National Renewable Energy Laboratory
Managed and Operated by the Alliance for Sustainable Energy, LLC

Request for Proposals (RFP) RFx-2024-10185

"2024 Distributed Wind Turbine Competitiveness Improvement Project"

REQUEST FOR PROPOSAL

READ THIS DOCUMENT CAREFULLY

This solicitation is being conducted under the procedures for competitive subcontracts established by the National Renewable Energy Laboratory (NREL). NREL will award a subcontract based on the following:

All Statement of Work (SOW) requirements being met with the best combination of:

- Technical factors (based on qualitative merit criteria), and
- Evaluated price (or cost)

Issue Date: 02/26/2024 Due Date: 03/27/2024 Time Due: **2:00 p.m. Mountain Time**

Technical questions must be received in writing no later than 2:00 p.m. Mountain Time, 03/07/2024.

Written questions concerning this solicitation document and its requirements will be answered in writing. In response to technical questions, NREL will issue an amendment to this solicitation document that will formally provide all the questions and answers. The amendment will be posted to beta.sam.gov.

1. Solicitation Type Best Value Selection, Tradeoff
Firm Fixed Price with Price Participation Subcontract

Submit offers to and request information from the NREL Contact below

2. NREL RFP Contact

Jake Nofsinger, Subcontract Administrator
National Renewable Energy Laboratory
15013 Denver West Parkway, MS: RSF041
Golden, CO 80401
Phone: (303) 384.6795
Email: CIP2024@nrel.gov

Electronic (PDF) copies of forms and appendices can be found at the following addresses:
http://www.nrel.gov/workingwithus/forms.html
https://www.nrel.gov/workingwithus/standard-terms.html

3. Project description

The 2024 Distributed Wind Turbine Competitiveness Improvement Project (CIP) is comprised of six (6) different topic areas, as specified in the Statement of Work (Attachment 1), dated, February 26, 2024:

- **Prototype Installation and Testing**
- **Small Turbine Certification and/or Listing**
- **Inverter Listing**
- **Type Certification and Listing**
- **Manufacturing Process Innovation**
- **Product Commercialization and Market Development**

Proposal submissions should address individual topic areas. Offerors may submit multiple proposals for multiple topic areas. Do not submit proposals that combine topic areas. Component manufacturers must collaborate with at least one (1) turbine Original Equipment Manufacturer (OEM) and turbine OEMs may collaborate together for generic parts or processes. See item 10f.

4. Proposed subcontract award and period of performance

The Alliance for Sustainable Energy, LLC has entered into Contract No. DE-AC36-08GO28308 with the Department of Energy (DOE), an agency of the U.S. Government, for the management and operation of the National Renewable Energy Laboratory (hereinafter called "NREL"). All references to "NREL" in this solicitation shall mean the Alliance for Sustainable Energy, LLC.

The anticipated period of performance is execution through twenty-one (21) months.

The maximum award amount from NREL per topic area is as follows:

Prototype Installation and Testing	Maximum $300,000. $200,000 for testing, $100,000 or $20,000 plus $1/W peak power, whichever is less, for installation
Small Turbine Certification and/or Listing	Maximum $300,000. $220,000 for turbine certification, $80,000 for turbine Listing
Inverter Listing	Maximum $200,000
Type Certification and Listing	Maximum $800,000
Manufacturing Process Innovation	Maximum $500,000
Product Commercialization and Market Development	Maximum $150,000

A minimum price participation of 20% is required for each topic area with the exception of Manufacturing Process Innovation which has a minimum price participation requirement of 50%. Price participation is defined as a percentage of the total allowable and allocable costs under the subcontract, which may be met by contributions by the Offeror and/or by contributions from the Offeror's lower-tier Offeror(s) or supplier(s) at no cost to NREL. All costs must be allowable and allocable under the terms of the Federal Acquisition Regulations and DOE Acquisitions Regulations.

Offerors are encouraged to include any offeror owned materials, supplies, or equipment in their price participation. Additionally, offerors are encouraged to cover new equipment, tooling and non-US based technical services as part of their price participation.

Prototype Installation and Testing, Small Turbine Certification and/or Listing, Type Certification and Listing, and Inverter Listing Topic Areas include a formal design review or design evaluation. A failure of these reviews or evaluations will impact the availability of full project funding.

5. Competitive negotiated subcontract using Best Value Selection

This solicitation shall be conducted using Best Value Selection that results in an award that is most advantageous to NREL and DOE based on the best value combination of (a) evaluated qualitative merit, (b) evaluated price (cost) of the offers submitted, and (c) additional factors for evaluation provided in Section 9 of this document.

Best Value Selection is based on the premise that, if all offers are of approximately equal qualitative merit, an award will be made to the offeror with the lowest evaluated price (cost). However, NREL will consider awarding to an offeror with a higher evaluated price (cost) if the offer demonstrates the difference in price (cost) is commensurate with higher qualitative merit. Conversely, NREL will consider awarding to an offeror with a lower evaluated qualitative merit if the price (cost) differential between it and other offers warrant doing so.

6. Qualitative merit criteria for Best Value Selection

The Statement of Work (Attachment 1) for each topic area in this Request for Proposal (RFP) serves as NREL's baseline requirement that must be met by each offeror.

The qualitative merit criteria establish what NREL considers the technical factors in an offer. These qualitative merit criteria are performance-based and permit selection of a higher priced offer that provides higher qualitative merit.

The following qualitative merit criteria for each topic area will be used to determine the technical value of the offer in meeting the objectives of the solicitation. Sub-criteria are not individually weighted but are factors in the overall weighting.

6.1 Prototype Installation and Testing

Each qualitative merit criteria and its assigned weight are provided below.

