

**REQUEST FOR PROPOSALS**

**FEASIBILITY STUDY FOR THE**

**Second Stage Smart Grid Implementation for Power Distribution Project**

Submission Deadline: **5:00 PM/ 17:00**

**LOCAL TIME**

**January 26, 2015**

Submission Place: İlknur Yılmaz  
Investments & Facility Coordinator  
Yedaş Yeşilirmak Elektrik Dağıtım A.Ş.  
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SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

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## **Section 1: INTRODUCTION**

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US\$555,500 to Yeşilirmak Elektrik Dağıtım A.Ş. (the “Grantee”) in accordance with a grant agreement dated October 20, 2014 (the “Grant Agreement”). USTDA has provided a grant to the Grantee for the Second Stage Smart Grid Implementation for Power Distribution Project Feasibility Study that will provide recommendations to structure near-term implementation of smart grid technologies to expand its supervisory control and data acquisition (SCADA) system as well as medium-term recommendations to allow for third-party generation inputs and electric vehicle charging networks. The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

### **1.1 BACKGROUND SUMMARY**

The Ministry of Energy and Natural Resources (MENR) predicts that Turkey’s demand for electricity will double by 2023, with a projected yearly growth rate of 6-8%. In Turkey, the average loss in electricity distribution is 15-16%, which consists of 7-8% technical and 8-9% non-technical losses. In order to meet this growing demand, Turkey’s transmission and distribution sector must upgrade and implement modern technologies to increase overall efficiencies. Accordingly, Turkey’s distribution companies have developed strategies to improve the efficiency of distribution networks by integrating and upgrading smart grid technologies into the electrical grid.

Yeşilirmak Elektrik Dağıtım A.Ş. (YEDAŞ) is one of the 21 private electric distribution companies in Turkey, which serves 1,767,000 customers in the north service territory. Under the terms of the 30 year license with the Turkish Electrical Distribution Company (TEDAŞ), which owns the electrical grid, YEDAŞ earns revenue according to a tariff required to make capital investments in upgrades to the distribution grid. Since 2010, YEDAŞ has invested \$50 million in the grid, and as a result of these investments has reduced the electrical loss amount from 10.35% to 8.28% in four years. YEDAŞ is now targeting to reduce the losses to no more than 4% in its grid.

YEDAŞ plans to implement second stage smart grid technologies to expand the capabilities of its existing SCADA system. The feasibility study will provide recommendations to structure near-term implementation of smart grid technologies to expand its SCADA system as well as medium-term recommendations to allow for third-party generation inputs and electric vehicle charging networks.

Portions of a background Definitional Mission conducted by EnerconAmerica, Inc. in March of 2014 are provided for reference in Annex 2.

### **1.2 OBJECTIVE**

The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

### 1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US\$555,500. **The USTDA grant of \$US555, 500 is a fixed amount. Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted.** Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

### 1.4 CONTRACT FUNDED BY USTDA

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US\$555,500 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

## **Section 2: INSTRUCTIONS TO OFFERORS**

### **2.1 PROJECT TITLE**

The project is called Second Stage Smart Grid Implementation for Power Distribution Project.

### **2.2 DEFINITIONS**

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.

The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

The term "Grantee" means the Turkish company that was awarded the Second Stage Smart Grid Implementation Project for Power Distribution Grant.

### **2.3 DEFINITIONAL MISSION REPORT**

USTDA sponsored a Definitional Mission to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. Portions of the report are attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

### **2.4 EXAMINATION OF DOCUMENTS**

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

## **2.5 PROJECT FUNDING SOURCE**

The Feasibility Study will be funded under a grant from USTDA. The total amount of the grant is not to exceed US\$555,500.

## **2.6 RESPONSIBILITY FOR COSTS**

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

## **2.7 TAXES**

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

## **2.8 CONFIDENTIALITY**

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

## **2.9 ECONOMY OF PROPOSALS**

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

## **2.10 OFFEROR CERTIFICATIONS**

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

## **2.11 CONDITIONS REQUIRED FOR PARTICIPATION**

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for

specific services from the TOR identified in the subcontract. Should U.S. Firms propose subcontractors to utilize from the host country or U.S., they will indicate all information for the subcontractor including its name, profile, references, the project part/stage which it held responsible and percentage of the work amount which will be done by him/her and all other documents in their proposals as mentioned in Section 2.21. USTDA's nationality requirements, including definitions, are detailed in Annex 3.

Grantee maintains the right to evaluate and approve/reject the capability of the subcontractor(s) which will be proposed by the Offeror in the proposal. The subcontractors, which are proposed by the Offeror, cannot be changed without approval of the Grantee during the proposal or project implementation process.

## **2.12 LANGUAGE OF PROPOSAL**

All proposal documents shall be prepared and submitted in English including Turkish translations of them. In the case that the Grantee has any ambiguity on the documents, the Turkish translation of the documents will prevail.

## **2.13 PROPOSAL SUBMISSION REQUIREMENTS**

The **Cover Letter** in the proposal must be addressed to:

İlknur Yılmaz  
Investments & Facility Coordinator  
Yedaş Yeşilirmak Elektrik Dağıtım A.Ş.  
Mimar Sinan Mah. Atatürk Bulvrd.  
No: 190 Atakum /SAMSUN

Phone: +90 362 3114440  
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Email: [ilknur.yilmaz@yesilirmakedas.com](mailto:ilknur.yilmaz@yesilirmakedas.com)

**An Original and two (2) copies of your proposal must be received at the above address no later than 5:00 PM/ 17:00, on January 26, 2015.**

Proposals will be sent by mail, hand-delivered or courier up to the proposal closing time. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

## **2.14 PACKAGING**

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including the name of the project and designation of "original" or "copy number x." The original and two (2) copies should be collectively wrapped and sealed, and clearly labeled, including the contact name and the name of the project.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

## **2.15 OFFEROR'S AUTHORIZED NEGOTIATOR**

The Offeror must provide the name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

## **2.16 AUTHORIZED SIGNATURE**

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

## **2.17 EFFECTIVE PERIOD OF PROPOSAL**

The proposal shall be binding upon the Offeror for ninety (90) days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

## **2.18 EXCEPTIONS**

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

## **2.19 OFFEROR QUALIFICATIONS**

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

## **2.20 RIGHT TO REJECT PROPOSALS**

The Grantee reserves the right to request clarifying documents during the evaluation process to understand better the offer and reject any and all proposals. Should the Grantee require any

additional documents to evaluate the tender in a limited period, Offeror will deliver those in the required format and time. Otherwise, Offeror the evaluation score will be impacted due to the missing document delivery relevant to the criteria listed in.

## **2.21 PRIME CONTRACTOR RESPONSIBILITY**

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

## **2.22 AWARD**

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received.

## **2.23 COMPLETE SERVICES**

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

## **2.24 INVOICING AND PAYMENT**

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

### **Section 3: PROPOSAL FORMAT AND CONTENT**

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US\$555,500, which is a fixed amount.

Offerors shall submit one (1) original and one (1) copy of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

- Transmittal Letter,
- Cover/Title Page,
- Table of Contents,
- Executive Summary,
- Firm Background Information,
- Completed U.S. Firm Information Form,
- Organizational Structure, Management Plan, and Key Personnel,
- Technical Approach and Work Plan, and
- Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

#### **3.1 EXECUTIVE SUMMARY**

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

### **3.2 U.S. FIRM INFORMATION**

A U.S. Firm Information Form in .pdf fillable format is attached at the end of this RFP in Annex 6. The Offeror must complete the U.S. Firm Information Form and include the completed U.S. Firm Information Form with its proposal.

### **3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL**

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

### **3.4 TECHNICAL APPROACH AND WORK PLAN**

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

### **3.5 EXPERIENCE AND QUALIFICATIONS**

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project.

The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offeror and any subcontractor, including the following information:

- Project name,
- Name and address of client (indicate if joint venture),
- Client contact person (name/ position/ current phone and fax numbers),
- Period of Contract,
- Description of services provided,
- Dollar amount of Contract, and
- Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to the Feasibility Study as described in this RFP.

#### **Section 4: AWARD CRITERIA**

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

##### **Grantee's High Level Expectations**

The Grantee seeks to receive high level knowledge and experience transfer during this project. Regarding this priority, it is critical that the Contractor implement this project by using maximum interactivity level with the Grantee's Project Team instead of working remotely. For this reason, Offerors must clarify on-site and remotely working man-days in their proposals. Offerors must also demonstrate that they can implement this project by assigning the most capable and experienced persons for each work package.

##### **Offerer's Project Team Qualifications**

**Professional Qualifications (25+) and Relevant Project Experience (25+):** Offerors shall propose a project team that will be fully qualified to execute the entire scope of the Feasibility Study. The proposed staff should have strong qualifications in Smart Grid systems

implementation with emphasis on low voltage distribution networks and international project development experience.

**Professional Qualifications (25 Points):**

- A project manager with at least 15 years of utility transmission and distribution (T&D), team management and project scheduling experience. (A P.E. license is required),
- A lead Smart Grid engineer with at least 10 years of SCADA, DMS, OMS, AMI and RTU and GIS (Geographical Information Systems) experience in the electric distribution sector,
- A degreed engineer with at least 10 years of IT/OT and WAMs experience in the T&D business who is familiar with commonly used software in the electric distribution business,
- A field T&D engineer with at least 15 years of hands-on project or consulting experience with transformers, Volt-VAR control, protective relays, switchgear and substation automation.
- An IT Engineer who has the integration experience ( Integration of SCADA/DMS with AMR,SAP-ISU,GIS) for Smart grid and knowledge on distribution business cognitives) to prepare the Grantee's integration Road Map.
- Multi-disciplines of engineering including mechanical, electrical, environmental, I&C civil/structural and draftsmen to work under the senior engineers, as required,
- Specialists to cover cost estimating and scheduling, economic analysis and project funding.
- Specialists to analyze the laws and regulations of the Turkish Electric Distribution market and to recommend the required legislation improvements to the Smart Grid Network in Turkey, as relevant to this Project.

**Relevant Project Experience (25 Points):**

The qualified Offeror will be expected to provide evidence of satisfactorily executing at least six (6) similar projects within the past 10 years either as an (/Electric/ Electronic Engineer) or O/E (Owners' Engineer). The reference projects should be of similar size (i.e., \$500,000 or larger), complexity (i.e. multi-tasks, addressing all critical project development steps) and scope to the proposed one.

**Proposed Work Plan (35 Points):** Offerors shall demonstrate good understanding of all the Terms of Reference (ToR) tasks. Their approach to tackle the tasks should be in agreement with the generally accepted engineering methods used in the energy and power sector. The work plan should be detailed and responsive to the requirements presented in the ToR and should prove value-add in the implementation phase of the Project. The work plan should include an explanation of labor allocations for each task, which will further illustrate the Offeror's proposed work plan.

**International (10 Points) + Host Country Experience (5 Points):** Offerors are encouraged to list their international energy project and consulting experience. The ideal Offeror will have successfully completed at least (2) two similar projects overseas by the time of bid evaluations, preferably one of them being in Turkey.

