

Consulting, Technology, Engineering and Innovation Services









The usage areas of electrical energy, which is one of the main factors of the economy, are increasing due to the developing technology. In order to meet the needs, Enertest Energy Test Control Inspection and Inspection Services Inc. was founded in 2012.

Our company, which provides engineering, consultancy and consultancy services in national and international area in the energy sector, has determined customer satisfaction as the first priority; has adopted the principle of continuous development with fast, reliable and corporate solutions.

Our company provides services with its equipped staff. Through the tracking process and reliability, it has been undertaking major projects in all areas of the energy sector in Turkey and abroad. A partnership agreement has been signed with Enzen Global Limited to adapt to the developing technology. Our company has gained the trust of the leading institutions of our country with an idealistic perspective.



FIELDS OF ACTIVITY

SCADA Infrastructure - Superstructure, Relay and RTU

- Protective Relay and RTU Engineering
- Infrastructure and Site Adaptation
- AMR (OSOS)

Renewable Energy

- Solar Power Plant
- Wind Power Plant
- Hydroelectric Power Plant

Electricity Distribution

- Electricity Distribution Facilities Construction Works
- Electricity Distribution Facilities Maintenance and Repair Activities
- Meter Replacement

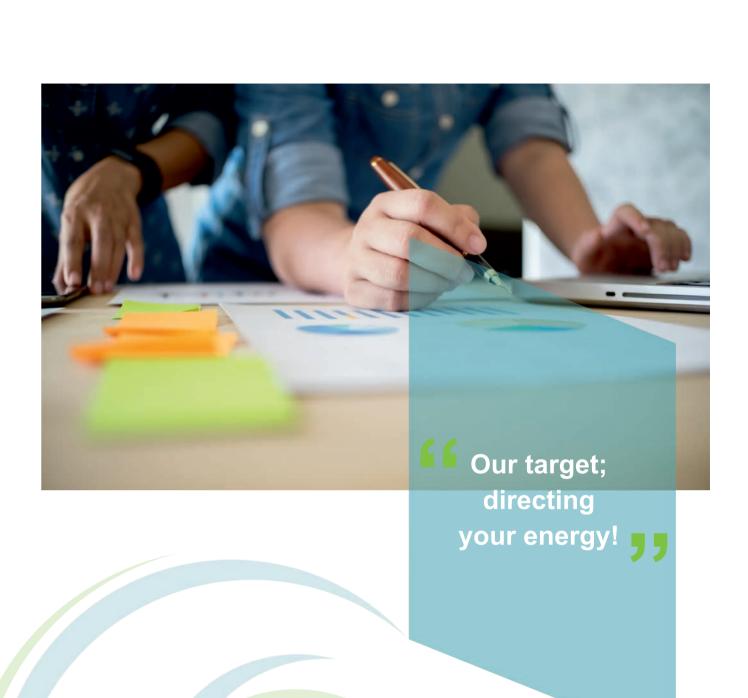
Geographic Information Systems

• Data Collection and Software Implementation

Building Automation and Low-High Power Facilities

- Building Medium-Voltage, Transformer and Energy Supply Works
- Main Electrical Distribution Panels and Tables, MCC Power Panel Installation Works
- Lightning Installation, Sockets and UPS Installation
- High and Low Current Supply Lines of Buildings
- Environmental Lighting Works
- Fire Alarm and Sensing Installation, Emergency Announcement and Music Broadcast Systems
- Building Security Camera, Data Network and Telephone Switchboard Infrastructure Works
- Television Installation and Headend Systems
- Conference Hall / Meeting Room Professional Systems







SCADA

Protective Relay and RTU Engineering

The main purpose of SCADA systems is to increase operational efficiency and reduce OPEX network operations. With SCADA, all processes and real-time connections related to distribution network operation can be modeled and controlled securely.

Parameterization, PTP (point-to-point) testing and commissioning of RTUs, RTU panel design and manufacturing, Relays (IED) installation, coordination, parameterization, testing and commissioning are also performed by our company. We have the necessary test equipment and expert engineers to carry out these activities.

Infrastructure and Site Adaptation

In order to include distribution centers and transformers into the SCADA / DMS system, infrastructure modification/expansion works are required. In this context, our company offers the following services.





AMR (OSOS)

OSOS is the automation of sequential transactions from measurement to invoicing. It is based on analysis of energy consumption invoice and customer movements simulation.

Large deviations between energy purchase amounts and energy sales amounts show that commercial losses are far beyond acceptable limits. Metering and reading technologies, however, make a significant contribution to measuring and accruing energy sold. In the face of the rising cost of human resources and the possibility of individual mistakes, companies turning to information technologies. Within the scope of information technologies, Automatic Meter Reading reduces the cost of meter reading and enables companies to monitor energy quality and continuity.

Data transmitted from field to center can be classified as follows:

- · Billing information
- · Load profile data
- · Meter status information
- Sudden events
- Remote control

Our company also performs field installation activities as subcontractor to other companies in OSOS projects. In this context, the following activities are carried out.

- Meter installation
- · Modem installation, testing and servicing
- · Meter panel manufacturing and assembly
- Current transformer assembly



RENEWABLE ENERGY

Our company serves in renewable energy sector especially in Solar Power Plant projects intensively. In addition, it provides similar services in Wind Power Plant and Hydroelectric Power Plant projects.

Solar Power Plant

The necessity of SCADA systems of the distribution companies, the remote monitoring needs of the investors, and the need for installation of roof and conventional PV systems are among the main reasons for our service in this field. We have more than 500 SCADA points in our service history.

