Special Terms and Conditions

Sustainable Manufacturing Innovation Alliance Corp. ("recipient"), which is identified in Block 5 of the Assistance Agreement, and the United States Department of Energy ("DOE"), enter into this award, referenced above, to achieve the project objectives and the technical milestones and deliverables stated in the Attachments to this award.

This award consists of the following documents, including all terms and conditions therein:

	Assistance Agreement		
	Special Terms and Conditions		
Attachment 1	ment 1 Statement of Project Objectives and		
	Milestone Summary Table		
Attachment 2	Federal Assistance Reporting Checklist and		
	Instructions		
Attachment 3 Budget Information SF-424A			
Attachment 4 Intellectual Property Provisions			
Attachment 5	Data Management Plan		
Attachment 6	Costs On Hold		

The following are incorporated into this award by reference:

- DOE Assistance Regulations, 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910 (subject to any deviations issued pursuant to <u>2 CFR 910.133</u>) at https://www.ecfr.gov/current/title-2.
- National Policy Requirements (November 12, 2020) at https://www.nsf.gov/awards/managing/rtc.jsp.
- The recipient's application/proposal as approved by DOE.



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Subpart A. General Provisions

Term 1. Introduction and Purpose

The objective of this Award is to establish a Clean Energy Manufacturing Innovation Institute for Reducing EMbodied-energy And Decreasing Emissions (REMADE) in Materials Manufacturing that will support U.S. prosperity and security; significantly advance manufacturing within the U.S.; and contribute to the creation of the Manufacturing USA, national network of manufacturing innovation (NMMI). The vision for this Institute and other institutes within the network is to help revitalize American manufacturing and support domestic manufacturing competitiveness.

The Mission of the REMADE Institute is to enable the early stage applied research and development of key industrial platform technologies that could dramatically reduce the embodied energy and carbon emissions associated with industrial-scale materials production and processing. By focusing its efforts on the technologies that will eliminate and/or mitigate the technical and economic barriers that prevent greater material recycling, recovery, remanufacturing, and reuse, the REMADE Institute seeks to motivate the subsequent industry investments that will be required to complete technology development and deploy these technologies across the U.S. manufacturing eco-system. Examples of the types of technologies the REMADE Institute will address include the following:

- Information collection, standardization, and design tools that address material utilization;
- Rapid gathering, identification, and sorting platforms with high throughput that can be
 used to identify material composition and perform real-time analysis and sorting of
 waste streams;
- Separating mixed materials cost-effectively and energy-efficiently to facilitate widespread use of high-value secondary feedstocks;
- Removal of trace contaminants from separate components;
- Robust and cost-effective reprocessing and disposal methods to transform used material into cost-competitive alternatives to primary feedstocks.

The Institute will lead a national effort to research and develop innovative material reuse, recycling, remanufacturing and reprocessing technologies and solutions that reduce the embodied-energy and greenhouse gas (GHG) emissions and strengthen U.S. manufacturing competitiveness for energy intensive/dependent, clean energy, and energy efficient product and/or material manufacturing. This will enable step change improvements in energy efficiency, capital and operating cost factors, environmental emissions, commercial project execution and market penetration thus enhancing U.S. competitiveness and growth. The Institute will establish an infrastructure that enables access to resources, tools, expertise, and facilities that can be used to establish a business case, address technical challenges, and reduce the cost and risk of commercializing these solutions. The Institute will also establish a technical education and workforce development program that will leverage existing resources to develop the workforce who can then research, develop, and commercialize new material reuse, recycling, remanufacturing and reprocessing solutions widely within U.S. industry.



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Transforming and securing the nation's energy systems and maintaining U.S. leadership in clean energy and high value technologies requires domestic manufacturing of technologies that produce, move, and use clean energy at a meaningful scale. Through a shared research and development (R&D) infrastructure that contains equipment and resources accessible to external parties for technology development that would otherwise be cost prohibitive, the Institute will enable demonstration of advanced manufacturing technologies at a scale significant enough to establish technical feasibility and enable business case development to attract further private investment. The Institute will be organized to foster an open exchange of pre-competitive manufacturing best-practices and know-how -- including design and processing tools, qualification and certification approaches, and fabrication costing methods -- while protecting company proprietary intellectual property. The Institute will include business models to allow manufacturers of all sizes access to and use of the shared R&D infrastructure, as well as guide and train participants. The Institute will also provide the opportunity for equipment suppliers and partners to improve their own technologies by learning from other users. The Institute will engage the manufacturing community at all levels of the supply chain, from large companies and potential end users, to researchers and small and medium-sized enterprises (SMEs) involved in critical development work who will support the transition to commercial applications to ensure the Institute is focused on industry relevant problems and increase likelihood of success.

The overall technical objectives of the Institute over the period of the five-year award are to:

- Lead a national effort to research and develop innovative material reuse, recycling, remanufacturing and reprocessing technologies and solutions that reduce the embodied-energy and GHG emissions and strengthen U.S. manufacturing competitiveness for energy intensive/dependent, clean energy, and energy efficient product and/or material manufacturing
- Develop technologies that enable at a minimum cost parity of key secondary feedstocks with existing primary feedstocks
- Establish cost-effective pathways for improved recycling and reuse rates of energy intensive materials
- Lead early stage applied R&D efforts for technologies that significantly improve the efficiency of material use and reduce material waste in major manufacturing processes
- Drive cross-industry reuse of secondary feedstocks and end-of-life (EOL) materials
- Develop cost-effective approaches to reducing energy required to reprocess key secondary feedstocks
- Establish one or more R&D projects to assess the cost effectiveness of key REMADE technologies through multi-partner collaboration
- Establish and support a shared R&D infrastructure that enables ready and affordable
 access to cutting-edge physical and virtual tools as well as expertise to reduce the
 cost and risk of commercialization, address technical challenges that may arise from
 scale-up and production at a manufacturing relevant scale, and provide data to enable
 business case development. This infrastructure leverages relevant existing private and



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- public sector resources and facilities such as industry laboratories, university centers, National Laboratories, and other government investments
- Establish a robust R&D portfolio that supports the above elements through an Institute membership that includes initial members as well as new members not part of the Institute application
- Provide capabilities for and collaboration in open, pre-competitive work among multiple
 parties including collaboration around the development of open architecture, open
 standard, and open-source software and design platforms and tools in an Intellectual
 Property (IP) protected environment, as well as proprietary activities as appropriate, to
 engage stakeholders as relevant to the technology areas in the REMADE Institute
- Be a financially self-sustaining, world-leading innovation hub that brings together private and public entities to co-invest in the research and development of innovative REMADE technologies
- Establish a technical education and workforce development (EWD) program to support technical and career education that will leverage relevant existing resources to develop the workforce needed to research, develop, and commercialize new REMADE technologies and solutions widely within U.S. industry
- Define, manage and implement clear operating structures and strategies for
 participation by a wide range of stakeholders in the Institute and, in particular, to
 engage small and medium-sized enterprises (SMEs), minority-owned businesses, and
 women-owned businesses through outreach and intermediaries, including programs like
 the National Institute of Standards and Technology (NIST) Manufacturing Extension
 Partnership (MEP) where appropriate, and provide sufficient financial and contractual
 mechanisms for collaboration with all stakeholders along the supply chain, including
 end-users, to allow them to benefit from the Institute resources.

At the end of the five-year award, the REMADE Institute will have developed technologies capable of reducing manufacturing energy consumption by 1.8 Quads and a decrease of GHG emissions by 69 million metric tons of CO2e (a 29% improvement) following industry adoption and deployment.

Term 2. Legal Authority and Effect

A DOE financial assistance award is valid only if it is in writing and is signed, either in writing or electronically, by a DOE Grants Officer.

The recipient may accept or reject the award. A request to draw down DOE funds or acknowledgement of award documents by the recipient's authorized representative through electronic systems used by DOE, specifically FedConnect, constitutes the recipient's acceptance of the terms and conditions of this award. Acknowledgement via FedConnect by the recipient's authorized representative constitutes the recipient's electronic signature.



Term 3. Flow Down Requirement

The recipient agrees to apply the terms and conditions of this award, including the Intellectual Property Provisions, to all subrecipients (and contractors, as appropriate). See, 2 CFR 200.101(b)(2) through (b)(5), 2 CFR 200.327, and 2 CFR 200.332.

Term 4. Pre-Award Information

Prior to award, the recipient was required to provide certain information, disclosures, representations, and certifications. Certification of the information was required by the recipient's authorized representative on behalf of the recipient, via the pre-award information sheet. If there are any changes to the provided information, disclosures, representations, and/or certifications throughout the life of the award, the recipient must notify the DOE Grants Officer, in writing, within fifteen (15) business days of the changes, unless a different notification period is specified in an applicable law or controlling term, in which case the specific period controls.

Term 5. Compliance with Federal, State, and Municipal Law

The recipient is required to comply with applicable federal, state, and local laws and regulations for all work performed under this award. The recipient is required to obtain all necessary federal, state, and local permits, authorizations, and approvals for all work performed under this award.

Term 6. Inconsistency with Federal Law

Any apparent inconsistency between federal statutes and regulations and the terms and conditions contained in this award must be referred to the DOE award Administrator for guidance.

Term 7. Federal Stewardship

DOE will exercise normal federal stewardship in overseeing the project activities performed under this award. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing technical assistance and/or temporary intervention in unusual circumstances to address deficiencies that develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the project objectives have been accomplished.

Term 8. Whistleblower Protections

As provided in 2 CFR 200.217, an employee of a recipient or subrecipient must not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing information that the employee reasonably believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contract (including the competition for or



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negotiation of a contract) or grant. The recipient and subrecipient must inform their employees in writing of employee whistleblower rights and protections.

Term 9. Termination

This award may be terminated in part or in its entirety in accordance with 2 CFR 200.340.

Term 10. Substantial Involvement

a. Definitions.

For purposes of this award term: (1) "Project" is defined as the overall efforts under the Award to establish and operate the Institute, and (2) "Institute Activities" is defined as the individual activities (also referred to as projects) the Institute, through the Recipient and the Institute members, will carry out.

b. General Statement of Roles and Responsibilities.

The Recipient is responsible for the overall Project, including execution, technical and project management, reporting, financial and administrative matters in accordance with this Term. EERE shall be substantially involved in the Project, as more completely outlined in this Term. "Substantial Involvement" shall include EERE collaboration with the Recipient regarding the management, control, direction, and performance of the Project. EERE will be engaged in an advisory capacity for work performed under this Award to maximize the likelihood that the Project will positively impact domestic manufacturing by reducing life cycle energy consumption and carbon emissions associated with industrial-scale materials production and processing by creating new technologies for reuse, recycling and remanufacturing of materials and further enhance U.S. competitiveness.

c. <u>Statement of Substantial Involvement</u>.

EERE has substantial involvement in work performed under this Award. EERE does not limit its involvement to the administrative requirements of this Award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the Project as a whole. Substantial involvement includes the following:

- 1. EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
- 2. EERE may intervene in the conduct or performance of work under this Award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of the Project.
- 3. EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at the Go/No-Go decision points.
- 4. EERE may redirect or discontinue funding for individual Institute Activities based on the outcome of EERE's evaluation of those activities at the Go/No-Go decision points.
- 5. EERE participates in major project decision-making processes to include but not limited to:
 - a. Selection of Institute Activities;



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- b. Go/No-Go reviews for Institute Activities; and
- c. Project redirection based on progress reviews.
- d. Any decision explicitly marked level 2 or level 3 approval in the Statement of Project Objectives:
 - Level 1 Approval is required by the REMADE CEO or member of the leadership team, depending on the plan (CTO, COO, Finance Director, or Legal Counsel).
 - ii. Level 2 DOE positive recommendation is required and will be validated by email from DOE. The work product must have Level 1 approval before submission to DOE.
 - iii. Level 3 Final approval required by vote of a member committee. Pre-read material/information will be supplied to the committee a minimum of three working days in advance of the scheduled meeting. At the meeting where the voting will take place, the committee will be afforded the opportunity to have discussion on the topic and have any questions answered prior to voting. The work product must have Level 2 approval before voting by the committee, unless otherwise agreed to by the associated committee and DOE.
- 6. Executive Advisory Committee. A three-member Executive Advisory Committee ("EAC") will be established to serve an advisory committee to the Governance Board ("GB") for the duration of the DOE Cooperative Agreement. The Department of Energy is responsible for appointing three (3) Federal Government employees to serve on the EAC. Two (2) of the three (3) EAC seats may be filled by representatives from other Federal Agencies as deemed appropriate by DOE. The government representatives shall have no fiduciary duty to SMIA, the REMADE Institute, or its Members. The EAC will participate in a nonvoting capacity for all Governance Board meetings, executive sessions, discussions of important matters of the GB, and similar communications. The EAC will be included on all GB correspondence to the extent the parties mutually agree is necessary. In addition, the EERE Technology Manager may, at his or her discretion, observe GB activities to ensure compliance with the cooperative agreement and programmatic objectives. The EERE Technology Manager may participate in a nonvoting capacity for all GB meetings, executive sessions, discussions of important matters, and similar communications. The EERE Technology Manager will be included on all GB correspondence. However, the EERE Technology Manager is not a member of the GB and is not afforded the rights and responsibilities of a GB member. Further, the EERE Technology Manager holds a fiduciary duty to the Federal government and shall hold no fiduciary duty to SMIA, REMADE, the Governance Board, or Institute members.
- 7. Strategic Advisory Committee ("SAC"). The EERE Technology Manager will appoint four (4) Federal Government representatives to serve on the SAC to include at least one DOE Federal Government employee. Three (3) of the four (4) SAC seats may be filled by



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- government employees from other Federal Agencies as deemed appropriate by EERE Technology Manager.
- 8. Technical Advisory Committee ("TAC"). The EERE Technology Manager will appoint four (4) Federal Government employees to serve on the TAC to include at least one DOE Federal Government employee. Three (3) of the four (4) TAC seats may be filled by government employees from other Federal Agencies as deemed appropriate by EERE Technology Manager.
- 9. The EERE will review membership requests for consistency with U.S. manufacturing objectives and to assess whether the potential member would further the purposes of the Award (e.g., reducing life cycle energy consumption and carbon emissions associated with industrial-scale materials production and processing by creating new technologies for reuse, recycling and remanufacturing of materials). In the event the EERE determines additional information is needed to inform its review, at EERE's request, the Recipient will provide such information. EERE will provide its recommendation to the Institute's Chief Executive Officer or their designee. The Institute's Governance Board will require a positive recommendation from the DOE to approve membership admission for foreign entities. The term "foreign entity" includes entities incorporated outside of the U.S.; entities whose primary place of business is outside the U.S.; and U.S. incorporated companies that are owned or substantially controlled (50 percent or greater) by foreign governments, firms, institutions, or individuals.
- 10. Prior to adopting the Institute governing documents and subsequent changes to such documents, the Institute's Chief Executive Officer will provide EERE a reasonable opportunity to review for compliance with the Award. The Institute governing documents include, but are not limited to, the REMADE bylaws, the Operational Plan, membership agreements, Institute-wide policies required under the Award, and associated documents. The Institute's Chief Executive Officer will require a positive compliance recommendation from EERE Technology Manager as a requirement of approval.
- 11. EERE also has substantial involvement in work performed under this Award by Node Leads, subrecipients, Institute Members and contractors. Upon request by EERE, the Recipient may not unreasonably restrict EERE's communications, interaction, or access to Node Leads, subrecipients, Institute Members and contractors.
- 12. The Recipient will provide EERE Technology Manager and designated DOE communications staff with timely notice of REMADE related publicity information regarding the Recipient's organization and the Institute, and a reasonable opportunity to review and offer input. Related publicity information includes materials developed by the Recipient or an Institute member, subrecipient, or other participant.
- 13. The Recipient will provide EERE Technology Manager and Grants Officer a reasonable opportunity to review any Institute wide and project specific risk mitigation and



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corrective action plans.

