

Statement Of Work (SOW)

Oak Ridge National Laboratory

Integrated Waste Management and Consent-Based Siting Communications Expertise

Background

Oak Ridge National Laboratory is part of a large, multi-laboratory, multi-disciplinary team partnering with DOE's Office of Nuclear Energy (DOE-NE) to achieve the DOE-NE vision of tackling the climate crisis, strengthening energy security, and providing equal economic opportunities for all communities. Additionally, DOE-NE is working to find a storage solution to the spent nuclear fuel (SNF) they are responsible for managing which, when accomplished, will alleviate a multi-billion-dollar budgetary burden on the American public.

In support of these goals, DOE has created a new program office, NE-83, which is the Office of Consent-Based Siting. The primary objective of consent-based siting is to engage communities in decision making and ultimately, to identify communities interested in hosting a Consolidated Interim Storage Facility (CISF) for the interim storage of commercial SNF.

Achieving community engagement first requires thorough understanding of the scientific and engineering principles of nuclear science, national energy security, nuclear fuel technology, transportation, radioactive materials package design and performance, and more. Then, those very sophisticated subjects must be conveyed accurately and in meaningful ways to multiple audiences who have different abilities and motivations to understand them. Moreover, there is no CISF currently located in the United States, so that means these consent-based siting activities must be carefully constructed such that they only convey what is scientifically accurate, technically feasible, and compliant with licensing and other regulatory requirements while simultaneously providing for public input into their design and siting.

DOE NE-83 is relying on its national laboratories to ensure scientific accuracy in messaging related to consent-based siting, and to integrate consent-based siting communications products with existing core competencies in other aspects of nuclear technology and SNF management. Example competencies include design of specialized SNF railcars and security systems; SNF storage and transportation package design, testing, and licensing; radiation monitoring and dosimetry; and destructive and non-destructive testing of SNF at a range of burnup and storage times. These lab-conducted activities not only broaden scientific knowledge, they generate once-in-a-lifetime physical opportunities to capture details (video, audio, written accounts) about how the nation engages in research. These physical opportunities also can convey the rigor that is applied to assure public safety in ways that can later be shared with multiple audiences.

Within ORNL, multiple directorates and scientific staff are contributing to this effort. These ORNL specific collaborations in research- and engineering-based DOE-NE projects are the drivers for the resulting communications work. Thus, ORNL will provide the scientific and technical expertise

required for accuracy, feasibility, and compliance of all SNF and CISF concepts, designs, and products.

Scope

This request is for partners with graphic design (normal and large formats), videography, 3D animation, virtual reality and augmented reality, and 3D printing expertise who have demonstrated expertise in developing engaging materials for highly technical concepts suitable for multiple audiences. Recognizing that 1) consent-based siting is a new approach for DOE NE, 2) no CISF currently exists in the United States, and 3) direct, collaborative interaction is needed to accurately convey ORNL designs, this work is subject to frequent updates and changes.

Tasks and Deliverables

The following tasks and deliverables are currently funded under the NE-83 program at ORNL. Priorities are annually reviewed, and project initiatives are funded accordingly. However, in future years, these priorities can shift in ways that add to or subtract from the specific tasks described below.

Task 1.0 Project Management

Virtual Kick-off and virtual and in-person meetings to set expectations, review project status and resolve any issues or concerns. Project status meetings will be set as appropriate for the projects and are expected to occur weekly at first and possibly, less frequently over time. Also includes requirement that Seller accurately tracks and reports costs for this project separately from any other projects at ORNL.

Seller must have processes and procedures in place to assure all deliverables are within the style guidelines for the DOE NE-83 program, use terms as defined in the consent-based siting glossary, and contain all required disclaimers.

Task 1.0 Deliverables

- Accurate and timely monthly status updates and reports.
- Interim updates on progress.
- Accurate and timely cost estimates and reports for the NE-83 projects.
- Immediate reports via email or phone of any issues or concerns.
- All Media and other electronic files and assets created on behalf of this SOW.

