U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Wind Forecasting Improvement Project in Complex Terrain

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FOA Webinar

DE-FOA-0000984

April 21, 2014

DE-FOA-0000984
Wind Forecasting Improvement Project in Complex Terrain

Anticipated Schedule:

FOA Issue Date:	**4/4/2014**
FOA Informational Webinar:	4/21/2014 3:00pm – 5:00pm ET
Submission Deadline for Concept Papers:	5/5/2014 5:00pm ET
Submission Deadline for Full Applications:	6/5/2014 5:00pm ET
Submission Deadline for Replies to Reviewer Comments:	7/10/2014
Expected Date for EERE Selection Notifications:	8/22/2014
Expected Timeframe for Award Negotiations:	60 days

Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0000984 **("FOA")** and adhere to the stated submission requirements.
- This presentation summarizes the contents of the FOA. If there are any inconsistencies between the FOA and this presentation or statements from Department of Energy (DOE) personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification from EERE.
- If you believe there is an inconsistency, please contact WFIPFOA984@go.doe.gov

Agenda

1) FOA Description
2) Award Information
3) Statement of Substantial Involvement
4) Cost Sharing
5) Pre-Selection Interviews
6) Concept Papers
7) Full Applications
8) Merit Review and Selection Process
9) Registration Requirements

FOA Description

- Research physical phenomena, processes, and atmospheric properties in areas of complex terrain that drive changes in wind speeds within the planetary boundary layer (PBL) of the atmosphere.

- Develop new or improved Weather Research and Forecasting (WRF)-based schemes or basic modeling theories used in foundational forecasting models.

- Improve short-term (0-15 hour) wind forecasts, with possible positive implications for day-ahead, by improving foundational weather models.

FOA Objectives

- Design and implement an observational field campaign in an area, nominally 800 by 800 kilometers in scale, of complex terrain, by working with project partners and available resources described in this FOA.
- Improve the understanding of physical phenomena, processes, and the atmospheric properties that occur in these regions and impact wind speeds and direction at turbine hub heights.
- Develop new or improved WRF model schemes or atmospheric modeling theories in conjunction with the National Oceanic and Atmospheric Administration (NOAA) and the DOE National Labs identified under this FOA. These schemes or theories should better represent physical processes and increase accuracy of predicted wind changes in the 0 to 15 hour forecasts, with positive implications for day-ahead forecasts, in foundational weather models.
- Develop decision support tools which could include probabilistic forecast information, uncertainty quantification and forecast reliability for system operations.
- Disseminate results that contribute to improvements in the state-of-the-art of short-term forecasting methods as well as any unintended discoveries that benefit the meteorological and/or wind community.

DOE Partners Supporting this FOA

- NOAA: NOAA's Office of Oceanic and Atmospheric Research (OAR) and National Weather Service (NWS)
  - Provide and deploy meteorological instrumentation
  - Conduct data assimilation
  - Operate experimental foundational weather forecast models

- National Labs: Argonne National Laboratory (ANL), Pacific Northwest National Laboratory (PNNL), Lawrence Livermore National Laboratory (LLNL), and National Renewable Energy Laboratory (NREL)
  - Provide government-owned observational equipment and technical services
  - NREL will provide support for economic analysis to the awardee
  - Applicants should not contact national labs during the application process

NOAA and National Lab's Roles: Research Areas

Text Color Key

- FOA respondent exclusive responsibility
- Topics with potential collaboration, defined specifically post-award
- DOE/NOAA lab exclusive responsibility

Field Campaign

- Physics of interaction between instruments and atmosphere
  - In situ and remote sensing instruments
- Identification of key physical processes and associated measurement design
  - Uncertainty quantification/sensitivity analyses
- Field design for data use in models
  - For evaluation of model performance from regional to wake scales
  - For assimilation for 0-15 hr operational forecasting with hourly updating
- Field deployment
  - Instrumentation provided by FOA awardee
  - Instrumentation provided by laboratories
  - Archival and dissemination of all federally funded data

NOAA and National Lab's Roles: Research Areas

Improved Understanding of Physical Processes

- Investigation of physical processes identified in FOA
- Identification of error sources in subgrid-scale parameterizations across model scales, including examination of underlying theory
- Relationships between structure of inflow, wake flow, structural loading, and wind plant performance

Model Improvement

- Development and testing of improved subgrid-scale parameterizations across scales
  - Coupling of PBL, surface layer, and land-surface schemes
  - Evaluation of both local and non-local parameterizations
  - Use of high-resolution models and data to understand impact of subgrid-scale nonlinearities on parameterizations
  - Development of stochastic versions of parameterizations for ensemble forecasting and data assimilation

NOAA and National Lab's Roles: Research Areas

Model Improvement (cont.)