6.1.1 Technical approach and readiness (30%)

a. Detailed description of turbine system, including turbine features (including Attachment 5).
b. Detailed description of turbine system development and any testing done to date.
c. Detailed description of work remaining to have prototype ready for fabrication and to begin testing, including documentation of fabrication specifications.
d. Preliminary loads table consistent with the standards requirement.
e. Quantification of competitive levelized cost of energy, including how the technical approach articulates a path to a final competitive cost of energy of the proposed product. In the Attachment 4 supplement, use the column marked Baseline in the spreadsheet for current cost of energy calculations which may be for a preliminary design of the turbine proposed or an earlier model turbine. Use the column marked Proposal for costs expected after this project development. These costs should be based on expected production at volume.

6.1.2 Description of proposed test plan (25%)

a. Detailed description of where prototype test will occur.
b. Test plan and supporting documentation of what tests are being conducted and why (e.g., confirm effective stall control or confirm passive yaw behavior).

6.1.3 Extent to which the turbine system will impact the U.S. market (15%)

a. Soundness of the development plan to ensure the turbine is likely to undergo certification or the component is likely to receive Listing for the U.S. market.
b. Percent of U.S. based manufacturing for the final turbine system (including turbine, tower, and associated electronics).
c. Estimated U.S. installations in the first year after certification.
d. Technical and financial capability of sustaining the project's objective over the full performance period.
e. Documentation verifying offeror's financial status.

6.1.4 Team/personnel/expertise (15%)

a. Description of offeror's recent and relevant experience in the U.S. distributed wind turbine market.
b. Qualifications of proposed project team members shall be described in relation to their responsibilities on the project, including resumes of key team members. Demonstrate that all required expertise is available whether direct employees or consultants or will be obtained if the project is selected for award. If no one on the team has wind certification experience, provide background on experience or expertise that qualifies them for the proposed effort. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation.
c. Letters of commitment for all defined lower-tier subcontractors or lower-tier subcontract staff that are defined within the project proposal.
d. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.1.5 Diversity, equity, inclusion, and accessibility (DEIA) Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?
e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles

6.2 Small Turbine Certification and/or Listing

Each qualitative merit criteria and its assigned weight are provided below.

6.2.1 Technical readiness and provisions for installation and long-term maintenance support (25%)

a. Projected Annual Energy Production with 6 m/s average wind speed at 30 meters and a Rayleigh distribution (other hub heights can be used with adjusted wind speed).
b. Turbine system installed cost (including turbine, tower, and associated electronics) especially in relation to other energy forms for similar markets.
c. Tabulated power curve (provide information on how the power curve measurement was obtained, if not measured consistent with standard, note exceptions such as used anemometer on tower not at hub height).
d. Current and expected annual U.S. manufacturing capacity.
e. Turbine features, including turbine rotor swept area (Attachment 5).
f. Turbine system design lifetime.
g. Operations and maintenance requirements.
h. Operations and maintenance costs.
i. Warranty, including coverage length and content (parts/labor/travel/exclusions).
j. Listing of the system components or plans to obtain listing (as part of this proposal or outside of it).
k. Sales history, especially in the past year (companies with no sales history are still eligible).
l. Number of turbine systems currently installed (domestically and internationally).
m. Tower options (provide list).
n. Number of U.S. dealers with wind turbine installations.
o. Existing/pending turbine certifications.
p. Capabilities to provide support through the life of the turbine system, including warranty reserve.
q. Completed Figure of Merit – Cost of Energy (costs should be based on expected production at volume, use the column marked Baseline in the spreadsheet Attachment 4 supplement).

6.2.2 Extent to which the turbine system will impact the U.S. market (20%)

a. Soundness of the production plan to ensure the turbine is ready for the U.S. market.
b. Percent of U.S. based manufacturing for the final turbine system (including turbine, tower, and associated electronics).
c. Estimated U.S. installations in the first year after certification.
d. Estimated number of exported units in the first year after certification.
e. Technical and financial capability of sustaining the project’s objective over the full performance period.
f. Documentation verifying offeror’s financial status.

6.2.3 Demonstrates evidence that the wind turbine is ready for certification/Listing and the offeror has a sound plan that will lead to certification/Listing of the turbine for the U.S. market (25%)

a. Evidence that the turbine is ready for certification testing such as a history of deployment or preferably prototype testing that demonstrates reliable operation and functional testing of the safety systems. Modest upgrades to a certified turbine that are sufficient to require a new certification is also evidence of readiness when combined with sufficient engineering preparation. Evidence that the turbine is ready for Listing such as a list of components that are Listed and components that are not with notes on the Listing standard for each component that is not already Listed.
b. Summary of prototype testing conducted on turbine (as attachment that is not included in the page count).
c. Ability to deliver test turbine system to test site within sixty (60) days of subcontract execution (indicate in proposal if more time is needed and why) and ability to deliver documents and samples to Nationally Recognized Testing Laboratory (NRTL) to start Listing process within sixty (60) days.
d. Evidence that the turbine testing can be completed at the testing facility within twenty-one (21) months from subcontract execution. This evidence may include site wind speed distribution and past testing performed at the site.
e. Verification that the turbine is in the queue for certification by an accredited certification body.
f. Provide turbine certification plan, including budget and schedule. Confirm that the offeror has the applicable standards documents and understands the requirements for obtaining certification (see Attachment 3 – Eligibility Verification). Certification plan must include intended approach for loads estimation. If Listing is part of the proposal include a budget and schedule for Listing.
g. Provide a preliminary loads report consistent with what is required for the certification sought. Document must include a synopsis of derivation approach. Preliminary load approach can be different than approach planned for final certification loads. For instance, the simplified loads method may be used for this even though aeroelastic modeling may be used in the final submission for certification.
h. Plan for providing surveillance of turbines to meet certification requirements. Plans for more extensive data collection and analysis are strongly encouraged. This is an opportunity to obtain field data from initial deployments with minimum additional cost and effort.

