

## **REQUEST FOR PROPOSAL**

## **LNG Training for the Electricity Generating Authority of Thailand**

<b>RFP issue date:</b>	<b>July 23, 2021</b>
<b>Last date for queries submission:</b>	<b>July 30, 2021 (18:00 ET)</b>
<b>Response to queries:</b>	<b>August 4, 2021</b>
<b>Closing date of RFP:</b>	<b>August 27, 2021 (18:00 ET)</b>
<b>Implementing Program:</b>	<b>U.S.-Asia Gas Partnership (AGP), Energy Utility Partnership Program (EUPP)</b>
<b>Implementing Agency:</b>	<b>U.S. Energy Association (USEA)</b>
<b>Funding Agency:</b>	<b>United States Agency for International Development (USAID)</b>
<b>Training recipients:</b>	<b>Electricity Generating Authority of Thailand (EGAT)</b>
<b>Location of training:</b>	<b>Online via video conferencing (Zoom or Microsoft Teams)</b>

This customized training program is designed for the Electricity Generating Authority of Thailand (EGAT) to rapidly develop capacity of their personnel to adapt to a competitive market. The training will be conducted as part of the U.S. Agency for International Development's (USAID) U.S.-Asia Gas Partnership (AGP).

Please submit your offer in soft copy with a read receipt to Ms. Sarah Blanford, Deputy Program Director, Energy Utility Partnership Program, at [sblanford@usea.org](mailto:sblanford@usea.org).

### **I. INTRODUCTION**

This activity is funded by the United States Agency for International Development (USAID)'s U.S.-Asia Gas Partnership (AGP), which is implemented through a cooperative agreement between USAID's Bureau for Development, Democracy, and Innovation (DDI) and the U.S. Energy Association (USEA).

USEA, headquartered in Washington, DC, is an association of public and private energy-related organizations, corporations, and government agencies. USEA is the implementing partner of USAID's Energy Utility Partnership Program (EUPP). EUPP, which is available to all USAID-assisted countries, assists developing countries to increase environmentally sustainable energy production and use and improve the operational efficiency and increased financial viability of their utilities and related institutions. The goal of the EUPP is to increase access in USAID-assisted countries to environmentally sound energy services.

The U.S.-Asia Gas Partnership (AGP) is a public-private partnership between government and industry representatives to optimize the development of secure, reliable, and economic sources of natural gas across the Indo-Pacific.

One of the fastest growing economic regions in the world, the Indo-Pacific accounts for more than half of global energy consumption, with 85 percent derived from fossil fuels. At the same time, increasingly competitive renewables are reshaping the global gas industry as countries in the Indo-Pacific look to liquefied natural gas (LNG) imports and highly efficient, natural gas-fired generation as a means of balancing grid variability. As regional energy demand continues to grow over the next 10 years, the share of LNG demand is expected to nearly double, creating infrastructure bottlenecks that will limit LNG imports. Meeting this demand growth will require \$80 billion in LNG infrastructure investment in the Association of Southeast Asian Nations (ASEAN) and India combined.

AGP convenes a diverse set of stakeholders to optimize gas network infrastructure planning through the U.S. Agency for International Development (USAID), in collaboration with the U.S. Energy Association (USEA), to develop domestic gas markets in Asia. AGP supports strategic planning to promote the development of resilient and least-cost power systems that will continue to meet demand over time.

The objective of the AGP is to share best practices in the development of secure, reliable, and economic sources of natural gas. Practical training and strategic advice targeted at ministries and regulators aims to drive more informed policy and decision-making. With a long-term vision to enable the creation of a regional gas market, AGP facilitates a shared understanding between government officials and the private sector about the technical, commercial, and economic factors that spur investment.

Achieving successful development of gas infrastructure and LNG plants is a complex process that requires communication, transparency, and ongoing dialogue among host governments, local governments and stakeholders, and the private sector. Experienced advisors and practitioners in legal, financial, technical and strategic planning will build the capabilities and knowledge of government officials to negotiate with confidence and on equal footing with project developers. The nature of natural gas projects and relationships are long-term. Thus, the AGP opens lines of communication to promote partnership and mutual trust between government officials and industry.