- Downscaling methods from mesoscale to turbine scale
  - Boundary conditions for nesting, including LES
  - Impact of stability and realistic terrain
  - Statistical downscaling methods
- Evaluation of relative importance of data assimilation and improved model physics for reducing error over a wide range of meteorological conditions and scales
- Software framework development for model coupling
- Implementation/evaluation of improved parameterizations in NOAA's RAP/HRRR models

Decision Support

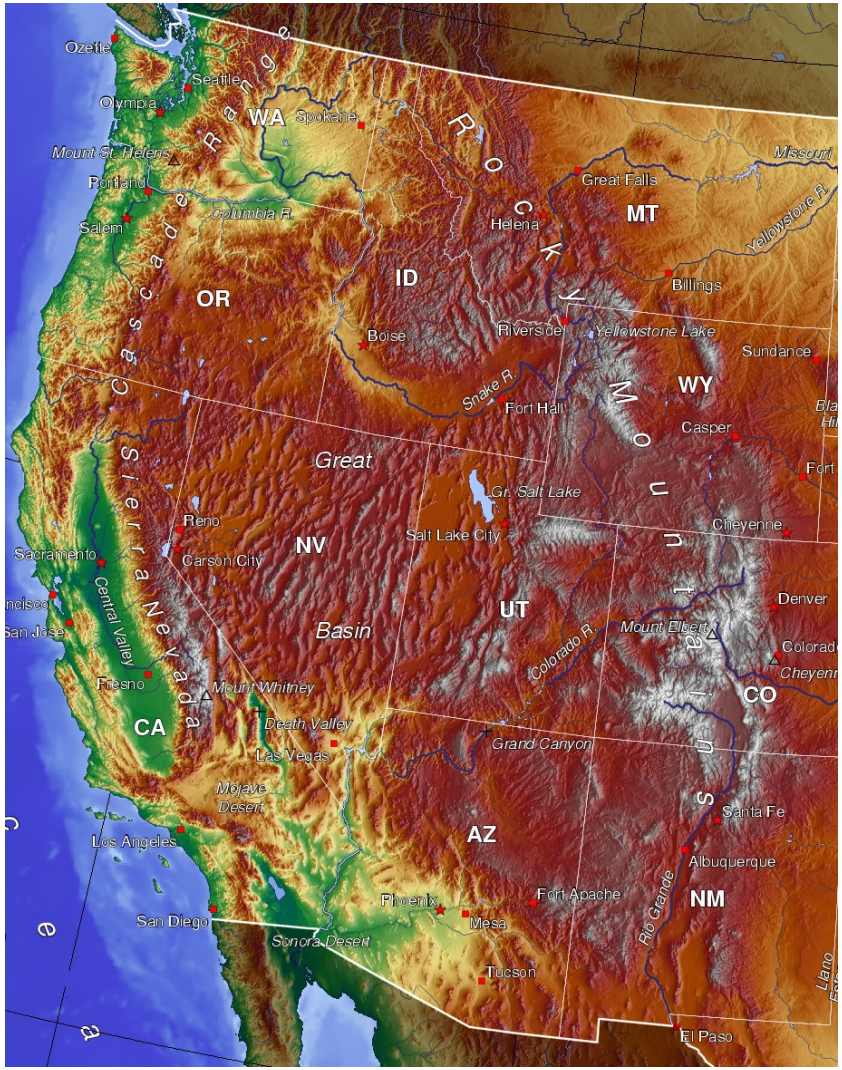
- Application of UQ methods to establish uncertainty in key model output, including power
- Development of decision algorithms using these uncertainties addressing key needs of operators, utilities, and balancing authorities
- Development of decision support tools based on new algorithms and methods

Project Team

- In addition to current DOE project partners, the awardee MUST include involvement or support from one or more electric power system Balancing Authorities (BA).
  - The BA can be a public or private electric utility or electric power system operator (Regional Transmission Organization or Independent System Operator).

