



**IEEE / NFPA  
Collaboration on Arc Flash Phenomena  
Research Project**

**Requirements for Qualification of High Power  
Testing Services:  
IEEE/NFPA Arc Flash Phenomena**

**Due Date: June 11, 2007**

May 7, 2007

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## **Section 1: Overview of the Requirement**

### **1.1 Introduction**

The Institute of Electrical and Electronics Engineers (IEEE) and the National Fire Protection Association (NFPA) are collaborating on an initiative to fund and support research and testing to increase the understanding of the arc flash phenomena. The results of this project will provide information that may improve the electrical safety standards by better predicting the hazards associated with arcing faults and accompanying arc blasts, thereby establishing practical safeguards for employees in the work place.

Several areas of the arc flash phenomena need further research to provide pertinent information that can be used to develop safety strategies that will protect workers. The areas identified include: (a) Heat and Thermal Effects such as Infrared and Ultraviolet Radiations, (b) Blast and Pressure including Shrapnel, (c) Sound, (d) Toxicity, and (e) the Electromagnetic Radiation Hazards. The proposed research and testing plan will focus on (a) Physics and Engineering-Based Model, (b) Heat Transfer and Thermal Effects, (c) Electromagnetic Radiation Hazards, and (d) Impact of Enclosures.

This Requirements for Qualification provides prospective High Power (High Voltage/High Current) Testing Laboratories and/or Research Facilities with sufficient information to enable them to prepare and submit a qualification statement to provide testing services for the Arc Flash Phenomena for Low Voltage (below 1 kV) and Medium Voltage (1 kV - 15 kV) and DC electrical equipment. The intent of this Requirements for Qualification is to pre-select the qualified test facilities/laboratories for the testing that will need to be performed as part of the collaborative arc flash phenomena research project.

The IEEE/NFPA Collaborative Research Project Team (herein referred as the “Project Team”) is seeking testing services from qualified laboratory facilities to assist in performing various types of testing of Low Voltage, Medium Voltage and DC electrical equipment with particular focus on a detailed testing and evaluation for arc flash hazard and phenomena. Based on the review of the Requirements for Qualification responses, the Project Team intends to issue a Request for Quotation to Pre-Qualified Respondents who may then be invited to enter into a contract (or contracts) for the services described.

## **1.2 Request for Information and Clarification**

Any inquiries for clarification and/or additional information regarding the submission of this Requirements for Qualification shall be directed to:

Attention: Dr. P.K. Sen, P.E. and Prof. Ravel Ammerman  
Project Managers, IEEE/NFPA Collaborative Research Project  
Division of Engineering  
Colorado School of Mines  
1610 Illinois Street, Golden, Colorado 80401, USA  
[psen@mines.edu](mailto:psen@mines.edu) or [rammerma@mines.edu](mailto:rammerma@mines.edu)  
Voice- P.K. Sen: 303.384.2020 and Ravel Ammerman: 303.273.3686  
303.273.3602 (Fax)

The persons listed above are the designated liaison between the IEEE/NFPA and the Respondent. All questions/clarifications must be sent via email to the designated liaison above, no later than Monday, May 21, 2007. Information and/or clarifications obtained from any other source is not official and should not be relied upon. Inquiries and answers may be recorded and may be distributed to all Respondents at the Project Team's option. A Letter of Intent to Respond (Appendix 3.1), which includes the response decisions, must be emailed to the designated liaison on or before 5:00 pm (MDT), May 14, 2007.

## **1.3 Submission of Response**

Respondents are required to submit (5) bound copies of the complete proposal response, and one (1) CD (in Microsoft Office format) properly identified.

The proposal response may be either mailed or hand delivered. The Respondent shall be responsible for actual delivery of the proposal to the proper address before the deadline. All proposals must be received no later than 5:00 pm (MDT), June 11, 2007 at the address given in section 1.2. Responses will be marked with their receipt time. Only complete Responses received and marked before closing times will be considered to have been received on time. Any proposal received after the deadline may be returned unopened.

The proposal must contain the signature of a duly authorized officer or agent of the Respondent's company empowered with the right to bind the Respondent's company. Each proposal must be sealed to provide confidentiality of the information prior to the submission date and time. All proposals upon receipt become the property of the IEEE/NFPA Collaborative Research Project. The content of all proposals will be kept confidential and will not be made public.

Proposals may be withdrawn or modified in writing prior to the proposal submission deadline. Proposals that are resubmitted or modified shall be sealed and submitted prior to the proposal submission deadline.

## 1.4 Schedule of Events

The following timetable outlines the anticipated schedule for the Requirements for Qualification. The timing and sequence of events resulting from this Request for Qualifications shall ultimately be determined by the Project Team. Respondents should be aware that the IEEE/NFPA Research Team wishes to complete this Qualification evaluation process and select the Test Facilities for future considerations in accordance with the tentative schedule for the project determined by the Project Team.