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

## **II. BACKGROUND**

EGAT is Thailand's leading state-owned power utility under the Ministry of Energy, responsible for electric power generation and transmission for the whole country as well as bulk electric energy sales. EGAT is the largest power producer in Thailand, owning and operating power plants of different types and sizes across Thailand with a total installed capacity of 16,034.83 MW (as of Nov 2020). EGAT also purchase 29,443.04 MW of power from Independent Power Producers and neighboring countries.

Natural Gas (NG) comprises the largest portion for EGAT's electricity generation. In 2019, natural gas supply was derived from various gas fields in the Gulf of Thailand, on-land, and imported (Myanmar field and LNG). Natural gas utilization by EGAT's power plants amounted to 275,952 billion BTU in 2019. Recent information showed that EGAT consumed 23,734.40 million cubic feet of NG in Oct 2020.

With such a large percentage of NG consumption in the generation profile, EGAT is interested in securing NG for EGAT's own gas-fired power plants as well as expanding LNG business. EGAT celebrated two cargos of LNG shipments, December 2019 and April 2020, with a volume of 65,000-ton each, securing the supply for electricity generation and enabling ability to control the generation cost. EGAT also plans to develop Floating Storage and Regasification Unit, or FSRU, for procurement of approximately 5 million tons per year following the direction of National Energy Policy Council (NEPC).

EGAT recently formed LNG business unit internally and intend to play a major role in the LNG market, and is considering expanding the LNG business unit beyond procurement to include trading and investment potentially through establishing subsidiary company and partnering with other companies. Therefore, EGAT has plan to ramp up capacity of relevant staff to fully compete in LNG procurement, trading, and investment. Thailand is moving towards a liberalization of LNG market evidenced by recent resolution from NEPC and ERC's introduction of Third-

Party Access regime. EGAT needs to rapidly develop capacity of their personnel to adapt to the more competitive market. Accordingly, EGAT requested AGP to provide capacity building through customized technical trainings.

### III. SCOPE OF WORK

#### Training Objectives

After completing the course, all participants should understand the LNG value chain including the operation of LNG infrastructure in order to apply the knowledge to their job, a clear picture of the LNG market, and be able to forecast price trends in the LNG market in the future. Moreover, participants should be able to analyze and know how to approach to LNG global market and invest in upstream. With the trainers' guidance, EGAT should have identified recommended tools for trading in order to expand EGAT's market in terms of marketing, accounting, operating, etc.

#### Training Overview

Classroom-style lectures are to be delivered by highly experienced instructors, supplemented by hands-on exercises for the participants that enhance and develop skills and concepts in LNG procurement, trading, and investment. The expected number of participants will be 10-15 from the LNG business unit who have a background in engineering, accounting, and/or business administration. The same 10-15 participants will be involved in all modules of the training.

The training will include:

#### Module 1: LNG Market Transition and Liberalization

- 1) LNG Fundamentals: What is LNG? Characteristics of LNG, Physical properties of LNG including heating value.
- 2) The Role of LNG in the Global Energy Market.
- 3) Global LNG Demand and Supply: Main consumption markets and natural sources including LNG production by region.
- 4) LNG Market Transition and Trends: LNG market evolution
- 5) LNG Supply Value Chain: E&P, Liquefaction, Transportation, Receiving Terminal, Transmission, End users.
- 6) Natural Gas Market Liberalization in Practices.
- 7) Options for Acquiring LNG Supply

#### Module 2: LNG Tariff Structure, Pricing include Arbitrage, Risk Management, Hedging, Natural Gas Swap and Trading

- 1) How Natural Gas and LNG are priced? Gas and LNG pricing, Price structures and dynamics.
- 2) Elements of the LNG Supply Chain: Investment costs of each LNG supply chain, Risks and returns in each part of the chain, The differences between traditional LNG and US LNG,
- 3) LNG Trading Process: How LNG is traded in Global Market?
- 4) LNG Portfolio Optimization
- 5) Risk Management: Risk analysis, Risk reduction strategies including risks mitigation, Tools for risks management, e.g. hedging, derivatives, etc.

#### Module 3: LNG Procurement Contracts and Regulatory Framework

- 1) Principles and Formulation of Gas and LNG Contract
- 2) Master Sale and Purchase Agreement
- 3) LNG Sale and Purchase Agreement
- 4) LNG Transportation Agreement: Terms and conditions including relevant maritime regulations.
- 5) LNG Pricing Strategy and Price Indexation in a Competitive Gas Market.
- 6) Contract Negotiation – Best practices and techniques.
- 7) Regulation of Gas and Gas Transportation Systems.
- 8) Third Party Access for Receiving Terminals and Transmission Network.