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

## ANNEX 1

İlknur Yılmaz  
Investments & Facility Manager  
Yedaş Yeşilirmak Elektrik Dağıtım A.Ş.  
Mimar Sinan Mah. Atatürk Bulvrd.  
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Phone: +90 362 3114440  
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## TURKEY: SECOND STAGE SMART GRID IMPLEMENTATION FOR POWER DISTRIBUTION PROJECT.

POC: Jennifer Van Renterghem, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009, Email: [RFPQuestions@ustda.gov](mailto:RFPQuestions@ustda.gov). Second Stage Smart Grid Implementation for Power Distribution Project. The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to develop a feasibility study for providing recommendations to structure near-term implementation of smart grid technologies to expand its SCADA system as well as medium-term recommendations to allow for third-party generation inputs and electric vehicle charging networks.

### BRIEF PROJECT BACKGROUND AND DESCRIPTION OF GRANTEE

Yeşilirmak Elektrik Dağıtım A.Ş. (YEDAŞ) is one of the 21 private electric distribution companies in Turkey, which serves 1,767,000 customers in the north service territory. Under the terms of the 30 year license with the Turkish Electrical Distribution Company (TEDAŞ), which owns the electrical grid, YEDAŞ earns revenue according to a tariff required to make capital investments in upgrades to the distribution grid. Since 2010, YEDAŞ has invested %50 million in the grid, and as a result of these investments has reduced the electrical loss amount from 10.35% to 8.28% in four years. YEDAŞ is now targeting to reduce the losses to no more than 4% in its grid.

YEDAŞ plans to implement second stage smart grid technologies to expand the capabilities of its existing supervisory control and data acquisition (SCADA) system. The feasibility study will provide recommendations to structure near-term implementation of smart grid technologies to expand its SCADA system as well as medium-term recommendations to allow for third-party generation inputs and electric vehicle charging networks.

### BRIEF DESCRIPTION OF STUDY COMPONENTS

This Feasibility Study will help to assess the technical, economic and financial feasibility for implementing second generation smart grid that will promote the efficiency of electricity distribution by expanding the capabilities of YEDAŞ existing supervisory

control and data acquisition (SCADA) system, which will also accommodate anticipated additional generation inputs.

The U.S. firm selected will be paid in U.S. dollars from a \$555,500 grant to the Grantee from the U.S. Trade and Development Agency (USTDA).

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and portions of a background definitional mission report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: <https://www.ustda.gov/businessopps/rfpform.asp>. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English, including Turkish translations, directly to the Grantee by 5:00 PM/17:00 local time on January 12, 2015 at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

## ANNEX 2

# Second Generation Smart Grid Projects for YEDAŞ Elektrik Company

## Country and Project Background

### Country Profile\*

**Turkey** is a Eurasian country that stretches across the Anatolian peninsula in Western Asia and Thrace in the Balkans region of southeastern Europe, spanning about 779, 542 square kilometers of land. It is bordered by eight countries: Bulgaria to the northwest; Greece to the west; Georgia to the northeast; Armenia, Azerbaijan and Iran to the east; and Iraq and Syria to the southeast. The natural borders are the Mediterranean Sea to the south; the Aegean Sea to the west; and the Black Sea is to the north. Current population of Turkey is 75.5 million with about 1% growth rate per annum. It is a constitutional republic, with an ancient and historical cultural heritage stemming from the early civilizations of Anatolia and the Ottoman Empire. Its current day republican system was established in 1923, following the fall of the Ottoman Empire in the aftermath of World War I. Since then, Turkey has become increasingly integrated with the West through membership in organizations such as the Council of Europe, NATO, OECD, WEOG, OSCE and the G-20 major economies.



As of 2012, Turkey is the 16th largest economy in the world and the 6th largest in Europe with than \$376 billion foreign trade volume annually. Turkey exports finished goods and raw materials to more than 200 countries across the globe. In 2012, the Turkish economy produced approximately \$780 billion Gross Domestic Product (GDP) which translates to \$ 10,469 per capita income. Following the global economic crisis in 2009, the Turkish economy recovered

faster than its neighbors in Eastern Europe and grew 8.9% and 8.5% in 2010 and 2011 respectively.

Turkey's dynamic economy is a complex mix of modern industry and commerce along with a traditional agriculture sector that still accounts for about 25% of employment. The largest industrial sector is textiles and clothing, which accounts for one-third of industrial employment; yet it faces stiff competition in international markets with the end of the global quota system. However, other sectors, notably automotive and trucks, home appliances and electronics, iron and steel manufacturing and ship building are rising in importance and collectively have surpassed textiles in Turkey's export mix.

Foreign direct investment is a crucial source for Turkey. The rapid growth rate, combined with insufficient domestic savings, requires foreign direct investment for Turkey's economic development. In this context, and as a result of liberalization policies being implemented since 1980, Turkey has taken the necessary measures to improve the conditions for foreign investors and committed itself to the materialization of these measures. Currently Turkey is a key market for the U.S. Ex-Im Bank and the IFC of the World Bank Group.

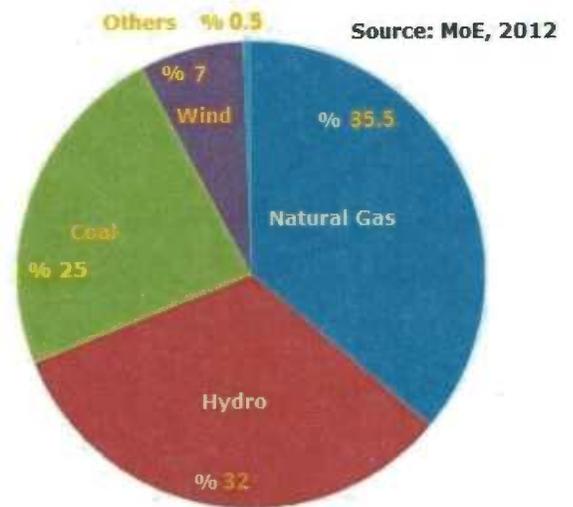
Having been an associate member of the European Economic Community since 1963 and having reached a customs union agreement in 1995, Turkey began full membership negotiations with the European Union (EU) in 2005.

[\*Sources: CIA World Fact Book; Bloomberg Turkey Analysis; The Turkish Ministry of Economy; International Monetary Fund; World Bank]

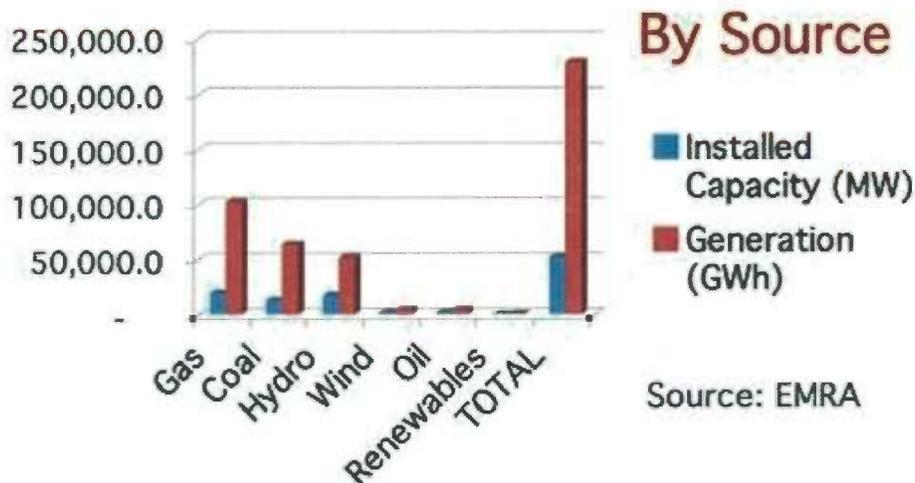
## Energy and Power Sector\*

### Overview of the Electric Power Sector:

As of end of 2012, Turkey's installed power generation capacity was reported to be 53 GW and the gross annual consumption to be 229 billion kWh. This corresponds to 3,000 kWh power consumption per capita. With the exception of the economic recession years, the demand for electricity has increased by 6-8% annually due to the industrial growth and population increase. Turkey is planning to more than double the electric power generation by 2020 to achieve 499 Billion kWh annually per the high demand scenario or 406 Billion kWh annually per the low demand scenario. In Turkey, electricity generation comes from three main sources: natural gas by 35.5%, hydropower by 32% and coal by 25%. Renewable energy, mainly wind power, is a distant fourth by 7%.

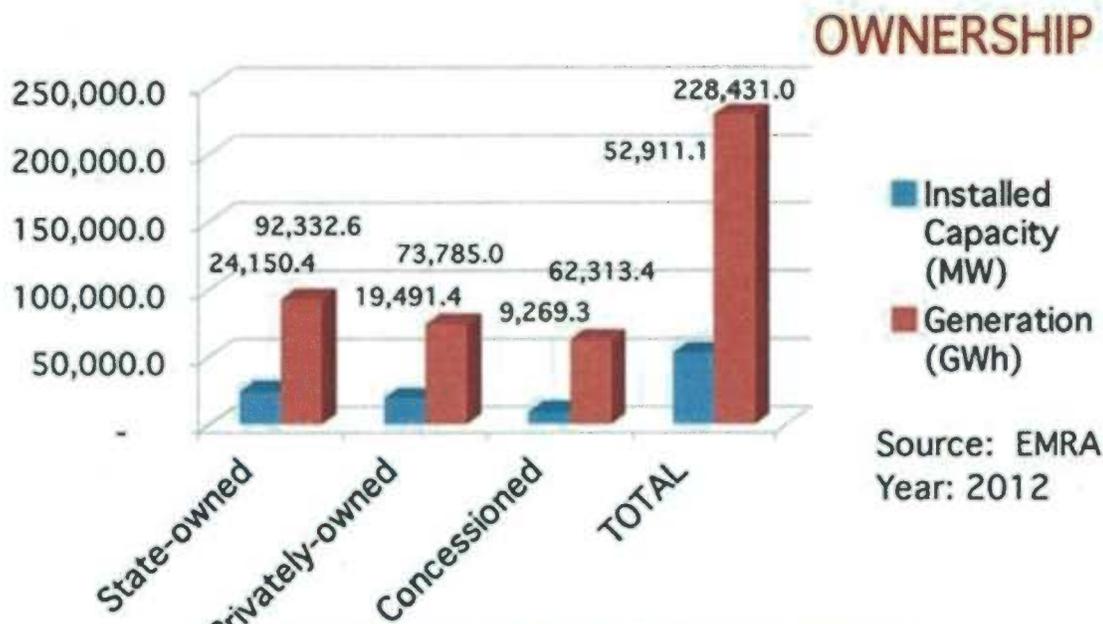


Power Generation In Turkey by Source, Relative Values



**Power Generation in Turkey by Source, Absolute Values (2012)**

The break-down of the power generation assets by ownership changes annually, but typically fluctuates around the following percentages: 49 % by EÜAŞ and affiliates (the Government Owned Utility Group), 26 % by IPPs (Independent Power Producers), 12 % by build-operate power ventures (private sector companies), 5 % by auto-producers (private sector firms which supply electricity to their own industries), 6% by build-operate-transfer ventures (private sector projects, yet concessional) and 1% by mobile power plants (private sector merchant plants) and by 1% transitional (transfer of right) generation assets.



