STATE OF NORTH CAROLINA

North Carolina A&T State University

Request for Proposal #:59-P2411

Smart Grid & Microgrid Immersive Learning and Training Platform

Date of Issue: 5/5/2026

Bid Opening Date: 5/14/2026

At 2:00 PM ET

Direct all inquiries concerning this RFP to:

Roselyn Pinnix

Purchasing Specialist

Email: rp003826@ncat.edu

Phone: 336.285.4970

STATE OF NORTH CAROLINA

Request for Proposal #

59-P2411

For internal State agency processing, including tabulation of proposals, provide your company's eVP (Electronic Vendor Portal) Number. Pursuant to G.S. 132-1.10(b) this identification number shall not be released to the public. **This page will be removed and shredded, or otherwise kept confidential**, before the procurement file is made available for public inspection.

This page shall be filled out and returned with your proposal.
Failure to do so may subject your proposal to rejection.

_____

Vendor Name

_____

Vendor eVP#

Note: For a contract to be awarded to you, your company (you) must be a North Carolina registered Vendor in good standing. You must enter the Vendor number assigned through eVP (Electronic Vendor Portal). If you do not have a Vendor number, register athttps://evp.nc.gov/SignIn

Electronic responses ONLY will be accepted for this solicitation.

STATE OF NORTH CAROLINA
North Carolina A&T State University

Refer *ALL* Inquiries regarding this RFP to: ***Roselyn Pinnix, Purchasing Specialist*** ***rp003826@ncat.edu*** ***336.285.4970***	**Request for Proposal #: 59-P2411** **Proposals will be publicly opened: 5/14/2026**

EXECUTION

In compliance with this Request for Proposals (RFP), and subject to all the conditions herein, the undersigned Vendor offers and agrees to furnish and deliver any or all items upon which prices are bid, at the prices set opposite each item within the time specified herein.

By executing this proposal, the undersigned Vendor understands that false certification is a Class I felony and certifies that:

- this proposal is submitted competitively and without collusion (G.S. 143-54),
- none of its officers, directors, or owners of an unincorporated business entity has been convicted of any violations of Chapter 78A of the General Statutes, the Securities Act of 1933, or the Securities Exchange Act of 1934 (G.S. 143-59.2), and
- it is not an ineligible Vendor as set forth in G.S. 143-59.1.

Furthermore, by executing this proposal, the undersigned certifies to the best of Vendor's knowledge and belief, that:

- it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal or State department or agency.

As required by G.S. 143-48.5, the undersigned Vendor certifies that it, and each of its sub-Contractors for any Contract awarded as a result of this RFP, complies with the requirements of Article 2 of Chapter 64 of the NC General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

As required by Executive Order 24 (2017), the undersigned vendor certifies will comply with all Federal and State requirements concerning fair employment and that it does not and will not discriminate, harass, or retaliate against any employee in connection with performance of any Contract arising from this solicitation.

G.S. 133-32 and Executive Order 24 (2009) prohibit the offer to, or acceptance by, any State Employee associated with the preparing plans, specifications, estimates for public contracts; or awarding or administering public contracts; or inspecting or supervising delivery of the public contract of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of this response to the RFP, the undersigned certifies, for Vendor's entire organization and its employees or agents, that Vendor is not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

By executing this proposal, Vendor certifies that it has read and agreed to the **INSTRUCTION TO VENDORS** and the **NORTH CAROLINA GENERAL TERMS AND CONDITIONS incorporated herein.** These documents can be accessed from the ATTACHMENTS page within this document.

Failure to execute/sign proposal prior to submittal may render proposal invalid and it MAY BE REJECTED. Late proposals shall not be accepted.

COMPLETE/FORMAL NAME OF VENDOR:			
STREET ADDRESS:		P.O. BOX:	ZIP:
CITY & STATE & ZIP:		TELEPHONE NUMBER:	TOLL FREE TEL. NO:
PRINCIPAL PLACE OF BUSINESS ADDRESS IF DIFFERENT FROM ABOVE (SEE INSTRUCTIONS TO VENDORS ITEM #21):			
PRINT NAME & TITLE OF PERSON SIGNING ON BEHALF OF VENDOR:			
VENDOR'S AUTHORIZED SIGNATURE*:	**DATE:**	EMAIL:	

VALIDITY PERIOD

Offer shall be valid for at least sixty 60 days from date of bid opening, unless otherwise stated here: _____ days, or if extended by mutual agreement of the parties in writing. Any withdrawal of this offer shall be made in writing, effective upon receipt by the agency issuing this RFP.

ACCEPTANCE OF PROPOSAL

If your proposal is accepted, all provisions of this RFP, along with the written results of any negotiations, shall constitute the written agreement between the parties ("Contract"). The NORTH CAROLINA GENERAL TERMS AND CONDITIONS are incorporated herein and shall apply. Depending upon the Goods or Services being offered, other terms and conditions may apply, as mutually agreed.

FOR STATE USE ONLY: Offer accepted and Contract awarded this_____ day of _____, 20____, as indicated on

The attached certification, by _____.