Solicitation Released to prospective Respondents	May 7, 2007
Intent to Respond (Appendix 3.1)	May 14, 2007
Questions from Respondents	May 21, 2007
Response to Questions	May 25, 2007
Due Date & Time for Proposals	June 11, 2007, 5:00 pm (MST)
Respondent Notified	July 30, 2007

## **Section 2: Administrative Requirements**

### **2.1 Scope of Terms and Conditions**

The following terms and conditions along with the (Standard) Service Agreement (attachment section 3.4) shall govern the submission of the proposal and any Agreement resulting from this solicitation. Respondents, by virtue of submission of a proposal, acknowledge these Terms and Conditions. Additional terms and conditions, requests for clarification, or any alterations to terms and conditions contained herein, submitted by a Respondent after the solicitation due date, may not be accepted and considered for negotiation or incorporation into terms of the awarded contract.

### **2.2 Objective of the Requirements for Qualification**

The objective of this Requirements for Qualification is to provide sufficient information to enable qualified Respondents to submit written proposals. This Requirements for Qualification is not a contractual offer or commitment to purchase products or services.

All information must be clearly written. Each proposal shall be accompanied by a transmittal letter signed by an authorized representative of the Respondent. Responses not meeting the above requirements will receive no further consideration during the qualifications review process. The contents of the proposal submitted by the Respondent(s) of the Qualification Statement may become part of any contract awarded as a result of this solicitation.

### **2.3 Award of Contract**

No contract will be awarded directly as a result of this solicitation. The main purpose of this solicitation is to pre-qualify the testing and/or laboratory facilities for future testing needs. However, contract(s) may be negotiated by the Project Team in the future with Respondent(s) whose proposal is determined to be the most advantageous, considering cost as well as other factors, all as solely determined by the Project Team. Evaluation of this qualification statement for future considerations will be based on the criteria described herein. Award of contract may be made without discussion after the proposals are received. Proposals should, therefore, be submitted initially on the most favorable terms from technical standpoints. The Project Team reserves the right to award contracts in whole or in part. Contracts may be awarded to one Respondent for initial set of testing, another for the next sets of testing, or the same Respondent may be awarded multiple testing in phases.

### **2.4 Addenda to the Requirements for Qualification Document**

The Project Team reserves the right to modify the terms of this Requirements for Qualification at any time in its sole discretion. If it becomes necessary to revise any part of this Requirements for Qualification, an addendum will be issued. Respondents are required to mention this in the proposal.

## **2.5 Respondent Responsibility for the Response Costs**

The Project Team is not liable for any cost incurred by any Respondent associated with the preparation of this Requirements for Qualification or the negotiation of a contract for services prior to the issuing of any contract. Selected Respondents may be asked to present their proposals and/or to demonstrate ability to provide products or services to the Project Team representatives. The Respondents shall bear all costs for such presentations as agreed upon in advance. The Project Team may also choose to visit the Respondent(s) Laboratory facilities and the Respondent(s) shall facilitate such arrangements as agreed upon in advance.

## **2.6 Economy of and Substantive Response**

Respondents must submit a complete and concise response to this Requirements for Qualification. Proposals should be prepared simply and economically, while providing complete details of the Respondent's abilities to meet the requirements of this Requirements for Qualification.

The Respondent shall certify: (a) that Respondent's response is genuine and is not made in the interest of, or on behalf of, an undisclosed person, firm, or corporation; (b) the Respondent has not directly or indirectly induced or solicited any other Respondents to put in a false or sham response; (c) that Respondent has not solicited or induced any other person, firm, or corporation to refrain or abstain from proposing a response; and (d) that Respondent has not sought by collusion to obtain for themselves any advantage over any other Respondents or over the Project Team.

## **2.7 Disclosure of Proposal Response Content**

If this proposal response contains confidential and/or proprietary information that the Respondent does not want disclosed to the public, or used for any purpose other than the evaluation of this Requirements for Qualification, all such information must be clearly indicated and identified.

Respondent, however, acknowledges and agrees that all material provided to the Project Team during this Requirements for Qualification process may be used without any restriction by the Project Team in the future. Respondent must be very specific and clear about any exceptions to this provision.

In the event that this qualification statement is rejected, the Project Team reserves the right to use any of the concepts or ideas contained therein without incurring any liability.

All marketing and promotional documentation supplied as part of the Respondent's proposal response may be included as addenda to any final contract that may result with the said Respondent.

## **2.8 Right to Reject Proposal Response and Negotiation**

The Project Team reserves the right to reject any and all proposal responses and to waive any formality in proposals received, to accept or reject any or all of the items in the response, and award the contract in whole or part, if it deemed in the Project's best interest.