#### Module 4: LNG Operation

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- 1) LNG Transfer Operations
- 2) LNG Terminal Operations
- 3) Fundamental Measurement
  - a. Custody Transfer Measurement System
  - b. Custody Transfer Equipment
- 4) LNG Sampling and Sample Collection
- 5) Analytical Testing and LNG Energy Equation
- 6) Boil off Gas Management and LNG Inventory Management
- 7) Cryogenic Pumps
- 8) LNG Vaporization

#### **Module 5: LNG Shipping**

- 1) LNG Shipping and LNG Transfer, including operating parameters
- 2) Vessel management
  - a. Chartering for vessel, spot and term contract
  - b. Chartering rate, Chartering contract
- 3) Shipping Optimization
- 4) LNG Cargo Calculations and Evaluation

#### **Responsibilities of USEA**

- Liaison with USAID and EGAT to finalize the agenda, dates, and participants
- Feedback on the draft training materials (presentation, model templates etc.)

#### **Deliverables**

Based on the Scope of Work, the following deliverables shall be submitted for the training program.

#### **Pre-training deliverables**

The following documents will be provided to USEA for review and approval:

- Detailed agenda with training course content curated for EGAT, including mock/practice exercises or other hands-on working sessions wherever applicable for each training module
- Pre-training reading prep materials
- Pre-training and Post-training assessment form templates- Assessments will measure pre and post knowledge levels on all training topics, open-ended feedback on what topics were most and least useful, and open-ended feedback on what topics require further training on related subjects

#### **Post-Training deliverables**

- Electronic copies of final agenda, all power point presentations and other training material
- Recording of the training
- Database of pre and post training assessment forms completed by the participants
- Log of all participants' training attendance on a daily basis, clocking their attendance by # of minutes
- Final report that includes the following:
  - Summary of major outcomes of the training program
  - Challenges encountered and knowledge/skills acquired by participants
  - Qualitative and quantitative summary of the participants' training assessment and an overall program evaluation
  - Information on additional topics that were not covered in the training program that participants could utilize to increase their knowledge of the subject matter
  - Recommendations for additional training as appropriate

#### **Schedule of Activities**

The project has an expected duration of 16 weeks, from contract signing to final deliverables. Ideally, the training will begin in September, but launch will depend on the time required to obtain USAID procurement approval and

reach contract signing. EGAT would prefer to have the modules separated into 2-3 modules per month with completion of the entire course within 2 months. Training must be conducted on weekdays (Monday - Friday), excluding holidays. There is to be 3-4 hours of training per day, either morning or afternoon sessions, between the hours of 08.00-16.00 UTC+07:00.

**Reporting**

The selected bidder will report to USEA.

**IV. AGREEMENT MANAGEMENT AND OVERSIGHT**

The bidder can propose an association/consortium/partnership of maximum two organizations; however, one organization must be identified as the lead organization. Individuals are also invited to submit proposals. An agreement between USEA and the selected bidder shall be subject to all USEA/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>
- USAID Mandatory Standard Provisions that apply to USEA’s cooperative agreement (Annexure A)

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

**V. PROPOSAL CONTENT**

The proposal **must** follow the structure outlined below, contain the following components, and be within the page limitations specified below. Failure to follow the outline and page limits prescribed or exclusion of any of the required items will impact the proposal’s scoring and may even lead to disqualification.

<b>Minimum Eligibility</b>			
<b>Subject heading</b>	<b>Description</b>	<b>Additional Notes</b>	<b>Maximum page length</b>
<b>Eligibility Requirements</b>	<p>Bidders must demonstrate the relevant experience in the past 5 years.</p> <ul style="list-style-type: none"> <li>• Prior experience on the topics.</li> <li>• Prior experience of providing capacity building assistance.</li> </ul>	<p>Bidder to provide information to demonstrate past experience relevant to the eligibility requirements. The information must include client name, year of training, number of participants trained, topics covered. If the bidder was a lead consultant or an associate, activities delivered by the bidder, key team members* involved.</p> <p>*The proposed team assigned to this project should have ideally worked on these projects. The other eligibility requirements for team members are mentioned later in this section.</p>	2 pages
<b>Technical proposal</b>			