(Authorized Representative of North Carolina A&T State University)

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1.0 PURPOSE AND BACKGROUND

Purpose

STEPS4GROWTH is a four-year program funded through the American Rescue Plan *Good Jobs Challenge* grant and awarded to North Carolina A&T State University within the Computational Data Science & Engineering Department. The program is designed to develop a robust, clean energy workforce training ecosystem. As part of this effort, STEPS4GROWTH is seeking a qualified vendor to deliver a custom-built, turnkey solution for the "*Smart Grid & Microgrid Immersive Learning and Training Platform*", including full system integration.

The proposed platform will accelerate the development of a future-ready clean energy workforce by leveraging immersive virtual reality (VR) technologies to teach core concepts in smart power systems. The goal is to create an innovative, interactive, and accessible learning environment that complements traditional classroom instruction while providing learners with hands-on, virtual exposure to critical systems, tools, and operational scenarios commonly used in the modern power and energy sector.

The VR-based training modules will simulate realistic grid environments, equipment, and operational conditions, allowing students and program participants to engage with complex smart grid and microgrid systems within a safe, controlled setting. Through this immersive approach, learners will be able to visualize and interact with system components, conduct experiments, troubleshoot faults, and observe dynamic system behaviors in real time. These capabilities are often difficult or prohibitively expensive to replicate in physical laboratory environments due to cost, space limitations, or safety concerns.

Background

The STEPS4GROWTH program is a statewide workforce development initiative designed to prepare North Carolina's future talent for high-demand careers in energy efficiency, clean manufacturing, clean energy, and other emerging industries. A core pillar of STEPS4GROWTH is its strong emphasis on hands-on training, experiential learning, and clearly defined real-world career pathways. Through specialized academic coursework, industry-recognized certifications, and applied research experiences, participants develop the technical expertise and professional competencies required to succeed in technology-driven workplaces.

The program is intentionally structured to ensure equitable access for learners from diverse backgrounds, providing opportunities to participate in high-quality training and connect directly with employers across the state. By integrating education, workforce development, and industry engagement, STEPS4GROWTH strengthens North Carolina's talent pipeline, fuels economic growth, and empowers students to pursue meaningful and sustainable careers in critical and emerging sectors.

As a public, high-research-activity, land-grant university, North Carolina Agricultural and Technical State University (N.C. A&T) serves as a research engine, educational leader, and economic catalyst for the state and the nation. With students drawn from nearly every U.S. state and six continents worldwide, N.C. A&T's educational reach and impact rank among the strongest in the Southeastern United States. The university is not only America's highest-ranked historically Black college and university (HBCU), but also the largest HBCU for seven consecutive years and the nation's leading HBCU for STEM education. N.C. A&T produces more African American engineers and agricultural scientists than any other university in the United States and is home to the top public HBCU business school in the country.

Over the past decade, N.C. A&T has experienced significant growth in student enrollment, academic offerings, and research capacity, including the establishment of four new Centers of Excellence within the last year alone. Guided by a bold and forward-looking strategic plan, the university has expanded enrollment to more than 14,000 students, invested in major infrastructure projects such as the $90 million Engineering Research and Innovation Complex, and

continues to enhance campus life with new residential facilities, including an upcoming 450-bed residence hall. Concurrently, N.C. A&T has strengthened its research enterprise through expanded partnerships with federal agencies and private-sector organizations. We invite stakeholders to explore N.C. A&T and the opportunities made possible through collaboration.

The Master of Science in Data Science and Engineering is an interdisciplinary graduate program tailored for students seeking to apply computational and data-driven approaches to solving complex problems involving big data, advanced analytics, large-scale computation, modeling, simulation, optimization, and visualization.

The mission of the Department of Computational Data Science and Engineering is to prepare graduates who:

a. Develop novel computational methodologies and technologies, and/or
b. Apply advanced computational tools to extend expertise across disciplines in science, technology, engineering, and socioeconomics.

Research within the department encompasses a broad and impactful portfolio, including big data analytics and computational statistics; artificial intelligence and machine learning; the Internet of Things; large-scale and complex systems; intelligent transportation and infrastructure; remote sensing; autonomous systems; virtual and augmented reality; e-commerce; image and video analytics; scientific and interactive visualization; high-performance computing; scalable algorithms; bioinformatics; and multi-scale, multi-physics engineering systems.

The intent of this solicitation is to award an Agency Specific Contract

Bids shall be submitted in accordance with the terms and conditions of this RFP and any addenda issued hereto.

2.0 GENERAL INFORMATION

2.1 REQUEST FOR PROPOSAL DOCUMENT

This RFP is comprised of the base RFP document, any attachments, and any addenda released before Contract award, which are incorporated herein by reference.

2.2 E-PROCUREMENT FEE

ATTENTION: The E-Procurement fee may apply to this solicitation. See the paragraph entitled ELECTRONIC PROCUREMENT of the North Carolina General Terms and Conditions.

General information on the E-Procurement Services can be found at: http://eprocurement.nc.gov/.

2.3 NOTICE TO VENDORS REGARDING RFP TERMS AND CONDITIONS

It shall be the Vendor's responsibility to read the Instructions to Vendors, the North Carolina General Terms and Conditions, all relevant exhibits and attachments, and any other components made a part of this RFP and comply with all requirements and specifications herein. Vendors are also responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this RFP.