**Power Generation Assets by Ownership, 2012**

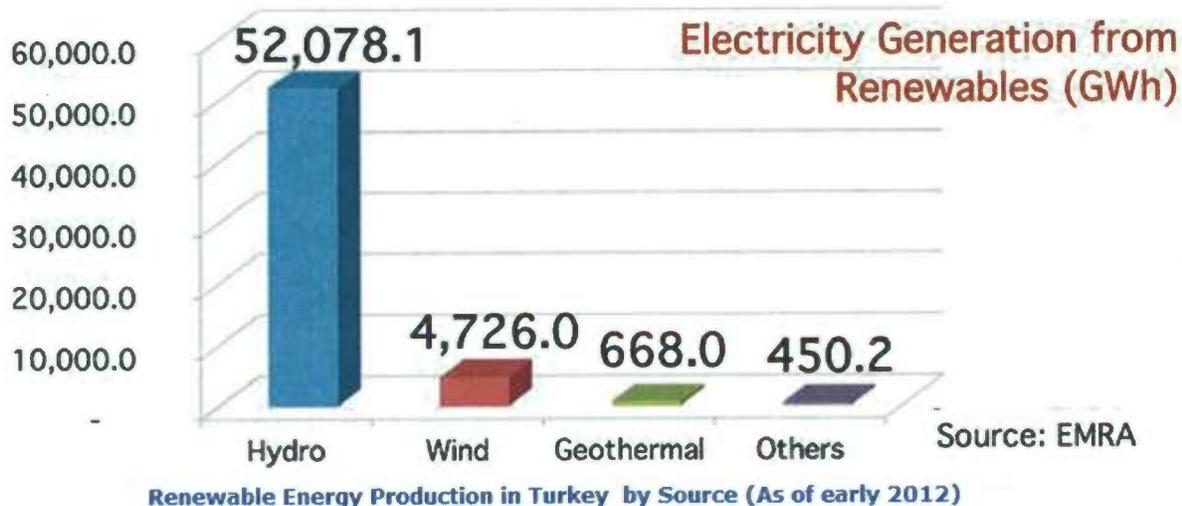
**Coal and Gas-Fired Generation:** Conventional thermal sources have historically been Turkey's largest power source. The number of natural gas-fired power plants has increased substantially in the last decade to comprise more than half of the country's current conventional thermal generation. Coal-fired power stations also remain an important energy source for Turkey;

furthermore there is renewed interest in exploiting Turkey's domestic coal resources in the aftermath of the spiking natural gas prices in the region. The Afşin-Elbistan basin in the east holds 3.3 billion short tons of lignite reserves, or 40 percent of Turkey's domestic total. Two additional units of lignite-fired units, each with 1,200 MW capacity, are now being planned at the site of the existing Afşin-Elbistan coal-fired power plant.

**Hydroelectric:** Turkey enjoys significant hydropower assets, namely more than 100 hydroelectric plants corresponding to a total installed generating capacity of 16 GW. The \$32-billion Southeastern Anatolia Hydro Project (GAP) alone consists of a series of 22 dams and 19 hydropower plants along the Tigris and Euphrates Rivers. However, the availability of hydropower is not guaranteed and is determined by the annual rain and snow fall.

**Nuclear:** Nuclear power has been on the Turkish Atomic Energy Agency's (TAEK) docket as a part of the energy diversification program since the early 1980s when Turkey started planning for a nuclear power plant at the Mediterranean town of Akkuyu. These plans were blocked by difficulties stemming from insufficient financing, legal issues, and opposition from environmental and anti-nuclear groups. In May 2010, a formal agreement was signed with Russia's Rosatom for a 4800 MW plant.

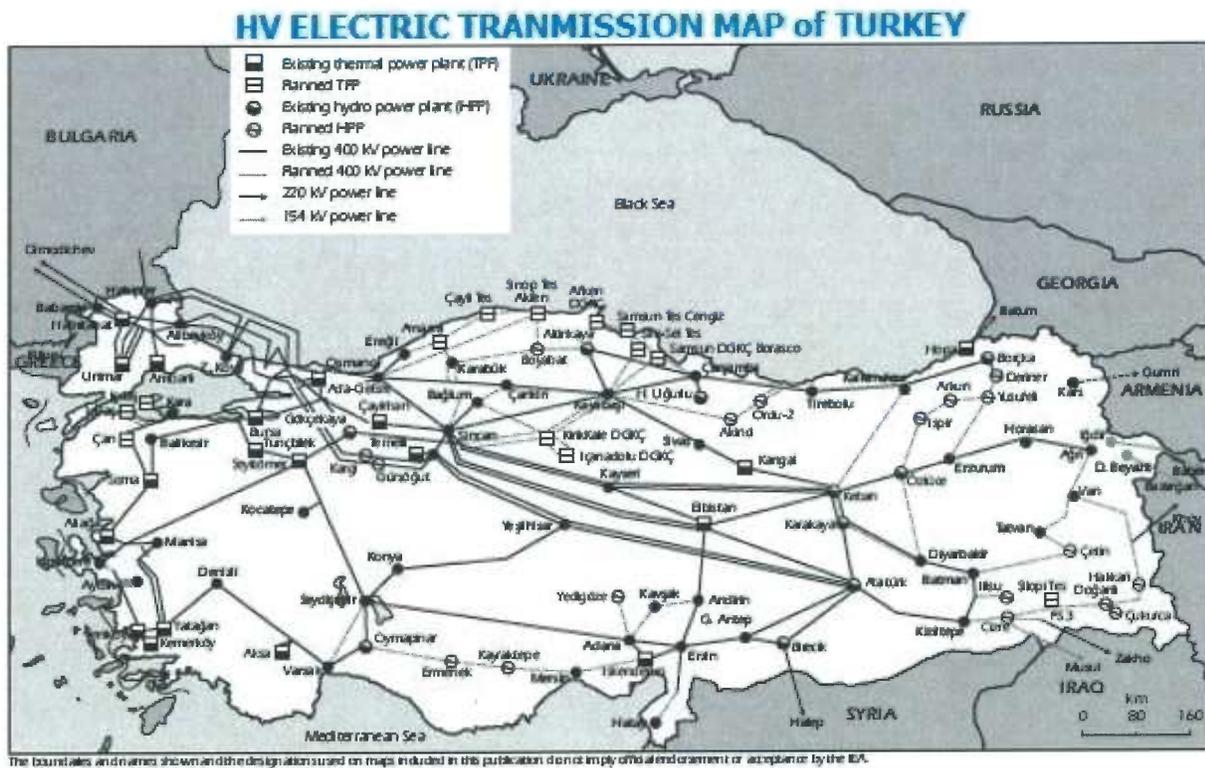
A second nuclear plant is now being planned at the Black Sea port of Sinop. In May 2013, the Turkish Ministry of Energy signed a BOO (build-own-operate) agreement with Mitsubishi (Japan) and Areva (French) Joint Venture for the construction of the 5600 MW plant. The project will be financed by the Japanese Bank for International Cooperation (JBIC).



**Renewables:** Aside from large scale hydropower, renewable energy is a recent development in Turkey and has been catching on due to the incentives offered by the Renewable Energy Law No. 5345 of 2005. Wind power is leading in the renewables space with more than 5,000 GWhr of annual production. There are also small commercially operating geothermal, biomass, bio-gas and landfill gas power plants which incrementally contribute to the renewable energy mix.

Among these plants, the 43 MW Gurmat geothermal facility was initiated by a USTDA funded feasibility study.

**Transmission and Distribution (T&D):** In Turkey, the high voltage (HV) transmission of electricity is regulated and run as a natural monopoly by TEİAŞ, the State Electricity Transmission Company. TEİAŞ's HV system consists of more 200 km of HV lines at 400 kV, 220 kV, 254 kV and 66 kV levels for aerial transmission and, at 380 kV and 154 kV levels for underground transmission, along with 184 substations at 400 kV, 1034 substations at 154 kV, and 54 substations at 66 kV levels.



Source: Turkish Ministry of Energy

With the Market Financial Settlement Center (MFSC) and the National Load Dispatch Center (NLDC) under its roof, TEİAŞ functions as the electricity market and system operator of Turkey. Transmission planning and, accordingly, distribution and production planning is formed based on the capacity projection of TEİAŞ. The liberated power generation and distribution market structure imposes significant duties and responsibilities on TEİAŞ beyond the operation of transmission lines and substations.

The duties and long term responsibilities of TEİAŞ are:

- Expanding and renovation investments in the transmission system in Turkey,
- Operating and maintaining the transmission system in Turkey,
- Ensuring that users connect and use the transmission system without any discrimination under the Connection and Use of System Agreements,

- Preparing generation capacity projections in accordance with Law No:4626
- Operating the Market Financial Settlement System,
- Monitoring the reliability of the system in real-time,
- Buying and monitoring ancillary services; and,
- Performing international interconnection studies.

Since the mid 2000's, TEİAŞ has been modernizing the HV transmission grid for future connection to the ENTSO-E Continental Europe Synchronous Area (CESA) network via Greece and now via Bulgaria. As a result of this program, the extreme AC current fluctuations were contained to within  $\pm 0.5\%$  and several smart components, namely Supervisory Control and Data Acquisition (SCADA) and Phasor Measurement Units (PMU) were added to the system.

Between 2006-2013, the **electricity distribution** market was been privatized and the country was divided into 21 local distribution regions and auctioned off to private distribution companies (DisCos) over this six year period.



**The 21 Electricity Distribution Regions in Turkey (Source: ELDER, 2013)**

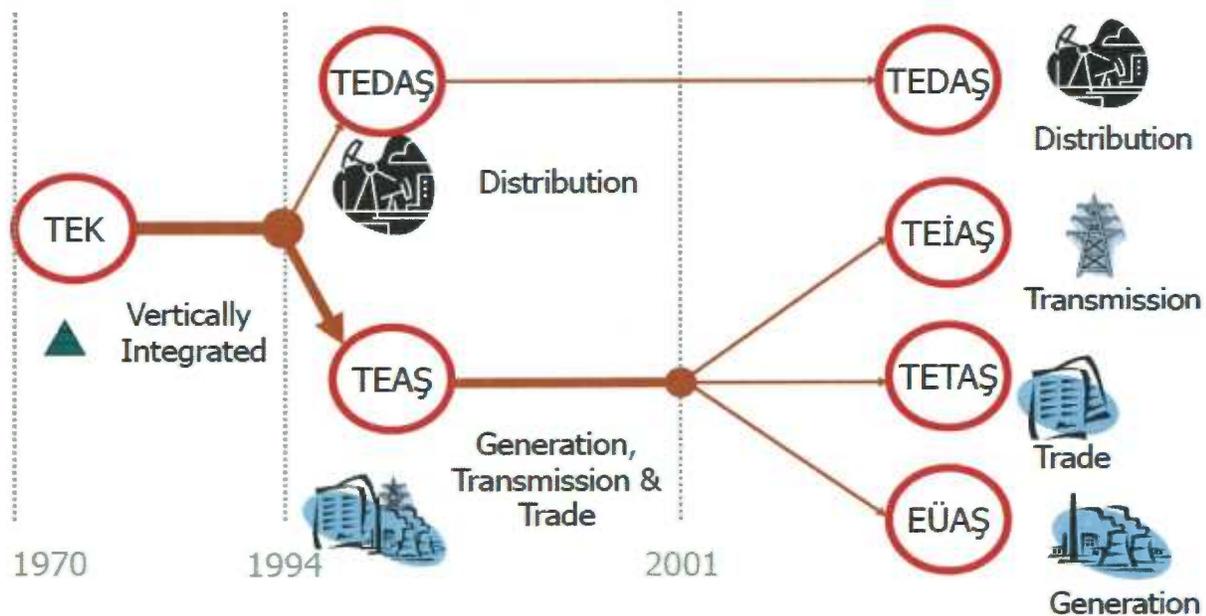
Many DisCos are now in the process of upgrading the legacy distribution grids in their respective concession regions, mainly to cut down on electricity losses (both due to technical issues and theft) and to increase reliability and ampacity for long-term profitable operation. The upgrades involve conductor replacements, smart meter deployment, remote terminal units-supervisory control and data acquisition (RTU-SCADA) implementation, distribution management system (DMS) and outage management system (OMS) implementation.