The Project Team reserves the right to negotiate any and all elements of the proposal response, if such action is deemed to be in the best interest of the Project.

## **2.9 Deliverables and Project Objectives**

Perform in accordance with Appendix 3.2 requirements and respond to each section properly.

## **2.10 Evaluation Process**

Each Respondent is required to show that they have satisfactorily provided such testing requirements as identified in this Requirements for Qualification document in the past and that no claims of any kind are pending against such work. No proposal response will be accepted from a Respondent who is engaged in any work, which would impair their ability to perform or finance this work. All such work shall be revealed in the response.

The Selection Committee will use all facts, information, and data available to finalize its evaluation. On the basis of qualifications response to this Requirements for Qualification and subsequent evaluation activities, the selection committee intends to recommend to the Project Team one or more Respondent(s) to provide a detailed cost proposal further defining the required scope.

The Project Team, at its sole discretion, may elect to request clarification for the purpose of eliminating minor irregularities, informalities, or apparent mistakes in the proposal response.

Responses will be judged on the information provided in the proposal submission or provided in response to interview questions and/or site visits, if conducted. Responses meeting all mandatory requirements will be further assessed against the following criteria:

1. Previous background and experience relevant to this Requirements for Qualification.
2. Technical content of the proposal response and how well the stated needs are addressed.
3. Performance of relevant work performed by the proposed project personnel.
4. Adequacy and completeness of the proposal response with regard to the information specified herein, i.e., compliance with the acceptance of all terms, conditions, and all other provisions contained in the Requirements for Qualification.

Discussions (oral and/or written), if held at the sole discretion of the evaluation committee, may be used to ensure an understanding of the requirements as part of the evaluation process when the proposal response alone will not suffice. All negotiations are at the discretion of the Project Team.

## 2.11 Service Agreement

Attached in the Appendix 3.4 is a typical (standard) Service Agreement contract the successful vendor will be required to sign before the actual work is authorized to perform. Any exception to this Service Agreement contract has to be brought in writing to the attention of the “Project Team” during this pre-selection process.

## 2.12 Minimum Submittal Requirements

Respondents are encouraged to submit clear responses to this Requirements for Qualification. Responses that are of excessive length or are overly elaborate are strongly discouraged. The Project Team reserves the right to include any and all portions of the selected proposal responses in a contract for testing, if applicable. Due to the need for an expedient review of proposals and selection of a Respondent, Respondents are cautioned against submitting excessive and extraneous material not responsive to the issues raised in the Requirements for Qualification. Instructions regarding scope and content are given in this section. These instructions are designed to ensure the submission of information essential to the understanding and comprehensive evaluation of the responses.

To be considered responsive, all responses MUST include the following information with an emphasis on adding value to the proposed Project. In order to expedite the evaluation process, Respondents shall organize their proposal responses in the sequence specified below. Responses not addressing the following items clearly may be considered non-responsive.

Compliance with all of the requirements as identified in Appendix 3.2 is essential and any non-compliance shall be explained in detail:

- A. **Detailed Company Background:** At a minimum provide the following information relative to your firm.
  1. Firm name and business address, including telephone numbers and email addresses. Also include specific telephone and email addresses for the proposed testing Team Lead and contract department.
  2. Year established (include former firm names and years established, if applicable). Identify the state (and country, when applicable) in which the firm was organized or incorporated.
  3. Type of ownership, name and location of parent company and/or subsidiaries, if any.
  
- B. **Staff Resumes Assigned to the Proposed Testing Project:** Provide resumes (no more than 2 pages each) of staff that will be assigned to the testing tasks, indicating their responsibility towards the project. Indicate the person who will be in charge (designated Project Manager) of the project. Also provide a short Project organization chart showing the responsibilities of the “key” people, if applicable.