If Vendors have questions or issues regarding any component of this RFP, those must be submitted as questions in accordance with the instructions in the PROPOSAL QUESTIONS Section. If the State determines that any changes will be made as a result of the questions asked, then such decisions will be communicated in the form of an RFP addendum. The State may also elect to leave open the possibility for later negotiation of specific provisions of the Contract that have been addressed during the question-and-answer period, prior to contract award.

Other than through the process of negotiation under 01 NCAC 05B.0503, the State rejects and will not be required to evaluate or consider any additional or modified terms and conditions submitted with Vendor's proposal or otherwise. This applies to any language appearing in or attached to the document as part of the Vendor's proposal that purports to vary any terms and conditions or Vendors' instructions herein or to render the proposal non-binding or subject to further negotiation. Vendor's proposal shall constitute a firm offer that shall be held open for the period required herein ("Validity Period" above).

The State may exercise its discretion to consider Vendor proposed modifications. By execution and delivery of this RFP Response, the Vendor agrees that any additional or modified terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect, and will be disregarded unless expressly agreed upon through negotiation and incorporated by way of a Best and Final Offer (BAFO). Noncompliance with, or any attempt to alter or delete, this paragraph shall constitute sufficient grounds to reject Vendor's proposal as nonresponsive.

2.4 RFP SCHEDULE

The table below shows the *intended* schedule for this RFP. The State will make every effort to adhere to this schedule.

Event	Responsibility	Date and Time
Issue RFQ	State	5/5/2026
Submit Written Questions	Vendor	5/8/2026
Provide Response to Questions	State	5/11/2026
Submit Bids	Vendor	5/14/2026
Award	State	5/15/2026

2.5 PROPOSAL QUESTIONS

Upon review of the RFP documents, Vendors may have questions to clarify or interpret the RFP in order to submit the best proposal possible. To accommodate the Proposal Questions process, Vendors shall submit any such questions by the "Submit Written Questions" date and time provided in the RFP SCHEDULE Section above, unless modified by Addendum.

Written questions shall be submitted through Bonfire by the date and time specified above. Vendors should enter "RFP *#59-P2411:* Questions" as the subject for the submission. Question submittals should include a reference to the applicable RFP section and be submitted in the format shown below:

Reference	Vendor Question
RFP Section, Page Number	Vendor question …?

Questions received prior to the submission deadline date, the State's response, and any additional terms deemed necessary by the State will be posted in the form of an addendum to *the electronic Vendor Portal (eVP), https://evp.nc.gov,* and shall become an Addendum to this RFP. No information, instruction or advice provided orally or informally by any State personnel, whether made in response to a question or otherwise in connection with this RFP, shall be considered authoritative or binding. Vendors shall rely *only* on written material contained in the RFP and an addendum to this RFP.

2.6 PROPOSAL SUBMITTAL

IMPORTANT NOTE: This is an absolute requirement. Late bids, regardless of cause, will not be opened or considered, and will be automatically disqualified from further consideration. Vendor shall bear the sole risk of late submission due to unintended or unanticipated delay. It is the Vendor's sole responsibility to ensure its proposal has been received as

described in this RFP by the specified time and date of opening. The time and date of receipt will be marked on each proposal when received. Any proposal or portion thereof received after the proposal deadline will be rejected.

Instructions: Responses, subject to the conditions made a part hereof and the receipt requirements described below, shall be received at the address indicated in the table below, for furnishing and delivering those items as described herein.

Electronic address for delivery of Bid Proposal
https://ncat.bonfirehub.com/portal/?tab=openOpportunities

Electronic responses ONLY will be accepted for this solicitation through:

https://ncat.bonfirehub.com/portal/?tab=openOpportunities

BID SUBMITTAL – NO PAPER SUBMISSIONS

Bonfire Support Team can also be contracted by calling 1-800-354-8010 Ext. 2. Support by phone and email is provided Monday - Friday from 8 AM – 8 PM EST.

If confidential and proprietary information is included in the proposal, also submit one (1) signed, REDACTED copy of the proposal. Such information may include trade secrets defined by N.C. Gen. Stat. § 66-152 and other information exempted from the Public Records Act pursuant to N.C. Gen. Stat. §132- 1.2. Vendor may designate information, Products, Services or appropriate portions of its response as confidential, consistent with and to the extent permitted under the statutes and rules set forth above. By so redacting any page, or portion of a page, the Vendor warrants that it has formed a good faith opinion, having received such necessary or proper review by counsel and other knowledgeable advisors, that the portions determined to be confidential and proprietary and redacted as such, meet the requirements of the Rules and Statutes set forth above. However, under no circumstances shall price information be designated as confidential.

If the Vendor does not provide a redacted version of the proposal with its proposal submission, the Department may release an unredacted version if a record request is received.

Failure to submit a proposal in strict accordance with these instructions shall constitute sufficient cause to reject a Vendor's proposal(s). Vendors are strongly encouraged to allow sufficient time to upload proposals.

Critical updated information may be included in Addenda to this RFP. It is important that all Vendors responding to this RFP periodically check the State's eVP website for any Addenda that may be issued prior to the bid opening date. All Vendors shall be deemed to have read and understood all information in this RFP and all Addenda thereto.