[\*Sources: International Energy Agency; The Turkish Ministry of Energy and Natural Resources; TEİAŞ; EMRA; U.S. Energy Information Agency; Elder]

## Regulatory Framework

### Evolution of the Electricity Sector and Legislation

In Turkey, up until the early 1990s, all power generation, transmission and distribution activities were governed by the Turkish Electric Corporation (TEK), under the oversight of Turkish Ministry of Energy and Natural Resources. Following the introduction of groundbreaking legislation to reform the country's power and energy sector in 1984, the resultant **Law 3096** ended the government monopoly over power generation, paving the way for the private sector companies to Build, Own, Operate and Transfer (BOOT) power plants in Turkey. As a ripple effect, almost a decade later, in 1993 TEK was dissolved into two independent state-owned companies; the Turkish Electricity Generation and Transmission Corporation (TEAŞ), which was responsible for generation and transmission of electricity until 2001, and the Turkish Electricity Distribution Corporation (TEDAŞ), which was responsible for distribution of power to end users until 2006.



#### **The Unbundling of the Turkish Electrical Grid (1970-2006). Source: EMRA**

In 2001, the Turkish government enacted a new **Electricity Market Law**, which set the stage for further liberalization of power generation and distribution activities. The new law also created the **Energy Market Regulation Authority (EMRA)**, which oversees the power sector and natural gas markets, including the setting of tariffs, issuing licenses, and assuring competition. After the passage of the Electricity Market Law, TEAŞ was split into separate state-owned

companies: Turkish Electricity Generation Company (EÜAŞ), Turkish Electricity Transmission Company (TEİAŞ), and the Turkish Electricity Trading and Contracting Company (TETAŞ).

EÜAŞ, which generated 91% of Turkey's electric power, was mandated to sell off most of its power plants and other holdings. In 2003, 27 state-owned coal and hydropower plants were transferred to a government holding company in preparation for privatization, accounting for 28 percent of the Turkish power generating market.

TEİAŞ was formally excluded from the privatization program and still runs the **(HV) Electricity Transmission Grid** in Turkey.

In 2004, the issuance of an **Electricity Market Strategy Paper** by the High Planning Council marked the beginning of a new phase of privatization in the electricity sector. Based on the principles laid out in the strategy paper, the **(LV) Electricity Distribution** network was divided into 21 distribution regions based on geographical proximity, managerial structure, energy demand and other technical/financial factors. In 2006, EMRA approved the privatization plan and issued a new tariff structure for the 21 distribution regions. The "Transfer of Operating Rights" (TOOR) was preferred as a privatization method within the framework of **Law No. 4046**. In this method, the property of the distribution of assets remains with TEDAŞ, and only the operating rights are sold to the DisCos as 30 year concessions. The DisCos are subject to a tariff methodology, which includes components such as loss and theft ratio, operating and investment costs and the consumption targets that are pre-determined by EMRA. The DisCos recover the approved network investments through tariffs.

The Turkish DisCos are organized under the umbrella of a business association named **Elektrik Dağıtım Hizmetleri Derneği (ELDER)**. ELDER does not have any legislative or executive powers, rather it functions as a business chamber for the member DisCos. As of January 2014, 15 of the 21 DisCos are members of the ELDER.

Two other pieces of legislation, namely the **Renewable Energy Law No. 5346 of 2005**, and the **Energy Efficiency Law No.5626 of 2007**, indirectly affect the current T&D infrastructure in Turkey as they incentivize the incremental and transitional electrical loads into the system. The "imbedded generation sources" will soon start stressing the LV grids, necessitating additional upgrades and automation.

*In summary, the current regulatory framework in place would not pose any roadblocks for the proposed T&D projects in Turkey. Conversely, the existing regulations provide a strong legal foundation to proceed with the modernizations of the T&D assets in the host country.*

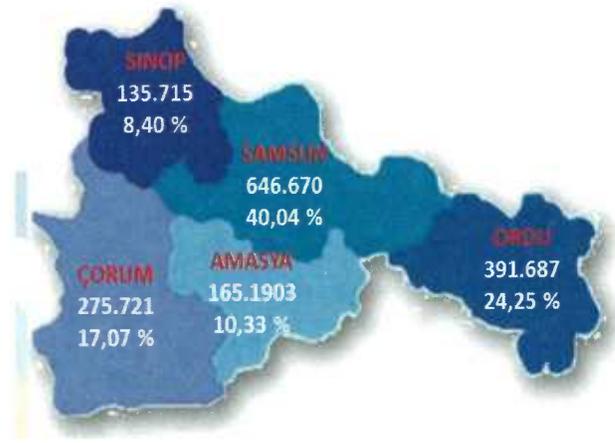
[Sources: EMRA, Turkish Ministry of Energy and Natural Resources; TEİAŞ; EÜAŞ; Elder]

## Project Definition and Evaluation

Yeşilirmak Elektrik Dağıtım A.Ş. ("YEDAŞ") is one of the 21 private electric distribution companies in Turkey, holding a 5 city concession region in the mid-north part of the country since 2010. These cities are Sinop, Samsun, Çorum, Amasya and Ordu. The service area spans about 40,000 km<sup>2</sup> of land and houses 1,767,000 subscribers. Currently YEDAŞ is delivering 5 Billion kWhr of electric power in its region annually. Demand for electricity is expected to grow at least by 3.2% to keep pace with the expanding subscriber base.



**YEDAŞ Headquarters in Samsun**



**YEDAŞ's 5 city distribution region number of Subscribers per City**

Çalik Enerji Ltd, which is the energy investment company of the Calik Holding of Turkey, bid for this electric distribution region in the privatization auctions of 2009 and bought the operating rights for \$441.5 Million. Consequently in late 2010, YEDAŞ was established to take over the operations and since then has been modernizing the legacy low voltage network. Calik Enerji also owns 50% of ARAS Elektrik Company in Turkey and 100% of Kosova Elektrik Company in Kosovo.

YEDAŞ's power network is connected to the state run transmission grid through 25 34.5 kV medium voltage substations where power is stepped down from 154 kV to 34.5 kV. Consequently 2,300 substations and 17, 716 LV transformers distribute the power at 400 kV in the concession region. The local grid consists of 90,000 km of distribution lines and 1,218,582 distribution poles.

Since privatization, YEDAŞ has invested heavily into their grid modernization program. The MV and LV networks were modelled and digitally analyzed (with the German Dig Silent Software) to

project the five year (first stage) and ten year (second stage) investment requirements. Accordingly, for the first three years an investment budget of \$50 Million a year was allocated.

In September 2012, General Electric's (GE) Digital Energy Division was contracted to install a SCADA/DMS system at the Samsun Headquarters. Starting in early 2014, 134 central area substations housing 1176 feeders in five cities will be controlled and monitored remotely.



**A Modernized Distribution Building before and after the YEDAŞ Acquisition**

As an immediate result of the SCADA/DMS implementation YEDAŞ reduced the medium voltage outages by 50%.

Per EMRA's directives, YEDAŞ started to install basic smart meters at households and industrial clients. However, these meters only provide a digital read-out and do not actually lend themselves to integration into a comprehensive Advanced Metering Infrastructure (AMI). YEDAŞ employs an AMR system instead, whereby handheld units are used in the field to read the meters. This method still requires technicians maintaining subscriber locations which could be remote and desolate.

Currently YEDAŞ is using two stand-alone demand forecast software systems by SAP of Germany, to analyze and report the daily energy demands. Hourly/daily/weekly/monthly/yearly electricity market demand analyses are performed and the energy need is managed accordingly.

In the 2013-2014 timeframe the company is intending to fully integrate the SAP/CRM/IS-U/PM and GIS systems and other relevant software into the SCADA/DMS System, in this chronological order;

- SAP ERP (Enterprise Resource Planning)
- SAP IS-U (Industrial Systems – Utilities)
- BCM (Business Communications Management)
- SAP CRM (Customer Relations Management)

- GIS (Geographical Information System)
- AMR (Automatic Meter Reading System)
- Legal Affairs Software
- Demand Forecast Software

In the 2015-2017 timeframe, YEDAŞ would like to:

1. Expand existing SCADA system by adding more RTUs;
2. Install a Volt-VAR control system to avoid reactive power infractions and optimize power delivery;
3. If justified from a price stand point, install an AMI system for two-way communications with the remote meters;
4. Install auto-reclosers in remote areas;
5. Develop a connection and dispatch methodology for imbedded generation sources; and,
6. Automate the GIS system and implement more IT security measures.

The longer term projects include the integration of electric vehicle networks and demand site management.

### Developmental and Environmental Impacts

YEDAŞ Elektrik’s distribution upgrade and second stage smart grid projects are likely to result in significant developmental and environmental impacts in their concession zone. The Contractor anticipates the impacts as follows:

Category	Potential Impacts
<b>Impacts on Infrastructure</b>	Assuming that the near term projects will help cut down the current electricity losses in the subject grid by 50%, 220 GWatt-hr of electric power will be freed up to electrify 75,000 households in YEDAŞ’s region Overtime this would translate to significant savings for the Project Sponsor. The revenues generated could be reinvested in other energy projects in the future.
<b>Environmental Impacts</b>	<p>Every 1 MW of electricity saved or freed-up by a modern T&amp;D system replaces around 700 metric tons of oil consumption every year. This corresponds to significant emission reductions for CO<sub>2</sub>, CO, NO<sub>x</sub> and SO<sub>x</sub>, and soot/particulate discharge to the environment which would otherwise be released from a typical fossil fuel plant.</p> <p>Since World Bank Group or U.S. Ex-Im Bank funding is a strong possibility for these projects, the TOR should include a high level preliminary Environmental Impact Assessment (EIA) addressing the impact categories dictated by the World Bank guidelines.</p>

<b>Human Capacity Building</b>	During the upgrade of YEDAŞ's distribution system, up to 150-200 new jobs in planning, technical services, engineering, material handling, construction and landscaping could be created for 2 years. When the automated grid comes on line, it would require 10-15 additional full-time operations and maintenance personnel who will undergo special training to run the automated system.
<b>Technology Transfer and Productivity Improvement</b>	Conventional T&D grid is not a new concept in the host country, and some of the electro-mechanical T&D components are already being manufactured in Turkey. However, deployment of smart components such as SCADA, DCS, PMUs and WAMs is relatively new. Turkey does not yet make any of the said equipment. Proliferation of these components would require significant Technology Transfer that could continue at least for a decade.

