



Request for Quote/Proposal (RFQ/RFP)

Commodity/Service Required:	Support to Design and Build a Physical Nuclear Simulator for Teaching and Training
Type of Procurement:	One-Off Purchase Agreement
Type of Contract:	Purchase Order
Term of Contract:	July 1, 2026 – January 31, 2027
Contract Funding:	U.S. Department of State (DOS)
This Procurement supports:	Energy Secure Philippines Activity (ESP)
Submit Proposal to:	Ms. Divina B. Chingcuanco Chief of Party, ESP RTI International via email: jvitan@energysecure.ph
Date of Issue of RFP:	May 11, 2026
Date Questions from Supplier Due:	May 20, 2026
Date Proposal Due:	May 29, 2026
Approximate Date Purchase Order Issued to Successful Bidder(s):	On or before June 12, 2026
Method of Submittal:	
Email to jvitan@energysecure.ph	
Respond via e-mail with attached document in MS Word / pdf format. The Bidder/Seller agrees to hold the prices in its offer firm for 60 days from the date specified for the receipt of offers, unless another time is specified in the addendum of the RFP/RFQ.	
Solicitation Number:	ESP-RFP-2026-014

Attachments to RFP:

1. Attachment “A” – Commodity Specifications
2. Attachment “B” – Instructions to Bidders/Sellers
3. All PO Terms and Conditions are listed on our website at: [RTI-PO-Terms_English_Version - v1.21.pdf](#) or for commercial items: http://www.rti.org/files/PO_FAR_Clauses_Commercial_Items.pdf (hereinafter the “Terms”). Supplier’s delivery of products, performance of services, or issuance of invoices in connection with this purchase order establishes Supplier’s agreement to the Terms. The Terms may only be modified in writing signed by both parties.

All bidders/sellers are responsible to carefully review each attachment and follow any instructions that may be relevant to this procurement.

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Attachment “A” Commodity Specifications

Statement of Work

Description of Activity/Service:

Energy Secure Philippines (ESP) is a US Government-funded multi-year program that aims to assist the Government of the Philippines (GPH) in promoting a more competitive power sector through investment mobilization, deployment of modern energy technologies, and support in policy reforms and regulation. Implemented by RTI International, ESP’s overall goal is to enhance energy security and reliability in the Philippines. It focuses on advancing inclusive economic growth and resilient development through increased private investment, promoting advanced technology deployment, and boosting the energy sector’s resiliency.

On January 20, 2025, the US Government issued Executive Order 14169 designed to revisit and realign the country’s foreign assistance. Viewed through this lens, the America First policy frames U.S aid primarily as a tool to advance direct American interests and emphasizes strict alignment of assistance with U.S. national security, economic, and strategic priorities; a preference for measurable returns that make America safer, stronger, or more prosperous. Under this approach, foreign assistance is scrutinized for cost-effectiveness and political alignment, often favoring trade, investment, private-sector solutions, and cost-sharing, while reducing or restructuring programs seen as inefficient, dependency creating, or insufficiently tied to U.S. interests.

ESP supports the Philippine initiative to integrate nuclear energy in its clean energy infrastructure. This is aligned with the national goals of achieving an optimal energy mix leading to energy resilience and reduced vulnerabilities from external disruptions. The Philippine Government also understands that the energy transition will require equipping the national workforce with education, certification, and training to design, develop, operate, and maintain nuclear energy power plants.

ESP is soliciting fixed-price proposals from qualified firms to design and develop an educational nuclear power plant simulator that combines immersive virtual reality (VR) with select physical control hardware (e.g., switches, push buttons, meters, and alarms). The simulator will be used for instruction, workforce development, and scenario-based training and will not involve radioactive materials or live nuclear systems.

Offerors are encouraged to propose the reactor technology and plant configuration they deem most appropriate for educational use (e.g., pressurized water reactor, boiling water reactor, pressurized heavy water reactor), provided the system supports realistic operational logic and learning outcomes.

The simulator is intended to expose learners (i.e., practitioners who are engineers from

government and private companies) to:

- Nuclear plant systems and interdependencies
- Control logic and operational decision-making
- Human-machine interfaces and human factors considerations
- Normal, abnormal, and selected emergency operating scenarios

Product or Service Expectations (both if applicable):

The primary objectives of this project are to deliver a simulator that:

- Represents the core systems and operating behavior of a generic nuclear power plant at educationally appropriate fidelity
- Uses virtual reality as the primary visualization and interaction environment, supplemented by physical control components for key operator actions
- Supports instructor-controlled, scripted, and free-play scenarios
- Incorporates accepted human factors, training, and simulator design best practices
- Is safe, non-nuclear, and suitable for classroom or laboratory environments
- Is modular, maintainable, and scalable within an approximate 10 square meter footprint
- Enables future expansion of scenarios, system fidelity, and hardware interfaces

The list of minimum systems for VR Simulation is listed in **Annex 1** of this RFP.