- 14. The Recipient will provide the EERE a reasonable opportunity to participate in technical, strategic, and operations events.
- 15. Prior to adopting the following plans and subsequent changes to such plans, the Recipient must provide the EERE Technology Manager a reasonable opportunity to review planning documents such as Roadmaps, Strategic Plans, Communication Plans, and Sustainability Plan, and any other Institute wide and project specific planning documents requiring a Level 2 approval as indicated in the Statement of Project Objectives (SOPO) (see SOPO Milestone Summary Table). A reasonable opportunity is defined as at least seven (7) business days from the point of receiving a full, complete draft of the work product in its near final form, without missing elements or sections, for review.
- 16. At EERE's discretion, EERE may engage a private, independent consultant (IC) to assist in assessing the progress of the Project objectives and provide timely and accurate reports to EERE and/or to verify major facility modifications or equipment purchases under the scope of this Award. The Prime Recipient will ensure that the IC has access to any and all relevant documentation sufficient to allow the IC to provide independent evaluations to EERE on the progress of the Project and/or Institute Activities. The Prime Recipient may require the IC to sign a non-disclosure agreement, and will negotiate the agreement in good faith and in a timely manner. EERE will evaluate the quality and completeness of information and documentation provided by the Prime Recipient to EERE and its consultants (i.e., IC) in order to allow EERE to provide technical direction to the Prime Recipient about how best to achieve the objectives of the Institute. Consultants to EERE may not provide technical direction to the Prime Recipient.

d. <u>Government Approval.</u>

"Government Approval" is defined as DOE providing authority to proceed and/or formal acceptance by DOE. For those circumstances in which Government Approval is required, the Recipient shall submit all necessary documentation to the DOE Grants Officer, the EERE Technology Manager, and the DOE Project Officer such that they may have reasonable time to review. In addition to the Government Approval requirements stated elsewhere in this Award, the Recipient must obtain Government Approval in the following situations:

- 1. Scope changes, including but not limited to any change in plans that may result in a need for additional Federal funding require Grants Officer approval;
- 2. NEPA-related documents and compliance activities require Grants Officer approval in consultation with the DOE NEPA Compliance Officer;
- 3. Requests for Proposals for Project Activities funded under the Institute require EERE Technology Manager approval;
- 4. Selection of new Institute Activities require approval from the EERE Technology Manager and the Grants Officer;



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 Selection of Key Personnel requires EERE Technology Manager approval. Key Personnel includes but is not limited to the following positions or positions with similar level of responsibility: Chief Executive Officer (CEO), Chief Operations Officer (COO), Chief Technology Officer (CTO), Sustainability and Development Manager, Chief Financial Officer (CFO), and Node Leads.

e. Government Insight.

"Government Insight" is defined as attendance at procurement, design, research efforts, on-site or other meetings, reviews, and tests; and reviewing documents from the Recipient, subrecipient(s), Institute members, and contractor(s). DOE may participate in these meetings, reviews, and tests, and may provide input and comment, but shall not have the right of approval except as set forth elsewhere in this Award. Recipient shall notify the EERE Technology Manager of meetings, reviews, or tests, and provide such documents to the EERE Technology Manager in sufficient time to permit Government Insight.

f. Modification.

- 1. Modification Request. If the Recipient concludes that a change in the Project Scope and/or Budget would be beneficial to program objectives, the Recipient may submit a written request to modify this Award or its Attachments to the DOE Grants Officer, with a copy to the EERE Project Officer and EERE Technology Manager. The request must provide justifications to support any changes to the Project Scope and/or Budget, and detail the technical, environmental, chronological, and financial impact of the proposed changes to the Project.
- 2. Modification Approval. The DOE Grants Officer is the only individual who may modify this Award or commit the Government to the expenditure of additional DOE funds. Any commitment by anyone other than the Grants Officer, either explicit or implied, is invalid.

g. <u>Notices to DOE.</u>

In addition to the notice requirements stated elsewhere in this Award, the Recipient must provide DOE notice in the following situations:

- 1. As the Recipient becomes aware, the Recipient shall promptly notify DOE within five (5) days of any critical business issues or litigation concerning the Recipient, subrecipients, contractors or Institute Members that may have material adverse effect on the Project or Institute activities.
- 2. As the Recipient becomes aware, the Recipient shall promptly notify DOE within five (5) days of any significant Conflict of Interest (COI) issues concerning the Recipient, subrecipients, contractors or Institute Members.
- 3. As the Recipient becomes aware, the Recipient shall promptly notify DOE within five (5) days of any significant Export Control issues concerning the Recipient, subrecipients, contractors or Institute Members.
- 4. Notice of Inability to Provide Cost Share. Recipient shall provide the notice required by Term 30(d) of this Award.
- 5. Notice of Equipment Removal or use of Equipment for non-Project Purposes. The



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Recipient shall provide prompt notice to the DOE Grants Officer of any removal or disposition of Equipment or other Property acquired in whole or in part with funds received under this Award or where DOE accepted such Property as recipient cost share under the Award. In addition, the Recipient shall provide prompt notice to the DOE Grants Officer regarding any equipment acquired in whole or in part with funds received under this Award or where DOE accepted such Property as recipient cost share under the Award if the Recipient intends to use such equipment for purposes other than the authorized purposes of the Project.

- The Recipient shall provide the EERE Technology Manager and EAC notice of all GB meetings, executive sessions, discussions of important matters, and similar communications.
- 7. The Recipient shall provide the EERE Technology Manager with timely notice of any proposed changes in the Strategic Advisory Committee members, seats, composition and removal and appointment of individuals to serve on the Governing Committee.
- Notice of Environmental Changes. Recipient shall provide prompt notice to the DOE
 Grants Officer of any action or information that does not conform to the current NEPA
 determination.
- Notice of Changes in Key Technical/Project Personnel. Recipient shall provide prompt notice to the EERE Technology Manager of any changes to the Principal Investigator for all subrecipients.

Term 11. Federal Involvement

A. Definitions

For purposes of this award term: (1) "Project" is defined as the overall efforts under the Award to establish and operate the Institute, and (2) "Institute Activities" is defined as the individual activities (also referred to as projects) the Institute, through the Recipient and the Institute members, will carry out.

B. Review Meetings

The Recipient, including but not limited to, the principal investigator (or, if applicable, co-principal investigators), is required to participate in periodic review meetings with EERE. Review meetings enable EERE to assess the work performed under this Award and determine whether the Recipient has timely achieved the technical milestones and deliverables stated in Attachment 1 to this Award.

EERE shall determine the frequency of review meetings and select the day, time, and location of each review meeting and shall do so in a reasonable and good faith manner. EERE will provide the Recipient with reasonable notice of the review meetings.

For each review meeting, the Recipient is required to provide a comprehensive overview of the project, including:



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- The Recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 to this Award;
- The Recipient's actual expenditures compared to the approved budget in Attachment 3 to this Award; and
- Other subject matter specified by the DOE Technology Manager/Project Officer.

C. Project Meetings

The Recipient is required to notify EERE in advance of scheduled tests and internal project meetings that would entail discussion of topics that could result in major changes to the baseline project technical scope/approach, cost, or schedule. Upon request by EERE, the Recipient is required to provide EERE with reasonable access (by telephone, webinar, or otherwise) to the tests and project meetings. The Recipient is not expected to delay any work under this Award for the purpose of government insight.

D. Site Visits

EERE's authorized representatives have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. The Recipient must provide, and must require subrecipients to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

E. Go/No-Go Decisions

Attachment 1 to this Award establishes two types of Go/No-Go decision points: Project-Wide and Institute Activities. For each Go/No-Go decision point, EERE must determine whether the Recipient has fully and satisfactorily completed the work described in Attachment 1 to this Award. At the Go/No-Go decision points, EERE will evaluate performance, schedule adherence, meeting milestone objectives, compliance with reporting requirements, strategic plan execution and assessment processes and overall contribution to the program goals and objectives.

As a result of a Project-Wide Go/No-Go review, in its discretion, EERE may take one of the following actions:

- (1) authorize Federal funding for the next Budget Period for the Project;
- (2) recommend redirection of work under the Project;
- (3) discontinue providing Federal funding for the Project beyond the current Budget Period as the result of insufficient progress, change in strategic direction, or lack of available funding; or
- (4) place a hold on the Federal funding for the Project, pending further



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supporting data.

As a result of a Go/No-Go review for an individual Institute Activity, in its discretion, EERE may take one of the following actions:

- (1) authorize funding (Federal share and cost share) for the next Budget Period for the Institute Activity;
- (2) recommend redirection of work under the Institute Activity;
- (3) discontinue providing funding for the Institute Activity beyond the current Budget Period as the result of insufficient progress, change in strategic direction, or lack of available funding; or
- (4) place a hold on the funding (Federal share and cost share) for the Institute Activity, pending further supporting data.

As part of a Project-Wide Go/No-Go review, EERE may consider the outcome of a Go/No-Go review for an individual Institute Activity. However, except where the individual Institute Activity has a detrimental or significant impact on the Project as whole, the decision to discontinue Federal funding for an individual Institute Activity will not in itself result in a decision to discontinue Federal funding for the Project as whole.

F. Milestones and Deliverables

Attachment 1 to this Award establishes milestones and deliverables. If the Recipient fails to achieve one or more milestones or deliverables, EERE may renegotiate the Statement of Project Objectives and/or Milestone Summary Table in Attachment 1 to this Award. If the failure to achieve one or more milestone(s) or deliverable(s) could have a material adverse effect on achieving the objectives of the Award, DOE could find the failure to be material noncompliance and, consequently, take action to suspend or terminate the Award.

G. EERE Access

The Recipient must provide any information, documents, site access, or other assistance requested by EERE for the purpose of its Federal stewardship or substantial involvement. The Recipient will not unreasonably restrict EERE's site access to subrecipient sites and will require that all subrecipients, Institute Members and contractors conducting work under the Institute provide the same access to EERE.

Term 12. Risk-Based Review of Project Participation

All project participants are subject to a DOE risk review. The risk review of covered individuals includes but is not limited to the review of resumes and disclosures, as required in the award. DOE reserves the right to ask for disclosures on project participants not defined as covered individuals. The recipient need not submit any additional information on non-covered



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individuals, unless requested by DOE. The volume and type of information collected may depend on various factors associated with the award.

Note this review is separate and distinct from DOE Order 142.3B "Unclassified Foreign National Access Program".

Term 13. Post-Award Due Diligence Reviews

During the period of performance of the award, DOE may conduct ongoing due diligence reviews, through Government resources, to identify potential risks of undue foreign influence. In the event a risk is identified, DOE may require risk mitigation measures, including but not limited to, requiring an individual or entity not participate in the award. As part of the research, technology, and economic security risk review, DOE may contact the recipient project team members for additional information to inform the review.

Term 14. NEPA Requirements

DOE must comply with the National Environmental Policy Act (NEPA) prior to authorizing the use of federal funds. Based on all information provided by the Recipient, EERE has made a NEPA determination by issuing a categorical exclusion (CX) for all activities listed in the Statement of Project Objectives (SOPO) approved by the Grants Officer and the DOE NEPA Determination. The Recipient is thereby authorized to use federal funds for the defined project activities, subject the Recipient's compliance with the conditions stated below and except where such activity is subject to a restriction set forth elsewhere in this Award.

Condition(s):

The recipient is required to consult with the DOE Project Officer and NEPA Specialist regarding any project that would result in:

- changes in function, use, or operation of existing facilities, and/or
- modifications to existing facilities other than minor modifications (e.g. electrical and duct work rerouting) required for equipment installation, and/or
- ground disturbing or new construction activities

prior to initiating any of these activities in order to determine whether additional NEPA review is required.

This authorization is specific to the project activities and locations as described in the SOPO approved by the Grants Officer and the DOE NEPA Determination.

If the Recipient later intends to add to or modify the activities or locations as described in the approved SOPO and the DOE NEPA Determination, those new activities/locations or modified activities/locations are subject to additional NEPA review and are not authorized for federal funding until the Grants Officer provides written authorization on those additions or modifications. Should the Recipient elect to undertake activities or change locations prior to written authorization from the Grants Officer, the Recipient does so at risk of not receiving federal funding for those activities, and such costs may not be recognized as allowable cost share.

Term 15. Performance of Work in United States

A. Requirement

All work performed under this award must be performed in the United States unless the Grants Officer provides a waiver. This requirement does not apply to the purchase of supplies and equipment; however, the recipient should make every effort to purchase supplies and equipment within the United States. The recipient must flow down this requirement to its subrecipients.

B. Failure to Comply

If the recipient fails to comply with the requirements of this term, the Grants Officer may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable recipient cost share regardless of if the work is performed by the recipient, subrecipients, contractors or other project partners.

C. Waiver for Work Outside the U.S.

All work performed under this award must be performed in the United States. However, the Grants Officer may approve the recipient to perform a portion of the work outside the United States under limited circumstances. The recipient must obtain a waiver from the Grants Officer prior to conducting any work outside the United States. To request a waiver, the recipient must submit a written waiver request to the Grants Officer, which includes the information as required in the NOFO that the award was selected under.

For the rationale, the recipient must demonstrate to the satisfaction of the Grants Officer that the performance of work outside the United States would further the purposes of the NOFO that the award was selected under and is in the economic interests of the United States. The Grants Officer may require additional information before considering such request.

B. Approval of Recipient's Waiver Request - Caterpillar (CAT) Mexico Facility

Based on the waiver request and justification submitted by the Recipient via email dated June 17, 2019, DOE has waived the requirements set forth in Term 11(a), "Performance of Work in the U.S." for the following work to be performed at Caterpillar (CAT) facility located in Neuvo Laredo, Tamaulipas, Mexico:

Conduct a baseline assessment to capture current practices associated with visual inspections and functional testing of printed circuit boards (PCB), to inform functional testing development that will be conducted at Rochester Institute of Technology (RIT).

These activities are within Task 7.5 Condition Assessment of Used Electronics of the Statement of Project Objectives (SOPO). The proposed total budget for the work to take place outside the U.S. is \$64,000 (\$32,000 Federal funds and \$32,000 Recipient Cost Share).