## Project Sponsor's Qualifications

Çalık Holding A.Ş., the parent company of YEDAŞ Elektrik Company is active in the sectors of textiles, energy, construction, finance, logistics and media. Through its ventures in and outside of Turkey, Çalık employs more than 25,000 people.

Çalık Holding, operating in a region extending from Central Asia to North Africa and from Middle East to the Balkans, has approximately \$3 billion annual turnover. The Group's consolidated assets are worth approximately \$8 billion. The leading companies of the group are GAP Güneydoğu Tekstil, Çalık Enerji, Eagle Mobile, Altelecom, Banka Kombetare Tregtare, GAP İnşaat, Aktif Yatırım Bankası and GAP Pazarlama which collectively represents a \$20 Billion worth of leveraged project portfolio.

Çalık Enerji owns and operates YEDAŞ Elektrik and ARAS Elektrik distribution companies. Known with their international investments, Çalık Enerji is currently in the process of building gas-fired combined cycle power plants in the Republic of Georgia and Libya.



## Çalik-YEDAŞ Technicians at Work for Underground Power Cable Routing

With 5 cities in its concession region, YEDAŞ Elektrik is one of the larger distribution companies in Turkey. With 2,026 employees, the company serves nearly 1.8 Million subscribers in a 40,000 km<sup>2</sup> distribution region. YEDAŞ distributes 5 TeraWatt-hr of electric power every year. Since the company took over this distribution region in 2010, it has been investing in the grid as the legacy equipment was neglected during the government monopoly years. The upgrades are not limited to smart components only, but also involve major infrastructure undertakings such as moving the overhead distribution lines underground. As a result, the company managed to reduce the electrical loss/theft amount from 10.35 % to 8.28% and is now targeting to reduce the losses to no more than 4% in their grid.

YEDAŞ's audited FY 2012 Balance Sheets reports \$457 million for total assets, a 30.4 % increase from the previous fiscal year. Net profits were reported as \$86 Million in 2012, showing a 189% increase over the previous fiscal year.

### ➔ YEŞİLIRMAK ELEKTRİK DAĞITIM A.Ş. STATEMENTS OF FINANCIAL POSITION AT 31 DECEMBER 2012 AND 2011 (CURRENCY SHOWN IN TURKISH LIRA ("TL") UNLESS OTHERWISE INDICATED.)

Assets	Note	2012	2011
<b>Current assets</b>			
Cash and cash equivalents	4	21.463.539	21.354.204
Financial assets	5	592.413	-
Trade receivables	6	182.103.777	230.118.471
Due from services concession agreements	7	60.216.038	57.049.891
Inventories	8	10.892.177	6.756.892
Other assets	9	333.426.843	180.058.960
<b>Total current assets</b>		<b>608.694.787</b>	<b>495.338.418</b>
<b>Non-current assets</b>			
Financial assets	5	444.845	-
Due from services concession agreements	7	277.453.699	166.870.281
Tangible assets	10	20.231.540	-
Intangible assets	11	82.719.145	86.239.109
Other assets	9	1.526.934	1.149.113
Deferred tax assets	16	15.023.108	21.329.134
<b>Total non-current assets</b>		<b>397.399.271</b>	<b>275.587.637</b>
<b>Total assets</b>		<b>1.006.094.058</b>	<b>770.926.055</b>

Revenue	20	1.205.392.703	1.048.885.466
Cost of sales (-)		(944.046.960)	(824.062.091)
<b>Gross profit</b>		<b>261.345.743</b>	<b>224.823.375</b>
Selling expenses (-)		(93.335.841)	(78.523.656)
General and administrative expenses (-)		(52.114.810)	(29.352.082)
Other income	22	6.826.532	4.164.448
Other expense (-)	22	(2.782.741)	(2.559.966)
<b>Operating profit</b>		<b>119.938.883</b>	<b>118.552.119</b>
Financing income	23	120.714.338	37.276.896
Financing expense (-)	23	(6.235.913)	(50.727.796)
<b>Profit before taxation</b>		<b>234.417.308</b>	<b>105.101.219</b>
Taxation on income (-)	16	(45.286.743)	(22.330.019)
<b>Net profit for the year</b>		<b>189.130.565</b>	<b>82.771.200</b>

## Project Justification

YEDAŞ Elektrik is a sizeable electric distribution company in Turkey. They have already installed a General Electric brand SCADA system for health monitoring. They started implementing digital (semi-smart) meters at their subscriber locations to partially automate the subscriber management system. They are now in the process of integrating a General Electric made DMS system into their existing SCADA infrastructure. These are the typical first stage smart grid implementation projects that a regional distribution company would deploy to modernize their grid.

Since the company took over the grid in 2010, they have already cut down the electrical loss and theft from 10.35% to 8.28%.

Between 2014-2017 time frame, YEDAŞ plans to proceed with the second stage smart grid projects. YEDAŞ has strong balance sheets, enjoys parent company guarantees and can draw on an existing line of credit from banks to leverage the prospective smart grid projects. Hence,

*EnerconAmerica recommends that USTDA support YEDAŞ's upcoming smart grid projects with a Feasibility Study grant.*

**ANNEX 3**



**U.S. TRADE AND DEVELOPMENT AGENCY**  
**Arlington, VA 22209-3901**

**NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS**  
*[As of January 17, 2014]*

The purpose of USTDA's nationality, source, and origin requirements is to ensure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

**USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):**

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and

(h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

## **NATIONALITY:**

### 1) Application

A U.S. firm that submits a proposal must meet USTDA's nationality requirements as of the date of submission of the proposal and, if selected, must continue to meet such requirements throughout the duration of the USTDA-funded activity. These nationality provisions apply to all portions of the Terms of Reference that are funded with the USTDA grant.

### 2) Definitions

A "U.S. firm" is a privately owned firm that is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. citizens and/or non-U.S. citizens lawfully admitted for permanent residence in the United States, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership that is organized in the U.S., has its principal place of business in the U.S., and is more than 50% owned by U.S. citizens and/or permanent residents, qualifies as a "U.S. firm".

A nonprofit organization, such as an educational institution, foundation, or association, also qualifies as a "U.S. firm" if it is incorporated in the U.S. and managed by a governing body, a majority of whose members are U.S. citizens and/or permanent residents.

## **SOURCE AND ORIGIN:**

### Definitions

"Source" means the country from which shipment is made.

"Origin" means the place of production, through manufacturing, assembly or otherwise.

*Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.*

*Version 01.17.2014*

**ANNEX 4**

## **GRANT AGREEMENT**

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency (“USTDA”) and Yeşilirmak Elektrik Dağıtım A.S. (“Grantee”). USTDA agrees to provide the Grantee under the terms of this Grant Agreement US\$555,500 (“USTDA Grant”) to fund the cost of goods and services required for a feasibility study (“Study”) on the proposed Second Stage Smart Grid Implementation for Power Distribution (“Project”) in Turkey (“Host Country”).

### **1. USTDA Funding**

The USTDA Grant to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the U.S. firm selected by the Grantee (“Contractor”) under which the Contractor will perform the Study (“Contract”). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

### **2. Terms of Reference**

The terms of reference for the Study (“Terms of Reference”) are attached as Annex I and are hereby incorporated by reference into this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

### **3. Standards of Conduct**

USTDA and the Grantee recognize the existence of standards of conduct for public officials and commercial entities in their respective countries. Therefore, USTDA, the Grantee, and the Contractor shall not directly or indirectly provide, offer or promise to provide money or anything of value to any public official in violation of any United States or Host Country laws relating to corruption or bribery.

### **4. Grantee Responsibilities**

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support.

### **5. Contract Matters and USTDA’s Rights as Financier**

#### **(A) Grantee Competitive Selection Procedures**

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the

procurement published online through *Federal Business Opportunities* ([www.fedbizopps.gov](http://www.fedbizopps.gov)). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

**(B) USTDA's Right to Approve Contractor Selection**

The Grantee shall notify USTDA at the address of record set forth in Article 16 below upon selection of the Contractor to perform the Study. USTDA then shall notify the Grantee whether or not USTDA approves the Grantee's Contractor selection. Upon USTDA approval of the Grantee's Contractor selection, the Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected. The Grantee and the Contractor then shall enter into a Contract for performance of the Study.

**(C) USTDA's Right to Approve Contract Between Grantee and Contractor**

**(1) Contract**

The Grantee and the Contractor shall enter into a Contract for performance of the Study. The Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 16 below, a photocopy of an English language version of the signed Contract or a final negotiated draft version of the Contract. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the Contract.

**(2) Amendments and Assignments**

The Grantee or the Contractor may submit any proposed amendment to the Contract, including any proposed amendment to any annex thereto, or any proposed assignment of the Contract, to USTDA at the address set forth in Article 16 below. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the proposed amendment or assignment.

**(D) USTDA Not a Party to the Contract**

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the Contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any Contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of U.S. Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the Contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to

the Contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

**(E) Grant Agreement Controlling**

Regardless of USTDA approval, the rights and obligations of any party to the Contract or any subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and the Contract or any subcontract funded by the Grant Agreement, the Grant Agreement shall control.

**6. Disbursement Procedures**

**(A) USTDA Approval of Contract Required**

USTDA will make disbursements of USTDA Grant funds directly to the Contractor only after USTDA approves the Grantee's Contract with the Contractor.

**(B) Contractor Invoice Requirements**

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Contract Clauses in Annex II.

**7. Effective Date**

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature. In the event that only one signature is dated, such date shall constitute the Effective Date.

**8. Study Schedule**

**(A) Study Completion Date**

The completion date for the Study, which is January 31, 2016, is the date by which the parties estimate that the Study will have been completed.

**(B) Time Limitation on Disbursement of USTDA Grant Funds**

Except as USTDA may otherwise agree, (i) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (ii) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

## **9. USTDA Mandatory Contract Clauses**

All contracts funded under this Grant Agreement shall include the USTDA Mandatory Contract Clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA Mandatory Contract Clauses, except for Clauses B(1), G, H, I, and S.

## **10. Use of U.S. Carriers**

### **(A) Air**

Transportation by air of persons or property funded under this Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

### **(B) Marine**

Transportation by sea of property funded under this Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

## **11. Nationality, Source and Origin**

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and

(h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

USTDA will make available further details concerning these provisions upon request.