Deliverables, Timelines, Special Terms and Conditions:

The project will be executed in two phases, with go/no go decision points after each phase. ESP reserves the right to discontinue the project at the conclusion of any phase based on satisfactory completion of deliverables.

Phase 1 – Conceptual and Detailed Design (July to September 2026)

The contractor shall:

- Refine instructional goals, learning objectives, and simulator use cases in coordination with ESP
- Define system boundaries, operating modes, and fidelity levels appropriate for education and training
- Determine content that will feed into instructor tools based on Contractor-proposed approaches to identify the kinds of instructor tools needed in the Philippines nuclear energy context (e.g., conduct interviews/baseline needs assessment with learners)
- Develop the overall VR-based simulator architecture, including:
 - Simulation models and execution environment
 - VR hardware and software stack
 - Physical control interfaces and hardware-in-the-loop approach
- Identify safety, usability, accessibility, and classroom deployment considerations
- Develop detailed simulator and control panel designs, including:
 - System diagrams and interfaces

- Physical control layouts and spatial requirements
- Input/output (I/O) architecture and data flows
- Define verification and validation (V&V) and acceptance testing approaches

Interim Phase 1 Deliverables:

- Simulator concept and instructional use case memorandum
- Draft simulator architecture and technology selection rationale
- Preliminary control panel and VR environment layouts
- Safety, human factors, and usability assessment

Final Phase 1 Deliverable: A detailed design package suitable for procurement and build decisions, including drawings, system descriptions, I/O definitions, and updated project schedule.

Phase 2 – Bill of Materials and Implementation Planning (October 2026 to January 2027)

The contractor shall:

- Develop a comprehensive bill of materials (BOM) covering:
 - VR hardware and peripherals
 - Physical controls, panels, instrumentation, and enclosures
 - Computers, networking, and supporting infrastructure
 - Software licenses and development tools
- Identify long-lead items, procurement risks, and supply chain dependencies
- Finalize equipment specifications and implementation sequencing
- Update the integration and installation plan based on finalized components

Interim Phase 2 Deliverables:

- Draft BOM with cost ranges and vendor options
- Procurement risk and mitigation summary

Final Phase 2 Deliverable: An approved BOM and procurement/implementation plan.

Proposals must include:

1. Technical approach and understanding of project objectives – 10 pages max
 - a. Description of the proposed nuclear technology and simulator architecture
 - b. Description of the VR environment and physical control interfaces
 - c. Risk identification and mitigation strategy
 - d. Intellectual property, licensing, data rights, and long-term sustainment approach
2. Team qualifications (including relevant nuclear simulator, training, control room, and VR development experience) and roles – 5 pages max
3. Project schedule and milestones aligned with the two-phase structure (see Appendix B for example milestone table) – 2 pages max
4. Cost proposal with assumptions and milestone-based pricing



Proposal should consist of documents as follows:

- Proof of legal registration
- List of previous clients that are relevant to RTI business
- Signed RFP document (page 5 and 10)

ESP reserves the right to award to several bidders and fund any or none of the applications submitted, subject to the availability of funds.

Pricing

Item #	Quantity to be Purchased	Description of Preferred Commodity or Services Specifications	Unit of Measure	Unit Fixed Price (Each)	Total Fixed Price (Each)	Lead Time Availability (Number of Days)
1						
2						
3						
Total Value						

By signing this attachment, the bidder confirms he has a complete understanding of the specifications and fully intends to deliver items that comply with the above listed specifications.

Signature:

Title:

Date:

Attachment “B” Instructions to Bidders/Sellers

1. **Procurement Narrative Description:** The Buyer (RTI) intends to purchase commodities and/or services identified in Attachment A. The Buyer intends to purchase the quantities (for commodities) and/or services (based on deliverables identified in a Statement of Work). The term of the Ordering Agreement shall be from Award Date to the Delivery date of the Offeror unless extended by mutual agreement of the parties. The Buyer intends to award to a single “approved” supplier based on conformance to the listed specifications, the ability to service this contract, and selling price. We reserve the right to award to more than one bidder. If an Ordering Agreement is established as a result of this RFQ/RFP, supplier understands that quantities indicated in the specifications (Attachment A) are an estimate only and RTI does not guarantee the purchase quantity of any item listed.
2. **Procuring Activity:** This procurement will be made by **Research Triangle Institute (RTI International)**, located at

Manila, Philippines.