2.7 PROPOSAL CONTENTS

Vendors shall populate all attachments of this RFP that require the Vendor to provide information and include an authorized signature where requested. Failure to provide all required items, or Vendor's submission of incomplete items, may result in the State rejecting Vendor's proposal, in the State's sole discretion.

Vendor RFP responses shall include the following items and attachments, which shall be arranged in the following order:

a) Cover Letter, which must contain the following: (i) a statement that confirms that the proposer has read the RFP in its entirety, including all links, and all Addenda released in conjunction with the RFP, (ii) a statement that the

Vendor agrees to perform in accordance with the scope of work, requirements, and specifications contained herein; and (iii) Vendor's agreement to comply with all instructions, terms and conditions, and attachments

b) Title Page: Include the company name, address, phone number and authorized representative along with the Proposal Number.

c) Completed and signed version of all EXECUTION PAGES, along with the body of the RFP.

d) Signed receipt pages of any addenda released in conjunction with this RFP, if required to be returned.

e) Vendor's Proposal addressing all Specifications of this RFP.

f) Completed version of ATTACHMENT A: PRICING

g) Completed version of ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION

h) Completed version of ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR

i) Completed and signed version of ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION

2.10 DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

Relevant definitions for this RFP are provided in 01 NCAC 05A .0112 and in the Instructions to Vendors found below which are incorporated herein by this reference.

The following definitions, acronyms, and abbreviations are also relevant to this RFP: *NA*

3.0 METHOD OF AWARD AND PROPOSAL EVALUATION PROCESS

3.1 METHOD OF AWARD

North Carolina G.S. 143-52 provides a general list of criteria the State shall use to award contracts, as supplemented by the additional criteria herein. The Goods or Services being procured shall dictate the application and order of criteria; however, all award decisions shall be in the State's best interest. All qualified proposals will be evaluated, and awards will be made to the Vendor(s) meeting the specific RFP Specifications and achieving the highest and best final evaluation, based on the criteria described below.

While the intent of this RFP is to award a Contract(s) to a single Vendor, the State reserves the right to make separate awards to different Vendors for one or more line items, to not award one or more line items or to cancel this RFP in its entirety without awarding a Contract, if it is considered to be most advantageous to the State to do so.

The State reserves the right to waive any minor informality or technicality in proposals received.

3.2 CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING EVALUATION

While this RFP is under evaluation, the responding Vendor, including any subcontractors and suppliers, is prohibited from engaging in conversations intended to influence the outcome of the evaluation. See Paragraph 29 of the Instructions to Vendors entitled COMMUNICTIONS BY VENDORS.

Each Vendor submitting a proposal to this RFP, including its employees, agents, subcontractors, suppliers, subsidiaries and affiliates, is prohibited from having any communications with any person inside or outside the using agency; issuing agency; other government agency office or body (including the procurement lead named above, any department secretary, agency head, members of the General Assembly and Governor's office); or private entity, if the communication refers to the content of Vendor's proposal or qualifications, the content of another Vendor's proposal, another Vendor's qualifications or ability to perform a resulting contract, and/or the transmittal of any other communication of information that could be reasonably considered to have the effect of directly or indirectly influencing the evaluation of proposals, the award of a contract, or both.

Any Vendor not in compliance with this provision shall be disqualified from evaluation and award. A Vendor's proposal may be disqualified if its subcontractor and/or supplier engage in any of the foregoing communications during the time that the procurement is active (*i.e.*, the issuance date of the procurement until the date of contract award or cancellation of the procurement). Only those discussions, communications or transmittals of information authorized or initiated by the issuing agency for this RFP or inquiries directed to the procurement lead named in this RFP regarding requirements of the RFP (prior to proposal submission) or the status of the award (after submission) are excepted from this provision.

3.3 PROPOSAL EVALUATION PROCESS

Only responsive submissions will be evaluated.

The State will conduct a One-Step evaluation of Proposals:

Proposals will be received according to the method stated in the Proposal Submittal Section above.

All proposals must be received by the issuing agency not later than the date and time specified in the RFP SCHEDULE Section above, unless modified by Addendum. Vendors are cautioned that this is a request for offers, not an offer or request to contract, and the State reserves the unqualified right to reject any and all offers at any time if such rejection is deemed to be in the best interest of the State.

At the date and time provided in the RFP SCHEDULE Section above, unless modified by Addendum, the proposal from each responding Vendor will be opened publicly and all offers (except those that have been previously withdrawn, or voided bids) will be tabulated. The tabulation shall be made public at the time it is created. When negotiations after receipt of bids are authorized pursuant to G.S. 143-49 and 01 NCAC 05B.0503, only the names of offerors and the Goods and Services offered shall be tabulated at the time of opening. If negotiation is anticipated, cost and price shall become available for public inspection at the time of the award. Interested parties are cautioned that these costs and their components are subject to further evaluation for completeness and correctness and therefore may not be an exact indicator of a Vendor's pricing position.

At their option, the evaluators may request oral presentations or discussions with any or all Vendors for clarification or to amplify the materials presented in any part of the proposal. Vendors are cautioned, however, that the evaluators are not required to request presentations or other clarification—and often do not. Therefore, all proposals should be complete and reflect the most favorable terms available from the Vendor.