6.2.4 Team/personnel/expertise (15%)

a. Description of offeror's or principal investigator(s)' recent and relevant experience in the U.S. distributed wind turbine market.
b. Qualifications of proposed project team members shall be described in relation to their responsibilities on the project, including resumes of key team members. Demonstrate that all required expertise is available whether direct employees, consultants, or will be obtained if the project is selected for award. If no one on the team has wind certification experience, provide background on experience or expertise that qualifies them for the proposed effort. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation.
c. Letters of commitment for all defined lower-tier subcontractors or lower-tier subcontract staff that are defined within the project proposal.

d. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.2.5 DEIA Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?
e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles

6.3 Inverter Listing

Each qualitative merit criteria and its assigned weight are provided below.

6.3.1 Technical readiness (25%)

a. Comparison of proposed inverter to other inverters on the market in relation to characteristics such as, but not limited to, size, functionality, manufacturing location and cost.
b. Current and expected annual U.S. manufacturing capacity.
c. Description of turbine system associated with the inverter (Attachment 5)
d. Inverter specifications.
e. Warranty, including coverage length and content (parts/labor/travel/exclusions)
f. Sales history of inverter and associated turbine, especially in the past year (offerors with no sales history are still eligible).
g. Number of turbine systems associated with inverter currently installed (domestically and internationally).
h. Existing/pending and desired inverter Listings (e.g., UL1741).
i. Capabilities to provide inverter support through the life of the turbine system, including warranty reserve.

6.3.2 Extent to which the inverter will impact the U.S. market (20%)

a. Soundness of the production plan to ensure the inverter is ready for the U.S. market.
b. Percent of U.S. based manufacturing for the inverter.
c. Estimated U.S. installations in the first year after Listing.
d. Estimated number of exported units in the first year after listing.
e. Technical and financial capability of sustaining the project's objective over the full performance period.
f. Documentation verifying offeror's financial status.

6.3.3 Demonstrates evidence that the inverter is ready for Listing and that the offeror has a sound plan that will lead to Listing of the inverter for the U.S. market (25%)

a. Evidence that the inverter is ready for listing testing such as a history of deployment or preferably testing that demonstrates reliable operation and functionality.
b. Summary of any testing conducted on inverter.
c. Summary of required efforts to upgrade inverter for intended Listing (e.g., programming needed to upgrade from UL1741 to UL1741-SB functionality).
d. Ability to deliver documents and samples to Nationally Recognized Testing Laboratory (NRTL) to start Listing process within ninety (90) days.
e. Evidence that the inverter testing can be completed at the testing facility within twenty-one (21) months from subcontract execution.
f. Proposed budget and schedule for Listing.

6.3.4 Team/personnel/expertise (15%)

a. Description of offeror's or principal investigator(s)' recent and relevant experience in the U.S. distributed wind turbine/inverter market.
b. Qualifications of proposed project team members shall be described in relation to their responsibilities on the project, including resumes of key team members. Demonstrate that all required expertise is available whether direct employees, consultants, or will be obtained if the project is selected for award. If no one on the team has wind certification experience, provide background on experience or expertise that qualifies them for the proposed effort. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation
c. Letters of commitment for all defined lower-tier subcontractors or lower-tier subcontract staff that are defined within the project proposal.
d. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.3.5 DEIA Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are

institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?

e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles

6.4 Type Certification and Listing

Each qualitative merit criteria and its assigned weight are provided below. Listing may be included in a Type Certification proposal but cannot be the sole effort in a Type Certification. While a proposal in this topic area is not required to include Listing, there should be a plan for Listing.

6.4.1 Technical readiness and provisions for installation and long-term maintenance support (25%)

a. Projected Annual Energy Production with 6 m/s average wind speed at 30 meters and a Rayleigh distribution (other hub heights can be used with adjusted wind speed).
b. Turbine system cost (including turbine, tower, and associated electronics).
c. Tabulated power curve (provide information on how the power curve measurement was obtained, if not measured consistent with standard, note exceptions such as used anemometer on tower not at hub height).
d. Current and expected annual U.S. manufacturing capacity.
e. Turbine features, including turbine rotor swept area (Attachment 5).
f. Turbine system design lifetime.
g. Operations and maintenance requirements.
h. Operations and maintenance costs.
i. Warranty, including coverage length and content (parts/labor/travel/exclusions).
j. Listing of the inverter and other components or plans to obtain Listing.
k. Sales history, especially in the past year (offerors with no sales history are still eligible).
l. Number of turbine systems currently installed (domestically and internationally).
m. Tower options (provide list).
n. Number of U.S. dealers/installers.
o. Existing/pending turbine certifications.
p. Capabilities to provide support through the life of the turbine system, including warranty reserve.

q. Completed Figure of Merit – Cost of Energy (costs should be based on expected production at volume, use the column marked Baseline in the spreadsheet Attachment 4 supplement).

6.4.2 Extent to which the turbine system will impact the U.S. market (20%)

a. Soundness of the production plan to ensure the turbine is ready for the U.S. market.
b. Percent of U.S. based manufacturing for the final turbine system (including turbine, tower, and associated electronics).
c. Estimated U.S. installations in the first year after certification.
d. Estimated number of exported units in the first year after certification.
e. Technical and financial capability of sustaining the project's objective over the full performance period.
f. Documentation verifying offeror's financial status.

6.4.3 Demonstrates evidence that the wind turbine is ready for certification/ Listing, and that the offeror has a sound plan that will lead to certification/Listing of the turbine for the U.S. market (25%)

a. Evidence that the turbine is ready for type certification testing such as a history of deployment or preferably prototype testing that demonstrates reliable operation and functional testing of the safety systems. Modest upgrades to a certified established reliable turbine that is sufficient to require a new certification is also evidence of readiness when combined with sufficient engineering preparation. Evidence that the turbine is ready for Listing such as a list of components that are Listed and components that are not with notes on the Listing standard for each component that is not already Listed.
b. Summary of prototype testing conducted on turbine (as attachment that is not included in the page count).
c. Ability to deliver test turbine system to test site within sixty (60) days of subcontract execution and ability to deliver documents and samples to NRTL to start Listing process within sixty (60) days if Listing is included in the proposal.
d. Evidence that the turbine testing can be completed at the testing facility within twenty-one (21) months. This evidence shall include site availability, wind speed distribution and an evaluation of the need for site calibration if the site is not certified as a test site.
e. Verification that the turbine is in the queue for certification by an accredited certification body.
f. Provide turbine certification plan, including budget and schedule. Confirm that the offeror has standards documents and understands the requirements for obtaining certification (see Attachment 3 – Eligibility Verification). If Listing is part of the proposal, include a budget and schedule for Listing and indicate if you have the UL standards for Listing.
g. Provide a preliminary loads report. Document must include a synopsis of derivation approach. Preliminary load approach can be different than approach planned for final certification loads.