(insert full address of the office)

who has a purchase requirement in support of a project funded by

U.S. Department of State

(insert client’s name)

RTI shall award the initial quantities and/or services and any option quantities (if exercised by RTI) to Seller by a properly executed Purchase Order as set forth within the terms of this properly executed agreement.

3. **Proposal Requirements.** All Sellers will submit a quote/proposal which contains offers for all items and options included in this RFQ/RFP. All information presented in the Sellers quote/proposal will be considered during RTI’s evaluation. Failure to submit the information required in this RFQ/RFP may result in Seller’s offer being deemed non-responsive. Sellers are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach RTI’s office designated in the RFQ/RFP by the time and date specified in the RFQ/RFP. Any offer, modification, revision, or withdrawal of an offer received at the RTI office designated in the RFQ/RFP after the exact time specified for receipt of offers is “late” and may not be considered at the discretion of the RTI Procurement Officer. The Seller’s proposal shall include the following:
 - (a) The solicitation number:
 - (b) The date and time submitted:
 - (c) The name, address, and telephone number of the seller (bidder) and authorized signature of same:
 - (d) Validity period of Quote:

- (e) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary.
 - (f) If RTI informs Seller that the Commodity is intended for export and the Commodity is not classified for export under Export Classification Control Number (ECCN) “EAR99” of the U.S. Department of Commerce Export Administration Regulations (EAR), then Seller must provide RTI the correct ECCN and the name of Seller’s representative responsible for Trade Compliance who can confirm the export classification.
 - (g) Lead Time Availability of the Commodity/Service.
 - (h) Terms of warranty describing what and how the warranties will be serviced.
 - (i) Special pricing instructions: Price and any discount terms or special requirements or terms (special note: pricing must include guaranteed firm fixed prices for items requested.)
 - (j) Payment address or instructions (if different from mailing address)
 - (k) Acknowledgment of solicitation amendments (if any)
 - (l) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including points of contact with telephone numbers, and other relevant information)
 - (m) **Special Note:** *The Seller, by his response to this RFQ/RFP and accompanying signatures, confirms that the terms and conditions associated with this RFQ/RFP document have been agreed to and all of its attachments have been carefully read and understood and all related questions answered.*
4. **Forms:** Sellers (potential bidders or suppliers) must record their pricing utilizing the format found on Attachment “A”. Sellers must sign the single hardcopy submitted and send to address listed on the cover page of this RFQ/RFP.
5. **Questions Concerning the Procurement.** All questions in regards to this RFQ/RFP to be directed to

Jan Ranizen F. Viton, Procurement and Contracts Manager

(insert name of procurement officer)

at this email address:

jvitan@energysecure.ph

(insert email address of the procurement officer).



The cut-off date for questions is *(insert date)*.

May 20, 2026

6. **Notifications and Deliveries:** Time is of the essence for this procurement. Seller shall deliver the items or services no later than the dates set forth in the contract that will be agreed by both parties as a result of this RFQ/RFP. The Seller shall immediately contact the Buyer's Procurement Officer if the specifications, availability, or the delivery schedule(s) changes. Exceptional delays will result in financial penalties being imposed of Seller.
7. **Documentation:** The following documents will be required for payment for each item:
 - (a) A detailed invoice listing Purchase Order Number, Bank information with wiring instructions (when applicable)
 - (b) Packing List
 - (c) All relevant product/service documentation (manuals, warranty doc, certificate of analysis, etc.)
8. **Payment Terms:** Refer to RTI purchase order terms and conditions found in https://www.rti.org/sites/default/files/rti-po-terms_v1.21.pdf, http://www.rti.org/files/PO_FAR_Clauses.pdf, or http://www.rti.org/files/PO_FAR_Clauses_Commercial_Items.pdf. Payment can be made via wire transfer or other acceptable form. Sellers may propose alternative payment terms and they will be considered in the evaluation process.
9. **Alternative Proposals:** Sellers are permitted to offer "alternatives" should they not be able to meet the listed requirements. Any alternative proposals shall still satisfy the minimum requirements set forth in Attachment A Specifications.
10. **Inspection Process:** Each item shall be inspected prior to final acceptance of the item. All significant discrepancies, shortages, and/or faults must be satisfactorily corrected and satisfactorily documented prior to delivery and release of payment.
11. **Evaluation and Award Process:** The RTI Procurement Officer will award an agreement contract resulting from this solicitation to the responsible Seller (bidder) whose offer conforms to the RFQ/RFP will be most advantageous to RTI, price and other factors considered. The award will be made to the Seller representing the **best value** to the project and to RTI. For the purpose of this RFQ/RFP, price, delivery, technical and past performance are of equal importance for the purposes of evaluating, and selecting the "best value" awardee. RTI intends to evaluate offers and award an Agreement without discussions with Sellers. Therefore, the Seller's initial offer should contain the Seller's best terms from a price and technical standpoint. However, RTI reserves the right to conduct discussions if later determined by the RTI Procurement Officer to be necessary.