3.4 EVALUATION CRITERIA

In addition to the general criteria in G.S. 143-52 which may or may not be relevant to this RFP, all qualified proposals will be evaluated, and award made based on considering the following criteria, to result in an award most advantageous to the State:

Total Points Possible: 200

<u>Technical*:* (150 Maximum Points)

Technical Approach & Solution Design – 50 Points

Evaluates how well the vendor proposes to meet the scope

- Overall system design (VR application + backend if applicable)
- How modules are structured (standalone vs integrated)
- Scalability and future expansion capability

- VR System Design
- How the immersive environment will function
- User interaction design (controls, navigation, simulation behavior)
- Handling of real-time simulation scenarios
- Module Development Strategy
- Must address all 15 required modules
- How consistency will be maintained across modules
- System Integration of 3D assets, Simulation logic, and User interface
- Ensuring all modules function as a unified platform
- Performance Optimization
- Frame rate targets (critical for VR)
- Load times and performance tuning
- Compatibility with VR hardware

VR/AR Development Capability & Tools – 50 Points

Focus on experience with Unity, immersive environments, and platform compatibility.

- Unity Development Approach with Experience with Unity LTS version
- Workflow for development, testing, and deployment
- Meeting Unity 2021.3 LTS or newer requirement
- Hardware Compatibility. Approach to ensuring compatibility with HTC Vive Focus 3
- Testing methodology on target device
- 3D Asset Development Tools
- VR Interaction Frameworks

Experience & Past Performance – 25 Points

Relevant project history, especially simulation, training platforms, or digital twins.

- Relevant Project Experience with VR/AR training platforms, Simulation environments, and Digital twin applications
- Similar Scope Complexity such as Multi-module systems and STEM/engineering-based simulations

Project Management & Implementation Plan – 25 Points

Phased delivery, timeline, staffing, and ability to meet milestones.

- Phased Delivery Plan
- Phased module rollout
- Staffing Plan

Price: (50 Maximum Points)

Example: The State will determine low cost by normalizing the scores as follows:

The proposal with the lowest cost will receive a score of XX. All other competing proposals will be assigned a portion of the maximum score using the formula:

$$XX \times \frac{\text{the cost of the lowest cost proposal}}{\text{the cost of the cost proposal being evaluated}}$$

3.5 PERFORMANCE OUTSIDE THE UNITED STATES

Vendor shall complete ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR. In addition to any other evaluation criteria identified in this RFP, the State may also consider, for purposes of evaluating proposed or actual contract performance outside of the United States, how that performance may affect the following factors to ensure that any award will be in the best interest of the State:

a) Total cost to the State
b) Level of quality provided by the Vendor
c) Process and performance capability across multiple jurisdictions
d) Protection of the State's information and intellectual property
e) Availability of pertinent skills
f) Ability to understand the State's business requirements and internal operational culture
g) Particular risk factors such as the security of the State's information technology
h) Relations with citizens and employees
i) Contract enforcement jurisdictional issues

3.6 INTERPRETATION OF TERMS AND PHRASES

This RFP serves two functions: (1) to advise potential Vendors of the parameters of the solution being sought by the State; and (2) to provide (together with other specified documents) the terms of the Contract resulting from this procurement. The use of phrases such as "shall," "must," and "requirements" are intended to create enforceable contract conditions. In determining whether proposals should be evaluated or rejected, the State will take into consideration the degree to which Vendors have proposed or failed to propose solutions that will satisfy the State's needs as described in the RFP. Except as specifically stated in the RFP, no one requirement shall automatically disqualify a Vendor from consideration. However, failure to comply with any single requirement may result in the State exercising its discretion to reject a proposal in its entirety.

4.0 REQUIREMENTS

This Section lists the requirements related to this RFP. By submitting a proposal, the Vendor agrees to meet all stated requirements in this Section as well as any other specifications, requirements, and terms and conditions stated in this RFP. If a Vendor is unclear about a requirement or specification, or believes a change to a requirement would allow for the State to receive a better proposal, the Vendor is urged to submit these items in the form of a question during the question-and-answer period in accordance with the Proposal Questions Section above.

4.1 PRICING

Proposal price shall constitute the total cost to the State for complete performance in accordance with the requirements and specifications herein, including all applicable charges for handling, transportation, administrative and other similar fees. Complete ATTACHMENT A: PRICING FORM and include in Vendor's proposal. The pricing provided in ATTACHMENT A, or resulting from any negotiations, is incorporated herein and shall become part of any resulting Contract.

INVOICES MAY NOT BE PAID UNTIL AN INSPECTION HAS OCCURRED AND THE GOODS OR SERVICES ACCEPTED.

4.1.1 Import Tariff Temporary Surcharge

Pricing shall be exclusive of any pending tariffs or temporary tariff surcharge. Vendor may request a temporary tariff surcharge in ATTACHMENT A: PRICING SUBMITTAL WORKBOOK as a charge separate from the contract price. Any temporary tariff surcharge(s) associated with purchases shall be provided by way of a percentage tariff surcharge. All tariff surcharges proposed are intended to be temporary and based on current tariff implications specific to related commodities with evidence of submitted documentation of affected MSRP products. Vendor understands that the agency may request additional justification. Any temporary tariff surcharge percentage will be negotiated and mutually agreed upon. The state is not obligated to accept any proposed import tariff surcharge. Proposed tariff surcharges may be used as a factor for evaluation and award.