## **12. Taxes**

USTDA funds provided under this Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

## **13. USTDA Project Evaluation**

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report, the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project. Inquiries will include, but not be limited to, whether the Final Report recommendations have been or will be used to implement the Project, anticipated Project implementation timeline, and likely source of financing. In addition, the Grantee agrees to notify USTDA any time the Grantee selects a new primary contact person for this Project during the five-year period referenced above.

## **14. Recordkeeping and Audit**

The Grantee agrees to maintain books, records, and other documents relating to the Study and this Grant Agreement adequate to demonstrate implementation of its responsibilities under this Grant Agreement, including the selection of contractors, receipt and approval of Contract deliverables, and approval or disapproval of Contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

## **15. Representation of Parties**

For all purposes relevant to this Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by its Investment and Facility Coordinator. The parties hereto may, by written notice, designate additional representatives for all purposes under this Grant Agreement.

## **16. Addresses of Record for Parties**

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through an electronic medium that produces a

tangible record of the transmission, such as a facsimile or e-mail message, and will be deemed duly given or sent when delivered to such party at the following:

To: İlknur Yilmaz  
Address: Yesilirmak Electricity Distribution Co.Mimar Sinan Mah. Ataturk Bulvrd.  
No:190 Atakum /SAMSUN  
Phone: +90 362 3114440 Mobile: +90 5497486870  
Fax: +90 362 400 4202  
E-Mail: ilknur.yilmaz@yesilirmakedas.com

To: U.S. Trade and Development Agency  
1000 Wilson Boulevard, Suite 1600  
Arlington, Virginia 22209-3901  
USA

Phone: (703) 875-4357  
Fax: (703) 875-4009  
E-Mail: mena\_ee@ustda.gov

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial or Economic Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.: 11 15/16 1001  
Activity No.: 2015-21001A  
Reservation No.: 2015019  
Grant No.: GH201521019

## **17. Implementation Letters**

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by this Grant Agreement. USTDA may also issue implementation letters to (i) extend the estimated completion date set forth in Article 8(A) above, or (ii) change the fiscal data set forth in Article 16 above. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by this Grant Agreement.

## **18. Grant Agreement Amendments**

Either party may submit to the other party at any time a proposed amendment to the Grant Agreement. A Grant Agreement amendment shall be effective only if it has been signed by both parties.

## **19. Termination Clause**

Either party may terminate this Grant Agreement by giving the other party written notice thereof. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments that may be made pursuant to Clause H of the USTDA Mandatory Contract Clauses set forth in Annex II to this Grant Agreement. This article and Articles 5, 12, 13, 14, and 21 of the Grant Agreement shall survive termination of the Grant Agreement.

## **20. Non-waiver of Rights and Remedies**

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

## **21. U.S. Technology and Equipment**

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

## **22. Governing Law**

This Grant Agreement shall be governed by, and construed in accordance with, the applicable laws of the United States of America. In the absence of federal law, the laws of the State of New York shall apply.

## **23. Counterparts**

This Grant Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. Counterparts may be delivered via electronic mail or other transmission method and any counterpart so delivered shall be deemed to be valid and effective for all purposes.

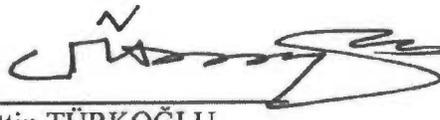
**[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]**

IN WITNESS WHEREOF, the Government of the United States of America and Yeşilirmak Elektrik Dağıtım A.S. , each acting through its duly authorized representative, have caused this Grant Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the  
United States of America

For Yeşilirmak Elektrik Dağıtım A.S.

By: 

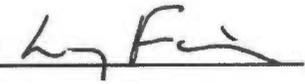
By:   
Nurettin TÜRKÖĞLU

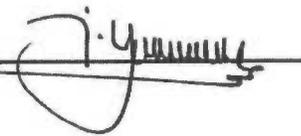
Date: Oct. 20, 2016

Date: 20.10.2014

Witnessed:

Witnessed:

By: 

By: 

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Contract Clauses

## Annex II

### USTDA Mandatory Contract Clauses

#### A. USTDA Mandatory Clauses Controlling

The parties to this Contract acknowledge that this Contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and Yeşilirmak Elektrik Dağıtım A.S ("Client"), dated \_\_\_\_\_ ("Grant Agreement"). The Client has selected \_\_\_\_\_ ("Contractor") to perform the feasibility study ("Study") for the Second Stage Smart Grid Implementation for Power Distribution project ("Project") in Turkey ("Host Country"). The Client and the Contractor are the parties to this Contract, and they hereinafter are referred to collectively as the "Contract Parties." Notwithstanding any other provisions of this Contract, the following USTDA Mandatory Contract Clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA Mandatory Contract Clauses, except for Clauses B(1), G, H, I, and S. In addition, in the event of any inconsistency between the Grant Agreement and the Contract or any subcontract thereunder, the Grant Agreement shall be controlling.

#### B. USTDA as Financier

##### (1) USTDA Approval of Contract

This Contract, and any amendment thereto, including any amendment to any annex thereto, and any proposed assignment of this Contract, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the Contract conforms to modifications required by USTDA during the Contract review process and the Contract has been formally approved by USTDA. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor an English language version of a final negotiated draft Contract or a signed Contract to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

##### (2) USTDA Not a Party to the Contract

It is understood by the Contract Parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this Contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The Contract Parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval

rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the Contract. The Contract Parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the Contract Parties or the parties to any subcontract, jointly or separately; and in consideration of USTDA's role as financier, the Contract Parties further agree that USTDA's rights may be exercised without thereby incurring any responsibility or liability, in contract, tort, or otherwise, to the Contract Parties or the parties to any subcontract. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

### **C. Nationality, Source and Origin**

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and
- (h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

USTDA will make available further details concerning these provisions upon request.

#### **D. Recordkeeping and Audit**

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the Contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the period of performance of work provided for by this Contract, and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

#### **E. U.S. Carriers**

##### **(1) Air**

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

##### **(2) Marine**

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

#### **F. Workman's Compensation Insurance**

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

#### **G. Disbursement Procedures**

##### **(1) USTDA Approval of Contract**

Disbursement of Grant funds will be made only after USTDA approval of this Contract.

## **(2) Payment Schedule Requirements**

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon Contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon approval by USTDA of a Final Report that has been (i) prepared and submitted in accordance with the requirements set forth in Clause I below, and (ii) approved in writing by the Client in the manner provided for by Clause G(3)(b)(iii) below. Invoicing procedures for all payments are described below.

## **(3) Contractor Invoice Requirements**

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the Contract by submitting the following to USTDA:

### **(a) Contractor's Invoice**

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

#### **(i) For a mobilization payment (if any):**

“As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA’s request, make an appropriate refund to USTDA.”

#### **(ii) For Contract performance milestone payments:**

“The Contractor has performed the work described in this invoice in accordance with the terms of its Contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA.”

#### **(iii) For final payment:**

“The Contractor has performed the work described in this invoice in accordance with the terms of its Contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client’s approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA’s request, make an appropriate refund to USTDA.”

**(b) Client's Approval of the Contractor's Invoice**

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For Contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

“The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement.”

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

“The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client.”

**(c) USTDA Address for Disbursement Requests**

Requests for disbursement shall be submitted to the attention of the Finance Department at USTDA's address listed in Clause M below, or by e-mail to [invoices@ustda.gov](mailto:invoices@ustda.gov).

**H. Termination**

**(1) Method of Termination**

Either Contract Party may terminate this Contract upon giving written notice to the other party and USTDA. This notice shall be effective after either 30 days, or any other period set forth elsewhere in this Contract. Furthermore, this Contract shall terminate immediately upon notification of USTDA’s termination of the Grant Agreement or the term of availability of any funds thereunder.

**(2) Ramifications of Termination**

In the event that this Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for payment for the value of the work performed pursuant to the terms of this Contract. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the value of the work performed pursuant to the terms of this Contract.

**(3) Survivability**

Clauses B, D, G, H, N and S of the USTDA Mandatory Contract Clauses shall survive the termination of this Contract.

**I. USTDA Final Report**

**(1) Definition**

“Final Report” shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such “Final Report” is described therein, “Final Report” shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

**(2) Final Report Submission Requirements**

The Contractor shall provide the following to USTDA:

**(a)** One (1) complete hard copy of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

**(b)** One (1) hard copy of the Final Report suitable for public distribution (“Public Version”). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) hard copy of the Public Version of the Final Report to the Commercial or Economic Section of the U.S. Embassy in Host Country for informational purposes.

### **(3) Final Report Presentation**

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, and USTDA's address. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version". The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version". The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U.S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's address, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers, and e-mail address shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers, and e-mail address shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

(g) The Client, USTDA, and the Commercial and/or Economic Section(s) of the U.S. Embassy in Host Country shall have irrevocable, worldwide, royalty-free, non-exclusive rights to use and distribute the Final Report.

#### **J. Modifications**

All changes, modifications, assignments or amendments to this Contract, including the appendices, shall be made only by written agreement by the Contract Parties hereto, subject to written USTDA approval.

#### **K. Study Schedule**

##### **(1) Study Completion Date**

The completion date for the Study, which is January 31, 2016, is the date by which the Contract Parties estimate that the Study will have been completed.

##### **(2) Time Limitation on Disbursement of USTDA Grant Funds**

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

#### **L. Business Practices**

The Contract Parties recognize the existence of standards of conduct for public officials and commercial entities in their respective countries. Therefore, the Contract Parties shall fully comply with all United States and Host Country laws relating to corruption or bribery. For example, the Contractor and its subcontractors shall fully comply with the

requirements of the Foreign Corrupt Practices Act, as amended (15 U.S.C. §§ 78dd-1 et seq.). Each Contract Party agrees that it shall require that any agent or representative hired to represent it in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of that Contract Party, including, but not limited to, those laws and obligations referenced above.

#### **M. USTDA Address and Fiscal Data**

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency  
1000 Wilson Boulevard, Suite 1600  
Arlington, Virginia 22209-3901  
USA

Phone: (703) 875-4357  
Fax: (703) 875-4009

#### Fiscal Data:

Appropriation No.: 11 15/16 1001  
Activity No.: 2015-21001A  
Reservation No.: 2015019  
Grant No.: GH201521019

#### **N. Taxes**

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Client nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

#### **O. Export Licensing**

The Contractor and all subcontractors are responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

#### **P. Contact Persons**

The Client designates the following person as the contact person for matters concerning this Contract:

İlknur Yilmaz

Address: Yesilirmak Electricity Distribution Co.Mimar Sinan Mah. Ataturk Bulvrd.

No:190 Atakum /SAMSUN

Phone: +90 362 3114440 Mobile: +90 5497486870

Fax: +90 362 400 4202

E-Mail: ilknur.yilmaz@yesilirmakedas.com

The Contractor designates the following person as the contact person for matters concerning this Contract:

Name:

Title:

Phone:

Fax:

E-Mail:

If anyone designated by a Contract Party as a contact person ceases service as a contact person at any point during the ten-year period following the date of signing of this Contract, the Contract Party that had designated that contact person shall provide USTDA and the other Contract Party with the name and contact information of a replacement contact person.