- SCADA
- Test
- HV-LV building
- AC-DC connections
- Transformers
- CCTV Alarm and Lighting







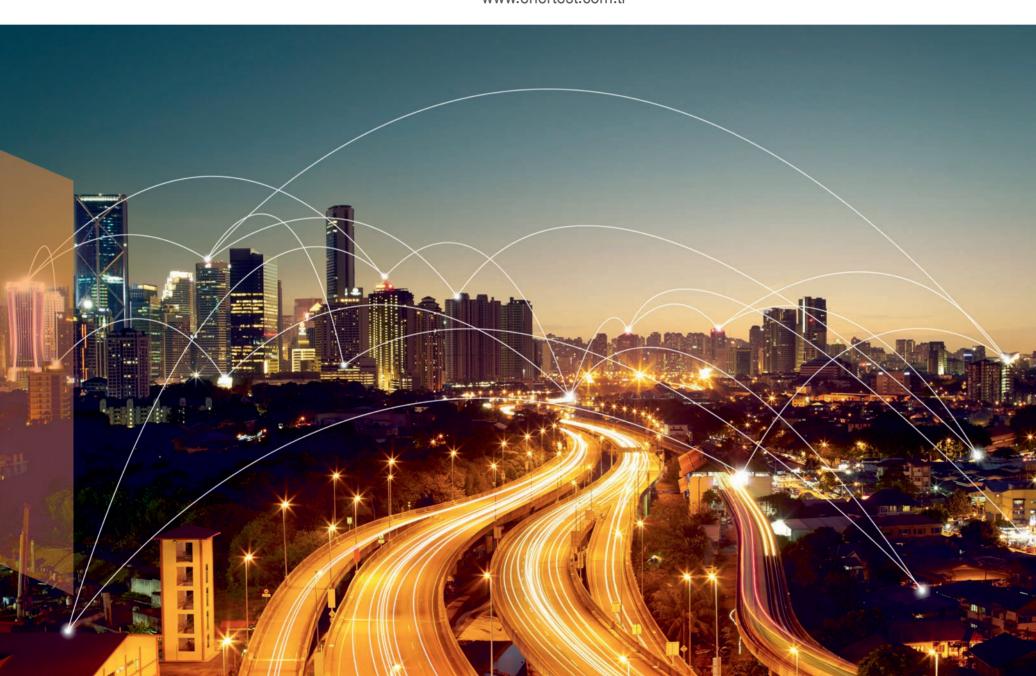


www.enzen.com

ELECTRICITY DISTRIBUTION

Enertest provides services in electricity distribution fields in order to provide breakdown-repairmaintenance, cutting-opening, meter reading, meter replacement, facility construction and other support services related to the activities of electricity distribution companies.







Electricity Distribution Facilities Construction Works

Our company provide service in MV and LV voltage level, energy transmission and distribution line projects, underground and overhead line networks, control and protection systems, lighting facilities, survey - project, material supply, project management, installation, testing and commissioning activities with appropriate cost and high quality standards.

Electricity Distribution Facilities Maintenance and Repair Activitie

In addition to the Regional Maintenance and Repair activities in the electricity distribution networks, our company also focuses on preventive maintenance activities within the scope of Operational Maintenance activities. We also carry out periodical maintenance and repair works. We have enough level of equipment, vehicles, test equipment to carry out these activities. We have a team of experts who have worked as a manager in electricity distribution companies for many years. Maintenance and Repair Activities are carried out by our technicians with their EKAT certificate.

Meter Replacement

Our company also provides service for the need to replace the customer meters (10 years stamp expiration date is done) with digital meters. Meter exchanges are made online via handheld terminals integrated with SAP or other ERP system and no paper forms are used. Thus, there is no need for any work in the distribution company in the office. The integration of the hand-held terminals with the subscriber-net is provided by the software developers within our organization. Meter replacement is done by one team which include two expert technicians. One technician has EKAT certificate.

GEOGRAPHIC INFORMATION SYSTEMS

The key to successful and intelligent network management is GIS. If you don't have the right assets and geographical information, everything else is just a guesswork. For this reason, as Enertest, we aim to transfer our knowledge and experience both in the field and in the software part within the scope of Geographical Information Systems (GIS) Data Modeling and Data Collection Projects to be a solution partner by supporting our customers. Our main objective is to ensure that all of the solutions we offer are sustainable, continuously improved, transparent, clear and fast working solutions.





Data Collection and Software Implementation

For Geographical Information Systems (GIS) Data Acquisition Project, we start by training field and office staff by providing inputs/resources and base maps. We prepared a large book about distribution system elements. Studies are carried out on feeder basis and delivery plan is prepared for the whole project and physical data model is formed. Data collection templates are prepared for the field study and circulation of weekly progress updates are ensured and relevant data are transferred. Afterwards, data collection is performed from the field with the help of tablet PC's and DGPS devices with mobile mapping software installed. Data entry is made to the online server. The entered data through the office work is uploaded to the target GIS by verifying the final deliveries with quality control. However, we also carry out data collection activities with other software. Serious attention is paid to ensure that our personnel who will enter DM and TMs have EKAT certificate during data collection.



BUILDING AUTOMATION AND LOW-HIGH POWER FACILITIES

As Enertest, we serve in many different fields in low and high current plants. These services can be listed as follows:

- Building Medium-Voltage, Transformer and Energy Supply Works
- Main Electrical Distribution Panels and Tables, MCC Power Panel Installation Works
- Lightning Installation, Sockets and UPS Installation
- High and Low Current Supply Lines of Buildings
- Environmental Lighting Works
- Fire Alarm and Sensing Installation, Emergency Announcement and Music Broadcast Systems
- Building Security Camera, Data Network and Telephone Switchboard Infrastructure Works
- Television Installation and Headend Systems
- Conference Hall / Meeting Room Professional Systems

















REFERENCES



















































