



**United States Energy Association
Request for Proposal: Central Asia Regional Power System Modeling/DlgSILENT PowerFactory Training –
Coordinating Dispatch Center Energia**

**REQUEST FOR PROPOSAL – Central Asia Power System Modeling/DlgSILENT PowerFactory
Training – Coordinating Dispatch Center Energia**

Closing date of RFP: November 10, 2020
Implementing Agency: United States Energy Association
Funding Agency: United States Agency for International Development

The United States Energy Association (USEA) is inviting prospective organizations or individuals through this Request for Proposal (RFP) to submit proposals for providing DlgSILENT PowerFactory training to the Coordinating Dispatch Center (CDC) Energia.

Proposals are due by 17:00 hours EST of the closing date. Please submit all proposals with a read receipt to Ms. Marina N. Barnett, Senior Program Coordinator, at mbarnett@usea.org. Proposals must be in digital format (PDF).

As this is a USAID-funded program, the RFP follows USAID Procurement Regulations and Laws. All bidder details will be kept confidential.

I. INTRODUCTION

The United States Energy Association (USEA) is an association of public and private energy-related organizations, corporations, and government agencies. USEA represents the broad interests of the U.S. energy sector by increasing the understanding of energy issues, both domestically and internationally.

Through a cooperative agreement with the USAID Bureau for Economic Growth, Education and Environment (E3), USEA implements the Energy Utility Partnership Program (EUPP), available to all USAID-assisted countries and USAID Missions. EUPP supports the efforts in USAID-assisted developing countries to increase environmentally sustainable energy production and to improve the operational efficiency and increased financial viability of their utilities and related institutions, with the goal of increasing the access of these countries to safe, reliable, affordable and environmentally sound energy services.

In Central Asia, EUPP works to create an enabling environment for the regional transfer to cleaner, more reliable power supply and encourage establishment of an integrated power market.

II. BACKGROUND

The five Central Asian countries – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – shared a unified energy grid in the last decades of the Soviet Union until the system fell apart in 2003. Today, power systems of

Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan¹ are interconnected into the united Central Asian Power System (CAPS), and in July 2019 all five Central Asian states and Afghanistan signed an agreement to connect their electric grids and unify their electricity markets.

Coordination and monitoring of power system operations in Central Asia is carried out by the regional Coordinating Dispatch Center (CDC) Energia, located in Tashkent, Uzbekistan. Established in 2007, CDC Energia is an international, non-state, non-commercial organization operating under the jurisdiction of the Republic of Uzbekistan. CDC Energia performs direct operational management of cross-border transmission lines, maintains reliable parallel operations within CAPS, coordinates international power flows, planning, supervision of regional emergency automation and relay protection systems, and administers inter-system frequency control and electricity transit services.

CDC Energia utilizes DlgSILENT PowerFactory software for network planning and modeling. Its planning staff have been previously provided with training on PowerFactory applications, but requires training on Protection Functions, Small Signal Stability and Python Scripting modules.

III. IMPLEMENTATION AND APPROACH

The purpose of this RFP is to solicit proposals from various candidate organizations or individuals, conduct a fair evaluation, and select the organization deemed most suitable to undertake the project.

USEA Responsibilities

USEA will be responsible for all logistical arrangements for the participants and consultants. This includes arrangements and associated costs for the following, for each of the three training sessions:

- Economy-class roundtrip airfare to Tashkent, Uzbekistan for up to 2 consultants per trip;
- Per diem (meals and lodging) for up to 2 consultants to include all travel and training days and maximum of 1 full day of rest prior to start of activity (Note: Lodging to be provided according to U.S. government regulations);
- Reimbursement of visa fees;
- Reimbursement of vaccinations (if needed) and travel medication costs;
- International health insurance for the duration of the travel to Uzbekistan;
- Ground transportation to/from the airport;
- Local transportation to sites (if needed);
- Meeting space and A/V.

Subcontract Agreement Management and Oversight

A subcontract agreement between USEA and the Consultant shall be subject to all USAID Special Terms and Conditions, including all mandatory FAR Flow-Down clauses, where applicable, and the provisions included in 2CFR200 and 2CFR700. All bidders are strongly encouraged to review these provisions prior to submitting a proposal.