- C. **Experience**: Summarize experience and specifically relate its relevance to the proposed testing. Identify expertise relevant to the required scope herein. Please provide detail of experience in setting up the test procedures.
- D. **Project Narrative**: Explain any standard methodology and technology the Respondent would utilize for the proposed testing. Please outline your general philosophies and understanding of the scope of the proposed project.
- E. **Testing Schedule**: Please indicate when you could begin the work, your lead time to perform testing, and how much of the lab time (percentage) could be dedicated to the testing. Also provide any additional explanation, if appropriate.
- F. **(Optional) Cost Related Information**: This Requirements for Qualification response is not a cost proposal. However, a tentative cost sheet is added in the Appendix 3.3, which is strictly optional. If provided, the cost numbers will not be used for any future contract and this will be kept strictly confidential. The Project Team will use this information strictly for the future budgetary considerations and plan. There will be no adverse affect on the current qualification evaluation if the Respondent doesn't provide this information.
- G. **Relevant References**: Respondents shall provide a list of a minimum of three and maximum of five past and present clients for relevant contracts of similar size and scope, including firm name, contact name, contact title, addresses, phone numbers, and email addresses. In addition, include a very brief description of services provided. Please verify that all information provided for your references is accurate and up to date. Please be advised that the references may be contacted.
- H. **Conflict of Interest**: The Respondent testing laboratory shall normally be an independent third party testing organization with no organizational, managerial and/or financial affiliation with manufacturers, or vendors of products, it is testing. However, if the Respondent has such affiliation and possible conflict of interest, they must clearly mention this in the proposal response.
- I. **Test Equipment and Facility**: The Respondent shall provide a list of all major test equipment, photographs when appropriate and an expanded narrative of the test facility including recent usage. Particular emphasis should be placed on describing the type and capability of test monitoring equipment for tracking/trending and recording arc flash Heat and Thermal effects such as Infrared and Ultraviolet radiation, (b) Blast and Pressure including Shrapnel, (c) Sound, (d) Toxicity, and (e) Electromagnetic Radiation Hazards. The respondent should supply additional information that will highlight their capability such as high speed video equipment to capture the swift changes in status of the test including Impact on the Enclosures.

- J. **Calibration**: Respondents shall provide clear evidence of a calibration program and quality assurance program to assure the accuracy of the test instruments.
- K. **Quality Assurance**: Respondents shall describe the policies and procedures in place to assure that the testing services meet a defined standard of quality.

### **Appendix 3.1**

IEEE / NFPA Arc Flash Phenomena  
Collaborative Research Project  
Requirements for Qualification of High Power Testing Services

#### **Intent to Respond Form**

Please complete and return this form via email even if you do not intend to submit a response in regard to this solicitation.

This Intent to Respond Form must be received on or before 5:00 pm (MDT), Monday, May 14, 2007 and should be emailed to: [psen@mines.edu](mailto:psen@mines.edu) and [rammerma@mines.edu](mailto:rammerma@mines.edu). Failure to return this Intent to Respond Form by the due date above may result in disqualification.

Company Name: \_\_\_\_\_  
Company Address: \_\_\_\_\_  
City, State, ZIP, and Country: \_\_\_\_\_

Company contact assigned to this project initiative:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Telephone No. \_\_\_\_\_  
Email Address: \_\_\_\_\_

Proposal participation response information:

Please place an "X" on the line in front of the applicable statement below:

Yes, we intend to respond to this solicitation directly to IEEE/NFPA Collaborative Research Team.

No, we don't intend to directly respond to or participate in this solicitation. Please provide a very brief explanation as to why you will not directly respond or participate:

\_\_\_\_\_  
\_\_\_\_\_

IN WITNESS WHEREOF, my signature below certifies that I am an authorized representative empowered to execute this form on behalf of:

Company: \_\_\_\_\_

Signed: \_\_\_\_\_

Name (print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix 3.2**

### IEEE/NFPA Arc Flash Phenomena Collaborative Research Project Requirements for Qualification of High Power Testing Services

#### **Requirements for Qualification Guidelines**

##### **1. Statement of Work:**

The IEEE/NFPA Collaborative Research Project is seeking services from qualified High Power (High Voltage/High Current) Test Laboratories/Facilities to assist in testing identified by the Arc Flash Phenomena Collaborative Research Project. The details of the testing requirements will be available later to the qualified Respondents.

##### **2. Preliminary Scope:**

The Laboratory and Test Facility is expected to understand the various facets of Arc Flash Phenomena, review the testing requirements prepared by the IEEE/NFPA Collaborative Research Team, prepare a detailed test procedure including calibration of measuring instruments and data acquisition system for approval by the IEEE/NFPA Project Research Team, perform preliminary testing on a limited number of samples, produce a preliminary report for verification before continuing with testing of a large number of samples.

##### **3. Background:**

The Institute of Electrical and Electronics Engineers (IEEE) and the National Fire Protection Association (NFPA) are collaborating on an initiative to fund and support research and testing to increase the understanding of the arc flash phenomena. The results of this project will provide information that may improve the safety standards by better predicting the hazards associated with arcing faults and accompanying arc blasts, thereby establishing practical safeguards for employees in the work place.

Several areas of the arc flash phenomena need further research to provide pertinent information that can be used to develop safety strategies to protect workers. The areas identified include: (a) Heat and Thermal Effects Caused by Infrared and Ultraviolet Radiations, (b) Blast and Pressure including Shrapnel, (c) Sound, (d) Toxicity, and (e) the Electromagnetic Radiation hazards. The proposed research and testing plan will focus on (a) Physics and Engineering-Based Model, (b) Heat Transfer and Thermal Effects, (c) Hazards due to Electromagnetic Radiation, and (d) Impact of Enclosures.

