Concerted Action EDD – Madrid, March 2023

Working Group 2.3: Demonstrating the exemplary role of the public authorities in the energy crisis

Public buildings and infrastructures: Financial tools for energy savings and energy efficiency actions

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Policies and measures for public buildings and infrastructures

BODY USING THE BUILDING	TOTAL NUMBER OF BUILDINGS	OWNER		
		HELLENIC STATE	PRIVATE INDIVIDUAL	BOTH
Central/decentralised administrative agencies	4 141	3 449	631	61
Local authorities and their bodies	31 167	28 791	2 111	265
Other persons governed by public law	57 959	55 838	1 876	245
Other persons governed by private law	18 789	4 772	12 958	1 059

Source: National plan for increasing the number of nearly zero-energy buildings (Ministry of the Environment and Energy, 2017)

Various measures for improving the energy performance of the public sector

- Funding programme (Partnership Agreements) for hospitals, schools and sporting centers
- ELEKTRA programme
- Web based platform

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ELEKTRA Financial Tool – Public Buildings

An important financial programme for the energy upgrade of public buildings (*ongoing*, *termination: end of 2025*)

Goals

- Promote the exemplary role of energy efficiency improvement in public buildings
- Contribute to the achievement of the national energy efficiency target
- Minimize energy demand ensuring optimal comfort levels (thermal, hygiene, indoor air quality)
- Promote ESCOs through Energy Performance Contracts (EPCs)

Scope - type of buildings

- Hospitals (health and social welfare)
- Education
- Office
- Other: indoor sports facilities, museums, cultural events, etc.

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Cost of the programme: 670 MEUR (Grant) = 50% of total renovation cost

- 500 MEUR from European Investment Bank (EIB) through the Deposit and Loan Fund (DLF)
- 170 MEUR from Recovery and Resilience Facility (RRF)
- 1 BEUR total estimated capital leverage

Expected outcome

- 2.5 M m2 total estimated area of the energy upgraded buildings
- 600 GWh total estimated reduction in electricity consumption per year
- 100 MEUR reduction of the annual expenditure for electricity
- 364,000 tCO2 eq. reduction of the annual emission of pollutants

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Requirements

- Legally existing and operable buildings
- Public ownership
- Energy performance class “C” or below
- Buildings have not undergone radical renovation
- Primary Seismic Inspection Certificate
- Energy Performance Certificate (Ex-ante & Ex-post)
- Energy audit (Ex-ante & Ex-post)
- Energy Performance Plan of Buildings
- Achievement of minimum 30% annual primary energy savings
- The buildings after interventions are classified in the energy performance class "B” or above

Requirements

- Buildings with surface >= 450 m^2 per application (there are exceptions)
- After the end of the works, the operation - use of the building must be ensured at least for the period of 5 years
- Proposed interventions must exclusively concern eligible energy efficiency improvement works
- Digital Identification of Building
- Non - State aid declaration

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Eligible interventions

- thermal insulation of fabric
- replacement of transparent elements (frames, glazing)
- external shading systems
- space heating / cooling / ventilation systems
- domestic hot water (DHW)
- lighting systems
- on-site electricity production and storage systems
- energy automation, recording and control systems and/or BEMS
- auxiliary technical systems
- installation of electric vehicle charging points

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Grant allocation (% of 670 MEUR)

- **50%** basic financing rate
- **60%** if achieve higher energy class (B+ instead of B)
- **60%** in case of radical renovation
- **70%** in case the above two (60%+60%) apply in combination
- **85%** for Central Public Administration List buildings
- **+10%** bonus in case the project makes use of EPC (via ESCOs)

Programme Management Body: Ministry of Environment and Energy (MoEE)
Programme Control Body: Centre for Renewable Energy Sources and Saving (CRES

Web Applications (ONLY)

- https://hlektra.gov.gr/home
- https://ypen.gov.gr/

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ELEKTRA Financial Tool – Public Buildings

Constraints

- The **minimum total budget** per submitted application is **100 KEUR**
- The **upper limit for the eligibility** of the proposed interventions is **1.80 € per primary energy savings per year (kWh/year)** – derived from Energy Audit
- In the cases where the budget either exceeds the above limits or includes ineligible interventions, the Beneficiary must expressly commit to the manner and coverage of the excess amount
- The costs for all services and designs/specs reach up to 10% of the eligible budget and up to the limit of **150,000 €**

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Web based platform for public buildings and infrastructures

Web-based platform was developed to monitor the energy performance and energy efficiency actions of ALL public buildings and Infrastructures (e.g., pumps, street lighting, etc.)