- The proposed team may include:
  - Wind plant operators, owners, developers, and manufacturers
  - Wind forecasters
  - Weather service providers
  - Wind measurement instrument suppliers
  - Regional academia and others

Regions of Interest



- The region between the Rocky Mountains and the Pacific coastline
- Applicants should select a study area with complex terrain (approximately 800 by 800 km) within this region that experiences the physical processes of interest

Physical Processes of Interest

- Temperature and moisture profiles of the atmosphere, at a minimum, through the depth of the turbine rotor (approximately 200 meters) and deeper, if possible, to capture a more complete profile of certain phenomena (e.g. low-level jet, full depth of sea breezes)
- Low-level jets
- Mountain drainage winds
- Other boundaries such as fronts, outflow, and wakes
- Surface flux measurements from which atmospheric stability parameters can be derived
- Pressure measurements
- Land-sea breezes
- Turbulence
- Snow and soil moisture

Table 1. List of Potential Government Furnished Equipment

Observational Equipment/Instrumentation		Number Available	Notes
Wind Profiling Radars	915-MHz	4	At least 2 WPRs will be provided for the project
Lidars	Scanning	2	
	Doppler	1	Available for at least 2 four-week periods
	Vertical Profiling	3	1 ZephIR 300, 2 Wind Cube v2
Sodars	Vertical Profiling	6	1 Scintec sodar
Radiometers		3	1 Net (Kipp & Zonen) 1 Albedometer, 1 Net Radiometer, and 1 IRT 1 ECOR Flux module
Anemometers	Sonic	13	1 CSAT3 3-D (Campbell Scientific)
	Cup	3	
Sensors	Temperature/RH	3	1 Vaisala, At least 2 from ANL
	CO_2/H_2O	2	1 EC150 infrared gas analyzer (Campbell Scientific)
	Soil heat flux plates	4	
	Soil temperature probes	3	
	Soil moisture probes	3	
	Energy Balance Bowen Ratio system	1	
Hygrometers	Krypton	1	
	Infrared	1	
Tipping Rain Gauge		1	
Surface Weather Stations		10	Campbell Scientific Measures surface wind speed, direction, temperature pressure, and RH
3-m tall towers		2	
Wind Vane Direction		1	
Wind Bird (combined speed and direction)		1	

Instrumentation

- Table 1 in the FOA lists a suite of Government Furnished Equipment (GFE) available from DOE and its partners.
- DOE anticipates data from three new wind profiling radars being placed along the Pacific Coast to be available during the latter portion of the field campaign.
- Two floating lidar buoys may also be available and should be considered for use in the proposed project.
- The application should indicate GFE of interest to use during the proposed project as well as any additional instrumentation or sensors provided by the applicant.

Data Management

- All observations provided by the applicant must follow Meteorological Assimilation Data Ingest System (MADIS) format in Universal Coordinated Time (UTC).
- Data must be openly shared among project partners and made available for archival at a DOE facility.
- A data management plan (DMP) should clearly address data sharing and preservation related to:
  - Data for ingest into NOAA NWP models in near real-time format
  - Data collection, formatting, quality assurance and quality control processes
  - Data sharing, including meteorological as well as any SCADA (Supervisory Control and Data Acquisition) and load-related data, among project partners during the project performance period
  - Ability to make data available for archival at a DOE facility following the project performance period

Model Development and Decision Support Tools

- The successful applicant will use the WRF model, specifically the Advanced Research WRF (WRF-ARW) version 3.5.1 or newer.
- New or improved physical schemes or atmospheric modeling theories will be developed for incorporation into NOAA's Numerical Weather Prediction (NWP) models including:
  - 13-km Rapid Refresh (RAP)
  - 3-km High-Resolution Rapid Refresh (HRRR)
  - NAM Rapid Refresh (NAMRR)
- Applicants should also describe development of high-level decision support tools that enable system operators to more effectively use foundational forecasting model output on a national level.