Task 2.0 Resource Kits and Other Consortia Support

Given that NE-83 has tasked ORNL to develop innovative outreach approaches, there will be consistent need for graphic design that is responsive to the concepts created at ORNL. One current example is a project called Resource Kits. Resource Kits are physical boxes whose contents vary depending on communications objectives. To date, Kits have included 3D printed models of SNF storage and transportation casks, horizontal and vertical overpacks, and nuclear fuel assemblies. All of those ORNL-generated items and designs have accompanying flyers, brochures, and other collaterals to accurately convey possible use-case scenarios.

Task 2.0 Deliverables

- Collaboration on and contributions to design ideas (package design and other collaterals) for resource kits focused on successfully conveying technical content to multiple audiences.
- Draft and Final Graphics Designs for collaterals and all other outreach concepts existing and yet to be developed that conform to the NE-83 branding and style guidelines, and consent-based siting glossary.
- Mock-ups as needed to use for explanatory meetings of planned activities with sponsors.
- Final Designs to use as needed in required program reviews and other publications.

Task 3.0 Video Design, Production and Editing

Long and short form videos are planned to provide additional explanatory support for the resource kits and other programmatic messages, demonstrations, or documentation. The goal is to provide information in multiple formats suitable for various platforms designed to reach the broadest audience(s).

Task 3.0 Deliverables

- Draft Video Concepts and Designs.
- Final Video Concepts and Designs.
- Location Scouting.
- Physical Support and Coordination while Filming such as for determining light and microphone placements, among other tasks.
- Draft and Final Video Scripts.
- Storyboards and other mock-up materials suitable for presenting to sponsors and for review and concurrence among ORNL technical and communications teams.
- Video Editing including audio and subtitles and possible integration of voice over or subtitles in various languages.

Task 4.0 Consortia Resource Library

The Consortia Resource Library (CRL) is an on-line resource developed and managed by ORNL to support each of 12 consortia as they engage communities and innovate new outreach methodologies. This is a comprehensive resource that is frequently updated. As such, it requires the identification of articles and other items (announcements, videos, etc.) of interest to Consortia as it relates to their NE-83 mission. The CRL is accompanied by the “CURIE-osity” Newsletter, sent monthly, that highlights new content and encourages use of the CRL.

Task 4 Deliverables

- Identification of new items to post that have been initially vetted and determined to be suitable for CRL updates.
- Quality assurance – spelling and grammar checks; links are operable and point correctly, etc.
- Graphics and Video expertise in support of CRL content and updates.

- Uploading and tagging of content into the CRL.

Task 5.0 Consent-Based Siting Conference Booth Redesign

This project will update the current conference booth by providing a more visually engaging interface. The focus will be on how consent-based siting can be successfully used to site a CISF and to provide visuals and models to spur conversations about what CISFs can look like (above-ground, below grade, pool storage, etc.). These concept CISF models will be designed and developed at ORNL; however ORNL may request additional AR/VR or 3D printing support. Additionally, the final redesign may specify other graphics and video support using the same expertise described here for other tasks.

Task 5 Deliverables

- Booth design requirements definition (draft and final)
- Booth infrastructure requirements (draft and final)
 - Lighting, flooring, electrical
 - Stand-alone displays
 - Instructions and/or instructional videos of how to assemble/disassemble
 - Packaging design for easiest and most flexible mobility and transport (flight, vehicle)
- Draft designs and mock-ups (exhibit boards, pop-up banners, flyers)
- Final designs and mock-ups

Task 6.0 Traveling Educational Display

This task, if funded, is to develop a traveling “road show” that describes all or part of the nuclear energy journey using a combination of static and interactive displays. Not yet fully defined, this project is expected to include multi-media components that can be transported like those features found within the current ORNL science trailers.

Task 6.0 Deliverable

- Requirements Definitions
- Draft and final designs
- Draft and final interactive displays