#### **Q. Liability**

This Contract may include a clause that limits the liability of the Contract Parties, provided that such a clause does not (i) disclaim liability for damages that are natural, probable, and reasonably foreseeable as a result of a breach of this Contract, or (ii) limit the total amount of damages recoverable to an amount less than the total amount disbursed to the Contractor pursuant to this Contract. If any clause included by the Contract Parties is inconsistent with either or both of these limitations, it shall be invalid and unenforceable to the extent of the inconsistency.

#### **R. Arbitration**

If the Contract Parties submit any dispute arising under this Contract for arbitration, the scope of any such arbitration shall be limited to the Contract Parties' rights and/or obligations under this Contract and may not extend to any right or obligation of USTDA. The arbitrator(s) shall not arbitrate issues directly affecting the rights or obligations of USTDA.

#### **S. Reporting Requirements**

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone,

fax number, and e-mail address. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

**ANNEX 5**

## Terms of Reference

The objective of the Feasibility Study (“Study”) is to provide technical and project finance guidance to Yeşilirmak Elektrik Dağıtım A.S (“YEDAŞ Elektrik Company”) (“Grantee”) for the implementation of second stage smart grid projects for power distribution (“Project”) as described in this Terms of Reference. In all steps of the Study, the U.S. firm selected by the Grantee to perform the Study (“Contractor”) is expected to work closely with the Grantee to advance the Project to the procurement and implementation phase.

The Feasibility Study shall provide:

- 1) A gap analysis to determine the number and location of Remote Terminal Units (RTUs) to be added to the existing Supervisory Control and Data Acquisition (SCADA) system;
- 2) A gap analysis to determine the number and location of overhead line auto-reclosers /sectionalizers to be integrated with the SCADA system;
- 3) A conceptual design to migrate the existing one-way automatic meter reading (AMR) system into a long range, two-way advanced metering infrastructure (AMI), which will also incorporate a geographical information system (GIS) and several thousand smart meters.
- 4) A conceptual design for a volt-ampere reactive (Volt-VAR) control system to be integrated into medium voltage (MV) substations, and technical guidance for the automation of existing breakers at multiple remote locations;
- 5) A strategy for incorporating imbedded third-party generation sources and electric vehicle networks into the grid;
- 6) An implementation plan for equipment integration;
- 7) A review of existing legal and regulatory frameworks;
- 8) A project cost estimate and economic analysis;
- 9) A preliminary environmental impact analysis and a development impact analysis;
- 10) A review of implementation financing options from domestic and international lenders, and;
- 11) Data sheets for equipment procurement and guidance with U.S. sources of supply.

### Task 1: Kick-off Meeting/Condition Assessment at Site

The Contractor shall travel to Samsun, Turkey for at least five business days, to conduct a series of kick-off meetings with the Grantee. During the meetings, the Contractor shall review the Grantee’s business model for smart grid implementation and obtain all relevant information and data regarding the medium voltage (MV) and low voltage (LV) substations, the current state of the distribution lines, and the level of system automation. The Contractor shall evaluate the capabilities of the existing SCADA and peripheral systems, namely the GIS and AMR system, and other system management software. Based on this initial analysis, the Contractor shall prepare a final work plan congruent with the tasks listed in this Terms of Reference.

**Task 1 Deliverable:** Upon completion of Task 1, the Contractor shall submit to the Grantee the detailed minutes of the kick-off meetings, the findings of the condition assessment of the existing smart grid components and the final work plan for the Study.

## Task 2: Gap Analysis to Determine the Optimum Number of Remote Terminal Units (RTUs)

The purpose of this task is to evaluate the monitoring capability of the existing SCADA system and provide a recommendation of optimizing additional RTUs for a more effective system-wide diagnostics infrastructure. In recommending the number and location of the additional RTUs to be installed, the Contractor shall consider the available statistical and maintenance data; the condition of, and the ease of access to, the local distribution lines (age and whether the lines are overhead or underground); the power drawn at the RTU locale; and the critical nature of the subscribers (i.e., hospitals, perishable food suppliers, etc). The Contractor shall tabulate the additional RTUs needed per location with specific implementation recommendations, if any, and prepare data sheets to be used as a part of the procurement specifications by the Grantee for the purchase of the RTUs.

**Task 2 Deliverable:** Upon completion of Task 2, the Contractor shall deliver to the Grantee the results of the gap analysis, including the list of RTUs and the data sheets.

## Task 3: Gap Analysis to Determine an Optimum Number of Autorecloser Circuit Breakers

The Contractor shall identify the high priority breakers in remote areas that need to be replaced with auto-recloser circuit breakers for quick power restoration. Based on the line voltage, the Contractor shall recommend the most suitable breaker make and model, and the interruption medium: air, vacuum or Sulfur hexafluoride (SF6) gas. The Contractor shall also provide the necessary technical guidance to incorporate the auto-reclosers into the existing SCADA system as a deliverable of this task. The Contractor shall prepare data sheets for the auto-reclosers and the peripheral equipment for integration to SCADA. The datasheets should provide specifications on the make and model of the breaker equipment, which will assist the Grantee to proceed with the procurement of the said equipment.

**Task 3 Deliverable:** Upon completion of Task 3, the Contractor shall deliver to the Grantee a report including the technical guidance for the incorporation of auto-recloser into the existing SCADA system. The Contractor shall also provide data sheets detailing the specifications of the recommended equipment.

## Task 4: Technical Recommendations for Advanced Metering Infrastructure (AMI)

Currently the Grantee's SCADA and advanced metering systems are being used for monitoring, diagnostics and one-way data transfer only. The Grantee would like to expand this system with AMI, which would employ two-way smart meters, a congruent data transmission network, an AMI Host, and a meter data management system. The main purpose of this task is to demonstrate the value and efficacy of region-wide AMI system with a trial project that would initially communicate with approximately 5,000 select subscribers.

The Contractor shall prepare a conceptual design for the trial AMI project, which shall include the following activities, but not be limited to;

- i) Determine the exact number of subscribers that will participate in the trial AMI project and select a suitable make and design for the smart meters;
- ii) Conduct a screening study to evaluate the data transmission options (i.e., whether broadband over power lines (BPL), power line communications (PLC), radio frequency (RF) or public networks);
- iii) Recommend an AMI Host (i.e. model and make) for the project that could be expanded should the Grantee decide to implement AMI system-wide;
- iv) Recommend a meter data management system, including all pertinent software, and provide guidance for integrating the AMI system into the existing SCADA system;
- v) Prepare a system narrative, which lists the type of AMI equipment and recommends the system architecture; and,
- vi) Prepare data sheets and technical narratives for the AMI Host and meter data management system for the Grantee to use as a part of the trial procurement specifications.

In the conceptual design, the Contractor shall give preference to world-wide accepted U.S. design standards (such as American Society of Mechanical Engineers (ASME), Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI) and ensure that the conceptual design, including the technical drawings, is prepared as to not preclude U.S. equipment manufacturers and service providers from bidding for the implementation of the project.

**Task 4 Deliverable:** Upon completion of Task 4, the Contractor shall deliver the conceptual design package, which shall include the technical drawings to the Grantee. All drawings prepared in computer-aided design (CAD), AutoCAD, or Bentley-Microstation format shall be submitted both in the source format and pdf format.

#### Task 5: Assessment of Volt/volt-Ampere Reactive (Volt-VAR) Control at Medium Voltage (MV) Substations

The objective of this task is to develop a coordinated control methodology for the feeder voltage and reactive power downstream of all existing MV substations in order to lower electricity consumption, reduce thermal stress to equipment and avoid reactive power penalties imposed by TEIAS, the state owned utility that supplies the high voltage power to the Grantee. The Contractor shall recommend a Volt-VAR control system that shall be fully integrated into the existing SCADA system and should not require any manual capacitor bank switching. The recommended Volt-VAR equipment shall include, but not be limited to:

- i) A dedicated RTU;
- ii) VAR dispatch processor;
- iii) Capacitor bank controllers;
- iv) Load tap changers (LTP) for transformers; and,
- v) Communications link to the existing SCADA system.

The Contractor shall prepare a one-line diagram of the suggested Volt-VAR control system, an equipment list for the components, and the corresponding data sheets for the Grantee to proceed with the procurement of the suggested components.

**Task 5 Deliverable:** The Contractor shall deliver to the Grantee a report that contains all the information gathered and the engineering work performed under Task 5 for the Volt-VAR control system.

#### Task 6: Strategy for Imbedded Generation and Electric Vehicle Charging Stations

The Grantee is obligated to accommodate all third-party small generation units, up to 1 MW capacity, in its concession region. The imbedded third-party generation sources are expected to tie into the Grantee's network at a MV level. Similarly, the Grantee seeks to develop strategy to supply power to a network of electric vehicle charging stations.

The Contractor shall devise a technical recommendation for the integration of small generation units into the existing distribution network. At minimum, this recommendation shall consist of;

- i) A tie-in strategy and dispatch narrative based on the power rating of the imbedded generation units;
- ii) A one-line diagram showing the physical connection, the projective relay and interrupter equipment and the intelligent electronic devices (IEDs) required for the automation of dispatch and shedding of the generation unit;
- iii) A communications link to the existing SCADA system; and,
- iv) An equipment list and the corresponding data sheets that shall be used by the Grantee in drafting the technical section of the procurement specifications.

The Contractor shall also develop an initial implementation plan for the deployment of electric vehicle charging stations that will be powered from the Grantees' medium and low voltage grids.

**Task 6 Deliverable:** The Contractor shall deliver to the Grantee a report that contains all the information obtained and the engineering work performed under Task 6.

#### Task 7: Implementation Plan for Equipment Integration

Based on the business model review conducted in Task 1 and the determinations of Tasks 2-6, the Contractor shall develop an implementation roadmap with the intent of seamlessly integrating the second stage smart grid systems into the Grantee's current (legacy) grid. Considering the information in Tasks 1-6, and considering the business model review, this roadmap shall provide a recommendation of the chronological order of the integration of the components of the system(s).

**Task 7 Deliverable:** The Contractor shall deliver to the Grantee an implementation roadmap report that contains the business model review and all the engineering work performed under Tasks 2-6.

### Task 8: Legal and Regulatory Framework Review

The Contractor shall review the pertinent regulatory and legal framework that has a bearing on electricity distribution networks and smart grid implementation in Turkey. The Contractor shall review permitting and licensing requirements with the Ministry of Energy and Natural Resources, local building/structural codes, local right-of-way, and zoning ordinances, among other considerations.

The Contractor shall discuss any Energy Market Regulatory Agency rulings that would provide incentives or pose roadblocks for the implementation of the Project with the Grantee.

**Task 8 Deliverable:** The Contractor shall prepare and deliver to the Grantee a Legal and Regulatory Framework Review report that contains all the information and findings collected under Task 8.

### Task 9: Preliminary Environmental Impact Assessment and Developmental Impact Assessment

The Contractor shall prepare a preliminary environmental impact assessment (EIA) as it pertains to the proposed Project. Although the main purpose of the preliminary EIA is to quantify the carbon dioxide (CO<sub>2</sub>), nitrous oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and other emission reductions that would be realized with a more efficient grid, any potential negative impacts of the proposed projects shall also be discussed. The preliminary EIA shall specifically address the potential impacts on flora and fauna and any permanent radio frequency pollution. The Contractor shall evaluate the project against The World Bank environmental standards to facilitate implementation financing. If negative impacts are identified, the Contractor shall propose mitigation strategies for the potential negative impacts.