This Requirements for Qualification provides prospective High Power (High Voltage/High Current) Testing Laboratories with sufficient information to enable them to prepare and submit a qualification statement to provide testing services for the Arc Flash Phenomena for Low Voltage (below 1 kV), Medium Voltage (1 kV – 15 kV), and DC electrical equipment.

The IEEE/NFPA Collaborative Research Project Team (herein referred as the “Project Team”) is seeking testing services from qualified laboratory facilities to assist in performing various types of testing of electrical equipment with particular focus on a detailed testing and evaluation for arc flash hazard and phenomena.

#### **4. Tasks, Deliverables & Schedule:**

**Tasks** - The tasks that will be accomplished by the Laboratory Test Facility are (but not limited to):

- a) Design of experiments and test protocols
- b) Test set-up, calibration of instruments
- c) Maintain and provide all documentation
- d) Actual testing, data collection, measurements and
- e) Preliminary testing data analysis

It is anticipated that initially a limited number of repetitive tests will be performed and the results will be verified from the theoretical model of the problems, when applicable. The IEEE/NFPA Research Team will witness the testing. Once the accuracy of the results and testing has been established, a large number of samples will then be tested. Details of testing will be established and will be made available to the pre-qualified testing facilities.

**Deliverables** – Detailed logistics and format will be established (or negotiated, if required) later, once the facility is selected for the final testing in consultation with the Project Research Team.

Deliverables, however, from the Laboratory Test Facility includes (but not limited to):

- a) A final report that includes all documentation, complete analysis including charts and tables, pictures, video-tapes, calculations, etc.
- b) The Testing Laboratory will have prearranged meetings at the laboratory with the Research Team before any testing is conducted.
- c) Preliminary report with the limited number of testing.
- d) Progress reports when requested.

**Schedule** - The time schedule will be prepared later in consultation with the Testing Facility. It is anticipated that a contract will be placed by August, 2007 and the preliminary testing will begin in September, 2007.

#### **5. Resource Requirements:**

The Test laboratory is expected to be available to meet the project schedule and deliverables. The IEEE/NFPA Research Team has designated Project Managers, who would act as the main contact point for the entire testing. It is expected that the Research Team will provide and make all necessary arrangements for all the major equipment to be tested delivered at the laboratory. The laboratory will provide the facility and all qualified personnel to conduct the actual tests and provide the final report. This solicitation doesn't include the actual cost proposal to conduct the testing. These issues will be addressed during the actual Request for (Cost) Proposal phase.

#### **6. Key Personnel**

The testing facility must provide the resume of the key personnel involved in the testing. Prior to replacing any of the specified individuals to other programs or in the event a key personnel terminates his/her employment, the Laboratory Facility shall notify the IEEE/NFPA Research Team immediately and seek approval of the replacement personnel. No major replacement shall be made without written consent from the IEEE/NFPA Project Managers.

## 7. Specific Details

Specific questions to be answered and discussed succinctly by the Respondent specializing in high power (high current and high voltage) testing that is considering participation in the IEEE/NFPA Arc Flash Phenomena includes (but not limited to):

- a) How long has the facility been in the high power (high current) testing business?
- b) Is the test facility third party certified for quality assurance?
- c) Approximately how many individuals are directly dedicated to testing and/or operating the test facilities?
- d) Can the test facility accommodate both DC and AC (single-phase and three-phase) arc flash hazard testing?
- e) Can the test facility accommodate low-voltage (LV) and medium-voltage (MV) arc flash hazard testing?
- f) What aspects of arc flash hazard testing is the laboratory equipped to handle? In other words, what forms of energy released during an arc flash event, does the facility have expertise in measuring? For example, measurement of thermal energy, measurement of blast pressure, measurement of energy released in the form of shrapnel, measurement of sound levels, measurement of toxic byproducts released, and measurement of electromagnetic radiation effects (i.e., visible, ultra-violet, and ionizing radiation). Please indicate clearly the scope and expertise of the facility.
- g) What testing standard protocols have been used in the past? For example, familiarity complying with ASTM calorimeter specifications.
- h) Can the facility provide an overview of the testing methodologies that have been used to date?
- i) What data acquisition system (including sketches and details) is used to record the data?
- j) Does the facility employ high speed video equipment?
- k) Is proprietary software used for verification of test results?
- l) Is the facility available on a timely basis to provide testing? What is the anticipated backlog of testing currently underway?

A potential pre-qualified test facility is also expected to submit the following information as part of the Requirements for Qualification process:

- a) Provide a list of the various testing activities performed within the last 3 years. A short description is to be included detailing the project scope and type of testing.
- b) Provide a list of clients and references.