6.4.4 Team/personnel/expertise (15%)

a. Description of offeror's or principal investigator(s)' recent and relevant experience in the U.S. distributed wind turbine market.

b. Qualifications of proposed project team members shall be described in relation to their responsibilities on the project, including resumes of key team members. Demonstrate that all required expertise is available whether direct employees, consultants, or will be obtained if the project is selected for award. If no one on the team has wind certification experience, provide background on experience or expertise that qualifies team member as prepared to successfully conduct proposed work. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation.
c. Letters of commitment for all defined subcontractors or subcontract staff that are defined within the project proposal.
d. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.4.5 DEIA Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?
e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles

6.5 Manufacturing Process Innovation

Each qualitative merit criteria and its assigned weight are provided below.

6.5.1 Demonstrates evidence that the proposed manufacturing process innovation is beneficial to the successful improvement in market position or entry into market (25%)

a. Turbine specifications (Attachment 5).
b. Description of proposed manufacturing process innovation, identifying technical enhancement or advancement.
c. Analysis of process upgrade contribution to increased turbine system sales. Provide a market benchmark analysis comparing the relative impact of the

improvement to potential competition (competition may not necessarily be wind energy).

d. Description of work done to date in preparation for proposed upgrade including that the component will meet strength requirements if the component is structural and fail-safe and reliability criteria if the component is an electrical system component such as an inverter.
e. Description of offeror's manufacturing quality control protocols.
f. Estimated U.S. installations in the first year after new manufacturing process implementation.
g. Estimated number of exported units in the first year after new manufacturing process implementation.
h. Innovation has clear technical merit.

6.5.2 Demonstrates investment in process innovation will contribute to a reduction in the LCOE (25%)

a. Quantification of the process upgrade contribution to cost reduction for initial system cost.
b. Quantification of the process upgrade contribution to cost reduction over the life of the system such as reduced failure rate, easier service, etc.
c. Competitive Figure of Merit – Cost of Energy, including how the technical approach articulates a path to a final competitive cost of energy of the proposed product. In the Attachment 4 supplement, use the column marked Baseline in the spreadsheet for current cost of energy calculations. Use the column marked Proposal for costs expected after this manufacturing development. These costs should be based on expected production at volume.

6.5.3 Demonstrates evidence of a sound manufacturing plan (20%)

a. Soundness of product development plan to ensure turbine can be certified and Listed or component Listed for the U.S. market, including a description of sufficient resources for product testing and service.
b. Soundness of the manufacturing plan to provide confidence that the offeror or their contract manufacturer has capability to produce the component(s) at the quality and cost proposed.
c. Documentation of tooling or manufacturing capability development cost.
d. Description of expected direct impact to the U.S. market resulting from a successful completion of this work through impacts such as expanded domestic manufacturing, product deployment, and job creation.

6.5.4 Team/personnel/expertise (15%)

a. Qualifications of proposed project team members shall be described in relation to their responsibilities on the project. Demonstrate that all required expertise is available whether direct employees, consultants, or will be obtained if the project is selected for award. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation.
b. Letters of commitment for all defined lower-tier subcontractors or lower-tier subcontract staff that are defined within the project proposal.
c. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.5.5 DEIA Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?
e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles
i. Will proposed manufacturing innovation allow manufacturing expansion that can provide direct community benefits to underrepresented groups?

6.6 Product Commercialization and Market Development

Each qualitative merit criteria and its assigned weight are provided below.

6.6.1 Technical readiness (30%)

Products include complete distributed wind energy systems or major components or sub-systems such as towers, blades, alternators, and power electronics. Some items in this section do not apply to products that are not full wind turbine systems.

a. Projected Annual Energy Production with 6 m/s average wind speed at 30 meters and a Rayleigh distribution (other hub heights can be used with adjusted wind speed).
b. Turbine system or other product cost (including installed turbine, tower, and associated electronics if turbine system).
c. Tabulated power curve or other relevant performance specifications for the subject product (provide source of power curve, of other performance specifications, third party verified to a standard or in house measured with exceptions to the standard).
d. Current and expected annual U.S. manufacturing capacity.
e. Turbine or product features, including turbine rotor swept area (Attachment 5, modify as needed).
f. Turbine system or product design lifetime.
g. Operations and maintenance requirements.
h. Operations and maintenance costs.
i. Warranty, including coverage length and content (parts/labor/travel/exclusions).
j. Listing of the inverter and other components.

k. Sales history, especially in the past year (offerors with no sales history are still eligible).
l. Number of turbine systems or turbine systems utilizing the product currently installed (domestically and internationally).
m. Tower options (provide list).
n. Number of U.S. dealers with wind turbine installations.
o. Existing/pending turbine certification (eligibility includes both currently certified as well as turbine systems with pending certification) or Listing for electrical components and systems.
p. Capabilities to provide support through the life of the turbine system, including warranty reserve.
q. Competitive Figure of Merit – Cost of Energy, including how the commercialization plan articulates a path to a viable market or market expansion for the proposed product. In the Attachment 4 supplement, use the column marked Baseline in the spreadsheet for current cost of energy calculations. For products that are not a full wind turbine system, use a representative system with product cost inserted in the column marked proposal.