The Contractor shall report on the potential development impact of the Project in the Host Country, focusing on what economic and social outcomes will result if the Project is implemented according to the Study recommendations. While the specific focus shall be related to the immediate impact of the Project, the Contractor shall include any additional development benefits to the Project including spin-off and demonstration effects. The analysis of potential benefits shall be as quantitative as practicable. The Contractor shall provide estimates of the Project's potential benefits in the following areas:

- **Infrastructure:** An itemized statement listing the infrastructure improvements (such as new substations, transmission & distribution modernization, the number of households to be powered) and the monetary benefits for the Grantee.
- **Human Capacity Building:** A description of new jobs (by number and type) that would be created to implement and operate the proposed components, as well as the number of people who will receive special training and a description of the training program.

- **Technology Transfer and Productivity Enhancement:** A description of any advanced technologies that would be implemented as a result of the Project, including a discussion of any efficiencies or improvements that will be realized.
- **Other:** Any other developmental benefits to the Project, including any spin-off or demonstration effects.

**Task 9 Deliverable:** The Contractor shall deliver the preliminary Environmental Impact Assessment and the Development Impact Assessment to the Grantee upon completion of Task 9.

#### Task 10: Project Cost Estimate

Based on the determinations and conceptual designs developed in Tasks 2, 3, 4 and 5 the Contractor shall prepare a  $\pm 15\%$  as-installed cost estimate for the implementation of the Project. The estimate shall include a detailed breakdown of equipment and materials for all major equipment, including but not limited to electro-mechanical, instrumentation and controls, and civil/ structural components. The cost of project development, owner's engineer services, land acquisition and project financing shall be determined and factored in the cost estimate at this stage.

In preparation for the AMI, Volt-VAR Control and auto-recloser trial projects, the Contractor shall conduct a Life Cycle Cost Analysis based on current tariff rates and the projected efficiency gains, and determine the net present value (NPV) and the pay-back period for each project.

**Task 10 Deliverable:** The Contractor shall deliver to the Grantee a Project Cost Estimate report that contains all information collected, work performed and analyses provided under Task 10.

#### Task 11: Implementation Financing

The Contractor shall assist the Grantee with developing alternatives for long-term financing of the Project. For this purpose, the Contractor shall identify and contact the international financial institutions (IFIs) and bilateral lenders that are most likely to provide debt/equity financing or loan guarantees for project implementation. These financial institutions shall include, but not be limited to: the Export-Import Bank of the United States (Ex-Im); the U.S. Overseas Private Investment Corporation (OPIC); the International Finance Corporation (IFC); the European Bank for Reconstruction and Development (EBRD), and the Turkish Industrial Development Bank (TSKB).

The Grantee is also expected to attend the meetings with the Contractor that will be held at the offices of the IFIs in Istanbul or Ankara, Turkey. During the meetings the Contractor shall present to the IFIs a project prospectus addressing:

- Project overview;
- Brief plant description and technical feasibility;
- Project cost, project economics with net present value, payback period and internal rate of return; and,

- Equity partnership opportunities (for third party investors such as GE Finance, potential U.S. investor through OPIC and Host Country commercial banks).

The terms and conditions of potential funding shall be discussed in detail to provide the Grantee with a comparison of options for project finance. For syndicated loans, all lending institutions and their potential portions in the portfolio should be identified.

**Task 11 Deliverable:** The Contractor shall prepare and deliver to the Grantee an interim report that contains all information collected and work performed under Task 11.

#### Task 12: U.S. Sources of Supply

The Contractor shall assess the availability of U.S. sources of supply for the Project. The Contractor shall prepare a Project summary sheet, incorporating the publically releasable data, which shall be distributed to all relevant U.S. firms. The Contractor shall develop a qualified and interested U.S. Vendors List inclusive of the engineering companies and equipment manufacturers. The Contractor shall hold brief telephone interviews with the potential vendors to confirm the availability of equipment and services, their interest in the Turkish market and the U.S. content of their offerings. Business name, point of contact, e-mail, physical address, telephone and fax numbers and an indicative U.S. content percentage shall be included in the list.

**Task 12 Deliverables:** Upon completion of Task 12, the Contractor shall submit the Project summary sheet and the qualified and interested U.S. vendors list to the Grantee.

#### Task 13: Final Report and Presentation

The Contractor shall prepare and submit to the Grantee a draft Final Report which includes all analyses and findings performed under Tasks 1-12. The draft report shall be prepared per USTDA format and content guidelines. Senior members of the Contractor's project team shall travel to Samsun, Turkey and make a presentation to the Grantee to explain the findings of the study with special emphasis on project implementation.

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference (Final Report). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

**ANNEX 6**



## USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

### U.S. Firm Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [To be completed by USTDA]

Activity Type [To be completed by USTDA]	Feasibility Study	Technical Assistance	Other (specify)
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Activity Title [To be completed by USTDA]

Full Legal Name of U.S. Firm

Business Address (street address only)

Telephone		Fax		Website	
-----------	--	-----	--	---------	--

Year Established (include any predecessor company(s) and year(s) established, if appropriate).  
Please attach additional pages as necessary.

Type of Ownership	Publicly Traded Company
	Private Company
	Other (please specify)

Please provide a list of directors and principal officers as detailed in Attachment A. Attached? (Not Applicable for U.S. Publicly Traded Company)	Yes
---	-----

If Private Company or Other (if applicable), provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in U.S. Firm, please complete Attachment B.

Is the U.S. Firm a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the U.S. Firm's parent company(ies). In addition, for any parent identified, please complete Attachment B.

Is the U.S. Firm proposing to subcontract some of the proposed work to another firm?	Yes
	No

If yes, U.S. Firm shall complete Attachment C for each subcontractor. Attached?	Yes
	Not applicable

#### Project Manager

Name	Surname	
	Given Name	

Address

Telephone

Fax

Email

#### Negotiation Prerequisites

Discuss any current or anticipated commitments which may impact the ability of the U.S. Firm or its subcontractors to complete the Activity as proposed and reflect such impact within the project schedule.

Identify any specific information which is needed from the Grantee before commencing negotiations.

*U.S. Firm may attach additional sheets, as necessary.*

### U.S. Firm's Representations

U.S. Firm shall certify to the following (or provide an explanation as to why any representation cannot be made):

1. U.S. Firm is a [check one]  Corporation  LLC  Partnership  Sole Proprietor  Other:  .  
 duly organized, validly existing and in good standing under the laws of the State of:  .  
 The U.S. Firm has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the USTDA Activity. The U.S. Firm is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. The U.S. Firm has included herewith, a copy of its Articles of Incorporation (or equivalent charter or document issued by a designated authority in accordance with applicable laws that provides information and authentication regarding the legal status of an entity) and a Certificate of Good Standing (or equivalent document) issued within 1 month of the date of signature below by the State of:  .  
 The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change in its status in the state in which it is incorporated. USTDA retains the right to request an updated certificate of good standing. **(U.S. publicly traded companies need not include Articles of Incorporation or Good Standing Certificate)**
3. Neither the U.S. Firm nor any of its directors and principal officers have, within the ten-year period preceding the submission of this proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the U.S. Firm, nor any of its directors and principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.
5. There are no federal or state tax liens pending against the assets, property or business of the U.S. Firm. The U.S. Firm, has not, within the three-year period preceding the submission of this proposal, been notified of any delinquent federal or state taxes in an amount that exceeds US\$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The U.S. Firm has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself of its debts under any bankruptcy, insolvency or other similar law. The U.S. Firm has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.
7. The U.S. Firm certifies that it complies with USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

*The U.S. Firm shall notify USTDA if any of the representations are no longer true and correct.*

U.S. Firm certifies that the information provided in this form is true and correct. U.S. Firm understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the U.S. Firm.

Name		Signature	
Title		Date	
Full Legal Name of U.S. Firm			





**ATTACHMENT B**

**USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant**

**U.S. Firm Information Form – Shareholder(s) and Parent Company(ies)**

If applicable, U.S. Firm provided a list of shareholders and the percentage of their ownership. This form shall be completed for each shareholder that owns 15% or more shares in U.S. Firm, as well as any parent corporation of the U.S. Firm (“Shareholder”). In addition, this form shall be completed for each shareholder identified in Attachment B that owns 15% or more shares in any Shareholder, as well as any parent identified in Attachment B.

USTDA Activity Number [To be completed by USTDA]	
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Activity Title [To be completed by USTDA]	
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Full Legal Name of U.S. Firm	
------------------------------	--

Full Legal Name of Shareholder	
--------------------------------	--

Business Address of Shareholder (street address only)	
---	--

Telephone number		Fax Number	
------------------	--	------------	--

Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.	
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Country of Shareholder’s Principal Place of Business	
--	--

Please provide a list of directors and principal officers as detailed in Attachment A. Attached?	Yes
--	-----

Type of Ownership	Publicly Traded Company
	Private Company
	Other

If applicable, provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in Shareholder, please complete Attachment B.	
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Is the Shareholder a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the Shareholder’s parent(s). In addition, for any parent identified, please complete Attachment B.	
--	--

*Shareholder may attach additional sheets, as necessary.*



**ATTACHMENT C**

**USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant**

**Subcontractor Information Form**

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [*To be completed by USTDA*]

Activity Title [*To be completed by USTDA*]

Full Legal Name of Prime Contractor U.S. Firm ("U.S. Firm")

Full Legal Name of Subcontractor

Business Address of Subcontractor (street address only)

Telephone Number

Fax Number

Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.

**Subcontractor Point of Contact**

Name	Surname	
	Given Name	

Address

Telephone

Fax

Email

**Subcontractor's Representations**

Subcontractor shall provide the following (or any explanation as to why any representation cannot be made), made as of the date of the proposal:

1. Subcontractor is a <i>[check one]</i>	<input type="checkbox"/> Corporation	<input type="checkbox"/> LLC	<input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietor	<input type="checkbox"/> Other
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duly organized, validly existing and in good standing under the laws of:  .

2. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the U.S. Firm is selected, to execute and deliver a subcontract to the U.S. Firm for the performance of the USTDA Activity and to perform the USTDA Activity. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
3. Neither the subcontractor nor any of its directors and principal officers have, within the ten-year period preceding the submission of the Offeror's proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the subcontractor, nor any of its directors and principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
5. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.
7. The Subcontractor certifies that it complies with the USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The Subcontractor commits to notify USTDA, the Contractor, and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

*The selected Subcontractor shall notify the U.S. Firm, Grantee and USTDA if any of the representations included in its proposal are no longer true and correct.*

Subcontractor certifies that the information provided in this form is true and correct. Subcontractor understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the Subcontractor.

Name	<input type="text"/>	Signature	<input type="text"/>
Title	<input type="text"/>		
Full Legal Name of Subcontractor	<input type="text"/>	Date	<input type="text"/>