

APPENDIX A

STATEMENT OF WORK

"Building America Subject Matter Expert Technical Support"

10/08/2026

1. BACKGROUND

The National Laboratory of the Rockies (NLR) is the U.S. Department of Energy's primary national laboratory for energy systems research and development. As the energy systems laboratory, NLR's unique strength lies in developing and integrating a broad array of energy technologies into robust, resilient systems - bridging foundational research with practical applications to lower energy costs, drive economic growth, bolster national security, and deliver abundant and reliable energy.

The Building Technologies Office (BTO) is part of the U.S. Department of Energy's (DOE) Office of Critical Minerals and Energy Innovation (CMEI). NLR provides technical support to BTO to advance and expand building technologies that empower Americans to make affordable energy choices, enhance U.S. global competitiveness, and support energy reliability.

2. OBJECTIVE

NLR seeks to engage leading technical subject matter experts (SMEs) to help buildings industry stakeholders scale up and meet demand for lower-cost, high-quality buildings. SMEs will support DOE's Building America program, both its just-launched new construction support program and existing support programs for building envelope retrofits.

The new construction support program will provide technical assistance to help partners erect high-quality buildings faster and at lower cost, ultimately delivering savings to everyday Americans. NLR seeks leading SMEs in research, field validation, analysis, dissemination, and technical support efforts to help builders, manufacturers, contractors, and other industry stakeholders scale up and meet demand. This work will focus on factory optimization, product design and materials innovation, and digital tools and modeling.

For envelope retrofits, this work will help reduce first costs and lower utility bills in existing homes by focusing on technical topics including, but not limited to, addressing moisture, humidity, and infiltration through envelope upgrades and whole-home solutions.

Across both areas, SMEs will also conduct modeling and analysis, data collection, industry analysis, and market scaling support. This work will include knowledge transfer to provide actionable guidance and information to industry stakeholders.

3. SCOPE OF WORK

To meet the objective, the scope of the work the Subcontractor shall perform entails the following.

The Subcontractor shall be responsible for providing specific technical assistance and development tasks to support NLR and BTO. Work to be performed will consist of specific

tasks that will be defined by NLR on an as-needed basis. When NLR determines there is a need for technical assistance or research and development work, NLR will develop a detailed description of work that will define the objective, describe the work effort/tasks, and specify the deliverables and their due dates. Most of the work order task assignments will have a deliverable due date ranging from a few weeks up to one (1) year. The Subcontractor shall assist NLR with a wide range of activities which generally include responses to requests for information, development of technical content, research, and analysis. Additionally, some tasks may require short notice (2 business days) with short turnaround periods (5 business days) for final delivery.

4. TASKS

The Subcontractor shall complete assignments that will generally include tasks from any or all of the following areas:

4.1 Testing and Validation

The Subcontractor shall design and conduct lab or field experiments to determine energy performance, durability, indoor environmental quality, and/or moisture performance of new materials, building technologies and practices in new and existing buildings. This will include validation of reduced installation time and reduced construction times. This work may include validation of replicable designs and interchangeable components that support rapid implementation at scale and reduction in cost of new construction and building upgrades. Activities will include test plan design, instrumentation and monitoring, data collection, and presentation of results.

4.2 Industrialized Construction Optimization

The Subcontractor shall use detailed knowledge of the onsite and/or offsite construction industry with the ability to provide support that speeds construction time or reduces construction cost. This will include building design, industrialized construction factory optimization, incorporating AI, robotics or new advanced manufacturing processes and technologies into the building sector.

4.3 Modeling and Analysis

The Subcontractor shall perform energy and hygrothermal modeling and simulation studies to evaluate potential performance of building technologies and practices in new and existing buildings. This work shall include related analysis and actionable results to overcome technical barriers identified by industry stakeholders. It may consider products and processes that scale for speeding production, optimizing installation, and extending the lifespan and resilience of building components while reducing first cost of construction.

