



Expression of interest

Contact details

Country	TURKEY
Name of the organisation	ENERJISA ELECTRICITY DISTRIBUTION COMPANY
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Short description of the organisation

Enerjisa Distribution Companies (Baskent EDAS, Ayedas, Toroslar EDAS) provide 20 million people, which is 1 of every 4 people, with access to electricity, through their distribution services in 14 provinces comprising Ankara, Bartın, Çankırı, Karabük, Kastamonu, Kırıkkale, Zonguldak, Adana, Osmaniye, Gaziantep, Mersin, Kilis, Hatay and İstanbul Anadolu Yakası within the Başkent, Ayedaş and Toroslar regions respectively.

Enerjisa Distribution Companies, operating on human, solution and innovation focused manner and with sustainable and quality service mentality in their respective regions, are realizing their plans based not only for today's operations but also for future grids considering the "new energy future". Company incorporates the concept of smart grids and the accompanying new business models in its business processes, brought with the emergence of the fact that smart communication technologies can be used to increase efficiency in the electricity distribution industry. Having established the first micro grid of Turkey called to be the most innovative project in the last 10 years in Europe, and as the first company to use unmanned aerial technology in the distribution industry in Turkey, it has been investing in R&D and innovation to support the efficiency and sustainable development in the electricity distribution industry.

Business processes are carried out with the conscious of being responsible for the health and safety of all employees. In Enerjisa Distribution Companies, where establishing a healthy and secure workplace environment is considered as a priority target in every respect, the principles of occupational health and safety are realized with great sensitivity and the trainings are supported with special applications and projects.

Through the new applications offered to its customers and the investments made, it has continuously improved the quality of service and defined its operational processes in line with the principles of quality and sustainability. While managing extensive customer relations, with an increasing number of subscribers every year, it serves via a Call Center with a total of 800 employees in 3 regions for the sake of process excellence.

Enerjisa Distribution Companies, which provide service on European standards from technical infrastructure and investments to business health, from customer relations to R&D and innovation investments, will continue with futuristic investments that support the customer-oriented service approach and add value to life.



Specific skills and proposed activities related to the topic

H2020-LC-GV-08-2020 Next generation electrified vehicles for urban and suburban use

We finalized 1 H2020 project. We submitted 2 H2020 proposal as coordinator and several as a partner. In addition to that, we have several above threshold proposals in H2020. Our total number of R&D projects at national and international level is 47.

Specific skills related to the project

“Operating a scooter sharing business model in university campuses around Turkey, Enerjisa is establishing a consortium for LC-GV-08-2020. Our aim is to develop a smart scooter with many sensors integrated to improve driver/third party safety and a smart transportation management system for shared mobility platform providers. At the moment our consortium has a partner that manufactures composite materials based on recycled paper. Material validation has been approved by field tests with a prototype scooter.

Proposed activities for the project

We are looking for partners to our consortium on below topics;

- 1. Hardware design (motor controller, battery system and iot module and etc.)*
- 2. Software design (admin panel, traffic-transportation optimisation)*
- 3. Conceptual design (better use of design parameters for public transportation integration and usability)”*

References (Related Projects)

PEAKAPP PROJECT (PERSONAL ENERGY ADMINISTRATION KIOSK APPLICATION IS AN ICT-ECOSYSTEM FOR ENERGY SAVINGS THROUGH BEHAVIORAL CHANGE, FLEXIBLE TARIFFS AND FUN)

This is a 3-year project co-funded by European Union’s Horizon 2020 research and innovation program. Ten partners coming from Austria, the Netherlands, Turkey, Denmark, Germany, Spain and Estonia are joining forces to develop an unprecedented ICT ecosystem to reduce energy consumption of European households. The expected result is smart phone and desktop application that connects to smart meter data feed, presents it to consumers in an interesting way and motivates them with an integrated serious game while guaranteeing data protection all along. The system is technically developed and tested for consumer validation. Results of PEAKapp project are ready to be put on the market with ready-to-sign agreements and are considered by the European Commission to have a potentially high impact.

SEAS is an EU 7th framework project with a total budget is 21 million Euro, labelled by ITEA2 (Information Technology for European Advancement) aiming energy efficiency and sustainability in smart energy aware buildings and micro-grids. 33 project partners from 7 countries participated in this 3 year R&D project. Project was rewarded as “Innovation and Business Impact Excellence” by ITEA in 2017.

DATA SECURITY FOR CRITICAL INFRASTRUCTURES PROJECT

The project is undertaken to encrypt critical information (personal or organizational data), which is accessible and usable in institutive area through encrypting algorithm specified for each company. Access to the data is provided in a controlled manner with user-based special authorization. This involves encrypting and preserving critical information of stored records, and removing potential cyber - security vulnerabilities and flaws by making the data useless in data theft situations such as exporting the data out of company. This project is funded nationally by Energy Market Regulatory Authority (EMRA).



SECUREGRID PROJECT (SECURITY, FRAUD DETECTION AND ENCRYPTION FOR SMART GRIDS BASED ON AI)

The project is about moving beyond the very obvious and elementary usages of the data collected within the smart grid, to target advanced use cases which will make the grid safer, more resilient to outages, enable advanced piloting, provide and early detection of possible billing frauds. SecureGrid uses Big Data and Artificial intelligence techniques to develop new alternative and flexible methods to estimate system actual conditions. This is an ITEA project on going with the consortium of 10 countries in Turkey and Spain. Başkent is responsible for adapting cyber security into electricity distribution management scenarios with its microgrid area used as demonstration.

KRİTA (EMRA): Smart city project called KRİTA approved by EMRA on November, 2015. Project agreement signed by Gaziantep Metropolitan Municipality on September, 2017. KRİTA project focuses on integration and interoperability of 'Smart City' components, Development of digital services in order to establish information exchange between infrastructure operators and municipalities, Determination of technical and regulatory rules for 'Smart Grid' applications in 'Smart City' context. Project includes implementation of advanced metering infrastructure, distributed generation systems, energy storage, public EV charging infrastructure, smart lighting systems as well as infrastructure adaptation and modernization efforts in a pilot demonstration area.