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This approval allows for the above described foreign work during Task 7.5. Any extension of this work period will require prior approval from DOE, and the Recipient must provide additional justification to demonstrate the work would further the purposes of the FOA and is otherwise in the economic interests of the U.S. The Recipient must ensure the work complies with the applicable export control laws and that the appropriate Non-Disclosure Agreements are executed.

This waiver is specific to the project activities and locations as described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

C. Approval of Recipient's Waiver Request - Caterpillar (CAT) Canada Facility
Based on the waiver request and justification submitted by the Recipient via email
dated June 17, 2019, DOE has waived the requirements set forth in Term 11(a),
"Performance of Work in the U.S." for the following work to be performed at
National Optics Institute (INO) facility located in Quebec City, Quebec, Canada:
Determine the suitability of terahertz imaging to reliably detect critical
solder joint and interconnect failure modes of printed circuit boards
(PCB) as practical inspection methods for remanufacturing operations.

These activities are within Task 7.5 Condition Assessment of Used Electronics of the Statement of Project Objectives (SOPO). The proposed total budget for the work to take place outside the U.S. is \$4,400 (all Recipient Cost Share).

This approval allows for the above described foreign work during Task 7.5. Any extension of this work period will require prior approval from DOE, and the Recipient must provide additional justification to demonstrate the work would further the purposes of the FOA and is otherwise in the economic interests of the U.S. The Recipient must ensure the work complies with the applicable export control laws and that the appropriate Non-Disclosure Agreements are executed.

This waiver is specific to the project activities and locations as described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are



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not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

D. Approval of Recipient's Waiver Request – CHZ Technologies, Germany

Based on the waiver request and justification submitted by the Recipient via email on April 27, 2020, DOE has waived the requirements set forth in Term 11(a), "Performance of Work in the U.S." for the following work to be performed at CHZ Technologies located in Germany:

Process the boards and convert the boards into only a "clean renewable fuel gas" and a "clean char." Because all FR-4 circuit boards contain brominated flame retardants, the recovered synthesis gas and a sample of the "char" will be sent to the Fresenius Institute to confirm that there are no dioxins or furans from the flame retardants in them. The remaining solid mixture of metals, platinum group metals, fiberglass, carbon and rare earth elements will be sent to Penn State to conduct the proposed metal separation work.

These activities are within Task 6.15 titled "Development and Validation of Metal Separation Technology for Complex Metal Streams" of the Statement of Project Objectives (SOPO). The proposed total budget for the work to take place outside the U.S. is \$4,400 (all Recipient Cost Share). The proposed total budget for the work to take place outside the U.S. is \$33,625 of which \$9,525 will be recipient cost share.

This approval allows for the above described foreign work during Task 6.15. Any extension of this work period will require prior approval from DOE, and the Recipient must provide additional justification to demonstrate the work would further the purposes of the FOA and is otherwise in the economic interests of the U.S. The Recipient must ensure the work complies with the applicable export control laws and that the appropriate Non-Disclosure Agreements are executed.

This waiver is specific to the project activities and locations as described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change



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locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

E. Approval of Recipient's Waiver Request – CG Belle Industries, Canada

Based on the waiver request and justification submitted by the Recipient via email on March 26, 2021, DOE has waived the requirements set forth in Term 11(a), "Performance of Work in the U.S." for the following work to be performed at CG Belle Industries located in Canada:

The project team was unable through its research, to identify any US companies with the correct optic and overall configuration that will work for ablation in this exploratory project on potting material removal from circuit boards. During the testing, the recipient will provide samples and test parameters to CG Belle (Canada). CG Belle will complete the testing and return the samples for analysis.

This approval allows for the above described foreign work during Task 7.5. Any extension of this work period will require prior approval from DOE, and the Recipient must provide additional justification to demonstrate the work would further the purposes of the FOA and is otherwise in the economic interests of the U.S. The Recipient must ensure the work complies with the applicable export control laws and that the appropriate Non-Disclosure Agreements are executed.

This waiver is specific to the project activities and locations as described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

This approval allows for the above described foreign work during Task 7.3. Any extension of this work period will require prior approval from DOE, and the Recipient must provide additional justification to demonstrate the work would further the purposes of the FOA and is otherwise in the economic interests of the U.S. The Recipient must ensure the work complies with the applicable export control laws and that the appropriate Non-Disclosure Agreements are executed.

This waiver is specific to the project activities and locations as described above. If the Recipient later intends to add to or modify the activities or locations as



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described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

F. Approval of Recipient's Waiver Request - Kingston Process Metallurgy (KPM), Ontario, Canada

Based on the waiver request and justification submitted by the Recipient via email on July 7, 2021, EERE waived the requirements set forth in Term 11.A. "Performance of Work in the United States" for the following work to be performed at Kingston Process Metallurgy (KPM) located in Ontario, Canada:

KPM is needed to perform experimental validation of the removal of various elements from an aluminum melt. No facility in the U.S. can provide this service, which is critical to the success of this project. KPM will also perform and supplement thermodynamic modeling at WPI to assist in the selection of the most promising compounds for experimental validation.

Individual tasks include:

- a. Background research into suitable impurity removal materials.
- b. Thermodynamic and assessment of real-world viability of each impurity removal process.
- c. Small scale testing and evaluation of each impurity removal process.

This authorization is specific to the project activities and locations described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities and such costs may not be recognized as allowable cost share.

G. Approval of Recipient's Waiver Request - Braskem S.A., a Brazilian company Based on the waiver request and justification submitted by the Recipient via email dated *September 22, 2021* EERE waived the requirements set forth in Term 11.A.



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"Performance of Work in the United States" for the following work to be performed at *Braskem S.A.* located in Brazil:

Co-Principal Investigator will remotely oversee the laboratory work from his worksite in Brazil; however, all work will be physically conducted at Braskem America, Inc.'s laboratories in Pittsburgh. This is related to work proposed under Task 8.6.

The efforts led by Braskem America, Inc. are threefold: 1) production of ISCAs at commercially relevant scale, 2) melt blending of the ISCAs with MPO recycle streams, and 3) integration of the interfacially reinforced recycle stream with the applications value-chain.

This authorization is specific to the project activities and locations described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities and such costs may not be recognized as allowable cost share.

H. Approval of Recipient's Waiver Request - C Change Labs, a British Columbia, Canada company

Based on the waiver request and justification dated February 23, 2022, and June 16, 2022 NREL response to DOE comments as part of one of the Institute's competitively selected technical projects, EERE waived the requirements set forth in Term 11.A. "Performance of Work in the United States" for the following work to be performed at C Change Labs located in Canada and Ukraine:

Work associated with this project includes the continued development, hosting and maintenance of the free, open-access EC3 tool and related EPD database. These platforms and their code and data are the basis for the work of this project, in terms of code structure and data hosting. Work specific to this project in REMADE SOPO Task 9.8 includes the development of the EC3 user interface to include end of life impact stages in both the digital EPD platform as well as the project level user interface, including the input function of end-of-life impact data estimates for key building materials and the ability for this data to be pulled into Building Information Modeling (BIM) software via Building Transparency's application programming interface (API). Development work for both is led by C Change Labs out of British Columbia, Canada with support of the C Change



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development team (full time FTEs) located in Ukraine. C Change Labs is a service provider to Building Transparency to code and implement existing questions, forms, or workflows for use in an online format to NREL/Building Transparency's instruction.

This project and work will enable further accounting and accountability of the full life cycle of building materials and set a path and framework for others to use to increase the number of materials covered with End of Life (EOL) data. This supports work and directives currently in process at various levels of US government, including whole life carbon and whole building life cycle assessment and procurement policies. Inclusion of EOL data for building materials like wood and concrete will incentivize increased Recycling and reuse of building materials in use and allow for upfront reduction in product emissions. The NREL data and Building Transparency enhanced tool will be available for use by REMADE members and the public inside and outside the U.S. without charge under open access terms.

This authorization is specific to the project activities and locations described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities and such costs may not be recognized as allowable cost share.

L. Approval of Recipient's Waiver Request - EXCO Technologies Limited (EXCO) through their unincorporated Castool Division (Castool), a Uxbridge, Ontario, Canadian company

Based on the waiver request and justification submitted by the Recipient via email dated June 16, 2021, EERE waived the requirements set forth in Term 11.A. "Performance of Work in the United States" for the following work to be performed at Castool in Uxbridge, Ontario, Canada.

Castool will manufacture the dies and containers for subscale validation of the U.S. developed models using Castool's laboratory scale extrusion press, which is located at their facility in Uxbridge, Ontario, Canada.

The success of the project is dependent on the abilities of the research team to develop and transfer technology to commercial extrusion enterprises within the U.S. Developing and transferring this knowledge to manufacturers of thick-walled extrusions will lead to significant savings in scrap, which in-turn will result in reduced energy consumption and



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emissions. The reductions in scrap will also increase productivity for U.S. extruders, making them more competitive compared to foreign extruders.

This authorization is specific to the project activities and locations described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities and such costs may not be recognized as allowable cost share.

M. Approval of Recipient's Waiver Request – AMC Bridge, US Company with employees located in Ukraine and United Kingdom, Wales

Based on the waiver request and justification submitted by the Recipient via email dated October 4th, 2023, EERE waived the requirements set forth in Term 11.A. "Performance of Work in the United States" for the following work to be performed at AMC Bridge in Ukraine and United Kingdom, Wales:

AMC Bridge, a Delaware corporation, was selected as the vendor for software development services, because they are able to develop a CAD application for both Autodesk and CREO, major CAD software developers with requirements included in the REMADE Institute project "Development of a Novel Design for Remanufacturing Software Plugin for CAD". Although AMC Bridge is a US company, some of their employees are located in Ukraine and the United Kingdom.

The proposed work supports the larger project which has goals to 1) develop a Design for Remanufacturing software tool that enables product designers to evaluate whether a part or product is re-manufacturable and 2) develop CAD plugins to make the software tool accessible to product designers. An increase in remanufactured products reduces the volume of virgin product that needs to be produced and in turn the associated materials and embedded energy used in their production, and the associate greenhouse gas (GHG) emissions. In addition to environmental benefits, remanufactured products are lower cost, comparable products available to consumers, which provides an overall economic benefit. The proposed total budget for the work to take place outside the U.S. is \$150,000.

This authorization is specific to the project activities and locations described above. If the Recipient later intends to add to or modify the activities or locations as described above, those new activities/locations or modified activities/locations are not covered under this waiver approval unless and until the Grants Officer provides written



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authorization on those additions or modifications. If the scope of work to be performed outside the United States, as described above substantially changes or increases, an additional waiver must be submitted by the Recipient and approved by the Grants Officer. Should the Recipient elect to undertake activities or change locations prior to authorization from the Grants Officer, the Recipient does so at risk of not receiving Federal funding for those activities and such costs may not be recognized as allowable cost share.

Term 16. Notice Regarding the Purchase of American-Made Equipment and Products – Sense of Congress

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

Term 17. Reporting Requirements

A. Requirements

The reporting requirements for this award are identified on the Federal Assistance Reporting Checklist, attached to this award. Failure to comply with these reporting requirements is considered a material noncompliance with the terms of the award. Noncompliance may result in withholding of future payments, suspension, or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by federal agencies.

B. Dissemination of Scientific and Technical Information

Scientific and Technical Information (STI) generated under this award will be submitted to DOE via the Office of Scientific and Technical Information's Energy Link (<u>E-Link</u>) system. STI submitted under this award will be disseminated via DOE's <u>OSTI.gov</u> website subject to approved access limitations. Citations for journal articles produced under the award will appear on the <u>DOE PAGES</u> website.

C. Restrictions

Scientific and Technical Information submitted to E-Link must not contain any Protected Personal Identifiable Information (PII), limited rights data (proprietary data), classified information, information subject to export control classification, or other information not subject to release.

Term 18. Lobbying

By accepting funds under this award, the recipient agrees that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.



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Term 19. Publications

The recipient is required to include the following acknowledgement in publications arising out of, or relating to, work performed under this award, whether copyrighted or not:

- Acknowledgment: "This material is based upon work supported by the U.S. Department
 of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the
 Advanced Materials & Manufacturing Technologies Office (AMMTO), Award Number
 DE-EE0007897" awarded to the REMADE Institute, a division of the Sustainable
 Manufacturing Innovation Alliance Corp".
- Full Legal Disclaimer: "This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof."

Abridged Legal Disclaimer: "The views expressed herein do not necessarily represent the views of the U.S. Department of Energy or the United States Government."

The recipient should make every effort to include the full Legal Disclaimer. However, in the event that recipients are constrained by formatting and/or page limitations set by the publisher, the abridged Legal Disclaimer is an acceptable alternative.

The award may be subject to a Data Management Plan as part of the Intellectual Property clause set that explains how data generated in the course of the work performed under this award will be shared or preserved or, when justified, explains why data sharing or preservation is not possible or scientifically appropriate.

Term 20. One Time No-Cost Extension

As provided in 2 CFR 200.308(g)(2), the recipient must provide the Grants Officer with written notice in advance if it intends to utilize a one-time, no-cost extension of this award. The notification must include the supporting justification and a revised period of performance. The recipient must submit this notification in writing to the Grants Officer and DOE Technology Manager/Federal Project Manager at least 10 days before the end of the current budget period. This paragraph does not preclude the federal agency from approving further no-cost extensions to the federal award.



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Any no-cost extension will not alter the project scope, deliverables, budget, or milestones (if applicable) of this award.

Term 21. Property Standards

The complete text of the Property Standards can be found at 2 CFR 200.310 through 200.316. Also see 2 CFR 910.360 for additional requirements for real property and equipment for forprofit recipients

Term 22. Insurance Coverage

See 2 CFR 200.310 for insurance requirements for real property and equipment acquired or improved with federal funds. Also see 2 CFR 910.360(d) for additional requirements for real property and equipment for for-profit recipients

Term 23. Intangible Property

Title to intangible property acquired under a federal award vests upon acquisition in the recipient or subrecipient. Intangible property includes trademarks, copyrights, data (including data licenses), websites, IP licenses, trade secrets, patents, patent applications, and property such as loans, notes and other debt instruments, lease agreements, stocks and other instruments of property ownership either tangible or intangible property, such as intellectual property, software, or software subscriptions or licenses.

See 2 CFR Part 200.315 for additional requirements pertaining to intangible property acquired under a federal award.

Also see 2 CFR Part 910.362 for amended requirements for Intellectual Property for for-profit requirements.

Term 24. Real Property

Subject to the conditions set forth in 2 CFR 200.311, title to real property acquired or improved under the federal award will conditionally vest upon acquisition in the recipient or subrecipient. The recipient or subrecipient cannot encumber its title or other interests and must follow the requirements of 2 CFR 200.311 before disposing of the property.

Except as otherwise provided by federal statutes or the federal agency, real property must be used for the originally authorized purpose as long as it is needed for that purpose. When real property is no longer needed for the originally authorized purpose, the recipient or subrecipient must obtain disposition instructions from DOE or pass-through entity.

