**ATTACHMENT 2 – SOPO TEMPLATE Modification 000001**

**Statement of Project Objectives (SOPO)**: The Project Narrative must include a detailed SOPO that addresses how the project objectives will be met. The SOPO must contain a clear, concise description of all activities that will be completed during project performance and follow the structure/format outlined below. Since the SOPO may be released (in whole or in part) to the public by DOE after award, it shall not contain proprietary or confidential business information.

The SOPO generally consists of less than five **(5)** pages to describe the proposed work. Since the SOPO is part of the Project Narrative, the number of pages must be included within the Project Narrative page limit. Applicants shall prepare the SOPO according to the following format.

*Italicized text in the following template is provided as guidance and should be removed by the Applicant when preparing their SOPO.* All other text is intended to be included in the Applicant’s proposed SOPO.

**[\*\*\*\*\*BEGININNING OF SOPO TEMPLATE\*\*\*\*\*]**

**STATEMENT OF PROJECT OBJECTIVES (SOPO)**

*Insert Project Title*

**A. OBJECTIVES**

*Clearly and concisely describe the objective(s) of the project. If the project includes multiple phases of work, describe the objective(s) for each phase. This section should not exceed one-half page.*

**B. SCOPE OF WORK**

*Summarize the planned effort and approach to achieve the proposed objectives (including each phase if applicable). This section should not exceed one-half page.*

**C. TASKS TO BE PERFORMED**

*Include clear and concise tasks and subtasks (if needed) organized in a logical sequence. Group the tasks and subtasks into corresponding phases, if applicable. If the project contains any go/no-go decision points, define the criteria used to demonstrate meaningful and measurable technical progress and provide the data needed to justify continuing the project.*

**Task 1.0 - Project Management and Planning (Phases 1 and 2)** *(REQUIRED; APPLICANT INSERT TASK 1.0 AND ALL SUBTASKS)*

**Subtask 1.1 – Project Management**

Within 30 days of award, the Recipient shall revise the version of the Project Management Plan (PMP) that was submitted with their application by including details from the award negotiation process and through consultation with the Federal Project Officer (FPO). The PMP shall include all phases of the project. The Recipient shall not proceed beyond Task 1.0 until the updated PMP has been accepted by the FPO.

The PMP shall be revised and resubmitted as often as necessary to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc.

The Recipient shall manage and direct the project in accordance with the approved Project Management Plan to meet all technical, schedule and budget objectives and requirements. The Recipient will coordinate activities to effectively accomplish the work. The Recipient will ensure that project plans, results, and decisions are appropriately documented, and project reporting and briefing requirements are satisfied.

**Subtask 1.2 – Data Management Plan**

The Recipient shall maintain the Data Management Plan (DMP) that was incorporated into the award during the negotiation process. The Recipient shall manage the generation/gathering, storage/preservation and sharing/dissemination of project data in accordance with the DMP. If needed, updates to the DMP must be negotiated and, if accepted, changes will be incorporated into the award/attachment.

**Subtask 1.3 – Technology Maturation Plan**

The Recipient shall submit a Technology Maturation Plan (TMP) within 90 days of receiving the award. Final version of the plan will be due within 90 days of project completion. The TMP should address elements of the following:

* Provide documentation describing the technology’s Technology Readiness Level (TRL) and Manufacturing Readiness Level (MRL) at the beginning of the project.
* Define manufacturability metrics/indicators (technical and non-technical) to evaluate manufacturability (e.g., estimated production cost, time to produce, production volumes, supply chain issues, and product quality). Explain the selected metrics/indicators and estimate their value at the beginning of the project with supporting documentation.
* Summarize the necessary R&D steps to advance the technology to the targeted TRL and MRL and improve manufacturability metrics/indicators.
* Provide the estimated potential improvement to TRL, MRL, and manufacturability metrics/indicators at the completion of the project, with the expectation of reporting the actual improvement at the completion of the project.
* Include technical details to explain the approach for measuring TRL, MRL, and the manufacturability metrics/indicators before and after completion of the project (e.g., diagrams, schematics, performance and operational characteristics, power ratings, project lifetime, information and performance data from simulations, lab-scale tests, or demonstrations).
* Include references, as appropriate, in the Bibliography section.

*Include additional tasks and subtasks as appropriate using the following format.*

**Research and Development (Phase 1)**

**Task 2.0** – **(*State title of task and provide description)***

Subtask 2.1 - *(State title of subtask and provide description)*

**Task 3.0** - ***(State title of task and provide description)***

**Task x.0** - ***(State title of task and provide description)***

## Go/No-Go Decision Point: The Go/No-Go Decision will be based on the completion of Phase 1 tasks and the submission of associated deliverables *[Multiple Decision Points may be added as needed based on the completion of major tasks and/or project milestones]*. The Recipient will not begin the next phase until receiving written authorization from the DOE Contracting Officer (CO) to proceed. Written authorization can be in the form of email or letter issued by the CO.

**D. DELIVERABLES**

*The Recipient shall include a list of deliverables that will be submitted during the project.*

Subtask 1.1 – Project Management Plan - Update due 30 days after award. Revisions to the PMP shall be submitted as needed or as requested by the NETL FPO.

Subtask 1.2 – Data Management Plan - Update due 60 days after award. Revisions to the DMP shall be submitted as needed or as requested by the NETL FPO.

Subtask 1.3 – Technology Maturation Plan – Due withing 90 days of receiving award. Revisions to the TMP shall be submitted as needed or as requested by the NETL FPO.

*List additional deliverables as appropriate.*

In addition to the deliverables listed above, the Recipient shall submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

**E. BRIEFINGS/TECHNICAL PRESENTATIONS**

The Recipient shall prepare, and present joint periodic briefings with the teams setup under the NOFO, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or Recipient’s facility, other mutually agreeable location, or via webinar. These may include all or a combination of the following:

**Kickoff Briefing** - Not more than 30 days after submission of the updated Project Management Plan, the Recipient shall prepare and present a project summary briefing as part of a Project Kickoff Meeting.

**Go/No-Go Decision Point Briefing** - Not less than 90 days prior to the planned start of a new phase, the Recipient shall brief the DOE on the results to date, and their plans for the subsequent phase(s) of work. The DOE will consider the information from this briefing, as well as the content of deliverables submitted to date, prior to authorizing continuing the project.

**Final Project Briefing** - Not less than 30 days prior to the end of the project, the Recipient shall prepare and present a Final Project Briefing on the results and accomplishments of the entire project.

**Other Briefings** – The Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE. Additionally, the DOE may require Recipients to make technical presentations at national and/or industry conferences.

**[\*\*\*\*\*END OF SOPO TEMPLATE\*\*\*\*\*]**