Budget Periods

The proposed project should **not exceed 39 months** and will consist of **3 budget periods**:

Budget Period	Length	Description/Activities
1	Up to 9 months	• Work with NOAA, DOE, and lab partners to acquire land easements for instrumentation deployment • Design a plan for instrumentation layout, data acquisition and data sharing among partners as well as archival
2	Up to 18 months	• Conduct a field campaign collecting representative data for all four seasons • Includes operation and timely maintenance of instrumentation, identification of case studies for further analysis, replacing instrumentation as required, and preliminary analysis of data
3	12 months	• Analyze data from the field campaign • Identify ways to better represent physical processes in model physical schemes or atmospheric modeling theories • Test those schemes or theories with the NOAA RAP, HRRR, and NAMRR models • Disseminate information

Applications Specifically Not of Interest

- Applications that fall outside the technical parameters specified in the FOA, including but not limited to using forecast models that are not WRF or WRF-based; applications that limit the sharing data with project partners (e.g. NOAA) or significantly restrict the access of data collected from this field measurement campaign for any potential future use.
- Applications for developing new instrumentation or measurement technologies, including remote sensors.
- Applications that do not include complex terrain or are outside the region of interest described.
- Applications for development of new models or WRF planetary boundary layer schemes that are not open source and publically available.
- Applications limited to addressing one or two physical processes in areas of complex terrain.
- Applications limiting the field campaign phase to less than four seasons.

Award Information

Total Amount to be Awarded	**$2,500,000***
Average Award Amount	EERE anticipates making one award not to exceed $2,500,000.
Types of Funding Agreements	Cooperative Agreement
Period of Performance	Up to 39 months
Cost Share Requirement	20% of Total Project Costs

*Subject to the availability of appropriated funds

Statement of Substantial Involvement

EERE has substantial involvement in work performed under Awards made following this FOA. EERE does not limit its involvement to the administrative requirements of the Award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole. Substantial involvement includes, but is not limited to, the following:

- EERE shares responsibility with the Prime Recipient for the management, control, direction, and performance of work under this award.
- EERE reviews and approves in a timely manner project plans, including project management, testing and technology transfer plans, and recommending alternate approaches, if the plans do not address the critical programmatic issues.
- EERE participates in project management planning activities, including risk analysis, to ensure EERE Technology Office requirements or limitations are considered in performance of the work elements.

Statement of Substantial Involvement - Continued

- EERE may intervene in the conduct or performance of work under this Award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.

- EERE promotes and facilitates technology transfer activities, including disseminating Technology Office results through presentations and publications.

- EERE may redirect or discontinue funding projects that fail to fully and satisfactorily complete the work described in the Statement of Project Objectives as evaluated at the Go/No Go decision points.

- EERE participates in major project decision-making processes.

Cost Sharing Requirements

- Applicants must contribute a minimum of 20% of the total project costs for R&D projects. *Unless the project qualifies for the Cost Share Reduction.*

- ***Cost Share Reduction***: EERE has reduced the Recipient Cost Share Requirement to **10%** for R&D activities where:
  - The Prime Recipient is a domestic institution of higher education; domestic nonprofit entity; or U.S. State, local, or tribal government entity; and
  - The Prime Recipient incurs more than 50% of the total project cost

Cost Share Contributions

- Contributions must be:
  - Specified in the project budget
  - Verifiable from the Prime Recipient's records
  - Necessary and reasonable for proper and efficient accomplishment of the project
- Every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred

Allowable Cost Share

- Cost Share must be allowable and must be verifiable upon submission of the Full Application
- Refer to the following applicable Federal cost principles:

Entity	Cost Principles
Educational Institutions	2 CFR Part 220
State, Local, and Indian Tribal Governments	2 CFR Part 225
Non-profit Organizations	2 CFR Part 230
For-profit Organizations	FAR Part 31

Allowable Cost Share

- Cash Contributions
  - May be provided by the Prime Recipient, Subrecipients, or a Third Party
- In-Kind Contributions
  - Can include, but are not limited to: personnel costs, indirect costs, facilities and administrative costs, rental value of buildings or equipment, and the value of a service, other resource, or third party in-kind contribution