See 2 CFR 200.311 for additional requirements pertaining to real property acquired or improved under a federal award. Also see 2 CFR 910.360 for additional requirements for real property for for-profit recipients.



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Term 25. Equipment

Subject to the conditions provided in 2 CFR 200.313, and 2 CFR 910.360 (as applicable), title to equipment (property) acquired under the federal award will conditionally vest upon acquisition with the recipient or subrecipient. The recipient or subrecipient must not encumber this property or permit encumbrance without prior written approval of the Grants Officer and must follow the requirements of 2 CFR 200.313 before disposing of the property.

A state must use equipment acquired under a federal award by the state in accordance with state laws and procedures.

Indian Tribes must use, manage, and dispose of equipment acquired under a federal award in accordance with tribal laws and procedures. If such laws and procedures do not exist, Indian Tribes must follow the guidance in 2 CFR 200.313.

The recipient or subrecipient must use equipment for the project or program for which it was acquired and for as long as needed, whether or not the project or program continues to be supported by the federal award. When no longer needed for the originally original project or program, the equipment may be used by programs supported by DOE in the priority order specified in 2 CFR 200.313(c)(1)(i) and (ii).

Equipment with a current per unit fair market value of \$10,000 or less (per unit) may be retained, sold, or otherwise disposed of with no further responsibility to the federal awarding agency or pass-through entity, as specified in 2 CFR 200.313(e)(1) and 2 CFR 910.360 (as applicable).

Management requirements, including inventory and control systems, for equipment are provided in 2 CFR 200.313(d).

When equipment acquired under a federal award is no longer needed, the recipient or subrecipient must obtain disposition instructions from DOE or pass-through entity. However, pursuant to the FY23 Consolidation Appropriations Act (Pub. L. No. 117-328), Division D, Title III, Section 309, the Secretary, or a designee of the Secretary may, at their discretion, vest unconditional title or other property interests acquired under this project regardless of the fair market value of the property at the end of the award period of performance.

Subject to vesting of any property pursuant to Section 309 of the FY23 Consolidated Appropriations Act (Pub. L. No. 117-328), Division D, Title III, disposition will be made as follows: (a) items of equipment with a current fair market value of \$10,000 or less (per unit) may be retained, sold, or otherwise disposed of with no further obligation to the federal agency or pass-through entity; (b) the recipient or subrecipient may retain title or sell the equipment after compensating the federal agency as described in 2 CFR 200.313(e)(2); or (c) transfer title to the federal agency or to an eligible third Party as specified in 2 CFR 200.313(e)(3).



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See 2 CFR 200.313 for additional requirements pertaining to equipment acquired under a federal award. Also see 2 CFR 910.360 for additional requirements for for-profit recipients. See also 2 CFR 200.439 Equipment and other capital expenditures.

Term 26. Supplies

See 2 CFR 200.314 for requirements pertaining to supplies acquired under a federal award. See also 2 CFR 200.453 Materials and supplies costs, including costs of computing devices.

Term 27. Continued Use of Real Property and Equipment

Real property and equipment purchased with project funds (federal share and recipient cost share) under this award are subject to the requirements at 2 CFR 200.311, 200.313, and 200.316 (recipient or subrecipient, except for-profit entities) and 2 CFR 910.360 (for-profit entities). The recipient may continue to use the real property and equipment after the conclusion of the award period of performance so long as the recipient and/or subrecipient:

- 1. Continues to use the property for the authorized project purposes;
- 2. Complies with the applicable reporting requirements and regulatory property standards;
- 3. As applicable to for-profit entities, UCC filing statements are maintained; and
- 4. Submits a written Request for Continued Use for DOE authorization, which is approved by the DOE Grants Officer.

The recipient must request authorization from the Grants Officer to continue to use the property for the authorized project purposes beyond the award period of performance ("Request for Continued Use"). The recipient's written Request for Continued Use must identify the property and include: a summary of how the property will be used (must align with the authorized project purposes); a proposed use period (e.g., perpetuity, until fully depreciated, or a calendar date where the recipient expects to submit disposition instructions); acknowledgement that the recipient shall not sell or encumber the property or permit any encumbrance without prior written DOE approval; current fair market value of the property; and an Estimated Useful Life or depreciation schedule for equipment.

When the property is no longer needed for authorized project purposes, the recipient must request disposition instructions from DOE. For-profit entity disposition requirements are set forth at 2 CFR 910.360. Property disposition requirements for other entities are set forth in 2 CFR 200.310 – 200.316.

Term 28. Property Trust Relationship

Real property, equipment, and intangible property acquired or improved with the federal award must be held in trust by the recipient or subrecipient as trustee for the beneficiaries of the project or program under which the property was acquired or improved. See 2 CFR 200.316 for additional requirements pertaining to real property, equipment, and intangible property acquired or improved under a federal award.



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Term 29. Record Retention

Consistent with 2 CFR 200.334 through 200.338, the recipient and subrecipient must retain all federal award records.

Term 30. Audits

A. Government-Initiated Audits

The recipient must provide any information, documents, site access, or other assistance requested by DOE or federal auditing agencies (e.g., DOE Inspector General, Government Accountability Office) for the purpose of audits and investigations. Such assistance may include, but is not limited to, reasonable access to the recipient's records relating to this award.

Consistent with 2 CFR part 200 as adopted and supplemented by 2 CFR part 910, DOE may audit or review the recipient's financial records or administrative records relating to this award at any time. Audits or reviews may be performed to determine if the recipient has an adequate financial management system to estimate, bill, and record federal government expenditures in accordance with the criteria in 2 CFR 200.302, Generally Accepted Accounting Principles (GAAP), Generally Accepted Government Accounting Standards (GAGAS), and Standard Form 1408. Government-initiated audits are generally paid for by DOE.

DOE may conduct a final audit at the end of the period of performance (or the termination of the award, if applicable). Upon completion of the audit, the recipient is required to refund to DOE any payments for costs that were determined to be unallowable. If the audit has not been performed or completed prior to the closeout of the award, DOE retains the right to recover an appropriate amount after fully considering the recommendations on disallowed costs resulting from the final audit.

DOE will provide reasonable advance notice of audits and will minimize interference with ongoing work, to the maximum extent practicable.

B. Annual Independent Audits (Single Audit or Compliance Audit)

The recipient must comply with the annual independent audit requirements in 2 CFR 200.500 through .521. In the alternative, a for-profit recipient that expends \$1,000,000 or more in federal awards during that entity's fiscal year may have a compliance audit conducted for that year in accordance with 2 CFR 910.500 through 910.521.

The annual independent audits are separate from Government-initiated audits discussed in part A. of this Term and must be paid for by the recipient. To minimize expense, the recipient may have a Compliance audit in conjunction with its annual audit of financial statements. The financial statement audit is **not** a substitute for the Compliance audit. If the audit (Single audit or Compliance audit, depending on recipient entity type) has not been



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performed or completed prior to the closeout of the award, DOE may impose one or more of the actions outlined in 2 CFR 200.339, Remedies for Noncompliance.

Term 31. Site Visits and Recipient Administrative Organizational Reviews

DOE's authorized representatives have the right to make site visits and conduct recipient Administrative Organizational Reviews to review the project and management control systems and to provide technical assistance, as appropriate. The recipient must provide, and must require its subrecipients and contractors to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. DOE will make reasonable efforts to ensure these site visits do not interfere with or unduly delay project work.

Subpart B. Financial Provisions

Term 32. Maximum Obligation

The maximum obligation of DOE for this award is the total "Funds Obligated" as stated in Block 13 of the Assistance Agreement to this award. Additional federal funding is contingent upon (1) recipient's demonstrated substantial progress towards meeting the objectives of the award; (2) availability of federal funds appropriated by Congress for the purpose of this program; and (3) the availability of future-year budget authority.

Term 33. Funding of Budget Periods

DOE has obligated funding as shown in Block 13 of the Assistance Agreement for completion of the Project. However, only the federal share of costs associated with the current Period of Performance is available for work performed by the recipient. The federal share of costs is shown on Attachment 3. The current Period of Performance is shown in Block 7 of the Assistance Agreement.

The remainder of funding is contingent upon the following:

- 1. availability of federal funds appropriated by Congress for the purpose of this program;
- 2. the availability of future-year budget authority;
- recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 to this award;
- 4. recipient's submittal of required reports;
- 5. recipient's compliance with the terms and conditions of the award;
- 6. the recipient's submission of a continuation application;
- 7. written approval of the continuation application by the Grants Officer; and
- 8. DOE's Go/No-Go decision.

In the event that the recipient does not submit a continuation application for subsequent Budget Periods, or DOE disapproves a continuation application for subsequent Budget Periods,

the maximum DOE liability to the recipient is the funds that are available for the current approved Budget Period(s). In such event, DOE reserves the right to deobligate any remaining federal funds.

Term 34. Continuation Application and Funding

A. Continuation Application

A continuation application is a non-competitive application for an additional budget period within a previously approved period of performance. At least 90 calendar days before the end of each budget period, the recipient must submit its continuation application to the DOE as required in Attachment 2, Federal Assistance Reporting Checklist, with written notification to the Technology Manager/Federal Project Manager and the DOE Award Administrator that it has been submitted. The continuation application includes the following information:

- 1. A report on the recipient's progress towards meeting the objectives and milestones of the project set forth in the Statement of Project Objectives, any significant findings, conclusions, or developments, and an estimate of any unobligated balances remaining at the end of the budget period. If the remaining unobligated balance is estimated to exceed 20 percent of the funds available for the budget period, explain why the excess funds have not been obligated and how they will be used in the next budget period.
- A detailed budget and supporting justification if there are changes to the negotiated budget, or a budget for the upcoming budget period was not approved at the time of award.
- 3. A description of any planned changes from the negotiated Statement of Project Objectives and/or Milestone Summary Table.

B. Continuation Funding

Continuation funding is contingent on the following:

- 1. the availability of funds appropriated by Congress for the purpose of this program;
- the availability of future-year budget authority;
- 3. recipient's compliance with the terms and conditions of the award;
- 4. recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1, Statement of Project Objectives;
- recipient's submittal of required reports;
- 6. the recipient's submission of a continuation application;
- 7. written approval of the continuation application by the Grants Officer; and
- 8. DOE's Go/No-Go decision.

C. Waiver of Prior Written Approval Requirements

DOE waives prior written approval requirements to carry forward unobligated balances to subsequent budget periods, in accordance with 2 CFR 200.308(e)(3).

Term 35. Cost Sharing

A. Cost Sharing Obligations

Total Estimated Project Cost is the sum of the Federal Government share, including Federally Funded Research and Development Center (FFRDC) costs, and Recipient share of the estimated project costs. The DOE FFRDC cost is not included in the total approved budget for this Award, because EERE will pay the DOE FFRDC portion of the effort under an existing DOE contract. The Recipient is not responsible for reporting on that portion of the total estimated cost that is paid directly to the DOE FFRDC.

The Recipient must provide the Cost Share amount stated in Block 12 of the Assistance Agreement to this Award. EERE and the Recipient's cost share for the total estimated project costs are listed below.

Budget Period	EERE Cost Share, including FFRDC Costs		Recipient Cost Share \$ / %	Total Estimated Costs
	EERE \$ / %	FFRDC \$ / %		
1	\$1,081,699 / 44%	\$222,500 / 9%	\$1,141,399 / 47%	\$2,445,598
2	\$2,560,597 / 42%	\$407,466 / 7%	\$3,173,415 / 51%	\$6,141,478
3	\$5,156,517/ 45%	\$509,121 / 5%	\$5,667,529 / 50%	\$11,333,167
4	\$34,111,379 / 47%	\$2,550,121/3%	\$36,661,500/50%	\$73,323,000
5	\$23,074,687 / 49%	\$705,914/ 1%	\$23,736,157/50%	\$47,516,758
Total Project	\$65,984,877 / 47%	\$4,395,122 / 3%	\$70,380,000 / 50%	\$140,760,000

The Recipient must provide its required Cost Share amount as a percentage of the total project costs. EERE authorized the Recipient to provide the Budget Period 1 cost share on a Budget Period basis. For the subsequent Budget Periods, the Recipient must provide cost share by the end of each calendar year quarter and the required cost share must be reported as met on each SF 425 Quarterly Financial Report. DOE may reexamine cost share requirements for subsequent budget periods beyond Budget Period 2, as the DOE Grants Officer deems necessary. The Recipient may also request that the DOE Grants Officer review the cost share requirements where there are significant and unforeseen events that may warrant a revision.

B. Cost Share Obligation If Award Terminated or Discontinued

If the Award is terminated or is otherwise not funded to completion, the Recipient is not required to provide the entire "Cost Share" amount stated in Block 12 of the Assistance Agreement to this Award; however, the Recipient must provide its share (i.e., percentage as shown in the Table above) of the total project cost reimbursed as of the date of the termination or discontinuation.



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C. Source of Cost Share

The Recipient may not use Federal funds to meet its cost sharing obligations, unless otherwise allowed by Federal law.

D. Inability to Comply with Cost Sharing Obligations

If the Recipient determines that it is unable to meet its cost sharing obligations, the Recipient must notify the DOE Award Administrator in writing immediately. The notification must include the following information: (1) whether the Recipient intends to continue or phase out the project, and (2) if the Recipient intends to continue the project, how the Recipient will pay (or secure replacement funding for) the Recipient's share of the total project cost.

If the Recipient fails to meet its cost sharing obligations, EERE may recover some or all of the financial assistance provided under this Award. The amount EERE would seek to recover under this Term would be predicated on EERE's analysis of the Recipient's compliance with their cost sharing obligation under the Award.

Term 36. Refund Obligation

The recipient must refund any excess payments received from DOE, including any costs determined unallowable by the Grants Officer. At the end of the period of performance (or the termination of the award, if applicable), the recipient must refund to DOE the difference between (1) the total payments received from DOE, and (2) the federal share of the costs incurred. Refund obligations under this Term do not supersede the annual reconciliation or true up process if specified under the Indirect Cost Term.

Term 37. Allowable Costs

DOE determines the allowability of costs in accordance with 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910. All project costs must be allowable, allocable, and reasonable. The recipient must document and maintain records of all project costs, including, but not limited to, the costs paid by federal funds, costs claimed by its subrecipients and project costs that the recipient claims as cost sharing, including in-kind contributions. The recipient is responsible for maintaining records adequate to demonstrate that costs claimed have been incurred, are reasonable, allowable, and allocable, and comply with the appropriate cost principles. Upon request, the recipient is required to provide such records to DOE. Such records are subject to audit. Failure to provide DOE adequate supporting documentation may result in a determination by the Grants Officer that those costs are unallowable.

Term 38. Foreign Travel

The recipient is required to obtain the prior written approval of the Grants Officer for any foreign travel costs. Any foreign travel must be necessary to complete a task in Attachment 1, Statement of Project Objectives.



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- To initiate a foreign travel request, submit a foreign work waiver. See Performance of Work in the United States (Foreign Work Waiver) above for details.
- Foreign travel that typically isn't subject to foreign work waivers (e.g., foreign travel to conferences, scholarly workshops, or symposia) still requires a foreign work waiver if the travel is to a foreign country of risk (China, Russia, North Korea, Iran).