6.6.2 Description of proposed commercialization or market development plan (25%)

a. Identification of the specific commercialization focus or market development challenge.
b. Extent to which the target market(s) align with the top opportunities identified in the *Distributed Wind Energy Futures Study*[1] conducted by NREL including agricultural lands, agricultural businesses, and commercial industrial applications, especially in rural areas.
c. Sufficient detail that the proposed work will provide additional forms of revenues or cost savings to rural and agricultural consumers and businesses.
d. Detailed description of the commercialization plan to address identified business development challenges.
e. Timeline and expected steps demonstrating a full understanding of the process to investigate the specific turbine or application commercialization process.
f. Identification of potential commercialization thresholds or decision points, documenting thinking around how the offeror will determine a viable market.
g. Description of resulting products or outputs of the work.
h. Articulation of the larger market that the proposed efforts will support and how these specific efforts will assist in the scale-up of that market.
i. Articulation that the proposed commercialization or market development efforts will provide positive outcomes for underserved communities, communities undergoing energy transitions or communities with a high degree of energy poverty.

6.6.3 Extent to which the work will impact the U.S. market (15%)

a. Soundness of the commercialization plan to support wider, large scale market development of the identified product.
b. Percent of U.S. based manufacturing for the final turbine system (including turbine, tower, and associated electronics).

[1] https://www.nrel.gov/analysis/distributed-wind-futures.html

c. Estimated U.S. installations in the first year after implementation of the commercialization plan.
d. Estimated number of installations in the following four years, building on the work initially undertaken through the proposed effort.
e. Estimated impact on U.S. rural and agricultural markets.
f. Ability for the proposed work to provide additional forms of revenues or cost savings to rural and agricultural consumers and businesses.
g. Technical and financial capability of sustaining the project's objective over the full performance period.

6.6.4 Team/personnel/expertise (15%)

a. Description of offeror's or principal investigator(s)' recent and relevant experience in the U.S. distributed wind turbine market.
b. Qualifications of proposed project team members shall be described in relation to their responsibilities of the project. Any outside expertise that is needed to provide capabilities for the project shall be noted and the source for that capability identified. Resumes (no more than 2 pages per team member) of all project team members shall be included as attachments to the proposal and will not apply to the proposal page count limitation.
c. Letters of commitment for all defined lower-tier subcontractors or lower-tier subcontract staff that are defined within the project proposal.
d. Demonstrate ability to execute previous projects on time/on budget. Provide reference information on previous project experience, including letters if available.

6.6.5 DEIA Assessment (15%)

a. What percent of management/leadership is from underrepresented groups (women, minorities, veterans, persons with disabilities)?
b. What percent of people employed in the organization are from underrepresented groups?
c. What percent of contracts are with minority-owned, women-owned, Veteran-owned, or other disadvantaged businesses?
d. What percent of collaborators (project partners, co-investigators, sub-contractors) are from underrepresented groups/Minority Serving Institutions (MSIs are institutions of higher education that serve minority populations including Historically Black Colleges and Universities, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American and Pacific Islander Serving Institutions)?
e. Does the project or organization have an existing DEIA mission statement and philosophy?
f. How do project leaders actively enact this DEIA mission, especially as it informs creating a diverse and inclusive work environment?
g. What DEIA learning opportunities are provided for employees?
h. What employee benefits, policies, resources, and initiatives exist to improve well-being and address the needs of employees across career stages and personal family circumstances (e.g., family support services/childcare, alternative and flexible work schedules, Veteran and military reservist support, and tuition reimbursement programs)? See Department of Commerce and Department of Labor Good Jobs Principles for more information: https://www.dol.gov/general/good-jobs/principles
i. Will proposed commercialization or market development provide direct community benefits to underrepresented or underserved groups?

7. Price (cost) evaluation for Best Value Selection

After evaluation of the qualitative merit criteria, the following price (cost) evaluation will be used to determine the best value of the offer in meeting the objectives of the solicitation.

Price (cost) will be evaluated based on the firm fixed price to complete the work of the applicable topic area described in the Statement of Work **(Attachment 1)**, including price participation.

The combined qualitative merit value will be considered equally important to the price (cost).

8. Evaluation process

NREL will evaluate offers in two general steps:

Step One—Initial Evaluation
An initial evaluation will be performed to determine if all required information has been provided for an acceptable offer. Offerors may be contacted only for clarification purposes during the initial evaluation. Offerors shall be notified if their offer is determined unacceptable and the reasons for rejection will be provided. Unacceptable offers will be excluded from further consideration.

Step Two—Discussion, Selection, Negotiation, and Award
All acceptable offers will be evaluated against the Statement of Work (Attachment 1) and the qualitative merit criteria listed above. Based on this evaluation, NREL has the option, depending on the specific circumstances of the offers received, to use one of the following methods of selection:

a. make individual selection(s), conduct negotiations, and make an award(s);
b. conduct parallel negotiations with all offerors and make award(s).
c. conduct discussions with all offerors, select successful finalists, conduct parallel negotiations with successful finalists, and then make award(s);
d. conduct discussions with all offerors, conduct parallel negotiations with the finalists, select successful finalist(s), and then make award(s);
e. select successful finalists, conduct successive negotiations, and make successive selections and awards.
f. make no award(s).