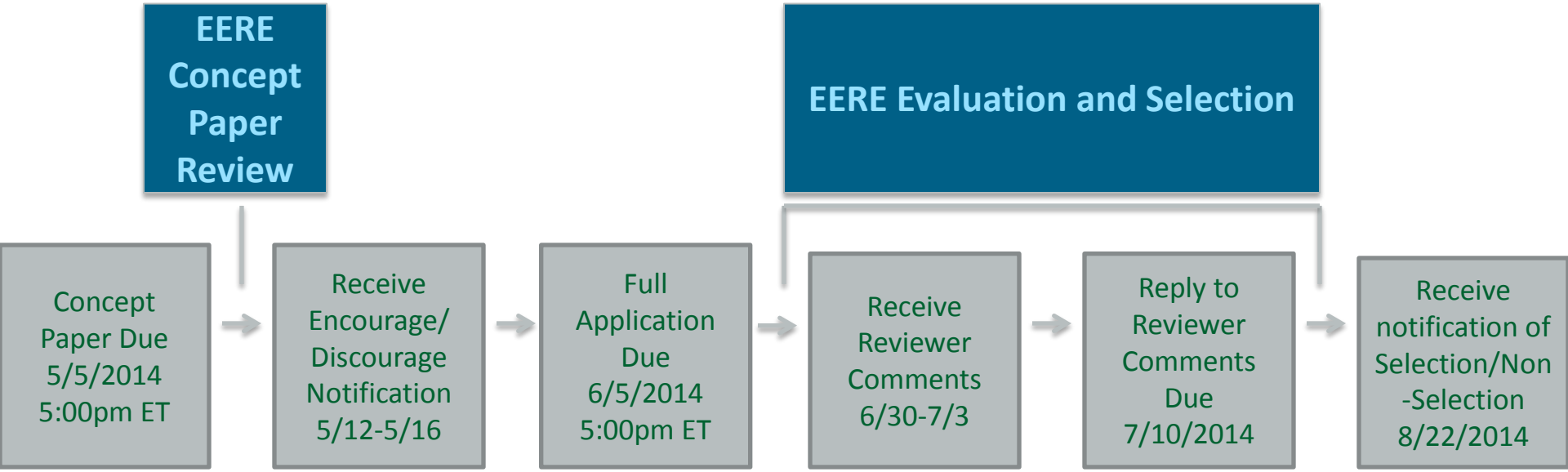
Unallowable Cost Share

- The Prime Recipient may not use the following sources to meet its cost share obligations including, but not limited to:
  - Revenues or royalties from the prospective operation of an activity beyond the project period
  - Proceeds from the prospective sale of an asset of an activity
  - Federal funding or property
  - Expenditures reimbursed under a separate Federal Technology Office
  - Independent research and development (IR&D) funds
  - The same cash or in-kind contributions for more than one project or program

Cost Share Payment

- Recipients must provide documentation of the cost share contribution, incrementally over the life of the award
- The cumulative cost share percentage provided on each invoice must reflect, at a minimum, the cost sharing percentage negotiated
- In limited circumstances, and where it is in the government's interest, the EERE Contracting Officer may approve a request by the Prime Recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. See Section III.B.5 of the FOA.

FOA Timeline



EERE anticipates making awards by end of October 2014

Pre-Selection Interviews

- EERE may invite one or more applicants to participate in Pre-Selection Interviews
- All interviews will be conducted in the same format.
- EERE will not reimburse applicants for travel and other expenses relating to the Pre-Selection Interviews, nor will these costs be eligible for reimbursement as pre-award costs
- Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations

Concept Papers

- Applicants must submit a Concept Paper
  - Each Concept Paper must be limited to a single concept or technology
- The Concept Paper must include a technology description (See Section IV.C of the FOA)
  - The technology description is limited to 5 pages
  - The Concept Paper can also include graphs, charts, or other data (limited to 5 pages)
- Concept Papers must be submitted by **May 5, 2014, 5pm ET**, through EERE Exchange, and must meet the content and form requirements (See Section IV.C of the FOA).
- EERE provides applicants with: (1) an "encouraged" or "discouraged" notification, and (2) the reviewer comments

Concept Paper Review

EERE evaluates the Concept Papers based on the following technical review criteria:

Criterion 1: Overall Scientific and Technical Merit (50%)

This criterion involves consideration of the following factors:

- A clear description of the challenge to the industry
- Development of a high-level approach that addresses this challenge and is within the parameters described in this FOA
- If technical success is achieved, how the proposed idea would significantly improve technical and economic performance relative to the current practice

Criterion 2: Team and Resources Roles, Responsibilities (50%)

This criterion involves consideration of the following factors:

- An understanding of the stakeholders necessary to develop a comprehensive team to contribute to the objectives of this FOA, including roles and responsibilities
- The likelihood of the team to achieve success within the described approach

Full Applications

- The Full Application includes:
  - **Technical Volume**: The key technical submission - info relating to the technical content, project team members, etc.
  - **SF-424 Application for Federal Assistance:** The formal application signed by the authorized representative of the applicant.
  - **SF-424A Budget & Budget Justification:** a detailed budget and spend plan for the project.
  - **Summary for Public Release**
  - **Summary Slide**
  - **Administrative Documents:** E.g., U.S. Manufacturing Plan, FFRDC Authorization (if applicable), Disclosure of Lobbying Activities, etc

Full Applications: Technical Volume Content

- **Technical Volume: the key technical component of the Full Application**

Content of Technical Volume	Suggested % of Technical Volume
Cover Page	
Project Overview	10%
Technical Description, Innovation, and Impact	25%
Workplan	50%
Technical Qualifications and Resources	15%

Full Application Eligibility Requirements

- Applicants must submit a Full Application by **June 5, 2014, 5pm ET**
- Full Applications are eligible for review if:
  - The Applicant is an eligible entity (Section III.A of FOA);
  - The Applicant submitted an eligible Concept Paper;
  - The Cost Share requirement is satisfied (Section III.B of FOA);
  - The Full Application is compliant (Section III.C of FOA); and
  - The proposed project is responsive to the FOA (Section III.D of FOA)
  - The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Who's Eligible to Apply?

Eligible applicants for this FOA include:

1. Individuals
2. Domestic Entities
3. Foreign Entities
4. Incorporated Consortia
5. Unincorporated Consortia

For more detail about each eligible applicant, please see Section III.A of the FOA for eligibility requirements

DOE/NNSA Federally Funded Research and Development Center (FFRDCs) and DOE Government-Owned, Government-Operated (GOGOs) are not eligible to apply as either a Prime or Subrecipient

Multiple Applications

- Applicants may only submit one Concept Paper and one Full Application for consideration under this FOA

- If an applicant submits more than one Concept Paper or Full Application, EERE will only consider the last timely submission for evaluation
  - Any other submissions received listing the same applicant will be considered non-compliant and not eligible for further consideration
  - This limitation does not prohibit an applicant from collaborating on other applications (e.g., as a potential Subrecipient or partner) so long as the entity is only listed as the Prime Applicant on one Concept Paper and Full Application submitted under this FOA

Merit Review and Selection Process (Full Applications)

- The Merit Review process consists of multiple phases that each include an initial eligibility review and a thorough technical review
- Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA
- Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, to make the selection decisions

Technical Merit Review Criteria

Criterion 1: Technical Merit, Innovation, and Impact (45%)

Technical Merit and Approach

- Extent to which the proposed project is innovative, supports the objectives of this FOA, and has the potential to advance the state of the art
- Degree to which proposal describes understanding of NOAA's Numerical Weather Prediction (NWP) models and Weather Research and Forecasting (WRF) models used for wind forecasting and system operations, and atmospheric boundary layer physical processes
- The degree to which the proposal describes the procedure for investigating physical processes, and developing and testing model-based physical packages
- The degree to which the proposal describes procedures for public dissemination of intended or unintended discoveries as part of the application

Technical Merit Review Criteria - Continued

Criterion 1, Continued

- The degree to which the proposed test region (nominally 800 by 800 kilometers in scale) is in the specified region of interest and suitability of that region to accommodate a network of meteorological sensors and equipment to achieve the stated FOA objectives
- The degree to which the proposal demonstrates the ability to impact or improve wind forecasts in short term (0-15 hour) and, potentially day ahead time frames, for utility system operation
- Degree to which the proposal incorporates sound validation techniques and methodologies for model improvements

Technical Merit Review Criteria - Continued

Criterion 2: Team and Resources (30%)

- The capability of the Principal Investigator(s) and the proposed team to successfully address all aspects of the proposal as well as qualifications, relevant expertise, and time commitment of the individuals on the team
- The sufficiency of the proposed resources to support the work and identification/commitment of those resources including:
  - computational resources, time, and personnel
  - utilization of the GFE identified in Table 1 for field deployment
  - observational data sources, sensors and instruments beyond the identified GFE, including multiple measurements from tall towers (80+ meters) for field deployment and model improvement/development
  - other necessary field instrumentation such as data acquisition systems, communication and data transmission equipment