Goals

- Serve as a **electronic inventory** for public buildings and infrastructures
- **Continuous monitoring of the energy performance** of public buildings and infrastructures
- **Contribute to the energy efficiency goal for the public sector**
  - **Reduction of electricity consumption 2022 >= 10%** in relation to the consumption of the same/corresponding period of 2019 (COVID years excluded)
  - **Reduction of electricity consumption 2023-2030 >= 20%** in relation to the year 2019
- Establish a mentality of better use of energy in the public sector by appointing "**energy officers**"
- **Link the results with available funding**

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Web based platform for public buildings and infrastructures

Immediate actions

- Maintenance of HVAC systems. After each maintenance, the respective "Maintenance and regulation" sheet is signed by the Administrative Manager
- Space temperature of public office buildings is set at 27°C during the summer and 19°C during the winter
- Switching off cooling/heating in areas and times when in no use
- Deactivation of office equipment in areas and hours when employees not present
- Use of night ventilation where possible
- Incorporation of external shading of the building
- Scheduling street lighting and rationalization of decorative / decorative lighting
- Actions to improve the energy efficiency of pumping stations

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Web based platform for public buildings and infrastructures

Medium-term actions

- Reduction of reactive electrical power with compensation equipment
- Upgrading existing lighting systems using energy-efficient lamps and automation devices
- Supply of highly energy efficient appliances based on the energy labeling framework and EnergyStar specifications
- Greening roofs
- Heat recovery arrangements in flue gases from boilers
- Waste heat recovery of the cooler, in case of using an air-cooled unit
- Heat recovery from the ventilated air
- Installation of energy management system and / or BEMS
- Installation of heat control system
- Installation of constant temperature analog control system
- Installation of program for touch-off of heating-cooling systems
- Installation of high energy efficiency circulators
- Pipe insulation
- Installation of smart meters
- Use of cool paints

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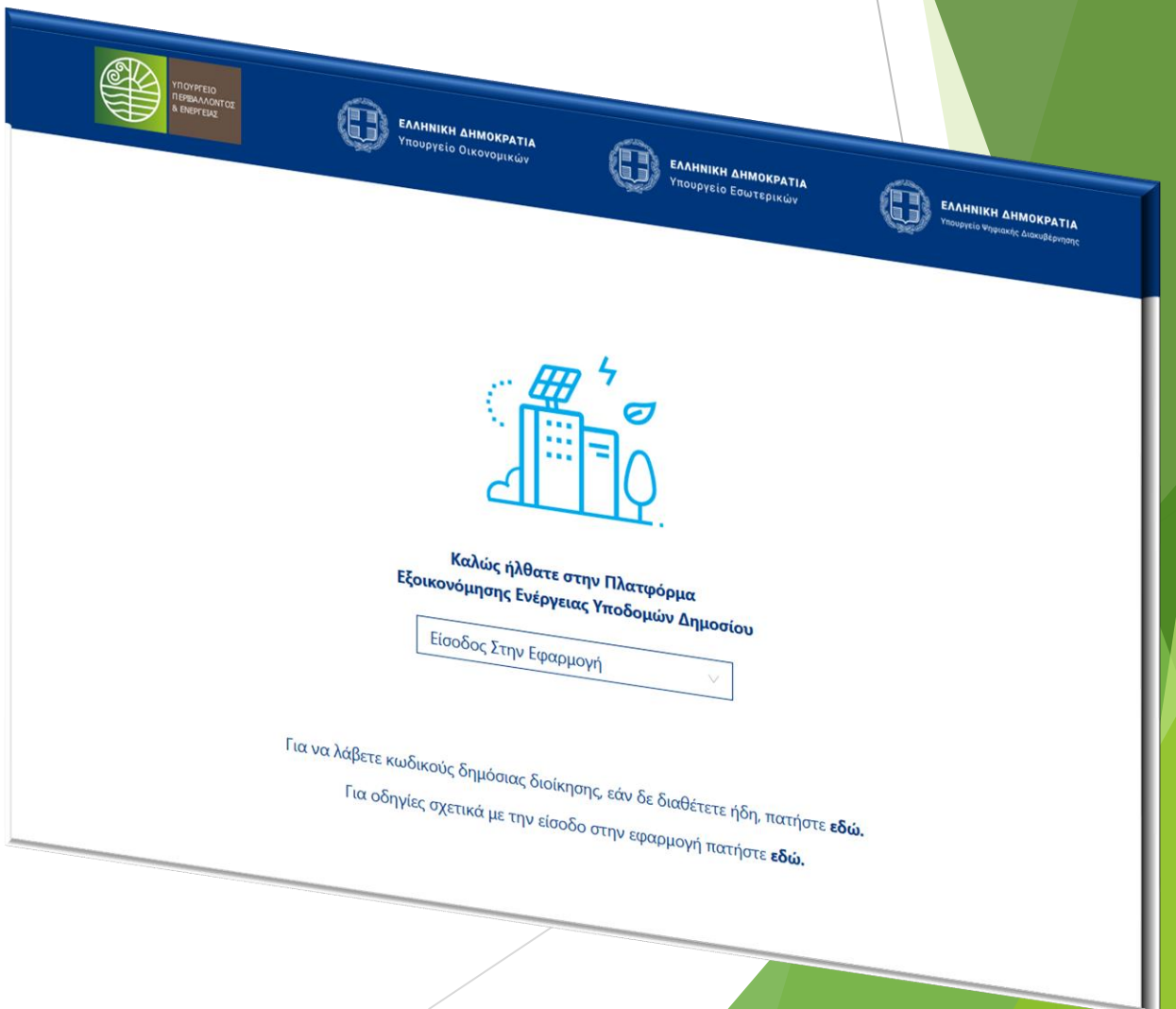
Web based platform for public buildings and infrastructures

- Web Registry (ONLY) for public bodies
  - https://publicenergysavings.gov.gr/
  - https://ypen.gov.gr/



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Thank you for your attention!

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