9. Additional factors for evaluation

The Source Evaluation Team will consider program factors in making a final negotiation rank order within the competitive range. The program factors will not be weighted. Program factors include:

- Manufacturer diversity
- Geographic diversity
- System configuration diversity
- CIP topic diversity
- Turbine size diversity
- Turbine type diversity

- Subcontractor's price participation >20% or >50% for Manufacturing Process Innovation
- Detailed plan for proposed technical support from NREL
- Impact on rural and agricultural markets
- Potential impact on near-term product commercialization

10. Proposal preparation information

Proposal submissions should address individual topic areas. Offerors may submit multiple proposals for multiple topic areas. Do not submit hybrid proposals that combine topic areas.

a. The proposal must include a title page, including the RFP title and number, topic area being proposed on, name of your organization and principal investigator (with postal address, telephone number and email address). The title should be succinct and capture the essence of your offer. The technical proposal with its title page, along with all components of the proposal and other required documents as described sections b through m below shall each be provided as separate PDF files (all PDF files provided in a compressed or "zipped" folder, preferred).

b. Formatting instructions
- A page is defined as one side of an 8 ½" x 11" sheet of paper.
- Use a 12-point font.
- Maintain at least 1-inch margins on all sides.
- Technical proposal and cost proposal must be in separate sections.
- Include the following notice on your title page:

*"**Notice for Handling Proposals:***
This proposal shall be used and disclosed for Alliance/NREL and Government evaluation purposes only. Any authorized restrictive notices which the Offeror places on this proposal shall also be strictly complied with. Disclosure of this proposal outside the Government, Alliance/NREL, Alliance/NREL consultants, or other national laboratories personnel for evaluation purposes shall be made only to the extend authorized by, and in accordance with, the procedures in DEAR 915.207-70 and, as applicable stated in the procurement solicitation document for source evaluation and selection process.

Upon completion of the evaluation, the evaluator shall certify in writing to the Source Evaluation Team Chairperson that all copies of this proposal have been destroyed and/or deleted from any electronic device, medium or storage location with the exception of those retained in the procurement file or in the case of successful offeror(s) in the project management file."

c. **An electronic PDF file must be submitted by 2:00 p.m. MDT on 03/27/2024 to CIP2024@nrel.gov.** The submission must include SUB-2024-10185, the project title "2024 Distributed Wind Turbine Competitiveness Improvement Project" and the specific topic area in the subject line (For example: "SUB-2024-10185 – 2024 Distributed Wind Turbine Competitiveness Improvement Project – Type Certification" for a proposal to the type certification topical area). If submitting for multiple topic areas, please submit one email submission for each topic area.

d. A **technical proposal shall be submitted** directed toward meeting the requirements of NREL's Statement of Work (Attachment 1) and qualitative merit criteria (see item 6 above). The total proposal shall not exceed twenty (20) pages (not including resumes of team members, prototype testing history, required Attachments, letters of support, title page, and table of contents). Additional voluntary attachments, such as technical design reports should be kept to minimum and only included if they are germane and referenced in the proposal. Attachments may not be reviewed in their entirety so key points should be summarized within the text of the proposal. Internet references to URL's should be included in their entirety. Hyperlinks may not be reviewed. Provide all necessary information directly in the proposal.

Proposals submitted for the **Manufacturing Process Innovation** shall be organized in the following sections:

- **Technical Concept and Innovation**
- **Expected Market Information and Impact**
- **Manufacturing Development Plan**
- **Qualifications and Resources**
- **DEIA Assessment**

Proposals submitted for testing and Listing, including **Small Wind Certification and/or Listing, and Type Certification and Listing, and Inverter Listing** shall be organized in the following sections:

- **System Specifications and Market Readiness**
- **Expected Market Information and Impact**
- **Certification/Listing Readiness and Planning**
- **Qualifications and Resources**
- **DEIA Assessment**

For turbine certification proposals, only one (1) turbine shall be considered per proposal. Proposals containing more than one (1) turbine shall be deemed non-responsive and will not be reviewed. Proposals that address certification for slightly different models of the same turbine, such as different rotors options on the same turbine, will be considered with justification but generally if separate certifications are being provided, separate proposals should be strongly considered. Efforts undertaken must focus on U.S. certification and Listing requirements but if additional data collection or testing would support the certification of a U.S. manufactured product in international markets and does not appreciably raise costs, this is permitted but should be articulated within the proposal. Offerors may use certification quotes that include testing and certification for multiple turbines or certifications not covered in the proposal as long as the work covered in the proposal is separately itemized and the cost proposal only includes costs for work allowed in the RFP and SOW. Testing efforts should be conducted in the U.S. or U.S. Territories. If this is not possible, the specific testing location should be provided and justified in the application.

Small Turbine Certification and Type Certification proposals may combine Certification and Listing efforts with the exception of inverter listing, which shall be done under the Inverter Listing topic area.

Small Turbine Certification proposals should also include a plan for field monitoring of initial installations for the purpose of certification surveillance. Data from these monitored turbines shall be made available to NREL.

Proposals submitted for **Prototype Installation and Testing** shall be organized in the following sections:

- **Turbine System Description and Testing Readiness**
- **Testing Plan**
- **Expected Market Information and Impact**
- **Qualifications and Resources**
- **DEIA Assessment**

Testing efforts should be conducted in the U.S. or U.S. Territories. If this is not possible, the specific testing location should be provided and justified in the application. Funding for turbine installation is optional.

Proposals submitted for **Product Commercialization and Market Development** shall be organized in the following sections:

- **System Specifications, Readiness, and Current Market Information**
- **Proposed Commercialization Plan**
- **Expected Market Information and Impact**
- **Qualifications and Resources**
- **DEIA Assessment**

e. A completed "**Price/Cost Proposal**" form shall be submitted with the offer (see NREL website above)**.** An individual offeror's price (cost) proposal standard format can be used if the data included are substantially the same as the NREL form. The offeror's price (cost) and delivery terms must be valid for 90 days from the date of the offer. The price (cost) proposal should include support documentation for all categories of the proposed price (cost), including price participation. The price (cost) proposal should separate price (cost) for lower-tier subcontractor(s) and include support documentation for all categories of the proposed lower-tier subcontractor(s) price (cost). See the "**Price/Cost Proposal**" for specific instructions. This form is found under "Request for Proposal (RFP) Forms (Non-Construction)" at the following link:

http://www.nrel.gov/workingwithus/forms.html

f. Proposals that include partnering with specific components vendors shall be considered, consistent with the evaluation criteria. If a proposal includes improving a generic part not related to a specific turbine (i.e. tower, inverter, blade etc.), the proposal shall still include specifications that are compatible with a specific turbine, and ideally will include collaboration with the Original Equipment Manufacturer (OEM) of that turbine, to demonstrate the improvement on a system level as opposed to a component level. An exception is if more than one turbine OEM creates a project for development of a component or manufacturing process that will result in either a common component or process or similar components using the innovation developed.