### **Appendix 3.3**

IEEE/NFPA Arc Flash Phenomena  
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#### **(Optional) Cost Related Information**

The following cost related information, requested from the Respondent, is strictly optional, and will not be considered in the Qualification Evaluation process. This will be used, if provided, only for budgetary process by the IEEE/NFPA Research Team for planning and scheduling the tests. Also this information will not be made public at any time and will remain confidential. Please provide a short narrative for each item, when appropriate for additional clarifications.

- (1) What is a typical (range) cost per day of the laboratory facilities including all time, materials and technical support?
- (2) How long (range) does it take including instrument calibration, pre-testing, physical set-up to procure test-related hardware and software, etc. for performing arc-flash related testing?
- (3) How much time (range) would you anticipate is needed between the award of the contract and completion of the preliminary tests (say, 10 samples of repetitive tests) including test set-up, defining the testing protocol, procurement of materials, actual testing and data collection, preliminary analysis, a short interim report, and a meeting to discuss the test results and findings? These tests are expected to be witnessed by the IEEE/NFPA Project Research Team.
- (4) Your hourly (billable) rate:
  - Project Manager
  - Senior Project (Test) Engineer
  - (Test) Engineer
  - Senior (Test) Service Technician
  - Other Service Technician
  - Support Service (CAD, Word-processing, Administrative/Secretarial, etc.)

## **Appendix 3.4**

IEEE/NFPA Arc Flash Phenomena  
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Requirements for Qualification of High Power Testing Services

### **SERVICES AGREEMENT**

This Agreement is made and entered into as of **[date]** (the “Effective Date”) by and between The Institute of Electrical and Electronics Engineers, Incorporated (“IEEE”), a New York not-for-profit corporation with offices at 445 Hoes Lane, Piscataway, New Jersey 08855-1331 and **[name of supplier]**, with offices at **[location]** (“Supplier”).

#### **RECITALS:**

WHEREAS, IEEE is a not-for-profit, educational and scientific organization of more than 360,000 individual members engaged in technical publishing, the conducting of conferences and related scientific and educational activities;

WHEREAS, Supplier is in the business of providing certain services that IEEE would like to obtain in connection with the tasks described in the schedule(s) attached hereto;

NOW, THEREFORE, in consideration of the premises and mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

#### **1. SERVICES**

1.1 Supplier agrees to provide the services set forth in each statement of work attached hereto as a schedule (the “Services”). Each statement of work shall (a) be signed by the parties, (b) be in substantially the same form as Schedule A and (c) be deemed to incorporate all of the terms and conditions set forth herein (“Statement of Work”). In the event of any conflict between the terms and conditions herein and those in any Statement of Work, the terms and conditions in the Statement of Work shall prevail.

1.2 Each Statement of Work shall, to the extent applicable, contain: (a) a description of the project and the services to be performed by Supplier; (b) a description of the tasks to be performed by IEEE and any third party; (c) a description of the deliverables, if any, to be produced by Supplier; (d) the schedule for completion of each deliverable and/or stage of the project; and (e) the fees to be paid to Supplier and a schedule for payment.

1.3 During the course of Supplier’s performance of services under any Statement of Work, IEEE may request changes in the Services to be rendered. Supplier shall incorporate any such changes, provided that the parties execute a change order, signed by both parties, setting forth the amended scope of work, any changes in scheduled completion dates for deliverables and/or services and any change in the applicable fees.

## **2. PAYMENT**

2.1 Supplier shall invoice IEEE for fees due pursuant to the payment schedule set forth in the applicable Statement of Work. Payment of each invoice shall be due thirty (30) days after IEEE receives such invoice.

## **3. INTELLECTUAL PROPERTY RIGHTS**

3.1 To the extent that any of the services rendered by Supplier under this Agreement result in Vendor's creation of any works, including, but not limited to, textual, audio or visual works and source code ("Works"), each such Work shall be deemed specially commissioned by IEEE and shall be considered a "work made for hire" as that term is defined in the United States Copyright Act. Supplier acknowledges that IEEE is and shall be considered the author of each such Work and shall at all times be the sole owner of all rights in and to each such Work. IEEE shall also have the exclusive right (but not the obligation) to obtain copyright registration of, or relating to, any and all such Works in the name of IEEE, or in such other name or names as IEEE may elect, and to obtain renewals thereof. If, for any reason, it is determined that any such Works are not works made for hire, then this Agreement shall be deemed an assignment to IEEE of all rights in and to such Works, without any further compensation to Supplier. Supplier agrees to execute and deliver to IEEE, promptly upon request, any documents that IEEE may reasonably request to evidence IEEE's exclusive rights as provided above and to enable or assist IEEE to obtain and protect its rights therein.

