

HELLENIC REPUBLIC Ministry of Economy and Finance

Secretary General of Public Investments & PA Vassiliki Pantelopoulou

Clean energy for EU islands FORUM 2025



European 14-15 May 2025 Commission São Miguel Island, Azores

Financing grids and infrastructure projects



Co-funded by the European Union





Financing grids and infrastructure - needs and challenges

- The energy transition is one of the greatest challenges and opportunities of our time, especially for the island regions
- Energy networks and infrastructure play a dominant role and are a prerequisite for a sustainable and resilient transition
- The size of the networks will have to increase significantly by 2050 to meet the zero balance targets
- Investments in grids and infrastructure must increase rapidly by 2050
- > Need for significant public investments in upgrading island electricity systems







Financing grids and infrastructure - Eligibility criteria for subsidy support **Key Criteria for the project**

- It is included in an approved investment plan
- It is a new investment for the grid and/or infrastructure developer/manager
- It may result in distribution tariff increases

Additional Criteria

- \succ It incorporates innovative technologies, the financing gap of which need to be matched It contributes to the increase of RES penetration
- \succ It contributes to the enhancement of energy safety
- \succ It contributes to the the reduction of CO2 emissions
- \succ It improves the quality of offered services (e.g. outage reduction)
- \succ It enables the digital transition of the grid and/or infrastructure operators **Exceptional criteria**
- It is Project of Common Interest with other EU member states **Other criteria: regulatory**









GREECE - ERDF (2014-2020)

Field of Intevention

Electricity (storage and transmission)

Renewable Energy Sources (including bior hydropower, geothermal and marine) and integration renewable energy (including infrastructure for sto conversion of energy to gas, etc.)

Energy efficiency through renovation of p infrastructure, housing stock, demonstration projects supporting measures

Total

Results			
Power cab	le length - mainly island		
interconne	ection projects [km]		
	out of which subsea		
Energy Eff	iciency	_	More th
			efficien
		-	Reducti
			building
funded by	ΕΣΠΑ Ξ 2021-2027	_	Reducti
	Βιώσιμη Ανάπτυξη για Όλους Partnership Agreement 2021-2027		equival



Cothe

	Total Public Expenditure [EURO]			
	In All Regi	ons	In Island Pogions	Share
	286.45	3.587	30.054.156	10,5%
mass, on of orage,	27.454	4.819	5.658.893	20,6%
oublic s and	2.104.34	5.250	358.868.802	39,9%
	2.418.25	3.656	394.581.850	16,3%
Planne	d		Achieved	
1.468			1.455	
			1.278	

han 70.300 households upgraded for energy

СУ

ion of annual primary energy consumption in public gs by 40,2 million kWh

ion of greenhouse gas emissions by 497 kt CO2

equivalent per year

GREECE - ERDF / JTF 2021-2027 (selected operation)

Renovation for energy efficiency or energy efficience or energy efficience or energy efficien

Smart energy systems (including smart energy storage systems (ERDF)

Renewable energy sources: solar (JTF)

TOTAL

Expected Results

Electricity transmission and distribution netwo

Renewable Energy Sources

Energy Efficiency of existing housing stock, pul and SMEs





ations until now)	Eligible Public Expenditure [€]
iency measures in public infrastructure, and supporting measures (ERDF + JTF)	657.923.015
gy grids and ICT systems) and related	240.375.095
	17.546.327
	915.844.437

	Planned	Sellected Projects		
ork lines [km]	201,00	41,42		
	- Increase in renewable energy production			
	capacity by 214 MW			
	 - 15 renewable energy communities - Increase in total renewable energy 			
	production by 348,000 MWh/year			
	- Energy upgrade of >52.000 residential			
	buildings and 950.000 m^2 of public			
ıblic buildings	- Reduction of annual primary energy			
	consumption by 3.15 million MWh			
	- Energy upgrade of 330 businesses			
	- Reduction of annual primary energy			
consumption by 65.000 MWh/year				

Project title / Beneficiary (ERDF co-financing)	Tot Exp
Independent Electricity Transmission Operator (/	
Interconnection of the Cyclades with the	
Continental High Voltage Interconnected	13
System, Phase B (2007-2013)	
Interconnection of the Cyclades with the	
Continental High Voltage Interconnected	11
System, Phase C (2014-2020)	
Total	25
Co-funded by the European Union	ΟΟΡΑΣ ΓΕΙΑΣ ή Ένωση αμείο ής Ανάπτυξης

Significant grid and infrastructure projects per beneficiary (2014-2020 & 2021-2027 programming periods)







ΔΟΝΟΥΣΑ



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Significant grid and infrastructure projects per beneficiary (2014-2020 & 2021-2027 programming periods)

Project title / Beneficiary (ERDF co-financing)	Total Public Expenditure [€]	
Independent Electricity Transmission Operator (ADMIE) - TSC		
Interconnection of Crete with the national grid (Greek Electricity Transmission System) - Phase I: AC 150 kV interconnection with a nominal capacity of 2 x 200 MVA, Crete - Peloponnese	106.568.703	
Interconnection of Crete with national grid, Phase II: DC Interconnection with a capacity of 2x500MW, Crete - Attica / 1st stage (Ariadni Interconnection Ltd, 100% TSO subsidiary special purpose Company)	302.058.045	
Interconnection of Crete with the national grid (Greek Electricity Transmission System) - Phase II: DC 2x500MW interconnection, Crete - Attica / 2nd stage	222.673.501	
I OTAI	631.300.250 УПОМИНМА	
the European Union the European Union Bidorphy Avintucity via Oxouc Partnership Agreement 2021-2027	NE YE IN 150 KV AC	