4.4 Industry Analysis

The Subcontractor shall conduct industry or market analysis to identify, evaluate, and communicate gaps, challenges, and trends relevant to residential, commercial, and industrial construction stakeholders. Topics for analysis may include, but are not limited to, the following:

- Building characterization and equipment data, utility billing data, and emerging technology adoption rates

- Regulations, policies, financing, and cost effectiveness of retrofits and new construction

4.5 Market Scaling

The Subcontractor shall support accelerated adoption of efficient, affordable, reliable, and resilient building technologies and practices in new and existing buildings. This work shall support energy retrofit programs, production builders, and other strategic industry stakeholders through design guidance and review, community engagement, implementation support, technical assistance, or related support activities.

4.6 Guidance and Best Practices

The Subcontractor shall develop publications and other outputs based on the tasks listed above and on building science research results to provide actionable guidance and information to industry stakeholders. This will include best practices, guidelines, datasets, fact sheets, how-to guides, videos, tools, curriculum and training content, and other outreach efforts to accelerate the adoption of energy efficient practices and increase economic opportunities.

***National Environmental Policy Act (NEPA)**

NEPA reviews conducted by NLR (and possibly by DOE) will be required prior to the Subcontractor initiating a work order for any field validation or experimentation.

5. REVIEW MEETINGS AND TRAVEL REQUIREMENTS

The Subcontractor may be required to participate in meetings in person or via teleconferences as appropriate. The Statement of Work for each Work Order will define the travel requirements and review meetings.

6. DELIVERABLES

For each Work Order, the description of work will specify the required deliverables. Typical deliverables will include, but not be limited to the following:

- Technical reports or report contributions
- Fact sheets and case studies
- Trade publication articles, blogs, or related outputs providing information about a current topical issue to industry stakeholders
- In-person presentations and/or webinars to NLR and other audiences
- Journal and/or conference papers
- Written comments and relevant sources on peer reviewed documents
- Documentation of successful engagement with market and industry stakeholders
- Technical and educational content for training
- Agendas, attendee information, and content related to outreach activities such as conferences, workshops, webinars, presentations, trainings, and facilitation efforts.

DELIVERABLE ADDRESS:

The Subcontractor shall clearly label all deliverables to include:

- The subcontractor's name
- NLR's subcontract number
- NLR Technical Monitor's name
- Deliverable date, and
- Deliverable description.

DELIVERY OF DATA

A copy of all data (as that term is defined in this Subcontract) first produced in the performance of this Subcontract is an additional deliverable of this Subcontract and shall be provided to the technical monitor as a condition of final payment, in accordance with the Subcontract. **For all deliverables, make particular note of the requirements provided in the Rights in Data clause of this Subcontract regarding data not first produced in the performance of this Subcontract.**

7. ELECTRONIC REPORTING REQUIREMENTS FOR SUBCONTRACT REPORT DELIVERABLES

It is NLR's intention to publish subcontract report deliverables containing publicly available information (e.g. non-confidential, non-protected, non-proprietary information) for distribution on the internet.

The subcontractor shall provide the final approved version of report deliverables in accordance with the electronic reporting requirements described below.

The technical monitor may specifically direct the subcontractor to provide reports in one or more of the file format standards provided below:

- 7.1. The subcontractor shall submit all report deliverables (including status, annual, or final reports) as electronic files in Adobe .pdf format, preferably with all graphics and images embedded within the document.
- 7.2. All final approved version submissions shall be delivered to NLR via e-mail to the NLR Technical Monitor.
- 7.3. If it is not possible to include all of the graphics and images (figures, illustrations, and photographs) in the same file as the text, NLR will accept the text in Adobe .pdf formats and the graphics and images as separate electronic graphic or image files*.
- 7.4. The accepted standard for page layout and graphics is the Adobe Creative Suite of programs.
- 7.5. *The acceptable graphic or image file formats are: .eps, .tif, .gif, .jpg, .wmf, .emf, .pct, .png, .bmp, .psd, .ai, .fh, .qif, .fpx, cdr. The preferred resolution for graphics or images is 300 dpi. Include all fonts used in creating the file.
- 7.6. For animation, video, or multi-media elements, CD-ROM, DVR and thumb drive are acceptable technical deliverable media.
- 7.7. For all calculations in support of subcontract reports that are conducted in ASPEN+, an electronic copy of INPUT, REPORT and BACKUP (if Model Manager is used) must be submitted with all reports. Additionally, if costing or sizing calculations are conducted in a

spreadsheet [no process calculations (heat and material balances) in spreadsheet format are permitted], a copy of the fully documented MS Excel file shall be supplied.