- Standard Provisions for U.S. Nongovernmental Organizations:
<https://www.usaid.gov/sites/default/files/documents/1868/303maa.pdf>
- 2CFR200: <https://www.gpo.gov/fdsys/pkg/CFR-2014-title2-vol1/pdf/CFR-2014-title2-vol1-part200.pdf>
- 2CFR700: <https://www.gpo.gov/fdsys/pkg/CFR-2015-title2-vol1/pdf/CFR-2015-title2-vol1-part700.pdf>

Subcontract agreement management, oversight and payment will be carried out by USEA.

¹ Although Tajikistan was disconnected from the other countries in 2009, it retains formal participation in the parallel operations agreement, and is working to reconnect to CAPS.

IV. SCOPE OF WORK

Purpose: The purpose of this program is to enhance the capacity of CDC Energia’s planning staff for power system modeling and long-term planning utilizing the DigSILENT PowerFactory software. The ultimate outcome will be the creation of an enabling environment for the establishment of a unified power system in Central Asia.

Objective: The objective of this program is to provide CDC Energia’s planning staff with a comprehensive training on DigSILENT PowerFactory modules for Protection Functions, Small Signal Stability and Python Scripting. The training shall be delivered through a series of three 5-day sessions (one per each module), held in the CDC Energia training facility in Tashkent, Uzbekistan.

Tasks: The tasks to be performed by the Consultant under this Scope of Work shall include the following:

- Task 0:** Sign Subcontract Agreement: Once the subcontract agreement has been signed by both parties, the consultant will be allowed to invoice 10% of the total cost of the subcontract agreement.
- Task 1:** Conducting a 5-day **Training 1: PowerFactory Protection Functions**, including all necessary theoretical and practical elements, for up to 10 (ten) participants;
- Task 2:** Conducting a second 5-day **Training 2: PowerFactory Small Signal Stability**, including all necessary theoretical and practical elements, for up to 10 (ten) participants;
- Task 3:** Conducting a third 5-day **Training 3: PowerFactory Python Scripting**, including all necessary theoretical and practical elements, for up to 10 (ten) participants.

All three training sessions shall be delivered in the Russian language.

All three training sessions shall include pre-training and post-training surveys administered to all participants. A pre-training survey shall be designed to assess participants’ baseline knowledge and competencies and to identify knowledge gaps and weak areas. The planned training courses shall be modified to address the identified gaps. A post-training/skill assessment survey shall be designed to measure participating trainees’ progress.

Deliverables: Based on the Scope of Work, the following deliverables and products shall be submitted:

- Task 1:**
- Deliverable 1.** Digital copies – in English and in Russian – of a draft training program curriculum, and pre-training and post-training surveys submitted to USEA at least 2 weeks prior to conducting the training.
 - Deliverable 2.** Conduct a 5-day training program (Training 1), including all necessary theoretical and practical elements, for up to 10 (ten) participants to introduce CDC Energia’s planning staff to the DigSILENT PowerFactory module on Protection Functions. Digital copies – in English and in Russian – of the full training curriculum, including manuals, presentations and all other training materials developed for CDC Energia and distributed to the participants.
 - Deliverable 3.** Digital copies – in English – of the Training Report on approach, accomplishments and recommendations.
- Task 2:**
- Deliverable 4.** Digital copies – in English and in Russian – of a draft 2nd training program curriculum, and pre-training and post-training surveys submitted to USEA at least 2 weeks prior to conducting the training.
 - Deliverable 5.** Conduct a second 5-day training program (Training 2), including all necessary theoretical and practical elements, for up to 10 (ten) participants to introduce CDC Energia’s planning

staff to the DlgSILENT PowerFactory module on Small Signal Stability. Digital copies – in English and in Russian – of the full training curriculum, including manuals, presentations and all other training materials developed for CDC Energia and distributed to the participants.

Deliverable 6. Digital copies – in English – of the Training Report 2 on approach, accomplishments and recommendations.

Task 3:

Deliverable 7. Digital copies – in English and in Russian – of a draft 3rd training program curriculum, and pre-training and post-training surveys submitted to USEA at least 2 weeks prior to conducting the training.