All international travel must comply with the International Air Transportation Fair Competitive Practices Act of 1974 (49 USC 40118), commonly referred to as the "Fly America Act," and implementing regulations at 41 CFR 301-10.131 through 301-10.143. The law and regulations require air transport of people or property to, from, between, or within a country other than the United States, the cost of which is supported under this award, to be performed by or under a cost-sharing arrangement with a U.S. flag carrier, if service is available.

Term 39. Indirect Costs

A. Indirect Cost Allocation:

The budget for this award does not include an allocation of segregated indirect billing rates. Therefore, indirect charges shall not be charged under allocated billing rates, nor shall reimbursement be requested for this project for segregated indirect cost billing rates, nor shall any indirect charges for this project be allocated to any other federal-federally sponsored project. The recipient cannot claim indirect costs separately as cost share.

B. Fringe Cost Allocation:

Fringe benefit costs have been allocated to this award under a segregated fringe billing rate. The fringe costs were found to be reasonable, allocable, and allowable as reflected in the budget. Fringe elements apply to both direct and indirect labor. Under a segregated cost pool, the fringe billing rate shall be treated as an indirect cost expenditure and must be reconciled annually.

C. Subrecipient Indirect Costs (If Applicable):

The recipient must ensure its subrecipient's indirect costs are appropriately managed, have been found to be allowable, and comply with the requirements of this award and 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910.

D. Indirect Cost Stipulations:

1. Modification to Indirect Cost Billing Rates

DOE will not modify this award solely to provide additional funds to cover increases in the recipient's indirect cost billing rate(s). Adjustments to the indirect cost billing rates must be approved by the recipient's Cognizant Agency or Cognizant Federal Agency Official.

The recipient must provide a copy of an updated NICRA or indirect rate proposal to the



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DOE Award Administrator to increase indirect cost billing rates. If the Grants Officer provides prior written approval, the recipient may incur an increase in the indirect cost billing rates. Reimbursement will be limited by the budgeted dollar amount for indirect costs for each budget period as shown in Attachment 3 to this award.

2. Award Closeout

The closeout of the DOE award does not affect (1) the right of the DOE to disallow costs and recover funds on the basis of a later audit or other review; (2) the requirement for the recipient to return any funds due as a result of later refunds, corrections or other transactions including final indirect cost billing rate adjustments; and (3) the ability of the DOE to make financial adjustments to a previously closed award resolving indirect cost payments and making final payments.

Term 40. Pre-Award Costs

As stated in the Grants Officer's Pre-Award Costs Letter dated March 23,2017, the recipient is authorized to request reimbursement for costs incurred on or after December 5, 2016, if (1) such costs are allowable in accordance with 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910, (2) such costs are not otherwise restricted by Term titled "National Environmental Policy Act (NEPA) Requirements," and (3) such costs are not otherwise restricted by any other Term. If the recipient elects to undertake activities that are not authorized for federal funding by the Grants Officer in advance of DOE completing the NEPA review, the recipient is doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Grants Officer override these NEPA requirements to obtain the written authorization from the Grants Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives.

Term 41. Use of Program Income

If the Recipient earns program income from Membership dues during the project period as described in Attachment 1 SOPO and the Operational Plan, the Recipient may use this type of program income to meet its cost sharing requirement.

If the Recipient earns program income other than Membership dues during the project period, the Recipient may add the program income to the funds committed to the Award and use it to further eligible project objectives. Per 2 CFR 200.307, "Program Income.", the Recipient is authorized to deduct the costs incidental to the generation of program income from gross income to determine program income. This deduction may be counted as Recipient cost share on the Federal award. Therefore, if registration fees are charged for an Institute event, the Recipient may use the generated registration fees to pay for the costs of that specific event. The expenses for the event may be counted as Recipient cost share, as long as those costs were included in the approved budget and are otherwise allowable. If the Recipient charges its members for Recipient sponsored conference attendance, the members that are considered subrecipients may count the conference fees as cost share. In this instance, the Recipient cannot count those conference fees as cost share. Any residual registration fees will be



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considered Program Income and will be subject to the Addition method described in this paragraph.

Prior to utilizing program income, the Recipient will provide prompt notice to the EERE Project Officer, EERE Technology Manager and the Grants Officer of the specific activities to be supported by the program income in question and how the additional costs are to be incorporated into the Budget. The revised budget will be approved by the Grants Officer in a formal award modification. The additional costs will be reflected in the Recipient cost share, therefore increasing the Total Cost Share and Total Project Costs. The Federal Share of the award will remain unchanged. If the Recipient intends to apply the program income to Institute activities outside the approved Statement of Project Objectives, the Recipient must first request prior approval from the Grants Officer. If the Recipient intends to use program income earned during the project period after the project period has ended, the Recipient must first request prior approval from the Grants Officer. Post-project use is limited to furthering the project objectives, reporting to DOE on post-project activities, and similar activities.

Per 2 CFR 200.1, "Program income includes but is not limited to income from fees for services performed, the use of rental or real or personal property acquired under the Federal awards, the sale of commodities or items fabricated under a Federal award, license fees and royalties on patents and copyrights, and principal and interest on loans made with Federal award funds. Interest earned on advances of Federal funds is not program income. Except as otherwise provided in Federal statutes, regulations, or the terms and conditions of the Federal award, program income does not include rebates, credits, discounts, and interest earned on any of them."

Term 42. Payment Procedures

A. Method of Payment

Payment will be made by reimbursement through ACH.

B. Requesting Reimbursement

Requests for reimbursements must be made electronically through Department of Energy's Oak Ridge Financial Service Center (ORFSC) VIPERS. To access and use VIPERS, the Recipient must enroll at https://vipers.doe.gov. Detailed instructions on how to enroll are provided on the web site.

C. Timing of Submittals

Submittal of the SF-270 or SF-271 should coincide with the Recipient's normal billing pattern, but not more frequently than every two weeks. Requests for reimbursement must be limited to the amount of disbursements made during the billing period for the Federal share of direct project costs and the proportionate share of any allowable indirect costs incurred during that billing period.

D. Adjusting Payment Requests for Available Cash



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The Recipient must disburse any funds that are available from repayments to and interest earned on a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds before requesting additional cash payments from EERE.

E. Payments

The EERE approving official will approve the invoice as soon as practical, but not later than 30 days after the Recipient's request is received, unless the billing is improper. Upon receipt of an invoice payment authorization from the EERE approving official, the ORFSC will disburse payment to the Recipient. The Recipient may check the status of payments at the VIPERS web site. All payments are made by electronic funds transfer to the bank account specified on the Bank Information Form that the Recipient filed with the U.S. Department of Treasury.

F. Supporting Documents for Agency Approval of Payments

For non-construction awards, the Recipient must submit a Standard Form SF-270, "Request for Advance or Reimbursement," at https://vipers.doe.gov and attach a file containing appropriate supporting documentation. The file attachment must show the total Federal share claimed on the SF-270, the non-Federal share claimed for the billing period if cost sharing is required, and cumulative expenditures to date (both Federal and non-Federal) for each of the following categories: personnel; fringe benefits; equipment; travel; supplies; contractual; other direct costs; and indirect costs. For construction awards, the Recipient must submit a SF-271, "Outlay Report and Request for Reimbursement for Construction Programs," through VIPERS.

The following additional items are required:

- 1. Summary cost data, for the billing period and cumulative, showing all categories listed in the SF-424a for the Recipient and any Subrecipient with over \$250,000 total project costs or >25% of total project costs;
- 2. UCC filing proof for all equipment reimbursements to for-profit recipients and subrecipients;
- 3. Explanation of cost share for invoicing period for each cost share provider, including cost category (if applicable) and rationale if the cumulative cost share exceeds or is below award requirements. If the cumulative cost share is below the award required amount, a recovery plan to restore cost share to the required amount must be submitted to the DOE Grants Officer with the invoice;
- 4. The following back up documentation is required for the Recipient and all Subrecipients over \$250,000 total project costs or >25% of total project costs for both Federal and Cost Share costs included in the invoice:
 - Personnel hours report or a listing of all personnel and personnel costs including hours and hourly rate, if applicable;



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- ii. Travel report or listing of all trips including a breakdown of travel costs in each trip, e.g. airfare, rental car, hotel, per diem...etc.;
- iii. Equipment report or a listing of all equipment purchased and invoices/receipts for any Equipment over \$50,000;
- iv. Supplies report or listing of types of supplies included in the supplies total;
- v. Invoices for all Vendors; and
- vi. Other direct costs report or a listing of all other direct costs purchased and invoices/receipts for any cost over \$50,000.
- 5. The following back up documentation is required for all Subrecipients under \$250,000 total project costs or <25% of total project costs:
 - i. A report or listing of all equipment purchased and invoices/receipts for any Equipment over \$50,000.

The EERE payment authorizing official may request additional information from the Recipient to support the payment requests prior to release of funds, as deemed necessary. Recipient is required to comply with these requests. Supporting documents include invoices, copies of contracts, vendor quotes, and other expenditure explanations that justify the reimbursement requests.

G. Unauthorized Drawdown of Federal Funds

For each budget period, the Recipient may not spend more than the Federal share authorized to that particular budget period, without specific written approval from the Grants Officer. The Recipient must immediately refund EERE any amounts spent or drawn down in excess of the authorized amount for a budget period. The Recipient and subrecipients shall promptly, but at least quarterly, remit to DOE interest earned on advances drawn in excess of disbursement needs, and shall comply with the procedure for remitting interest earned to the Federal government per 2 CFR 200.305, as applicable.

Term 43. Budget Changes

A. Budget Changes Generally

The Grants Officer has reviewed and approved the SF-424A in Attachment 3 to this award.

Any increase in the total project cost, whether DOE share or Cost Share, which is stated as "Total" in Block 12 to the Assistance Agreement of this award, must be approved in advance and in writing by the Grants Officer.

Any change that alters the project scope, milestones or deliverables requires prior written approval of the Grants Officer. DOE may deny reimbursement for any failure to comply with the requirements in this term.

B. Transfers of Funds Among Direct Cost Categories

The recipient is required to obtain the prior written approval of the Grants Officer for any transfer of funds among direct cost categories where the cumulative amount of such



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transfers exceeds or is expected to exceed 10 percent of the total project cost, which is stated as "Total" in Block 12 to the Assistance Agreement of this award.

The recipient is required to notify the DOE Technology Manager/Federal Project Manager of any transfer of funds among direct cost categories where the cumulative amount of such transfers is equal to or below 10 percent of the total project cost, which is stated as "Total" in Block 12 to the Assistance Agreement of this award.

C. Transfer of Funds Between Direct and Indirect Cost Categories

The recipient is required to obtain the prior written approval of the Grants Officer for any transfer of funds between direct and indirect cost categories. If the recipient's actual allowable indirect costs are less than those budgeted in Attachment 3 to this award, the recipient may use the difference to pay additional allowable direct costs during the period of performance so long as the total difference is less than 10% of total project costs and the difference is reflected in actual requests for reimbursement to DOE.

Subpart C. Miscellaneous Provisions

Term 44. Environmental, Safety and Health Performance of Work at DOE Facilities

With respect to the performance of any portion of the work under this award which is performed at a DOE-owned or controlled site, the recipient agrees to comply with all State and Federal Environmental, Safety and Health (ES&H) regulations and with all other ES&H requirements of the operator of such site.

Prior to the performance on any work at a DOE-owned or controlled site, the recipient shall contact the site facility manager for information on DOE and site-specific ES&H requirements.

The recipient is required to apply this provision to its subrecipients and contractors.

Term 45. Corporate Felony Conviction and Federal Tax Liability Assurances

This term applies to recipients that are organized as corporations. A corporation includes any entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the United States, but not foreign corporations. It includes both forprofit and non-profit organizations.

By entering into this award, the recipient attests that its corporation has not been convicted of a felony criminal violation under federal law in the 24 months preceding the date of signature.

The recipient further attests that its corporation does not have any unpaid federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.



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Term 46. Insolvency, Bankruptcy or Receivership

The recipient shall immediately, but no later than five days, notify DOE of the occurrence of any of the following events: (1) the recipient or the recipient's parent's filing of a voluntary case seeking liquidation or reorganization under the Bankruptcy Act; (2) the recipient's consent to the institution of an involuntary case under the Bankruptcy Act against the recipient or the recipient's parent; (3) the filing of any similar proceeding for or against the recipient or the recipient's parent, or the recipient's consent to the dissolution, winding-up or readjustment of its debts, appointment of a receiver, conservator, trustee, or other officer with similar powers over the recipient, under any other applicable state or federal law; or (4) the recipient's insolvency due to its inability to pay debts generally as they become due.

Such notification shall be in writing and shall: (1) specifically set out the details of the occurrence of an event referenced in paragraph A; (2) provide the facts surrounding that event; and (3) provide the impact such event will have on the project being funded by this award.

Upon the occurrence of any of the four events described in paragraph A. of this term, DOE reserves the right to conduct a review of the recipient's award to determine the recipient's compliance with the required elements of the award (including such items as cost share, progress towards technical project objectives, and submission of required reports). If the DOE review determines that there are significant deficiencies or concerns with the recipient's performance under the award, DOE reserves the right to impose additional requirements, as needed, including (1) change of payment method; or (2) institute payment controls.

Failure of the recipient to comply with this term may be considered a material noncompliance of this award by the Grants Officer.

Term 47. Reporting Subawards and Executive Compensation

A. Reporting of first-tier subawards

1. Applicability.

Unless the recipient is exempt as provided in paragraph D. of this award term, the recipient must report each subaward that equals or exceeds \$30,000 in federal funds for a subaward to an entity or federal agency. The recipient must also report a subaward if a modification increases the federal funding to an amount that equals or exceeds \$30,000. All reported subawards should reflect the total amount of the subaward.

2. Reporting Requirements.

i. The recipient must report each subaward described in paragraph A.1. of this award term to the Federal Funding Accountability and Transparency Act Subaward Reporting System (FSRS) at https://www.fsrs.gov.



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ii. For subaward information, report no later than the end of the month following the month in which the subaward was issued. (For example, if the subaward was made on November 7, 2025, the subaward must be reported no later than December 31, 2025.)

B. Reporting Total Compensation of recipient Executives for Entities

1. Applicability.

The recipient must report the total compensation for each of the recipient's five most highly compensated executives for the preceding completed fiscal year if:

- The total federal funding authorized to date under this award equals or exceeds \$30,000;
- ii. In the preceding fiscal year, the recipient received;
 - a. 80 percent or more of the recipient's annual gross revenues from federal procurement contracts (and subcontracts) and federal awards (and subawards) subject to the Transparency Act; and
 - b. \$25,000,000 or more in annual gross revenues from federal procurement contracts (and subcontracts) and federal awards (and subawards) subject to the Transparency Act; and
- iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986 after receiving this subaward. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at https://www.sec.gov/answers/execomp.htm).