Technical Merit Review Criteria - Continued

Criterion 2, Continued

- Level of participation by project participants as evidenced by letter(s) of commitment and how well they are integrated into the work plan, as well as their ability to work collaboratively to deploy observational equipment, establish data interfaces with project partners, monitor and maintain data integrity throughout the duration of the project , and share data and information relevant for the project's success
- Reasonableness of budget and spend plan for proposed project and objectives

Technical Merit Review Criteria - Continued

Criterion 3: Project Management (25%)

- Degree to which the approach and critical path have been clearly described and thoughtfully considered
- Degree to which the task descriptions are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed work plan will succeed in improving wind forecasts in the time frames described in this FOA
- The level of clarity in the definition of improvement project baseline, metrics and project milestones
- Relative to a clearly defined experimental baseline, the strength of the quantifiable metrics, milestones, and mid-point deliverables, such that meaningful progress will be made

Technical Merit Review Criteria - Continued

Criterion 3, Continued

- Degree to which the approach describes the steps necessary to formally develop new WRF-based physical packages for public use
- Degree to which the proposal describes appropriate distribution channels and procedures to ensure information dissemination amongst stakeholders
- Quality and comprehensiveness of the Data Management Plan (per Appendix E) and Open Source Software Distribution Plan (Appendix D)
- The extent to which the proposal demonstrates an understanding of the key risk areas involved in the proposed work and the quality of the mitigation strategies to address them

Technical Merit Review Criteria – Continued

These factors will be considered and commented on by merit reviewers but not considered in the rating of technical/scientific merit (e.g. not point scored):

- The ability and willingness of the applicant to share SCADA data and load information during the period of performance
- The inclusion of observation data from meteorological towers in the vicinity of existing wind plants

Replies to Reviewer Comments

- EERE provides applicants with reviewer comments
- Applicants have approximately three business days to prepare a Reply to Reviewer Comments ("Reply") to respond to comments
  - Page Limit: 3 Pages, including charts, graphs, etc.
- Applicants are not required to submit a Reply. It is optional.
- To be considered by EERE, a Reply must be submitted by the deadline and submitted through EERE Exchange.
- Please see Sections IV.F and V.A.3 for additional information regarding Replies to Reviewer Comments

Selection Factors

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available in arriving at selections for this FOA

Program Policy Factors

- The Selection Official may consider the following program policy factors in making his/her selection decisions:
  - The degree to which the proposed project, including proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives
  - The level of industry involvement and demonstrated ability to commercialize energy or related technologies
  - Technical, market, organizational, and environmental risks associated with the project
  - Whether the proposed project is likely to lead to increased employment and manufacturing in the United States
  - Whether the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty
  - The degree to which the proposed project directly addresses EERE's statutory mission and strategic goals

Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange: https://eere-Exchange.energy.gov
- Obtain a "control number" at least 24 hours before the first submission deadline
- Although not required to submit an Application, the following registrations must be completed to receive an award under this FOA:

Registration Requirement	Website
DUNS Number	http://fedgov.dnb.com/webform
SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

Means of Submission

- Concept Papers, Full Applications, and Replies to Reviewer Comments must be submitted through EERE Exchange at https://eere-Exchange.energy .gov
  - EERE will not review or consider applications submitted through other means
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at https://eere-Exchange.energy.gov/Manuals.aspx

Key Submission Points

- Check entries in EERE Exchange
  - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline to allow for full upload of application documents and to avoid any potential technical glitches with EERE Exchange
- Make sure you hit the submit button
  - Any changes made after you hit submit will un-submit your application and you will need to hit the submit button again
- For your records, print out the EERE Exchange Confirmation page at each step, which contains the application's Control Number

Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
  - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

Questions

- Questions about this FOA? Email WFIPFOA984@go.doe.gov
  - All Q&As related to this FOA will be posted on EERE Exchange
    - You must select this specific FOA Number in order to view the Q&As
  - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A has already been posted on the website
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Email EERE- ExchangeSupport@hq.doe.gov.
  - Include FOA name and number in subject line
- All questions asked during this presentation will be posted on EERE Exchange