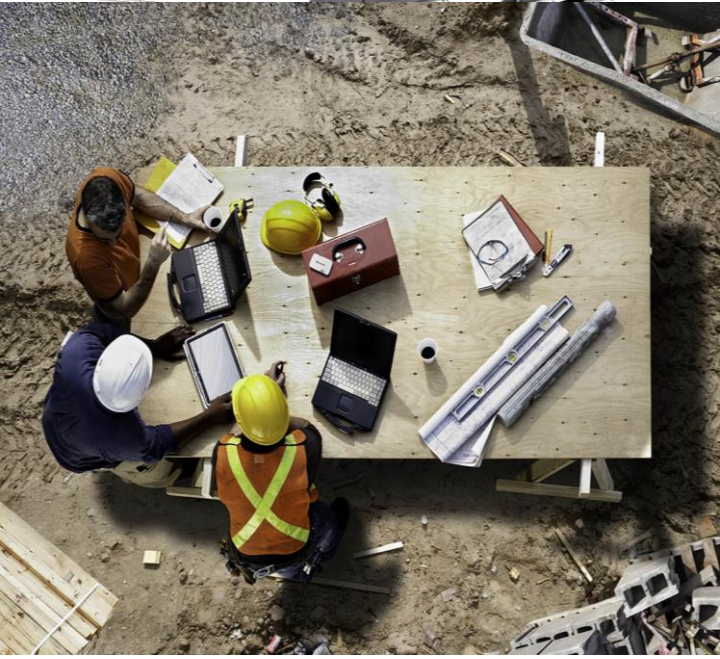


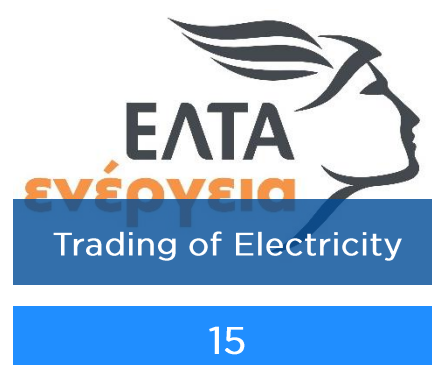
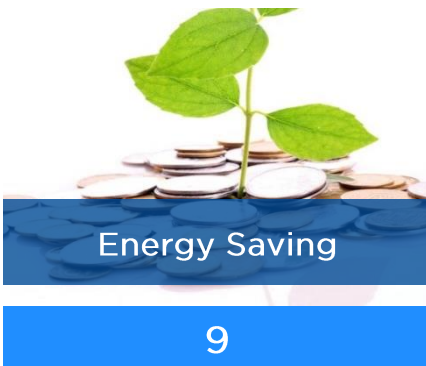


Z GROUP
Energy



Z GROUP

Table of Context





Z GROUP_
Energy
Company

Z GROUP_Energy Company

Z GROUP Energy is a dynamic Greek company, active in the implementation of projects and studies in the field of Energy. Founded in 2009, Z GROUP has a network of offices in Athens and Lamia.

The strategic objective of the company is to provide energy solutions and advisory directions for the creation of sustainable and energy efficient projects that meet the modern needs of its customers, while ensuring a better environment.

Z GROUP Energy is certified according to:



The rich experience of the company in Renewable Energy Projects, the high level of specialization, the customer-oriented approach, the excellent quality of the services provided, as well as the number of the projects completed, guarantee the proper design and the efficient operation of each project implemented.



Energy Production

Energy Production

Photovoltaic Parks

Its preferential purchase prices combined with the high levels of sunshine in Greece make the investment very attractive.

The smooth transition from the old feed-in-tariffs regime to the new feed-in-premium regime and competitive tendering procedures has now been implemented. There are two categories of projects under the RAE supervision: projects <1MW and projects between 1MW και 20MW with a different starting point in the respective categories. The starting price is set before the auction.

Photovoltaic plants up to 500kW are exempt from production license.



Z GROUP Energy is fully responsible for the preparation and filing of the dossier in the Hellenic Electricity Distribution Network Operator, as well as the preparation of the documents for issuing the necessary approvals, opinions or permits from urban planning and other institutions, depending on the construction of the station.

Energy Production

Photovoltaic Systems via Net Metering

With the installation of the PV System via NET METERING, the production of the PV is compensated by the electricity consumption of the dwelling.

The right of establishment includes individuals and legal entities governed by public and private law which either own the site in which the PV system is to be installed or have its lawful use (eg through lease, free concession, etc) and have secured the written consent of all the owners of the site. The PV system is exclusively associated with a consumption meter, the consumption meter of the plant, which belongs to the “prosumer’s” name.



The Clearing Convention signed between the Supplier and the prosumer (producer/consumer) has a validity period of 25 years, starting on the date of activation of the PV system connection.