2. Reporting Requirements.

The recipient must report executive total compensation described in paragraph B.1. of this award term:

- i. As part of the recipient's registration profile at https://www.sam.gov.
- ii. No later than the month following the month in which this federal award is made, and annually after that. (For example, if this federal award was made on November 7, 2025, the executive total compensation must be reported by no later than December 31, 2025.)

C. Reporting of Total Compensation of Subrecipient Executives

1. Applicability.



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Unless a first-tier subrecipient is exempt as provided in paragraph D. of this award term, the recipient must report the executive total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year if:

- The total federal funding authorized to date under the subaward equals or exceeds \$30,000;
- ii. In the subrecipient's preceding fiscal year, the subrecipient received:
 - a. 80 percent or more of its annual gross revenues from federal procurement contracts (and subcontracts) and federal awards (and subawards) subject to the Transparency Act; and
 - \$25,000,000 or more in annual gross revenues from federal procurement contracts (and subcontracts), and federal awards (and subawards) subject to the Transparency Act; and
- iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986 after receiving this subaward. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at https://www.sec.gov/answers/execomp.htm).

2. Reporting Requirements.

Subrecipients must report to the recipient their executive total compensation described in paragraph C.1. of this award term. The recipient is required to submit this information to the Federal Funding Accountability and Transparency Act Subaward Reporting System (FSRS) at http://www.fsrs.gov no later than the end of the month following the month in which the subaward was made. (For example, if the subaward was made on November 7, 2025, the subaward must be reported by no later than December 31, 2025).

D. Exemptions

A recipient with gross income under \$300,000 in the previous tax year is exempt from the requirements to report:

- 1. Subawards; and
- 2. The total compensation of the five most highly compensated executives of any subrecipient.

E. Definitions

For purposes of this award term:

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1. *Entity* includes:

- i. Whether for profit or non-profit:
 - a. A corporation;
 - b. An association;
 - c. A partnership;
 - d. A limited liability company;
 - e. A limited liability partnership;
 - f. A sole proprietorship
 - g. Any other legal business entity;
 - h. Another grantee or contractor that is not excluded by subparagraph 2; and
 - i. Any State or locality.
- ii. Does not include:
 - a. An individual recipient of federal financial assistance; or
 - b. A federal employee.
- 2. Executive means an officer, managing partner, or any other employee holding a management position.
- 3. Subaward has the meaning given in 2 CFR 200.1.
- 4. Subrecipient has the meaning given in 2 CFR 200.1.
- 5. Total compensation means the cash and noncash dollar value an executive earns during an entity's preceding fiscal year. This includes all items of compensation as prescribed in 17 CFR 229.402(c)(2).

Term 48. System for Award Management and Universal Identifier Requirements

A. Requirement for System for Award Management (SAM.gov)

Unless exempt from this requirement under 2 CFR 25.110, the recipient must maintain a current and active registration in SAM.gov. The recipient's registration must always be current and active until the recipient submits all final reports required under this federal award or receives the final payment, whichever is later. The recipient must review and update its information in SAM.gov at least annually from the date of its initial registration or any subsequent updates to ensure it is current, accurate, and complete. If applicable, this includes identifying the recipient's immediate and highest-level owner and subsidiaries and providing information about the recipient's predecessors that have received a federal award or contract within the last three years.

B. Requirements for Unique Entity Identifier (UEI)

If the recipient is authorized to make subawards under this award, the recipient:



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- 1. Must notify potential subrecipients that no entity may receive a subaward until the entity has provided its UEI to the recipient.
- 2. May not make a subaward to an entity unless the entity has provided its UEI number to the recipient. Subrecipients are not required to complete full registration in SAM.gov to obtain a UEI.

C. Definitions

For purposes of this award term:

- System for Award Management (SAM.gov) means the federal repository into which a
 recipient must provide the information required for the conduct of business as a
 recipient. Additional information about registration procedures may be found in
 SAM.gov (currently at https://www.sam.gov).
- 2. Unique Entity Identifier (UEI) means the universal identifier assigned by SAM.gov to uniquely identify an entity.
- 3. Entity is defined at 2 CFR Part 25.400 and includes all of the following types as define in 2 CFR 200.1:
 - iii. Non-federal entity;
 - iv. Foreign organization;
 - v. Foreign public entity;
 - vi. Domestic for-profit organization; and
 - vii. Federal agency.
- 4. Subaward has the meaning given in 2 CFR 200.1.
- 5. Subrecipient has the meaning given in 2 CFR 200.1.

Term 49. Nondisclosure and Confidentiality Agreements Assurances

- **A.** By entering into this agreement, the recipient attests that it **does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contractors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.
- **B.** The recipient further attests that it **does not and will not** use any federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
 - 1. "These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or



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- mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling."
- 2. The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a federal department or agency governing the nondisclosure of classified information.
- 3. Notwithstanding provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

Term 50. National Security: Classifiable Results Originating Under an Award

- A. This award is intended for unclassified, publicly releasable research. The recipient will not be granted access to classified information. DOE does not expect that the results of the research project will involve classified information. Under certain circumstances, however, a classification review of information originated under the award may be required. DOE may review research work generated under this award at any time to determine if it requires classification.
- **B.** Executive Order 12958 (60 Fed. Reg. 19,825 (1995)) states that basic scientific research information not clearly related to the national security shall not be classified. Nevertheless, some information concerning (among other things) scientific, technological, or economic matters relating to national security or cryptology may require classification. If the recipient originates information during the course of this award that the recipient believes requires classification, the recipient must promptly:
 - Notify the DOE Technology Manager/Federal Project Manager and the DOE Award Administrator.
 - 2. Submit the information by registered mail directly to the Director, Office of Classification and Information Control, SO-10.2; U.S. Department of Energy; P.O. Box A; Germantown, MD 20875-0963, for classification review.
 - Restrict access to the information to the maximum extent possible until the recipient is informed that the information is not classified, but no longer than 30 days after receipt by the Director, Office of Classification and Information Control.



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- **C.** If the recipient originates information concerning the production or utilization of special nuclear material (*i.e.*, plutonium, uranium enriched in the isotope 233 or 235, and any other material so determined under section 51 of the Atomic Energy Act) or nuclear energy, the recipient must:
 - Notify the DOE Technology Manager/Federal Project Manager and the DOE Award Administrator.
 - 2. Submit the information by registered mail directly to the Director, Office of Classification and Information Control, SO-10.2; U.S. Department of Energy; P. O. Box A; Germantown, MD 20875-0963 for classification review within 180 days of the date the recipient first discovers or first has reason to believe that the information is useful in such production or utilization.
 - 3. Restrict access to the information to the maximum extent possible until the recipient is informed that the information is not classified, but no longer than 90 days after receipt by the Director, Office of Classification and Information Control.
- **D.** If DOE determines any of the information requires classification, the recipient agrees that the Government may terminate the award with consent of the recipient in accordance with 2 CFR 200.339(a)(3). All material deemed to be classified must be forwarded to DOE, in a manner specified by DOE.
- **E.** If DOE does not respond within the specified time periods, the recipient is under no further obligation to restrict access to the information.

Term 51. Subrecipient and Contractor Cost Approvals

- **A.** At Risk Notice. The Recipient must obtain written approval by the Grants Officer for reimbursement of costs associated with subrecipients/activities/contractors listed in paragraph B. below. The recipient is restricted from expending project funds (i.e., federal share and recipient share) on the subrecipients' and/or contractors' supporting the tasks identified in paragraph B. below unless and until the Grants Officer provides written approval. At its discretion, DOE may not reimburse costs incurred prior to the date of any such written approval by the Grants Officer.
- **B.** Grants Officer approval as set out above is required for the following:

Task # Activity and Subrecipients / Vendor Total Amount (\$)
Supplemental Funding for project demonstration \$2,393,704

The Grants Officer may require additional information concerning these tasks prior to providing written approval.



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C. Upon written approval by the Grants Officer, the Recipient may then receive payment for the tasks identified in paragraph B. above for allowable costs incurred, or EERE will recognize costs incurred toward cost share requirements, if any, in accordance with the payment provisions contained in the Special Terms and Conditions of this agreement.

Term 52. Subrecipient Change Notification

Except for subrecipients specifically proposed as part of the recipient's Application for award, the recipient must notify the Grants Officer and Federal Project Manager in writing 30 days prior to the execution of new or modified subrecipient agreements, including naming any To Be Determined subrecipients. This notification does not constitute a waiver of the prior approval requirements outlined in 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910, nor does it relieve the recipient from its obligation to comply with applicable federal statutes, regulations, and executive orders.

In order to satisfy this notification requirement, the recipient documentation must, at a minimum, include the following:

- 1. A description of the research to be performed, the service to be provided, or the equipment to be purchased;
- 2. Cost share commitment letter if the subrecipient is providing cost share to the award;
- 3. An assurance that the process undertaken by the recipient to solicit the subrecipient complies with their written procurement procedures as outlined in 2 CFR 200.317 through 200.327;
- 4. An assurance that no planned, actual or apparent conflict of interest exists between the recipient and the selected subrecipient and that the recipient's written standards of conduct were followed;¹
- 5. A completed Environmental Questionnaire, if applicable;
- A completed Transparency of Foreign Connections disclosure, if applicable, which includes the information as required in the NOFO that the award was selected under;
- 7. An assurance that the subrecipient is not a debarred or suspended entity;
- 8. An assurance that all required award provisions will be flowed down in the resulting subrecipient agreement.

The recipient is responsible for making a final determination to award or modify subrecipient agreements under this agreement, but the recipient may not proceed with the subrecipient

¹ It is DOE's position that the existence of a "covered relationship" as defined in 5 CFR 2635.502(a)&(b) between a member of the recipient's owners or senior management and a member of a subrecipient's owners or senior management creates at a minimum an apparent conflict of interest that would require the recipient to notify the Grants Officer and provide detailed information and justification (including, for example, mitigation measures) as to why the subrecipient agreement does not create an actual conflict of interest. The recipient must also notify the Grants Officer of any new subrecipient agreement with: (1) an entity that is owned or otherwise controlled by the recipient; or (2) an entity that is owned or otherwise controlled by another entity that also owns or otherwise controls the recipient, as it is DOE's position that these situations also create at a minimum an apparent conflict of interest.



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agreement until the Grants Officer determines, and provides the recipient written notification, that the information provided is adequate.

Should the recipient not receive a written notification of adequacy from the Grants Officer within 30 days of the submission of the subrecipient documentation stipulated above, the recipient may proceed to award or modify the proposed subrecipient agreement.

Term 53. Conference Spending

The recipient shall not expend any funds on a conference not directly and programmatically related to the purpose for which the grant or cooperative agreement was awarded that would defray the cost to the United States Government of a conference held by any Executive branch department, agency, board, commission, or office for which the cost to the United States Government would otherwise exceed \$20,000, thereby circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General), of the date, location, and number of employees attending such conference.

Term 54. Reporting of Matters Related to recipient Integrity and Performance

A. General Reporting Requirement

If the total value of your active grants, cooperative agreements, and procurement contracts from all federal agencies exceeds \$10,000,000 for any period of time during the period of performance of this federal award, then you as the recipient must ensure the information available in the responsibility/qualification records through the System for Award Management (SAM.gov) about civil, criminal, or administrative proceedings described in paragraph B of this award term is current and complete. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in responsibility/qualification records in SAM.gov on or after April 15, 2011, (except past performance reviews required for federal procurement contracts) will be publicly available.

B. Proceedings About Which You Must Report

You must submit the required information about each proceeding that:

- 1. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the federal government;
- 2. Reached its final disposition during the most recent five-year period; and
- 3. Is one of the following:
 - i. A criminal proceeding that resulted in a conviction, as defined in paragraph E of this award term and condition;
 - ii. A civil proceeding that resulted in a finding of fault and liability and payment of a



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monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more;

- iii. An administrative proceeding that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of \$5,000 or more or reimbursement, restitution, or damages in excess of \$100,000; or
- iv. Any other criminal, civil, or administrative proceeding if:
 - a. It could have led to an outcome described in paragraph B.3.i, ii, or iii;
 - b. It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
 - c. The requirement in this award term to disclose information about the proceeding does not conflict with applicable laws and regulations.

C. Reporting Procedures

Enter the required information in SAM.gov for each proceeding described in paragraph B of this award term. You do not need to submit the information a second time under grants and cooperative agreements that you received if you already provided the information in SAM.gov because you were required to do so under federal procurement contracts that you were awarded.

D. Reporting Frequency

During any period of time when you are subject to the requirement in paragraph A of this award term, you must report proceedings information in SAM.gov for the most recent five-year period, either to report new information about a proceeding that you have not reported previously or affirm that there is no new information to report. If you have federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000, you must disclose semiannually any information about the criminal, civil, and administrative proceedings.

E. Definitions

For purposes of this term:

- Administrative proceeding means a non-judicial process that is adjudicatory in nature to
 make a determination of fault or liability (for example, Securities and Exchange
 Commission Administrative proceedings, Civilian Board of Contract Appeals
 proceedings, and Armed Services Board of Contract Appeals proceedings). This includes
 proceedings at the federal and state level but only in connection with the performance
 of a federal contract or grant. It does not include audits, site visits, corrective plans, or
 inspection of deliverables.
- Conviction means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.



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3. *Total value* of currently active grants, cooperative agreements, and procurement contracts includes the value of the federal share already received plus any anticipated federal share under those awards (such as continuation funding.

Term 55. Export Control

The United States government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the United States to protect national security, foreign policy, and economic interests without imposing undue regulatory burdens on legitimate international trade. There is a network of federal agencies and regulations that govern exports that are collectively referred to as "Export Controls." All recipients and subrecipients are responsible for ensuring compliance with all applicable United States Export Control laws and regulations relating to any work performed under a resulting award.

The recipient must immediately report to DOE any export control investigations, indictments, charges, convictions, and violations upon occurrence, at the recipient or subrecipient level, and provide the corrective action(s) to prevent future violations.

Term 56. Current and Pending Support

A. Definitions

For purposes of this term, the following definitions are applicable:

- Current and pending support
 - i. All resources made available, or expected to be made available, to an individual in support of the individual's RD&D efforts, regardless of:
 - a. whether the source is foreign or domestic;
 - b. whether the resource is made available through the entity applying for an award or directly to the individual; or
 - c. whether the resource has monetary value; and
 - ii. Includes in-kind contributions requiring a commitment of time and directly supporting the individual's RD&D efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students. This term has the same meaning as the term Other Support as applied to researchers in NSPM-33: For researchers, Other Support includes all resources made available to a researcher in support of and/or related to all of their professional RD&D efforts, including resources provided directly to the individual or through the organization, and regardless of whether or not they have monetary value (e.g., even if the support received is only in-kind, such as office/laboratory space, equipment, supplies, or employees). This includes resource and/or financial support from all foreign and domestic entities, including but not limited to, gifts provided with terms or



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conditions, financial support for laboratory personnel, and participation of student and visiting researchers supported by other sources of funding.

