excess revenues will be returned through the claw-back mechanism of the CfD. RAAEY will regularly monitor, review, and adjust the CfDs.

### 2.3. Budget and Financing

The budget of the measure is estimated at 341 million Euros. This includes the investment grant amounting to 200 million Euros, as well as the annual support amounting to 141 million Euros. The total budget was derived assuming a total capacity of 900 MW.

The support scheme will draw funding from two sources:

- The investment grant will be funded primarily by the Recovery and Resilience Facility (RRF), from which up to 200 million Euros have been earmarked. Additional support for the investment grant could potentially be provided from structural funds or the general budget.
- The annual support will be funded by the Sub-account for Electricity Storage Systems, which is part of the RES and CHP Special Account. The revenues of the storage sub-account come from a charge imposed by government measure on all electricity suppliers who participate in the Greek wholesale electricity market.

### 2.4. Competitive Tendering Process

Projects interested in benefiting from the support scheme are selected through a competitive tendering process conducted in a single-stage bidding format. The financial offer, expressed in Euros/MW/year, constitutes the annual Base Revenue, which is used to calculate the annual operational support. The maximum allowed bid price is set at 115,000 €/MW/year for both the first and second tendering process.

The scheme provides for a total tendered capacity of 1,000 MW<sup>1</sup>, split into 3 separate tender procedures of 400MW, 300MW, and 300MW respectively, with the possibility of adjusting the final awarded capacity.

---

<sup>1</sup> 900 MW was communicated to the European Commission.

The table below shows the date and capacity of each competitive process:

Quarter of Announcement	Competitive tendering process (deadline for offers)	Initially tendered capacity (MW)	Final tendered/awarded capacity
Q3 2023	<b>A'</b> (16.06.2023 – 10.07.2023)	400 MW	Awarded: 411.79 MW
Q4 2023	<b>B'</b> (22.11.2023 – 22.12.2023)	300 MW	Tendered: 288.21 MW/ Awarded: 299.775 MW
Q1 2024	<b>C'</b> – Just Transition Areas	300 MW	

The capacity of the two first tenders (700 MW in total) is distributed to the entire Greek electricity transmission system except Crete; the remaining 300MW will be distributed to projects in the areas of the Just Transition Programme (Western Macedonia, and Municipalities of Megalopoli, Gortinia, Tripoli, and Oihalia).

## 2.5. Requirements for Ensuring Competitive Conditions

- ✓ The minimum competition rate of each competitive process is set at 100%.
- ✓ At least 4 participants, not affiliated and/or cooperating, must participate in each process.
- ✓ For the first tender, a maximum participation capacity limit per energy storage facility is set at 100MW.
- ✓ A maximum participation capacity limit per participant is set at 25% of the initially tendered capacity. For the second tender, the limit is set at 72,05 MW per participant.
- ✓ In both A' and B' tendering processes participants have a combined awarded capacity limit of 100 MW. The limit is 250MW for all three processes.

## 2.6. Timeline of Competitive Processes

	A' tender	B' tender
Start of application submission	16.06.2023	22.11.2023
End of application submission	10.07.2023	22.12.2023
Temporary list of selected projects – publishing date	03.08.2023	08.02.2024
The final list of selected projects – publishing date	10.08.2023	15.02.2024

## 2.7. Conditions for Participation

### 2.7.1 Eligibility Criteria

For a project to be selected, the following eligibility criteria must be met:

- ✓ Projects must hold a valid Electricity Storage Licence, with the following characteristics:
  - Maximum injection capacity of at least 1 MW.
  - Minimum guaranteed capacity of at least 2 hours for the projects of first and second tender, and 4 hours for the third tender.
  - Be connected to the Greek electricity transmission system, directly or through medium-voltage interconnection facilities that are not part of the system.
- ✓ The start of works on the project must not begin before the submission of an offer.
- ✓ The storage technology of the eligible project must have been used internationally in electricity storage facilities participating in electricity markets, and have been commissioned within 2018–2022, with a total capacity of at least 1,000 MWh.