Z GROUP Energy undertakes “Turn-key” projects within Net Metering, from the application process to the receipt of the project by Hellenic Electricity Distribution Network Operator

Energy Production

Hydroelectric Systems

By the term Small Hydroelectric Project, according to the Greek Legislation, we mean a hydroelectric project of installed capacity of up to 15 MWp. The operating principle of a typical small hydroelectric plant is based on the exploitation of the dynamic energy of surface water, initially converted to kinetic energy and then to electrical energy.

Licensing

1. Creation of water resource management plan that leads to a water license
2. Formulation of a production license dossier at Regulatory Authority For Energy or submission of a study on connection terms to Public Power Corporation.
3. Study of environmental terms and applications for approvals from various institutions
4. Configuration of the folder for an installation license
5. Submission of a technical and economic study to fund the project
6. Conclusion of a network connection agreement
7. License of the station

Biomass - Biogas

Another opportunity is presented in the field of renewable energy sources (RES). There is an increasing interest of investors to participate in the production of energy from biomass. Biomass power generation (Agricultural Remnants and Animal Products) comes to cover the great investment interest that exists for guaranteed and high yields.

Licensing

Z GROUP Energy assumes responsibility:

- To check the suitability of the proposed site, in accordance with the required specifications of the Hellenic Electricity Distribution Network Operator and the applicable Environmental and Urban Laws.
- Preparing and submitting a complete dossier of supporting documents, topographical and other required documents and monitoring the evolution of the request, up to the connection offer.
- The management of the project in terms of development (Subsidy) and physical object.

Construction

Z GROUP Energy and its Associates have extensive experience in designing and licensing Renewable Energy Sources, giving the prospective investor a clear picture of the investment they are interested in, investigating alternative economically viable investment scenarios, and supporting the customer in every step of implementation of the investment.



Energy Saving

Energy Saving

⊕ Energy Saving Program for Residential Buildings

With the energy upgrade of a residence

- less energy is consumed to achieve the required temperature, in the winter and in the summer, resulting economic benefit from home use, fewer pollutants, better environment, upgraded quality of life.
- the commercial value of the property increases due to the higher energy class. Due to its low operating costs, a better price can be obtained in case of rental or sale.

⊕ Net Metering

With the installation of the PV System via NET METERING, the production of the PV is compensated by the electricity consumption of the infrastructure. It is estimated that the installation cost is depreciated at approximately 5 years for businesses and at 7-7.5 years for residences - the cost is reduced by half if there is a Grant through NSRF. The ideal combination is the parallel installation of a heat pump and a PV System via Net Metering: the place is heated in the winter and cooled in the summer for free by the pump!

⊕ Passive House Study - Construction

The passive building ("Passiv Haus" in German and "Passive House" in English) is a building standard that offers both high energy efficiency, comfort, economy and environmental friendliness. Passive Buildings maintain a comfortable and pleasant temperature all year with minimal energy requirements. The energy requirement for the Passive House is $\leq 15\text{kWh} / \text{m}^2 / \text{year}$. The design and construction follow specific specifications so that the residence can receive the Passive House Certification.

⊕ Energy Audits - Certificates | ISO 50001

Performance Indicators.
Development of Energy Performance Indicators.
Identification of consumption cost centers.
Analysis - Detection of Critical Points and Processes.
Technical analysis of the energy saving solutions that have been identified.
Certification of Study in accordance with ISO 50001.



Energy Management

«You cannot control
what you cannot quantify»

Measurement - Real-time Electricity Management of infrastructures with simultaneous display on a graph for measurement processing.



The 4 Steps of Proper Planning for Energy Saving Interventions:

- # **Energy Quantification**
Real-Time Measurement: Data Display in Charts - Creating Diagrams of Measured Sizes per minute.
- # **Energy Data Analysis**
Identification of consumption cost centers: Consumption analysis & Creating follow-up Indicators - Putting conclusions on Indicators
- # **Targeting**
Identification of Critical Sizes: Proposed goals for the reduction of Energy Sizes, Proposed Actions
- # **Cost Benefit Study of Energy Interventions**
Analysis of Suggested Energy Saving Actions: Creation of Short - Mid - Long - term Depreciation Scenarios, Drawing up of Implementation Plan



Energy Audits

Energy Audits

Energy Audit is a process designed to analyze and record the energy infrastructure, equipment and systems available to an installation in order to identify the consumption cost centers, prioritize energy saving interventions based on energy and economic performance criteria, and then identify effective and economically viable, energy saving and Renewable Energy Sources (RES) solutions that could be applied.

For this purpose, a feasibility study is carried out to analyze and register the technical and economical parameters of the energy saving and RES solutions that have been identified. The results of the study and the recommendations of the Energy Auditors and Advisors of our company are recorded in an energy audit report, which is presented to the owners and/or users of the building. The ultimate goal of energy audit is to save energy and operating costs, to utilize RES, to improve the energy efficiency and the thermal comfort of the building and to reduce carbon dioxide emissions to the atmosphere.