g. Awardees from the previous CIP solicitations are eligible to submit proposals under the current solicitation. These awardees are invited to submit a proposal to build upon the existing work or may submit a proposal for an eligible non-related work effort. Preferential considerations will not be given to previous awardees; all proposals will be evaluated against the merit criteria.

h. Proposals should include a completed Eligibility Verification (Attachment 3).

i. Proposals should include Figure of Merit – Cost of Energy for Distributed Wind *(includes supplemental spreadsheet)* (Attachment 4).

j. Proposals should include Turbine Specifications (Attachment 5)

k. Proposals should include a completed Deliverable Summary Table (Attachment 6).

l. Proposals should include a completed "**Representations and Certifications for Subcontracts**" form. Please download from the NREL general access website link below:

http://www.nrel.gov/workingwithus/forms.html

m. Proposals should include EITHER the **"Organizational Conflicts of Interest Representation Statement"** OR the **"Organizational Conflicts of Interest Disclosure Statement"**, as applicable per the ***"Instructions for Completion of Organizational Conflicts of Interest Statement – Disclosure or Representation Statement"***. The forms and instructions are located at the following link:

http://www.nrel.gov/workingwithus/forms.html

n. A cover letter including a **summary statement** indicating acceptance of the proposed Statement of Work **(Attachment 1)** or any change with the reason(s) shall be included with the proposal. The cover letter should also include whether the Offeror is accepting or proposes a change/exception (with reason) to the subcontract schedule **(Attachment 2)**, the standard terms and conditions and/or the intellectual property terms and conditions in the appendices (see section 12). The offeror will explain any proposed change/exception with respect to the subcontract schedule and terms and conditions. Any proposed change/exception must contain sufficient amplification and justification to permit evaluation. Such proposed changes/exceptions will not, of themselves, automatically cause an offer to be termed unacceptable. However, a large number of proposed changes/exceptions or one or more significant exceptions not providing any obvious benefit to the NREL or the Department of Energy may result in rejection of such offer as unacceptable.

o. This solicitation does not commit NREL to pay costs incurred in the preparation and submission of a proposal in response to this RFP.

p. Only new work shall be considered within this proposal; previous work completed prior to the issuance of a subcontract shall not be considered under this solicitation.

q. NREL may provide awardees with technical assistance. The Offeror shall clearly define what, if any, technical support is being requested from NREL, including a cost estimate if available. Technical support from NREL can only be provided contingent on how the request aligns with the program's funding availability. Therefore, the requested technical support shall be negotiated outside the subcontract award and is not part of the overall subcontract value. Prior to identifying technical support from NREL, the Offeror should ensure that similar services cannot be economically provided through private sector sources within the proposal.

r. Proposals submitted as a combination/hybrid of more than one (1) topic area under the CIP will be determined as non-responsive. Submissions for multiple topic areas are allowed but must be separate from each other.

s. It is the intent that all work under this award funded by NREL will occur in the U.S. or U.S. Territories. This does not extend to the purchase of equipment or components that may originate outside of the U.S. although efforts should be made to identify U.S. based suppliers. Work to be conducted outside the U.S. shall be identified and justified as part of this proposal but to the extent possible, work being conducted outside of the U.S. should be covered as part of the Offerors price participation. Clear documentation within the proposal is encouraged.

t. This solicitation requires the submittal of electronic proposals.

11. Solicitation Provisions—full text provided

a. Late submissions, modifications, and withdrawals of offers
Offers, or modifications to them, received from qualified organizations after the latest date specified for receipt may be considered if received prior to award, and NREL determines that there is a potential price (cost), technical, or other advantage, as compared to the other offers received. However, depending on the circumstances surrounding the late submission or modification, NREL may consider a late offer to be an indication of the offeror's performance capabilities, resulting in downgrading of the offer in the technical evaluation process. Offers may be withdrawn by written notice received at any time before award.

b. Restrictions on disclosure and use of data
Offerors who include in their proposals data that they do not want disclosed to the public for any purpose or used by the government or NREL, except for evaluation purposes shall, in addition to including the *"Notice for Handling Proposals*" required in Paragraph 10 b. above—

1. Mark the title page with the following legend:
"This offer includes data that shall not be disclosed outside the government or NREL and shall not be used or disclosed—in whole or in part—for any purpose other than to evaluate this offer. If, however, a subcontract is awarded to this offeror as a result of—or in connection with—the submission of proprietary data, the government or NREL shall have the right to duplicate, use, or disclose the data to the extent required in the resulting subcontract. This restriction does not limit the government or NREL's right to use this proprietary data if obtained from another source without restriction. The proprietary data subject to this restriction are contained on pages [insert page and line numbers or other identification of pages] of this offer"; and

2. Highlight (in yellow) the proprietary data on each page it wishes to restrict and add the following footer:

"Use or disclosure of proprietary data contained on this page is subject to the restriction on the title page of this offer."

c. Notice of right to receive patent waiver (derived from DEAR 952.227-84) and technical data requirements.
Offerors (and their prospective lower-tier subcontractors) in accordance with applicable statutes and Department of Energy Acquisition Regulations, (derived from DEAR 952.227-84) have the right to request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of the subcontract that may be awarded as a result of this solicitation, in

advance of or within thirty (30) days after the effective date of subcontracting. Even where such advance waiver is not requested or the request is denied, the subcontractor will have a continuing right during the subcontract to request a waiver of the rights of the United States in identified, individual inventions.
Domestic small business firms, educational institutions, and domestic nonprofit organizations normally will receive the clause: Patent Rights - Retention by the Subcontractor, which permits the offeror to retain title to subject inventions, except in subcontracts involving exceptional circumstances or intelligence activities. Therefore, domestic small business firms, educational institutions, and domestic nonprofit organizations normally need not request a waiver.