- 7.8. A fully executed model release shall be supplied to NLR with all photographs and images, regardless of whether such photographs or images are delivered to NLR electronically or in hard copy. Such model release shall certify that the Alliance for Energy Innovation, LLC, Management and Operating Contractor for the National Laboratory of the Rockies for the U.S. Department of Energy is granted a non-exclusive, paid-up, irrevocable, worldwide license to publish such photographs in any medium or reproduce such photographs or allow others to do so for United States Government purposes. Model releases are required in all situations in which a reasonable person would respond in the affirmative to the question – could someone, other than the model himself/herself, recognize the person in this photograph or image? All model releases shall be provided to the subcontract associate as a condition of final payment, in accordance with the subcontract. To obtain a Subcontractor Model Release form, please contact images@NLR.gov

8. ACKNOWLEDGEMENTS IN SUBCONTRACTOR PUBLICATIONS

In any scientific or technical report or article, conference paper, journal article, etc. based on or containing data first produced in the performance of this subcontract and published in academic, technical or professional journals, symposia proceedings or similar works, the subcontractor shall use this acknowledgement stating, “This [article, conference paper, journal article, etc.] was developed based upon funding from the National Laboratory of the Rockies for the U.S. Department of Energy under Contract No. DE-AC36-08GO28308.”

9. COPYRIGHT PERMISSION/AUTHORIZATIONS

The subcontractor is responsible for obtaining copyright permissions and/or authorizations for all information and/or data, as applicable that is incorporated into all final technical reports. Electronic copies of these copyright permissions and/or authorizations shall be provided to the at the email address provided below. The subcontractor shall also provide a written certification to the Technical Monitor as to such permissions and/or authorizations as a condition of final payment. The subcontractor’s (including all lower tier subcontractors, as applicable) certification shall specify that “I have obtained all necessary and legally required copyright permissions and/or authorizations for any and all information, data, graphs, images, etc., as applicable, that is incorporated into the final Technical Report titled _____, delivered under this Subcontract No. _____. Copies of these permissions and/or authorizations are attached.”

EXHIBIT 1 – Sample Firm Fixed Price Work Order Template shown below for reference.

FIRM FIXED PRICE WORK ORDER TEMPLATE NLR Work Order Number <u>00</u>			
Work Order Type:			
Work Order Agreement No.:		Subcontractor:	
Technical Monitor:		NLR Technical Monitor Email.:	
Period of Performance:			
Project Title: “ ”			
1. Description of Work			
Please provide specific scope, tasks, and deliverables Subcontractor shall .			
NOTE: Invoices shall reference the NLR Work Order Number noted above.			
2. Labor Costs			
Labor Category	Fixed Hourly Rate	Hours	Extension (\$)
Total Labor			\$*.**
3. Travel Costs			
Not to Exceed Travel Expense:		NTE Amount (\$)	
		\$ *.**	
(d) Other Direct Costs			
Description	Unit Type	Quantity	Extension (\$)
Total ODC:			\$*.**
(e) Payment Occurrence Schedule			
Occurrence No.	Description	Amount	
1.	\$*.**	\$*.**	
2.	\$*.**	\$*.**	
3.	\$*.**	\$*.**	
4.	\$*.**	\$*.**	
5.	\$*.**	\$*.**	
Total		\$*.**	

(f) INTEGRATION

This Work Order contains the entire understanding between the parties, and there are no understandings or representations except those set forth or incorporated by reference. No subsequent modifications of this Work Order shall be of any force or effect unless in writing signed by a duly authorized official of NLR.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date fully signed below.

(g) SIGNATURES

ACCEPTED: *****

AUTHORIZED: ALLIANCE FOR ENERGY
INNOVATION, LLC (NLR Technical Monitor
for Work Order up to \$10,000.00)

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

***Work Orders that exceed \$10,000 require pre-approval by Acquisition Services Subcontract Administrator**

By: _____

Name: _____

Title: _____

Date: _____