4.2 FINANCIAL STABILITY

As a condition of contract award, the Vendor must certify that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Vendor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Vendor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any contract, or order by any court of competent jurisdiction.

Each Vendor shall certify it is financially stable by completing ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION. The State is requiring this certification to minimize potential issues from contracting with a Vendor that is financially unstable. From the date of the Certification to the expiration of the Contract, the Vendor shall notify the State within thirty (30) days of any occurrence or condition that materially alters the truth of any statement made in this Certification. The Contract Manager may require annual recertification of the Vendor's financial stability.

4.3 HUB PARTICIPATION

Pursuant to North Carolina General Statute G.S. 143-48, it is State policy to encourage and promote the use of small, minority, physically handicapped, and women contractors in purchasing Goods and Services. As such, this RFP will serve to identify those Vendors that are minority owned or have a strategic plan to support the State's Historically Underutilized Business program by meeting or exceeding the goal of 10% utilization of diverse firms as 1st or 2nd tier subcontractors. Vendor shall complete ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION.

4.4 VENDOR EXPERIENCE

In its Proposal, Vendor shall demonstrate at least (5) five years of experience with public and/or private sector clients with similar or greater size and complexity to the State. Vendor shall provide information as to the qualifications and experience of all executive, managerial, legal, and professional personnel to be assigned to this project.

4.5 BACKGROUND CHECKS

Any personnel or agent of Vendor performing Services under any Contract arising from this RFP may be required to undergo a background check at the expense of the Vendor, if so requested by the State.

4.6 PERSONNEL

Vendor warrants that qualified personnel shall provide Services under this Contract in a professional manner. "Professional manner" means that the personnel performing the Services will possess the skill and competence consistent with the prevailing business standards in the industry. Vendor will serve as the prime contractor under this Contract and shall be responsible for the performance and payment of all subcontractor(s) that may be approved by the State. Names of any third-party Vendors or subcontractors of Vendor may appear for purposes of convenience in Contract documents; and shall not limit Vendor's obligations hereunder. Vendor will retain executive representation for functional and technical expertise as needed in order to incorporate any work by third party subcontractor(s).

Should the Vendor's proposal result in an award, the Vendor shall be required to agree that it will not substitute key personnel assigned to the performance of the Contract without prior written approval by the Contract Lead. Vendor shall further agree that it will notify the Contract Lead of any desired substitution, including the name(s) and references of Vendor's recommended substitute personnel. The State will approve or disapprove the requested substitution in a timely manner. The State may, in its sole discretion, terminate the Services of any person providing Services under this Contract. Upon such termination, the State may request acceptable substitute personnel or terminate the contract Services provided by such personnel.

4.7 VENDOR'S REPRESENTATIONS

If Vendor's Proposal results in an award, Vendor agrees that it will not enter any agreement with a third party that may abridge any rights of the State under the Contract. If any Services, deliverables, functions, or responsibilities not specifically described in this solicitation are required for Vendor's proper performance, provision and delivery of the Service and deliverables under a resulting Contract, or are an inherent part of or necessary sub-task included within such Service, they will be deemed to be implied by and included within the scope of the Contract to the same extent and in the same manner as if specifically described in the Contract. Unless otherwise expressly provided herein, Vendor will furnish all of its own necessary management, supervision, labor, facilities, furniture, computer and telecommunications equipment, software, supplies and materials necessary for the Vendor to provide and deliver the Services and/or other Deliverables.

4.8 FINANCIAL STABILITY

As a condition of contract award, the Vendor must certify that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Vendor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Vendor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any contract, or order by any court of competent jurisdiction

Each Vendor shall certify it is financially stable by completing the ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION. The State is requiring this certification to minimize potential performance issues from Contracting with a Vendor that is financially unstable. This Certification shall be deemed continuing, and from the date of the Certification to the expiration of the Contract, the Vendor shall notify the State within thirty (30) days of any occurrence or condition that materially alters the truth of any statement made in this Certification.

4.9 AGENCY INSURANCE REQUIREMENTS MODIFICATION

A. Default Insurance Coverage from the General Terms and Conditions applicable to this Solicitation:

☐ Small Purchases

☒ Contract value in excess of the Small Purchase threshold, but up to $1,000,000.00

☐ Contract value in excess of $1,000,000.00

4.10 SUBCONTRACTORS

No portion of the work shall be subcontracted without prior written consent of the State. In the event that the Vendor desires to subcontract some part of the work specified herein, the Vendor shall furnish with their bid the names, qualifications, and experience of their proposed subcontractors. The Vendor shall, however, remain solely and fully liable and responsible for the work done by its subcontractor(s) and shall assure compliance with all the requirements and specifications of the contract.

