

STATEMENT OF WORK

A. OBJECTIVE/PURPOSE

The Federal Energy Regulatory Commission (FERC) Deputy Director of the Chief Information Officer (DCIO) requires an Independent Test and Evaluation Authority (ITEA) to support the quality assurance process for the FERC's systems. The ITEA will monitor Integration Testing (INT) and User Acceptance Testing (UAT) and conduct Systems Acceptance Testing (SAT) in order to provide an independent and objective evaluation of the operational effectiveness and suitability of systems deployed by FERC. SAT is intended to be an objective, thorough and realistic performance evaluation under real-world conditions.

B. SCOPE

ITEA shall perform SAT services throughout the life cycle of FERC Projects. These services may include monitoring INT and SAT, developing SAT plans, writing SAT test and evaluation reports, creating one or more live test and training ranges, and conducting SAT.

The Office of the Executive Director (OED) provides the FERC with custom-developed enterprise software solutions and integrated custom-developed/COTS solutions. One major system currently in phased deployment is FERC Online. FERC Online is the integrated receipt, storage, disposition, publication, and dissemination of documents and information related to the conduct of FERC business with regulated industries and the public. Specifically, FERC Online is comprised of the following FERC E-Government applications:

- eFiling; the electronic filing of documents in agency docketed proceedings;
- eService; provides for the electronic legal service by the Commission of documents to parties in Commission proceedings;
- eSubscription; allows public and staff to subscribe to FERC proceedings and automatically receive documents;
- eLibrary; the FERC's electronic document management system, providing staff and the public with access to over three million documents;
- eForms; provides an integrated interface for customers to file structured data;
- eReports (Electric Quarterly Reports, EQR); provides an interface for customers to file structured electric power market transaction data;
- eTariff; will provide an interface for regulated entities to file tariff filings and the associated tariffs with the Commission and will provide the public with improved access to those tariffs;

- <http://www.Ferc.gov> ; the Commission's site is organized for specific categories of FERC constituents based on usability testing and provides timely content and related FERC events via Calendar of Events;
- Activity Tracking Management System (ATMS); an integrated, Commission-wide activity tracking management system that supports the Commission's Business Plan;
- Virtual Agenda (VA); provides electronic scheduling, document management, and status reporting and electronic voting for decisional documents to be considered by the Commission in open meetings or by notational process;
- ePublication; supports publication of Commission issuances.

Sample documentation for these applications is available in the FERC Documentation Library (FDL) provided with this solicitation. Development activities follow the FERC SDLC (also in the FDL). Other systems that may be in scope include DAMS and Legacy applications and future systems as identified by FERC.

FERC generally deploys one to two major releases supported by a Project Management Plan (PMP) and full SDLC document revisions annually. FERC typically releases fifty minor releases consisting of one to ten system change requests (SCRs) annually. SCRs are typically bug-fixes or minor enhancements. When issuing a Task Statement to be supported by a PMP or at the time of maintenance release approval, FERC will indicate whether SAT will be conducted.

1. Typical Tasks:

a. Integration Testing (INT) and User Acceptance Testing Monitoring

At the key points in the development process, (Design Reviews and Test Events) ITEA shall evaluate the design in order to ensure that the design will meet objectives for safety, security, reliability, quality, and functionality.

ITEA shall inspect the design for compliance with relevant standards as defined by FERC, both internal to FERC (such as Enterprise Architecture standards) and external to FERC (such as NIST guidelines), using common industry best practices and independent subject matter experts as necessary to provide FERC with an independent assessment of design soundness. Following Functional Requirements Review (FRR) and I Design Review (DR) ITEA shall evaluate the design and monitor integration testing results and provide reports to the developer and to the user. The Contractor will make interim design documents available to ITEA at the time of Design Reviews in order to permit a thorough evaluation.

ITEA shall review INT and UAT test plans produced by the Contractor to ensure they are adequate to verify compliance with all objectives. At test events, ITEA will observe the Contractor's performance of INT Testing and will audit UAT. ITEA will have the right to witness all INT and UAT testing,

and will have access to FERC Projects system to run independent tests in accordance with their defined test plans and procedures.

ITEA shall evaluate not only the test results but also the metrics, test facilities, and test methods for completeness in measuring achievement of objectives.

b. Test Plans

ITEA shall write a program-level Test and Evaluation Master Plan (TEMP). The TEMP shall define the methods, scenarios, personnel (ITEA, FERC, and contractors), facilities, and other resources which ITEA will use for testing. The TEMP shall also define how ITEA will monitor INT and UAT. ITEA shall update the TEMP as required to ensure that Independent T&E interfaces smoothly with the development effort and produces the required data, in a dynamic program environment.

ITEA shall write SAT Test Plans as needed for Task Orders (Projects) under FERC Projects. The SAT Test Plans shall define in detail the methods, scenarios, personnel (ITEA, FERC, and contractors), facilities, and other resources which ITEA will use for testing. ITEA shall update the Test Plans as required to ensure that Independent T&E interfaces smoothly with the development effort and produces the required data, in a dynamic program environment.

c. Monitoring and Test and Evaluation Reports

ITEA shall write Monitoring Reports following Design Reviews and INT and UAT Test Events and Test and Evaluation Reports for SAT, and as needed to address detected issues in a timely manner. Test and Evaluation Reports shall document findings in sufficient detail to enable corrective actions to be taken by FERC or the Contractor. Test and Evaluation reports may be used to determine award payments to the Contractor and must be thorough and precise. Test and Evaluation Reports shall reference relevant documents (e.g., Test Plans, Design Review packages, INT and UAT test reports).

d. Conduct SAT

SAT measures the performance of FERC Project solutions as a whole against high-level metrics. In order to produce realistic estimates of these metrics, ITEA will perform SAT in a way which realistically simulates the system in its normal operations and will include load, throughput, and performance testing.

e. Staffing Approach

ITEA staffing levels will be driven by approved Project Management Plans (PMPs) for major releases and a minimum number of staff to support maintenance releases, will be flexible and agile in adjusting staffing levels to project requirements, and shall be reflected in the TEMP.

f. Ad-hoc IV&V Tasking

ITEA will provide the capability to address non-systems-development IV&V tasks should they arise, such as assessment of Capital Planning and Investment Control (CPIC) or assessment of FISMA compliance.

g. Cooperation and Planning Support

ITEA will collaborate and cooperate with the development Contractor at all times and will identify and commit resources that will be included in PMPs and maintenance release schedules planned and managed by the development Contractor and approved by FERC.

2. Deliverables:

a. Test and Evaluation Master Plan (TEMP)

ITEA shall develop a detailed TEMP for independent T&E.

b. Monthly Reports

ITEA shall submit monthly reports by the 15th of each month following the reporting period. Reports shall include status, technical issues, progress, activities, and a summary of future activities and meetings. Reports shall be submitted by email to the FERC Project Managers (Directors), and the Contracting office.

c. Monitoring and Test and Evaluation Reports

3. Evaluation Factors

The following evaluation factors will be utilized in scoring the technical proposals:

- 1. Technical Capability: The offerors capabilities in the area of ITEA – both from a corporate and individual perspective**
- 2. Technical Solution: the offeror’s unique requirements solution**
- 3. Past Performance: the offeror’s past performance in ITEA.**