### 2.7.2 Minimum Technical Requirements

- ✓ Full-cycle efficiency of at least 80% at the start of their operation.
- ✓ When in active and stand-by mode, the total energy consumption for any purpose shall not exceed daily 15% of the guaranteed capacity.
- ✓ Achieve capacity availability of at least 93%.
- ✓ Fulfil all technical requirements for connecting storage stations to the Greek electricity transmission system according to relevant decisions of RAAEY and regulations.



- ✓ Be able to participate in the frequency maintenance backup, manual, and automatic frequency restoration backup procedures of the Greek transmission system.
- ✓ Be compliant with EN IEC 62933-5-2, NFPA 855, EN IEC 61936-1, or equivalent international or national standards and regulations.

### 2.7.3 Other Requirements

The projects must:

- ✓ Pay a participation fee of 2,500 Euros per application.
- ✓ Submit a “Letter of Guarantee for Participation” amounting to 35,000 Euros per MW of maximum injection capacity.
- ✓ Submit a “Letter of Guarantee for Good and Timely Execution of the project” amounting to 250,000 Euros/MW for the first tender, and 150,000 Euros/MW for the second tender, within three months from being selected.
- ✓ Submit a “Letter of Guarantee for Good Operation” amounting to 200,000 Euros per MW of maximum injection capacity for the first tender, and 150,000 Euros/MW for the second tender.
- ✓ Request the activation of their connection to the Independent Power Transmission Operator (IPTO) by 30 September 2025, and become operational by 31 December 2025.
- ✓ Participate in the electricity markets by submitting energy offers that correspond to at least one full discharge and one full charge for each day for which they are available.
- ✓ Not enter into bilateral energy transactions, or participate in the Energy Financial Market throughout the support period. Early termination of the CfDs is not allowed either.

## 2.8. International Participants

Electricity storage facilities installed in other countries within the European Economic Area (EEA) may participate in the competitive tendering process provided that the coupling between the Greek and the EEA country’s electricity balancing markets is planned by 31 December 2025. For the time being, Bulgaria meets these criteria, and the total capacity that can be awarded to facilities installed in Bulgaria is set to 31 MW.

## 2.9. Selection of Beneficiaries

- *Least-cost criterion:* The selection of supported projects is based on a least-cost criterion, i.e. based on the lowest amount of the annual guaranteed revenues (Base Revenue)

requested by each project, expressed on a EUR/MW/year basis. Valid entries are ranked in ascending order of Base Revenue until the tendered capacity is exhausted.

- *Last-project rule:* The last selected project of each tender is allowed to exceed cumulatively the tendered capacity by up to 5%.

## 2.10. Compatibility with the EU Legislation

The support scheme was deemed compatible by the European Commission as: (1) it facilitates the development of an economic activity, and (2) does not adversely affect trading conditions to an extent contrary to the common interest. The assessment was based on Article 107(3)(c) TFEU and the 2022 Guidelines on State Aid for Climate, Environmental Protection and Energy (CEEAG).<sup>2</sup>

In detail, the conditions assessed by the Commission and its conclusions:

*(1) Positive condition: the aid must facilitate the development of an economic activity.*

- ✓ *Identification of the economic activity and positive effects of the scheme:* The scheme supports the development of economic activities of electricity storage in Greece, aligning with Greece's NECP and the EU Green Deal, and improving the RES penetration in the electricity system.
- ✓ *Incentive effect:* The scheme induces a behaviour change, promoting necessary investments for storage capacity, which would not be carried out without the aid due to insufficient market revenues.
- ✓ *No breach of EU law:* The supported activity, the scheme, and its conditions were found compatible with the internal market and the EU legislation in the energy sector. The financing method, involving a levy, was also found compatible with Articles 30 and 110 TFEU.

*(2) Negative condition: the aid measure must not unduly affect trading conditions to an extent contrary to the common interest.*

- ✓ *Minimisation of distortions of competition and trade:* The measure affects mainly the Greek electricity market and might affect neighbouring countries, in view of the cross-border interconnections. The following conditions are met:

---

<sup>2</sup> Section 4.9 of CEEAG applies to aid for the construction or upgrade investments of energy infrastructure, including energy storage facilities (point 377), connected to transmission or distribution lines (stand-alone electricity storage) irrespective of the voltage levels, until 31 December 2023.