If an offeror's proposal includes a lower-tier subcontract to another organization, that lower-tier organization's business type will determine the applicable intellectual property provisions that will apply to the lower-tier subcontract. Note that a lower-tier subcontractor may apply for a patent waiver under the same conditions as the offeror.

Under a research, development, and demonstration project, the Department of Energy and NREL are unable to ascertain, prior to receipt of offers or performance of the project, their actual needs for technical data. It is believed that the requirements contained herein are the basic needs of the Department of Energy and NREL. However, if the offeror indicates in its proposal that proprietary data will be used or withheld under its proposed effort, the Department of Energy and NREL reserve the right to negotiate appropriate rights to the proprietary data. The appropriate rights may include "Limited Rights in Proprietary Data" and/or "Subcontractor Licensing."

d. Disclaimer

NEITHER THE UNITED STATES; NOR THE DEPARTMENT OF ENERGY; NOR ALLIANCE FOR SUSTAINABLE ENERGY, LLC; NOR ANY OF THEIR CONTRACTORS, SUBCONTRACTORS, OR THEIR EMPLOYEES MAKE ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUME ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS FOR ANY PURPOSE OF ANY OF THE TECHNICAL INFORMATION OR DATA ATTACHED OR OTHERWISE PROVIDED HEREIN AS REFERENCE MATERIAL.

e. Solicitation disputes

The General Accountability Office and the Department of Energy do not accept or rule on disputes for solicitations for Requests for Proposals issued by Management and Operating Contractors for the Department of Energy (operators of Department of Energy National Laboratories). Should an offeror have any concerns regarding the NREL solicitation process or selection determination, the offeror may contact Paul White, Advocate for Commercial Practices, at (303) 384-7575. NREL will address each concern received from an offeror on an individual basis.

f. Prohibition on use of certain telecommunications and video surveillance services or equipment per the John S. McCain National Defense Authorization Act Section 889(a)(1)(B)

In accordance with the John S. McCain National Defense Authorization Act Section 889(a)(1)(B), NREL is prohibited from contracting with any offeror that uses, and/or whose lower-tier subcontractor(s) use, covered telecommunication equipment or services as a substantial or essential component of any system, or as a critical technology of any system, on or after 08/13/2020, unless an exception applies or a

waiver is granted. This includes such equipment or services from five Chinese companies: **Huawei, ZTE Corporation, Hytera Communications, Hangzhou Hikvision, and Dahua Technology**.

g. Compliance with Section 508 of the Rehabilitation Act (found at 29 U.S.C. 794d) The requirements of Section 508 of the Rehabilitation Act apply to NREL's procurement of all electronic and information technology (EIT) and any development, maintenance, or use of EIT.

h. Small Business (Lower-Tier) Subcontracting Plan (derived from FAR 52.219.9) The following requirement does not apply to small business offerors. This requirement only applies if offeror is notified of intent to negotiate a subcontract in response to this solicitation after the source selection process described above is complete and the offer exceeds $700,000.

Successful offerors shall be required to submit a lower-tier subcontracting plan upon notification of intent to negotiate a subcontract in response to this solicitation. The lower-tier subcontracting plan shall separately address lower-tier subcontracting with small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual subcontracting plan, the plan must separately address lower-tier subcontracting with small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic subcontract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant subcontract. The lower-tier subcontracting plan shall be negotiated within the time specified by the NREL subcontract administrator. Failure to submit and negotiate a lower-tier subcontracting plan shall make the offeror ineligible for award of a subcontract. Lower-tier subcontracting plan requirements can be found at the following link:

http://www.nrel.gov/workingwithus/standard-terms.html (see Appendix F)

12. Solicitation provisions—incorporated by reference—general access

This solicitation incorporates one or more solicitation provisions by reference with the same force and effect as if they were given in full text. The following documents can be downloaded from the NREL **general access** websites:
http://www.nrel.gov/workingwithus/forms.html
https://www.nrel.gov/workingwithus/standard-terms.html

If requested, the NREL RFP Contact (see item 2) will make full text available upon request.

- NREL Standard Terms and Conditions:
  - Appendix B-2 dated 01/23/23
  - Appendix D dated 03/01/20 (if applicable)
  - Appendix F dated 06/01/21 (if applicable)

- NREL Intellectual Property Provisions:
  - Appendix C-1 dated 08/01/22; **or**
  - Appendix C-2 dated 08/01/22; as applicable

- NREL Representations and Certifications for Subcontracts

- NREL Price/Cost Proposal Form and Instructions

- NREL Conflicts of Interest Forms

13. Summary of Attachments

Attachment 1 – Statement of Work, dated 02/26/2024
Attachment 2 – Sample Subcontract Schedule: Firm Fixed Price with Price Participation
Attachment 3 – Eligibility Verification, dated 12/07/2020
Attachment 4 – Figure of Merit – Cost of Energy (Distributed Wind Generation) dated 12/07/2020 *(includes supplemental spreadsheet)*
Attachment 5 – Turbine Specifications dated 02/26/2024
Attachment 6 – Sample Deliverable Schedule

14. NAICS Code and Small Business Size Standard

a. The North American Industry Classification System (NAICS) for this solicitation is 541990.

b. The small business size standard for 541990 – All Other Professional, Scientific and Technical Services is $19,500,000.00 in annual receipts. (Annual receipts of a concern means the annual average gross revenue for the last three fiscal years.)

15. Notice Regarding NREL Payments to Subcontractors

It is NREL's standard practice to make all payments to domestic subcontractors via electronic (ACH) payments or to international subcontractors via wire transfers. Any Offeror receiving notification of an award under this solicitation must complete and submit a "Request for ACH/Wire Banking Information" form to the applicable NREL Subcontract Administrator. Payments to subcontractors will be deposited directly into the subcontractor's designated bank account in accordance with the banking account/wire transfer information provided on the form by an authorized offeror representative. An electronic (PDF) copy of the form will be provided by the NREL Subcontract Administrator upon notification of award. ***Please do not include an ACH form with your response to this RFP.***