Subject heading	Description	Additional Notes	Maximum page limit
<b>Understanding of requirements</b>	Bidder's understanding of the scope of work based on the knowledge and experience in conducting training in the targeted area.	Bidder to avoid repeating the information already provided in the RFP.	3 pages
<b>Approach &amp; Methodology</b>	Bidder's approach and methodology to complete the scope of work and fulfill deliverables	Include details about training approach, course content, duration and schedule. Bidders should provide a detailed agenda/curriculum in their technical proposal that allows for sufficient coverage of the scope of work.	6 pages
<b>Schedule of Tasks</b>	Timeline for activities and deliverables in accordance with the scope of work.	Include tasks related to initial and regular discussion with USEA and EGAT, draft deliverables submission, and expected time for feedback from USEA.	2 pages
<b>Team members, key responsibilities, and bio note</b>	<p>Bidder to present the key responsibilities and subject areas assigned for conducting the training, to each team member.</p> <p>Related to the responsibilities and subjects assigned, bidder to present a brief bio note for each team member showcasing suitability of each team member to conduct training on the assigned subject area.</p>		<p>1 page on the proposed organization of the team to demonstrate the fulfillment of the minimum eligibility requirements.</p> <p>1-2 pages to describe the responsibilities and subject areas assigned to each proposed team member and the bio note/CV of each team member describing the current role in the bidder's organization, education, relevant experience related to fulfillment of the eligibility requirements, and relevant experience aligned to the proposed role in this project.</p>

Financial proposal			
Subject heading	Description	Additional Notes	Maximum page limit
<b>Summary of Fees</b>	Break down of the proposed fee associated with the project such as fee towards labor, direct and indirect costs (printing, administrative supplies, etc.), applicable taxes.	<p>Must be in USD. Taxes to be shown separately and included in the final fees.</p> <p>The quoted price will be firm and no price variation due to escalation, inflation, fluctuation in exchange rates, taxes, or any other market factors shall be accepted after the proposal submission.</p>	1 page

Annex			
	Description	Notes	Requirement
<b>Annex 1</b>	USAID Contractor Employee Biographical Data Sheet	Completed USAID Contractor Employee Biographical Data Sheet forms for each employee proposed for this project <a href="https://www.usaid.gov/sites/default/files/AID1420-17.doc">https://www.usaid.gov/sites/default/files/AID1420-17.doc</a>	Required
<b>Annex 2</b>	Organization experience	Summary of the company's or companies' background and experience with relevant projects.	Required (2 pages)
<b>Annex 3</b>	Bidder's current Data Universal Numbering System (D-U-N-S) number and proof of a current registration in the System of Award Management (SAM)	<u>SAM registration</u> is a 10-step process and can take several weeks to complete. Please refer to this <u>guide</u> for more information.	Only required for proposals over \$25 K

## VI. EVALUATION CRITERIA

Selection of an offer for 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 to arrive at the best value for money.

Evaluation Criteria:

- 20%: Bidder's experience with similar projects
- 30%: Expertise of team members (education and professional experience)
- 25%: Technical approach
- 25%: Fee

## VII. QUESTIONS AND PROPOSAL TIMEFRAME

All questions related to this RFP should be submitted via email with a read-receipt to Sarah Blanford at [sblanford@usea.org](mailto:sblanford@usea.org) no later than 18:00 ET, July 30, 2021. All questions and answers will be posted on USEA's website in the same location as the RFP by August 4, 2021.

Interested parties are requested to submit final proposals no later than 18:00 ET, August 27, 2021. Proposals should be sent via email with a read receipt to Sarah Blanford at [sblanford@usea.org](mailto:sblanford@usea.org).

**VIII. PROPOSAL VALIDITY**

The bidder shall submit the response to this RFP document, which shall remain valid up to sixty days from the RFP closing date (“Bid Validity”). USEA reserves the right to reject the proposal that does not meet the aforementioned validity requirements.

**IX. ERRORS & OMISSIONS**

Prospective bidders shall not take advantage of any apparent errors or omissions in the RFP document. In the event that any errors or omissions are discovered, it is requested to inform Sarah Blanford at [sblanford@usea.org](mailto:sblanford@usea.org) immediately.

**X. ANNEXURES AND ENCLOSURES**

Interested parties are requested to review the USAID Mandatory Standard Provisions to USEA cooperative agreement (Annexure-A). The enclosures shall be treated as an integral part of this RFP document and the agreement that will result from this RFP.

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