4.11 SECRETARY OF STATE REGISTRATION

Prior to entering into a contract with the State, the awarded Vendor(s) must complete registration with the NC Secretary of State. Upon notification of award, the selected Vendor(s) must furnish evidence of filing within 10 business days. Failure to provide this documentation may result in the disqualification of the Vendor(s) bid from further consideration for the award. No purchase orders shall be issued prior to confirmation of completed registration with the Secretary of State.
No purchase orders shall be issued prior to confirmation of completed registration with the Secretary of State.

A contract award under the above-referenced solicitation, and the resulting purchase orders, will produce repeated orders and transactions in North Carolina and will constitute "transacting business" in the State, which requires a certificate of authority from the North Carolina Secretary of State as provided in G.S. §55-15-01 (corporations) or §57D-7-01 (LLCs). Please go to: https://www.sosnc.gov/ to register.

Vendor registered with the North Carolina Secretary of State: Yes☐ No ☐

5.0 SPECIFICATIONS AND SCOPE OF WORK

5.1 GENERAL

The proposed virtual reality (VR) content will comprise 15 structured laboratory experiments, each focused on a core subject essential to modern smart power systems and grid technologies. The selected vendor shall be fully responsible for the design, development, creation, and management of all required 3D assets associated with the project platform, including but not limited to virtual environments, equipment models, system components, and interactive elements. All assets must be original, high-quality, and optimized for immersive VR delivery.

5.2 EXPERIENCE & PAST PERFORMANCE

Must have a minimum of (5) fives years of applicable experience.

Provide vendor's company history and detail at least (2) two projects similar in scope and size demonstrating past performance.

5.3 SPECIFICATIONS

The laboratory experiment topics are as follows:

1. Introduction to Power Systems

2. Load Flow Analysis of Power Systems
3. Fault Analysis of Power Systems
4. Optimization of Power Systems
5. Voltage and Frequency Control in Power Systems
6. Power Factor Regulation of Synchronous Generators
7. Energy Losses in Transmission Lines
8. Renewable Energy Sources
9. Solar PV Energy Systems
10. Wind Turbine Energy Systems
11. Energy Storage Systems
12. Online and Offline Microgrids
13. Introduction to SCADA Systems
14. Impacts of Renewable Energy on Power System Stability
15. Introduction to Virtual Reality and Digital Twins

Each module will be developed as a standalone, guided VR learning experience, immersing users in applied, hands-on exercises. The modules are designed to reinforce theoretical concepts, cultivate critical thinking, and build practical skills aligned with industry workforce needs, including smart grid operation and control, renewable energy integration, system optimization, and grid modernization.

All platform modules shall be developed using a supported Long-Term Support (LTS) version of the Unity 3D game engine, Unity 2021.3 LTS or newer, that is fully compatible with deployment on the HTC Vive Focus 3 standalone VR headset. The delivered Unity project files and compiled application packages must be capable of being built, deployed, and executed natively on the HTC Vive Focus 3 without modification, ensuring full functional equivalence across development, testing, and production environments. All data, content, deliverables, and materials developed, produced, or collected under this Contract shall be the sole and exclusive property of North Carolina A&T State University.

This initiative will serve as a foundational element in establishing comprehensive clean energy training pathways that reflect current and emerging workforce demands. By integrating technical rigor with cutting-edge immersive learning technologies, the platform will enhance the institution's ability to prepare students and trainees for careers in clean energy systems, power systems management, and grid resilience, contributing to a more sustainable, reliable, and future-ready energy infrastructure.

5.4 TASKS/DELIVERABLES

The proposed virtual reality (VR) content will comprise 15 structured laboratory experiments, each focused on a core subject essential to modern smart power systems and grid technologies. The selected vendor shall be fully responsible for the design, development, creation, and management of all required 3D assets associated with the project platform, including but not limited to virtual environments, equipment models, system components, and interactive elements. All assets must be original, high-quality, and optimized for immersive VR delivery.

Project deliverables will be provided according to a phased, milestone-based implementation plan, as outlined below:

- Phase 1: Project kickoff, discovery, and the development and integration of 1-2 modules.
- Phase 2: The development and integration of modules 3-7.
- Phase 3: The development of and integration of modules 8-11.

- Phase 4: The development of modules 12-13.
- Phase 5: Platform testing, deployment, documentation, final delivery, and training.

The vendor is responsible for providing, creating, and collecting all the project/platform 3D assets.

Once awarded, vendor will work directly with internal stakeholders to schedule mutually agreed upon meeting dates.

5.5 PROJECT ORGANIZATION

Vendor shall describe the organizational and operational structure it proposes to utilize for the work described in this RFP and identify the responsibilities to be assigned to each person Vendor proposes to staff the work.

5.6 TECHNICAL APPROACH

Vendor's proposal shall include, in narrative or outline form, the Vendor's approach to accomplishing the tasks outlined in the Specifications and Scope of Work section of this RFP. A description of each task and deliverable and the schedule for accomplishing each shall be included. Include in the approach a detailed account of platform architecture; VR System design; development strategy; system integration, including tools that will be utilized; and the implementation plan.

5.7 CERTIFICATION AND SAFETY LABELS

Any manufactured items and/or fabricated assemblies provided hereunder that are subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization *acceptable to govern inspection where the item is to be located*, such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and /or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

6.0 CONTRACT ADMINISTRATION

All Contract Administration requirements are conditioned on an award resulting from this solicitation. This information is provided for the Vendor's planning purposes.