- Malign Foreign Talent Recruitment Program as defined in P.L. 117-167, Section 106384(4) –
 - i. Any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual
 - a. engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a federal research and development award to the government of a foreign country, or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
 - b. being required to recruit trainees or researchers to enroll in such program, position, or activity;
 - establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;
 - d. being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
 - e. through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;
 - being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
 - g. being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the federal research and development award;



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- being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or
- i. having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

ii. A program that is sponsored by—

- a. a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
- an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or
- c. a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).
- iii. Consistent with applicable law, this provision does not prohibit, unless such activities are funded, organized, or managed by an academic institution or a foreign talent recruitment program on the lists developed under paragraphs (8) and (9) of section 1286(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115–232)
 - a. making scholarly presentations and publishing written materials regarding scientific information not otherwise controlled under current law;
 - b. participation in international conferences or other international exchanges, research projects or programs that involve open and reciprocal exchange of scientific information, and which are aimed at advancing international scientific understanding and not otherwise controlled under current law;
 - c. advising a foreign student enrolled at an institution of higher education or writing a recommendation for such a student, at such student's request; and
 - d. other international activities determined appropriate by the federal research agency head or designee.

3. Covered Individual:

Covered Individual means an individual who (i) contributes in a substantive, meaningful way to the development or execution of the scope of work of a project funded by DOE, and (ii) is designated as a covered individual by DOE.

DOE designates as covered individuals any principal investigator (PI); project director (PD); co-principal investigator (Co-PI); co-project director (Co-PD); project manager; and any individual regardless of title that is functionally performing as a PI, PD, Co-PI, Co-PD, or project manager. Status as a consultant, graduate (master's or PhD) student, or



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postdoctoral associate does not automatically disqualify a person from being designated as a "covered individual" if they meet the definition in (i) above.

The recipient is responsible for assessing the applicability of (i) against each person listed on the project (i.e., listed by the recipient in the application for federal financial assistance, approved budget, progress report, or any other report submitted to DOE by the recipient regarding the subject project). Further, the recipient is responsible for identifying any such individual to DOE for designation as a covered individual, if not already designated by DOE as described above.

The recipient's submission of a current and pending support disclosure and/or biosketch/resume for a particular person serves as an acknowledgement that DOE designates that person as a covered individual.

DOE may further designate covered individuals during the award period of performance.

B. Disclosure Requirements

New Covered Individuals:

Prior to starting work on the project, new covered individuals must submit a current and pending support disclosure and biosketch/resume and must receive approval from DOE. R&D covered individuals are encouraged to comply with the Digital Persistent Identifier (PID) and Research Security Training Requirements Terms. The PID and Research Training will be required for all R&D covered individuals on May 1, 2025

Existing Covered Individuals:

Submit an updated current and pending support disclosure within thirty (30) calendar days after the end of the quarterly reporting period in which the change occurred.

Information Required for Each Activity		
Sponsor of the Activity	The sponsor of the activity or the source of funding.	
Award Number	The federal award number or any other identifying number.	
Award Title	The title of the award or activity. If the title of the award or activity is not descriptive, add a brief description of the research being performed that would identify any overlaps or synergies with the proposed research	
Total Cost or Value	The total cost or value of the award or activity, including direct and indirect costs and cost share. For pending proposals, provide the total amount of requested funding	
Award Period	The "Start Date" through "End Date".	
Person-months	The person-months of effort per year dedicated to the award or activity.	





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Description	To identify overlap, duplication of effort, or synergistic efforts, append a description of the other award or activity to the current and pending support.
Details	Details of any obligations, contractual or otherwise, to any program, entity, or organization sponsored by a foreign government must be provided to DOE upon request to either the applicant institution or DOE. Supporting112 documents of any identified source of support must be provided to DOE on request, including certified translations of any document.
Digital Persistent Identifier (e.g., ORCID ID)	Providing an ORCID iD is optional until May 2025, and required thereafter.
Certification Statement	All covered individuals must provide a separate disclosure statement listing the required information above regarding current and pending support. Each individual must sign and date their respective certification statement: I, [Full Name and Title], understand that I have been designated as a covered individual by the federal funding agency.
	I certify to the best of my knowledge and belief that the information contained in this Current and Pending Support Disclosure Statement is true, complete, and accurate. I understand that any false, fictitious, or fraudulent information, misrepresentations, half-truths, or omissions of any material fact, may subject me to criminal, civil, or administrative penalties for fraud, false statements, false claims, or otherwise. (18 U.S.C. §§ 1001 and 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812). I further understand and agree that (1) the statements and representations made herein are material to DOE's funding decision, and (2) I have a responsibility to update the disclosures during the period of performance of the award should circumstances change which impact the responses provided above.
	I also certify that, at the time of submission, I am not a party in a malign foreign talent recruitment program. The following certification is optional until May 1, 2025, and mandatory thereafter for R&D projects: I further certify that within the past 12 months I have completed
	one of the following: (1) research security training meeting the guidelines in SEC. 10634(b) of 42 USC 19234, or (2) all of the NSF



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	training modules located https://new.nsf.gov/research-security/training .
Foreign	Details of any obligations, contractual or otherwise, to any program, entity, or
Government	organization sponsored by a foreign government must be provided on
Sponsorship	request to either the applicant institution or DOE. Supporting documents of
	any identified source of support must be provided to DOE on request,
	including certified translations of any document.

The information may be provided in the common disclosure format available at <u>Common Form for Current and Pending (Other) Support (nsf.gov)</u> to be implemented by DOE. Regardless of the format used, the individual must still include a signature, date, and a certification statement using the language included in the paragraph above.

Term 57. Interim Conflict of Interest Policy for Financial Assistance

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy) can be found at https://www.energy.gov/management/department-energy-interim-conflict-interest-policy-requirements-financial-assistance. This policy is applicable to all recipients applying for, or that receive, DOE funding by means of a financial assistance award (e.g., a grant, cooperative agreement, technology investment agreement, or other transaction authority) and, through the implementation of this policy by the recipient, to each Investigator who is planning to participate in, or is participating in, the project funded wholly or in part under this award. The term "Investigator" means the PI and any other person, regardless of title or position, who is responsible for the purpose, design, conduct, or reporting of a project funded by DOE or proposed for funding by DOE.

The recipient must flow down the requirements of the interim COI Policy to any subrecipient, with the exception of DOE National Laboratories. Further, the recipient must identify all financial conflicts of interests (FCOI), i.e., managed and unmanaged/unmanageable, in its initial and ongoing FCOI reports.

Prior to award, the recipient was required to: 1) ensure all Investigators on this award completed their significant financial disclosures; 2) review the disclosures; 3) determine whether a FCOI exists; 4) develop and implement a management plan for FCOIs; and 5) provide DOE with an initial FCOI report that includes all FCOIs (i.e., managed and unmanaged/unmanageable). Within 180 days of the date of the award, the recipient must be in full compliance with the other requirements set forth in DOE's interim COI Policy.

Term 58. Organizational Conflict of Interest

Organizational conflicts of interest are those where, because of relationships with a parent company, affiliate, or subsidiary organization, the recipient is unable or appears to be unable to be impartial in conducting procurement action involving a related organization (2 CFR 200.318(c)(2)).



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The recipient must disclose in writing any potential or actual organizational conflict of interest to the DOE Grants Officer. The recipient must provide the disclosure prior to engaging in a procurement or transaction using project funds with a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe. For a list of the information that must be included the disclosure, see Section VI. of the DOE interim Conflict of Interest Policy for Financial Assistance at https://www.energy.gov/management/department-energy-interim-conflict-interest-policy-requirements-financial-assistance.

If the effects of the potential or actual organizational conflict of interest cannot be avoided, neutralized, or mitigated, the recipient must procure goods and services from other sources when using project funds. Otherwise, DOE may terminate the award in accordance with 2 CFR 200.340 unless continued performance is determined to be in the best interest of the federal government.

The recipient must flow down the requirements of the interim COI Policy to any subrecipient, with the exception of DOE National Laboratories, if applicable. The recipient is responsible for ensuring subrecipient compliance with this term.

If the recipient has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, the recipient must maintain written standards of conduct covering organizational conflicts of interest.

Term 59. Prohibition on Certain Telecommunications and Video Surveillance Equipment or Services

As set forth in 2 CFR 200.216, recipients and subrecipients are prohibited from obligating or expending project funds (federal and non-federal funds) to:

- 1. Procure or obtain covered telecommunications equipment or services;
- 2. Extend or renew a contract to procure or obtain covered telecommunications equipment or services; or
- 3. Enter into a contract (or extend or renew a contract) to procure or obtain covered telecommunications equipment or services.

As described in section 889 of Public Law 115-232, "covered telecommunications equipment or services" means any of the following:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);



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- 3. Telecommunications or video surveillance services provided by such entities or using such equipment;
- 4. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

For the purposes of this section, "covered telecommunications equipment or services" also include systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

In implementing the prohibition under section 889 of Public Law 115-232, heads of executive agencies administering loan, grant, or subsidy programs must prioritize available funding and technical support to assist affected businesses, institutions, and organizations as is reasonably necessary for those affected entities to transition from covered telecommunications equipment or services, to procure replacement equipment or services, and to ensure that communications service to users and customers is sustained.

When the recipient or subrecipient accepts a loan or grant, it is certifying that it will comply with the prohibition on covered telecommunications equipment and services in this section. The recipient or subrecipient is not required to certify that funds will not be expended on covered telecommunications equipment or services beyond the certification provided upon accepting the loan or grant and those provided upon submitting payment requests and financial reports.

For additional information, see section 889 of Public Law 115-232 and § 200.471.

Term 60. Human Subjects Research

Research involving human subjects, biospecimens, or identifiable private information conducted with Department of Energy (DOE) funding is subject to the requirements of DOE Order 443.1C, Protection of Human Research Subjects, 45 CFR Part 46, Protection of Human Subjects (subpart A which is referred to as the "Common Rule"), and 10 CFR Part 745, Protection of Human Subjects.

Federal regulation and the DOE Order require review by an Institutional Review Board (IRB) of all proposed human subjects research projects. The IRB is an interdisciplinary ethics board responsible for ensuring that the proposed research is sound and justifies the use of human subjects or their data; the potential risks to human subjects have been minimized; participation is voluntary; and clear and accurate information about the study, the benefits and risks of participating, and how individuals' data/specimens will be protected/used, is provided to potential participants for their use in determining whether or not to participate.



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The recipient shall provide the Federal Wide Assurance number identified in item 1 below and the certification identified in item 2 below to DOE <u>prior to</u> initiation of any project that will involve interactions with humans in some way (e.g., through surveys); analysis of their identifiable data (e.g., demographic data and energy use over time); asking individuals to test devices, products, or materials developed through research; and/or testing of commercially available devices in buildings/homes in which humans will be present. *Note:* This list of examples is illustrative and not all inclusive.

No DOE funded research activity involving human subjects, biospecimens, or identifiable private information shall be conducted without:

- A registration and a Federal Wide Assurance of compliance accepted by the Office of Human Research Protection (OHRP) in the Department of Health and Human Services; and
- 2) Certification that the research has been reviewed and approved by an Institutional Review Board (IRB) provided for in the assurance. IRB review may be accomplished by the awardee's institutional IRB; by the Central DOE IRB; or if collaborating with one of the DOE national laboratories, by the DOE national laboratory IRB.

The recipient is responsible for ensuring all subrecipients comply and for reporting information on the project annually to the DOE Human Subjects Research Database (HSRD) at https://science.osti.gov/HumanSubjects/Human-Subjects-Database/home. Note: If a DOE IRB is used, no end of year reporting will be needed.

Additional information on the DOE Human Subjects Research Program can be found at: https://science.osti.gov/ber/human-subjects.

Term 61. Fraud, Waste and Abuse

The mission of the DOE Office of Inspector General (OIG) is to strengthen the integrity, economy and efficiency of DOE's programs and operations including deterring and detecting fraud, waste, abuse, and mismanagement. The OIG accomplishes this mission primarily through investigations, audits, and inspections of Department of Energy activities to include grants, cooperative agreements, loans, and contracts. The OIG maintains a Hotline for reporting allegations of fraud, waste, abuse, or mismanagement. To report such allegations, please visit https://www.energy.gov/ig/ig-hotline.

Additionally, the recipient must be cognizant of the requirements of 2 CFR 200.113 Mandatory disclosures, which states:

An applicant, recipient, or subrecipient of a federal award must promptly disclose whenever, in connection with the federal award (including any activities or subawards thereunder), it has credible evidence of the commission of a violation of federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the



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United States Code or a violation of the civil False Claims Act (31 U.S.C. 3729–3733). The disclosure must be made in writing to the federal agency, the agency's Office of Inspector General, and pass-through entity (if applicable). recipients and subrecipients are also required to report matters related to recipient integrity and performance in accordance with Appendix XII of this part. Failure to make required disclosures can result in any of the remedies described in § 200.339. (See also 2 CFR part 180, 31 U.S.C. 3321, and 41 U.S.C. 2313.)

Term 62. Trafficking in Persons

A. Provisions applicable to a recipient that is a private entity:

- 1. Under this award, the recipient, its employees, subrecipients under this award, and subrecipient's employees must not engage in:
 - i. Severe forms of trafficking in persons;
 - ii. The procurement of a commercial sex act during the period of time that this award or any subaward is in effect;
 - iii. The use of forced labor in the performance of this award or any subaward; or
 - iv. Acts that directly support or advance trafficking in persons, including the following acts:
 - a. Destroying, concealing, removing, confiscating, or otherwise denying an employee access to that employee's identity or immigration documents;
 - b. Failing to provide return transportation or pay for return transportation costs to an employee from a country outside the United States to the country from which the employee was recruited upon the end of employment if requested by the employee, unless:
 - 1) Exempted from the requirement to provide or pay for such return transportation by the federal department or agency providing or entering into the grant or cooperative agreement; or
 - 2) The employee is a victim of human trafficking seeking victim services or legal redress in the country of employment or a witness in a human trafficking enforcement action.
 - Soliciting a person for the purpose of employment, or offering employment, by means materially false or fraudulent pretenses, representations, or promises regarding that employment;
 - d. Charging recruited employees a placement recruitment fee;
 - e. Providing or arranging housing that fails to meet the host country's housing and safety standards.



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- 2. The federal agency may unilaterally terminate this award or take any remedial actions authorized by 22 U.S.C. 7104b(c), without penalty, if any private entity under this award:
 - i. Is determined to have violated a prohibition in paragraph A.1 of this award term; or
 - ii. Has an employee that is determined to have violated a prohibition in paragraph A.1 of this award term through conduct that is either:
 - a. Associated with the performance under this award; or
 - b. Imputed to the recipient or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)."

B. Provision applicable to a recipient other than a private entity.

The federal agency may unilaterally terminate this award or take any remedial action authorized by 22 U.S.C. 7104b(c), without penalty, if a subrecipient that is a private entity under this award:

- 1. Is determined to have violated a prohibition in paragraph A.1; or
- 2. Has an employee that is determined to have violated a prohibition in paragraph A.1 through conduct that is either:
 - i. Associated with the performance under this award; or
 - ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)."