Funding sources - Cohesion Policy Partnership Agreement (PA) Significant grid and infrastructure projects per beneficiary (2014-2020 & 2021-2027 programming periods)

Project title / Beneficiary (ERDF co-financing)	Total Public Expenditure [€]		
Independent Electricity Transmission Operator (ADMIE) - TSO			
Replacement of submarine cables Livadi (Evia	5 260 072		
Prefecture) - Andros & Andros - Tinos	5.200.075		
Modernisation of the control centres	1 770 720		
infrastructure of TSO	1.270.230		





Significant grid and infrastructure projects per beneficiary (2014-2020 & 2021-2027 programming periods)

Project title / Beneficiary / C

Hellenic Electricity Distribution

Strengthening of existing in **Distribution Center in Ch** Double Cable Line of 150 kV Distribution Centers with the co-financing 66%

Information System for so Network Users

Installation of a **Geographic I** in 57 areas of the electricity d (including in island regions) -





o-financing	Total Public Expenditure [€]
on Network Operato	or - DSO
nfrastructure: New nania (Crete) and for the connection Substation - ERDF	10.274.245
serving the DSO's	20.000.714
nformation System listribution network ERDF co-financing	25.865.046
Total	56.140.005

Funding sources - Recovery and Resilience Facility (RRF)

Project Title

Interventions for the electricity interconnection of islands and the upgrading of the electricity network - **Interconnection of the Cyclades (Phase IV)**

Reconstruction of the Koumoundouros High Voltage Centre (HVC) & 400kV transmission line (HVC Koumoundouros - HVC Corinth)

Support of the installation of storage systems to enhance RES penetration - Battery Energy Storage Systems (BESS) totaling 520 MW – Technical Assistance

Support of the installation of storage systems to enhance RES penetration - Battery Energy Storage Systems (BESS) totaling 520 MW – "stand alone" electricity storage systems





Financing Body	Implementing Body	Total Budget [EURO]
Ministry of Environment & Energy	Independent Electricity Transmission Operator (TSO)	164.519.312
Ministry of Environment & Energy	Independent Electricity Transmission Operator (TSO)	30.102.600
Ministry of Environment & Energy	General Secretariat of Energy & Mineral Raw Materials	148.800
Ministry of Environment & Energy	General Secretariat of Energy & Mineral Raw Materials	112.335.500

Funding sources - Recovery and Resilience Facility (RRF)

Project Title

Increase of installed capacity in substations of the Hellenic Electricity D Network Operator (HEDNO) for the cor new RES, based on the National Energy a Plan (NECP) goals

Upgrading of the overhead lines netw Hellenic Electricity Distribution Network (HEDNO) in forest areas

Upgrades of the network of the Hellenic Distribution Network Operator (HEDNC aim of enhancing resilience and prot environment

Energy Efficiency and promotion of RES consumption - Energy Storage Sy Businesses

Installation of energy storage for addingenetration

Energy Efficiency and promotion of RES consumption - Photovoltaic systems consumption in residential buildings a agricultural sector





	Financing Body	Implementing Body	Total Budget [€]
n HV/MV Distribution nnection of and Climate	Ministry of Environment & Energy	Distribution System Operator (DSO)	12.000.000
vork of the k Operator	Ministry of Environment & Energy	Distribution System Operator (DSO)	40.000.000
c Electricity O) with the tecting the	Ministry of Environment & Energy	Distribution System Operator (DSO)	60.000.000
S for auto- ystems in	Ministry of Environment & Energy	General Secretariat of Energy & Mineral Raw Materials	153.814.400
litional RES	Ministry of Environment & Energy	General Secretariat of Energy & Mineral Raw Materials	84.821.929
S for auto- s for self- and in the	Ministry of Environment & Energy	Distribution System Operator (DSO)	240.800.000
TOTAL			898.542.541

Funding sources - Islands Decarbonisation Fund (IDF)

- > To finance sustainable investments exclusively in the Greek islands to strengthen their energy autonomy and the decarbonization of their electrical systems
- \succ The Fund will receive the proceeds from the auctioning of 25 million allowances from the Emissions Trading Scheme
- Several benefits beyond the cheap "clean" energy, a reduction in CO2 emissions of up to 15 million tons over the life of the projects
- Financing of up to 60%
- Beneficiaries: Individuals, businesses, TSO, DSO





Funding sources - Islands Decarbonisation Fund (IDF) Eligible project categories of the IDF & candidate beneficiaries:

- Small RES systems (PV with battery) for self-consumption in households/businesses/local authorities/ Municipal Water Supply - Sewerage Enterprise (DEYA)
- "Commercial" RES projects (PV or wind) developed on interconnected islands
- Development of hybrid RES plants (PV or wind with large battery) on non-interconnected islands to reduce the use of Public Power Company (PPC) thermal plants
- Floating offshore wind farms
- Multi-purpose dams (water management and secondary hydroelectric power generation for self-consumption)
- Dodecanese interconnection (Kos, Rhodes, Karpathos) (TSO)
- Medium Voltage interconnections of small islands of Dodecanese / Cyclades / NE Aegean (DSO)
- Cold-ironing infrastructure in island ports
- Electric vehicle charging infrastructure



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Synergy and complementarity of different funding sources -Example

TSO investment plan

1. Crete - Attica Electricity Interconnection (Partnership Agreement - ERDF)

2. Cyclades Electricity Interconnection (RRF)

3. Dodecanese electricity interconnection (Islands Decarbonisation Fund – IDF) Electricity System of **ADMHE until** 2030











Public support under certain eligibility criteria is a critical and necessary condition for sustainable energy grid and infrastructure investments

Complementarity and coordination of investments from different financing sources is crucial









Thank you for your attention



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