6.1 CONTRACT MANAGER AND CUSTOMER SERVICE

The Vendor shall be required to designate and make available to the State a contract manager. The contract manager shall be the State's point of contact for Contract related issues and issues concerning performance, progress review, scheduling, and service.

Contract Manager Point of Contact	
Name:	
Office Phone #:	
Mobile Phone #:	
Email:	

6.2 INVOICES

Vendor shall invoice the Procurement Entity. The standard format for invoicing shall be Single Invoices meaning that the Vendor shall provide the Procurement Entity with an invoice for each order. Invoices shall include detailed information to allow Procurement Entity to verify pricing at point of receipt matches the correct price from the original date of order. The following fields shall be included on all invoices, as relevant:

Vendor's Billing Address, Customer Account Number, NC Contract Number, Order Date, Buyer's Order Number, Manufacturer Part Numbers, Vendor Part Numbers, Item Descriptions, Price, Quantity, and Unit of Measure. Note: Please ensure the P0 Number is clearly printed on the invoice for proper processing. The P0 has to be an attachment for digital services to pick up the information and NOT embedded in the body of the email.

INVOICES SHOULD BE EMAILED TO THE FOLLOWING ADDRESS:

Accounts Payable

Email Address: NCAT.Invoices@trustflowds.com

or

North Carolina A&T State University

PO Box 3986

Scranton, PA 18505

INVOICES MAY NOT BE PAID UNTIL AN INSPECTION HAS OCCURRED AND THE GOODS OR SERVICES ACCEPTED

6.3 CONTINUOUS IMPROVEMENT

The State encourages the Vendor to identify opportunities to reduce the total cost the State. A continuous improvement effort consists of various ways to enhance business efficiencies as performance progresses.

6.4 ACCEPTANCE OF WORK

Performance of the work and/or delivery of Goods shall be conducted and completed at least in accordance with the Contract requirements and recognized and customarily accepted industry practices. Performance shall be considered complete when the Services or Goods are approved as acceptable by the Contract Manager.

The State shall have the obligation to notify Vendor, in writing ten (10) calendar days following completion of such work or delivery of a deliverable described in the Contract that it is not acceptable. The notice shall specify in reasonable detail the reason(s) it is unacceptable. Acceptance by the State shall not be unreasonably withheld; but may be conditioned or delayed as required for reasonable review, evaluation, installation, or testing, as applicable to the work or deliverable. Final acceptance is expressly conditioned upon completion of all applicable assessment procedures. Should the work or deliverables fail to meet any specifications, acceptance criteria or otherwise fail to conform to the Contract, the State may exercise any and all rights hereunder, including, for Goods deliverables, such rights provided by the Uniform Commercial Code, as adopted in North Carolina.

6.5 DISPUTE RESOLUTION

During the performance of the Contract, the parties agree that it is in their mutual interest to resolve disputes informally. Any claims by the Vendor shall be submitted in writing to the State's Contract Manager for resolution. Any claims by the State shall be submitted in writing to the Vendor's Project Manager for resolution. The Parties shall agree to negotiate in good faith and use all reasonable efforts to resolve such dispute(s).

During the time the Parties are attempting to resolve any dispute, each shall proceed diligently to perform their respective duties and responsibilities under this Contract. The Parties will agree on a reasonable amount of time to resolve a dispute. If a dispute cannot be resolved between the Parties within the agreed upon period, either Party may elect to exercise any other remedies available under the Contract, or at law. This provision, when agreed in the Contract, shall not constitute an agreement by either party to mediate or arbitrate any dispute.

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7.0 ATTACHMENTS

****IMPORTANT NOTICE****
RETURN THE REQUIRED ATTACHMENTS WITH YOUR RESPONSE
FOLLOW THE LINKS TO ACCESS EACH ATTACHMENT

ATTACHMENT A: PRICING

Complete and return the Pricing associated with this RFP through Bonfire

ATTACHMENT B: INSTRUCTIONS TO VENDORS

The Instructions to Vendors, which are incorporated herein by this reference, may be found here:
https://www.doa.nc.gov/pandc/north-carolina-instructions-vendors-1-2025/open

ATTACHMENT C: NORTH CAROLINA GENERAL TERMS & CONDITIONS

The North Carolina General Terms and Conditions, which are incorporated herein by this reference, may be found here:

https://www.doa.nc.gov/north-carolina-general-terms-and-conditions-5-2025/open

ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION

Complete and return the Historically Underutilized Businesses (HUB) Vendor Information form, which can be found at the following link:
https://www.doa.nc.gov/pandc/onlineforms/pc-hub-supplemental-vendor-information-92021-pdf/open

ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR

Complete and return the Location of Workers Utilized by Vendor, which can be found at the following link:

https://www.doa.nc.gov/pandc/onlineforms/pc-worker-location-92021-pdf/open

ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION

Complete, sign, and return the Certification of Financial Condition, which can be found at the following link:

https://www.doa.nc.gov/pandc/onlineforms/pc-certification-financial-condition-92021-pdf/open

***** Failure to Return the Required Attachments May Eliminate**
Your Response from Further Consideration ***