## **4. REPRESENTATIONS, WARRANTIES AND INDEMNIFICATION**

4.1 IEEE and Supplier each represents and warrants to the other that: (a) it has the necessary power and authority to enter into this Agreement; (b) the execution and performance of this Agreement has been authorized by all necessary corporate or institutional action; (c) entry into and performance of this Agreement will not conflict with any provisions of law or the certificate of incorporation or by-laws of the party; (d) no action by any governmental organization is necessary to make this Agreement valid and binding upon the party; and (e) it possesses all licenses and other governmental approvals necessary to perform its obligations under this Agreement.

4.2 Supplier represents and warrants that (a) all of the services to be performed hereunder will be rendered using sound, professional practices in a competent and professional manner by knowledgeable, trained and qualified professionals; (b) all Services and deliverables provided under this Agreement shall materially conform to the specifications set forth in the applicable Statement of Work and shall not violate the copyright, patent, trademark, trade secret or other right of any third party; and (c) Supplier has disclosed to IEEE any and all other obligations, arrangements, agreements or interests of Supplier that may constitute or give rise to a conflict of interest on the part of Supplier given the nature and terms of this Agreement, and Supplier is not now under any obligation of a contractual or other nature to any person, firm, corporation or other entity that is inconsistent or in conflict with this Agreement, or that would prevent, limit or impair the execution of this Agreement or the performance by Supplier of Supplier's obligations hereunder.

4.3 Supplier agrees to indemnify, defend and hold harmless IEEE, its parents, subsidiaries, affiliates and its and their officers, agents and employees from and against any and all claims, damages, liabilities, losses and/or expenses (including attorneys' fees and costs and any claim or threatened claim of third parties) incurred by IEEE (collectively, "Losses") that arise from any: (a) alleged or actual infringement or misappropriation of any copyright, patent, trademark, trade secret or other right based upon the Services or deliverables provided by Supplier pursuant to this Agreement; (b) negligence or willful misconduct of Supplier; (c) Supplier's failure to perform fully its obligations herein in a timely manner; or (d) breach of any of Supplier's representations and warranties herein.

4.4 IEEE shall give prompt written notice to Supplier of any Loss or threat of Loss and shall cooperate fully with Supplier in the defense or settlement of such Loss. Supplier shall have sole and complete control over the defense or settlement of any Claim, provided that any settlement must include a complete release of IEEE without requiring IEEE to make any payment or bear any obligation. IEEE may, at its expense, participate in the defense of any Loss.

## **5. CONFIDENTIAL INFORMATION**

5.1 "Confidential Information" as used herein means information identified by either party as "Confidential" and/or "Proprietary," or information that, under the circumstances, ought to reasonably be treated as confidential and/or proprietary. "Confidential Information" shall include, but not be limited to, technical information, market research, membership data, analyses, studies, developments, processes, present and/or future product information, pricing information, business plans or other documents, information and materials that contain or reflect such information.

5.2 Neither party shall disclose to a third party Confidential Information of the other party. The receiving party shall use the same degree of care as it uses to protect the confidentiality of its own confidential information of like nature, but no less than a reasonable degree of care, to maintain in confidence the Confidential Information of the disclosing party. The foregoing obligations shall not apply to any Confidential Information that: (a) can be demonstrated to have been publicly known at the time of the disclosing party's disclosure of such Confidential Information to the receiving party; (b) becomes part of the public domain or publicly known, by publication or otherwise, not due to any unauthorized act or omission by the receiving party; (c) can be demonstrated to have been independently developed or acquired by the receiving party without reference to or reliance upon such Confidential Information, as evidenced by the receiving party's written records; (d) is provided to the receiving party by a third party who is under no obligation to the disclosing party to keep the information confidential; or (e) is required to be disclosed by law, provided that the receiving party takes reasonable and lawful actions to avoid and/or minimize such disclosure and promptly notifies the disclosing party so that the disclosing party may take lawful actions to avoid and/or minimize such disclosure.

## **6. PUBLICITY**

6.1 Both IEEE and Supplier acknowledge that the other party may desire to use such other party's name in vendor and customer lists, press releases, product brochures and financial

reports indicating that IEEE or the Group is a customer of Supplier. Supplier agrees that IEEE may use Supplier's name in such a manner. At Supplier's request, IEEE may, at its sole discretion, and at no cost to IEEE, assist Supplier in the marketing of its products or promotion of its business. Supplier shall make no use of IEEE's name, logo or trademarks without IEEE's express prior written consent.

## **7. TERM AND TERMINATION**

7.1 The term of this Agreement shall commence on the Effective Date set forth above and, unless sooner terminated pursuant to provisions herein, shall continue until the completion of all tasks set forth in the Schedules attached hereto.