The evaluation factors will be comprised of the following criteria:

- (a) **PRICE.** Lowest/reasonable evaluated ceiling price (inclusive of option quantities).
- (b) **DELIVERY.** Seller provides the most advantageous delivery schedule.

- (c) **TECHNICAL**. Items/Services shall satisfy or exceed the specifications described in RFQ/RFP Attachment A.
- (d) **PAST PERFORMANCE** - Seller can demonstrate his/her capability and resources to provide the items/services requested in this solicitation in a timely and responsive manner.
- (e) **OTHER EVALUATION CRITERIA**.

N/A

12. **Award Notice.** A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful supplier within the time acceptance specified in the offer, shall result in a binding contract without further action by either party.
13. **Validity of Offer.** This RFP in no way obligates RTI to make an award, nor does it commit RTI to pay any costs incurred by the Seller in the preparation and submission of a proposal or amendments to a proposal. Your proposal shall be considered valid for 60 days after submission.
14. **Representations and Certifications.** Winning suppliers under a US Federal Contract are required to complete and sign as part of your offer RTI Representations and Certifications for values over \$10,000.
15. **Certification.** The offeror, by signing its offer, hereby certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract.
16. **Anti- Kick Back Act of 1986.** Anti-Kickback Act of 1986 as referenced in FAR 52.203-7 is hereby incorporated into this Request for Proposal as a condition of acceptance. If you have reasonable grounds to believe that a violation, as described in Paragraph (b) of FAR 52.203-7 may have occurred, you should report this suspected violation to the RTI's Ethics Hotline at 1-877-212-7220 or by sending an e-mail to ethics@rti.org. You may report a suspected violation anonymously.
17. **The John S. McCain National Defense Authorization Act for fiscal year 2019 - section 889.** RTI cannot use any equipment or services from specific companies, or their subsidiaries and affiliates, including Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, and Dahua Technology Company ("Covered Technology"). In response to this request for proposal, please do not provide a quote which includes any Covered Technology. Any quote which includes Covered Technology will be deemed non-responsive. Additionally, if the United States Government is the source of funds for this RFP, the resulting Supplier shall not provide any equipment, system, or service that uses Covered Technology as a substantial or essential component

Acceptance:

Seller agrees, as evidenced by signature below, that the seller's completed and signed



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solicitation, seller's proposal including all required submissions and the negotiated terms contained herein, constitute the entire agreement for the services described herein.

By: *(Seller Company Name)*

Signature: _____

Title:

Date:

Annex 1: Minimum System List for VR Simulation

Reactor & Nuclear Steam Supply Systems

- Reactor vessel representation with core thermal-hydraulic behavior
- Reactor power and reactivity control
- Reactor pressure indication
- Neutron flux or power level indication

Reactor Protection & Safety Systems

- Reactor Protection System logic with scram conditions
- Emergency Core Cooling System
- Isolation and automatic protection functions
- Associated alarms and annunciators

Heat Removal & Balance-of-Plant

- Main steam system
- Turbine-generator representation
- Condenser and heat sink
- Feedwater system behavior

Electrical Systems

- Offsite power interface
- Onsite AC distribution
- Diesel generator behavior
- Electrical indications and alarms

Control Room Interfaces

- Physical switches, controls, and meters
- Alarm annunciation system

Operational Scenarios

- Normal startup and shutdown
- Power maneuvering
- Representative transients
- Selected abnormal/emergency conditions

Data & Training Support

- Data logging and playback
- Scenario reset capability