Deliverable 8. Conduct a third 5-day training program (Training 3), including all necessary theoretical and practical elements, for up to 10 (ten) participants to introduce CDC Energia’s planning staff to the DlgSILENT PowerFactory module on Python Scripting. Digital copies – in English and in Russian – of the full training curriculum, including manuals, presentations and all other training materials developed for CDC Energia and distributed to the participants.

Deliverable 9. Digital copies – in English – of the Training Report 3 on approach, accomplishments and recommendations.

Deliverable 10. Digital copy – in English – of a final report to include the following:

- An overview of the consultancy (background and the Scope of Work);
- Statement of consultant’s background and key qualifications;
- Recommendations for improving operations of the CDC Energia based on the work performed during this consultancy;
- Recommendations for further technical assistance.

Reporting: The consultant will report to USEA.

Schedule: The project is expected to begin in January 2021 – pending lifting of international travel restrictions due to COVID-19 – and take approximately 12 months to complete. If trainers are unable to travel to Uzbekistan in January/February 2021 due to the COVID-19 pandemic, the project will commence as soon as international travel restrictions are lifted and it is safe to travel.

Task	Activities	Deliverables	Target Completion Date
Training 1	Conduct 5-day training on Protection Functions	Curriculum Pre- and post-training surveys Training materials Training report	March 31, 2021
Training 2	Conduct 5-day training on Small Signal Stability	Curriculum Pre- and post-training surveys Training materials Training report	July 31, 2021
Training 3	Conduct 5-day training on Python Scripting	Curriculum Pre- and post-training surveys Training materials Training report	November 30, 2021
		Final Report	December 31, 2021

These tentative assignment dates are provided solely for information purposes and the benefit of bidders. Modification of these assignment dates will not constitute a change in scope.

V. PROPOSAL CONTENT

The proposal must contain the following:

- a) A cover letter to the proposal, including a bidder's Data Universal Numbering System (D-U-N-S) number and proof of a current registration in the System of Award Management (SAM). **Proposals without a DUNS number or proof of SAM registration will not be considered.**
- b) A technical proposal, including:
 - a. Demonstration of an understanding of the issues to be addressed under the proposed scope of work specified above by providing a summarized technical approach (not to exceed 3 pages). This section should include the bidder's general approach to implementing different tasks and activities described in the SoW above and must include an adequate description of training methodology;
 - b. Proposed project schedule to perform the tasks under this project highlighting any deviations from the scope of work specified above;
 - c. Bio sketches of personnel, including at least 1 – 2 subject matter experts one of which will be a team leader that will be dedicated to the project. Proposed personnel must be skilled at DigSILENT PowerFactory modeling software;
 - d. Summary of relevant experience of each proposed team member for (not beyond) the past 10 years. Relevant experience should be listed chronologically (starting with the most recent). Not to exceed 3 pages for each proposed team member;
 - e. Summary of the work to be performed by each employee proposed for this project.
- c) A financial proposal, including:
 - Detailed justification (i.e. line item budget), including direct and indirect costs (translation (if applicable), interpretation (if applicable), printing, administrative supplies);
 - Labor costs (detailed structure of man-hours) and level of effort for each employee proposed for this project.
- d) Completed USAID Contractor Employee Biographical Data Sheet forms for each employee proposed for this project (<https://www.usaid.gov/forms/aid-1420-17>).

VI. EVALUATION CRITERIA

All bidders are required to provide a DUNS number and maintain a current SAM registration. Proposals without a DUNS number or proof of SAM registration will not be considered.

Selection of an offer for a subcontract award will be based on an evaluation of proposals against qualifications, subject matter expertise, technical approach and budget justification. Proposals shall first be evaluated from a technical standpoint (qualifications, subject matter expertise and technical approach) without regard to proposed budget justification. For those proposals determined to be technically acceptable, budget justification will be evaluated.

Evaluation Criteria:	25%:	Experience with similar projects (for each consultant & the organization in general)
	25%:	Subject matter expertise (education and professional experience)
	20%	Technical approach
	30%:	Cost

VII. QUESTIONS AND CLARIFICATIONS

All questions and clarification requests related to this RFP should be submitted via email to Ms. Marina N. Barnett, Senior Program Coordinator, at mbarnett@usea.org no later than October 27, 2020. All questions and answers will be provided to all prospective bidders.

END OF RFP