7.2 Notwithstanding any provisions to the contrary, this Agreement may be terminated in accordance with the following:

(a) by the non-breaching party upon the occurrence of a material breach of the other party's obligations under this Agreement, which breach is not cured within thirty (30) days after receipt of written notice of breach from the non-breaching party;

(b) by either party, in the event that the other party ceases to function as a going concern, is adjudged a bankrupt or makes an assignment for the benefit of creditors, or bankruptcy, insolvency (including, without limitation, Chapter 11 bankruptcy proceedings), debt reorganization or arrangement, debt adjustment or receivership proceedings shall be instituted by or against such other party; or

(c) by IEEE upon forty-five (45) days written notice.

7.3 Notwithstanding the termination of this Agreement for any reason, neither party shall be relieved of any duty, obligation, debt or liability that arose or accrued prior to the termination of this Agreement.

7.4 Upon termination of this Agreement for any reason, Supplier shall promptly (a) return to IEEE all materials provided by IEEE to Supplier under this Agreement; (b) deliver to IEEE all deliverables and portions thereof created under the Agreement; and (c) cooperate with IEEE as may be necessary to transition any Services, systems or materials to another Supplier or provider.

7.5 The provisions of this Agreement that should by their nature survive termination of this Agreement shall survive such termination, including, but not limited to, Sections 3, 4, 5, 6.3, 6.4, 7 and 8.

## **8. RELATIONSHIP OF PARTIES**

8.1 In rendering the Services, Supplier shall be acting as an independent contractor and not as an employee or agent of IEEE. Supplier and its employees shall have no claims or rights to receive or participate in any employee benefit plans or arrangements of IEEE. As an independent contractor, Supplier shall have no authority, express or implied, to commit or obligate IEEE in any manner whatsoever, except as specifically authorized from time to time in

writing by an authorized representative of IEEE, which authorization may be general or specific. Nothing contained in this Agreement shall be construed or applied to create a partnership or joint venture. Supplier shall be responsible for the payment of all federal, state and local taxes payable with respect to all amounts paid to Supplier under this Agreement; provided, however, that if IEEE is determined to be liable for collection and/or remittance of any such taxes, Supplier shall immediately reimburse IEEE for all such payments made by IEEE.

8.2 Supplier shall maintain offices separate from those of IEEE and bear all expenses and obligations incurred in connection with the services Supplier provides, including, but not limited to, expenses for mail, travel, entertainment and telephone.

## **9. MISCELLANEOUS**

9.1 This Agreement, including any Schedules attached hereto, constitutes the entire agreement between the parties hereto and shall supersede any and all prior written or oral promises or representations. No amendments to or modifications of this Agreement shall be binding upon either party unless in writing signed by both parties.

9.2 Neither the waiver by either party hereto of any breach of or default under any of the provisions of this Agreement nor the failure to exercise any rights hereunder shall be construed as a waiver of any subsequent breach or default or as a waiver of any such rights or provisions hereunder.

9.3 If any part of this Agreement shall be held to be invalid or unenforceable under applicable law, such part shall be ineffective to the extent of such invalidity or unenforceability only, without in any way affecting there remaining parts of this Agreement.

9.4 All notices, consents and other communications hereunder shall be made in writing, by mail or courier, to the addressees designated below:

**[IEEE designee; address]**

**[Vendor designee; address]**

9.5 This Agreement shall be governed by and construed in accordance with the laws of the United States of America and the State of New York, without regard to conflict of laws principles. IEEE and Supplier agree that all actions arising under or in respect of this Agreement or any other document executed in connection herewith shall be litigated in a court of competent jurisdiction in the City and State of New York.

9.6 Any prevention of or delay in either party's performance hereunder due to labor disputes, acts of God, governmental restrictions, enemy or hostile governmental action, fire or other casualty or other causes beyond such party's control shall excuse such party's performance of its obligations hereunder for a period equal to the duration of any such prevention or delay.

9.7 This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. Neither party may assign this Agreement or its rights or duties hereunder without the prior written consent of the other party, which

consent shall not unreasonably be withheld. Notwithstanding the foregoing, Supplier shall not retain any subcontractor to perform the Services hereunder without the prior written consent of IEEE.

9.8 This Agreement may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original, but all of which together shall constitute one and the same instrument.

**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS,  
INCORPORATED** [Supplier]

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**SCHEDULE A**

**STATEMENT OF WORK NO. 1**

**1. DESCRIPTION OF WORK**

- Detailed description of all services to be provided by Supplier
- Detailed description of all deliverables to be provided by Supplier
- Acceptance criteria
- Schedule for performance

**2. IEEE AND THIRD PARTY RESPONSIBILITIES**

**3. FEES AND PAYMENT SCHEDULE**

**THE INSTITUTE OF ELECTRICAL AND  
ELECTRONICS ENGINEERS, INC.**

**[NAME OF VENDOR]**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_