C. Provisions applicable to any recipient.

- 1. The recipient must inform the federal agency and the Inspector General of the federal agency immediately of any information the recipient receives from any source alleging a violation of a prohibition in paragraph A.1 of this award term.
- 2. The federal agency's right to unilaterally terminate this award as described in paragraphs A.2 or B of this award term:
 - i. Implements the requirements of 22 U.S.C. 78; and
 - ii. Is in addition to all other remedies for noncompliance that are available to the federal agency under this award.
- 3. The recipient must include the requirements of paragraph A.1 of this award term in any subaward it makes to a private entity.
- 4. If applicable, the recipient must also comply with the compliance plan and certification requirements in 2 CFR 175.105(b).



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D. Definitions.

For purposes of this award term:

1. Employee means either:

- i. An individual employed by the recipient or a subrecipient who is engaged in the performance of the project or program under this award; or
- ii. Another person engaged in the performance of this project or program under this award and not compensated by the recipient including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing requirements.
- 2. *Private Entity* means any entity, including for-profit organizations, nonprofit organizations, institutions of higher education, and hospitals. The term does not include foreign public entities, Indian Tribes, local governments, or states as defined in 2 CFR 200.1.
- 3. The terms "severe forms of trafficking in persons," "commercial sex act," "sex trafficking," "Abuse or threatened abuse of law or legal process," "coercion," "debt bondage," and "involuntary servitude," have the meanings given at Section 103 of the TVPA, as amended (22 U.S.C. 7102).

Term 63. Prohibition related to Malign Foreign Talent Recruitment Programs

A. Prohibition

As required by law.², covered individuals participating in a *Malign Foreign Talent Recruitment Program* are prohibited from participating in this award.

The recipient must exercise ongoing due diligence to reasonably ensure that no such covered individuals participating on the DOE-funded project are participating in a *Malign Foreign Talent Recruitment Program*. Consequences for violations of this prohibition will be determined according to applicable law, regulations, and policy. Further, the recipient must notify DOE within five (5) business days upon learning that an owner of the recipient or subrecipient or individual on the project team is or is believed to be participating in a *Malign Foreign Talent Recruitment Program*. DOE may modify and add requirements related to this prohibition to the extent required by law.

Covered Individuals and the recipient must provide certifications regarding no participation in Malign Foreign Talent Recruitment Programs (see the Current and Pending Support section and Transparency of Foreign Connections section).

² See sections 10631-10632 of <u>P.L. 117-167</u> (42 USC 19231-19232); <u>OSTP-Foreign-Talent-Recruitment-Program-Guidelines.pdf</u> (whitehouse.gov).



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B. Non-Discrimination

DOE will ensure that the Malign Foreign Talent Recruitment Program Prohibition is carried out in a manner that does not target, stigmatize, or discriminate against individuals on the basis of race, ethnicity, or national origin, consistent with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.).

C. Definitions – Malign Foreign Talent Recruitment Program has the definition included in section 10638(4) of P.L. 117-167.

- any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual
 - i. engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a federal research and development award to the government of a foreign country, or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
 - ii. being required to recruit trainees or researchers to enroll in such program, position, or activity;
 - iii. establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;
 - iv. being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
 - through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;
 - vi. being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
 - vii. being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the federal research and development award;



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- viii. being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or
- ix. having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

2. A program that is sponsored by—

- i. a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
- ii. an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or
- iii. a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).
- 3. Consistent with applicable law, this provision does not prohibit, unless such activities are funded, organized, or managed by an academic institution or a foreign talent recruitment program on the lists developed under paragraphs (8) and (9) of section 1286(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115–232)
 - i. making scholarly presentations and publishing written materials regarding scientific information not otherwise controlled under current law;
 - participation in international conferences or other international exchanges, research projects or programs that involve open and reciprocal exchange of scientific information, and which are aimed at advancing international scientific understanding and not otherwise controlled under current law;
 - iii. advising a foreign student enrolled at an institution of higher education or writing a recommendation for such a student, at such student's request; and
 - iv. other international activities determined appropriate by the federal research agency head or designee.

Term 64. Affirmative Action and Pay Transparency Requirements

All federally assisted construction contracts exceeding \$10,000 annually will be subject to the requirements of Executive Order 11246:

- 1. Recipients, subrecipients, and contractors are prohibited from discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identity or national origin.
- 2. Recipients and Contractors are required to take affirmative action to ensure that equal opportunity is provided in all aspects of their employment. This includes flowing down the appropriate language to all subrecipients, contractors and subcontractors.



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3. Recipients, subrecipients, contractors and subcontractors are prohibited from taking adverse employment actions against applicants and employees for asking about, discussing, or sharing information about their pay or, under certain circumstances, the pay of their co-workers.

The Department of Labor's (DOL) Office of federal Contractor Compliance Programs (OFCCP) uses a neutral process to schedule contractors for compliance evaluations. OFCCP's Technical Assistance Guide should be consulted to gain an understanding of the requirements and possible actions the recipients, subrecipients, contractors, and subcontractors must take. See OFCCP's Technical Assistance Guide at:

https://www.dol.gov/sites/dolgov/files/ofccp/Construction/files/ConstructionTAG.pdf?msclkid =9e397d68c4b111ec9d8e6fecb6c710ec.

Term 65. Potentially Duplicative Funding Notice

If the recipient or subrecipients have or receive any other award of federal funds for activities that potentially overlap with the activities funded under this award, the recipient must promptly notify DOE in writing of the potential overlap and state whether project funds (i.e., recipient cost share and federal funds) from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items under this award. If there are identical cost items, the recipient must promptly notify the DOE Grants Officer in writing of the potential duplication and eliminate any inappropriate duplication of funding.

Term 66. Transparency of Foreign Connections

The recipient must notify the DOE Grants Officer within fifteen (15) business days of learning of the circumstances listed below in relation to the recipient and subrecipients.

Disclosure exceptions by entity type:

- U.S. National Laboratories and domestic government entities are not required to respond to the Transparency of Foreign Connections disclosure.
- Institutions of higher education are only required to report on items 5 and 7.

For subrecipient reporting requirements, applicability is determined by the subrecipient entity type, regardless of whether the prime recipient was exempt.

Disclosure Information:

- Any current or pending subsidiary, foreign business entity, or offshore entity that is based in or funded by any foreign country of risk or foreign entity based in a country of risk;
- Any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an entity owned by a country of risk or foreign entity based in a country of risk;



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- 3. Any current or pending change in ownership structure of the recipient or subrecipients that increases foreign ownership related to a country of risk. Each notification shall be accompanied by a complete and up-to-date capitalization table showing all equity interests held including limited liability company (LLC) and partnership interests, as well as derivative securities. Include both the number of shares issued to each equity holder, as well as the percentage of that series and of all equity on fully diluted basis. For each equity holder, provide the place of incorporation and the principal place of business, as applicable. If the equity holder is a natural person, identify the citizenship(s);
- 4. Any current or pending venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of risk;
- 5. Any current or pending technology licensing, transfer or intellectual property sales to a foreign country of risk within the same technology area as the award (e.g., biotechnology, energy generation and storage, advanced computing;
- 6. Any changes to the recipient or the subrecipients' board of directors, including additions to the number of directors, the identity of new directors, as well as each new director's citizenship, shareholder affiliation (if applicable); each notification shall include a complete up-to-date list of all directors (and board observers), including their full name, citizenship and shareholder affiliation, date of appointment, duration of term, as well as a description of observer rights as applicable; and
- 7. Any of the following changes to the equipment proposed for use on the project:
 - Unmanned aircraft, control, and communication components originally made or manufactured in a foreign country of risk (including relabeled or rebranded equipment).
 - ii. Coded equipment where the source code is written in a foreign country of risk.
 - iii. Equipment from a foreign country of risk that will be connected to the internet or other remote communication system.
 - iv. Any entity from a foreign country of risk that will have physical or remote access to any part of the equipment used on the project after delivery.

Should DOE determine the connection poses a risk to economic or national security, DOE will require measures to mitigate or eliminate the risk.

DOE has designated the following countries as foreign countries of risk: Iran, North Korea, Russia, and China. This list is subject to change.

Recognizing the disclosures may contain business confidential information, subrecipients may submit their disclosures directly to DOE.

Term 67. Foreign Collaboration Considerations

A. Consideration of new collaborations with foreign entities, organizations, and governments. The recipient must provide DOE with advanced written notification of any potential



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collaboration with foreign entities, organizations, or governments in connection with its DOE-funded award scope. The recipient must await further guidance from DOE prior to contacting the proposed foreign entity, organization or government regarding the potential collaboration or negotiating the terms of any potential agreement.

- **B.** Existing collaborations with foreign entities, organizations, and governments. The recipient must provide DOE with a written list of all existing foreign collaborations, organizations, and governments in which has entered in connection with its DOE-funded award scope.
- C. In general, a collaboration will involve some provision of a thing of value to, or from, the recipient. A thing of value includes but may not be limited to all resources made available to, or from, the recipient in support of and/or related to the award, regardless of whether or not they have monetary value. Things of value also may include in-kind contributions (such as office/laboratory space, data, equipment, supplies, employees, students). In-kind contributions not intended for direct use on the award but resulting in provision of a thing of value from or to the award must also be reported. Collaborations do not include routine workshops, conferences, use of the recipient's services and facilities by foreign investigators resulting from its standard published process for evaluating requests for access, or the routine use of foreign facilities by awardee staff in accordance with the recipient's standard policies and procedures.

Term 68. Digital Persistent Identifiers

Throughout the lifetime of the award, those individuals conducting research and development (R&D) under the award at the prime and subaward level must obtain and use a digital persistent identifier (PID) for themselves that meets the common/core standards specified in the NSPM-33 Implementation Guidance or successor guidance (e.g., an ORCID iD). DOE requires recipients of federal awards with R&D activities, or technical assistance that supports R&D activities, to use the PID when publishing R&D outputs when that is an available option. Individuals conducting R&D activities at the prime and subaward level must report their R&D outputs as outlined in the DOE F 4600.2, U.S. Department of Energy "Federal Assistance Reporting Checklist" (FARC). The PID for individuals must be provided when reporting R&D outputs to the Department of Energy Office of Scientific and Technical Information (DOE OSTI).

Term 69. Research Security Training Requirement

Recipients must maintain a research security training program for covered individuals on the project, consistent with Section 10634 of the CHIPS and Science Act of 2022. Any new covered individuals at the recipient and subrecipient levels added to the project must certify that they have completed the training within thirty (30) calendar days of the individual joining the project (see Current and Pending Support term for certification instructions).

In addition, recipients must maintain sufficient records (records must be retained for the time period noted in <u>2 CFR 200.334</u> and made available to DOE upon request) of their compliance with this requirement for covered individuals at the recipient organization and they must extend this requirement to any and all subrecipients. To fulfill this requirement, recipients may



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utilize the four one-hour training modules developed by the National Science Foundation at https://new.nsf.gov/research-security/training or develop and implement their own research security training program aligned with the requirements in Section 10634(B) of the CHIPS and Science Act of 2022.

Acceptance of the award or use of the first dollar of award funds constitutes the recipient's acceptance of this requirement and all other applicable award requirements.

Covered individuals previously identified by the recipient who have already certified and completed the research security training do not need to complete it again, even if they are submitting an updated Current and Pending Support Form during the life of the award.

Covered Individual means an individual who (1) contributes in a substantive, meaningful way to the development or execution of the scope of work of a project funded by DOE, and (2) is designated as a covered individual by DOE.

DOE designates as covered individuals any principal investigator (PI); project director (PD); coprincipal investigator (Co-PI); co-project director (Co-PD); project manager; and any individual regardless of title that is functionally performing as a PI, PD, Co-PI, Co-PD, or project manager. Status as a consultant, graduate (master's or PhD) student, or postdoctoral associate does not automatically disqualify a person from being designated as a "covered individual" if they meet the definition in (1) above.

The prime recipient is responsible for assessing the applicability of (1) against each person listed on the project (i.e., listed by the non-federal entity in the application for federal financial assistance, approved budget, progress report, or any other report submitted to DOE by the non-federal entity regarding the subject project). Further, the prime recipient is responsible for identifying any such individual to DOE for designation as a covered individual, if not already designated by DOE as described above.

The prime recipient's submission of a current and pending support disclosure and/or biosketch/resume for a particular person serves as an acknowledgement that DOE designates that person as a covered individual.

DOE may further designate covered individuals during the award period of performance.

Term 70. Entity of Concern Prohibition

No Entity of Concern, as defined in section 10114 of Public Law 117-167 (42 USC 18912), may receive any grant, contract, cooperative agreement, or loan of \$10 million or more in Departmental funds including funds made available by the Consolidated Appropriations Act, 2024 (Public Law 118-42). In addition, for all awards involving Departmental activities authorized under Public Law 117-167, no Entity of Concern (including an individual that owns or controls, is owned or controlled by, or is under common ownership or control with an Entity of Concern) may receive DOE funds or perform work under the award, subject to certain



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penalties. See section 10114 of Public Law 117-167 and section 310 of Public Law 118-42 for additional information.

Congress has given DOE authority to require the submission of documentation necessary to implement the requirements of this term.

The recipient shall include this term, suitably modified to identify the parties, in all subawards/contracts, regardless of tier, under this award.

If, at any time, the recipient becomes aware that any participant on the award is an Entity of Concern and therefore is unable to fully comply with this term, the recipient shall promptly stop all work on this award, notify the Grants Officer, and not proceed with the award work without further authorization.

Term 71. Required Risk Mitigation

This award is subject to the recipient's compliance with required DOE Office of Research, Technology, and Economic Security (RTES) mitigation measures that are specific to the recipient, if any. Failure to comply with a required RTES mitigation measure is grounds for an immediate termination of the award. This term must be flowed down to the subrecipients. If a subrecipient fails to comply with required RTES mitigation measures, if any, that are specific to that subrecipient, it is grounds for immediate termination of the subaward.

Term 72. Impacted Indian Tribes

If any activities anticipated to take place under this agreement could potentially impact the resources or reserved rights of Indian Tribe(s), as defined in 25 U.S.C. § 5304 (e), then the recipient/awardee agrees to develop and maintain active and open communications with the potentially impacted Indian Tribe(s), during the period of performance of the agreement, and, if necessary, after the end of the agreement. If the recipient proposes any activities that could impact Tribal resources or reserved rights, including but not limited to lands, cultural sites, sacred sites, water rights, mineral rights, fishing rights, and hunting rights, the recipient must notify DOE. The recipient/awardee must coordinate with DOE on all Tribal interactions. DOE will determine if formal government-to-government consultation is needed, and DOE will conduct that consultation accordingly.

- Tribal lands is as defined in 25 U.S.C. §§ 3501(2), (3), (4)(A) and (13).
- Indian Tribe is as defined in 25 U.S.C. § 5304 (e).

Term 73. Implementation of Executive Order 13798, Promoting Free Speech and Religious Liberty

States, local governments, or other public entities may not condition sub-awards in a manner that would discriminate, or disadvantage sub-recipients based on their religious character.