Specifically, the Energy Audit includes:

- energy inspection of buildings, premises, equipment, facilities and vehicles
- assessment of the existing energy infrastructure
- identification of consumption cost centers
- identification and recording of energy gaps, weaknesses and losses
- detection of energy saving and RES solutions that could be applied
- technical analysis of the energy saving solutions that have been identified
- evaluation and comparison of the solutions, based on their technical characteristics and the magnitude of their energy savings
- financial evaluation based on the returns of each investment
- environmental analysis and calculation of carbon dioxide emissions and pollutants avoided
- a report and a formal presentation of the results and recommendations



Mr. Zarras Dimitrios is a Certified Energy Auditor (Registration Number 678).



Trading of
Electricity

Trading of Electricity

From 2007 until today, all electricity consumers have the right to freely choose the supplier of Electricity that they want but also to negotiate the prices and the conditions of the energy supply they need. The liberalization of the Electricity Market has resulted, through competition, in benefits for the final consumer in terms of cost reduction combined with the provision of a high level of communication and service.

Z GROUP, as an official partner of Hellenic Post Company (ELTA) called ELTA Energy, offers expertise and comprehensive service to Middle and Low Voltage Consumers so that they can obtain competitive pricing and advisory on energy savings.

Z GROUP focuses on B2B services in the electricity market, finding solutions for its customers in order to save energy consumption and costs and manage the required energy more efficiently.



Specifically, Z GROUP provides the following services:

- Analysis of customer energy profile
- Bureaucratic procedures for supplier switching.
- Back Office Support and Management
- Customer Service / Customer Care
- Recording developments in the electricity market, assessing competition and informing customers about it
- Suggestions for Combined Energy Saving Actions.

A detailed architectural floor plan is shown in blue ink on a white background. The drawing includes various rooms, corridors, and structural elements, with numerous dimension lines and numerical values such as 1500, 2000, 2500, 3000, 3450, 3600, 4525, 5150, 5400, and 5800. A drafting compass is placed on the drawing, its legs spread to draw a circle. The compass has a circular handle and a sharp point. The drawing is partially obscured by a dark blue vertical bar on the right side.

ESCO - ZED Project

ESCO

ESCO_Energy Service Company

The concept of ESCO lies in the innovative way of financing (Third Party Financing), which works as follows: ESCO initially installs measuring systems and manufactures the energy profile of the Infrastructure (electricity, oil, gas, etc.) and then studies the Energy Saving Actions. Then it calculates the cost of the interventions and seeks financing from NSRF, Banks, equity, etc. It takes into account the project cost, the loan costs and the profit margin and proposes a final price for the Energy Upgrade to the customer. This is precisely the Innovation of the Service: Under the Energy Efficiency Convention signed between the three parties, the cost of the project to ESCO will be repaid from the profit obtained by the Energy Interventions to the Customer.



Specifically, if a business / residence spends € 5,000 / year on energy costs and the Energy Service Company studies that it will reduce this cost to € 3,000 / year, with Intervention costs of € 4,000 (project costs, loan costs and profit margin included), then the customer for 2 years will continue to pay the same amount (€ 5,000), of which € 3,000 per year will be related to annual energy costs and the remaining € 2,000 per year will be related to ESCO's fee, so that the Interventions will be repaid in 2 years ($4,000 \text{ €} = 2 \text{ years} * 2,000 \text{ € / year}$). Thus, the customer will be ensured that ESCO's work will meet its initial expectations of benefit, as in the case where energy costs are reduced less (eg to € 3,500 / year), the loss will be borne by ESCO, since the customer is required to pay yearly the amount of money that he paid before the interventions, ie € 5,000 / year.

ZED Project

Z Project | ZED_Project | Zero Energy Demand_ Project

It concerns an innovative service provided by Z GROUP, which bases the Energy Performance and Repayment Methodology methodology on Infrastructure based on the Energy Services Company (ESCO) practice.

In the case of the implementation of ZED_Project through the NSRF programs or the Development Law combined with Banking Financing, the Energy Upgrade costs are paid by the Funding, the received Grant pays the corresponding percentage of the Funding - usually 50% - while the remaining amount is repaid over time.



More specifically, in the completion phase of ZED_Project the Beneficiary:

- with the same amount as it previously paid for the energy costs of its infrastructure,
- at this stage it will be able to pay the same amount of reduced energy costs as well as to repay over time the residual cost of energy interventions.

The Beneficiary :

- avoids taking on himself the initial cost of the investment – it is paid by the third party – and
 - repays this cost from the economic benefit to the infrastructure due to energy savings.
- While initially the Beneficiary pays a high cost of energy expenditure, it implements Energy Saving Actions, through which the initial energy costs are drastically reduced (often halved), so that the Beneficiary, by continuing to pay the same annual amount that initially paid for the energy costs, can now pay for the reduced energy costs as well as repay the investment cost to the Third Party, that made the initial Project Financing.



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