- *Necessity:* Without the aid, the necessary investments in storage facilities would not be delivered within a reasonable time and to the extent required to meet the storage needs of the Greek electricity system. The market revenues would not suffice to ensure the viability of projects, and RES electricity generation in Greece would face curtailment issues. The aid was deemed necessary for bridging the funding gap of storage projects and promoting the development of the required capacity.
- *Appropriateness:* The scheme is an appropriate policy instrument to address market failures and finance the funding gap. It provides short-term flexibility to support increased penetration of variable renewable energy sources. The combination of the investment grant and the annual support is expected to incentivise participation in the market and avoid overcompensation.
- *Proportionality and Cumulation:* The tender process was found transparent with clear, non-discriminatory rules, thus enhancing competitiveness. The measure corresponds to the necessary funding gap, is supported by detailed business projections, and incorporates safeguards to prevent overcompensation.
- *Transparency:* Greece is committed to publishing relevant data on a national website linked to the Commission's transparency register.
- ✓ *Limited risk of undue negative effects on competition and trade:* The storage facilities are subject to full internal market regulation. Regarding the risk of distortions in related services markets and other energy markets, the Commission found that Greece does not currently have any battery storage facilities and the only storage facilities installed are two pumped-hydro facilities with limited storage functionality.
- ✓ The scheme is open to various storage technologies while the supported storage capacity aligns with the country's storage needs and its Resilience and Recovery Plan (RRP). The measure integrates sufficient incentives for effective participation in all electricity markets, and allows for continuous monitoring of performance and adjustments under the 10-year annual support. The anti-concentration rule of the tendering process combined with the incentive for maximisation of market revenues is expected to foster active competition.

The European Commission found that the measure is designed to minimise competition distortion, ensuring that its positive effects outweigh potential negatives. It concluded that the scheme facilitates economic activities of energy storage in Greece while supporting the clean energy transition, enhancing grid stability and societal benefits.

# Sources

Legislation/Decision	Competent authority	Issuance date	Description
<a href="#">Decision SA 64736:</a> “RRF – Greece – Financial support in favour of electricity storage facilities”	European Commission	05.09.2022	Approval of state aid scheme
Joint Ministerial Decision No. <a href="#">YTEN/ΔHE/55948/1087</a>	Greek Ministry of Environment and Energy	20.05.2023	Main elements of the state aid scheme
Ministerial Decision No. <a href="#">YTEN/ ΔHE/114012/2037</a>		08.11.2023	Amending decision
<a href="#">Decision E-45/2023<sup>3</sup>,</a> <a href="#">Call for tender 1/2023</a>	Regulatory Authority for Energy, Waste and Water (RAAEY)	16.06.2023	First (A') competitive tender process
<a href="#">Decision E-204/2023<sup>4</sup>,</a> <a href="#">Call for tender 2/2023</a>		22.11.2023	Second (B') competitive tender process
<a href="#">Decision E-40/2024</a>		15.02.2024	Final list of selected projects of the second tender

<sup>3</sup> “Conducting the first (a) Competitive Tendering Procedure for the granting of investment and operational aid to electricity storage stations in accordance with the provisions of Article 143F of Law No. 4001/2011 (A'179)”

<sup>4</sup> “Conducting the second (b) Competitive Tendering Procedure for the granting of investment and operational aid to electricity storage stations in accordance with the provisions of Article 143F of Law No. 4001/2011 (A' 179).”

\*\*\*

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, carbon-neutral, 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](http://www.ease-storage.eu)

\*\*\*

Disclaimer:

This content 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.

\*\*\*

Contact: EASE Secretariat | [info@ease-storage.eu](mailto:info@ease-storage.eu)



**European Association  
for Storage of Energy**

Avenue Adolphe Lacombé 59/8

1030 Brussels | Belgium

Tel: +32 2 743 29 82

@EASE\_ES

[www.ease-storage.eu](http://www.ease-storage.eu)

[info@ease-storage.eu](mailto:info@ease-storage.eu)

